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A tool to analyse SSS in Spain

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Introduction

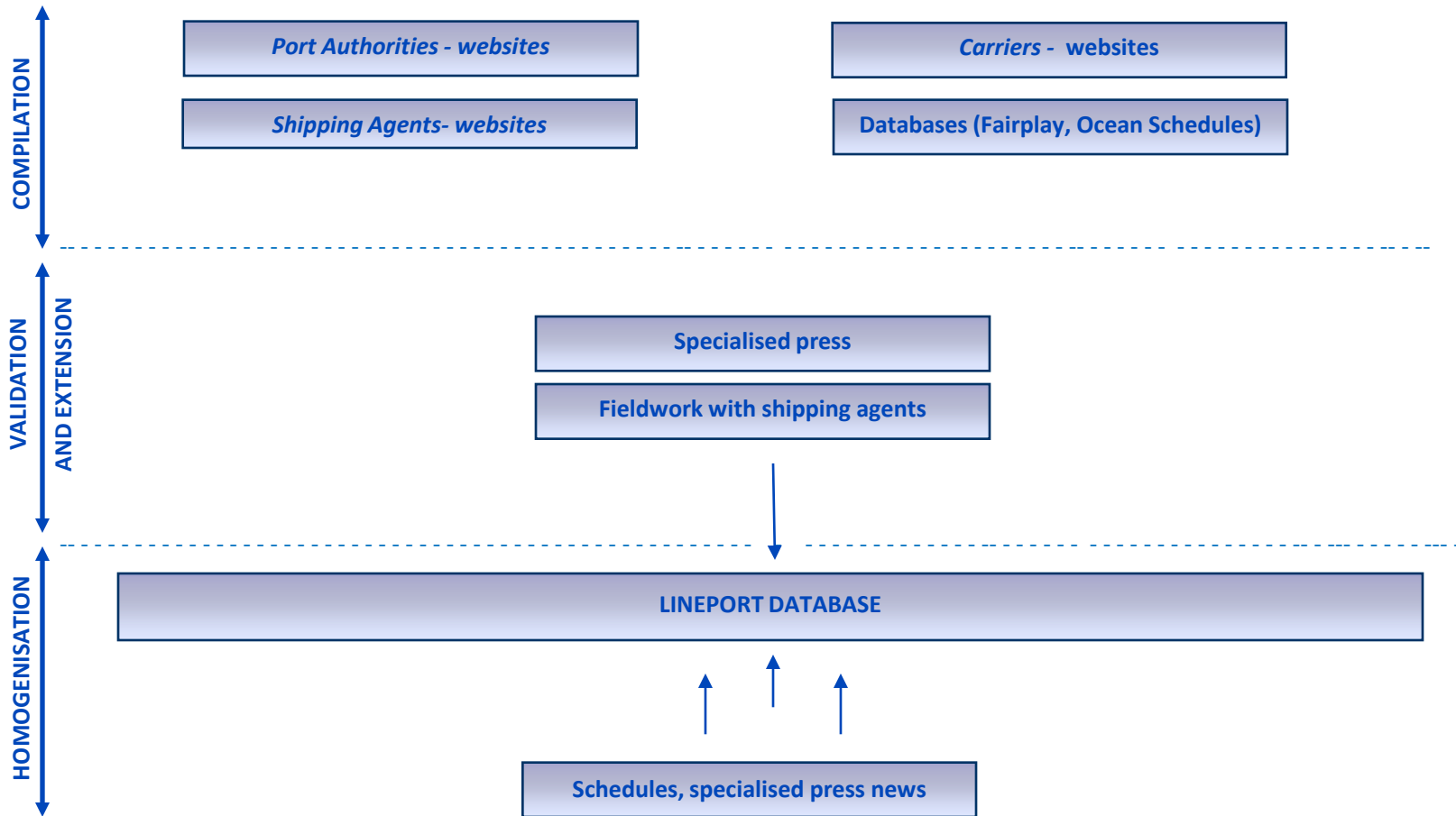
- ✓ Sources of information currently available on the supply of SSS services suffer from two major limitations:

- ➔ **Lack of a homogeneous and reliable source**

- ➔ **Information about specific characteristics of services is not available**

- ✓ The LinePort database endeavours to offset these limitations by providing homogeneous, detailed and consistent information, from a methodological perspective, on the SSS services offered at Spanish ports.
- ✓ LinePort constitutes an essential tool to study SSS as it compiles, validates and homogenises the information supplied by different agents

LinePort Database - Methodology



LinePort Database - Description

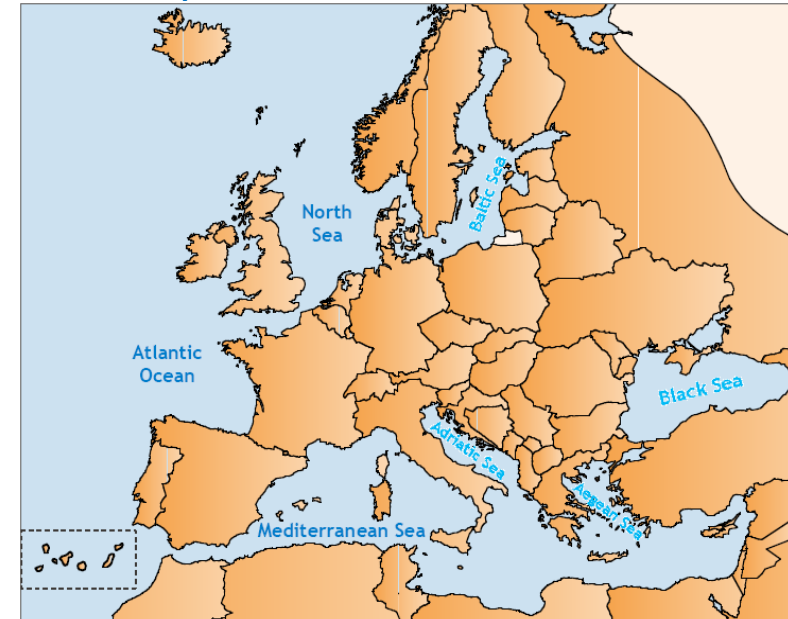
The LinePort database compiles detailed information of the short-sea shipping (SSS) lines offering services between Spanish ports and ports in the European Union or in third countries with a shore on the Adriatic, Baltic, Aegean, Mediterranean, Black or North Sea.

❖ Ports studied

Spanish ports



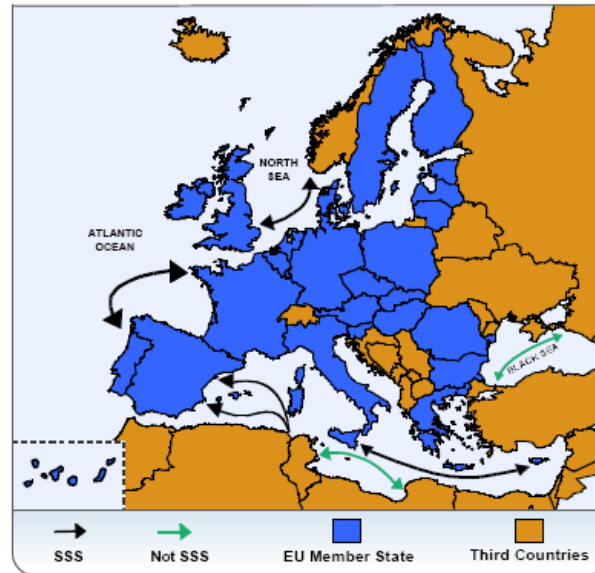
Destination ports



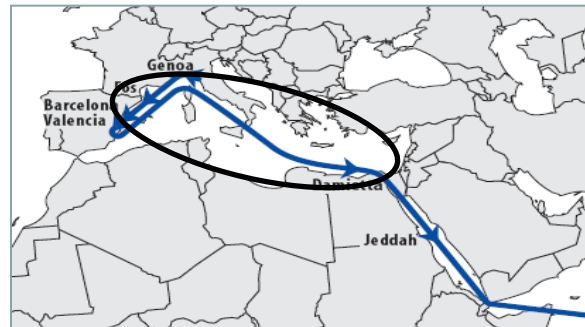
The ports included in the LinePort database are located in geographical Europe or in non-European countries having a coastline on the enclosed seas bordering Europe

❖ Classification of lines

➤ **SSS:** Commodity and passenger transport services by sea between ports in geographical Europe or between those countries and others situated in non European countries having a coastline on the enclosed seas bordering Europe - in keeping with the definition of SSS by the European Short Sea Network (ESN)



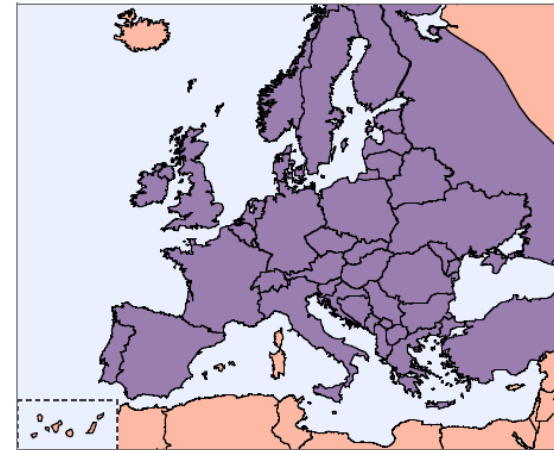
➤ **Interoceanic:** Interoceanic maritime transport services that accept freight bound for destination countries studied by the LinePort database.



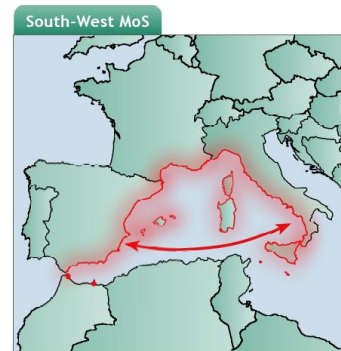
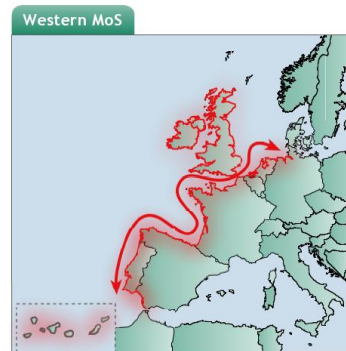
❖ Classification of lines

➤ SSS

✓ **SSS competitive with road haulage:** this category includes maritime container or ro-ro services that we believe represent an alternative to overland transport. The traffic between Spain and countries or islands not accessible over land (except Ireland) have therefore been excluded from this classification, along with bulk and vehicle freight and interoceanic services, as they are considered to have a series of logistical features that make road transport unfeasible or uncompetitive and can consequently be considered, to a certain extent, a captive market of maritime transport.



- ✓ **Motorways of the Sea:** The criteria used to select the MoS services are as follows:
- **Minimum frequency: 3 departures per week**
 - **Maximum number of calls: 3**



❖ Variables



- ✓ Line name
- ✓ Route
- ✓ Type of line (ro-ro, container, car-carrier, etc.)
- ✓ Type of service (intercontinental, SSS, competitive with road haulage, MoS)
- ✓ Frequency
- ✓ No. of calls
- ✓ Transit time



- ✓ Origin port
- ✓ Destination port
- ✓ Departure date
- ✓ Arrival date
- ✓ Distance



- ✓ Vessel name
- ✓ Vessel type
- ✓ Speed
- ✓ GT
- ✓ Capacity in TEUs
- ✓ Capacity in lane metres
- ✓ Capacity in swap bodies
- ✓ Construction year
- ✓ Vessel age
- ✓ Dimensions

LinePort Potential Outputs

- ✓ Overview of the supply of SSS services in Spain
- ✓ Comparison of SSS services: Atlantic façade vs. Mediterranean façade services
- ✓ Analysis of the characteristics of the SSS services in each of the ports under study
- ✓ Indices of maritime connectivity
- ✓ Evolution of deployed SSS vessels
- ✓ Indicators of the supply of SSS services in Spain



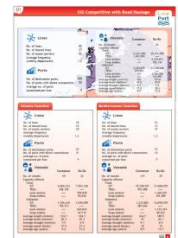
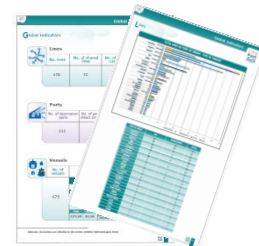
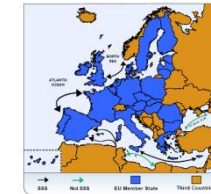
LinePort Newsletter



LinePort Newsletter

❖ Sections

- **Article concerning a current topic**
- **Global indicators:** provides information on the supply of maritime transport services included in the definition of SSS by the *European Sea Network (ESN)*.
- **SSS services competitive with road haulage indicators:** includes maritime container or ro-ro services that compete or represent an alternative to road transport.
- **Indicators referring to MoS services:** provides information on the characteristics of SSS services competitive with road haulage using the MoS corridors of the Trans-European Transport Network in which Spain is present: the Western Europe and South-west Europe.
- **Research article on a specific market**
- **News concerning the lines in the database**



❖ Indicators



- ✓ Total no. of lines
- ✓ No. of shared lines
- ✓ No. of ocean carriers
- ✓ Average frequency
- ✓ Total lines by port of origin, type of freight and destination



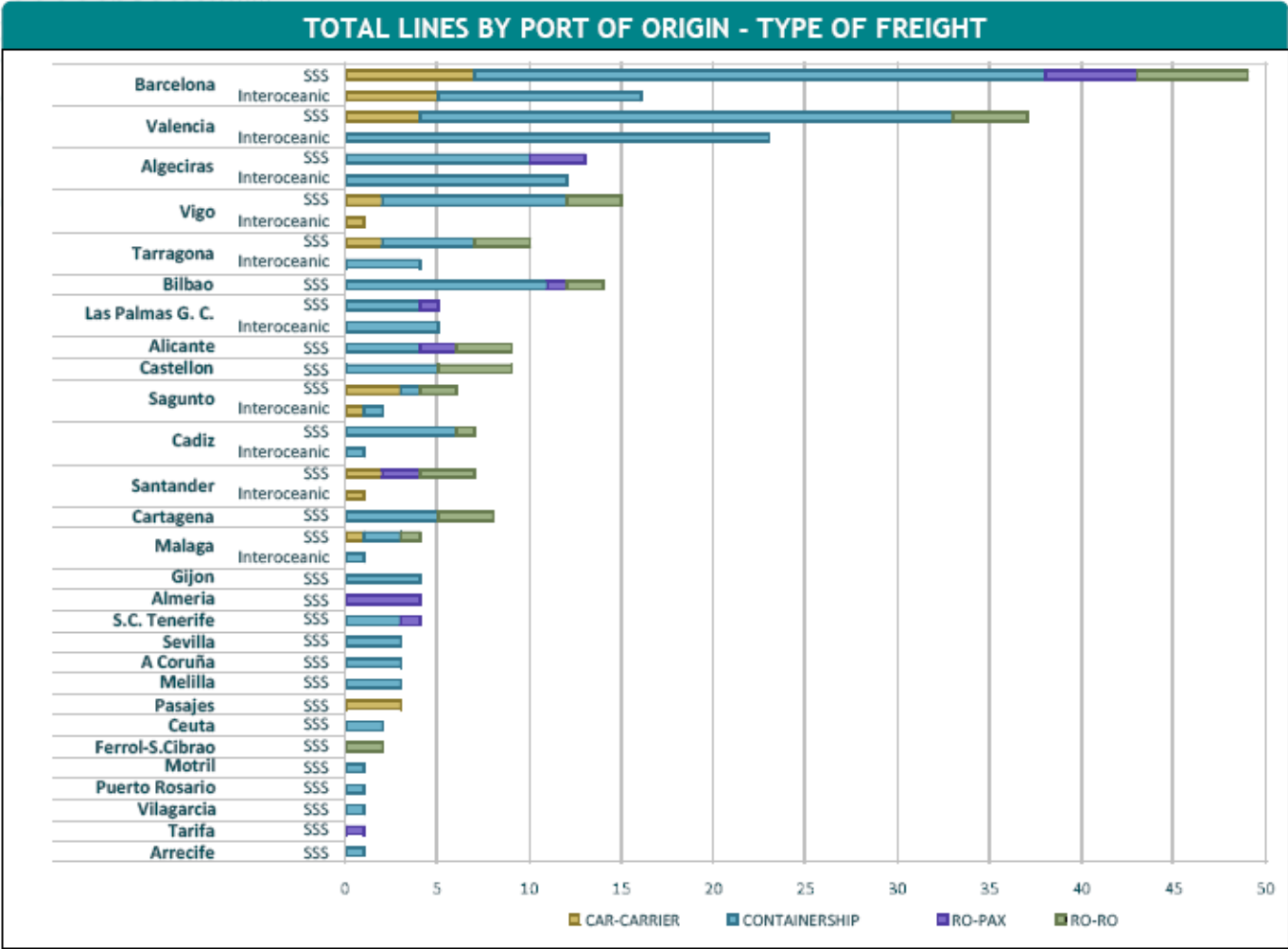
- ✓ No. of destination ports
- ✓ No. of ports with a direct connection
- ✓ Average no. of ports connected per line



- ✓ No. of vessels
- ✓ Average speed
- ✓ Effective speed
- ✓ Total and adjusted capacity
- ✓ Capacity offered by port
- ✓ Dimensions of the vessels
- ✓ Average age

❖ Examples of data provided

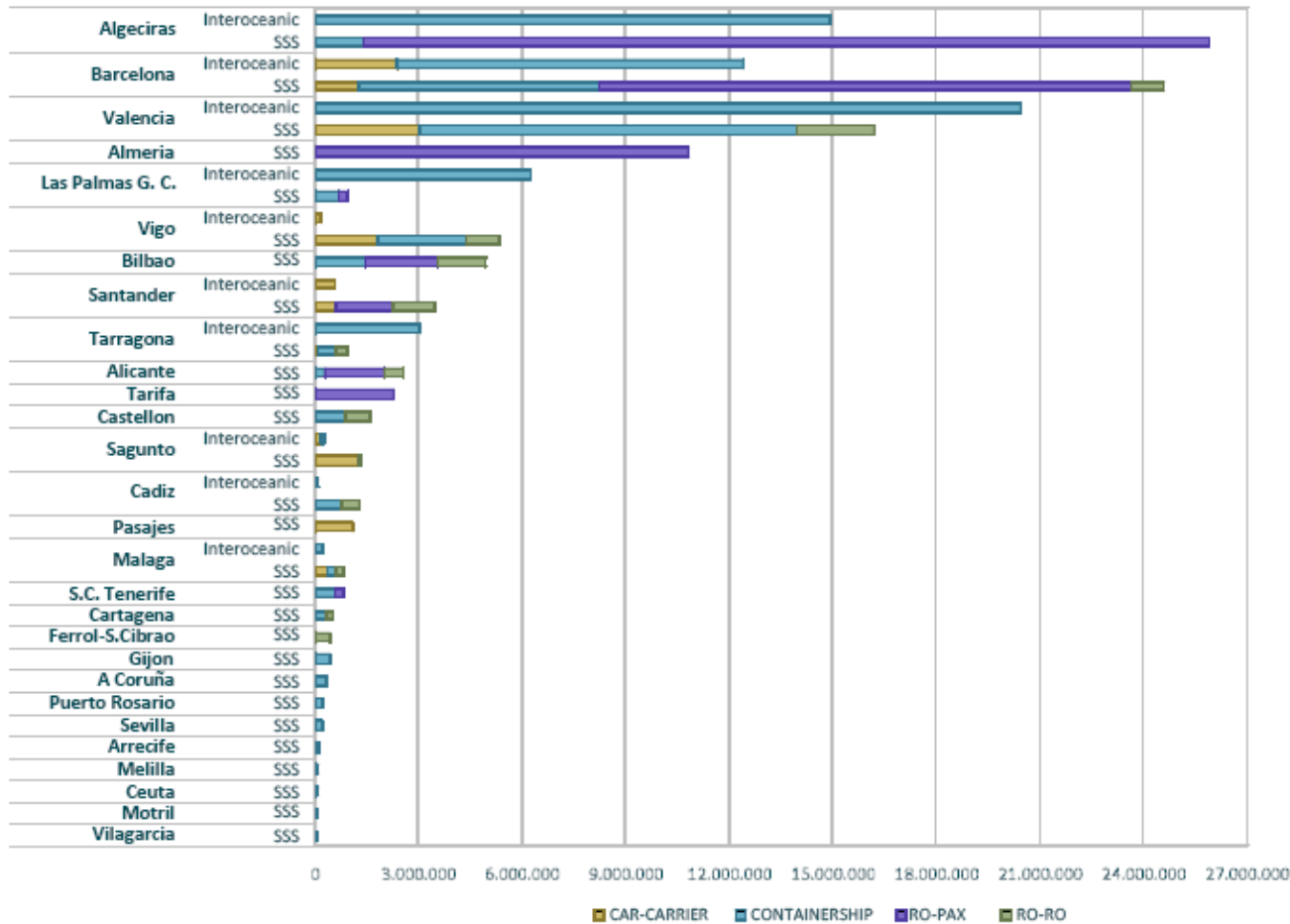
➤ Global indicators



Total number of operative lines during the sample period broken down into Spanish load ports, grouped according to type of line (SSS or interoceanic) and the type of freight defined previously.

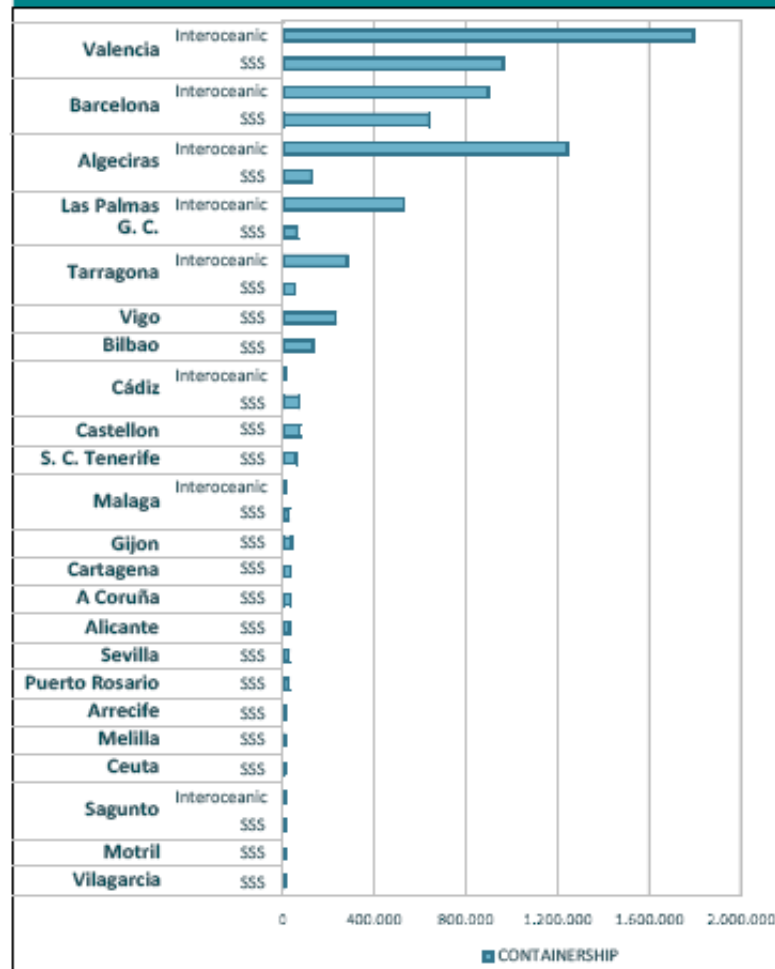
The aggregate of this classification differs from Total Lines as one same line is accounted for in all the Spanish ports it calls at where goods can be loaded.

TOTAL CAPACITY OFFERED BY PORT OF ORIGIN - TYPE OF FREIGHT - GT

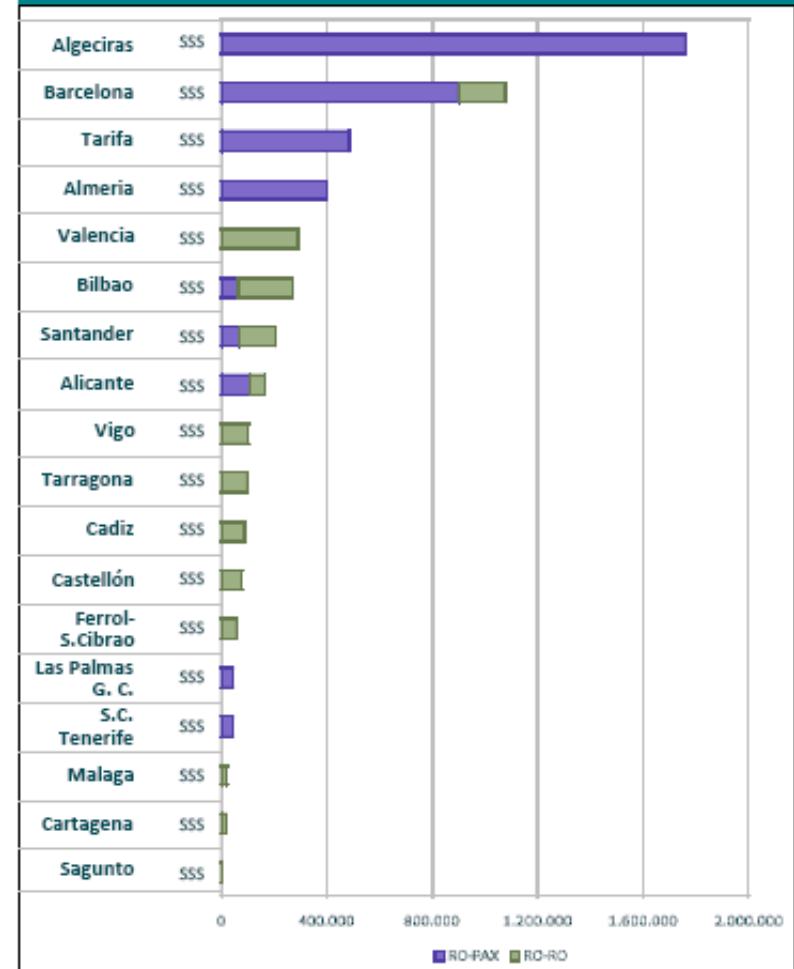


Capacity calculated bearing in mind the frequency of the line and the characteristics of the vessels deployed on the route.

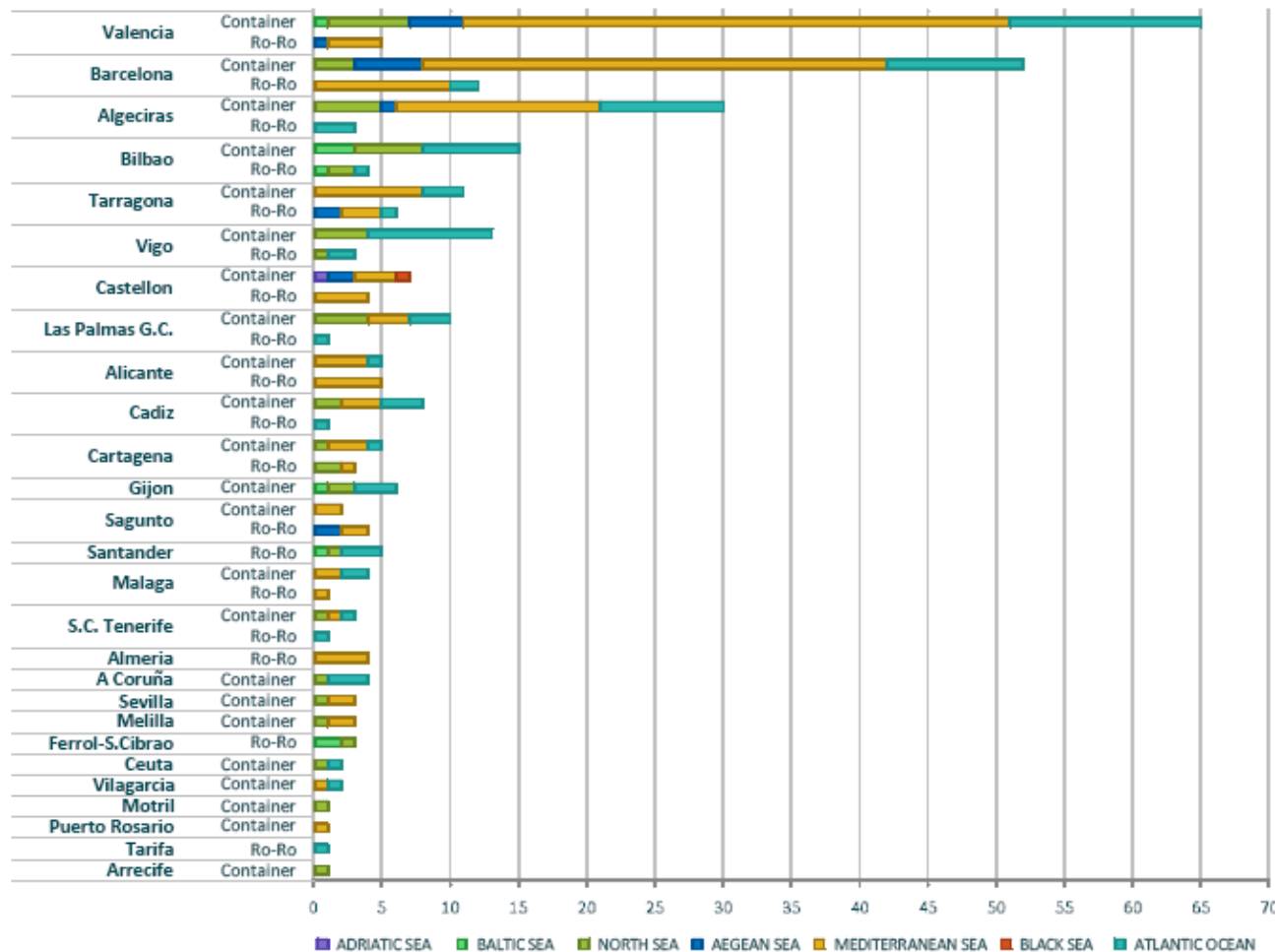
TOTAL CAPACITY OFFERED IN TEUs - CONTAINER



TOTAL CAPACITY OFFERED IN LANE METRES - RO-RO



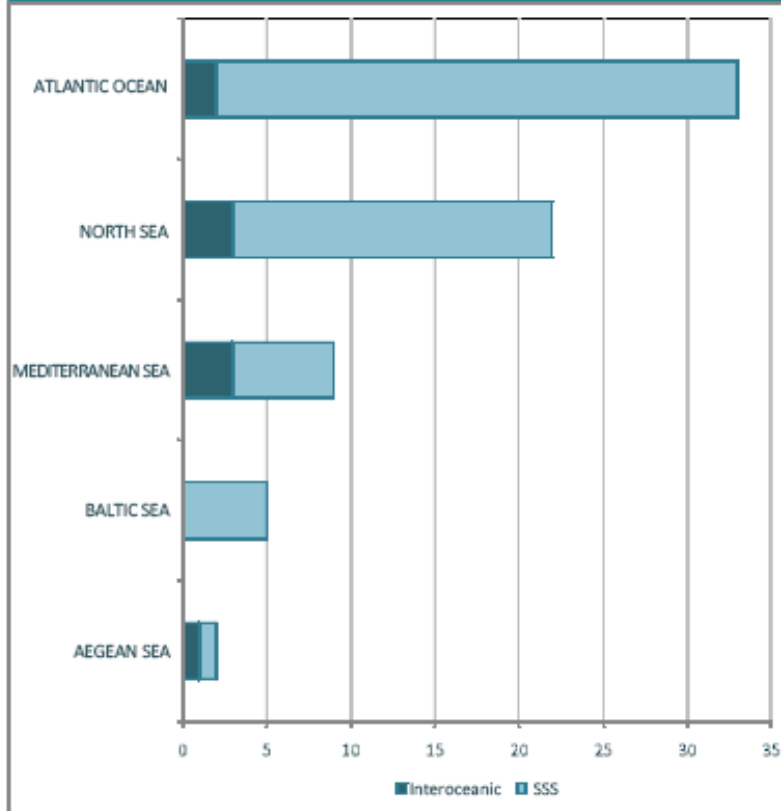
TOTAL LINES BY PORT OF ORIGIN - TYPE OF FREIGHT - DESTINATION ZONE



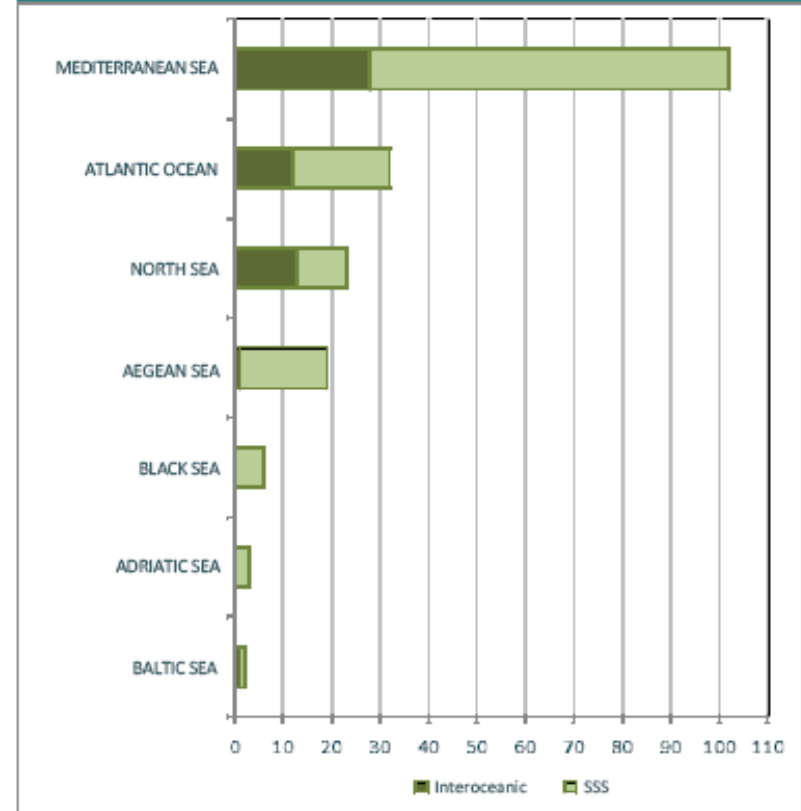
Total number of operative lines in the sample period considered for each Spanish load port, grouped according to type of freight and destination zone.

The referred graph indicates that the top-ranked port of origin will be connected with the highest number of destination zones. This does not mean the port in question offers the largest number of maritime connections.

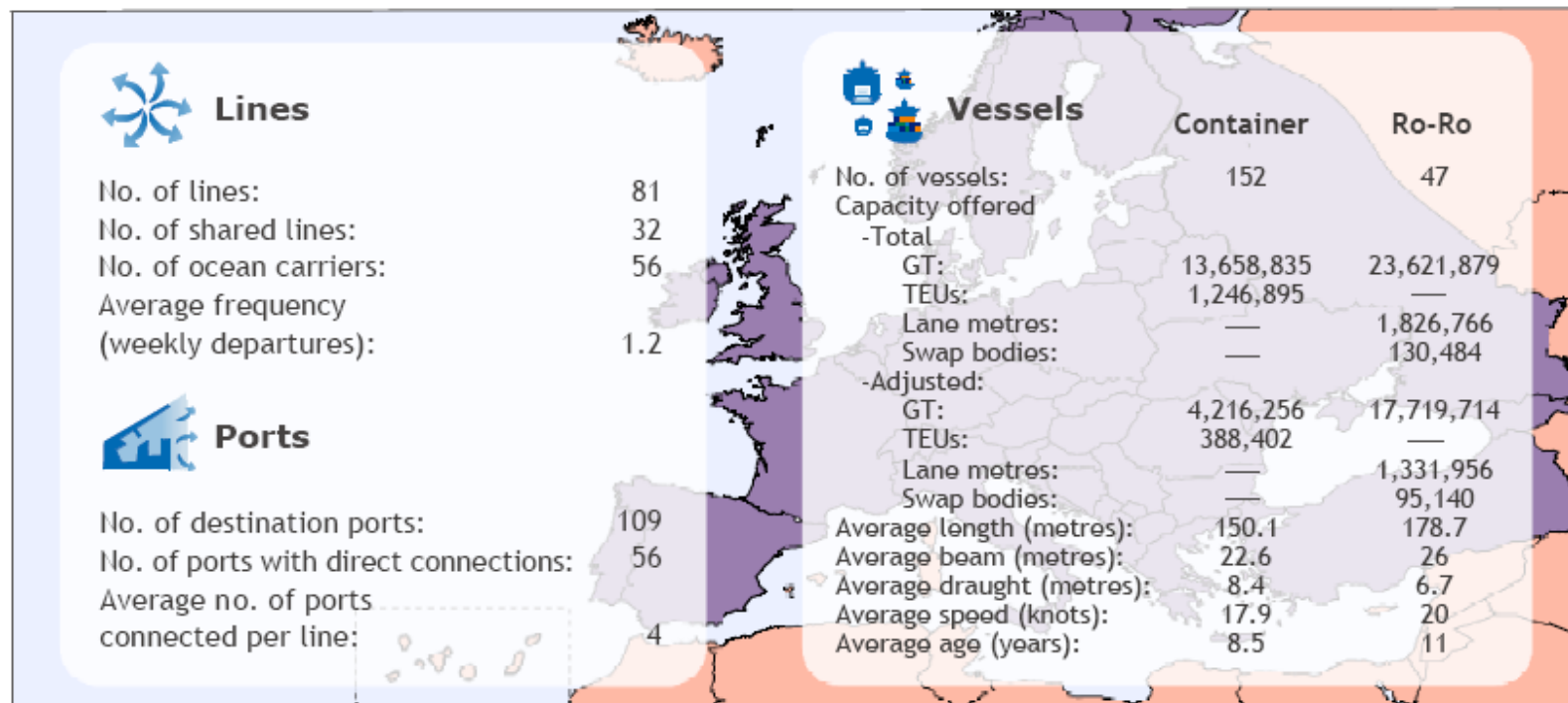
LINES BY DESTINATION ZONE - ATLANTIC COASTLINE ORIGIN



LINES BY DESTINATION ZONE - MEDITERRANEAN COASTLINE ORIGIN



➤ SSS Competitive with Road Haulage



Adjusted capacity:

- SSS Lines: the adjustment factor is calculated on the basis of the Spanish ports that intervene on the route of the vessel for a given maritime connection and the total number of calls.

$$\text{Adjusted SSS capacity} = \text{Total capacity} * (\text{No. of Spanish ports} / \text{Total no. of calls})$$

- Intercontinental lines: the correction factor stems from the hypothesis that only 10% of freight will be bound for the ports studied by LinePort.

$$\text{Adjusted INTERCONTINENTAL capacity} = [\text{Total capacity} * (\text{No. of Spanish ports} / \text{Total no. of calls})] * 0.1$$

Atlantic Coastline



Lines

No. of lines:	36
No. of shared lines:	18
No. of ocean carriers:	28
Average frequency (weekly departures):	1.2



Ports

No. of destination ports:	61
No. of ports with direct connections:	36
Average no. of ports connected per line:	4



Vessels

	Container	Ro-Ro
No. of vessels:	57	21
Capacity offered		
-Total		
GT:	4,264,267	7,196,314
TEUs:	395,353	—
Lane metres:	—	570,774
Swap bodies:	—	40,770
-Adjusted:		
GT:	1,662,836	6,765,887
TEUs:	154,668	—
Lane metres:	—	509,101
Swap bodies:	—	36,364
Average length (metres):	133.9	159.8
Average beam (metres):	20.8	24.7
Average draught (metres):	7.6	6.8
Average speed (knots):	17.4	21.2
Average age (years):	8.3	13.1

Mediterranean Coastline



Lines

No. of lines:	53
No. of shared lines:	20
No. of ocean carriers:	40
Average frequency (weekly departures):	1.2



Ports

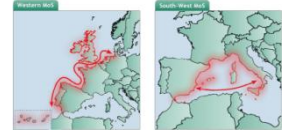
No. of destination ports:	80
No. of ports with direct connections:	39
Average no. of ports connected per line:	5



Vessels

	Container	Ro-Ro
No. of vessels:	117	29
Capacity offered		
-Total		
GT:	10,316,069	16,425,565
TEUs:	937,965	—
Lane metres:	—	1,225,992
Swap bodies:	—	89,714
-Adjusted:		
GT:	3,056,582	10,953,827
TEUs:	280,974	—
Lane metres:	—	822,855
Swap bodies:	—	58,775
Average length (metres):	160	192.7
Average beam (metres):	23.7	26.9
Average draught (metres):	9	6.7
Average speed (knots):	18.1	19.2
Average age (years):	9	9.4

➤ Motorways of the Sea



Route	Traffic	Frequency	Transit Time	No. Vessels
Barcelona-Génova	Ro-Pax	3 x semana	18h	2
Barcelona-Livorno	Ro-Pax	3 x semana	18h	1
Barcelona-Porto Torres-Civitavecchia	Ro-Pax	3 x semana	12h/19h	2
Bilbao-Zeebrugge	Ro-Ro	5 x semana	40h	3
Valencia-Cagliari-Salerno	Ro-Ro	3 x semana	24h/44h	2

Route	GT	Lane metres	Swap bodies Cap.	TEUS Cap.	Passenger Cap.
Barcelona-Génova	35.761	1.911	309	-	1.714
Barcelona-Livorno	26.400	2.200	172	-	967
Barcelona-Porto Torres-Civitavecchia	54.918	3.050	187	-	2.140
Bilbao-Zeebrugge	10.476	1.623	120	303	12
Valencia-Cagliari-Salerno	26.869	2.883	204	933	20

Route	Year built	Speed (knots)	Length (metres)	Beam (metres)	Draught (metres)
Barcelona-Génova	1.996	23,4	194	27	6,7
Barcelona-Livorno	2.004	24,0	186	26	6,5
Barcelona-Porto Torres-Civitavecchia	2.008	26,9	225	30	7,0
Bilbao-Zeebrugge	1.999	20,6	153	21	7,0
Valencia-Cagliari-Salerno	1.998	20,0	191	26	7,1

Conclusions

✓ LinePort provides:

- ✓ Homogeneous information on SSS services at Spanish ports
- ✓ Detailed information on the characteristics of SSS services
- ✓ Historical information



Giving greater insight into the current situation of SSS in Spain and its limitations and possibilities in intra-European freight transport.

✓ LinePort will be useful for:

- Policy-makers: these services will allow them to assess the relative effectiveness of the different measures set in motion.
- Transport researchers and specialised media: providing them with quick and systemised information about an essential aspect of freight transport that did not exist until now.
- Port authorities: allowing them to obtain detailed information on the SSS services on offer at other ports and the characteristic trends of their respective fields of activity.
- Ocean carriers: the detail of the data provided by LinePort gives them a clear picture of the level of service supplied and helps them to identify new markets.



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Thank you for your attention!

Eva Pérez-García

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