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TRANSPORT POLICIES AND STRATEGIES IN EUROPE

TRANSPORT/ EUROPE #12

Le Havre harbour, France

SEAPORTS IN EUROPE : DIVERSITY, COMPETITION AND COOPERATION

Since the Covid crisis revealed the fragility of many international supply chains, European concerns have been marked by worldwide geopolitical tensions and the goal of economic sovereignty, the wish to achieve both decarbonisation and competitiveness (Draghi report), and issues of security and defence. With these issues there has been renewed interest in sea transport and particularly the points of transfer between sea and dry land: seaports.

SEAPORTS ON THE POLITICAL AGENDA OF THE EUROPEAN UNION

Sea transport plays a vital role in the world economy, as 80% of the tonnage of international merchandise trade goes by sea. Coastal transport between European ports is also very substantial, and offers an alternative to land transport on certain major itineraries.
It is only quite recently that seaports became covered by specific European legislation. This regulation applies to the supplying of port services (are they subject to the general rules for opening to competition?) and to the including of ports in the master plan for infrastructure that the TEN-T (Trans-European Transport Network) constitutes.
The current changes affecting the geopolitical equilibria have led to a reconsideration of the role of seaports and the European Parliament decided to request that the European Commission develop a comprehensive European port strategy. This should be presented in 2025.

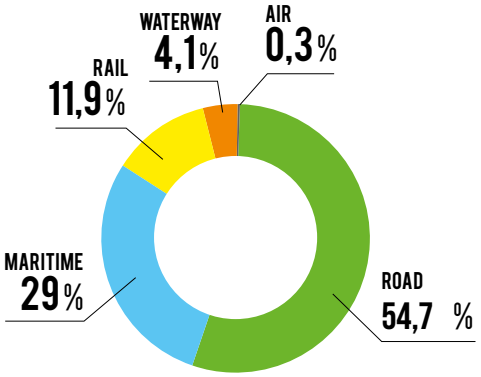
• Common rules concerning the providing of port services and the financial transparency of ports (2017)

After two unsuccessful attempts to liberalize port services (2001 and 2004), the European Commission presented a new draft regulation, adopted in 2017[1], which does not subject the handling of merchandise or passenger services to the opening to competition, but rather focuses on establishing common rules for financial transparency, the providing of port services and infrastructure charges. This is the first legislative act of the EU specifically applicable to ports.

1. - Regulation (EU) 2017/352 of the European Parliament and of the Council of 15 February 2017 establishing a framework for the provision of port services and common rules on the financial transparency of ports

Deep sea transport and coastal transport

It is customary to make a distinction between deep sea transport, over long intercontinental distances, and coastal navigation (short sea) between relatively nearby ports, along a coastline for example.
These two types of transport can be complementary: sea freight containers for world trade are shipped by deep sea transport to a few major ports from which they can be redistributed by coastal navigation to secondary ports. The same system applies, in the other direction, for outgoing shipments.
In the European definition however, coastal navigation refers to coastal transport connecting ports of the shores of Europe and adjacent countries (particularly the entire Mediterranean Basin: transport from Gothenburg to Istanbul is thus considered to be coastal transport).
NB: European coastal transport is not the sum of the domestic coastal transport of the European countries.



Modal shares of freight within Europe (UE 27), % t.km, 2020
Source : Eurostat

• Ports in European policy for transport infrastructure

The regulation of 13 June 2024 concerning the new orientations of the EU for the development of the TEN-T[2] thus defines the role of the ports (considering 54): *"Being the entry and exit points for the land infrastructure of the trans-European transport network, maritime ports play an important geostrategic role as cross-border multimodal nodes which serve not only as transport hubs, but can also be gateways for trade, industrial clusters, military mobility and energy hubs. […] There is a need for diversification of energy supplies, and accelerated roll-out of renewable energy. Maritime ports can contribute to this goal through the deployment of off-shore wind installations, production of green hydrogen and transport and storage of liquefied natural gas. To strengthen synergies between the transport and energy sector in the efforts to decarbonise the Union's economy, maritime ports could also play a role in transporting carbon dioxide through pipelines or other modes of transport."*
As with airports, rail-road terminals and terminals along inland waterways, sea and inland ports are considered as transport hubs under the regulation concerning the TEN-T.

• Towards a comprehensive European port strategy

To take into account a geopolitical context which is undergoing profound reconfiguration (even before the coming to power of the new President of the United States), the European Parliament addressed maritime and port issues in 2023.

Based on an own-initiative report of Mr. Tom Berendsen (Member of the European Parliament from the Netherlands), the European Parliament adopted with a very large majority, on January 17, 2024, a resolution on the construction of a comprehensive European port strategy[3].

Four issues are particularly highlighted in this report:
- **Foreign influence** which can have "negative consequences for the competitiveness" of the ports involved,
- **Security**, to prevent risks of espionage and sabotage, risks to intellectual property, drug and arms trafficking,
- **The energy transition**, for investment in ports, terminals and infrastructure, the circular economy, modal transfer, hinterland connectivity. Labor management dialogue in terms of continuing education and training throughout people's working life is also mentioned.
- **The competitiveness of ports and companies of the EU**. European legislation must not hurt the competitiveness of EU ports or cause commercial leaks towards ports located outside of the EU. For fair competition, it is also important to eliminate practices such as under-pricing, and to adopt a common customs code.
- **The President of the Commission** included in the engagement letter of the new European commissioner in charge of transport, the Greek Apostolos Tzitzikóstas[4], the goal of developing a comprehensive European port strategy for an "Alliance of European ports"[5].

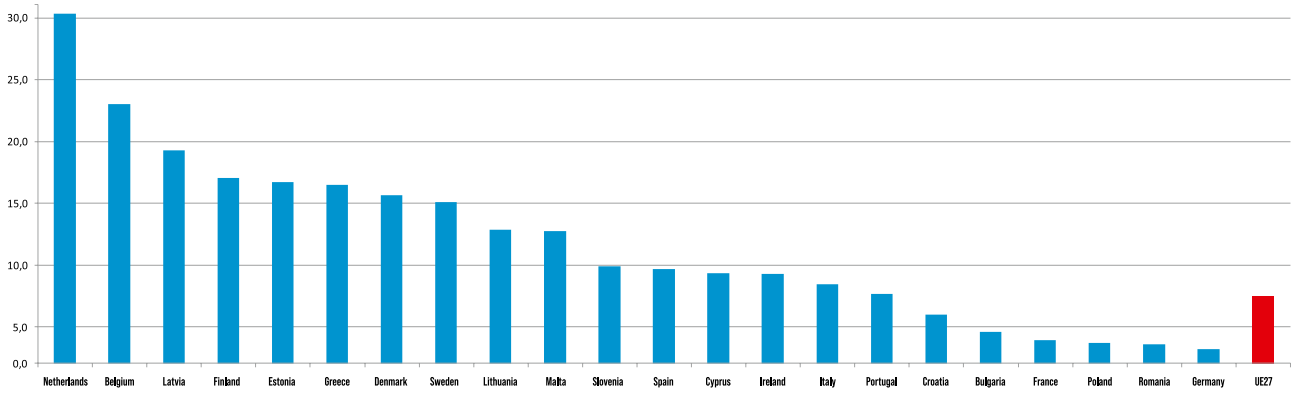
Very recently, the various initiatives of the President of the United States concerning customs and international commerce as a whole only increased the timeliness of strategic thinking by the European Union regarding its economic sovereignty and its place in an international system which is now undergoing reconfiguration.

2. - **Regulation (EU) 2024/1679** of the European Parliament and of the Council of 13 June 2024 on Union guidelines for the development of the trans-European transport network, amending Regulations (EU) 2021/1153 and (EU) No 913/2010 and repealing Regulation (EU) No 1315/2013.

3. - See **Report on the construction of a comprehensive European port strategy (2023/2059(INI))**, Commission for transport and tourism, rapporteur Tom Berendsen, December 15, 2023

4. - See his **biography** published by the Commission.

5. - **His engagement letter** signed by U. von der Leyen specifies p. 6: "You will also propose a new industrial maritime strategy to enhance the competitiveness, sustainability and resilience of Europe's maritime manufacturing sector. (…) You should develop a comprehensive EU Port Strategy working with other relevant Commissioners and looking at all major issues facing ports. It should notably focus on security and competitiveness, building on the work of the European Ports Alliance."



Sea transport in Europe, tonnes /inhabitant / year, 2023

Source : Eurostat

The uneven importance of sea transport from one country to another

With this outlook, the OPSTE prepared an appraisal of the situation of the seaports of various European countries in order to compare their options in the face of the changes in progress and the announced European strategy. Comparing port activities in Europe, we see right away that there are substantial differences from one country to another in terms of the extent of sea transport, measured according to the total tonnage per inhabitant and per year. For an average within the European Union of **7.5 tonnes per year and per inhabitant**, the Netherlands has a traffic of 30.4 tonnes, Belgium has 23.1 tonnes, versus 4 tonnes in France, 3.7 tonnes in Poland, 3.6 tonnes in Romania and 3.2 tonnes in Germany. For this latter country in particular, this does not mean that sea transport and port activities are unimportant. On the one hand, this ratio per inhabitant applies to 83 million inhabitants (Hamburg is the third largest port in Europe), and on the other hand the major ports of Belgium and the Netherlands are all nearby and directly linked to Germany.
A typology thus takes shape, distinguishing the logistics countries (with the Netherlands and Belgium as the main gateways – access portals – for Europe with the rest of the world), the transit countries (particularly the Nordic countries and Baltic countries in relation with Russia and the landlocked countries of Central Europe), island countries (Greece, Malta), etc. and lastly the countries that are continental or partially served via the ports of another country (France, Poland, Germany). This disparity raises the issue of the purpose and the scope of a common European policy in this regard.

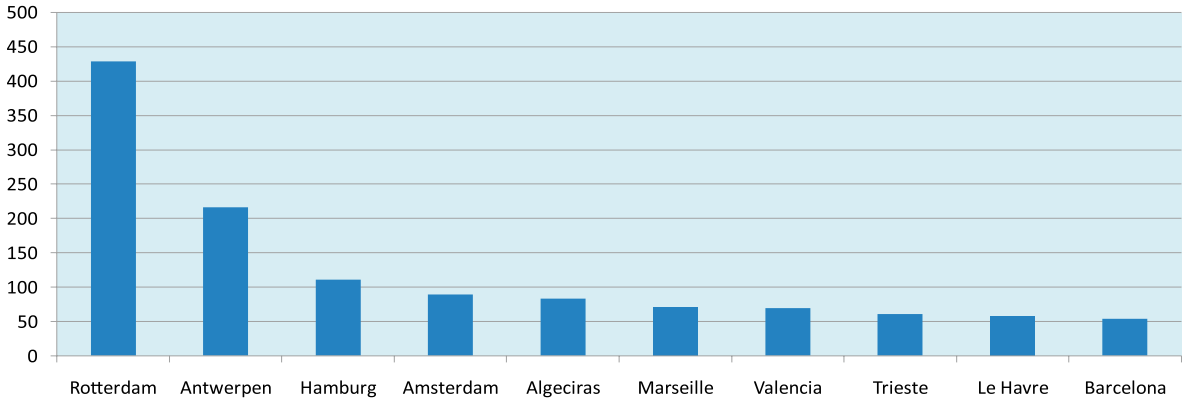
Hierarchy of seaports

From a geographic standpoint, European seaports belong to distinct sets, the western and northern coastlines (Atlantic, English Channel, North Sea, Baltic) and the southern coastline (Western and Eastern Mediterranean). These coastlines are spaces for massive regional trade: it is coastal trade (short sea) in the European sense, including the ports of the European Union and nearby countries. For deep sea transport, the ports of the North and South coastlines can be in competition, particularly to handle trade between Europe and Asia.

In each country, a functional hierarchy of ports is often reflected in institutional divisions. It distinguishes the first rank ports ("major maritime ports" in the French government vocabulary), which compete to attract intercontinental traffic and serve vast inland areas. In the economy of the ports, we see economies of scale (the handling of large quantities of freight is, all other things being equal, less costly per unit handled than fragmented handling of smaller quantities), economies of scope (the proximity and thus the possibility of associating diverse activities: long and short distance sea transport, commercial, logistical and industrial activities linked to the port, etc.) and lastly a club effect[6].

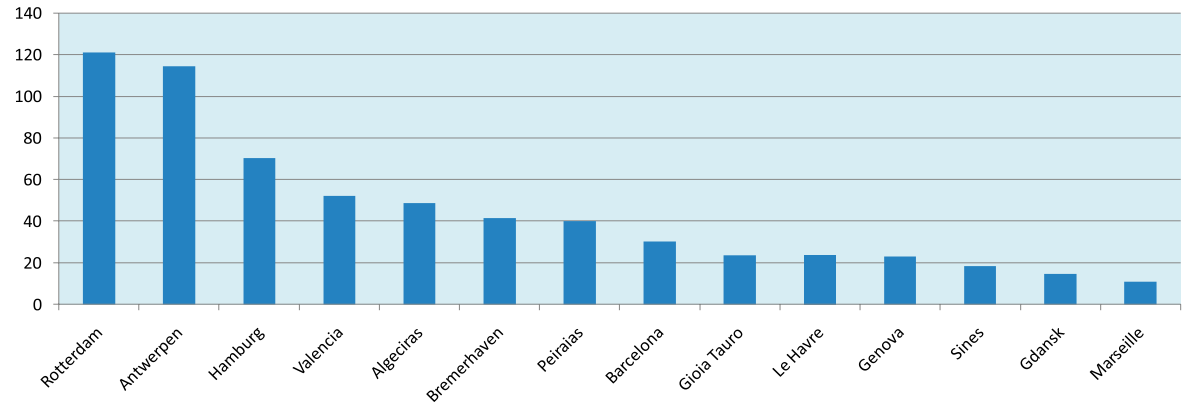
If it has a larger number and greater diversity of destinations served, one port can be more valuable than another one for a sea transport client, a shipper. As people in the business say, "traffic attracts traffic," without going as far as the "winner takes all" situation observed in the digital world in which one single company can establish its offer of services as a dominant solution. In the northern range of Europe in particular, several large ports which are close to each other are struggling to obtain the position of hub of regular lines, the central node in the container transport network, through their nautical characteristics, the diversity of their services, their prices and performances (particularly in terms of transit times), the efficacy of their customs and sanitary services, their IT systems, the inland transport to their hinterland, etc.

6. - We speak of **a club effect** when the use of a network (telephone, internet, etc.) creates satisfaction which increases with the number of users. In a maritime context, the presence at one port of shipowners and carriers in relation with a large number of different destinations increases the connections of the port and, through a snowball effect, attracts still more carriers and shipping companies.



The main ports of Europe: traffic of all products, millions of tonnes, 2021

Source : Eurostat



The main ports of Europe: container traffic, millions of tonnes, 2021

Source : Eurostat

The recent evolution shows however a trend towards the polarization of traffic around the two largest ports (see the diagram “Evolution of the total tonnage of the top five European ports, 2005-2023”, page 10).

Competition between ports is particularly fierce for container traffic. On the one hand, it is the traffic which receives the highest added value per tonne handled (and thus brings in the highest port income), by comparison with bulk shipments. On the other hand, as the value per tonne of a loaded container is substantially greater than that of other merchandise, it therefore justifies longer land transport with a rationale of optimization of the total transport costs. The hinterland for container transport is generally larger than that of other products, which leads to a partial covering of the hinterlands of several ports, and in which competition is fully present.

In addition to the large ports which play domestic and international roles, there are regional ports which serve a hinterland which is relatively limited and sometimes linked to the major international ports by local connections (feeders for container transport). In all areas there are also numerous local ports with fishing and pleasure craft activities, but with commercial merchandise and passenger traffic with is limited or even non-existent.

Institutional statuses and management modes

The European ports can be classified according to two different criteria: on the one hand the predominance of the Central Government or on the contrary of local entities through their governing bodies, and on the other by the management model, tool port or landlord port.

In general, the model of ports as Central Government properties (at least the largest ports) is found in the countries of Southern Europe: Spain, France, Italy, Greece, Romania but also Poland on the Baltic. The central authorities are responsible in particular for the attribution of funds for investment in infrastructure. Conversely, the northern ports are the property of local entities, often municipal (Antwerp, Rotterdam, Hamburg and Bremen in particular) or regional. In the operational management however, the ports that are controlled by national authorities have broad autonomy and involve local and regional authorities and economic actors in their management.

With regard to the operating model, it is evolving everywhere, but at different rhythms, from the model of the tool port, a technical instrument in the hands of a public entity which handles most of its operational management, to the model of the landlord port in which a public entity (whether central or decentralized) is the

owner of the land and the heavy infrastructure but assigns to companies, generally through tender offers, the facility investments and the management of port operations.

Ports, trading, logistics, industry

The large ports concentrate the passage of large quantities of varied mineral, industrial, agricultural and energy products. They generally have vast land holdings, labour, a nearby network of suppliers and clients and services to companies. They are thus suited to the industrial or commercial processing of products during the mandatory modal shift from a mode of land transport to the maritime mode, or vice versa, and their possible storage. Several large ports have thus deliberately promoted the establishment of logistical facilities and industries that process their products within industrial-port zones, which also develops the loyalty of the corresponding shippers in their choices between competing ports. A development strategy, starting from an upstream transformation (oil refining for example), consists of developing downstream circuits for the use of this resource. Drawing on the spatial proximity, the industries in a port zone develop a circular economy, in which the by-products or the wastes of some are resources for others. Rotterdam and Antwerp, in the northern range, are the most remarkable examples of this process (see the map "Activities at the site of the port of Rotterdam, contai- ners and general merchandise, dry bulk, chemicals, liquid bulk, distribution, other," page 21).

In addition to the direct jobs in the industrial zone, of which the activity develops loyalty and feeds the port's activity, there are also an equivalent number of induced jobs (i.e. the jobs created by the consumption demand of the employees counted in the direct and indirect jobs) in the surrounding economy and beyond. In the case of Antwerp, this means about 41,000 mari-time jobs, 79,000 non-maritime jobs in the industrial zone and 134,000 jobs induced in the regional economy.

Extent and service to the hinterlands

In addition to its volume of traffic, the power of a port is measured by the extent of the land area that it serves, for both shipping and receiving: its hinterland.

One exception to this rule is the case of container transport hubs: while some of them play both a role of transshipment of boxes from one ship to another and service to the nearby hinterland, others are essentially transfer sites which have no relationship with the nearby regional economy other than the management of facilities and the mobilization of labour. Marsaxlokk in Malta, Piraeus in Greece, Gioia Tauro in Italy and Algeciras in Spain are in this category, although the authorities are encouraging stronger involvement of these ports in the local and national economy.

The preeminent role of certain ports (Rotterdam, Antwerp and Hamburg first and foremost) requires and allows for service to a vast hinterland, going beyond national borders and to the heart of Europe. They are in competition with each other as well as with domestic ports of lesser importance.

In 2011, **the freight accessibility index to European territories** contrasted the dense core of Northwestern Europe (where the largest seaports are found) and the more or less distant peripheries. The green zone of better accessibility is indeed the hinterland of the large ports of the current northern range.

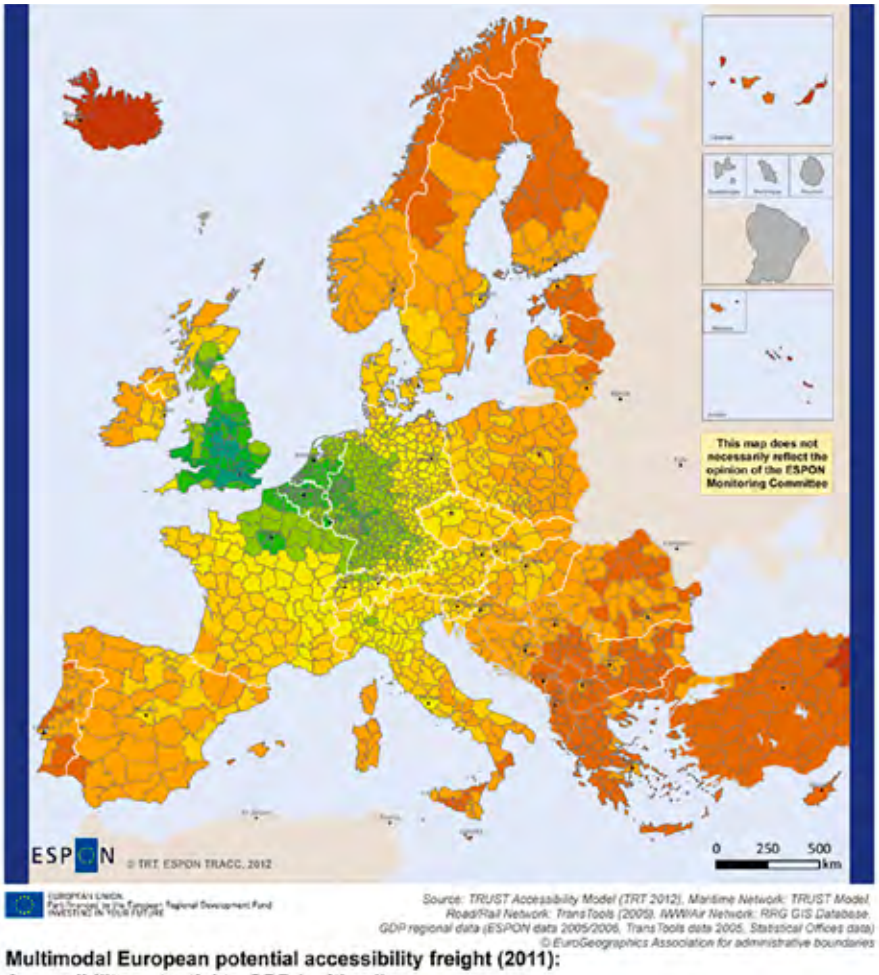
The competition between the ports for the carving up of the hinterlands involves the qualities of the ports in the strict sense, mentioned above, but also the efficacy of the inland access to the hinterland. From this perspective, the modal breakdown of the land traffic linked to the European ports shows notable differences. While the ports of the northern range have intense use of alternative modes to road transport (waterway or rail), the southern ports mainly use the road network, with the exception of the transport of liquid and gaseous bulk by pipe, i.e., oil or gas pipelines (see the diagram "Modal breakdown of the inland traffic of Spanish ports, 2023", page 26). For example, 51% of the containers from the port of Bremen are shipped by rail, 45% by road and 3% by waterways (see the map "Rail-road transport services of DB Cargo", page 15).

Because of the volume of traffic that they handle, seaports are major actors in national and European land transport policies.

The issue of seaports is of course different for landlocked countries, which have no coastline. Their problem is access to the sea, through other countries.

This access can be provided by the economic operators (ship owners, warehouse operators, land carriers, agents, freight forwarders, etc.) involved, with a land transport chain connected to the nearby ports, the availability of infrastructure and trunking being a big advantage (like the Rhine-Main-Danube link, see the map "Rhine-Main-Danube River link", page 24).

The issue also has a political dimension: that the flows of products sent or received by the landlocked country go through other countries with no obstacles. For Switzerland for example, access to coal from the Ruhr was indispensable for its industrial development. This was possible with navigation on the Rhine, with Basel as a river port for unloading. In this particular case,



Multimodal European potential accessibility freight (2011):
Accessibility potential to GDP (unitised)
(percentage of average accessibility of all areas)

Worldwide international trade (exports) by product groups 1950-2021, billions of dollars, percentages

Source: TRACC, Transport Accessibility at Regional/Local Scale and Patterns in Europe, EPSON, 2013.

- 0 - 25.0
- 25.1 - 50.0
- 50.1 - 75.0
- 75.1 - 100.0
- 100.1 - 125.0
- 125.1 - 150.0
- 150.1 - 175.0
- 175.1 - 200.0
- 200.1 < ...
- n.a.

• *Capital cities*

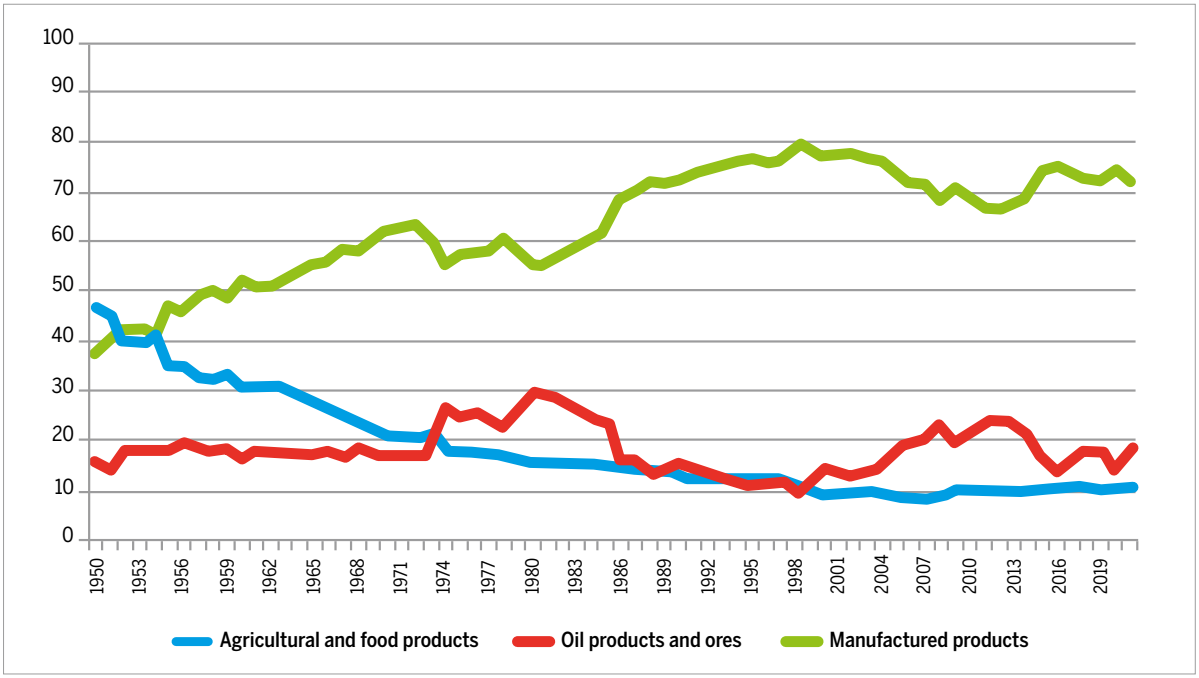
since the beginning of the 19th century the Rhine has had the status of international shipping route, under the auspices of the Central Commission for the Navigation of the Rhine (CCNR), founded in 1815, which now includes Germany, Belgium, France, the Netherlands and Switzerland and has the mission of ensuring freedom of navigation on the river and promoting its use.
The rules of the single market and of the bilateral agreements between Switzerland and the European Union facilitate trade and transport on the territory of the EU and in nearby countries (Ukraine in particular, according to specific provisions).

Changes in the volume and the structure of traffic

Over the decades, there has been enormous change in the structure of worldwide international – and thus European – commerce. Sea transport has also changed. After the Second World War, trade in agricultural products represented almost half of the total value of trade. This proportion is now on the order of 10%. Trade in oil and mineral products, which once accounted for up to 30% of the total, now represents less than 20%. Trade in manufactured products has been constantly increasing. In 2021, its share was more than 70%.
In this way, ships that transport solid bulk (grain and ore carriers, etc.), liquid and gas bulk (oil and gas tankers) and "general merchandise" (cargo ships), the ships that transport manufactured products changed radically with the use of containers and specialized container ships. For ports, the added value per tonne of merchandise is higher for containers and Roll-on/Roll-off (Ro-Ro, for which merchandise is loaded and unloaded on ships by rolling, for example with towing or modular systems) than for bulk.
Still today, liquid bulk represents 39% of the tonnages passing through the ports of the European Union, versus 22% for dry bulk, 25% for containers and 14% for Ro-Ro for **a total of 3,327 million tonnes** in 2024[7].

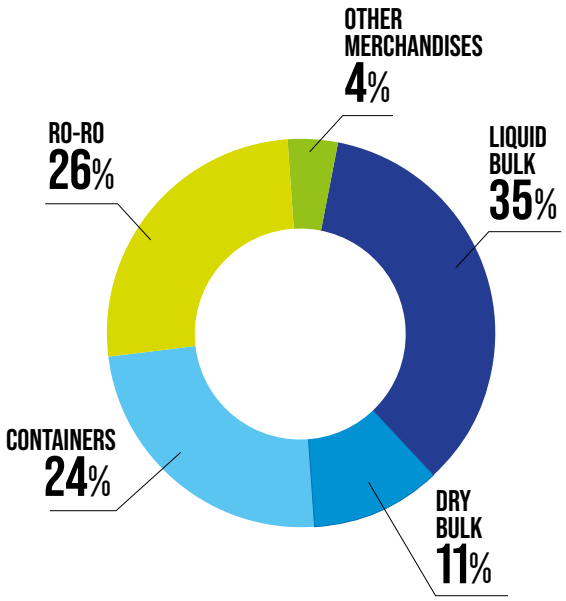
The evolution of the structure of the traffic of European ports can be clearly seen from the Spanish example (see the graph *"Evolution of the traffic of Spanish ports by type of product, 1970-2021"*, page 26).

7. - This figure actually includes the quarterly results from the fourth quarter of 2023 to the third quarter of 2024.



Worldwide international trade (exports) by product groups
1950-2021, billions of dollars, percentages

Source : OMC



Structure of the traffic
of European ports (EU 27), tonnes, 2024

Decarbonisation of the European economy, one of the major objectives of European and national bodies, is now leading the ports to undertake an in-depth revision of their organisation and their economic model, which is still very dependent on petroleum products.

Decarbonisation of all sea and port activities

Beyond the obligation of adapting to the decrease in petroleum products in their traffic (but also to the increase, in certain ports, of the importing of gas by sea to compensate for the decrease in imports of Russian gas by land), the ports are being encouraged to decarbonise their own activities. All port operations are involved, with all parties trying to find technical and organizational innovations to reduce emissions (provisionally) and over time to supply them from non-carbon energy sources. A target effort of research and development is timely for this.

A significant improvement of the situation has already been identified and is progressively being implemented: the connection of ships at berth to the electrical network, which requires adequate facilities and a sufficient availability of electricity.

The ports and their industrial-port zones are also involved in the decarbonisation of the industries which are located there (the zone of Fos sur Mer, within the port of Marseille, which in itself accounts for one quarter of the industrial emissions in France).
The production of green hydrogen is one of the orientations for their reindustrialisation.

Lastly, service to the hinterland of the ports can be improved through greater use of consolidated modes (waterways and rail), which emit fewer greenhouse gases than road transport.

The necessary decarbonisation advocated by both the European Union and the International Maritime Organization (IMO) of the United Nations is however limited by technological and economic uncertainties,


Container terminal in the Rotterdam harbor

the lack of skills and especially the high cost of the necessary additional investment, with the constraint of maintaining sufficient competitiveness.

New policy issues

The European policy for seaports represents firstly the continuation of the common transport policy for all modes, with its two traditional pillars: the implementation of regulated competition and the search for sustainable mobility[8].

The topics highlighted by the recent decision of the European Parliament to develop a European strategy for seaports draw on these orientations but also reflect new concerns, dictated by well-known changes in the global context: wars in Ukraine and elsewhere, the abandoning of free trade in international commerce, geopolitical tensions between the United States and China and the emergence of a "Global South," the accentuation of climate change and the calling into question of the related international agreements, etc. These changes are a warning to Europe to choose its own options: strategic autonomy, reindustrialisation, maintaining its research and development at the world level, compatibility between decarbonisation and competitiveness (Draghi report), safety and defence. Continuity and change share the four topics which foreshadow the European strategy which is now being developed.

Under the sign of continuity, we have the topics of the energy transition and the competitiveness of ports. The energy transition affects investments in ports, terminals and infrastructure, the circular economy, modal transfer, and connectivity with the hinterland. The decrease in the traffic and industrial processing of petroleum products is already leading several ports, including some of the largest ones, to rethink their economic models. The search for competitiveness of the ports and companies of the EU aims to resist the threats of loss of traffic to ports located outside of the EU while protecting fair competition within the EU (continuing the harmonisation of the rules in effect from one country to another).

Under the sign of change there are topics relating to sovereignty (economic, scientific and political) and even the sovereign powers of the Member States and by extension of the EU itself (this evolution deserves to be underscored, given the difficulties of elaboration of a common foreign policy).

8. - See: Quelle politique commune des transports? Pour quel projet européen? Green paper of TDIE, March 2019.
Avenir de l'Europe : les transports, *Analyses, propositions et questions aux candidats à l'élection européenne 2024 en France, TDIE, avril 2024.*

It also presents the risks linked to foreign influence which can have "negative consequences for the competitiveness" of the ports involved. In addition, there are concerns about safety and security, to prevent the risks of espionage and sabotage, risks to intellectual property, and drug and arms trafficking. The ports' contribution to military logistics is receiving new attention.

The analysis of the main port systems in Europe showed the great diversity of the situations, between small and large ports, specialized and multi-purpose, the local, regional, national or continental hinterland within each country and on the scale of the EU. This diversity leads to a system: with different functions and scales, the ports are complementary with each other and call for an integrated approach from public authorities. Along with diversity there is competition, very fierce between the large ports to conquer the largest possible share of the European market, according to a phenomenon of polarization of traffic around the most powerful ports, which is clearly observed.

Given the observed disparity of the situations, it is understandable that some of the goals of the European Parliament apply to all ports (decarbonisation, security, etc.), but we also know that competition (free and undistorted, as it should be) can readily win out over cooperation. What then will be the substance of the notion of alliance that the Parliament is advocating?

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PANORAMA OF EUROPEAN PORTS

To make the summary presentations of the maritime systems of a dozen European countries easily understandable and comparable, the OPSTE experts methodically addressed the geographical location, traffic, specialization, institutional status and the mode of management, the hinterland served, the associated industrial development and the development outlook for the seaports involved, as well as the policies linked to them.

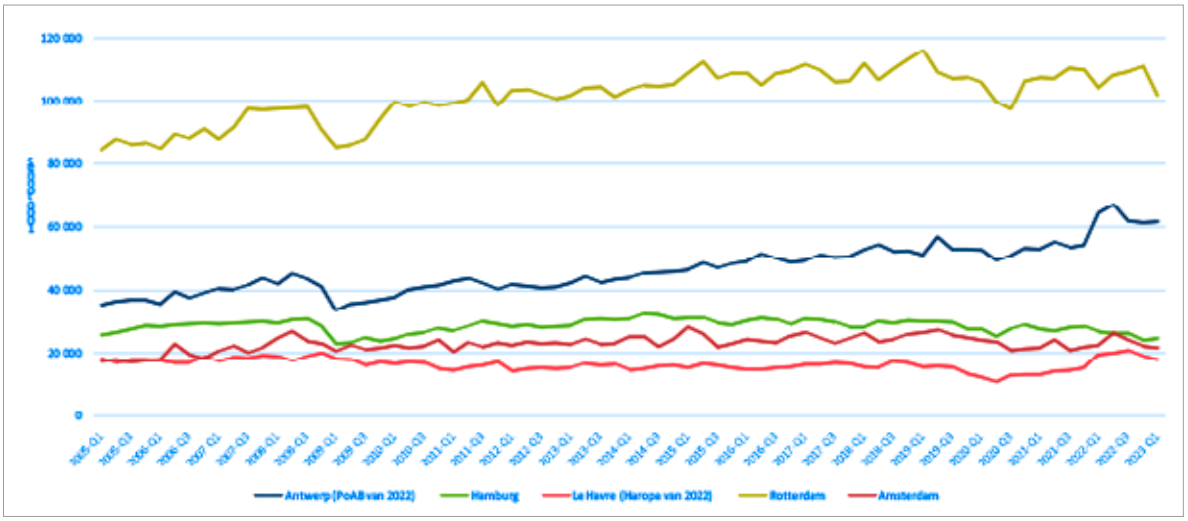
BELGIUM

The main Belgian ports are Antwerp, Ghent and Zeebrugge. The port companies of Antwerp and Zeebrugge merged in 2022. Ghent is an inland port on the Escaut estuary which has good links with its hinterland by waterway. There is also Oostende, which specialises in services for the production offshore wind electricity.

The Belgian ports are also **major industrial, commercial and logistics platforms**. Whether in terms of added value, employment, or investments, maritime activities (handling, shipping companies, shipping agents and freight forwarders, other companies) are less important than non-maritime activities (chemistry, commerce, metallurgy, other), without ignoring the indirect effects on the regional economy and beyond. For jobs in particular, there are 41,000 maritime jobs, 79,000 non-maritime jobs and 134,000 indirect jobs. The added value of the ports represents about 7% of the Belgian GDP, without counting the effects induced by attracting industries to the port zones.
Antwerp is the number two port of Europe by tonnage, after Rotterdam (this discrepancy is largely due to the traffic of petroleum products to Rotterdam, some of which is reshipped to Antwerp by pipeline, and solid bulk). However, Antwerp equals Rotterdam for container transport, and is the number one for Ro-Ro.

The main Belgian ports
Source: GeoBasis-DE/BKG (2018)

In terms of trends, dry bulk traffic is decreasing whereas container traffic is increasing (Antwerp is both a major port serving a large hinterland and a port for the transshipment of containers from one line to another). The growth of container traffic is also due to the increasing "containerisation" of general merchandise. For automobile transport, a component of the Ro-Ro traffic, Zeebrugge specialises in the importing of new vehicles and Antwerp in the exporting of used vehicles. Ghent, the number three port in the country, is linked to the North Sea by the Terneuzen canal and has maintained substantial industrial activity.



Total tonnage of the main European ports
Source : Eurostat

The port policy was marked, as in other sectors, by the institutional evolutions of Belgium, i.e., **increasing decentralisation**. All of the country's seaports are in Flanders. Wallonia and the Brussels-Capital Region have only river ports. Ghent and Antwerp have always been locally managed (municipal and industrial). Zeebrugge, initially a port of local importance, developed specific military functions. The financing of seaport infrastructure was historically under the authority of the Central Government but has been the responsibility of the Flanders Region since 1989.

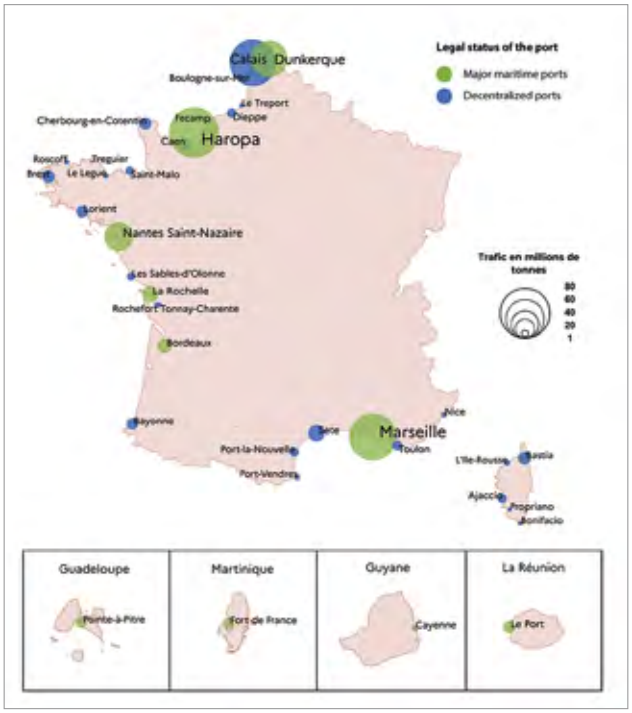
A 1999 decree established the principle of the autonomy of the ports, the unification of operating conditions, an easing of the labour management rules, the mandatory transformation of the port authorities into companies and set rules for cooperation between the regional government and the manager of the port, as well as the financing policy. The decree also defined the perimeter of the port zones of Antwerp, Ghent, Zeebrugge and Oostende. In 2008, the port authorities became autonomous municipal port companies. In 2016, representatives of the business milieus joined their board of directors alongside the municipal representatives. In 2017 the ports of Ghent and Zeeland (in the Netherlands) were united as the North Sea Port, on both banks of the Escaut/Schelde.

In terms of **financing**, all of the basic port infrastructure expenses are covered by the Flanders Region (although the Belgian railroads remain under the authority of the federal government). Additional investments are divided between the region and the port in a proportion of 80/20. Access to the ports of Antwerp and Ghent is by the Escaut River, some of which is in the Netherlands. In accordance with the treaty of separation of Belgium and the Netherlands of 1839-1843, the channel is managed by a binational commission. Binational cooperation is also in place for the management and reinforcement of the Terneuzen canal and its locks. 45% of the land service of the hinterland from the port of Antwerp is by road, 45% by waterways, and the remainder by rail.

FRANCE

Although it has four coastlines (North Sea, English Channel, Atlantic and Mediterranean), and also its islands (including Corsica) and its overseas territories and their very vast maritime domain, France has remained, from an economic standpoint, a mainly continental country. Nevertheless, its seaports play an eminent role in trade with the whole world, and also in the activity of the industries established in port areas.

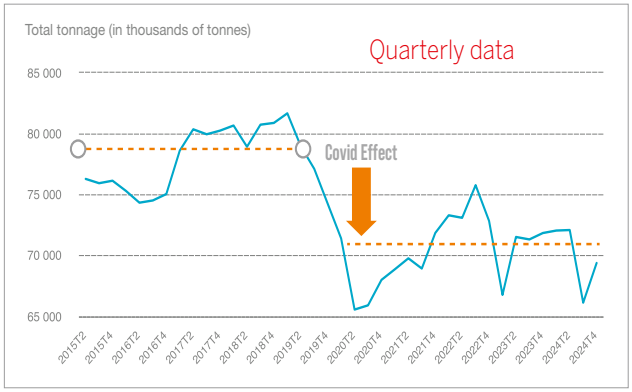
France has 500 ports which form a specialised and hierarchical system. Ten **"major maritime ports"** (six



The main French ports, by traffic and status

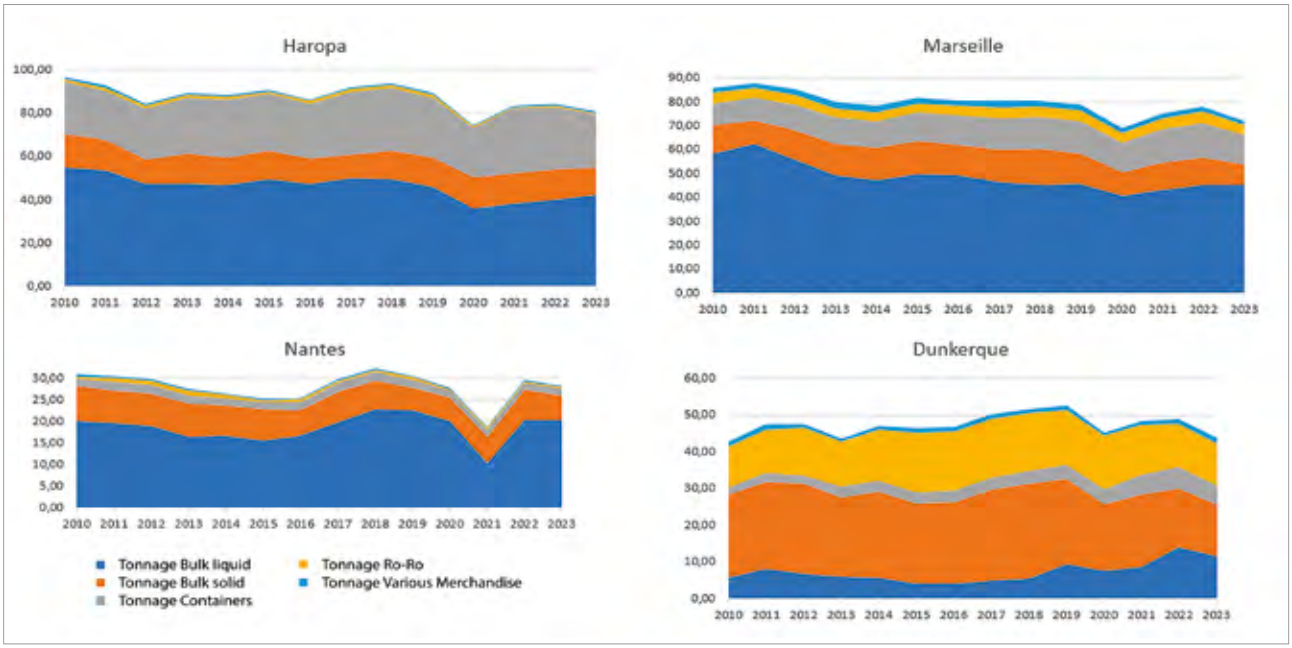
Source : statistiques.developpement-durable.gouv.fr

in Metropolitan France: Dunkirk, Haropa, Nantes-Saint Nazaire, La Rochelle, Bordeaux and Marseille, four in the overseas departments) concentrate the largest share of the traffic and are under the responsibility of the Government. It mainly has the role of owner of the land and the infrastructure (landlord), defining long-term orientations and involving local authorities and the personnel, but leaving companies (warehouses/handlers, etc.) in charge of investment and facility management.
The domestic ports are supplemented by 54 decentralised ports (under the responsibility of the local authorities), generally dedicated to serving a more limited hinterland (with the exception of Calais, which handles intense Ro-Ro traffic with Great Britain) and by about 500 local ports, mainly devoted to fishing boats and pleasure craft.



Total quarterly volume of merchandise transiting through the ports of Metropolitan France

Data: SDES, *Stat Info*: Sea transport of merchandise in 4th quarter 2024 n° 717 - March 2025



Evolution of the traffic of the main ports, by type of merchandise, Millions of tonnes, 2010-2023

Source : SDES Data

The total volume of merchandise handled in the French ports is on the order of 300 million tonnes per year. The volume of imports is double that of exports, in terms of tonnage. The traffic has not returned to the level from before the Covid 19 crisis. Over time, we observe a trend towards **the concentration of traffic** at the top three ports (Dunkirk, Haropa and Marseille) which together handle more than 80% of the total traffic.

The differing structures of the various types of traffic of the main French ports sheds light on their specialisation. Although it has decreased slightly, liquid bulk remains the foremost tonnage overall, with the seaports hosting most of the country's refineries.

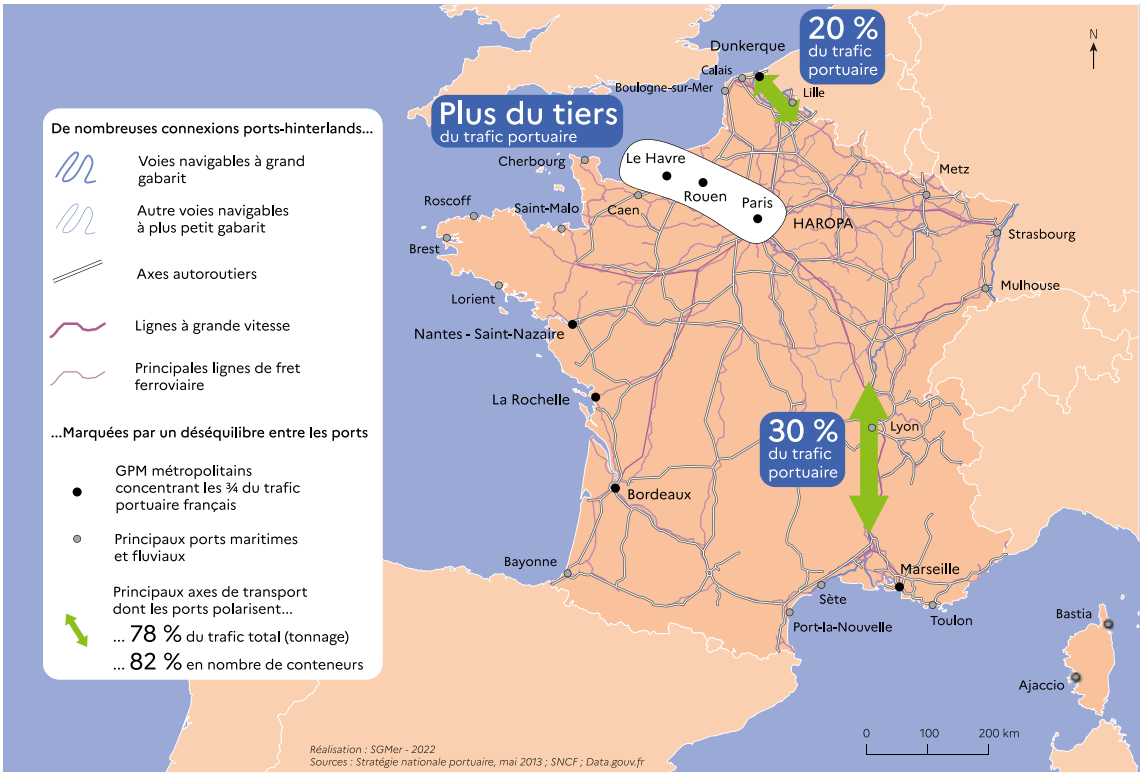
The port of Dunkirk has a strong industrial profile: its liquid bulk traffic is limited while solid bulk (used by the industrial-port zone) remains considerable, alongside growing container traffic and Ro-Ro traffic with the United Kingdom. In the nearby hinterland, several gigafactories for the production of electric batteries have been established.

Haropa (which includes the seaports of Le Havre and Rouen and the river port of Paris) is the number one port for the exporting of grain (Rouen) while the facilities of the port of Paris provide the link between the Paris area and the Seine Valley. Le Havre is the leader for container transport, with growing volumes reflecting its restored competitiveness in the northern range. MSC, the number one world ship owner for containers, is reinforcing its presence here to make it a structuring hub of its network, with rail and waterway links with inland logistics platforms.

On the Atlantic coast, Nantes-Saint-Nazaire is mainly a port for importing, in conjunction with the economy of the Grand Ouest (energy, industrial and food products).

Marseille-Fos, of which the facilities are divided between the city of Marseille, the Etang de Berre and Fos sur Mer, still has substantial traffic of hydrocarbons (crude oil supplying refineries and petrochemistry), dry bulk supplying the steel industry, and is also developing container handling. The Ro-Ro traffic is in conjunction with Corsica and the Maghreb (the La Joliette terminals), and the welcoming of cruise ships in the city centre is expanding. A restructuring of the activity of the industrial zone is underway (production of decarbonised steel from scrap metal, production of hydrogen, etc.) with the condition of an adequate supply of electricity. CMA-CGM, the number three world ship owner for container transport but also a multimodal carrier and international logistician through its CEVA subsidiary, has its main office in Marseille.

In comparison with the Belgian, Dutch and German ports, the French ports have limited use of waterways and rail, as alternatives to road, for service to their hinterland. Progress towards multimodality should reinforce the economic integration of the Seine Valley, the Rhône-Saône axis and the Hauts de France. Questions are being asked about the future effects of the future Seine-Escaut water link. Will it reinforce the competitive position of the ports of Benelux versus Dunkirk and Le Havre for service to the Paris region, or will it promote industrial and logistics development along its route?



Service to the hinterlands of Dunkirk, Le Havre and Marseille

Source : L'économie bleue, France, Edition 2022.

Over the years and with successive reforms, the administrative status and the mode of management of the large ports has changed substantially. The decrease in the share of French ports in European traffic revealed multiple dysfunctions (chronic employee-management conflicts, redundancy of decision-making and management structures, complex administrative and document circuits, under-investment, etc.).

In stages, and particularly with the abandoning of the historical status of the dock workers in 1992 and the reform of handling assigned to private actors in 2008, the ports shifted from the tool port model (facilities provided and managed by the Government) to the landlord port model (the Government is the owner of the land and the heavy infrastructure but the facilities and their management are assigned to companies).

The National Port Strategy of January 2021[9] has the long-term goals of increasing the share of container traffic, including taking back markets in the face of nearby European competitors, increasing direct port employment and employment linked to the objective of reindustrialisation, increasing the share of consolidated land modes (alternatives to road) in the pre- and post-shipping, including carbon neutrality looking towards 2050 in the general objective, and fluidifying port transit through the digitizing of reporting formalities.

This list also includes the objectives that have received increasing attention over the past few years: adaptation to climate change, the contribution to the deployment of wind energy at sea, port safety, the contribution to the development of the hinterland. The large ports thus welcome a large share of public investment for industry and contribute to structuring the productive space along three major port corridors, for which the interconnections should be reinforced.

GERMANY

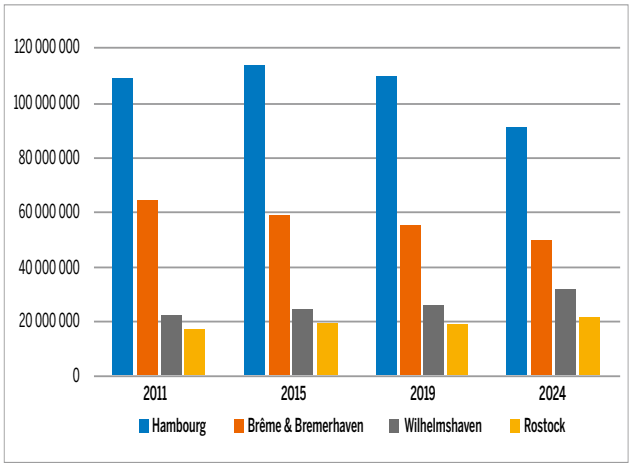
While they play an economic role throughout the country, the German ports are all located in the North and are divided between the North Sea and the Baltic Sea (*Ostsee*). The largest ports in terms of tonnage are Hamburg, Bremen, Wilhelmshaven and Emden on the North Sea and Rostock on the Baltic.

Hamburg and Bremen are estuary ports, which limits their draft. Wilhelmshaven has the largest draft and has sharply increased its imports of energy products to substitute for Russian gas. Rostock's traffic is mainly with the countries on the Baltic Sea.

From a total volume of about **280 million tonnes per year**, the total traffic of the ports has not returned to its volume from before the Covid 19 crisis.

9. - Comité interministériel de la mer, **Stratégie nationale portuaire (SNP)**, 22 January 2021, 24 p.

The main German seaports
Source : forschungsinformationssystem.de



Evolution of the traffic of the top four German ports
Source : genesis.destatis.de

Domestic coastal transport represents 3% of the total, and international traffic is relatively balanced with 59% for imports and 38% for exports.

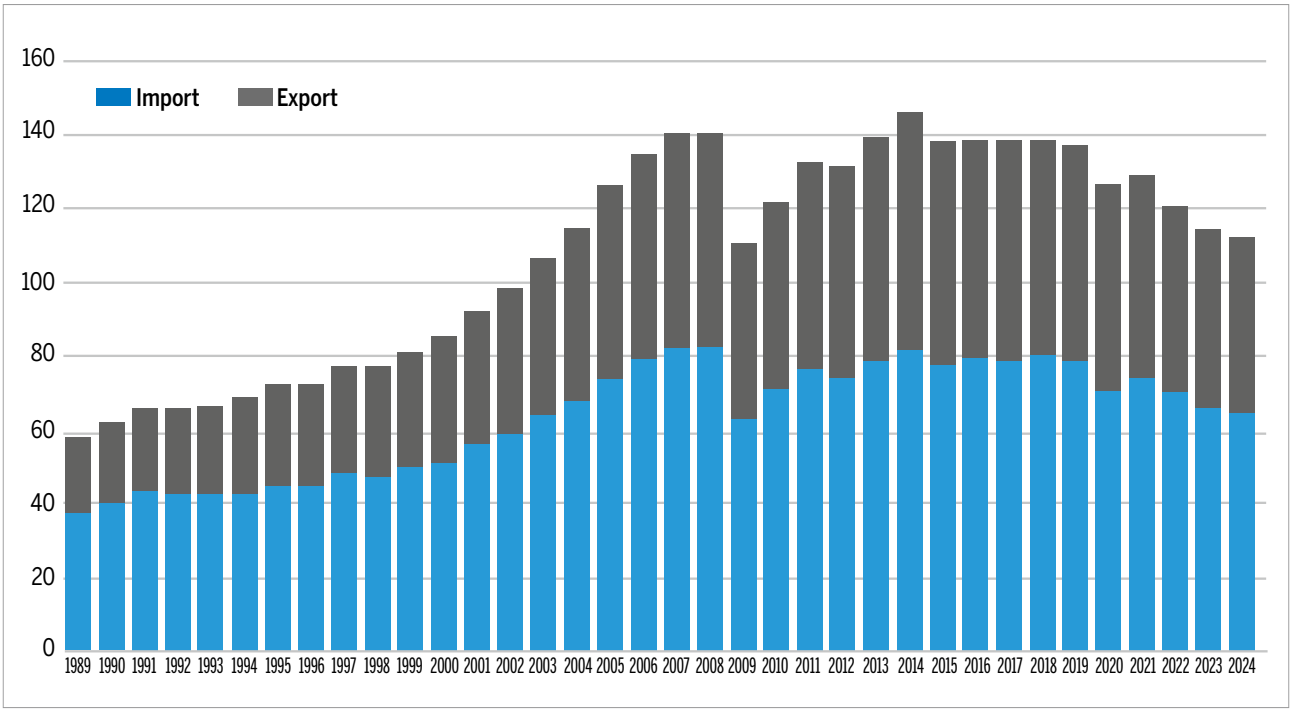
The traffic of most of the ports is diversified. Hamburg has the largest tonnage (110 million tonnes), followed by Bremen-Bremerhaven (60 million), Wilhelmshaven (22 million) and Rostock (20 million). The highest levels of trade are with the United States (30 million tonnes in 2024, mainly energy products), Norway (26 million tonnes), Sweden (24 million tonnes) and China (the number one partner for container traffic, with a total traffic of 19 million tonnes).

The ports belong to the **Länder** (Hamburg and Bremen being both cities and Länder) and not to the Federal Government. In Hamburg for example, the companies that are active at the port handle the processing of containers, intermodal transport for links with the hinterland, logistics and lastly real estate (the land is owned by the city-state). For container handling, there is HHLA (Hamburger Hafen und Logistik AG, which is 51% owned by the city and 49% by the ship owner MSC and is present in other ports in Europe), Eurogate (company of Bremen, which handles 23% of Hamburg's traffic), Hapag-Lloyd and the Chinese Cosco.

The port of Bremen-Bremerhaven belongs to the city-state of Bremen. The port of Wilhelmshaven belongs to Niedersachsen Ports GmbH & Co, which is itself owned by the Land of Lower Saxony. The port of Rostock belongs to the Land of Mecklenburg-Western Pomerania and to the city of Rostock.

The service to the hinterland makes intensive use of rail. DB Transfracht for traditional rail freight and DB Cargo for combined transport connect the German ports with Rotterdam, Austria and further south with Italy. The dense network of motorways is also used. Waterways hold a more modest share (but the bridges crossing the rivers are too low, limiting the size of the boats). Of the 74% of the traffic to the hinterland from the port of Hamburg, 56% goes by rail, 37% by road and 7% by waterways. For the containers of the port of Bremen, the proportions are 51% for rail, 45% for road and 3% for waterways.

Seaports contribute to economic development, with a productive base open to world markets and highly export-oriented. It is estimated that a turnover of 100€ in the port of Bremen leads to a turnover of 140€ in the regional economy and 200€ on the national level. Bremen and Emden have the speciality of exporting automobiles throughout the world.
The role of the ports is particularly important in terms of energy, for both the importing of fossil fuels in all forms



Traffic of the port of Hamburg, 1989-2024, millions of tonnes (grey: exports, blue: imports)

Source: hafen-hamburg.de

DB Transfracht rail services in conjunction with the German ports

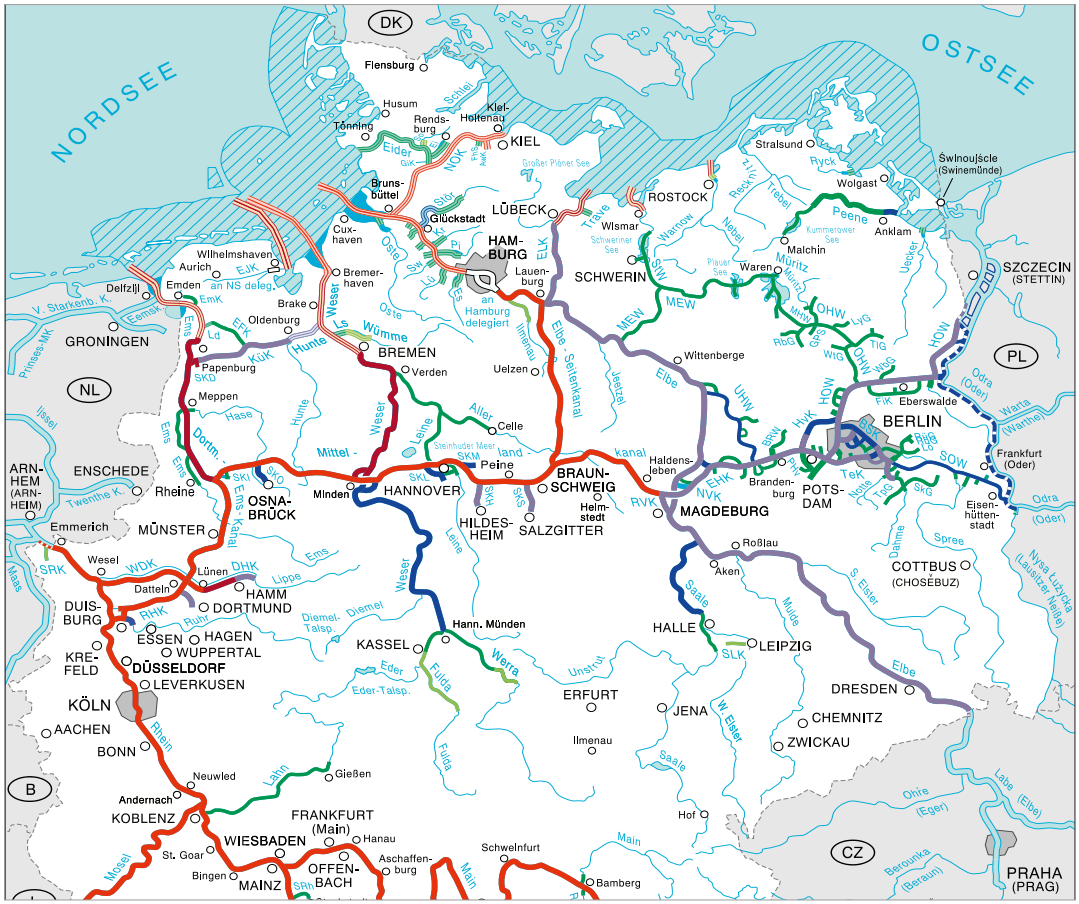
Source : mehrcontainerfuerdeutschland.de

and hydrogen (for which the necessary volumes should sharply increase in the years to come), and by contributing to the development of off-shore wind energy (installation, maintenance).

The National Strategy for Seaports and Waterways of 2022[10] sets as goals competitiveness on the national and international level, contribution to transport infrastructure within the framework of national defence and NATO, the forming of sustainable poles for the energy transition and the establishment of carbon neutral sea transport and industry, making ports important poles for changes of modal sharing, being a guarantor of the legal circulation of merchandise and transparent trade flows. These objectives call for technological solutions and innovative practices, better resilience in the face of threats and climate change and physical and cyber-attacks, attractive employment possibilities and lastly the insertion of the ports into a multimodal transport network with an adequate communications network (fibre optics and mobile phones).

Lastly, following the recent legislative elections, a new coalition government was formed, led by the conservative party CDU-CSU which is allied with the social-democratic party SPD. The coalition contract which is to guide the policies for the years to come was negotiated and enacted by the partners. It includes substantial investments for the modernisation of transport infrastructures, particularly inland waterways, locks, seaports and inland ports based on a financing and implementation plan. A national port strategy will organise the transformation of the inland waterways and the ports.

10. - Die Nationale Hafenstrategie für die See- und Binnenhäfen



Raccordement des ports maritimes aux voies fluviales

Source : gdws.wsv.bund.de

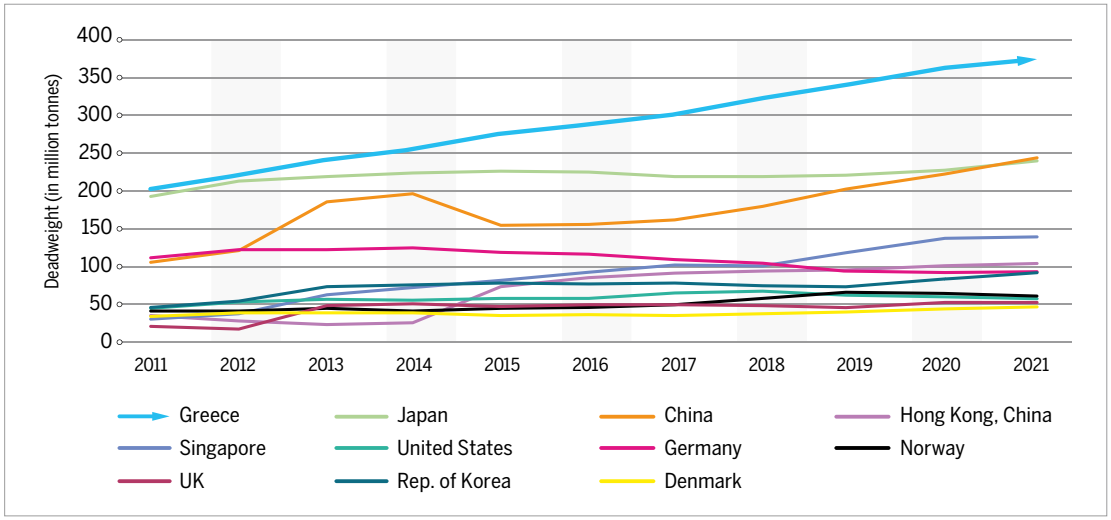
Moreover, Germany will remain an energy importing country and the ports play a crucial role to this end: energy partnerships should be implemented, with the cross-border and national infrastructure necessary for the importing of hydrogen and its derived products.
It will also be important to support the competitiveness of naval construction on the European level and to reinforce technological research for ship building (decarbonisation of propulsion, underwater robotics, etc.), to reinforce connections with the hinterland to meet the requirements of the military and energy policy, harmonising the regulations and the tax system for open sea maritime transport on the scale of the EU.

GREECE

The Greek maritime transport sector is mainly focused on traffic outside Greece. **The Greek fleet is the world's largest** in terms of capacity. It is made up mainly of tankers and bulk carriers and operates in the tramping market (transport on demand, as opposed to regular lines). However, the maritime container transport segment, which is mainly involved in feedering, is also on the increase. The Greek fleet comprises some 5500 vessels, accounting for 23% of global capacity and 55% of the European fleet. These ships very rarely call at Greek ports. However, Greece does have a high level of international traffic, but this is driven by foreign flags (particularly in Piraeus, which is a sea-sea transshipment port for the major regular container lines). There is, however, a substantial Greek fleet providing links between mainland Greece and its many islands, with around 150 ferries.
Greece's many ports are usually divided by functional rather than institutional type into sixteen international ports (ten on the mainland and six on the islands), sixteen national ports, 25 inter-regional ports and, lastly, around 850 local ports. The five main ports (Piraeus, Thessaloniki, Igoumenistsa, Patras and Heraklion) form the core of the trans-European transport network.

The institutional environment is fairly complex, as it differs according to the category of the ports. Two ministries are involved (the Ministry of Maritime Affairs and Insular Policy and the Ministry of Infrastructure and Transportation), along with the Regulatory Authority for Ports (a recently established independent authority)[11], around a hundred port authorities, the largest of which have become limited companies while the others are generally municipal, and finally a few private ports.

11. - On this matter, see OPSTE (Observatory of Transport Policies and Strategies in Europe), **Transport regulatory authorities in Europe: Transport/Europe bulletin # 9**, September 2023, 12 p.

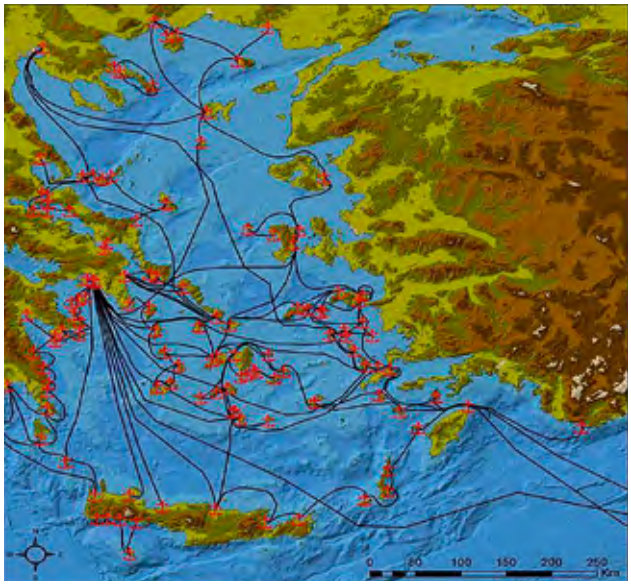


Breakdown of the global fleet by flag deadweight tonnes (dwt), 2011 - 2021

Source : UNCTAD, Review of Maritime Transport, 2011-2021

Greek seaports

Source : UniMarine–International Ports Directory



Aegean Sea services

Source: University of the Aegean Sea, « *THAL-CHOR Cross-Border Cooperation for Maritime Spatial Planning Development* », Interreg Programme 2007-2013.

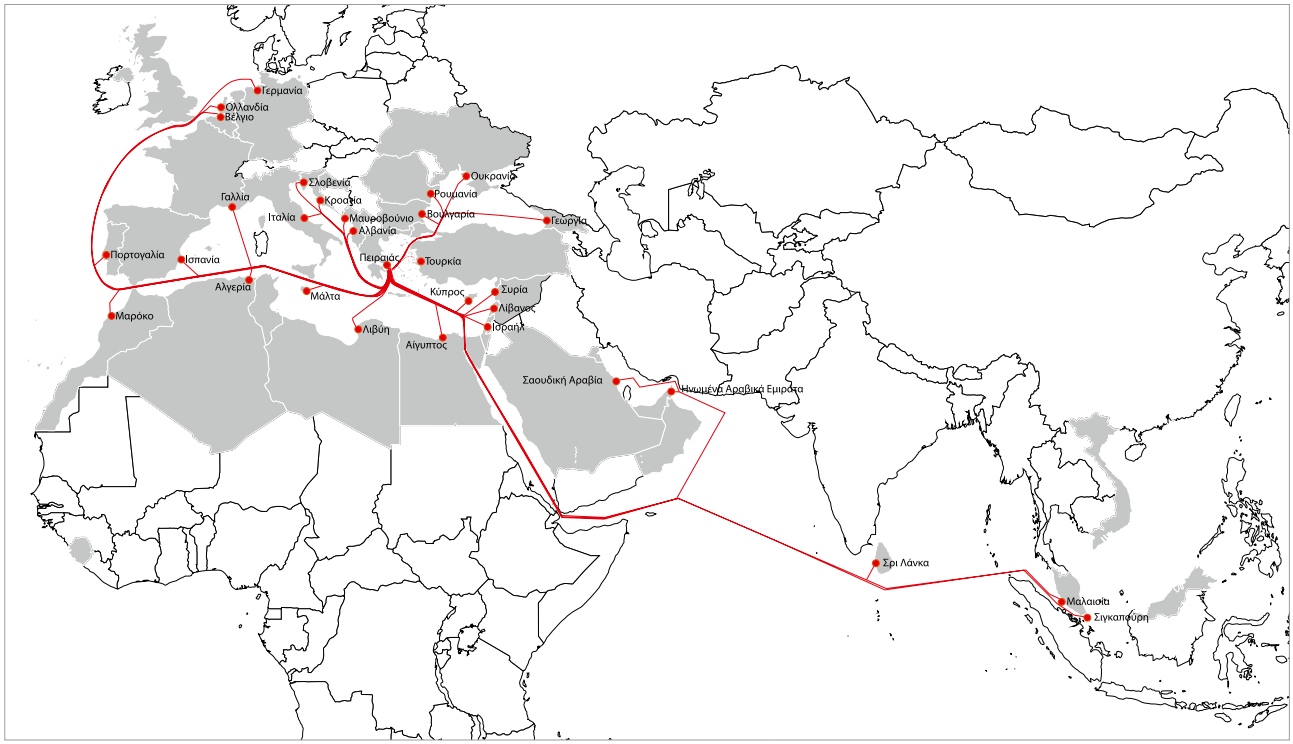
The trend towards the privatisation of infrastructure management through competitive tendering is ongoing, albeit at a slow pace, under the leadership of the Piraeus is Greece's leading port.

Most of the port is now owned by the Chinese shipping company Cosco, which has made it its main port serving Central and Southern Europe (although one terminal, OPP, remains in public ownership). Handling 5.1 million TEU in 2023, Piraeus is the fourth largest port in Europe and the largest in the Mediterranean for container traffic (after Rotterdam, Antwerp and Hamburg and ahead of Valencia, Algeciras, Gioia Tauro and Barcelona).

Piraeus is well-placed on the maritime corridor linking Asia to Europe via the Suez Canal, for services to the Balkans and Central Europe and for transshipments with local feeder lines. In the Central European market, Piraeus' main competitor is Hamburg, but with a sailing time from Asia to the latter is around a week longer. Piraeus has regular links with thirty different countries: sixteen in Europe, ten in Asia and four in Africa.

Thessaloniki, Greece's second-largest container port, handled just 500,000 containers by 2023, while the other ports handle much lower volumes. Thessaloniki is Greece's leading port for the import of dry and liquid bulk cargoes and above all plays a regional role in trade with the eastern Mediterranean (mainly Turkey, Greece, Cyprus and Egypt).
With 2.5 million passengers, Piraeus is the third busiest hub in Europe (after Messina and Reggio Calabria) serving the Greek islands.

Coastal ferry transport is important for both passengers and freight and is largely a public service (to ensure access to the whole of Greece).



Sea transport links between Asia and Europe via the Suez Canal

Source : "GrePort-Greek Ports Report", George Vaggelas et Athanassios Pallis (Ed), Ports & Shipping Advisory LP, Edition 2024.

The European Emissions Trading System is making this type of transport more expensive, while the renewal of the ageing fleet (with vessels averaging thirty years old) is coming up against financial difficulties. Long-term plans include a land link between northern Greece (in particular the port of Alexandroupoli) and the Black Sea, bypassing the straits of the Dardanelles and the Bosphorus and a major logistics hub in Attica (Athens region).

ITALY

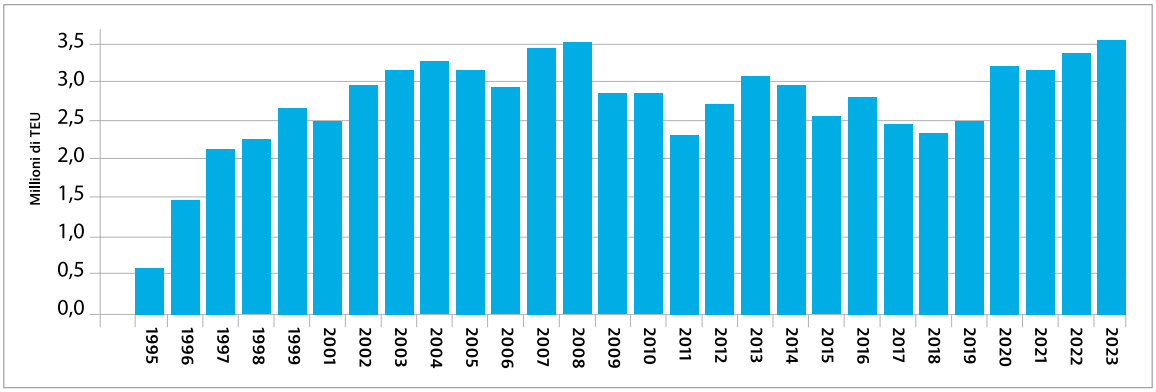
The activities of Italian seaports are included in transport development throughout the Mediterranean, which is crossed by intercontinental traffic flows. The share of European port traffic handled by Mediterranean ports has increased from 28% in 2008 to 35% in 2018, fuelled by Asian economic growth, with exports to Europe using the Suez Canal (in which traffic grew by 42% between 2011 and 2018). However, Italian ports have contributed little to this expansion, with their traffic increasing by just 2% over the same period.

Italian ports

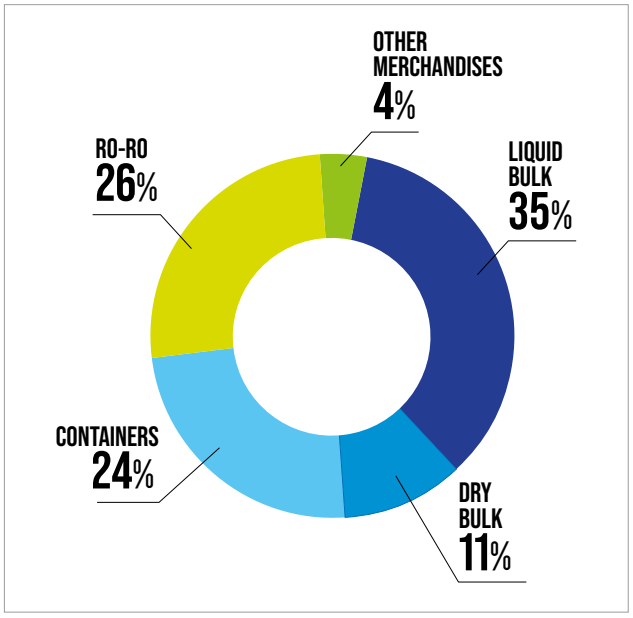
Source : flettemon.net

Traffic is divided between long-distance services (240 million tonnes) and Mediterranean coastal shipping (250 million tonnes, including 144 million tonnes of coastal shipping within Italy), for which the Italian flag is the European leader. This is due to the geographical configuration of Italy (a peninsula bordered by the Tyrrhenian and Adriatic branches of the Mediterranean and two major islands: Sardinia and above all Sicily).

These figures should be interpreted in the light of Italy's peripheral position, particularly that of Southern Italy (Mezzogiorno), in relation to the economic heart of the European Union, as measured by the accessibility index of EPSON (European Observation Network for Territorial Development and Cohesion) already mentioned in the introduction to this documentation.

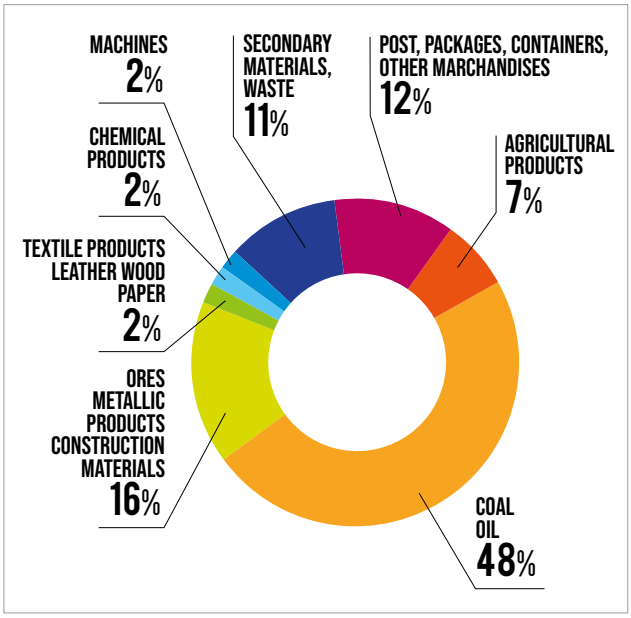


Container traffic in the port of Gioia Tauro, 1985 - 2023



Breakdown of Italian port traffic, tonnes, %, 2023

Source : Port Infographics, update 2024



Breakdown of unloaded goods, 2022

Source : Port Infographics, update 2024

Port traffic is expected to total 491 million tonnes in 2023, with a substantial share of liquid and solid bulk cargo, but a higher share than the European average for containers and Ro-Ro road transport.

Ports are specialised according to their nautical characteristics but also their economic hinterland. In terms of tonnage, the top three are Trieste (particularly for liquid bulk cargo), Genoa and Livorno. Genoa, Gioia Tauro and La Spezia handle the largest number of containers. With the exception of Gioia Tauro (a transshipment hub in the south of Calabria, where traffic is stable), the main ports are in the north of the country.

In terms of status, ports are divided into four classes according to the 84/94 Act[12] : defence ports, international trade ports, national ports and regional ports. Fifteen Port System Authorities cover the entire coastline. Each port system authority is responsible for the general direction of port activities in its area; maintaining common areas, allocating and controlling paid service activities for port users that do not coincide with port operations; coordinating administrative activities carried out by public bodies within the ports and in maritime areas belonging to the State; exclusive administration of State maritime areas and property; and promoting connections with the logistics systems of the hinterland. The administration of the Port System Authority is run by a Chairman (appointed by the Minister of Infrastructure and Transport in agreement with the President of the region concerned), a Management Committee made up of the Chairman of the Port System Authority, a regional representative, a city representative and the Maritime Director and, finally, the Board of Auditors.

In terms of port policy, the *Sea Plan for the 2023-2025 three-year period*[13] approved by the Council of

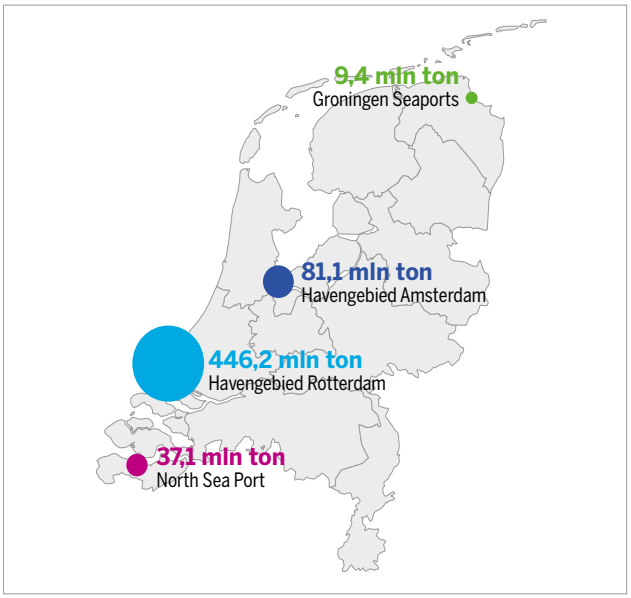
12. - L. 28 gennaio 1994, n. 84, Riordino della legislazione in materia portual
13. - Il Piano del Mare

Ministers on 31 July 2023 comprises sixteen guidelines, including maritime spaces, trade routes, ports, the ecological transition of the maritime industry, shipbuilding, maritime labour, the small islands system, maritime tourism, climate change, and European and international cooperation and security.
The topic of port development and sustainability is central to these guidelines. A recent study carried out by the national oil company ENI, the Fincantieri shipyard and the Rina international consultancy focuses in particular on energy carriers capable of reducing CO_2 emissions: in the short term, LNG (liquefied natural gas) and, in the longer term, biofuels, synthetic fuels produced from green hydrogen and hydrogen itself, if its production costs fall.
This development is ongoing: 49% of the tonnage currently on order in Italian shipyards is powered by alternative fuels, LNG and methanol[14].

In addition to shipbuilding for powering vessels, ports will have to contribute to these changes by distributing these new energy carriers. This will require substantial investment.

THE NETHERLANDS

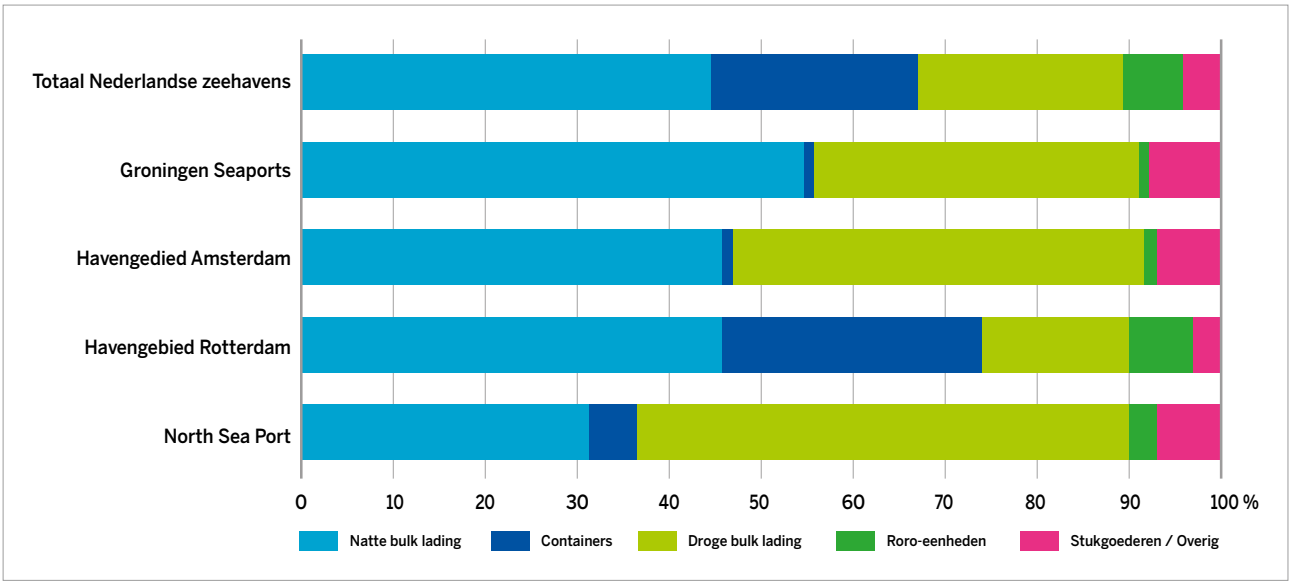
Maritime and port activities in the Netherlands have centuries-old traditions and cover a much wider geographical area than the Netherlands themselves.
Traffic is divided between four main areas: around Groningen (9 million tonnes of traffic in 2023), Amsterdam (81 million), Rotterdam (446 million) and the mouths of the Rhine (North Sea, 37 million).



Cargo traffic in Dutch ports, 2023, million tonnes
Source : cbs.nl

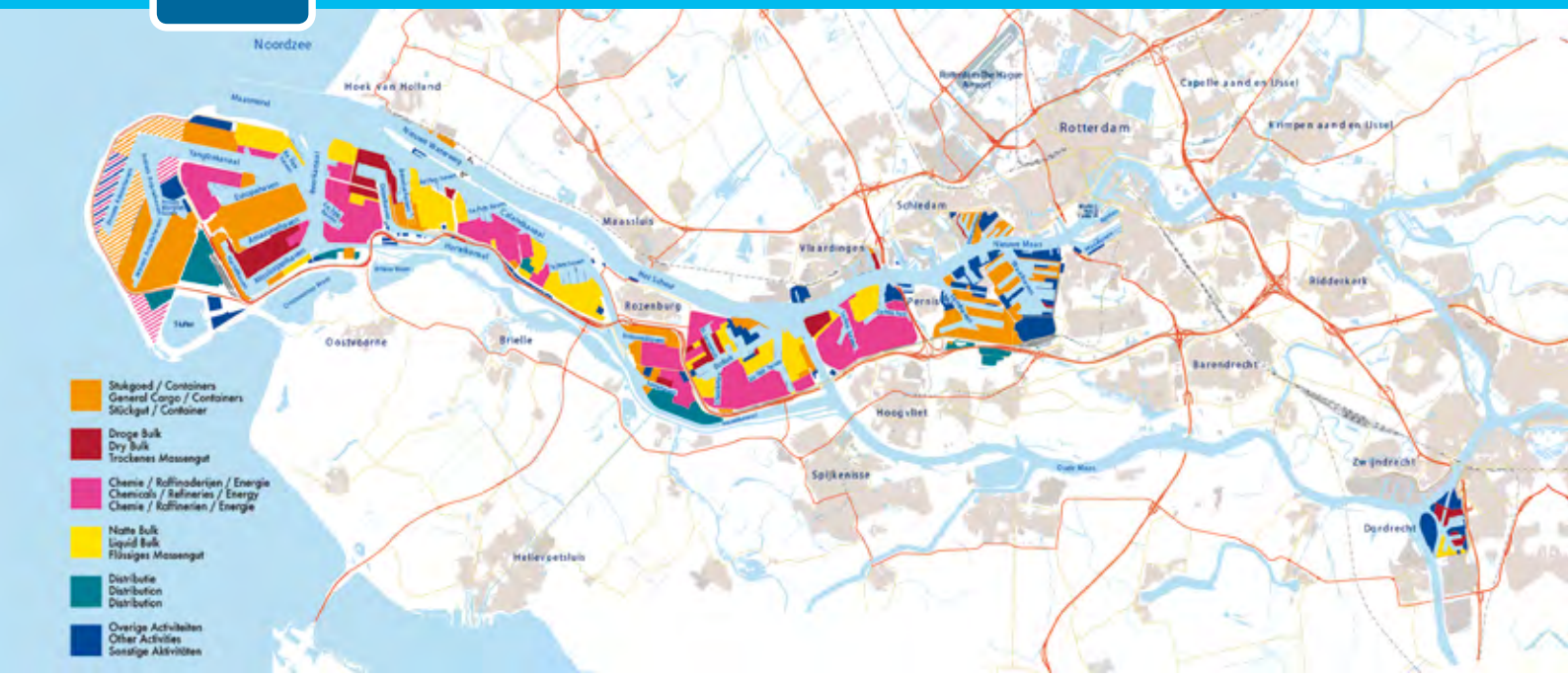
Traffic can be broken down by type of goods as follows: liquid bulk (45% of total tonnage), containers (23%), dry bulk (22%), Ro-Ro (7%) and general cargo (3%). This breakdown varies from port to port. The ports as a whole account for some 220,000 direct jobs, not counting the industrial jobs located on port sites and the jobs generated.

Rotterdam, Europe's largest port, handles a diverse traffic mix, but stands out in particular for the share of containers in its total traffic, both for the Dutch and European economies and for transshipments from one vessel to another (hub function).



Composition of Dutch port traffic by type of cargo, 2023, %
(liquid bulk, containers, dry bulk, Ro-Ro and general cargo)
Source : cbs.nl

14. - Source: **Port Infographics UPDATE 2024**



Activities on the Port of Rotterdam site
(containers and general cargo, dry bulk, chemicals, liquid bulk, distribution, other)
Source : Port of Rotterdam NV

It faces competition from the neighbouring Belgian port of Antwerp.

The port of Rotterdam is also **a major industrial port zone**, with land that extends downstream towards the mouth of the Meuse, where there is a deep draught, particularly on land reclaimed from the sea. The construction of a nuclear power station is envisaged to supply this area with low-carbon electricity.

In fact, Rotterdam is part of an industrial cluster that includes Antwerp in Belgium, the Rhine valley and the Ruhr district in Germany.

Amsterdam is the country's second-largest port and the fourth largest in Europe in terms of tonnage. Its container traffic is relatively limited, but it handles intense intra-European coastal traffic of industrial products (short sea), with links to the Nordic countries, the United Kingdom and the Baltic States. The traffic in refined petroleum products raises a number of questions: should a replacement business be found in view of the decline in carbon-based energy, or should space be freed up for the expansion of the nearby city of Amsterdam?

The hinterland of Dutch ports is served by waterways in much higher proportions than in other European countries (35% of tonnage), but also by rail (10%, in particular with the Betuweroute, a dedicated freight railway serving the port of Rotterdam) and of course by road (55%), linked to a dense network of river ports and logistics platforms (including Venlo).

The ports are **publicly-owned companies**, but the composition of their capital varies from one port to another and involves local authorities to a great extent: in Rotterdam, two thirds of the port is owned by the city and one third by the Dutch state; the city of Amsterdam is the sole owner of its port; the port of Groningen and the North Sea ports are owned by numerous city and provincial authorities in proportions that are sometimes unclear!
In fact, shareholders keep their distance from port management and play a political role, putting forward the general benefits and sustainability of port and industrial activities and the proper management of the land. In Rotterdam, the shareholders do not sit on the board of directors of the port, but they do approve its main policy lines. The port pays dividends to its shareholders. The aim of this division of labour is to combine the strategic guidelines set by the public shareholders with the operational autonomy of the operators.

The Port of Rotterdam aims to reduce greenhouse gas emissions from its industries, currently by cutting coal-fired electricity generation. The longer-term **decarbonisation** strategy focuses on treatment of the city's waste, circular organisation of the chemical industry, production of biofuels from waste and recycled plastics, CO_2 capture, the import and production of hydrogen, and electrification.

The national ports policy is currently being updated. *The Havennota 2020-2030*[15] guidance note (Programme for Powerful Ports and a Sustainable Digital

15. - Definitieve Havennota 2020-2030

Economy) sets out eight strategic lines: connectivity and logistics, security, digitalisation, innovation, Europe and international, sustainability, environment and the labour market. The government wants the energy transition in ports to be an economic success in a context of strong international competition. In particular, this will need harmonisation of European regulations.

POLAND

Poland has 32 major ports on the Baltic Sea coast, the four largest of which are Gdańsk, Gdynia, Szczecin (Stettin in French) and Swinoujście, each handling more than 30 million tonnes of traffic every year.

Today's Polish port structure results from the long history of a Polish state whose territory and very existence has changed considerably, particularly during the 19th and 20th centuries.

The port of Gdańsk dates back to the 10th century and the period of its earliest prosperity spans the 15th to the 18th centuries, when the city was a member of the Hanseatic League, along with Lübeck, Hamburg and Bremen. This prosperity was interrupted by the disappearance of the state after Poland was partitioned between Prussia, Austria and the Russian Empire between 1772 and 1918. Gdańsk is now Poland's leading port.

The port of Gdynia was built between the wars in the years 1924-1937 as an alternative to Gdańsk, which was unfavourable to the young Republic of Poland. Built in a short time, by 1938 the port of Gdynia has become the largest port on the Baltic Sea in terms of transshipment volume (9.2 million tonnes, including the loading of 6.5 million tonnes of coal and coke). The port's seven decades of post-war development were marked by major investment in its nautical and land infrastructure.

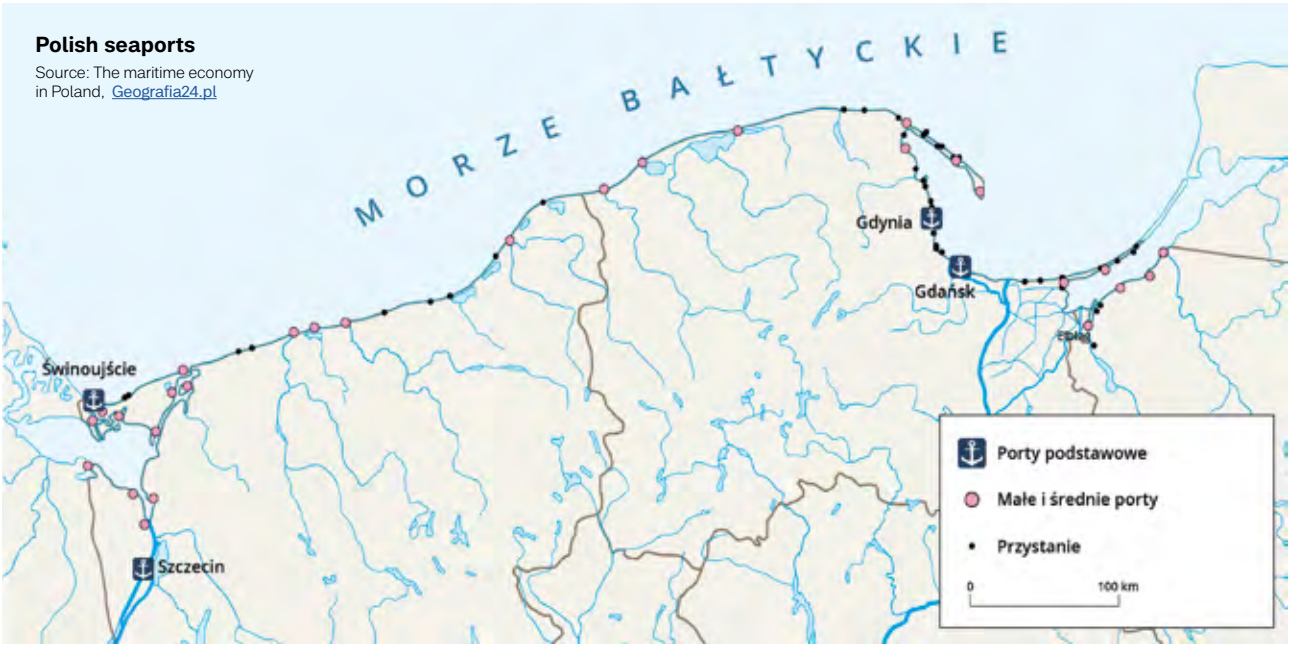
Over the centuries, the port of Szczecin has undergone periods of both development and stagnation under the reign of various states (Brandenburg, Pomeranian, Danish, Swedish, Prussian and now Polish).

The port of Swinoujście has existed since the beginning of the 18th century and was marked by the effects of the wars between Prussia and Sweden. A large liquefied natural gas terminal was built between 2010 and 2015.

The status of Polish ports changed radically after the demise of the socialist regime. Under this system, the port infrastructure was owned and managed entirely by the State. Since the 1996 Seaports Act, there was a transition from the toolport model to the landlord model: the central State is responsible for the strategic facilities, but port operations have gradually been entrusted to private companies. In Gdańsk, Gdynia and Szczec in, the State share of port ownership is between 95% and 99%, with local authorities holding only a very small share. Nevertheless, the port authority enjoys a high degree of management autonomy.

The growth in port traffic has needed major investment in capacity, both in terms of infrastructure and handling equipment. Development of the Port of Gdańsk took off in 1975, when the North Port and, in 2007, the DCT container terminal (now the Baltic Hub) were built.

Polish seaports
Source: The maritime economy in Poland, Geografia24.pl



The port of Gdynia aims to provide access to the largest seagoing vessels, but this investment may lead to competition with the container terminal in Gdańsk. In the port complex of Szczecin and Swinouj´scie, there are plans to build a deep-water container terminal with a capacity of 2 million TEU per year.

The volume of port traffic fluctuates significantly under the influence of changes in the economic situation and global trade, as well as in terms of the volume and structure of Polish foreign trade. Traffic tripled between 2000 and 2023, with this increase almost exclusively concentrated in the country's top four ports.

Millions of tonnes	2000	2005	2010	2015	2020	2023
Gdańsk	16,7	24,2	26,4	31,7	40,6	79,8
Gdynia	8,4	12,3	12,3	15,5	21,2	25,8
Szczecin	11,1	10,0	8,0	8,3	9,6	11,8
Świnoujście	8,9	10,0	10,7	11,8	15,1	17,8
Autres	0,1	0,2	0,1	0,6	0,3	0,2
TOTAL	45,3	56,7	57,5	67,9	86,7	135,4

Polish port traffic, 2000-2023, millions of tonnes

Source: Statistics from the websites of the port authorities of Gdańsk, Gdynia, Szczecin and Swinoujście and Transport - results of 2000-2023 activities, Central Statistical Office, Warsaw 2021-2024.

Over the 2000-2023 period, receipts grew faster than dispatches. Coal is still the most important export, but this traffic is set to decline. Since the outbreak of the Russian-Ukrainian war and the embargo on energy from Russia, the most significant development has been the import of crude oil and liquefied natural gas from other sources. At the same time, container traffic is growing steadily, accounting for 20% of the tonnage handled in all Polish ports, and 27% in Gdansk. Traffic is concentrated in a few ports (generally four dominant handling companies in each port).

The largest share of trade (63%) is with European ports: Scandinavia, the Netherlands, Germany, Belgium and the UK. Outside Europe, the main destinations for Polish port trade in 2023 were Egypt, the United States, Nigeria and China.

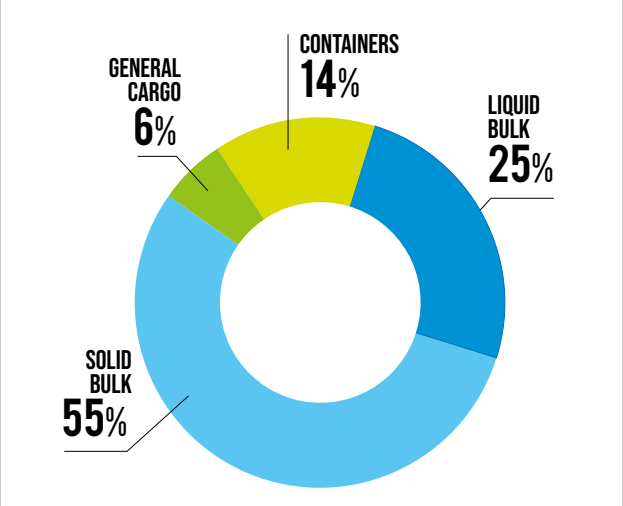
Railways played a dominant role in serving the hinterland (handling around 70% of traffic) in the first decades after the Second World War. Since then, this share has diminished due to competition from road transport and the creation of a network of oil pipelines linking port terminals to collection points in the hinterland. After 2004, the share of rail in serving seaports fell to less than 25%, while that of road transport rose to over 60%.

Port policy has proved to be pragmatic and effective, enabling major investments to be made to support economic growth, particularly since the country's accession to the European Union and the changes in the global economy, notably with the war in Ukraine and the upheaval in the flow of energy products. For its part, the growth in container traffic could justify the creation of a new terminal in Swinoujście. At the same time, the entire Polish economy, which is still dependent on coal, is affected by Europe's strategy of decarbonising and hence transforming the entire energy system.

ROMANIA

Romania is located on several transport corridors within Europe and between Europe and Asia. It has a seafront on the western shore of the Black Sea. Its main port, Constanța, is directly linked to the Danube by a canal. The Danube is part of a continuous river link between the Black Sea and the North Sea, all the way to Rotterdam via the Main and the Rhine, serving a whole series of landlocked countries in Central Europe (Serbia, Hungary, Austria and Slovakia). Constanța is part of the TEN-T core network.

The seaport of Constanța, with its contiguous areas of Midia and Mangalia, offers direct access to regional and international shipping routes. It is the largest and deepest port on the Black Sea (with a draught of 19 metres). Constanța includes a container terminal and is the largest port for grain exports in the European Union, capable of handling 165,000-tonne oil tankers and 22,000-tonne bulk carriers. With a maximum capacity of around 100 million tonnes a year, Constanța handled 77 million tonnes in 2024, 80% of which consisted of solid and liquid bulk.



Breakdown of sea traffic in the port of Constanța, 2023

Source : Port de Constanța– statistiques

Rhine - Main - Danube river link

Source : Investment programme for the development of transport infrastructure for the 2021-2030 period (update of the MPGT 2016 strategy).

Constanța is Europe's eighth-largest port for short-distance coastal shipping traffic. The port includes a free zone, where logistics, industrial and international trade and commerce have developed. Constanța also has a shipbuilding and repair yard.

The port belongs to the public domain of the State and is managed by the National Maritime Ports Administration Company S.A., Constanța.River transport on the lower Danube serves the ports of Galați, Brăila and Tulcea in particular, which accommodate river vessels and convoys, but their draught also allows them to accommodate river-sea vessels with an 8500-tonne load capacity.

The aim of the port's development strategy is to increase shipping traffic, improve the efficiency of freight forwarding services, finance public investment, enhance the safety, security and environmental sustainability of sea transport and reduce the administrative burden. This strategy is in line with the European Green Deal, Fit for 55 and Sustainable and Smart Mobility Strategies.

Emphasis is being placed on the environmental performance of vessels and ports in line with IMO recommendations, but various factors are limiting this development: technological uncertainty, uncertainty about market trends, lack of skills and, above all, the high cost of the required investments and the lack of sources of funding.

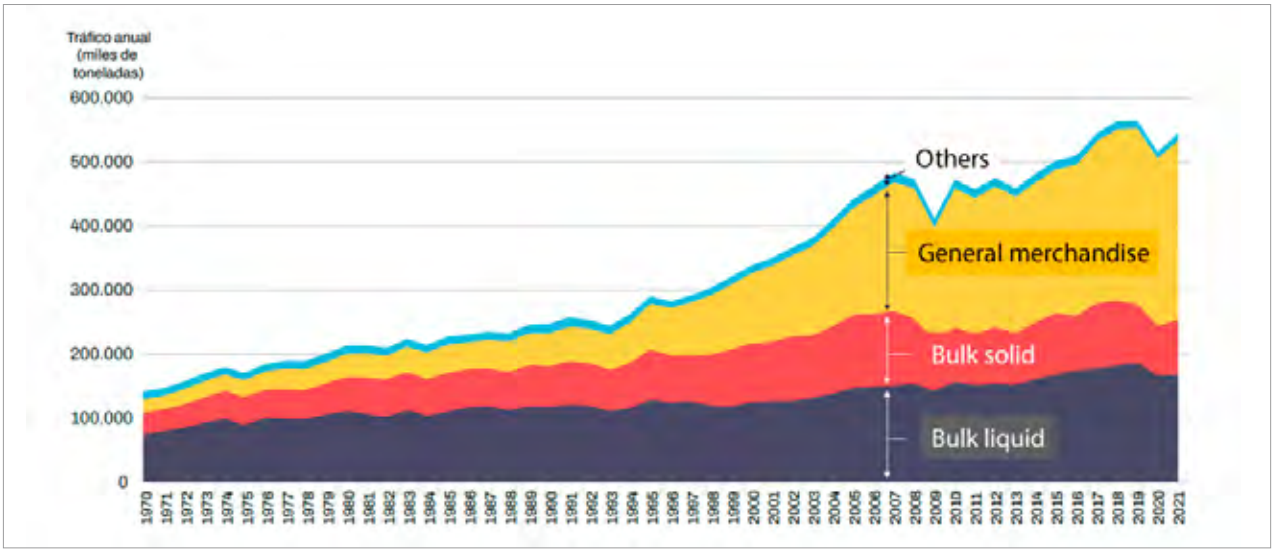
SPAIN

Spain has a series of ports, divided between the Mediterranean coast (Algeciras, Valencia and Barcelona being the largest ones) and the Atlantic coast (with Bilbao), along with the archipelagos of the Canaries in the Atlantic and the Balearic Islands in the Mediterranean and the African enclaves of Ceuta and Melilla. Over the past fifty years (from 1970 to 2021), the Mediterranean ports had greater activity than the Atlantic ports, with average annual rates in growth of traffic of 3.5% and 1.5% respectively. This growth was linked to international trade, while domestic coastal transport stagnated during the same period.

This growth corresponded to a modification of the very structure of the types of traffic, with moderate growth for liquid and solid bulk until the international crisis of 2007, then their stagnation, while the transport of general merchandise (largely containerised) increased more quickly throughout this period, particularly in the three main ports.

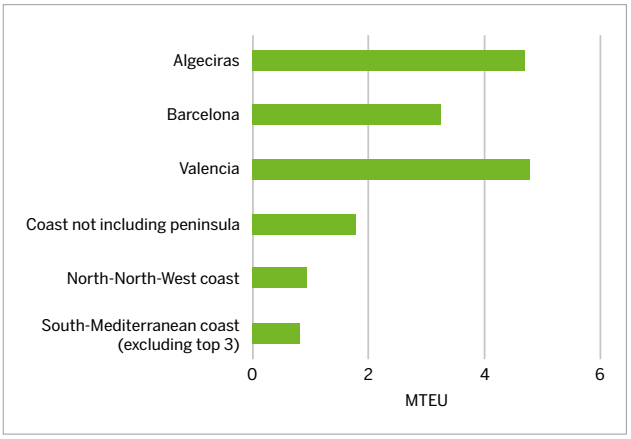
General interest port system and traffic 2023

Source : Puertos del Estado 2023



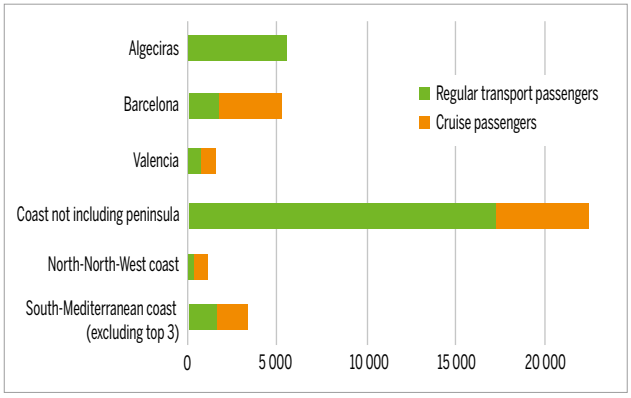
Evolution of the traffic of the Spanish ports by type of product, 1970-2021

Source : Puertos del Estado 2024



Breakdown of container traffic between Spanish ports, 2023, millions of TEU

Source : Puertos del Estado, 2024



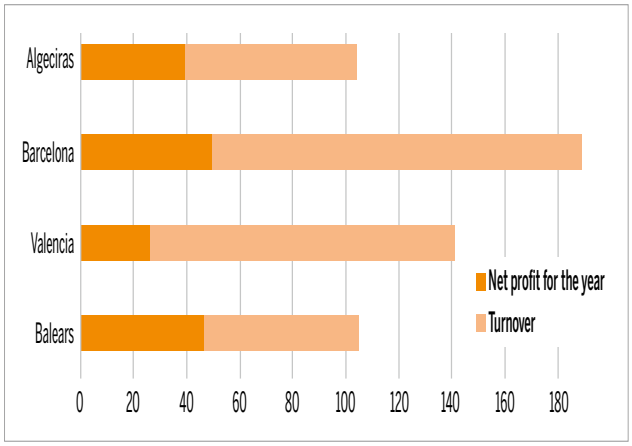
Passenger traffic of the general interest port system, 2023

Source : Puertos del Estado

Container traffic is divided equally between transshipment and service within Spain. It is concentrated in the ports of Barcelona, Valencia and Algeciras (the latter was initially dedicated to transshipment between lines, like its Moroccan competitor Tanger Med, but is now increasing its traffic within Spain).

These three ports alone account for 45% of the total tonnage of Spanish ports but 78% of the container traffic. 39 million passengers were transported in 2023. This includes some cruise activity (12 million) but is mostly made up of regular transport (27 million), particularly to the islands and for connections with North Africa, especially Morocco and the Spanish enclaves.

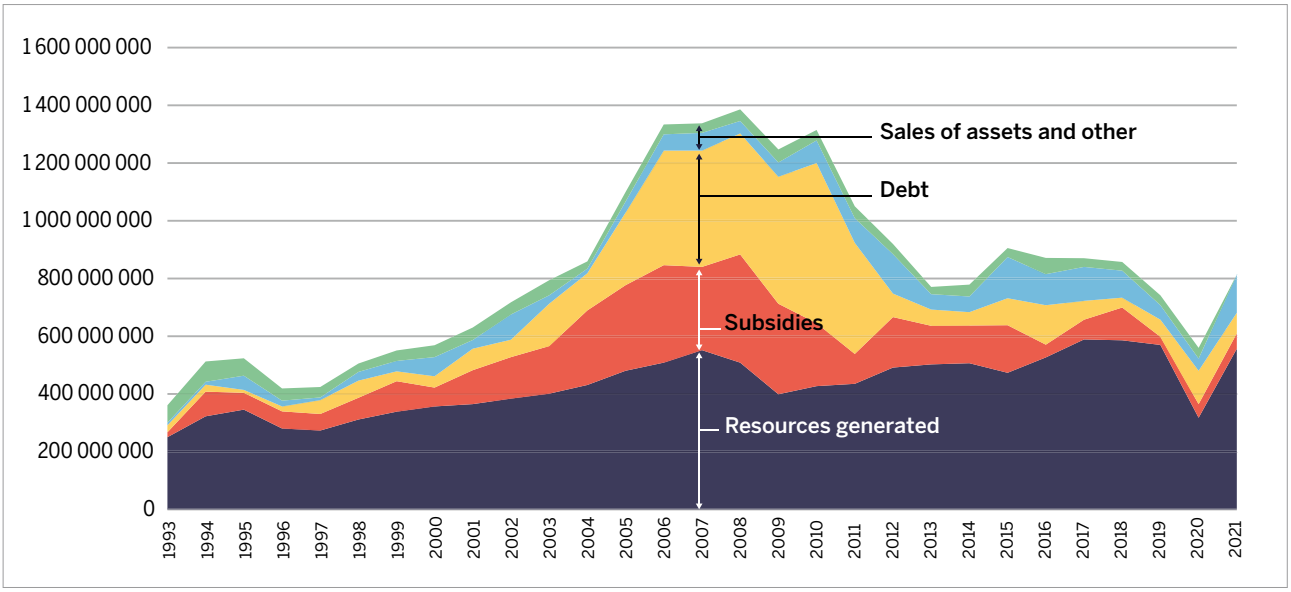
In terms of status, the 48 ports of general interest are grouped in 28 port authorities, within the public organisation *Puertos del Estado* which has its main office in Madrid. Each authority enjoys broad management autonomy and involves the local stakeholders. For certain types of traffic and territories, we observe competition between ports to enlarge their hinterland. Each authority has its development plans, but Puertos del Estado exercises a certain coordination within a **Strategic Framework** (*Marco estratégico*[16]) covering the 2022-2030 period.



Turnover and net results of the four main port authorities 2023, M€

Source : Puertos del Estado, 2024

16. - Marco estratégico

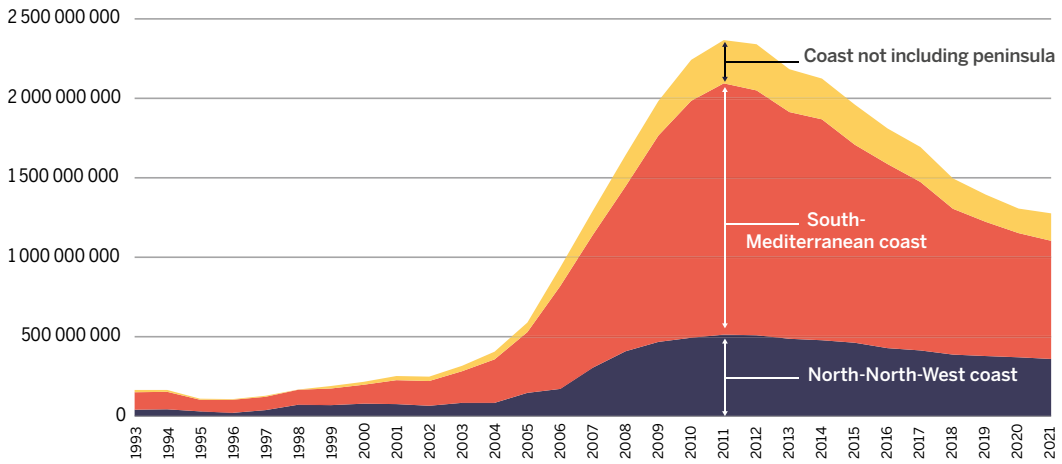


Evolution of the origin of the funds for the financing of the port system euros per year, 1993-2021

Source : Puertos del Estado: *Sistema Portuario de interés general.* Marco Estratégico. Octobre 2022.

Evolution of the debt accumulated by the port authorities, by coastline. euros per year, 1993-2021.

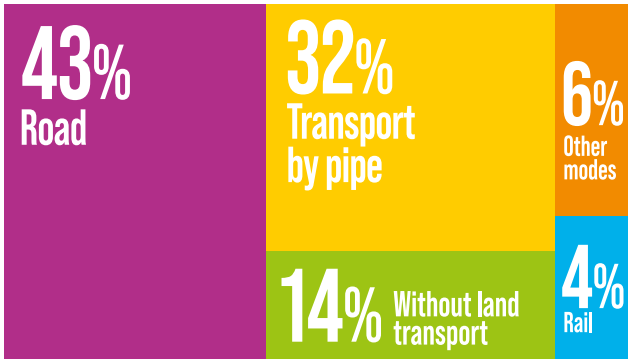
Source : Puertos del Estado 2023



Overall, the large ports generate positive results, which brings them the means for their development. Port investments increased substantially until the crisis period which began in 2007 (as for other infrastructure programmes in Spain: airports, motorways, high-speed rail lines). The port investments turned out to be particularly cost effective, and there is now a phase of debt paydown which is possible due to the positive results of the ports.

Despite the stated desire to increase the share of rail in the **land service to the port hinterlands**, road transport is still predominant, with pipelines for liquid bulk.

The objectives of the 2022-2030 strategy are improvement of connectivity (regular international lines, coastal transport, rail links, establishment of importing and distribution centres) and competitiveness (reinforcement of the links between the port and the local company, safety of people and merchandise, innovation and the blue economy, decarbonisation of the port activity, electrification of ships at berth, supplying of alternative fuels for ships). These orientations are coherent with the European Green Deal policy.



Modal breakdown of the land traffic of the Spanish ports, 2023

Source : Puertos del Estado 2023

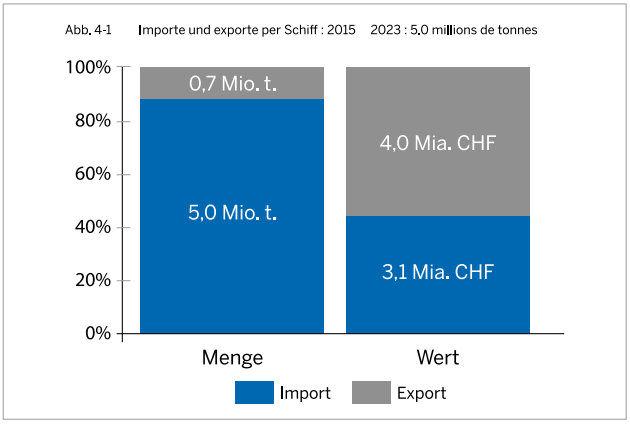
SWITZERLAND

Poor in coal and minerals, Switzerland has always needed access to external resources for its industrial development. The Rhine was its main supply route, leading to the port of Basel, the country's "seaport". In the 19th century, however, Switzerland was not among the riparian states of the **Central Commission for Navigation on the Rhine** (CCNR) and the country experienced serious supply difficulties during the First World War. It was only after the Treaty of Versailles that Switzerland was admitted as a riparian state and, in 1925, the Strasbourg Agreement defined the development of the Rhine as far as Basel.

Similar difficulties arose during the Second World War, when Germany closed the Rhine to inland navigation and Switzerland signed a charter contract with the Greek shipping company Rethymnis & Kulukundis. In 1941, a maritime law was drawn up and a Federal Council decree established a fleet under the Swiss flag. Today, the Rhine is navigable from the ports of Basel to its mouth on the North Sea at Rotterdam. Since 1992, Switzerland has also had access to Hungary and southern Europe via the Rhine-Main-Danube Canal.

The Port of Basel (SchweizerischenRheinhäfen) is **a public statutory body** and a legal entity belonging to the cantons of Basel-Stadt and Basel-Landschaft. It holds shares in Hafenbahn Schweiz AG (100%) and Rheinhafengesellschaft mBH Weil am Rhein (37.66%). Its management model is that of a landlord port.

The port has three main sites: Kleinhüningen (26%), Birsfelden (39%, with factories) and Muttenz-Au (30%, heavy goods). At 5 million tonnes a year, transported tonnages comprise mainly imported goods, but exports predominate in terms of the value of the goods.



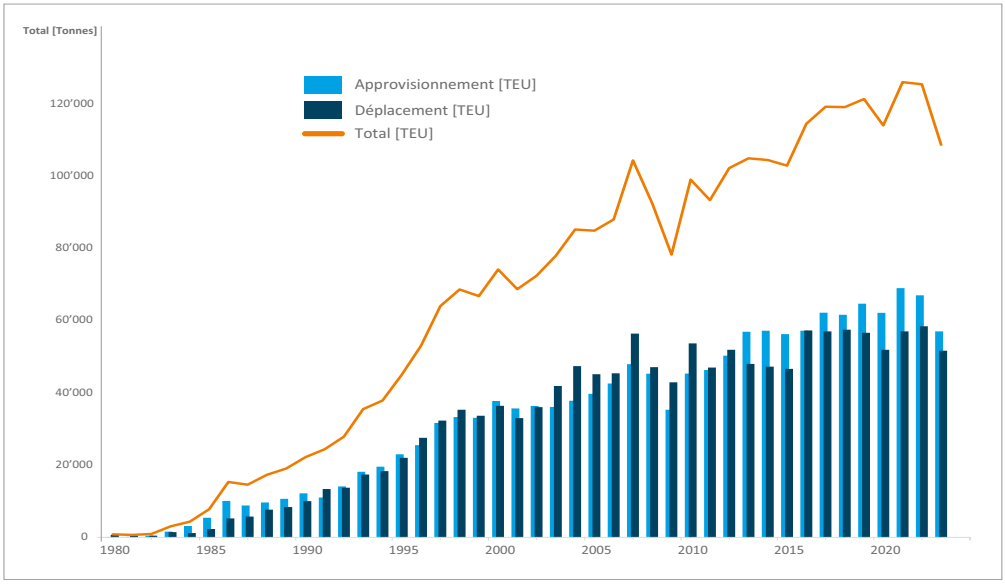
Annual traffic at the Port of Basel (2023)
Imports and exports, tonnage (Menge) and value (Wert)

Source : Port of Switzerland: « Container Umschlag 2023 », Jahresstatistik der Sweizerischen Rheinhafen, 2023.

Fossil fuels are still the main imported product (56% of tonnage), but container traffic is growing and an increase in handling capacity is planned.

However, Basel and the Rhine play a lesser role in the country's foreign trade than they used to. In 1960, 33% of Switzerland's international trade passed along the Rhine. Currently, the river carries around 5 million tonnes of external traffic, compared with 27 million tonnes by rail and 10 million tonnes by road. The results of Swiss transport policy can be recognised in terms of the modal split for freight.

A new 2023-2027 Maritime Strategy replaces the 1941 Act, which was abandoned following financial scandals. This strategy re-establishes a Swiss flag that "will promote Switzerland's values around the world (reliability, sustainability and efficiency), along with the country's image [...] without representing an additional financial burden for the Confederation (costs will be covered by fees)".



Container traffic at the Port of Basel, unloading and loading, 1990-2023

Source : Port of Switzerland: « Container Umschlag 2023 », Jahresstatistik der Sweizerischen Rheinhafen, 2023.

In fact, Swiss companies act more as charterers than shipowners, even though the headquarters of MSC, the world's leading container shipping company, which also operates in the cruise and logistics sectors, are located in Switzerland (although the company's capital is Italian). It is estimated that around 3600 ocean-going vessels are controlled by Swiss companies, including 2200 by commodity traders and 1400 by shipowners[17].

The case of Switzerland is a prime example of how a **landlocked country** has to take care to maintain its access to the sea and the trade that it carries. ■

17. - Source : **publiceye.ch**