Livorno
April, 18th 2018

Port investments and maritime connectivity: The role of Italy for the Mediterranean region

6th MED PORTS 2018

Prof. Francesco Parola & Giovanni Satta
University of Genoa

Outline

- Trends in shipping and ports: implications for Europe
- North-South competition
- EU intermodal corridors
- Some potential game changers

Outline

- **<u>Trends in shipping and ports: implications for Europe</u>**
- North-South competition
- EU intermodal corridors
- Some potential game changers

Trends in shipping and ports

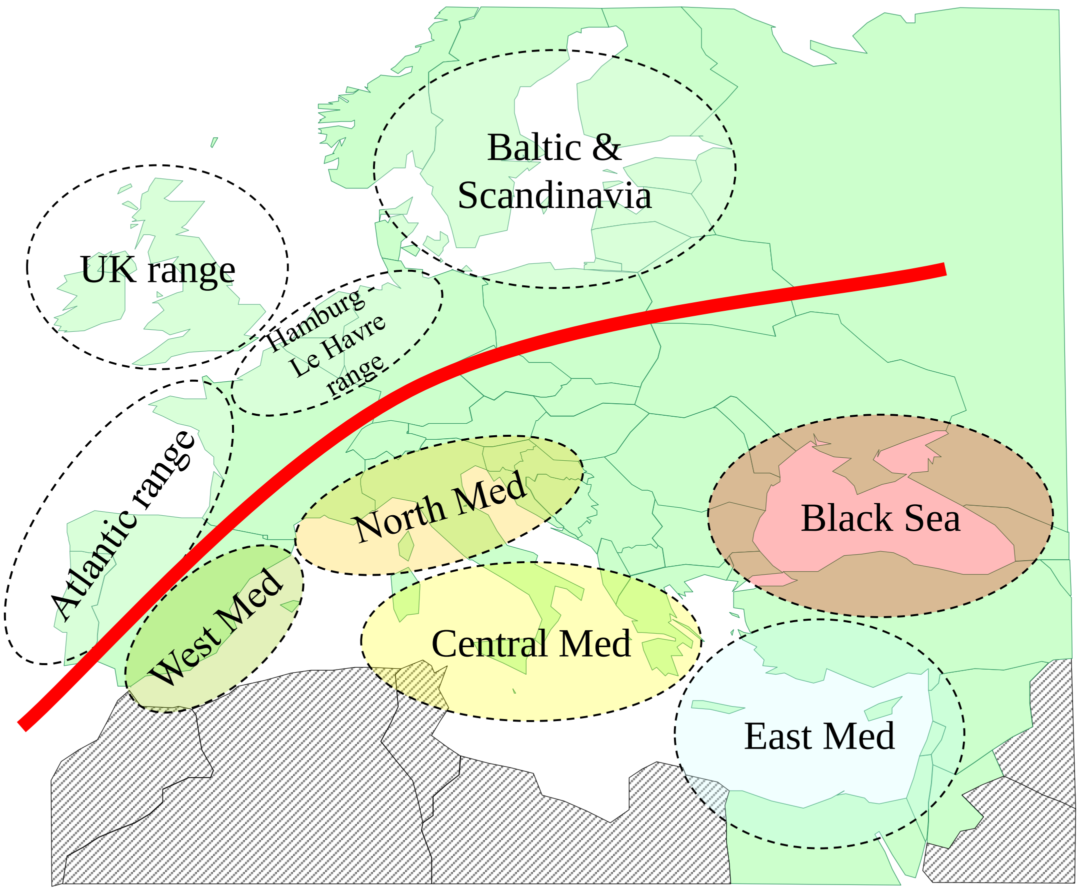
LINER SHIPPING

- Cost leadership and **«loop»** investments/freight rates
- **Mega-vessels**, imposing various forms of **risk**
- Restructuring of **shipping services** (-15% services Far East-Europe from 2015, rise of transhipment in the Med)

PORTS

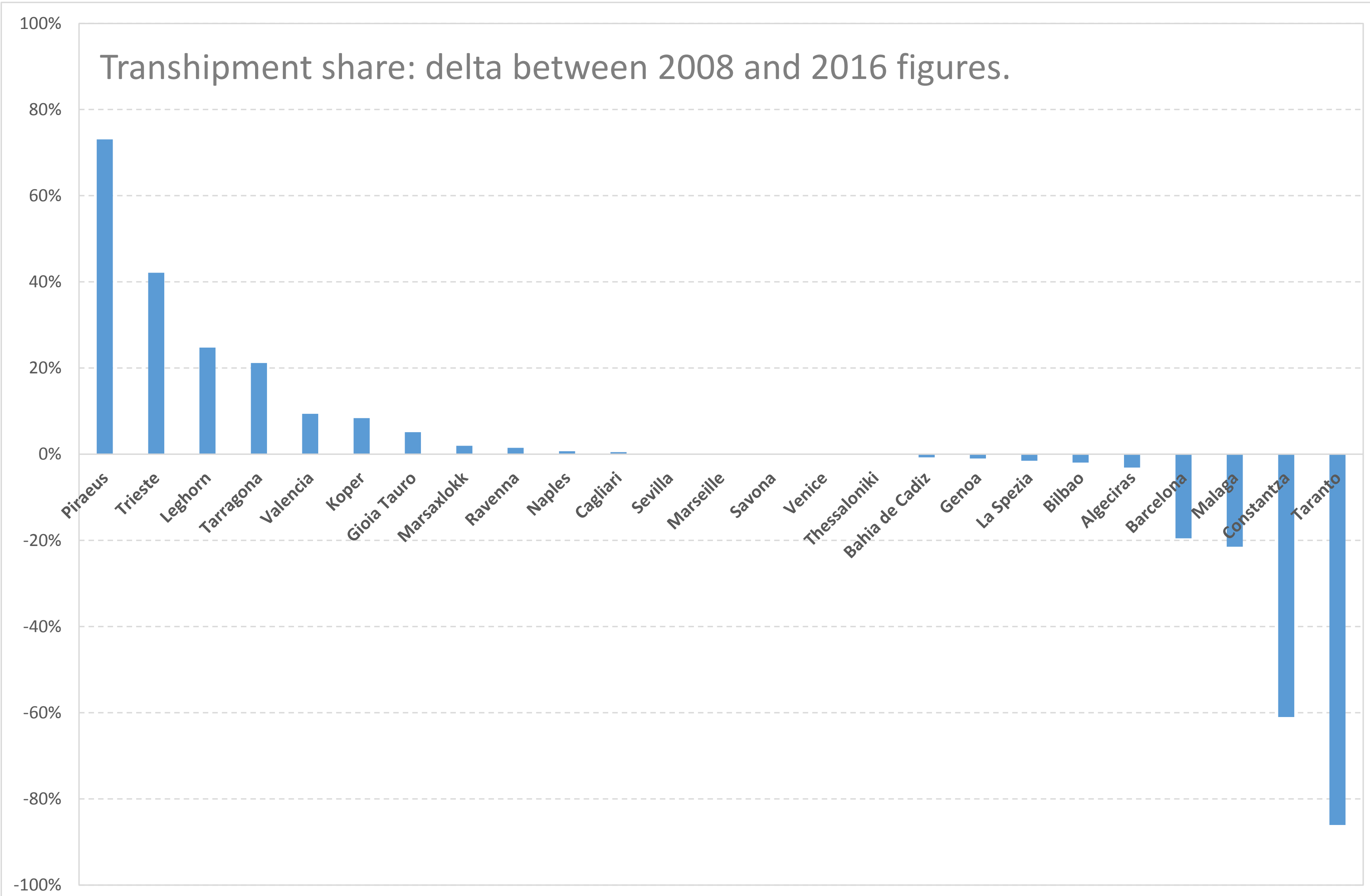
- **Inter-firm co-operation** and **vertical integration**
- Diffusion of **technological** (EDI, RFID, IoT, OPS, etc.) and **process innovations** (automation)
- Port **internazionalization** and **financialization**.

The main port ranges in Europe



- Economic development
- Political stability
- Gateway/transhipment mix
- Centrality to inland markets
- Port infrastructures
- Hinterland transportation
- Port governance models
- Openness to multinationals

Transhipment share in gateways and hubs



Source: own elaboration from PA websites, Annual Reports, specialized press, etc.

Outline

- Trends in shipping and ports: implications for Europe
- **<u>North-South competition</u>**
- EU intermodal corridors
- Some potential game changers

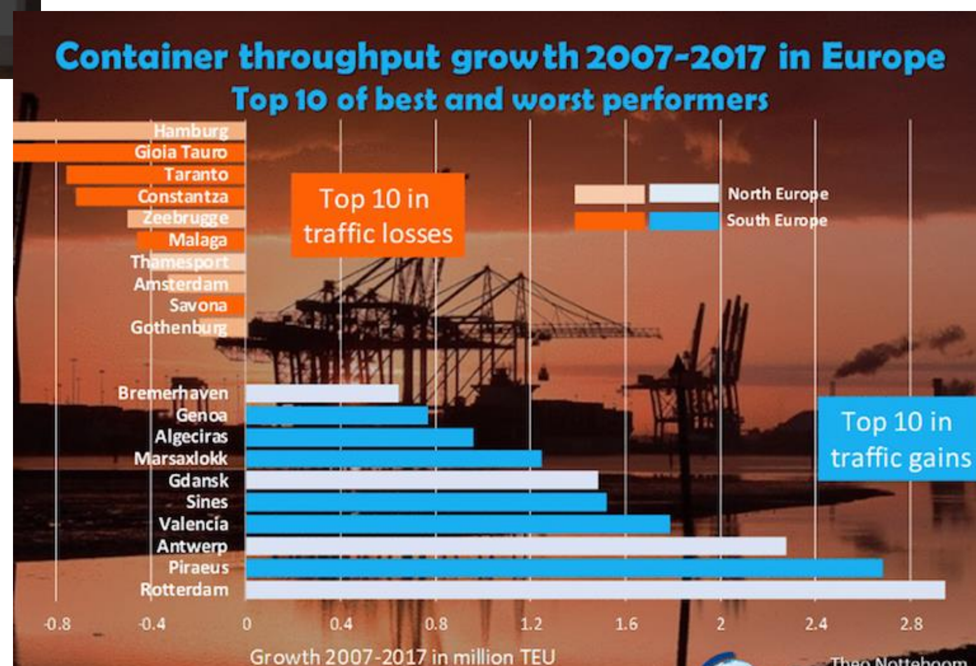
Top 15 container ports in Europe

Top 15 container ports in Europe in 2017

Total container throughput in 1000 TEU

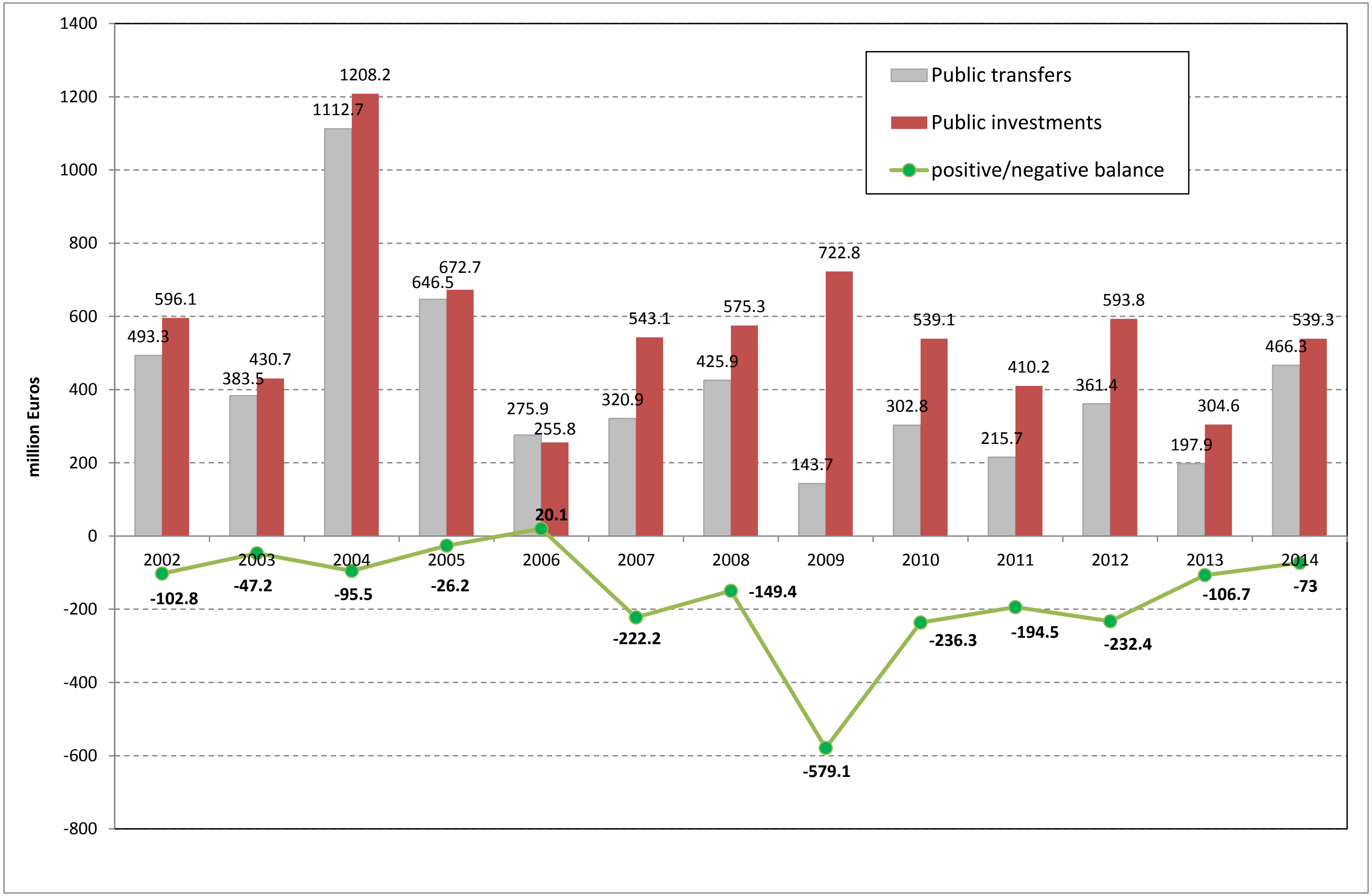
Rank 2017	Rank 2016	Rank 2007	Port	Note	2017 1000 TEU	Growth 2016/2017	Growth 2007/2017
1	1	1	Rotterdam (NL)		13,735	10.9%	27.3%
2	2	3	Antwerp (BE)		10,451	4.1%	27.8%
3	3	2	Hamburg (DE)		8,820	-1.0%	-10.8%
4	4	4	Bremerhaven (DE)		5,537	0.9%	13.2%
5	6	8	Valencia (ES)		4,832	2.1%	58.8%
6	5	6	Algeciras (ES)		4,381	-8.0%	28.1%
7	8	-	Piraeus (EL)		4,060	10.5%	195.7%
8	7	7	Felixstowe (UK)	Est. 9M	3,810	-5.1%	14.0%
9	9	12	Marsaxlokk (MT)		3,150	2.3%	65.8%
10	13	10	Barcelona (ES)		2,969	32.7%	13.7%
11	11	9	Le Havre (FR)		2,884	14.5%	9.3%
12	12	14	Genoa (IT)	Est 11M	2,638	14.8%	42.2%
13	10	5	Gioia Tauro (IT)		2,449	-12.4%	-28.9%
14	14	13	Southampton (UK)	Est. 9M	2,035	-0.1%	8.9%
15	15	-	Sines (PT)		1,669	10.3%	1012.7%
			TOP 15		73,419	4.2%	19.8%
			TOP 3		33,006	5.4%	14.4%

Theo Notteboom
February 2018
PortEconomics

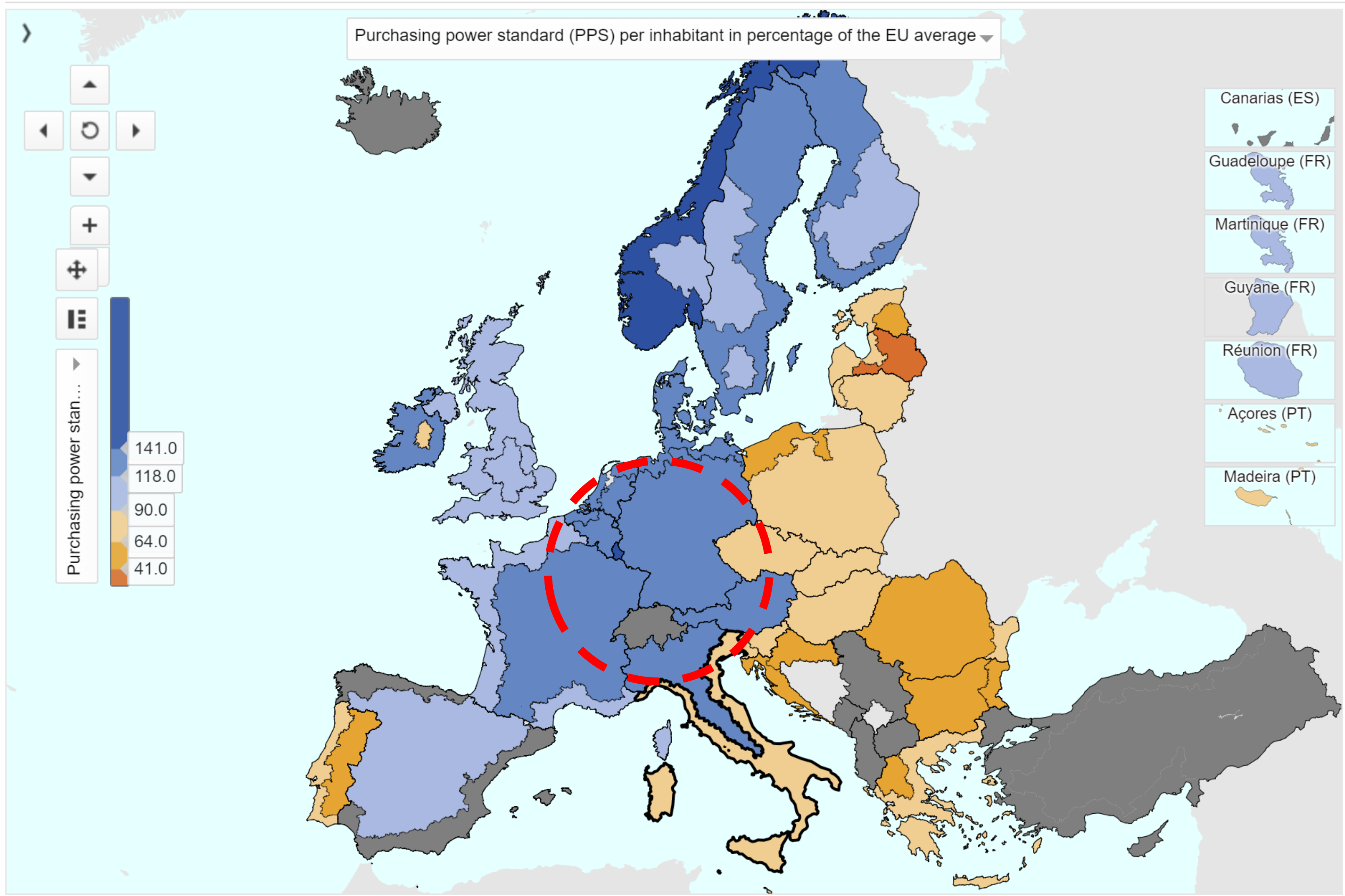


Source: Notteboom (2018), www.PortEconomics.eu

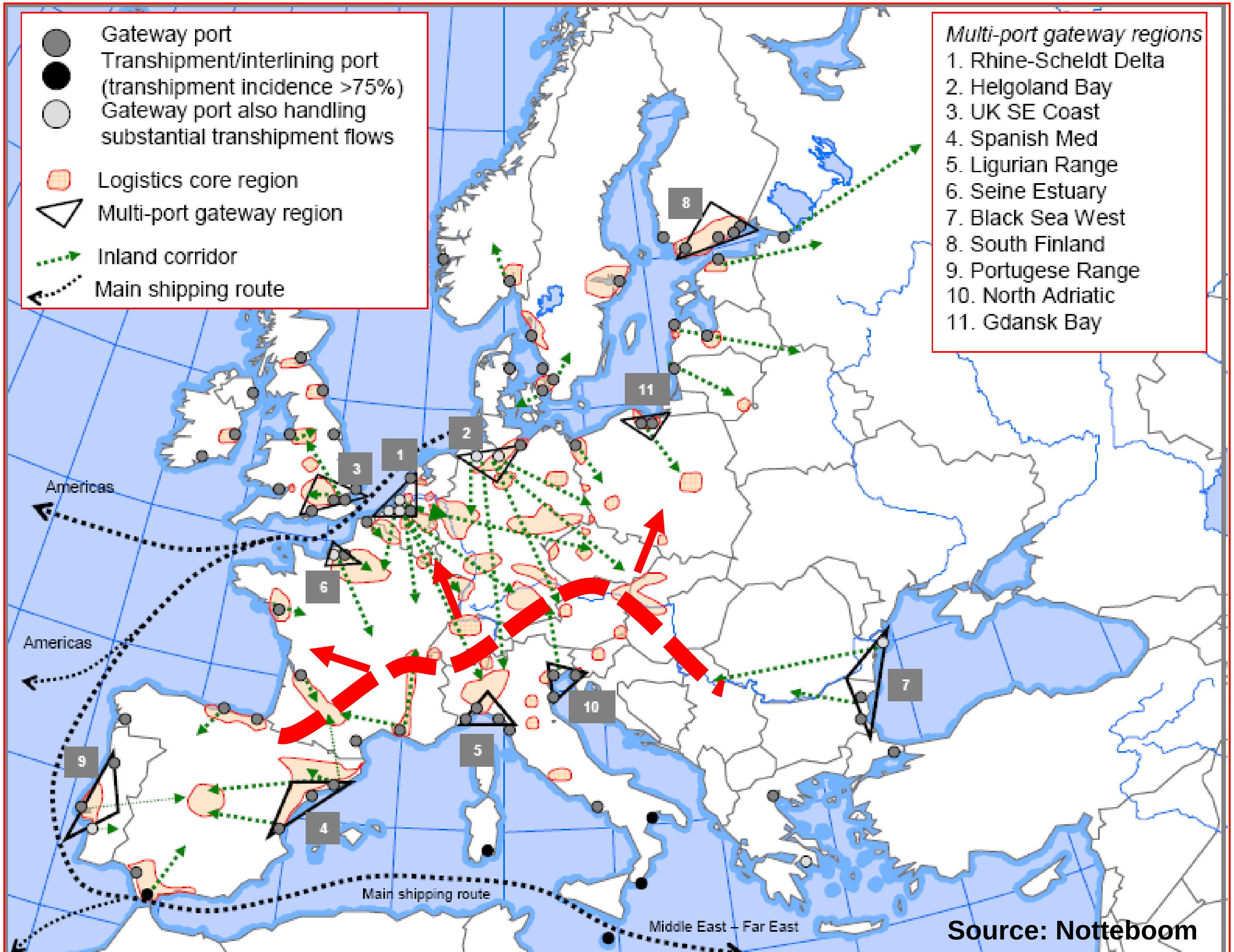
Public and private investments in container ports



Battle for serving the richest EU markets



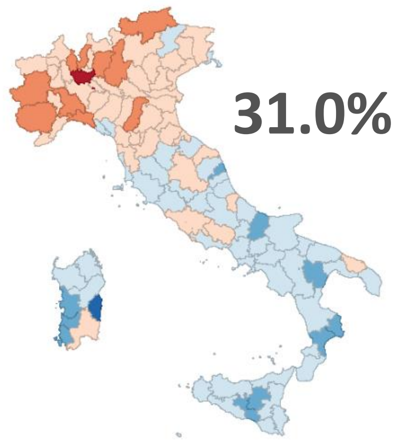
North-South intermodal divide



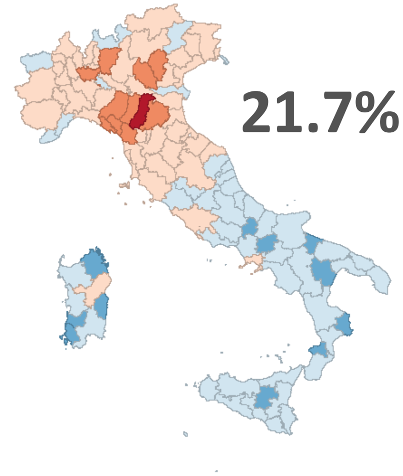
Source: Notteboom

The hinterlands of the main Italian ports

Mar Ligure Occidentale



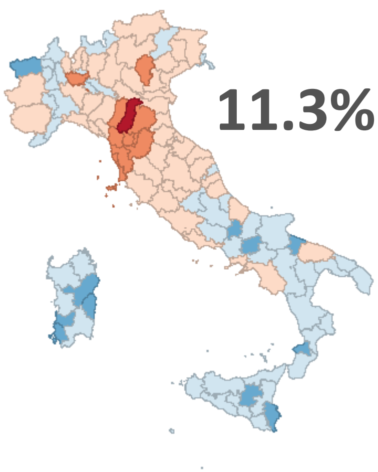
Mar Ligure Orientale



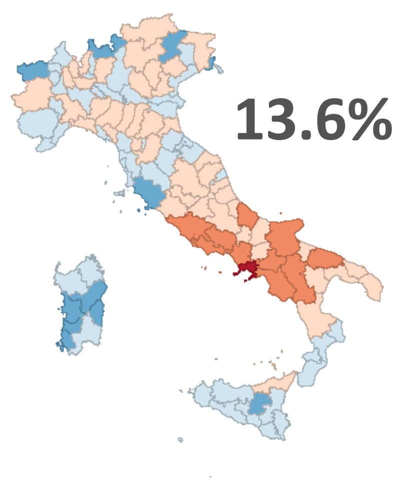
Percentiles

- < 1%
- 1% - 10%
- 10% - 50%
- 50% - 90%
- 90% - 99%
- > 99%

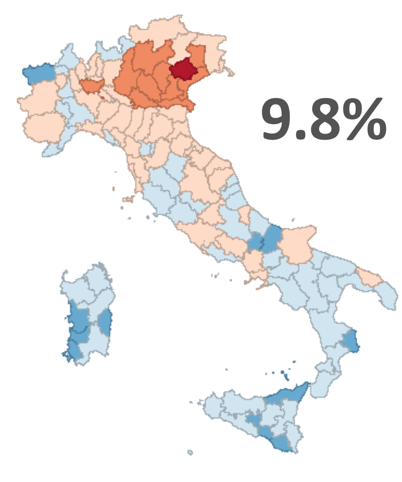
Mar Tirreno Settentrionale



Mar Tirreno Centrale



Mar Adriatico Settentrionale



Source: import/export container traffic (extra UE). Own elaboration from data provided by the Italian Customs Agency.

Are Med ports really “closer” to Asia ?

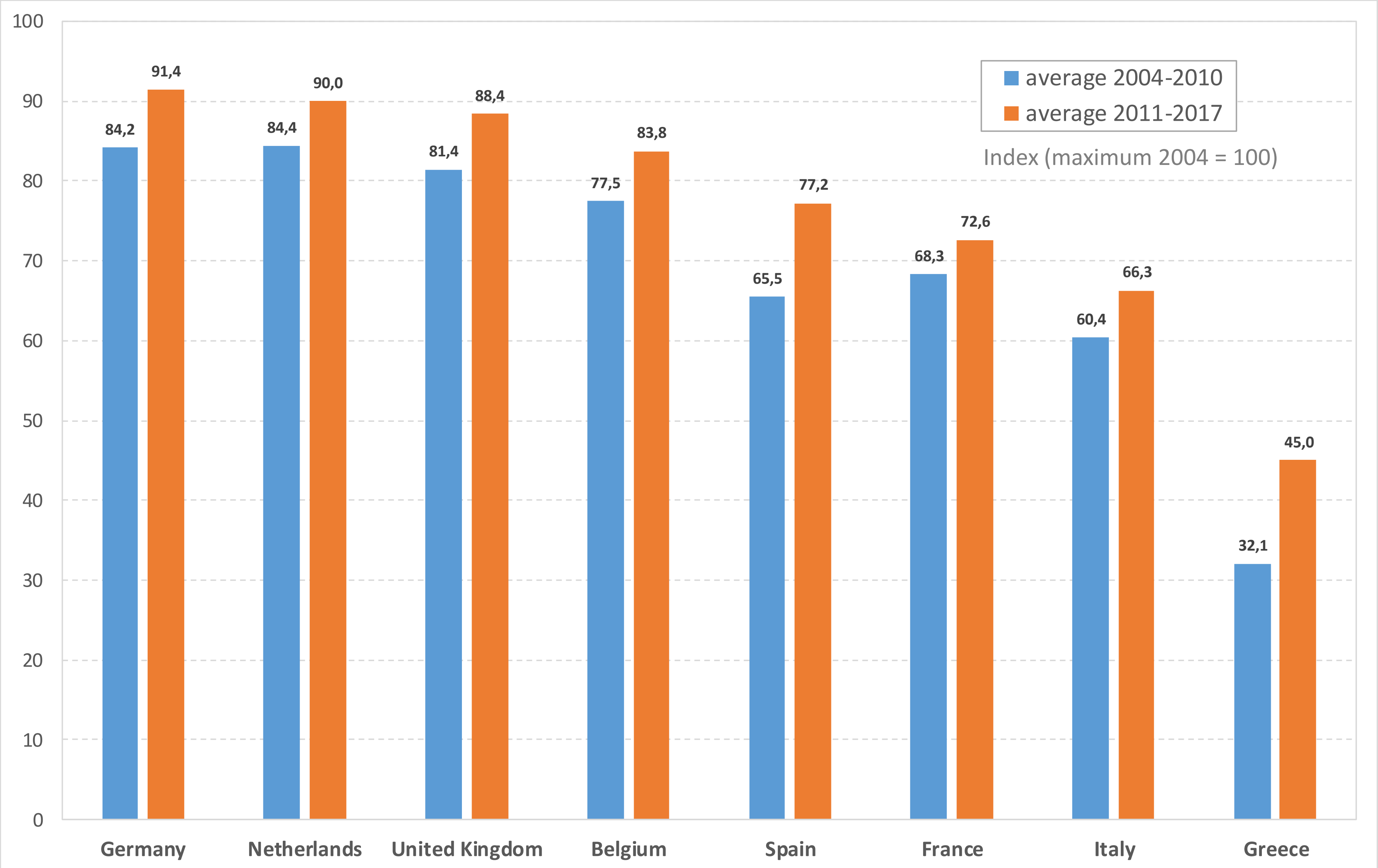
1

Cargo does not follow the shortest Euclidean distance

2

Cargo typically shows inertia in path changing

LSCI: trends in maritime connectivity

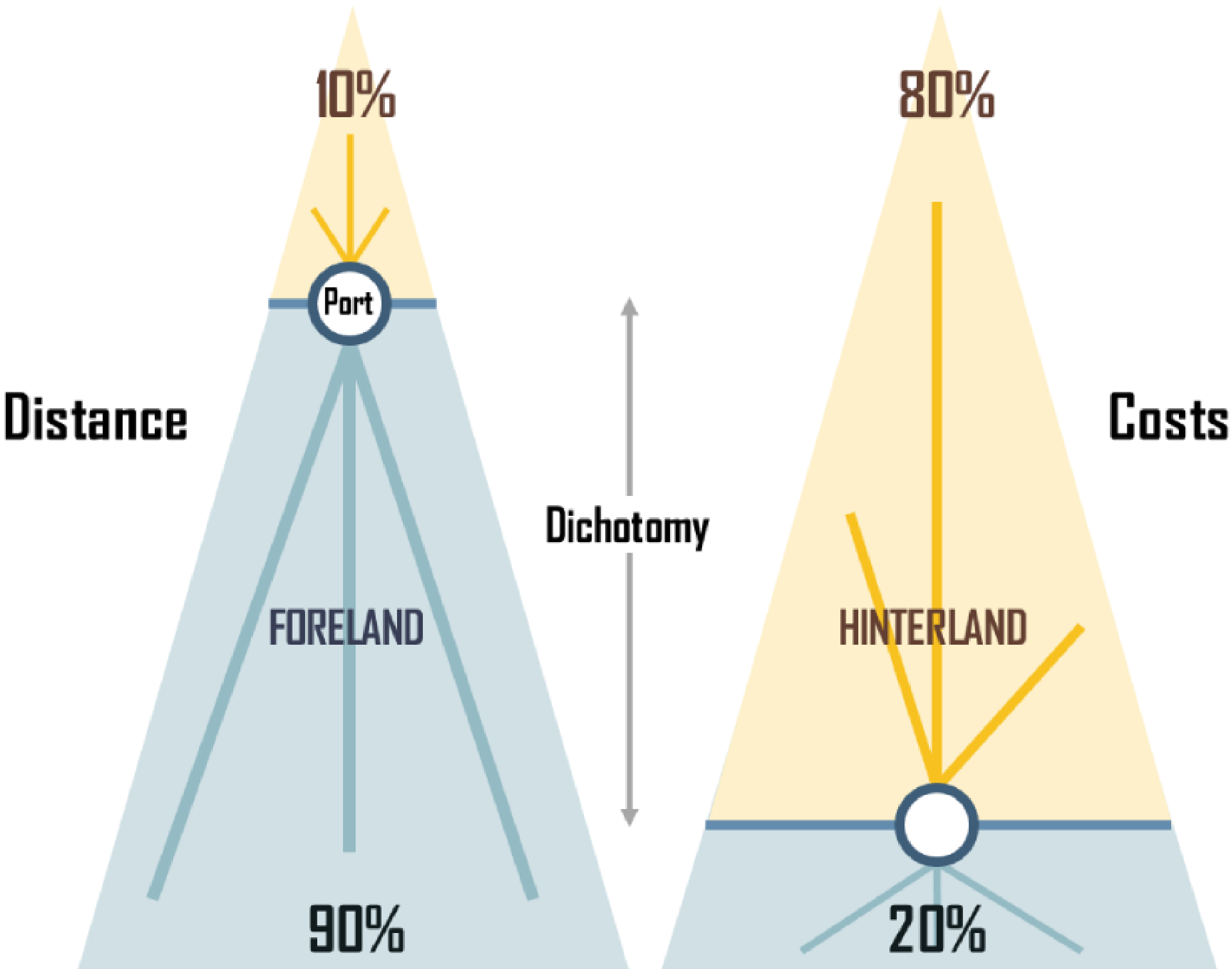


Source: own elaboration from UNCTAD.

Outline

- Trends in shipping and ports: implications for Europe
- <u>North-South competition</u>
- **<u>EU intermodal corridors</u>**
- Some potential game changers

Hinterland transportation is a bottleneck

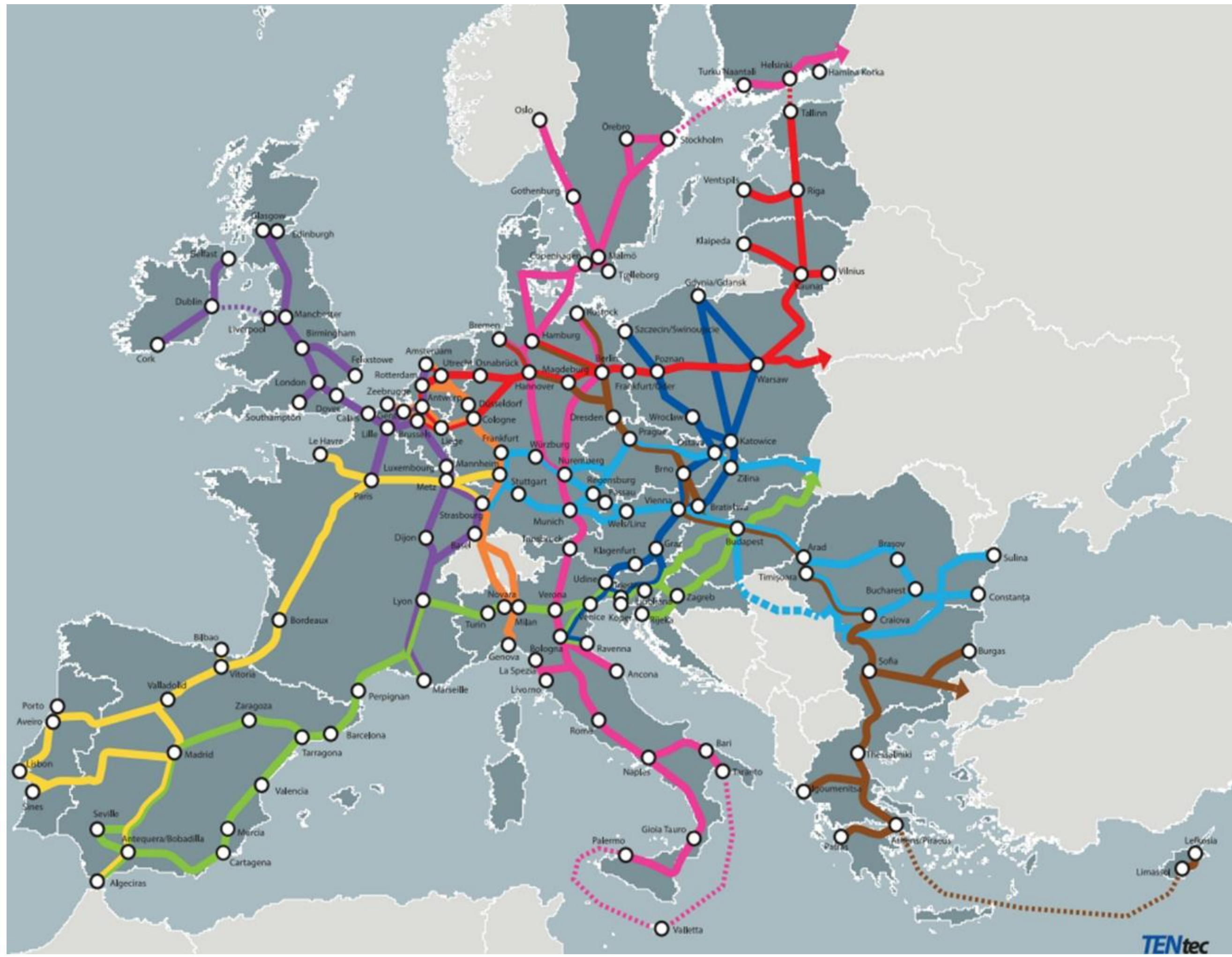


- High terminal costs
- Low-capacity trains
- Road congestion
- Insufficient capacity of infrastructures
- Customs clearance

Source: adapted from Jean-Paul Rodrigue website.

The EU North-South corridors

- Baltic Adriatic
- North Sea - Baltic
- Mediterranean
- Orient/East - Med
- Scandinavian - Mediterranean
- Rhine - Alpine
- Atlantic
- North Sea - Mediterranean
- Rhine - Danube



Genoa & the contestable markets abroad

1 **Switzerland**

2 **Baden Wurttemberg**

3 **Bavaria**

Degree of contestability	Low	Medium	High

Potential inland terminals

- Basel
- Ludwigshafen
- Singen
- Duisburg

Port of Trieste: Looking Northbound…

Italy
Padoa interport, Milano shunting, Bologna interport, Rubiera/Modena, Novara

Austria
Direct connection:
Villach Süd CCT, Wolfurt CCT, Graz Süd CCT, Salzburg Hbf CCT, Salzburg Hbf, Linz Stadhafen, Wien Fraudenau, Wels
Wien N.W. Banhof links to:
Praha, Brno, Rostock

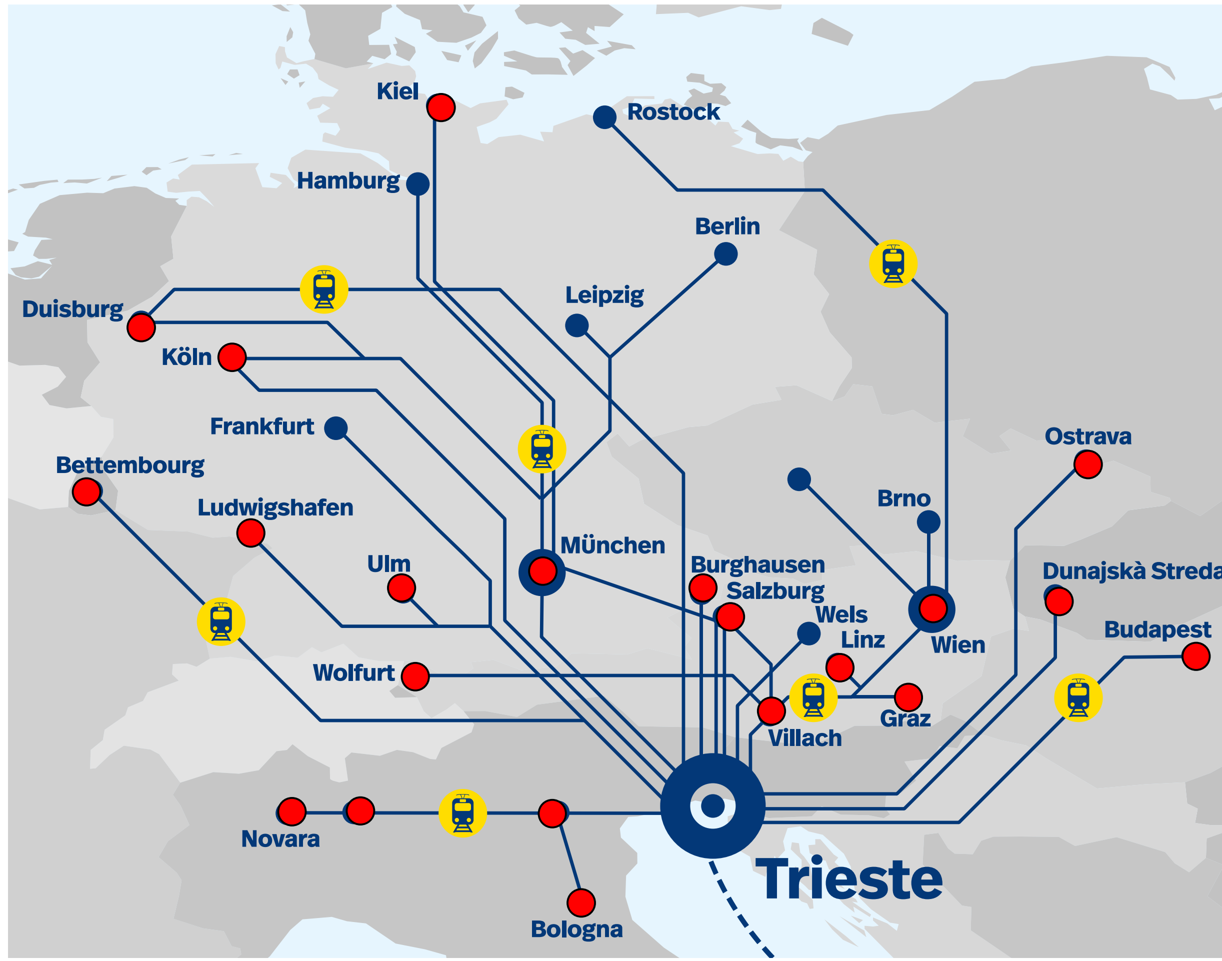
Germany
Direct connection:
Kiel – Göteborg, Munchen, Ulm, Burghausen, Ludwigshafen, Frankfurt am M, Köln, Duisburg
Munchen Riem links to:
Köln, Duisburg, Liepzig, Berlin, Hamburg

Luxembourg
Bettembourg

Hungary
Budapest Bilk

Slovakia
Dunajskà Streda

Czech Republic
Ostrava



direct rail services

Source: Port of Trieste (February 2017)

Outline

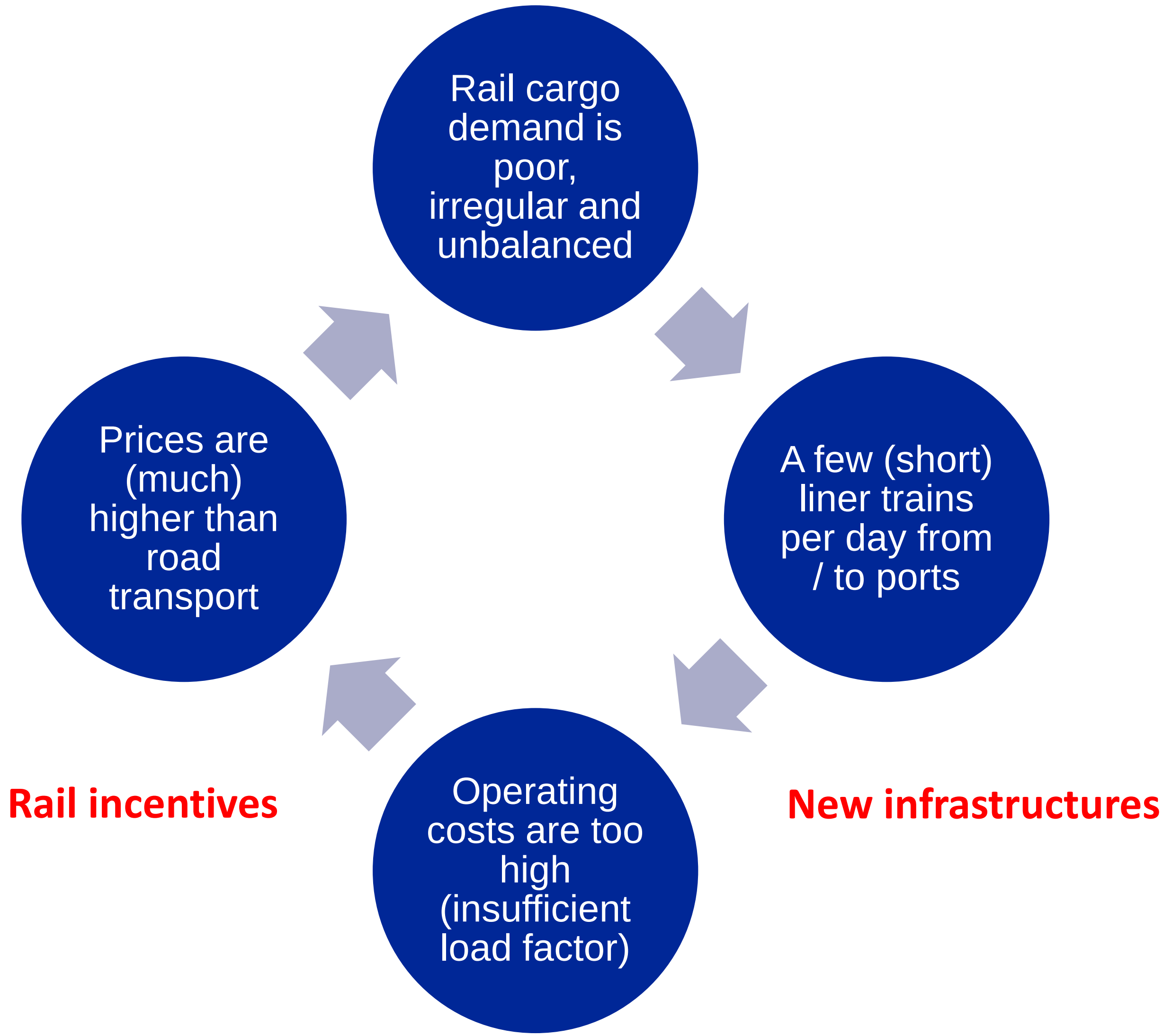
- Trends in shipping and ports: implications for Europe
- North-South competition
- EU intermodal corridors
- **<u>Some potential game changers</u>**

Some potential game changers

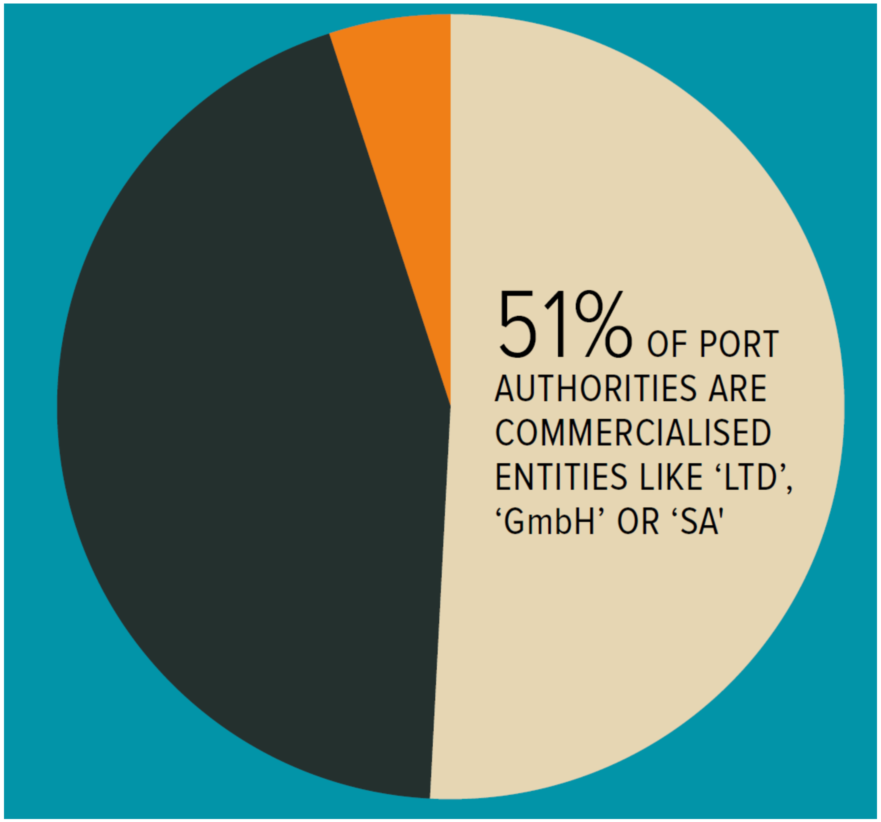
- Trends in mega-vessels, industry consolidation and survival (which role for PAs?)
- Intermodal challenge (e.g., exploring new markets, etc.)
- Asymmetric/unequal EU corridor development, i.e. timing in the realization of infrastructures, bottlenecks, missing links
- Governance and managerial efficiency/autonomy (central vs. peripheral, autonomy vs. hierarchy, public entity vs. corporation, financial autonomy vs public transfers, etc.)

Port Authorities are under pressure

Intermodal challenge:
A vicious cycle to dismantle…



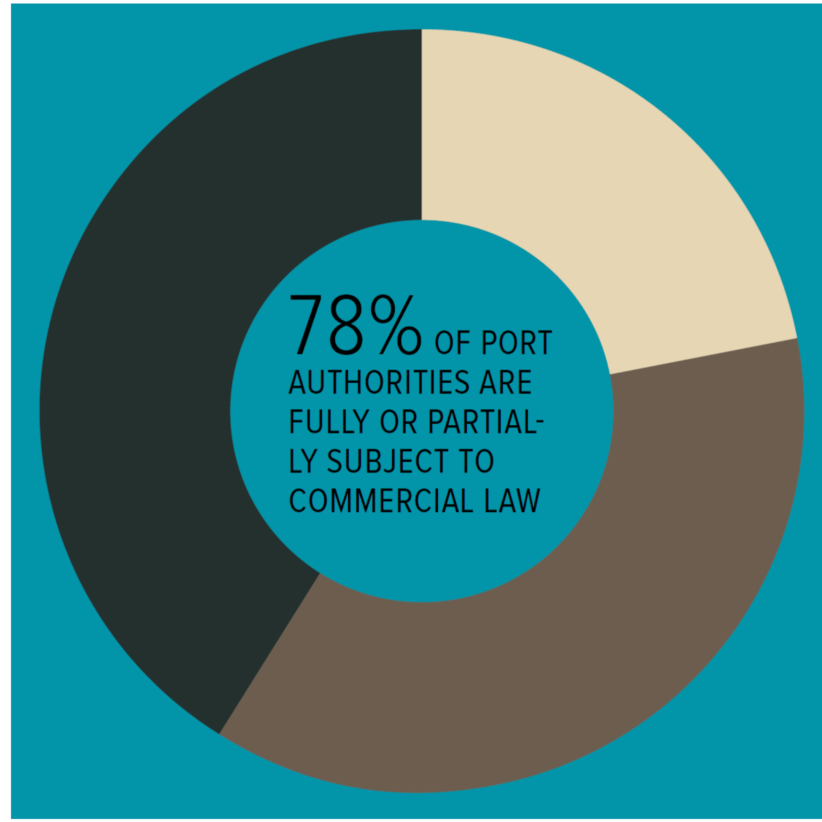
Managerializing Port Authorities



3

PORT AUTHORITIES BY LEGAL FORM

- 51% Limited companies
- 44% Independent public bodies
- 5% Other



4

PORT AUTHORITIES SUBJECT TO COMMERCIAL LAW

- 41% Fully subject
- 37% Partially subject
- 22% Not subject

Source: ESPO 2016 Report - Trends in EU ports governance

Livorno

April, 18th 2018

Thanks!

Francesco Parola & Giovanni Satta

University of Genoa

parola@economia.unige.it
satta@economia.unige.it

PortEconomics

www.porteconomics.eu/member/parola
www.porteconomics.eu/member/satta