

Rectors & Deans & Business Directors on Transport &  
Logistics Joint EU Opportunities

# North Adriatic Ports: A Gateway to Central Europe.

Dr. Stane Bozicnik  
University of Maribor, Slovenia

Portoroz, 26th January 2015

# Summary

- **NAPA** – definition, aims, importance...
- **Why NAPA ports for deliveries from China?**
- **Northern European range ports versus NAPA ports:**
  - **Today**
  - **by 2030**
- **Conclusions**

# What is „NAPA“

- **The North Adriatic Ports Association (NAPA)**, consists of five NAPA ports - Koper, Rijeka, Trieste and Venice. (Ravena?)
- NAPA has a **common objective** of developing its container traffic and to become a **multi-port gateway**, particularly **between** the dynamic:
  - **Asian** and
  - **Central and Eastern European** economies and **Northern Balkans**;

# NAPA – Five North Adriatic Ports



# Historical Trends of Container Trade and Relative Importance of NAPA Ports

- **After world war II** NAPA ports at the edge of the „**Iron Curtain**“, no free trade in Eastern European markets.
  - NAPA ports **minor** importance
- **1945-89:** (general trend) focus on **transatlantic** trade (routes)
- **1989-1999:** Berlin Wall falls, wars in former Yugoslavia, economic potential of Eastern Europe in general of minor importance for NAPA ports
- **2001:** China joins WTO
- **2004-13:** Central and Eastern European countries **join EU**
- **Consequences:**
  - **Growth** of importance of **container transport through Suez Canal** in comparison to **transatlantic trade**
  - **Centre of gravity of inland distribution** for container trade in **Europe** is switching to **south & east**
  - **NAPA ports** provide **access to more dynamic economies of Central and Eastern Europe**

# What is Basically New in EU Economic/Political Geography ?

- **Growing** importance of **Far** Eastern Markets (in relative terms compared to **trans Atlantic** ones)
- New **macro regional** concept of the EU (Danubian, Baltic...etc. Regions...)
- **Baltic - Adriatic, Mediterranean** and other... core trans-European corridors
  - **Our attempt** ( of Danubian EU macro region) to bring corridor no. 10. back to core network, because of connecting **Europe with Turkey and Far East** – New Irion Silky road !
- **Central and Eastern EU** countries joining EU (**growth of economic potential**)
- **Growing environmental awareness**
- Result: **NAPA** – new transport gateway !

# Aims of NAPA

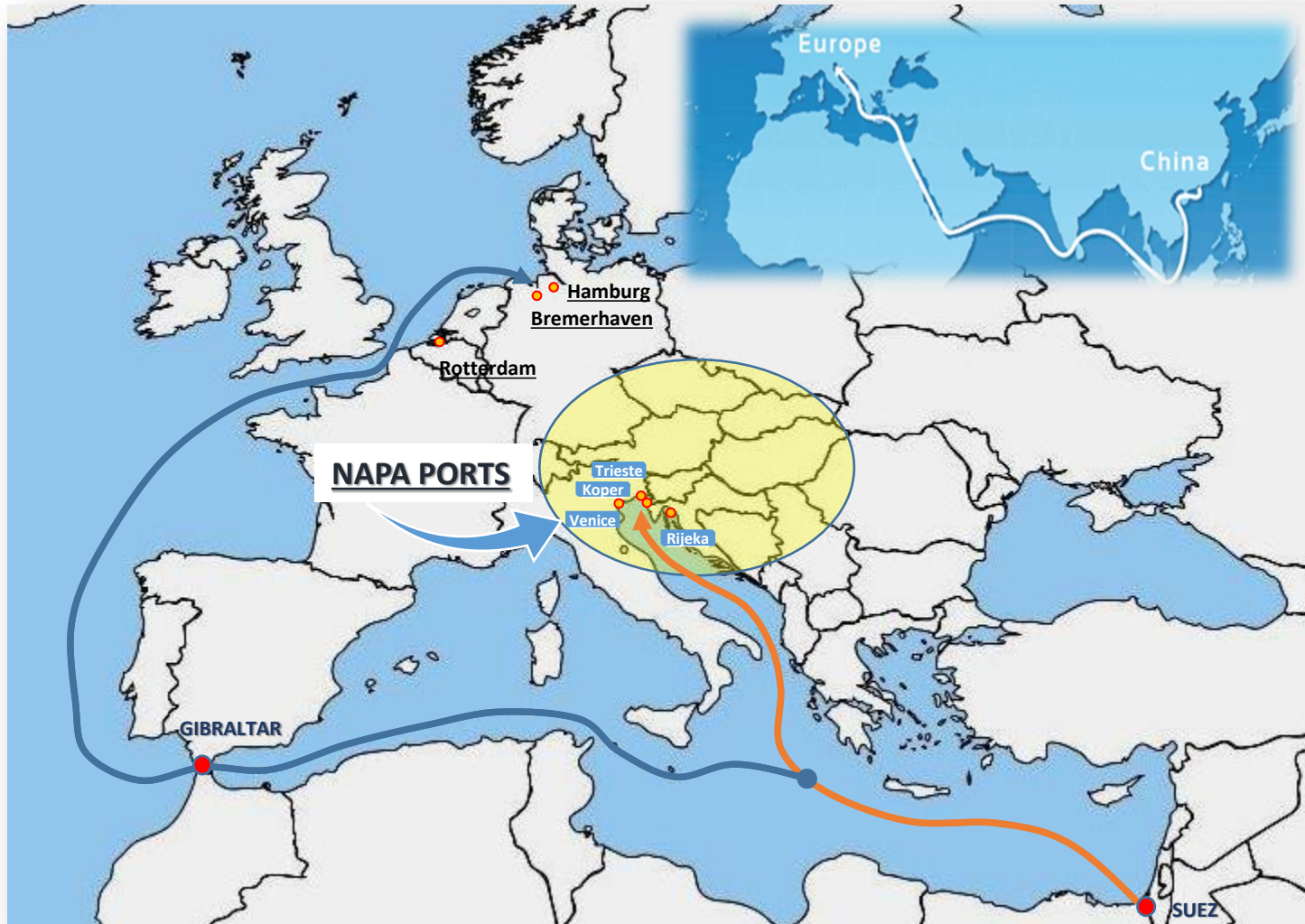
- **Commercial:**
  - To attract **more cargo** to Europe **via Adriatic ports**
- **Institutional:**
  - to further **develop** transport **infrastructure** (in particular Trans European Transport Network – **corridors**) needed for **efficient** and **competitive** transport/logistics services.
- **NAPA MOTO:**
  - **Cooperate internationally, compete locally !**

# Why NAPA ?

- **Geographic position** of North Adriatic
  - Shortest way to **Far East** via **Suez Canal**
- **Reducing** of inter European **main land** transport volume
- **Balancing** regional development – **North / South**
- **New business** opportunities for **central European** countries
- **Positive** environmental effects etc.

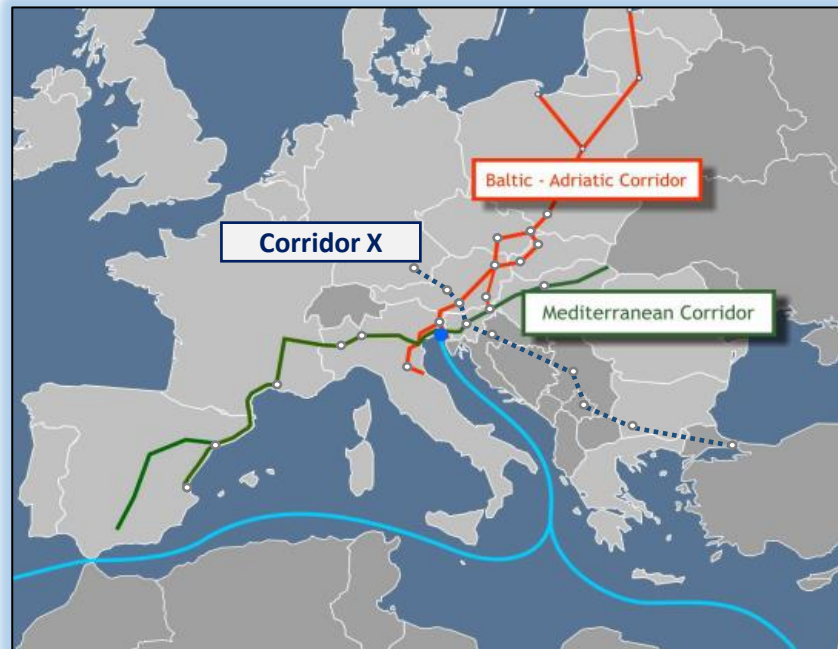


# Why NAPA ?



# NAPA & Hinterland Infrastructure – New TEN-T corridors

- **New TEN-T regulation:** Baltic – Adriatic and Mediterranean corridors, ports - belong to **core corridors**
  - **New** opportunities along the Adriatic-Baltic corridor markets (South-North route)
  - **Intensifying** NAPA ports **position** on the Mediterranean corridor (East-West) /PP6, Pan-European corridor V.



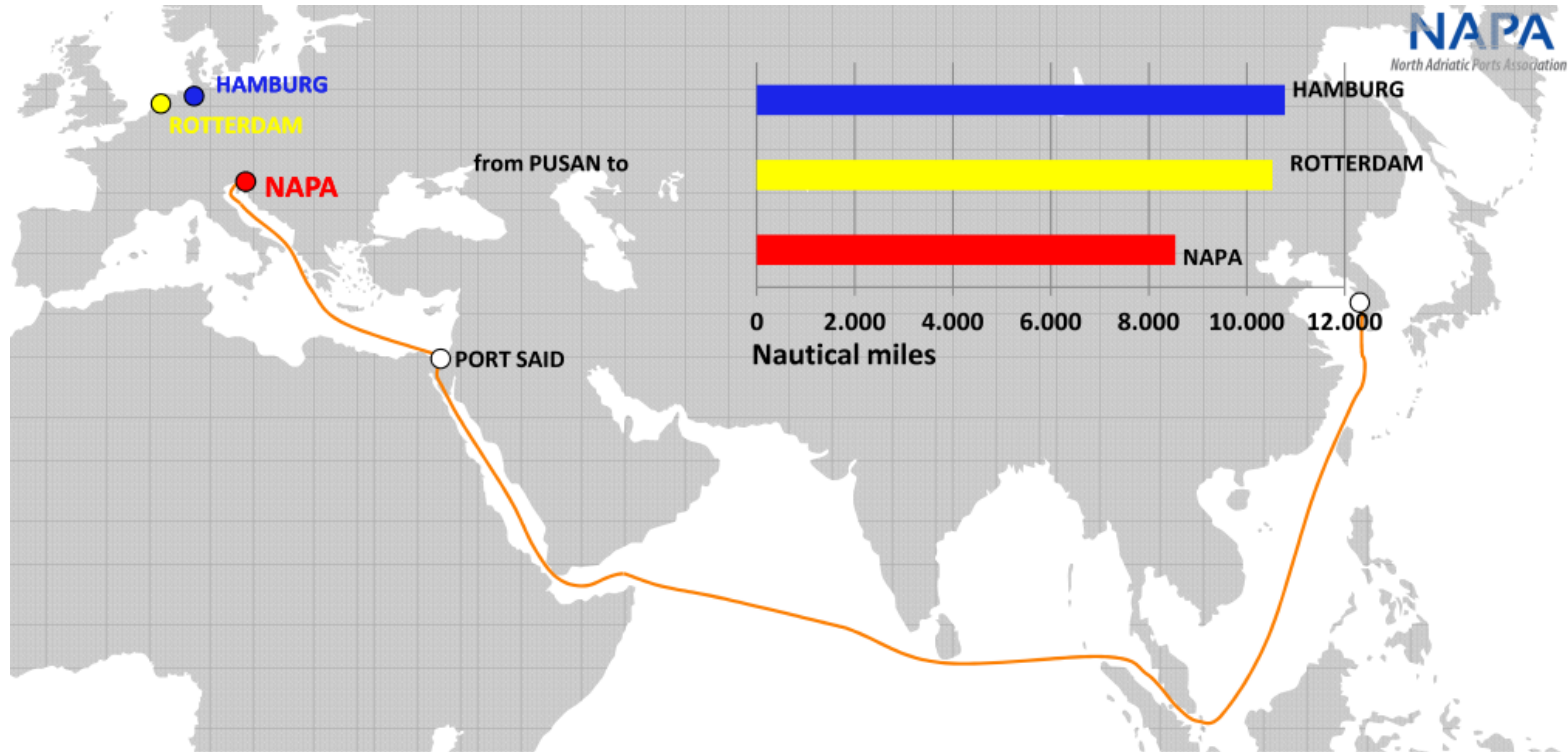
# Fields of Co-operation Between NAPA Ports

**Improvement and further development of:**

- **Hinterland** transport and **connections**
- **Quality and efficiency** of port operations
- **Marketing** and promotion
- **Short sea shipping** and motorways of the sea
- **Information** technology and **communication** systems
- **Safety, security** and environmental protection
- **Passenger** transport

# **Advantages of NAPA ports**

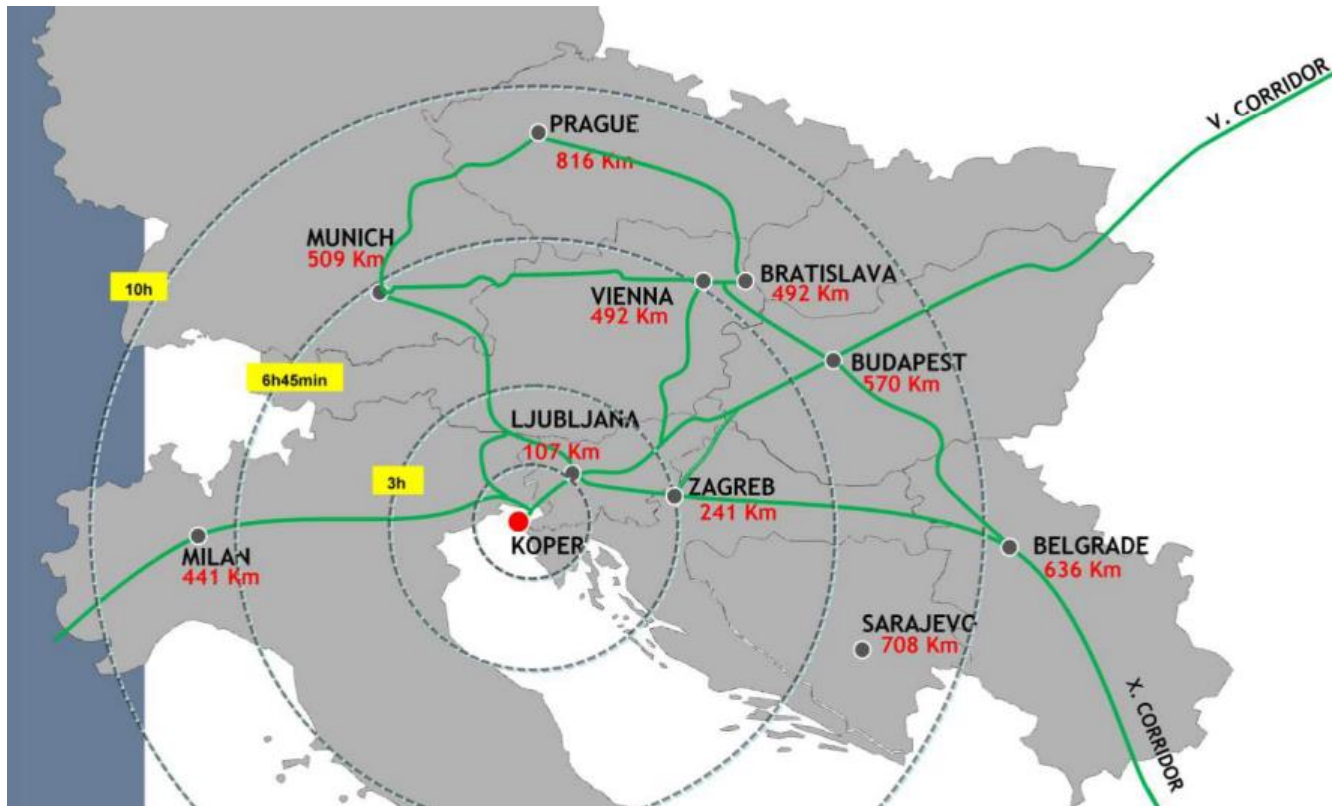
# NAPA the Shortest Sea Route From the Far East to Central Europe



**2000 Nm SHORTER ROUTE**  
**up to 8 days shorter transit times\***  
\* if "slow steaming" at 12 knots

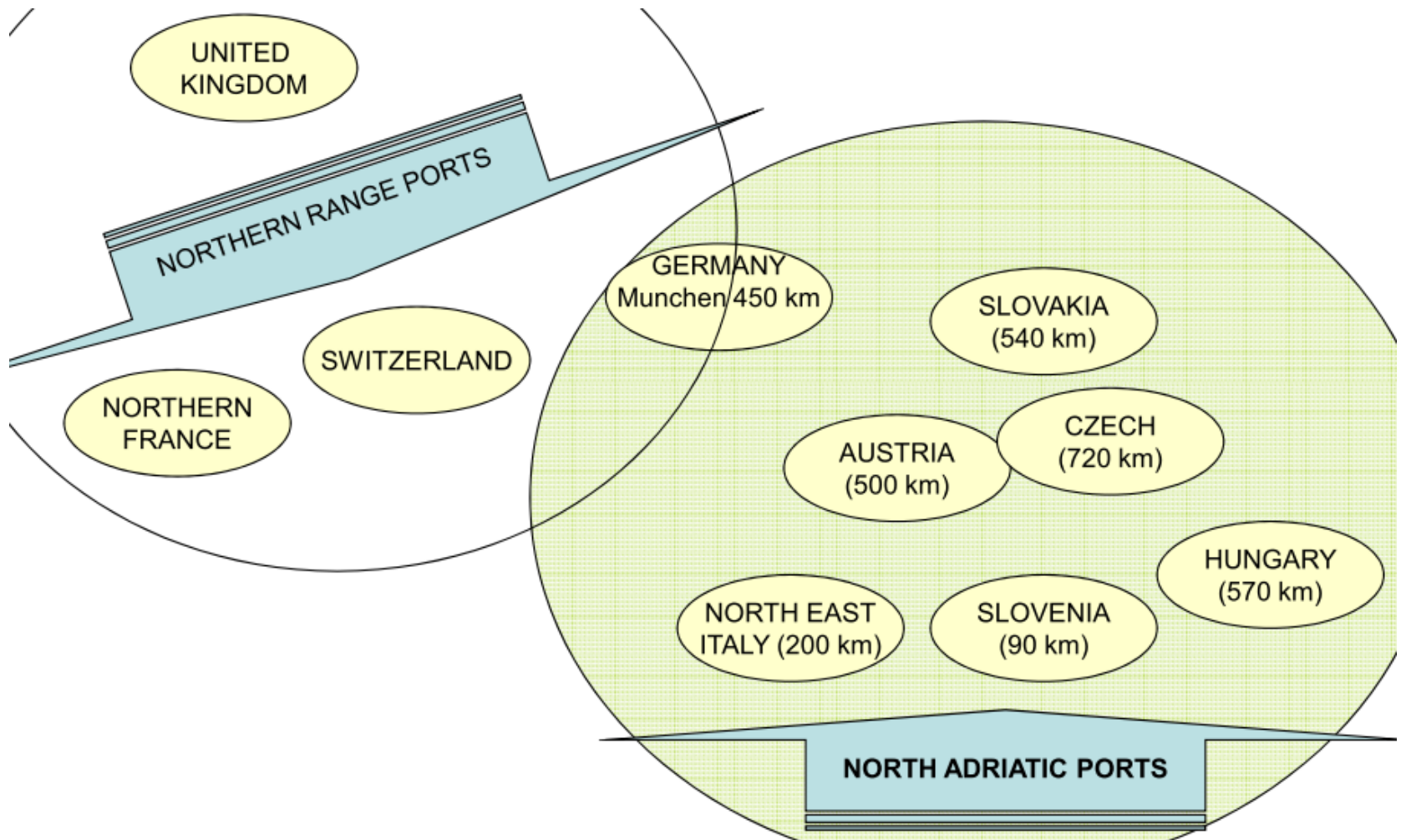
# Central & SEE - potential Market of NAPA

- 500 km - **71** million inhabitants
- 700 km - **100** million inhabitants (estimation)
- 500 - 700 km - **by road** in **less than 12 h !!**

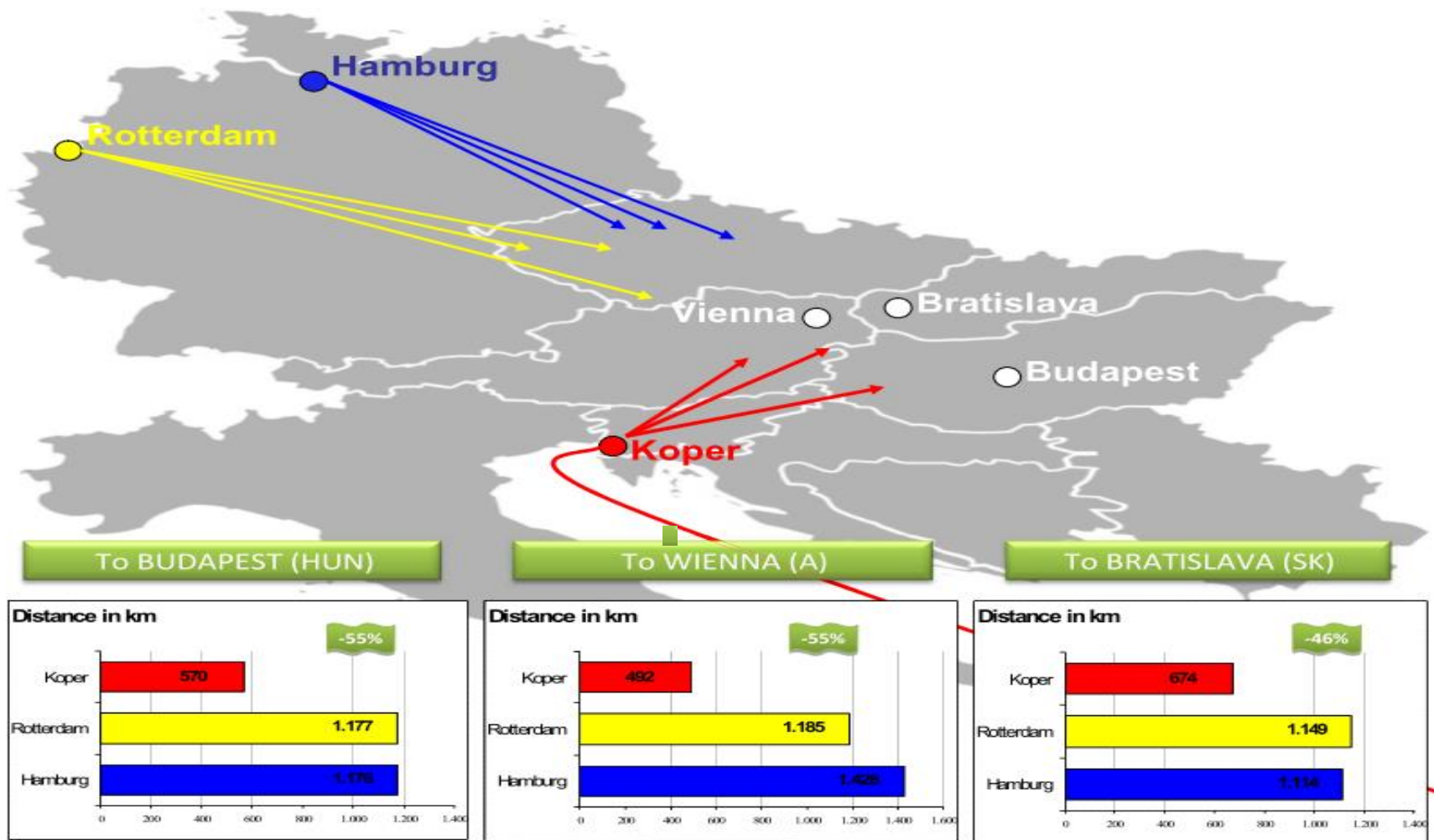




# Expected and Rational Divission of Market



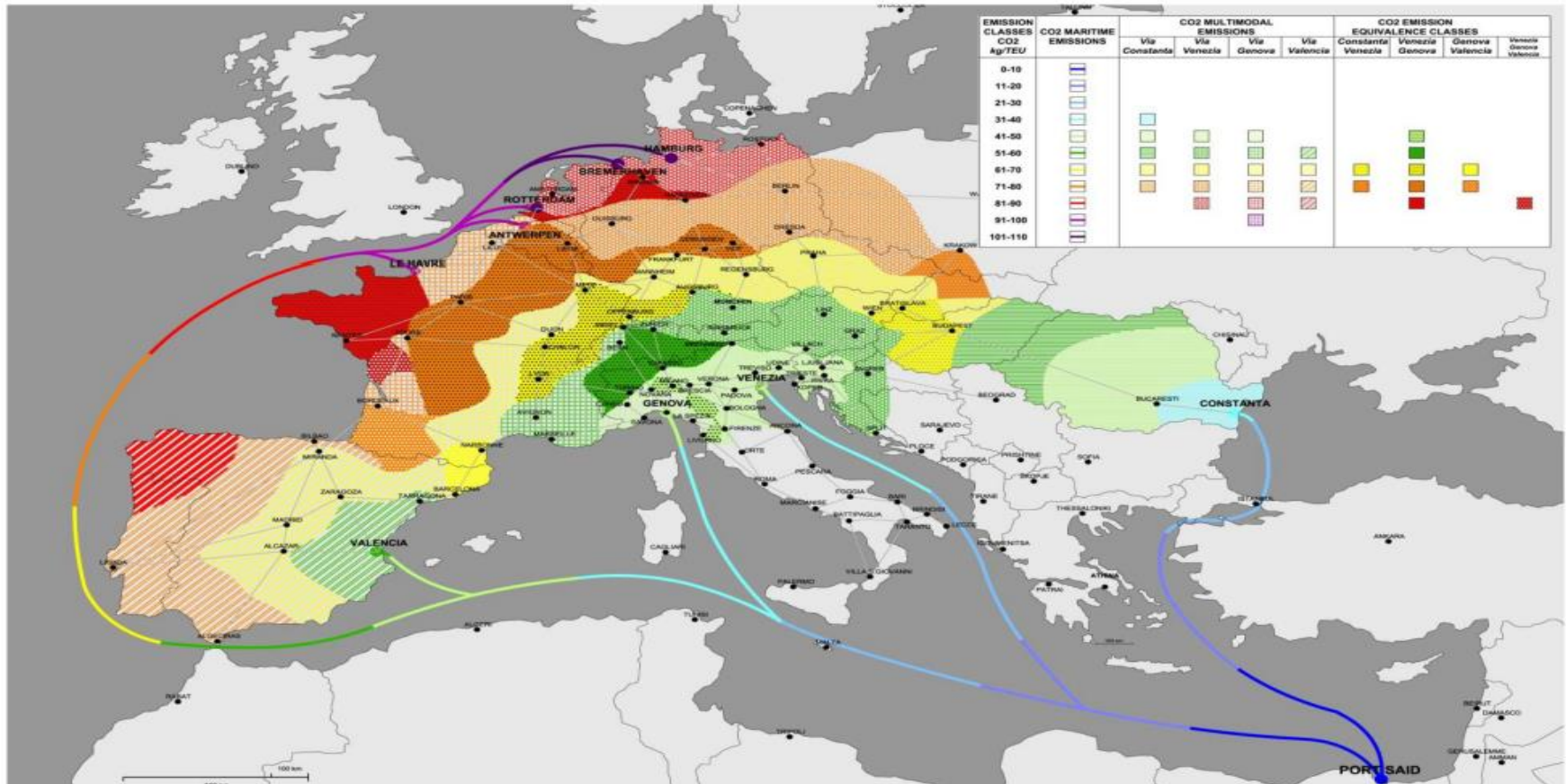
# Shorter Hinterland Deliveries of NAPA vs. Northern Range Ports





# NAPA – Environmental Impact

- Shipping a container (ship and railway), from **NAPA** to **Munich** rather than through **North European** ports:
  - emission reduction of **135 kg of CO<sub>2</sub>/TEU** !!!



# Transit Time Comparison: China – NAPA /Northern Range Ports

fm SHANGHAI, CN	MAERSK	CMA-CGM	MSC	EMC
<b>TRIESTE/KOPER</b>	<b>27</b>	<b>27</b>	<b>30</b>	<b>33</b>
HAMBURG, DE	30 (+3)	30 (+3)	30(=)	30 (-3)
ROTTERDAM, NL	27(=)	32 (+2)	33 (+3)	32 (-1)
ANTWERP, BE	34 (+7)	32 (+2)	30(=)	37 (+4)
BREMERHAVEN, DE	28 (+1)	32 (+2)	33 (+3)	36 (+3)
fm BUSAN, KR	MAERSK	CMA-CGM	MSC	EMC
<b>TRIESTE/KOPER</b>	<b>25</b>	<b>25</b>	<b>36</b>	<b>37</b>
HAMBURG, DE	32 (+7)	33 (+8)	32 (-4)	33 (-4)
ROTTERDAM, NL	37 (+12)	38 (+13)	38 (+2)	35 (-2)
ANTWERP, BE	46 (+21)	36 (+11)	36(=)	40 (+3)
BREMERHAVEN, DE	36 (+11)	36 (+11)	38 (+2)	37(=)
fm HONG KONG, HK	MAERSK	CMA-CGM	MSC	EMC
<b>TRIESTE/KOPER</b>	<b>20</b>	<b>20</b>	<b>26</b>	<b>29</b>
HAMBURG, DE	29 (+9)	29 (+9)	28 (+2)	30 (+1)
ROTTERDAM, NL	28 (+8)	30 (+10)	33 (+7)	32 (+3)
ANTWERP, BE	29 (+9)	29 (+9)	48 (+22)	33 (+4)
BREMERHAVEN, DE	29 (+9)	29 (+9)	33 (+7)	32 (+3)

Source: Shipping Companies websites

- Logistics centres serving the needs of NAPA ports

Fernetti



Vilach Furnitz



Ljubljana - BTC



Graz, Werndorf



Sežana



Cervignano



Port of Venice



Port of Ravenna



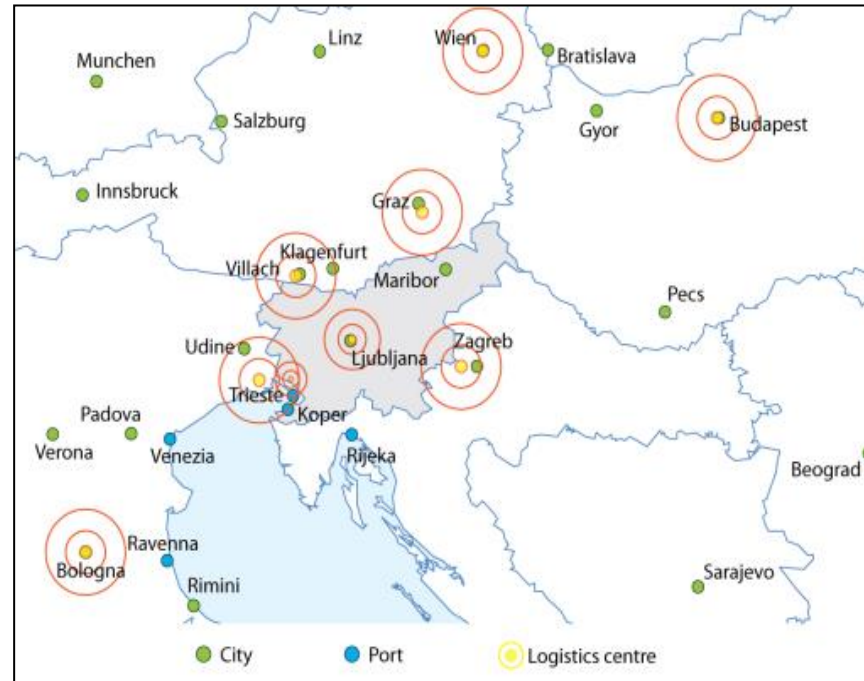
Port of Trieste



Port of Koper



Port of Rijeka



Maribor



Zagreb Vrabče



# Logistic Centre SEŽANA

- Logistics centre Sežana is **the closest** logistics centre to **port of Koper and port of Trieste (about 20km)**
  - Lies **between** port of **Koper** and port of **Trieste**
  - is optimal solution for **value added logistics** services for deliveries **to/from China !**
- Logistics **capacities** at the moment **available !**



# Location of Logistic Center Sežana



Source: Adria Terminali, 2014.



# Logistic Center Sežana in numbers



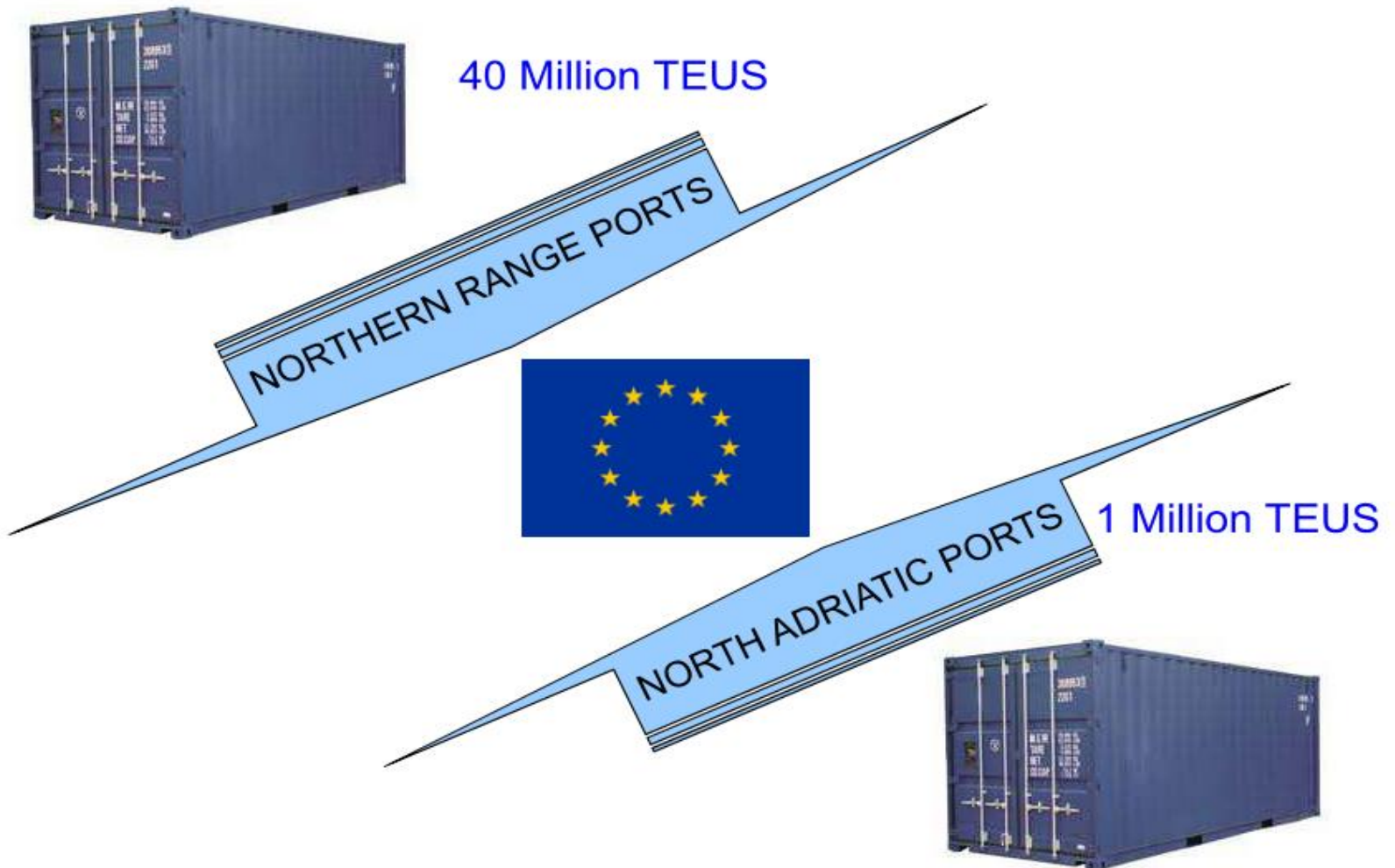
Source: Adria Terminali, 2014.

Areas	m <sup>2</sup>	Other infrastructure
STAORAGE AREA	37.600	Railway sidings (3x 270 m)
Enclosed storage	16.600	Road access (1,3500 m)
-custom warehouses	7.500 m2	
-refrigerated storage	1.225 m2	
-freezer storage	70 m2	
-warehouse for dangerous goods	222 m2	
Covered storage (non-bonded)	1.200 m2	
Open storage	72.800 m2	
-customs storage area (with parking places)	5.700 m2	
-parking area for trucks	13.290 m2	
-additional warehousing area	72.800 m2	

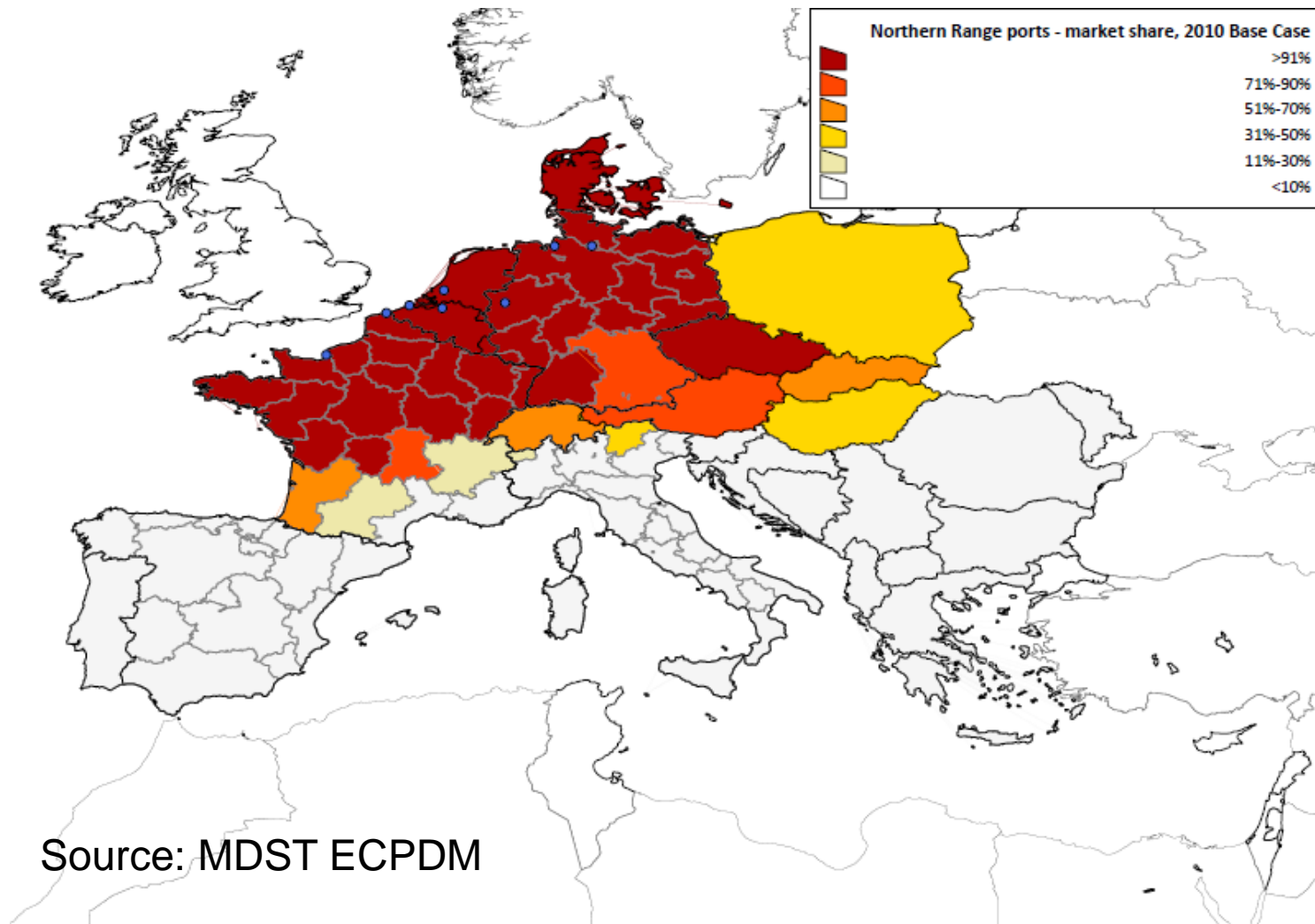
- **Northern range ports versus NAPA  
ports market potential today**



# IMPORT VOLUMES THROUGH NORTH EUROPE AND NAPA (all trades)

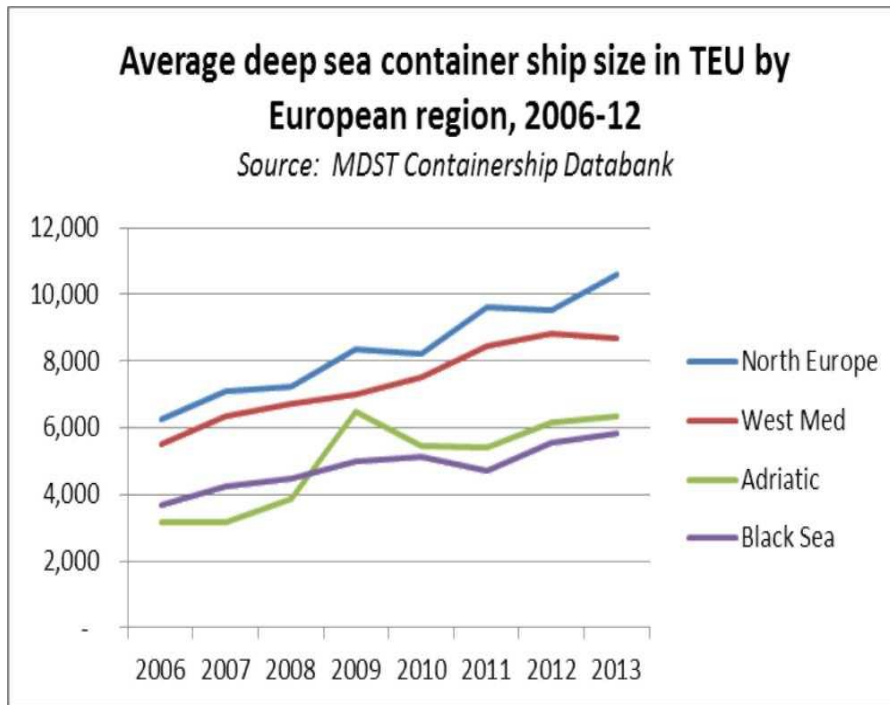


# Northern Range Ports Current Market



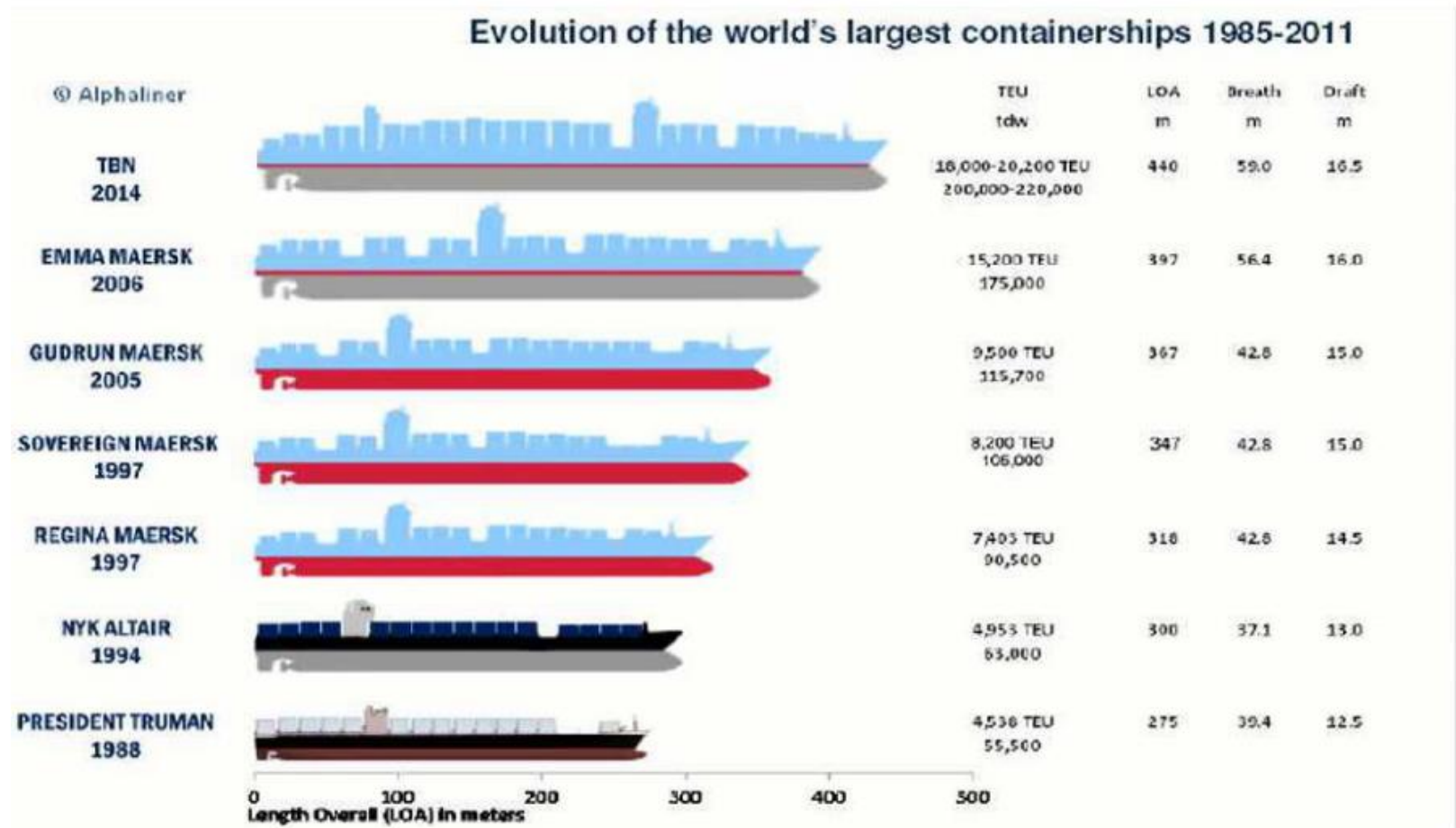
Why are the **Northern European** range ports **dominant** in spite of **less favourable** geographical position ?

# 1. Economies of Scale



- **Average ship size increased**
  - **fewer, bigger ships to secure economies of scale**
- **forcing consolidation between liner companies !**

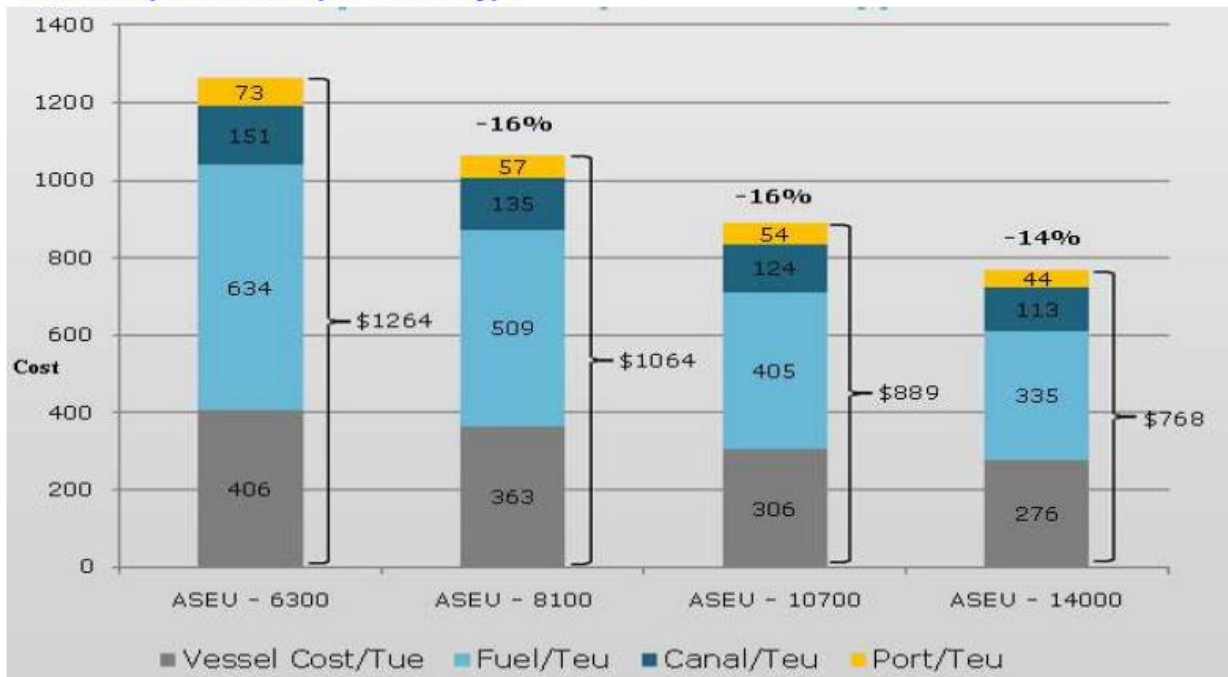
# Economies of Scale - Constant Vessel Growth during the last 15 years...



# ...mainly driven by increased need to reduce slot cost

- Slot costs reduce as vessel size increases
- On the key Asia/Europe trade the cost difference per TEU is clearly visible

Asia-Europe Slot Cost per vessel type



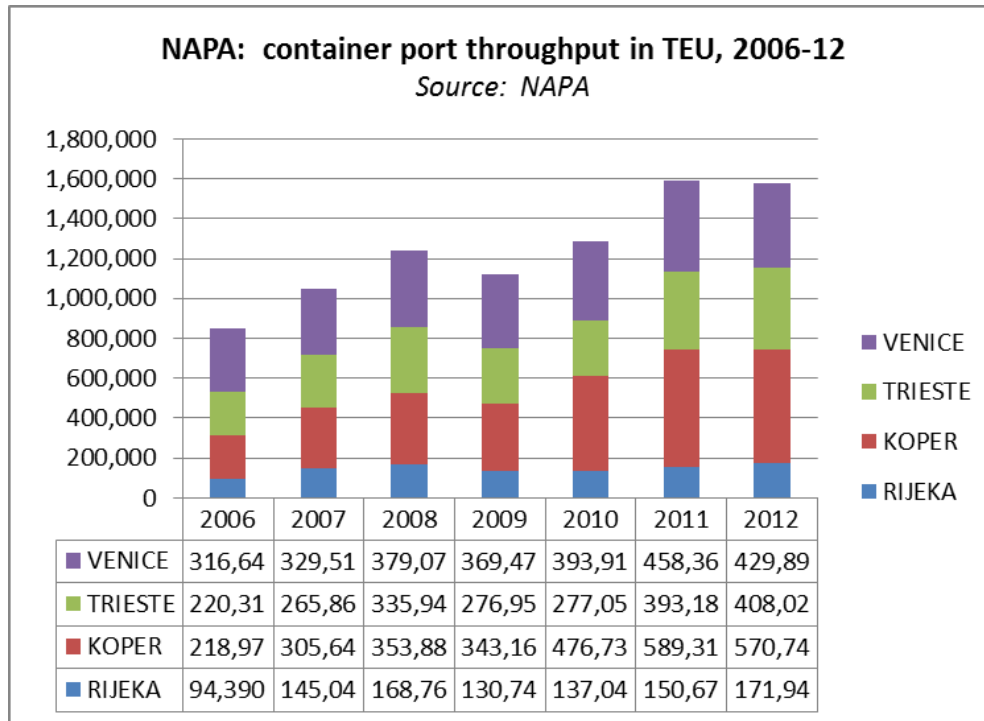
## 2. Other advantages of Northern Ports

- European **North range ports** are more competitive because of:
  - **Better hinterland transport** services (in particular train), frequency, reliability, speed...
  - **Quality and quantity** of all other relevant **services**
  - **Deeper sea in ports**
  - **Longer trains** for hinterland transport etc.

# **NAPA ports performance 2006 - 2013**



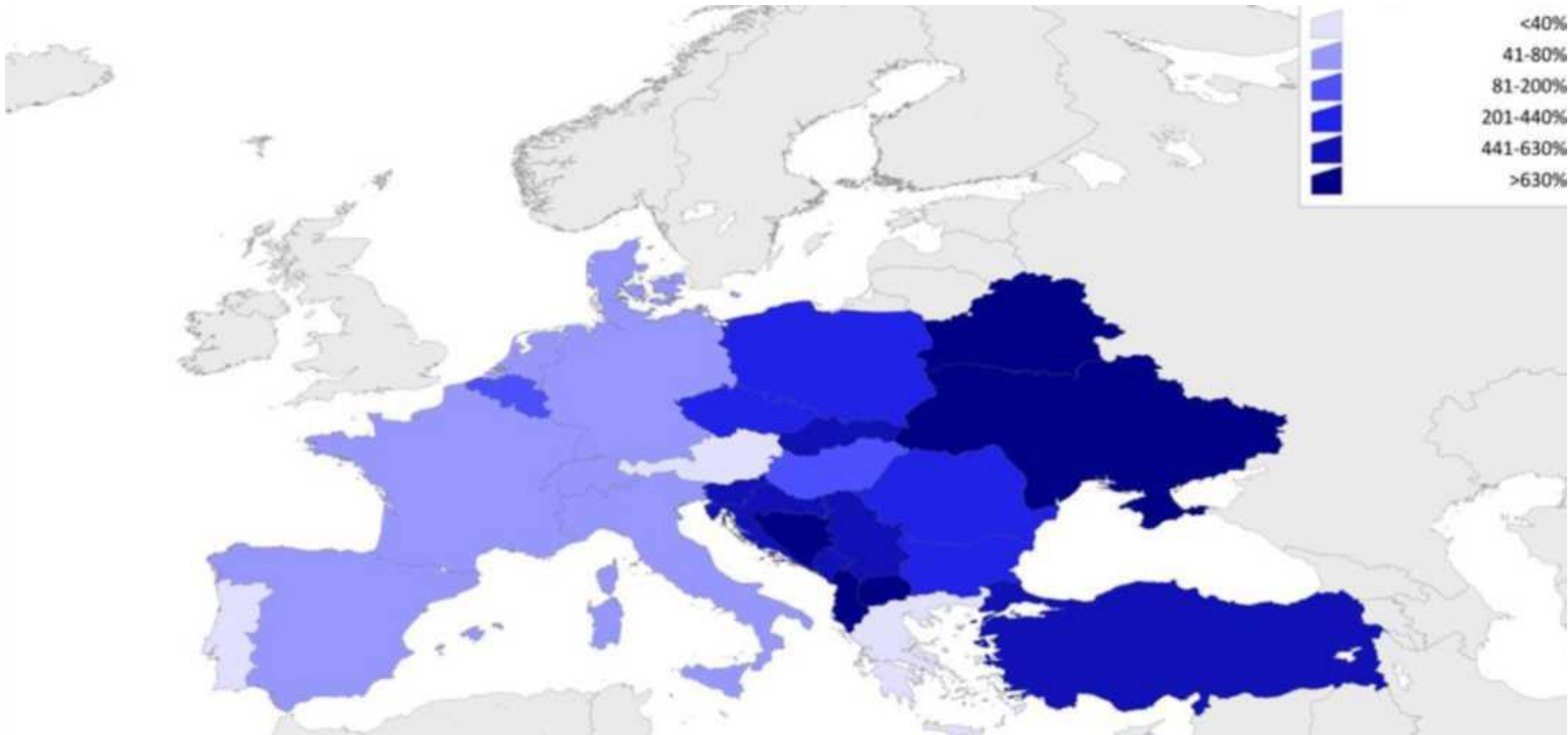
# NAPA throughput 2006-12



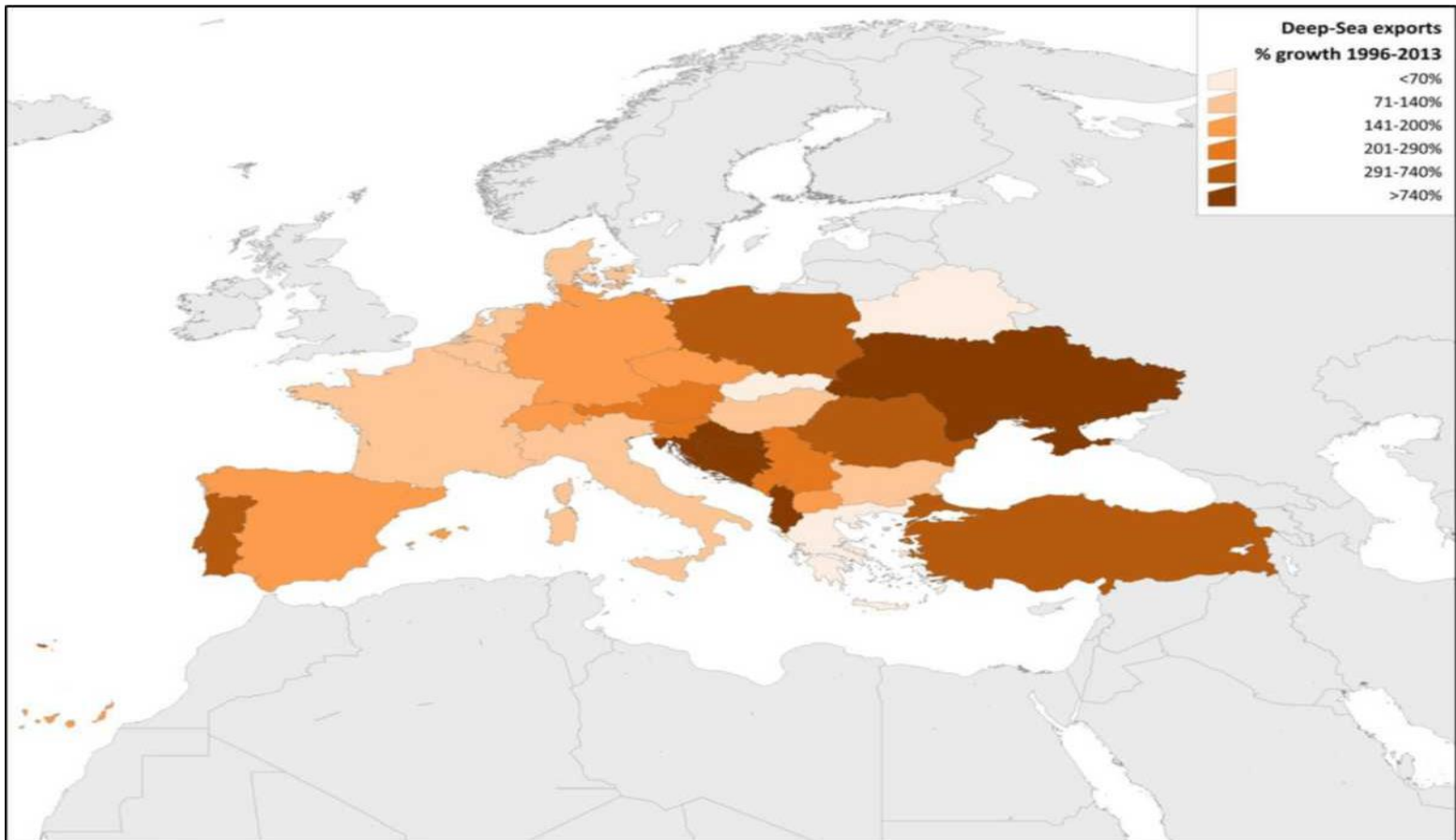
- NAPA transport performance:
  - **77%** growth in six years
  - **1.7 MTEU** in 2012
  - Fastest growth ports Koper, Trieste, (Venice)
- P.Koper traffic:
  - Traffic grew **161%** in six years
  - **22%** market share in 2006, **32%** in 2012
  - 60% modal split for rail
- In general over the period **2006-12** the North Adriatic ports have been **growing faster than the market and therefore winning market share!**

- Reasons ?

# EU Deep Sea Imports Growth Rates 1996 – 2013 (%)



# EU Deep Sea Exports Growth Rates 1996 – 2013 (%)



# FUTURE ?

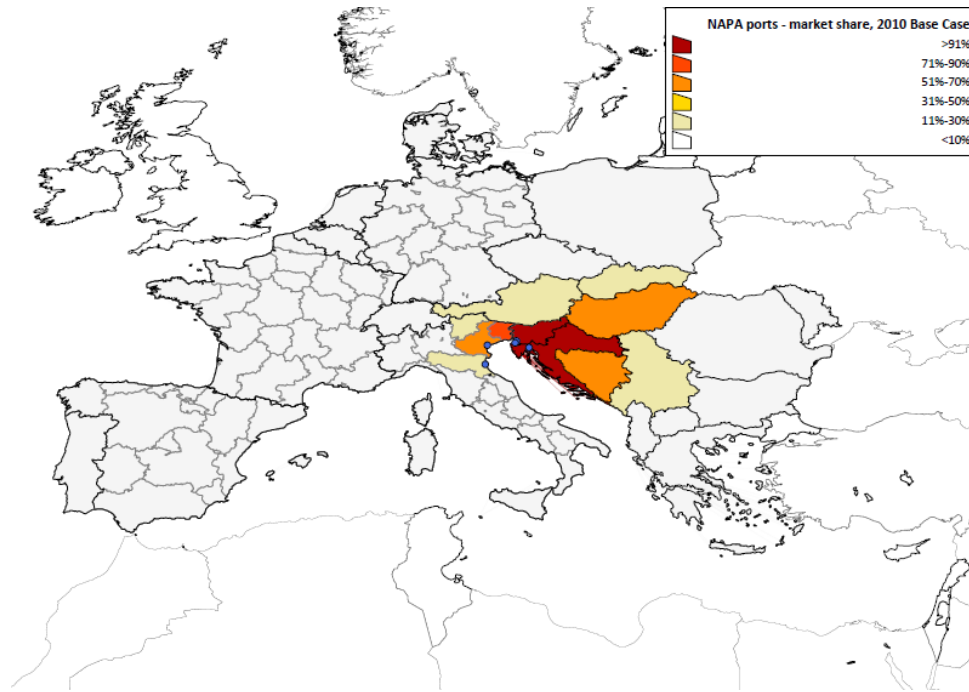
- **Expected NAPA ports market share in 2013**  
according to:
- **European Container Port Demand Model  
Development Scenario**

# Results of 2030 “NAPA Development Potential Scenario”

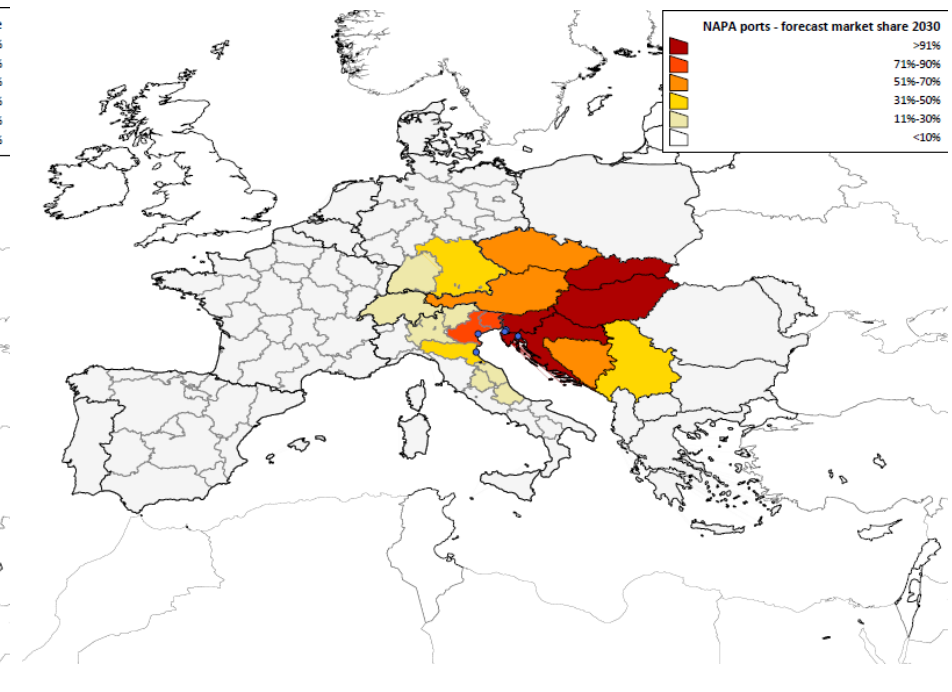
	2012	NAPA Development Scenario	Increase 2012-30
<b>NAPA</b>	<b>1.8</b>	<b>5.9</b>	<b>+227%</b>
Northern Range	20.3	28.9	+42%
Tyrrhenian	3.6	6.5	+81%
Black Sea	0.3	0.6	+100%
Other	5.6	10.5	+88%
Total	31.6	52.4	+66%

- Total growth by **2030** :
- **227%** for NAPA ports **5,9 Million TEU** ,
- **NAPA market share** increases from **5.5% to 11.3%**
- **Northern range ports % growth**

# NAPA: 2012 versus 2030

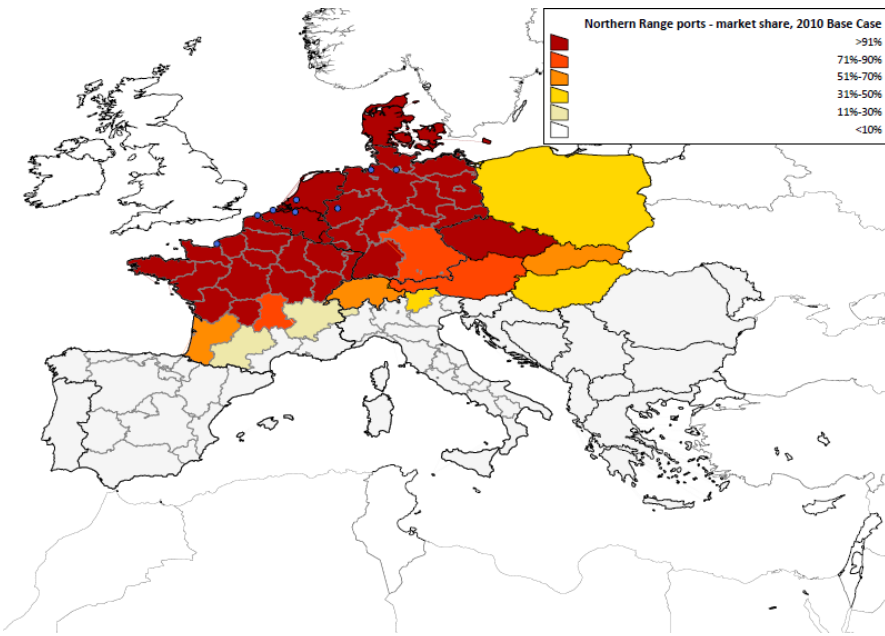


Base Case 2012

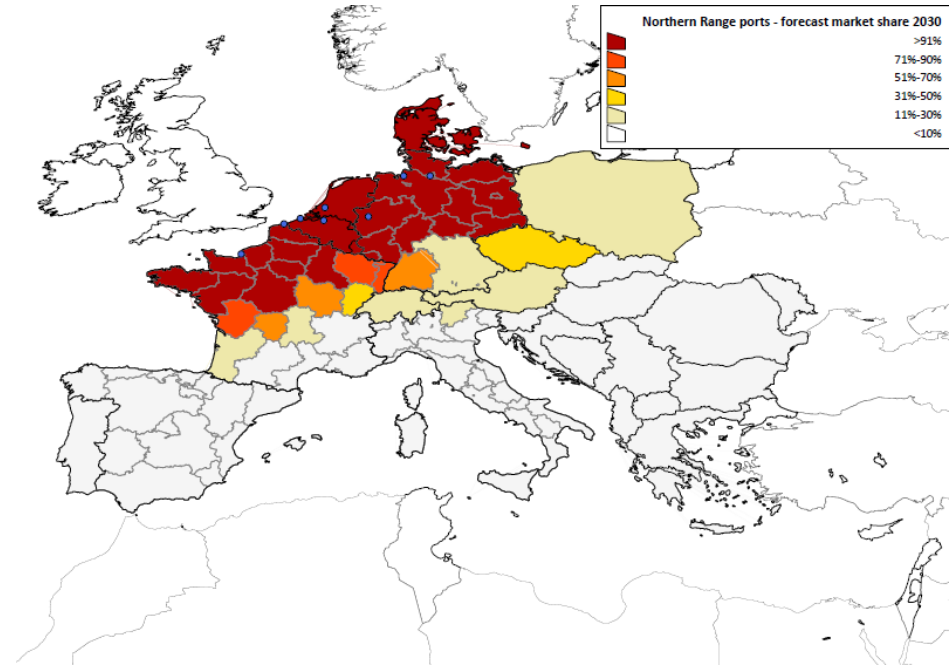


NAPA Development Potential  
Scenario 2030

# Northern Range ports: 2012 versus 2030



Base Case 2012



NAPA Development  
Potential Scenario 2030



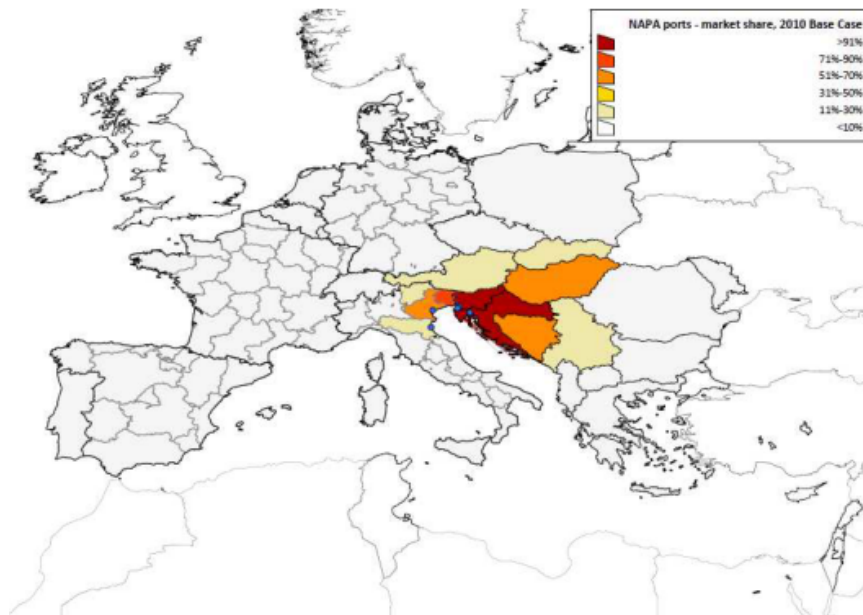
# Container Market Potential of NAPA Ports



According NAPA dedicated market study

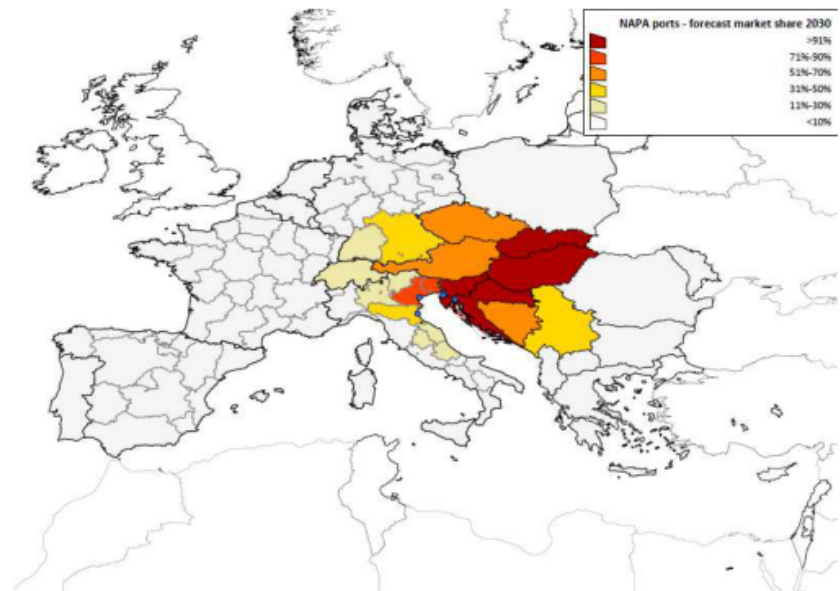
(project: ITS Multiport Adriatic gateway; consulting: MDS Transmodal):

**potential for container traffic 6 mio TEUs by 2030**



NAPA 2011

1,8 mio TEU



NAPA potential 2030

6 mio TEU

# Conclusion

- **Far East - Europe deep sea container shipping rout via Suez Canal is expected to dominate also in the future !**
- **Importance of NAPA ports is expected to grow** because of two reasons:
  - ***Economic***
    - *container from China destined for Munich saves*
      - **280 kms** in hinterland transport and
      - **4815 sea kms (6 - 8 days)** by **switching** from Northern range to NAPA ports
  - ***Environmental – less CO2 emissions***

# Conclusion

- The **expected growth** of NAPA ports throughput can be achieved , provided all the **assumptions** of the model are fulfilled, such as:
- **deeper water (at least 15m), improved rail freight (and 750 meter long trains), improved all other services.**
- Focus – **on door-to door services (entire supply chain)**
- **Value added logistics** can be further developed in the **existing logistics** capacities in the region.
  - **Sezana** is one of the most **optimal** solutions - location between port of Koper and port of Trieste, available capacities....
- On this way North Adriatic ports can meet its potential **as a natural gateway** for containerized trade to **Central, Eastern Europe and the Northern Balkans.**
- There are enough **investment** and **joint-venture** possibilities for the **Central –European partners!**

Thank you for your kind attention !

[stane.bozicnik@um.si](mailto:stane.bozicnik@um.si)

# References:

- Michela Fonda, "Trends und Entwicklungen in der Seeschifffahrt - Adriatic why not?"  
<http://www.logistikkongress.at/referenten/michela-fonda/>
- Robert Sever, "Eigenschaften und aktuelles Probleme des Transportsektors in Slowenien"  
<http://www.logistikkongress.at/referenten/robert-sever/>
- Henning R. Mack, "Die Bedeutung der Adria Häfen aus Sicht eines führenden Logistikdienstleisters"  
<http://www.logistikkongress.at/referenten/henning-mack/>
- Chris Rowland, MDS Transmodal, Potential of the North Adriatic for container traffic, [Slovenian Chamber of Commerce & Industry](#), Ljubljana ,10 December 2013
- Jean-Paul Rodrigue and Theo Notteboom, „Foreland-Based Regionalization: Integrating Intermediate Hubs with Port Hinterlands“, The IAME 2012 Conference, 6-8 September, 2012 Taipei, Taiwan
- Chris Rowland – MDS Transmodal, „NAPA Container Market Study“, EIA General Assembly, Venice , 18 April 2013 (<https://www.port.venice.it/files/event/rowland.pdf>)
- NAPA - North Adriatic Ports Association - <http://www.portsofnapa.com/>
- MERSK - <http://www.maerskline.com/>
- CMA-CGM - <http://www.cma-cgm.com/>
- MSC - <http://www.mscgva.ch/>
- EMC - <http://www.evergreen-marine.com/>
- EUROSTAT - <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>