JUNE
2018
NAPLES

Global Shipping Think Tank Alliance

3rd Plenary Meeting

srm

Agenda

Monday 4th June 2018

10:00 - 15:30	**PLENARY MEETING** **Banco di Napoli | Miraglia Room | 177, via Toledo - Naples** Coordinator: **MASSIMO DEANDREIS** - General Manager of SRM
10:00 - 10:30	**Registration and welcome coffee** Group photos
10:30 - 11:00	**Welcome Speeches** **MAURIZIO BARRACCO** - President of Banco di Napoli **FRANCESCO GUIDO** - General Manager of Banco di Napoli
11:00 - 11:30	**Opening Ceremony** **ZHEN HONG** - Secretary-general of SISI **YANG CHANG-HO** - President of Korea Maritime Institute (KMI)
11:30 - 12:00	**Global Shipping Think Tank Alliance, General discussion** - Working report - Election of next chairman - Announcement of next sponsor - Discussion ways to carry out cooperation
12:00 - 13:00	**Light Lunch**

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3rd Plenary Meeting

13:00 - 15:30	Seminar | Discussion of Global Shipping Issues **1. Belt & Road Initiative** **2. Relations between industry and maritime logistics** **3. Development of intermodal transport**
16:00 - 18:00	**TECHNICAL VISIT TO THE PORT OF NAPLES**
20:30	**MARITIME GALA DINNER** Circolo Canottieri Napoli | 1, via Molosiglio - Naples

Tuesday 5th June 2018

09:30 - 13:30	**5th ITALIAN MARITIME ECONOMY CONFERENCE** Banco di Napoli | Assembly Hall | 177, via Toledo - Naples This international conference is held annually in order to present the findings of the research project launched by SRM and called "Permanent Observatory on the Economy of Maritime Transport and Logistics".
13:30 - 14:30	Light Lunch
15:00 - 17:00	**TOUR OF NAPLES**

Contents

Participants at the 3rd Plenary Meeting

ALLIANCE MEMBER ORGANIZATIONS

CENTRE FOR MARITIME STUDIES OF NATIONAL UNIVERSITY OF SINGAPORE (CMS)
Singapore

HONG KONG POLYTECHNIC UNIVERSITY
Hong Kong, China

INSTITUTE OF SHIPPING ECONOMICS AND LOGISTICS (ISL)
Bremen, Germany

KOREA MARITIME INSTITUTE (KMI)
Seoul, South Korea

SHANGHAI INTERNATIONAL SHIPPING INSTITUTE (SISI)
Shanghai, China

SRM
Naples, Italy

DELEGATES

ANNA ARIANNA BUONFANTI ■
Researcher, Maritime Economy Observatory, SRM
Ro-Ro and Automotive in the Mediterranean: key trends

SALVIO CAPASSO
Head of Economy Dept., SRM

MASSIMO DEANDREIS ■
General Manager, SRM
Coordinator of the Meeting

OLIMPIA FERRARA ■
Head of Maritime Economy Observatory, SRM
Forecast and competitiveness of the container shipping Mediterranean market

LUCA FORTE ■
Head of Mediterranean Observatory, SRM
Key factors shaping the future of world trade: what can be expected in the Mediterranean?

HWANG JIN-HOI
Director General, Korea Maritime Institute

KIM JUHYEOUN
Researcher, Korea Maritime Institute

BURKHARD LEMPER ■
Managing Director, ISL - Institute of Shipping Economics and Logistics, Bremen
North European Container Traffic Model (NECTM)
Monitoring the structures of transport flows

LU WEILING ■
Director of International Cooperation Department Shanghai International Shipping Institute
Working Report

MEIFENG LUO ■
Associate Professor, The Hong Kong Polytechnic University
Analysing the attractiveness of an intermodal gateway: a case study for Shanghai

ALESSANDRO PANARO ■
Head of Maritime & Mediterranean Dept., SRM
Special Economic Zones in Italy

DARIO RUGGIERO ■
Researcher, Mediterranean Observatory, SRM
Belt & Road Initiative. Mediterranean ports and trade at a glance

XIE YAJUAN ■
Manager, Centre for Maritime Studies of National University of Singapore
Intermodal transportation operations

YANG CHANG-HO ■
President, Korea Maritime Institute
Congratulatory Address

HEESUNG YUN ■
Director, Korea Maritime Institute
Steelmaking industry and maritime transport

ZHAO NAN ■
Director of Port Development Research Department, Shanghai International Shipping Institute
On interactive development of China's port and shipping industry with the "Belt and Road"

ZHEN HONG ■
Secretary-general, Shanghai International Shipping Institute
Welcome Speech

■ Delegate Speakers.

GUEST SPEAKERS

MAURIZIO BARRACCO
President, Banco di Napoli (Intesa Sanpaolo Banking Group)
Welcome Speech

MAURIZIO D'AMICO
Port Network Authority of the Northern Central Tyrrhenian Sea
Special Economic Zones

MASSIMO DEIANA
President, Port Network Authority of Sardinian Sea
Bunkering: a new perspective on the South of the Mediterranean

FRANCESCO GUIDO
General Manager, Banco di Napoli (Intesa Sanpaolo Banking Group)
Welcome Speech

JOOST HINTJENS
Researcher, Department of Transport and Regional Economics, University of Antwerp
Belt and Road: user opportunities through chain cost calculations

UMBERTO MASUCCI
President, The International Propeller Clubs
The Italian Maritime Cluster

SERGIO PRETE
President, Port Network Authority of Ionian Sea
Competition + Cooperation = Coopetition

PIETRO SPIRITO
President, Port Network Authority of Central Tyrrhenian Sea
The role of the Mediterranean ports in the maritime traffic development

ATTENDEES

SERGIO ARZENI
President, INSME - International Network of SMEs, Small and Medium-sized Enterprises

STEFANO CARRARO
Trade & Marketing Far East Westbound, CME Central Mediterranean Cluster, Maersk Line

FULVIO LINO DI BLASIO
Secretary-general, Port Network Authority of Ionian Sea

NATALE DITEL
Secretary-general, Port Network Autority of Sardinian Sea

ENRICO FARDELLA
Director, Center for Mediterranean Area Studies - Peking University

VINCENZO GIGLIO
Director, Maersk Line - Branch of Naples

PAUL KYPRIANOU
Communication Director, Grimaldi Group

MARIO MATTIOLI
President, Confitarma

FELICETTA STANCO
Unione Industriali Napoli

Welcome Speech

Distinguished guests,

Dear sponsor SRM and delegates from member organizations,

This is the secretary-general of Shanghai International Shipping Institute (SISI), initiator of the Global Shipping Think Tank Alliance (hereafter refer to the Alliance), and also the secretary-general of the Alliance secretariat. It is a great honor for me to be invited by SRM to deliver a welcome speech here. First of all, please allow me, on behalf of the Alliance secretariat, to express my sincere gratitude to SRM for its efforts in preparing the meeting, and also to extend my warm welcome to delegates and guests for attending this meeting.

SISI is a research and consultation institute working on port and shipping issues. It has been ten years since its establishment. For then on, SISI is dedicated to establishing ties with international maritime organizations, companies and colleges, networking top experts, constructing international shipping research platform and providing government agencies and industry players with decision-making information and consultation service.

Accordingly, the fundamental reason for SISI to initiate the Alliance in 2016 is to cooperate with shipping think tanks and consultation institutes from different countries and regions, track fresh concept, technology, trend and mechanism, and provide members with opportunities to discuss the changes in international shipping market and advise for the development of international shipping industry.

Since its founding three years ago, there have been many changes taking place in shipping market worldwide. 2016 witnessed the new lowest record in the market, from which it slowly recovered from the bottom. Promoted by the upward trend of economy and the deepening of regional cooperation, there was a robust revival in global shipping market in 2017. While in 2018, the risk of uncertainty in shipping has increased, as influenced by factors like acute conflict in international trade.

Against this background, the role that the Alliance plays is more and more important. At the very beginning, we received warm responses from member organizations. While carrying on the work of the Alliance, we also got active feedbacks. In the future, I hope that we can still work together to write a new chapter of scientific, orderly and sustainable development in shipping industry.

At last, wish this meeting a big success.

Thank you!

Zhen Hong

Secretary-general of SISI

Congratulatory Address

1. Greetings, gratitude and welcome

Distinguished members of the Global Shipping Think Tank Alliance,

It is a great pleasure to meet all of you once again in the beautiful port city of Naples, since the second general assembly in Seoul.

I would like to extend my sincere appreciation to all participants for taking time out of your busy schedules and being here with us at the 3rd General Assembly. I am deeply honored to be able to meet all the members of the Alliance, and I look forward to constructive discussions in our pursuit for the development of the shipping, ports and logistics sector.

To begin with, I would like to extend my sincere gratitude to President Paolo Scudieri and the relevant officials of SRM, who have made extensive efforts in preparing for this General Assembly. My special thanks goes to Director Yu Shicheng of SISI who has led the Alliance as Chairman from the 1st General Assembly. I would also like to thank Secretary-general Zhen Hong as well as the relevant officials of SISI for keeping up the good work and operating the Alliance as Secretariat.

Finally, I would like to express my sincere gratitude and welcome to President Maurizio Barracco of the Bank of Naples for delivering a welcoming speech along with General Manager Francesco Guido and distinguished guests coming in from Asia and the rest of Europe.

2. Past works and roles of the Alliance

Bringing together 13 prominent research institutes in shipping, ports and logistics sector from China, Singapore, the UK, Germany, the US, Japan, Italy and Hong Kong, the Alliance was inaugurated in 2016 in Shanghai China, where it held its first General Assembly.

Since its inauguration, members of the Alliance have participated in continued exchange and research cooperation. In fact, we are seeing tangible results; SISI have decided to cooperate with Drewery for Singapore Maritime Cluster Study, while SRM has partnered with SISI to take on one session of the SRM Maritime Economy Annual Report 2017, covering China's shipping and logistics.

As a member institute of the Alliance, KMI will also present a study on the 'status and trends of global shipping finance focusing on cases in Europe, China and South Korea' at SRM's 2018 annual report.

In 2017, the Korea Maritime Institute hosted the 2nd General Assembly of the Alliance in Seoul. With IHS Markit participating as a new member institute, the assembly brought together global members including KMI, SISI, SRM, IHS Markit and IMC-Frank Tsao Maritime Library and R&D Center along with Korea's leading experts in shipping, ports and logistics. The participants held

heated and constructive discussions on the major issues of 2017; 'Forecasting demand and Supply of global container shipping' and the 'Economic effect of the enlargement of ship size and strategies of shipping companies and ports'.

Amid the rapidly changing environment surrounding shipping, ports and logistics, it is a great opportunity and a pleasure to discuss global shipping issues at this 3rd General Assembly. As prescribed at its Charter, the Alliance has thought deeply about the direction of the global shipping industry, positioning itself as a platform for cooperation and exchange both in name and reality. I expect that we will witness more substantive and tangible cooperation among member institutions in the future.

3. Rapidly changing conditions of the shipping industry and major issues

Distinguished guests!

Conditions surrounding the global shipping, ports and logistics market are rapidly changing, which requires preemptive and appropriate responses. The world economy is expected to grow driven by recovery of emerging economies and the growth of advanced nations. At the same time, however, increasing protectionism is further accelerating uncertainty.

According to the IMF's World Economic Outlook, global growth forecasts for 2018 have been revised upward to 3.9 percent. This forecast reflects the expectation that favorable global financial conditions and strong sentiment will help maintain recent acceleration in demand together with increasing external demand from advanced countries such as the US.

Furthermore, Lloyd's Register forecasts that container shipping trade between the Far East and the Middle East will rapidly grow, boosting the Indian Ocean and Asia Pacific as a hub for the global container shipping market. In this regard, rising demand of transport following the growth of the global economy and rising emerging markets will serve as a huge opportunity to shipping, ports and logistics.

Meanwhile, an inter-Korean summit held in April 27, and a US-North Korea Summit scheduled this month, is improving North Korea's external relations and the promotion of peace surrounding the Korean peninsula. This would likely result in a huge breakthrough in the shipping and logistics environment in Northeast Asia and Eurasia. If the severed logistics network with North Korea is connected and reestablished, it will draw a completely new map for international transport logistics. Once, "The New Northern Policy' driven by the South Korean government, "One road, One belt Initiative" led by China and Russia's 'Far East Policy' are interconnected and developed together, it will pave a new road for shipping, ports and logistics in Eurasia.

Today, we are here to discuss three very important shipping issues, which are; 'Relations between industry and maritime transport', 'Development of intermodal transport', and the 'Belt and Road Initiative'.

In regards to the first subject, the relations between industrial transport and maritime transport are mutually influential. And the significance of this relation varies depending on macroeconomic changes of the global economy and the impact exchanged between maritime transport and industry within an individual country. Secondly, the development of intermodal transport is an important subject as it runs through all areas of shipping, ports and logistics. Furthermore, this is what our industry must pay attention to and continues to study from the perspective of supply chain. Last of all, China's 'Belt and Road Initiative' strategy can provide an important opportunity for the growth of shipping, ports and logistics along with the 4th Industrial Revolution, issues on the environment and the subject of North Korea.

I sincerely hope that we are able to host efficient and constructive discussion on these three important subjects.

4. Conclusion

If the member institutes of the Alliance continue to come together and discuss pending issues, coming up with response measures as in the past, the Alliance will be able to fulfill its duty as a global think-tank contributing highly to the development of the shipping, ports and logistics industry. Following the good work of 2016 and 2017, I hope that this year will bring about tangible results through effective research activities and exchange between member institutes.

KMI will put its best efforts into further accelerating and expanding the cooperation and exchange among members based on the experience of holding the 2nd general assembly, contributing to the writing of SRM's annual report and MOU agreement with SRM.

I wish all the participants good health and happiness! Thank you very much

Yang Chang-ho
President of Korea Maritime Institute

Working Report

In December 2016, Shanghai International Shipping Institute (SISI) initiated the Global Shipping Think Tank Alliance (hereafter refer to the Alliance) and got responses from 13 organizations. The Alliance set its secretariat at SISI and appointed Prof. Zhen Hong as secretary-general, Prof. Yin Ming as executive deputy secretary-general and Dr. Zhao Nan as deputy secretary-general. The Inauguration Meeting of the Alliance was held in Shanghai, China on Dec. 13, 2016, where delegates passed the Alliance Charter, discussed the working mechanism and issues of interest in port and shipping development. On Nov. 9, 2017, Korea Maritime Institute (KMI) held the 2nd Plenary Meeting in Soul, South Korea. In this meeting, delegates analyzed issues including "Forecasting Demand and Supply of the Global Container Shipping" and "Economic Effect by the Enlargement of Ship Size and Strategies of Port and Shipping Companies", as well as confirmed that the 3rd Plenary Meeting would be sponsored by SRM in Naples, Italy.

Initially, there were 13 founding members of the Alliance, which includes Centre for Maritime Studies of National University of Singapore (CMS), China Academy of Transportation Sciences of the Ministry of Transport, Drewry, Hong Kong Maritime Research Centre, IMC-Frank Tsao Maritime Library and R&D Center, Institute of Shipping Economics and Logistics (ISL), Korea Maritime Institute (KMI), Marsoft, Port and Air Research Institute of Japan (PARI), Shipping Development Institute of Dalian Maritime University, SRM, Shanghai International Shipping Institute (SISI) and World Maritime University Shanghai Center. In 2017, IHS Markit applied to join the Alliance, and now there are altogether 14 organizations in the Alliance.

Members of the Alliance have a collaborative relationship with each other. For example, in 2017, secretariat launched the joint project of "Singapore Maritime Cluster Study" and commissioned Drewry to research on the maritime R&D and shipping finance in Singapore. SRM solicited contributions from SISI in both 2017 and 2018 for its Maritime Economy Annual Report, with Report 2017 published on Jun. 21, 2017 and Report 2018 soon coming out. Besides, SISI and IHS Markit have made several mutual visits. In March 2018, Prof. Yin Ming, deputy secretary-general of SISI and executive deputy secretary-general of the Alliance was invited to deliver speeches at the TPM Conference sponsored by JOC EVENT under IHS Markit in the United States.

Looking into the future, secretariat is working on to establish a website for the Alliance, and the columns that have been discussed include: introduction to the Alliance (background, mission, organizational chart, operation mechanism, contact information of the secretariat…), introduction to each organization (brief intro, news, products, website link…), activity notices and plenary meeting reports, shipping reviews and industrial updates, and how to join us, etc. Once it is set up and placed online, we will be needing regular support from each of the members to provide us with articles, reviews, news or any related materials you feel worthwhile for industry education or promotion.

Moreover, secretariat would like to select information on the website to compile and publish monthly newsletters, in order to enhance the international influence of the Alliance as well as that of all our members. Details of the website and newsletter can be discussed later in the meeting.

In addition, to strengthen the academic exchange among members, in 2018, SISI plans to fund one or two research projects of interest. We are pleased to invite members to participate in those projects and to visit Shanghai for professional communication and cooperative research.

So far, we have successfully held three plenary meetings, and shall elect a new chairman as per the Charter. First of all, on behalf of Prof. Huang Youfang, president of Shanghai Maritime University and the first chairman, I would like to express my gratitude to all members for your support. Meanwhile, I also want to thank Prof. Huang Youfang and Shanghai Maritime University for the support given to the Alliance, in the name of secretariat.

Taking this opportunity, secretariat proposes Mr. Yang Changho, president of Korean Maritime Institute (KMI) as candidate for new chairman. KMI is one of the founding members of the Alliance and the sponsor of the 2nd Plenary Meeting, which has actively participated in all activities of the Alliance. We believe that as new chairman, Mr. Yang Changho together with KMI will inject vitality into the development of the Alliance. We hope you will support us on this proposal!

Last but not the least, on behalf of Alliance Secretariat; I would like to thank all our members again on your support to what we had carried out. And looking into the future, we hope to invite more new members in joining us, to promote deeper communications and exchanges among us and to provide more and more effective services for all of our members. Your advice or suggestions will be much appreciated and welcomed!

That's all. And thank you!

Secretariat

Global Shipping Think Tank Alliance

June, 2018

The booklet does not contain all the Conference Proceedings.

The presentations hereby included are those received until 30th May 2018.

Global Shipping Think Tank Alliance

3rd Plenary Meeting

Delegate Speaker Presentations

GLOBAL SHIPPING THINK TANK ALLIANCE SEMINAR

Relations between industry and maritime transport

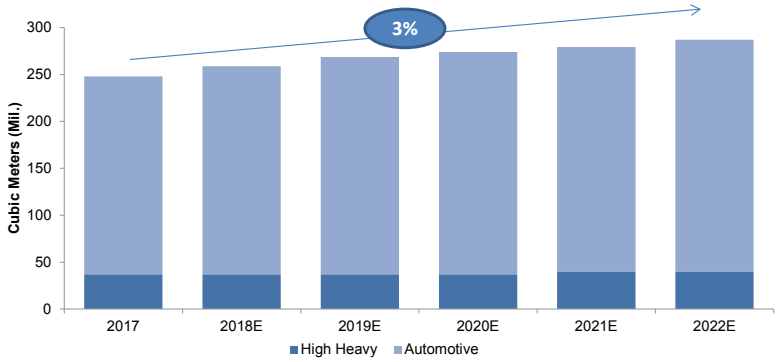
Ro-Ro and automotive in the Mediterranean: key trends

Anna Arianna Buonfanti, Maritime Economy Researcher

Naples, June 4th 2018

Global Ro-Ro volumes are expected to grow

2

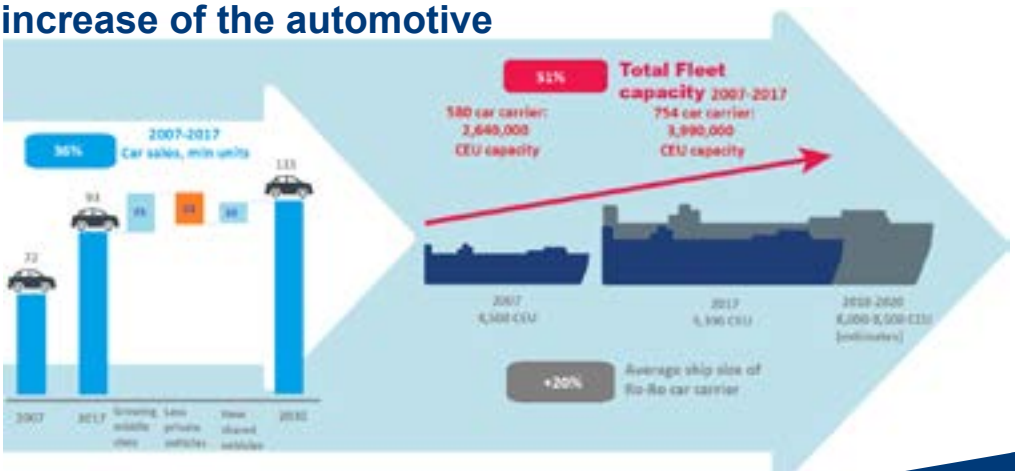


- In 2022 Ro-Ro volumes will reach 287.1 million CBM

Source: SRM on WWL Group, 2018

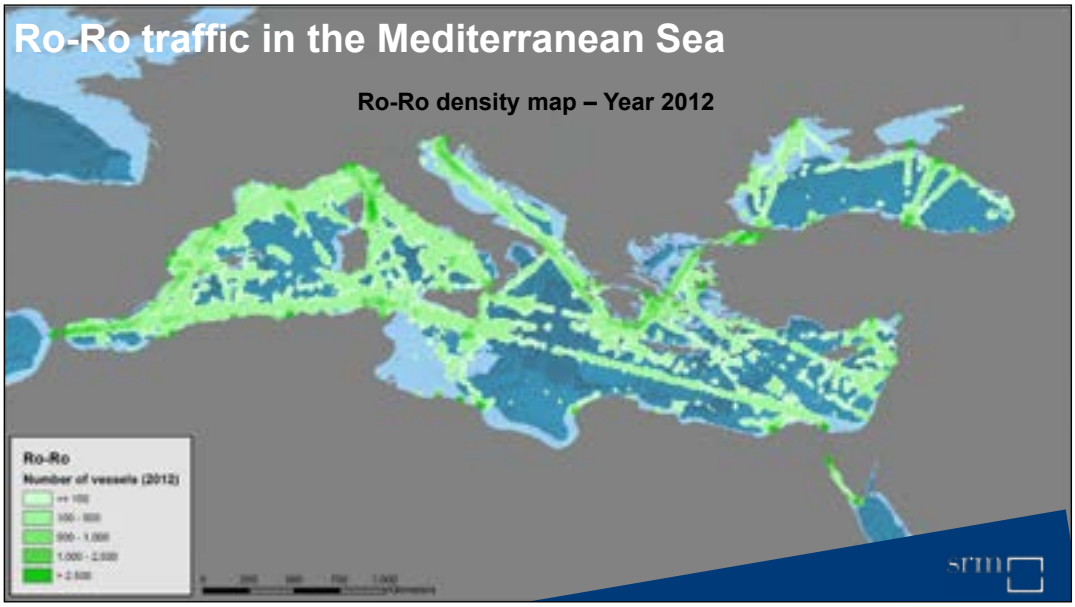
The connection between the growth of Ro-Ro and the increase of the automotive

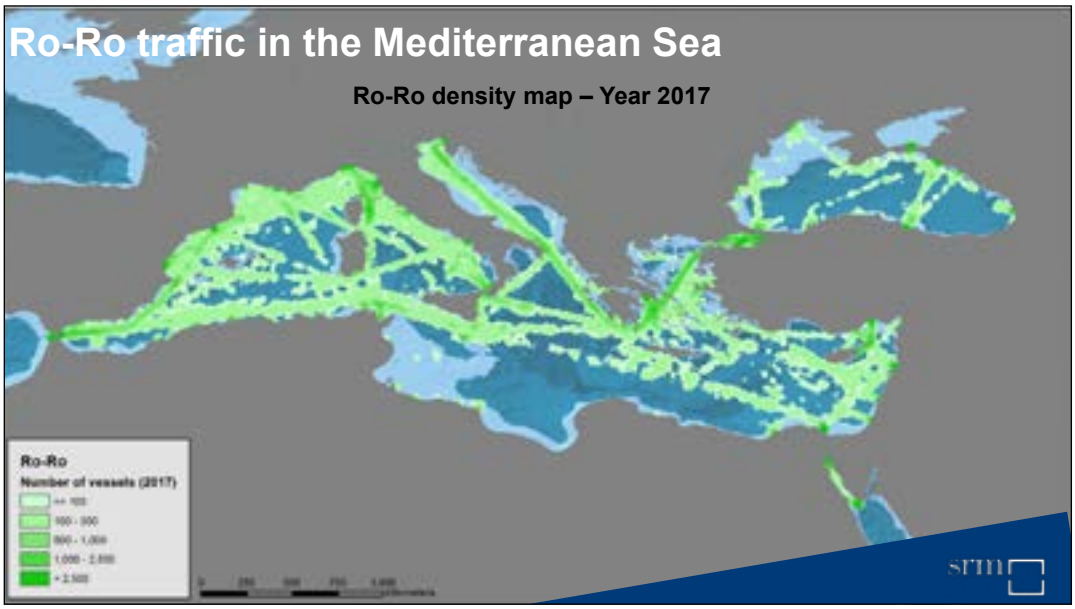
3

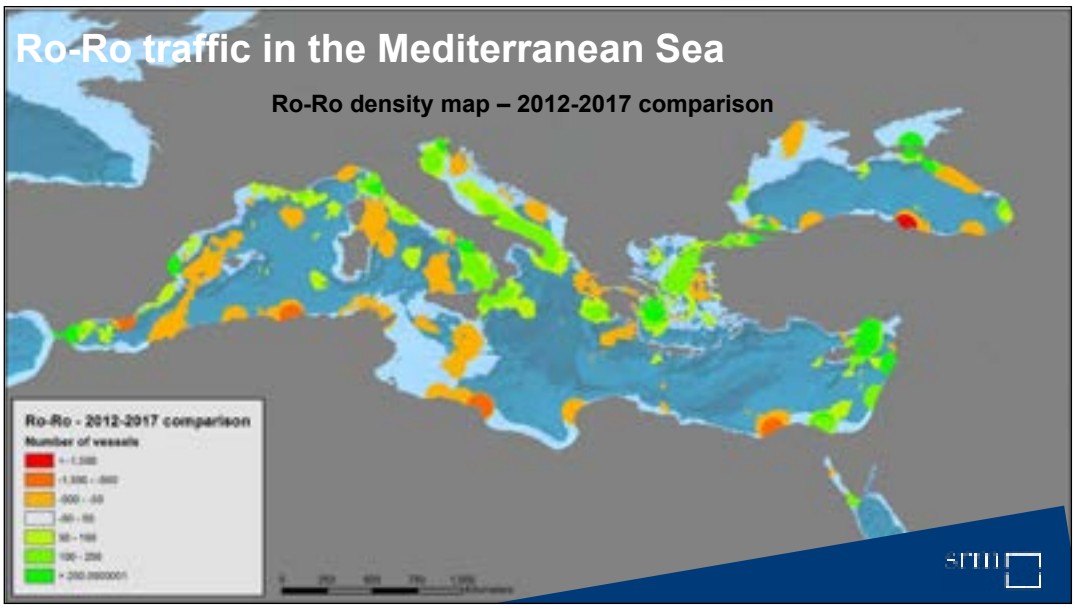


* CEU (car equivalent unit)

* Source: SRM on WWL, BRS Group, ANFIA, Fearnleys


Ro-Ro traffic in the Mediterranean Sea
Ro-Ro density map – Year 2012
Ro-Ro
Number of vessels (2012)

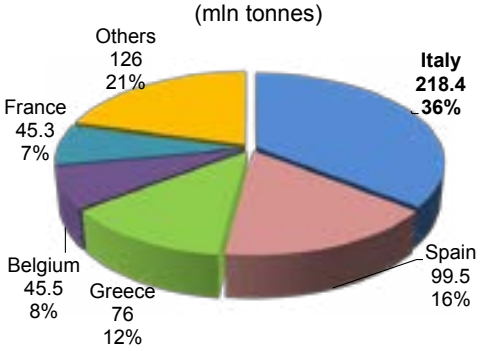

Ro-Ro traffic in the Mediterranean Sea
Ro-Ro density map – Year 2017
Ro-Ro
Number of vessels (2017)


Ro-Ro traffic in the Mediterranean Sea
Ro-Ro density map – 2012-2017 comparison
Ro-Ro - 2012-2017 comparison
Number of vessels

Two Italian records

- In the **Mediterranean Area, Italy ranked 1st** among EU countries.

Short Sea Shipping in the Mediterranean
(mln tonnes)



Source: SRM on Eurostat and Dynamar, 2018

- Grimaldi **ranks 1st** and Messina **2nd** in the world as a **conventional (deep sea) Ro-Ro operators. Grimaldi** has **a fleet of 38 ships** for a total **1.2 million dwt** equal to **36% of the world; Messina** has **9 ships** with **376 thousand dwt.**

Rank	Ro/Ro Carriers (conventional Ro-Ro)	Ships	Total dwt
1	**Grimaldi, incl.ACL**	**38**	**1,182,000**
2	**Ignazio Messina**	**9**	**376,000**
3	WWL	8	330,000
4	NYK BPC	15	323,000
5	BAHRI	6	156,000
Top 5		76	2,367,000
Worldfleet Ro-Ro		210	3,239,000
Share Top 5		36%	73%

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Thank you for your attention!

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GLOBAL SHIPPING THINK TANK ALLIANCE SEMINAR

Belt&Road Initiative

Forecast and competitiveness of the container shipping Mediterranean market

Olimpia Ferrara, Coordinator Maritime Observatory

Naples, June 4th 2018

Forecast seaborne trade development, 2017-2022 (yearly rates)

- Containerized trade volumes: +**5%**

- Five major bulks: +**5.6%**

- Crude oil: +**1.2%**
- Refined petroleum products and gas: +**1.7%**

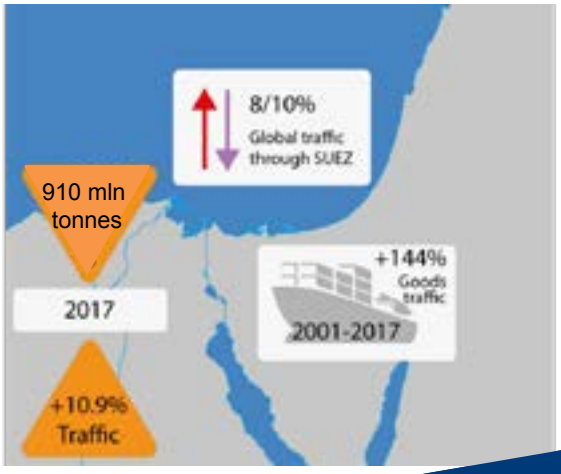
- Global seaborne trade: +**3.2%**

Source: SRM on UNCTAD, 2017

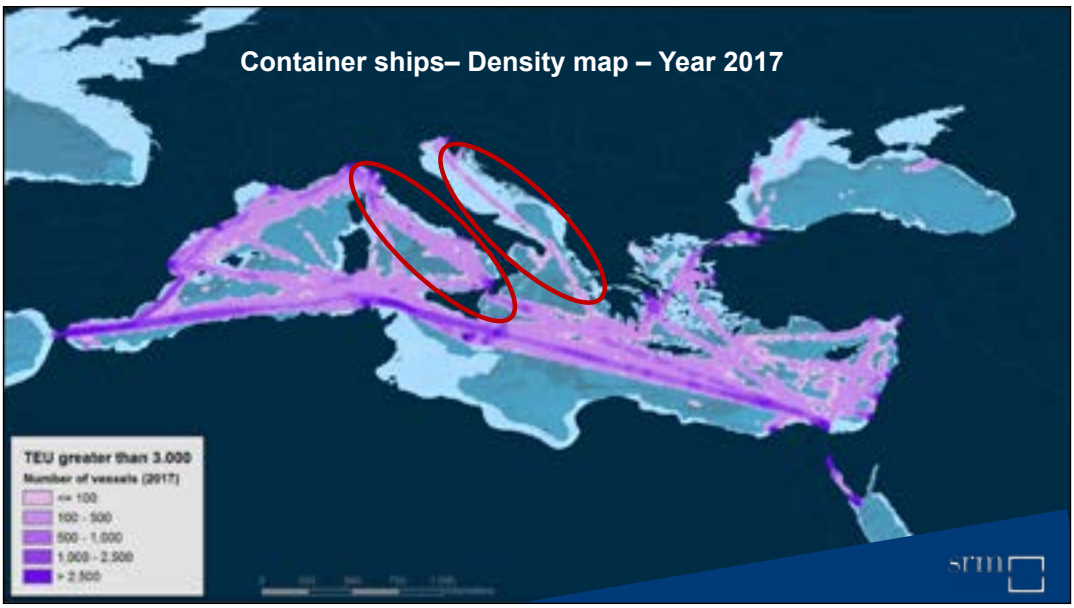
New Centrality of the Mediterranean: The growth of the Europe-Far East Route

TEU million 2017and growth **CAGR** 1995-2017
Source: SRM on Unctad and IHS, 2017

Double digit growth for global traffic *pivot:* New Suez



Source: SRM on Suez Canal Authority



GLOBAL SHIPPING THINK TANK ALLIANCE SEMINAR

Key Factors Shaping the Future of World Trade: What Can Be Expected in the Mediterranean?

Luca Forte, SRM Mediterranean Observatory

Napoli, June 4th 2018

Factors Shaping the Future of World Trade (OECD)

2

- **Demografic Changes:** via (i) Impact on comparative advantages and (ii) Effects on Import demand.
- **Investment in Physical Infrastructures:** can facilitate the integration of new players in international supply chains.
- **Energy**: the **Shale Gas revolution** will make North America energy sufficient. What about Europe?
- More widespread **Technological Progress** compared to past times: can enable countries to move up the value chain: Countries representing 20 per cent of the world's total population accounted for about 70 per cent of research and development (R&D) expenditure in 1999, but only about 40 per cent in 2010

Factors Shaping the Future of World Trade (OCDE)…

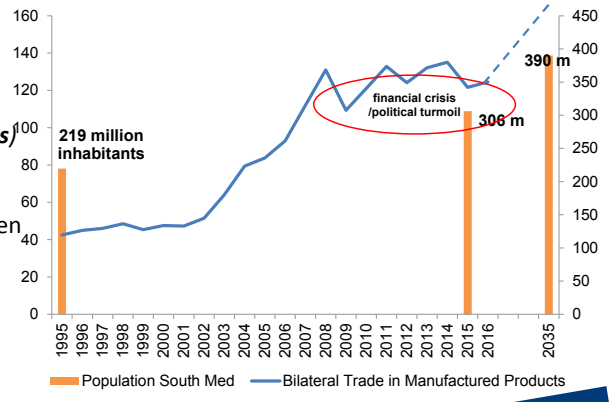
3

…What Can Be Expected in the Mediterranean (1)

- **Demografic Changes**

Fast growing population in South Med ***(+85 million people in the next 20 years)***

As soon as political turmoil in the South Med is overcome, bilateral trade between the two shores of the Mediterranean **would possibly grow as much as in the 2001-2008 period.**



Factors Shaping the Future of World Trade (OCDE)… 4

…What Can Be Expected in the Mediterranean (2)

- **Investment in Physical Infrastructures**

Investment in Port Infrastructures is the key goal for most of the South Med Countries.

Morocco, **Egypt, Israel** and **Turkey** are one step ahead on this path.

Tunisia and **Algeria** are planning to build up maritime transport by investing in **deep water ports.**

These transportation infrastructures would strengthen commercial ties between the two shores of the Mediterranean

Factors Shaping the Future of World Trade (OCDE)… 5

…What Can Be Expected in the Mediterranean (3)

- **Energy**: North America will be energy sufficient thanks to **shale gas**. As for Europe…

…at present, there's **no shale gas production in Europe**: among European leading countries **Italy** has not commercially exploitable reserves, **France** has introduced a ban and **Germany** has suspended operations.

European Countries are to import energy product (Oil and Natural Gas) from abroad

Algeria is the **10th** country worldwide in terms of natural **Gas proven reserves**, second in Africa just after Nigeria.
Libya ranks **9th** for **Oil proven reserves**, first country in the African continent.

To summarize: complementarities between the two shores of the Mediterranean Basin

- **Population**: **steady** population in the North vs. **growing** population in the South **high education** + **old population** in the North vs. **low education** + **young population** in the South.
- **Technology: high tech** in the North vs. **massive labour force** in the South.
- **Energy: oil/gas consumers** in the North vs. **oil/gas producers** in the South.
- **Infrastructures:** toward a **common development model: Port efficiency + Inland Logistic and Industrial facilities**

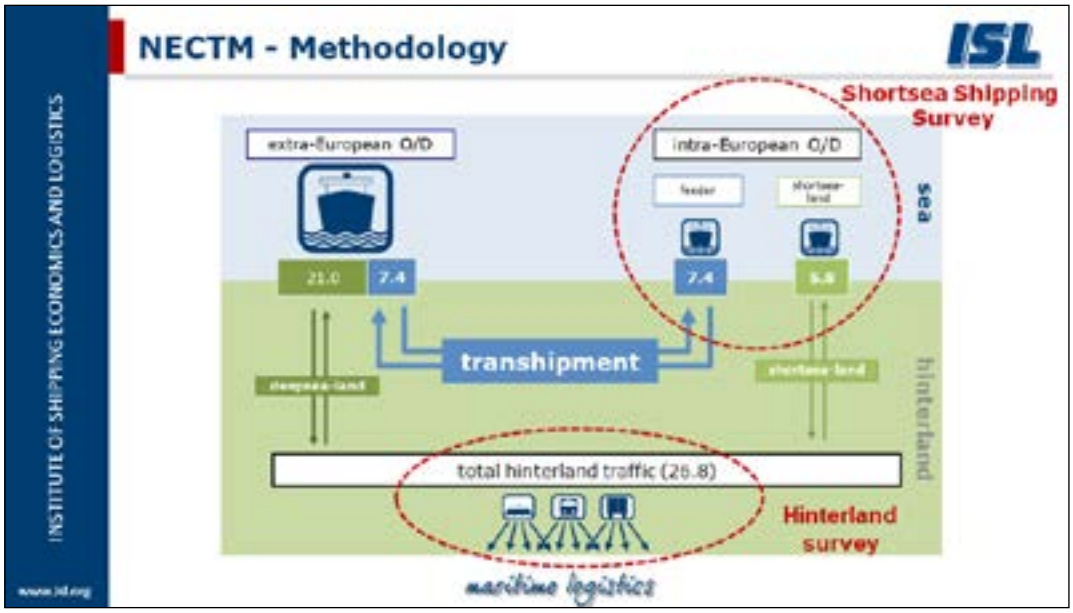
COMPLEMENTARITIES → MORE INTEGRATION → ECONOMIC DEVELOPMENT

North European Container Traffic Model (NECTM)
Monitoring the structures of transport flows

The Institute of Shipping Economics and Logistics (ISL) developed a model to monitor and analyse various aspects of maritime transportation. The North European Container Traffic Model (NECTM) is an integrated TEU-based model for the North range ports including deepsea and shortsea traffic as well as hinterland and transhipment regions for the ports of the Hamburg-Le Havre range (Le Havre, Zeebrugge, Antwerp, Rotterdam, Bremen/Bremerhaven, Hamburg).

The model identifies the amount of transhipment containers which is not easy to attain as reliable data on intra-European trade is not available. The numbers are derived from the shortsea shipping survey carried out by ISL. As transhipment is not relevant for the distribution in the North Range port's hinterland it is deducted. This leaves a total amount of 26.8 million TEU from deepsea and shortsea trade for inland transportation.

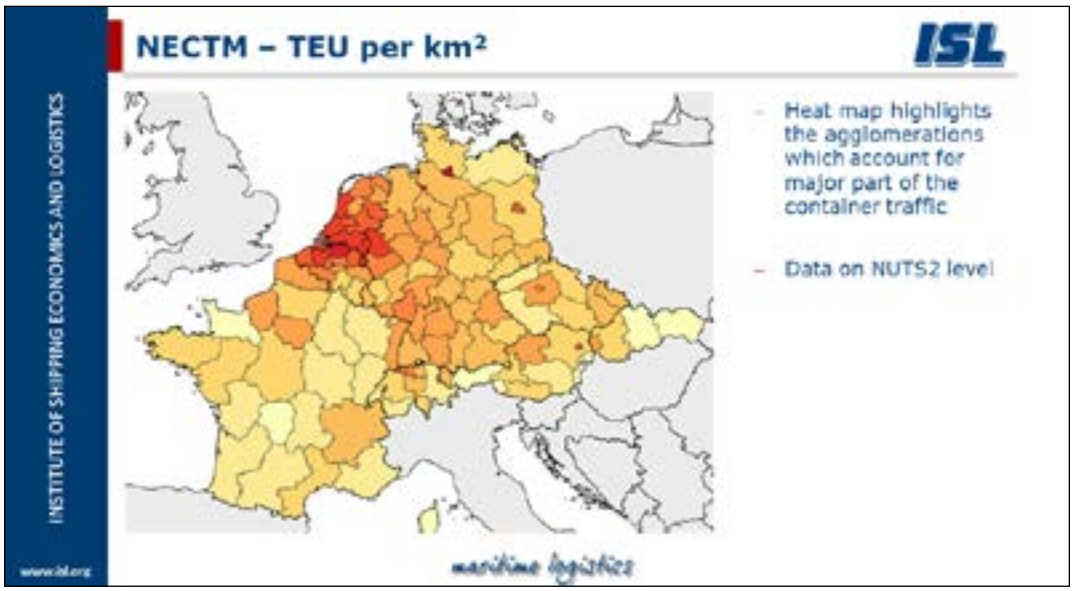
The distribution of the total hinterland volume is one of the key parts of the NECTM. The model computes the exact container traffic for the various corresponding hinterland regions of the North range ports. The containers are allocated to each mode of transport according to the modal split. While barge and rail services are comparatively easy to track, the model relies on gateway surveys and the haulage reported by contributing carriers for road transportation.



The NECTM is well accepted among port authorities and other actors of the maritime supply chain. They are as well custumers as partners that help improving the structural analysis of container flows.

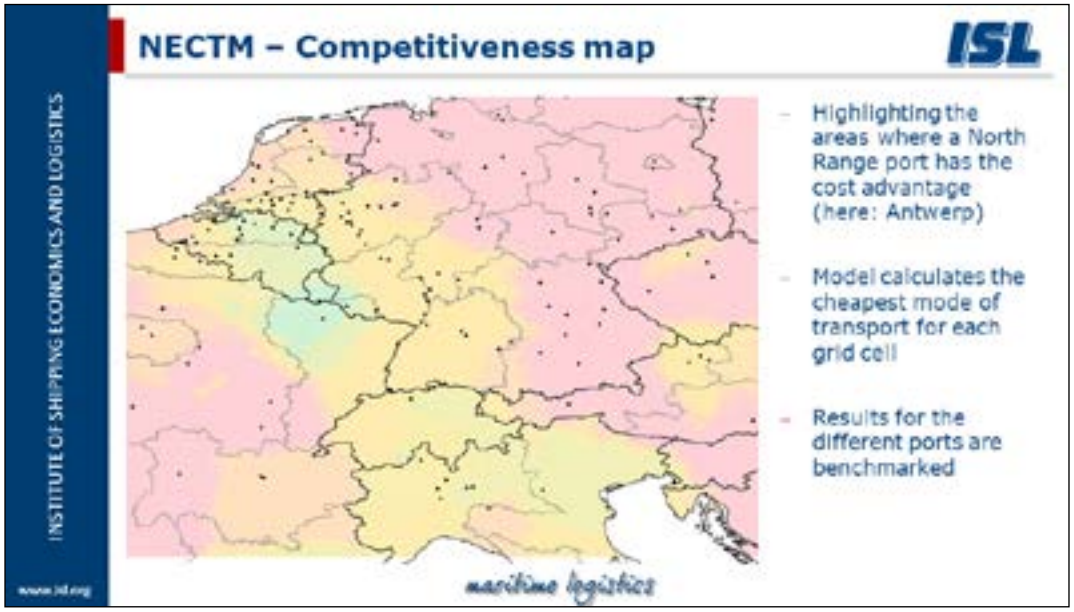
Over the years the NECTM has been improved and expanded. This includes the addition of new countries as part of the hinterland as well as differentiating the already integrated countries on a more detailed regional level to achieve additional accuracy. Most lately the incorporation of six mediteranean ports has began and will be further promoted.

The NECTM provides a good overview of the core areas of container origin and destination. With the support of graphical visualisation like in the heat map underneath it is simple to identify key markets. The analysis can be carried out on different levels of aggregation depending on the data availability. For the most important countries of the North range hinterland data on NUTS-3 level which reflects the most detailed level in the Classification of Territorial Units for Statistics system is on hand.

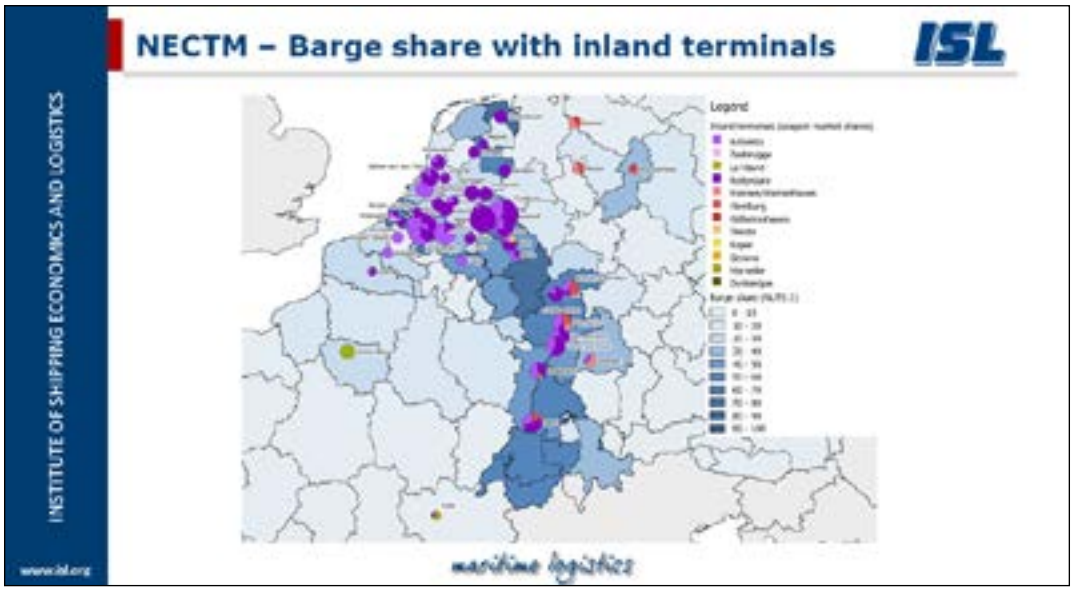


With the collected data ISL provides different kind of hinterland market analysis for its customers depending on their needs and requests. Such studies are able to identify a port's core markets as it is possible to examine the seaport share for each North Range port on a regional level.

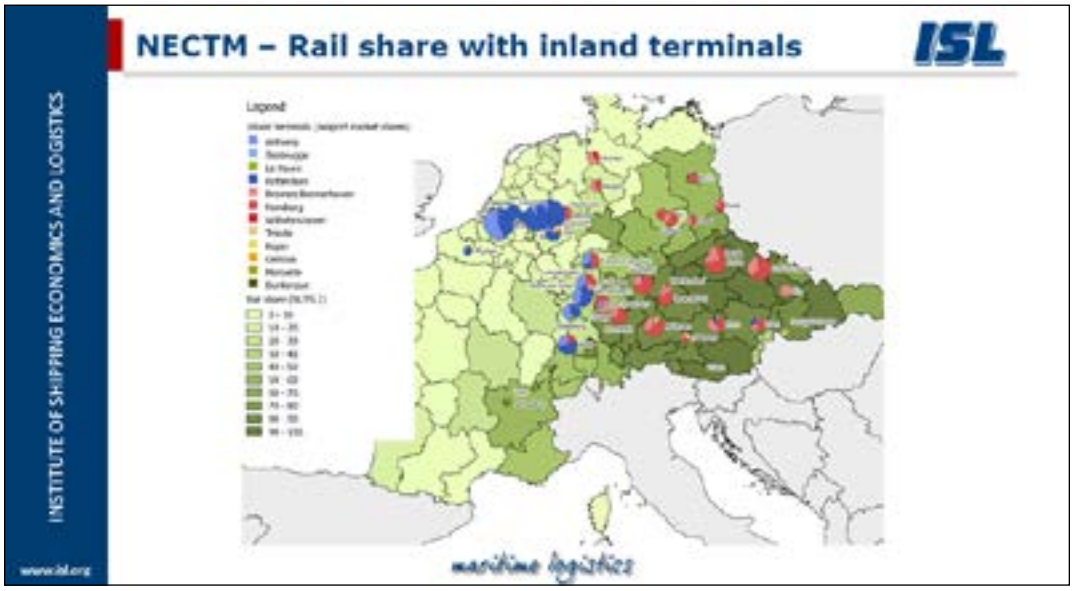
Besides such analysis of the current state another study field of ISL is forecasting and modelling. A grid cell analysis allows the computation of cost advantages. For each 5 x 5 km grid cell of the European hinterland an estimation is made. On the one hand the algorithm calculates the prices for the three modes of transport from each cell, while benchmarking the different results with the diverging prices for each North Range port on the other. This allows the identification of the cheapest port for each grid cell. Revealing areas where one port (in the underneath example the port of Antwerp) has a computed cost advantage (green to light yellow) is a useful information for the alignment of a port's hinterland strategy.



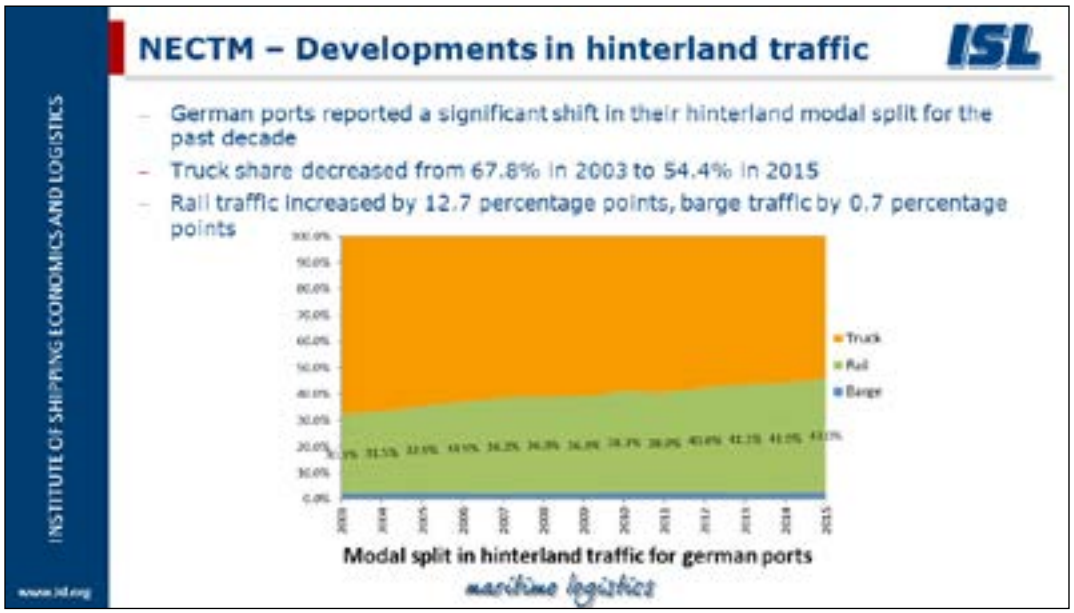
The modelling of the modal split and intermodal transports are an important factor of the NECTM. Regional differences in the modal split are visible when the different modes of transport are compared. This has a strong effect on the question which port is the easiest to access and therefore most likely the cheapest option. The following graphic illustrates the barge share which is the predominant mode of transport for regions along the Rhine. This results in large market shares for the ports of Rotterdam and Antwerp which is displayed with the seaport share of the barge terminals. However, the areas of Frankfurt and Baden-Wurttemberg are also contested by the German ports (pre-carriage is done by rail in this case).



The following share map identifies the areas where pre-carriage is predominantly done by railway along with the North Range ports' market shares by terminal. Rail transportation requires a minimum transportation distance until it is efficient and can compete with truck and barge services. As cost advantages ascend with increase distance, interior European countries have the highest rail shares. Especially in Austria, the Czech Republic and Bavaria railway is the primary mode of transport because barge transportation is not an option in these areas. The German ports of Hamburg and Bremerhaven are predominant there. However, train services to Rotterdam are also operated which leads to a decent market share of the port in some Austrian regions.



ISL's experience in the field of transport monitoring provides various opportunities for time series examination. The shift from road to rail transportation that has been on political agendas for a long time is evident. Starting in 2003 the truck share in the hinterland traffic of the German ports decreased by 13.4 percentage points within twelve years. The result of this development is that four in ten containers, which are handled by Bremerhaven or Hamburg today, are transported by rail.



The steadily improved NECTM supports decision makers of various maritime transport actors in their operative and strategic tasks. The computation reveals core markets as well as potential markets of high volumes or the terminals' role in intermodal supply chains of the hinterland container traffic.

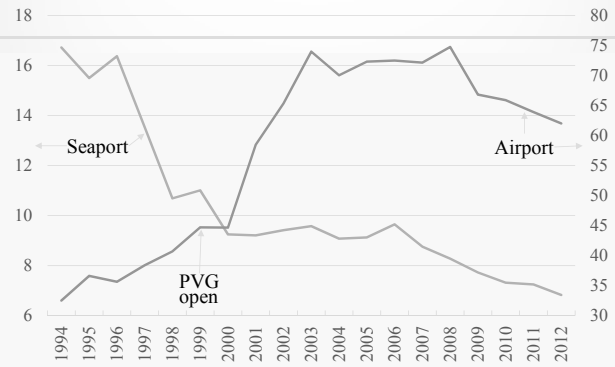
Analysing the attractiveness of an intermodal gateway: A case study for Shanghai

Meifeng Luo, PhD
Associate Professor, Dept. of Logistics and Maritime Studies,
Director, IMC-Frank Tsao Maritime Library and R&D Centre
The Hong Kong Polytechnic University.

Shanghai: the intermodal gateway of China

- In 1930s, Shanghai was acclaimed as "The Paris of the East, the New York of the West"
- Now, it serves the trade of the whole country via highway, inland waterway, coastal trade, rail connections, and air transportations.
- It is the busiest container port in the world.
- It also has two airports, Pudong and Hongqiao. Pudong is the 3rd busiest cargo airport in the world in 2014.

Market share of Shanghai seaport and Airport



Distribution of provinces that used Shanghai gateway in 2012

Measure the attractiveness of Shanghai for each province

- IO_{it}: total trade of province *i* at year *t*.
- SIO_{it}: that uses Shanghai gateway for import or export
- $s_{it} = \frac{SIO_{it}}{IO_{it}}$: index for attractiveness of Shanghai gateway for province *i* at year *t*.

I. Captive hinterland: $s_{it} > 0.9$
II. Core hinterland: $0.9 \geq s_{it} > 0.4$
III. Significant hinterland: $0.4 \geq s_{it} > 0.2$
IV. Peripheral hinterland: $0.2 \geq s_{it} > 0.1$
V. Nominal hinterland: $0.1 \geq s_{it} > 0$

I
II
III
IV
IV

Shanghai reduces its core hinterland and expands its peripheral hinterland.

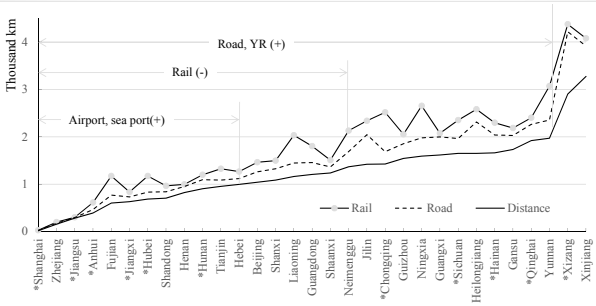
What affects the competitiveness of Shanghai?

What affect the attractiveness of Shanghai?

Air/sea ports located >1000KM are Shanghai's competitor

Road<2.73 & inland waterway <2 thousand KM prefer Shanghai

Rail has no use for Shanghai for hauling only 2.11 thousand KM.



YR is very important for Shanghai.

If Shanghai can have better connection to the rail system, it can do better in the OBOR initiative

The rail is monopolized, and heavily subsidized. This needs change.

Thanks !

- Email: Meifeng.luo@polyu.edu.hk

- Paper published: Analyzing the spatial-temporal evolution of a gateway's hinterland: A case study of Shanghai, China. *Transportation Research Part E* 95: (2016)355-367,

GLOBAL SHIPPING THINK TANK ALLIANCE SEMINAR

Relations between industry and maritime transport

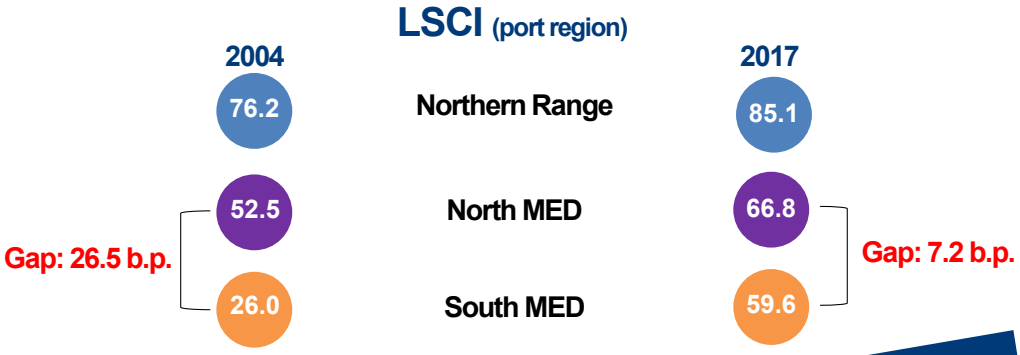
Special Economic Zones in Italy

Alessandro Panaro, Head of *Maritime & Mediterranean* Economy Dept.

Naples, 4th June 2018

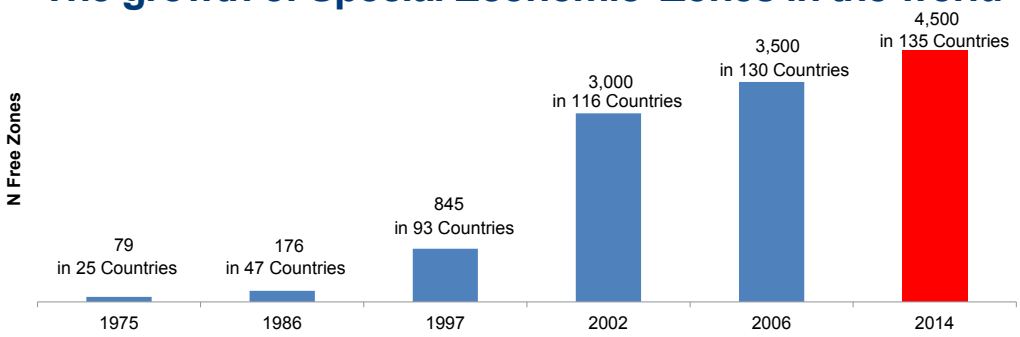
The Liner Shipping Connectivity Index

- The gap between Southern and Northern Mediterranean ports has dramatically reduced



Source: Unctad

The growth of Special Economic Zones in the world



Source: SRM on Trade Performance Of Free Trade Zones, 2014 and others

- The number of SEZs has **significantly increased** over the last 40 years
- These zones have created 68 m **direct jobs** and over $500 bn of **import-export**

Sez in Italy: basic features and potential locations

- Underdeveloped southern regions
- Including at least one port area
- Incentives for investments
- Strategic Development Plan
- Special agreements with banks
- Management Committee

Types of Incentive

5

- **National government Incentives**:
  - Tax Credit
- **Regional Incentives**:
  - other incentives and subsidies coming from regional laws and EU funds
- **Bureaucratic simplification**

Contents of the Development Plan of Italian SEZs

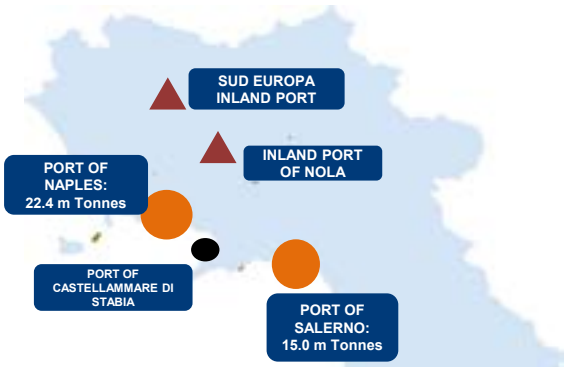
6

- Analysis of **scenario** and **social-economic impact**
- **Description of the areas**
- **Infrastructure**
- **Industrial sectors** and **connections** with the port
- **Bureaucratic** simplification
- Types of national and regional **subsidies**
- **Governance**

A case study: Campania's SEZ development plan

7

- **Strategic sectors selected**: Food & Beverage, Aerospace, Automotive, Fashion & Textile, Furniture, Pharmaceutical
- **Special Feature:** 2 regional inland ports
- Areas **efficiently connected** with Campania's ports



Maritime imports: €5.7 bn
Maritime exports: €3.8 bn

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GLOBAL SHIPPING THINK TANK ALLIANCE SEMINAR

Belt and Road Initiative

(Mediterranean ports and trade at a glance)

Dario Ruggiero, Maritime Economy Researcher

Naples, 4th June 2018

High- and Low-performing ports

3

	TEUs (2017)
Valencia (Spain)	4.8m
Algeciras (Spain)	4.4m
Piraeus (Greece)	4.1m
Tanger Med (Morocco)	3.3m
Marsaxlokk (Malta)	3.1m
Port Said (Egypt)	3.0m

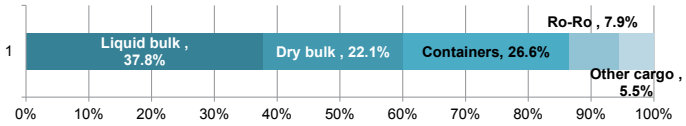
	TEUs (2017)	% change on 2016
Damietta (Egypt)	1.1m	+39.7%
Barcelona (Spain)	3.0m	+34.4%
La Spezia (Italy)	1.5m	+15.8%
Genova (Italy)	2.6m	+14.1%
Beirut (Lebanon)	1.3m	+13.8%
Tanger Med (Morocco)	3.3m	+11.7%
Valencia (Spain)	4.8m	+2.3%
Marsaxlokk (Malta)	3.1m	+2.1%
Port Said (Egypt)	3.0m	-1.2%
Algeciras (Spain)	4.4m	-8.0%
Gioia Tauro (Italy)	2.5m	-12.5%

	TEUs (2017)	% change on 2008
Piraeus (Greece)	4.1m	+855.1%
Tanger Med (Morocco)	3.3m	+259.7%
Ashood (Israel)	1.5m	+84.2%
Mersin (Turkey)	1.6m	+83.2%
Izmir (Turkey)	1.4m	+60.9%
Marseille (France)	1.4m	+60.1%
Genova (Italy)	2.6m	+48.4%
Haifa (Israel)	1.3m	+7.4%
Port Said (Egypt)	3.0m	-7.9%
Damietta (Egypt)	1.1m	-8.6%
Gioia Tauro (Italy)	2.5m	-29.4%

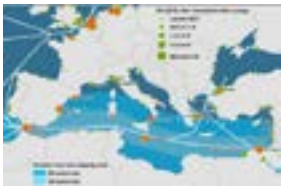
Northern Range vs Mediterranean

5

Total Throughput in 2016: ≈ 1.4bn tons

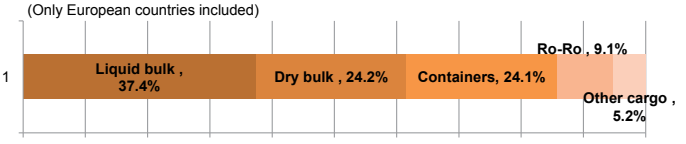


Number of **containers** handled: 42.9m in 2017



Total Throughput in 2016: ≈ 1.5bn tons

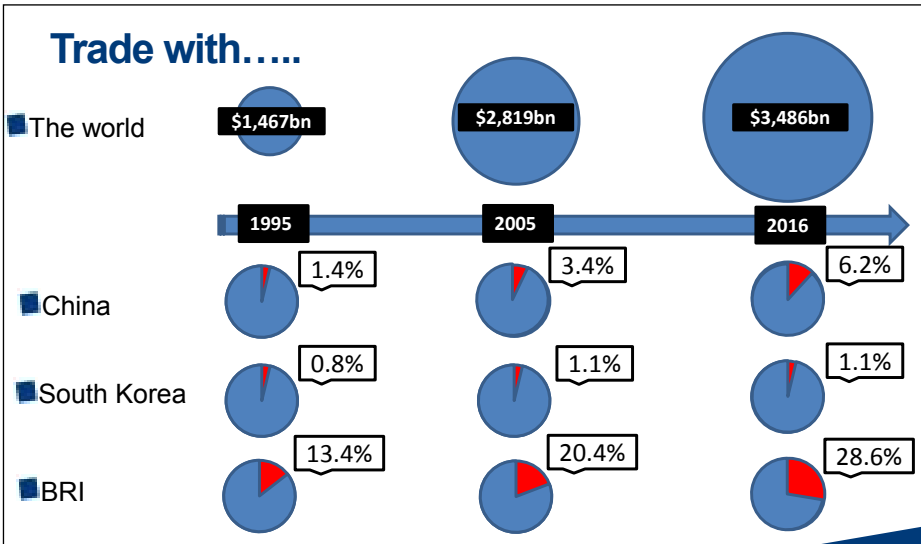
(Only European countries included)



Number of **containers** handled: 43.3m in 2017

Trade with…..

6



SOME SIMPLE QUESTIONS FOR YOU, SPEAKERS: 7

- Given the Belt and Road Initiative (BRI) and the increasing role of China and Far-East countries in the world,
- What's the role the Mediterranean can play in this scenario?
- BRI:
  - **Opportunities for** and **threats to** Europe-Asia maritime trade.
  - **Which European countries** should participate more in the development of the project?

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Intermodal Transportation Operations

Dr. Xie Yajuan
Centre for Maritime Studies
National University of Singapore

Overview

1. Typical Global Supply Chain
2. Overview on Four Freight Transport Modes
3. Freight Transport Modal Comparison
4. Current Intermodal Transportation
5. Logistics service indicators
6. Combined Modal Choice Method
7. Question & Answer

1. Typical Global Supply Chain

2. Overview on Four Freight Transport Modes

Road transportation

Water/maritime transportation

Rail transportation

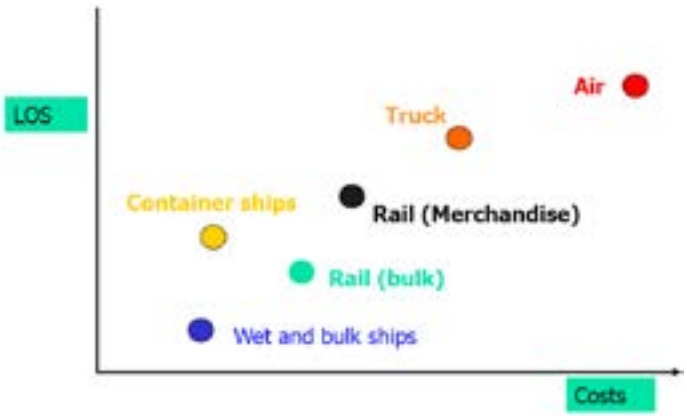
Air transportation

3. Freight Transport Modal Comparison

	Highest ⟷ Lowest			
Relative Cost	Air	Truck	Rail	Water
Transit Time	Water	Rail	Truck	Air
Reliability	Truck	Rail	Air	Water
Capability	Water	Rail	Truck	Air
Accessibility	Truck	Rail	Air	Water
Traceability	Air	Truck	Rail	Water

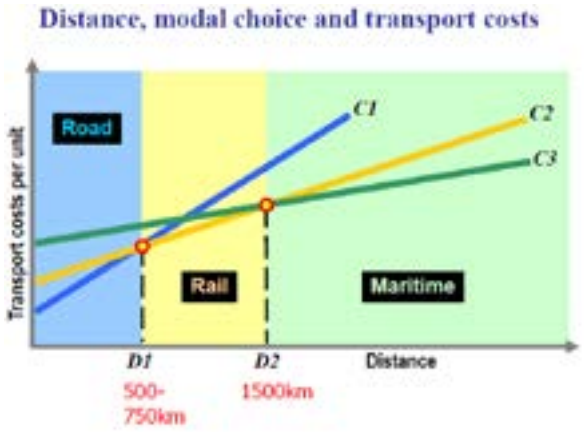
From Deborah Baker, Texas Christian University

3. Freight Transport Modal Comparison



3. Freight Transport Modal Comparison

Centre for Maritime Studies



4. Current Intermodal Transportation
---Shanghai's HongQiao Integrated Transport Hub

Centre for Maritime Studies

Layout: The major functional parts include Hongqiao Airport, Hongqiao Railway Station, Hongqiao Maglev Station, east and west traffic centers and unban rail transport. A second runway of the Hongqiao Airport will be built 365 meters away to the west of the existing runway, with such facilities as the west terminal building. The existing terminal and the west terminal are the satellite buildings for each other, both serving as the urban terminals for Pudong Airport. About 1,700 meters away from the existing runway of Hongqiao Airport and 450 meters away from the west terminal building, Hongqiao Railway Station

boasts 30 tracks and 16 platforms. The Maglev Station is built to the east of the railway station, with 10 lines and 10 platforms as planned.

***Passenger flow*:** 30 to 40 million people per year by airport; 120 to 140 million by railway and maglev trains; 10 million by highway buses. The daily flow of the hub is predicted to be about 1.1 million people

https://www.youtube.com/watch?v=mkvIp42kDLc

5. Logistics service indicators

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- **Lead Time:** Time occurred from the arrival of a customer order to the receiving of goods; it includes order transmission, order processing, order composition, order transfer to the production plant, article production, warehouse delivery, and final delivery to the customer.
- **Regularity:** Dispersion around the mean value of the delivery lead time
- **Reliability:** number of orders delivered punctually
- **Completeness:** door-to-door service provided by such one agent of the manufacturer
- **Flexibility:** ability to meet special/urgent/unexpected orders

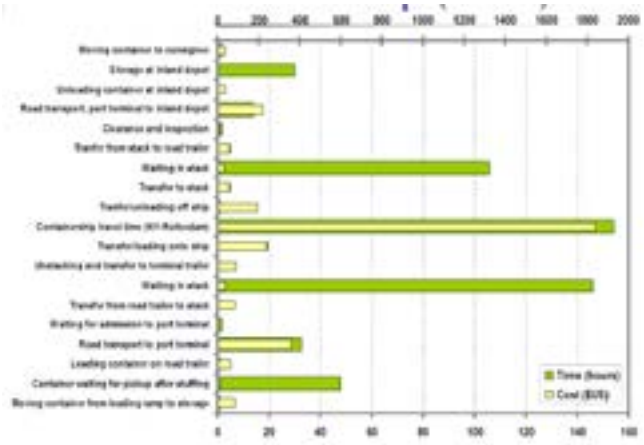
5. Logistics service indicators

Centre for Maritime Studies

- **Freight charges** - rates, minimum chargeable weights, loading and unloading facilities, packaging and blocking, special services from a carrier
- **Transit time** (total elapse time from dispatch to receipt)
- **Reliability** (consistency of transit time)
- **Inventory and warehousing costs** (affected by transit time/reliability, and value of goods)
- **Nature of goods** - capability of carrier (ability to provide equipment and facilities that a product requires e.g. controlled temperature and humidity, fragility, size constraints)
- **Accessibility** - geographical reach
- **Insurance** – compensation for loss, damage and delays
- **Documentation** requirements and charges
- **Service** – tracking of goods, etc.

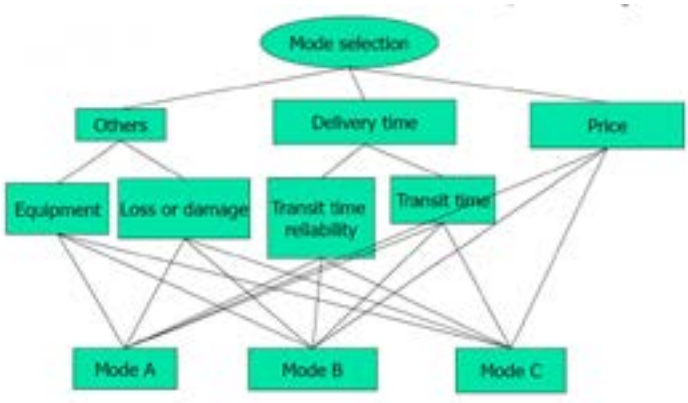
5. Time and Cost of Transport Activities Involving Moving a 40 Foot Container between the American East Coast and Western Europe (in 1997)

Centre for Maritime Studies



6. Combined Modal Choice Method: Analytical Hierarchy Process

Centre for Maritime Studies



6. Combined Modal Choice Method: Analytical Hierarchy Process

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pairwise comparisons of criteria and dimensions

Criteria (level 1)

criteria	price	Delivery time	others
price	1	3	1
delivery	1/3	1	1/3
others	1	3	1

Delivery dimension (level 2)

dimension	Transit time	Transit time reliability
Transit time	1	5
Transit time reliability	1/5	1

Price dimension (level 2)

mode	A	B	C
A	1	1	1/5
B	1	1	1/3
C	5	3	1

others dimension (level 2)

dimension	equipment	Loss or damage
equipment	1	1/5
Loss or damage	5	1

Transit time

mode	A	B	C
A	1	5	3
B	1/5	1	1
C	1/3	1	1

Transit time reliability

mode	A	B	C
A	1	1/3	2
B	3	1	5
C	1/2	1/5	1

Equipment

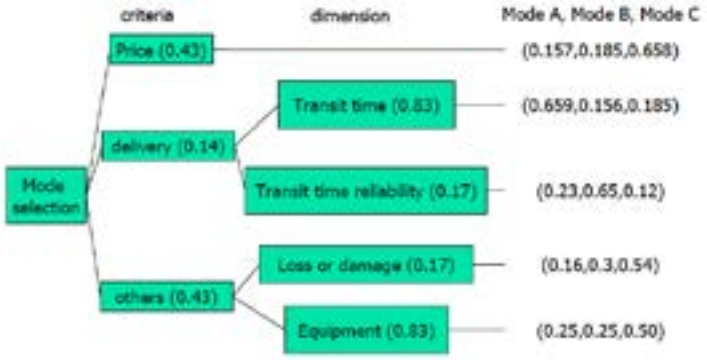
mode	A	B	C
A	1	1/2	1/3
B	2	1	1/2
C	3	2	1

Loss or damage

mode	A	B	C
A	1	1	1/2
B	1	1	1/2
C	2	2	1

6. Combined Modal Choice Method: Analytical Hierarchy Process

Centre for Maritime Studies



7. Question & Answer

Centre for Maritime Studies

The 3rd Plenary Meeting
of the Global Shipping
Think Tank Alliance

Steelmaking Industry and Maritime Transport

5 June 2018

Heesung Yun Ph.D

KOREA MARITIME INSTITUTE

Overview

Industry and Maritime Transport

	Raw Materials	Intermediate Goods	Finished Products
Energy	Crude oil Natural gas Coal	Petroleum product Chemical Plastic LPG	Fuel oil Electricity Electronics Cars, Trains
Mineral	Iron ore Bauxite/Alumina Non-Fe metal ore Minerals	Crude steel Steel products Steel scrap Cement	Buildings Roads Railways Ships, Airplanes
Organic	Phosphate rock	Fertilizer	
Food	Grain Livestock	Refrigerated food Sugar Vegetable oil	Furniture Clothes Paper
Forestry	Log	Timber Plywood Pulp	

Tankers Bulk carriers Containers Specialised carriers

2

Intro

Industry and Maritime Transport

- ✓ The shipping business requires a good understanding of the upstream industry.
- ✓ Various types of shipping are involved to meet the supply chain requirements of a specific industry.
- ✓ The issues regarding the industry-shipping relationship include…
  - cost-revenue optimization
  - efficiency in logistics
  - technical innovation
  - selection of vessel size
  - demand calculation

3

Steelmaking Industry

Steelmaking Process

Iron and Steel Making Process

Raw materials

Iron Ore

Limestone

Coal

Materials preparation

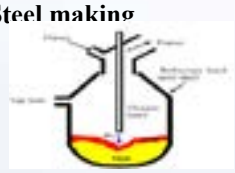
Sinter plant

Lime kilns

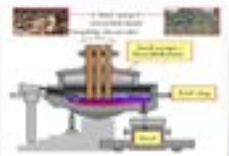
Coke ovens

Iron making BF : Blast Furnace

Steel making



BOF: Basic oxygen furnace



EAF : Electric Arc Furnace

Source: www. Substech.com,
https://www.researchgate.net/figure/Schematic-representation-of-the-electric-arc-furnace-steelmaking-and-ladle-refining_fig4_258379527

5

Steel Producers

Steelmaking Countries and Steel Majors

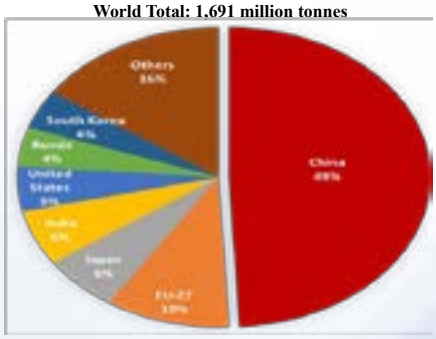
[Steelmaking Countries]

Country	2016		2017		Growth
	Rank	Volume	Rank	Volume	
	Million Tonnes				Y-o-Y %
China	1	786.9	1	831.7	6
EU-27	2	162.1	2	168.7	4
Japan	3	104.8	3	104.7	0
India	4	95.5	4	101.4	6
United States	5	78.5	5	81.6	4
Russia	6	70.5	6	71.3	1
South Korea	7	68.6	7	71.1	4
Germany	8	42.1	8	43.6	4
Turkey	9	33.2	9	37.5	13
Brazil	10	31.3	10	34.4	10
Italy	11	23.4	11	24.0	3
Taiwan	12	21.8	12	23.2	7
Ukraine	13	24.2	13	22.7	-6
Iran	14	17.9	14	21.7	21
Mexico	15	18.8	15	20.0	6

Source: Clarkson Research & World Steel Association

[Market Share, 2017]

World Total: 1,691 million tonnes



6

Steel Producers

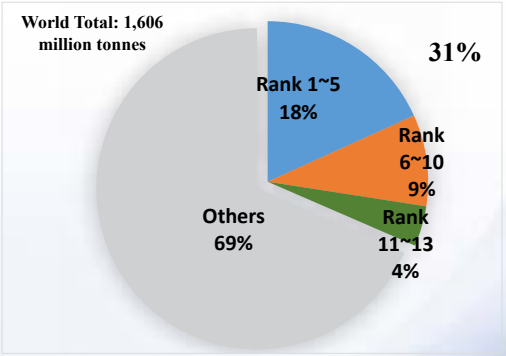
Major Steelmaking Production Countries and Majors

[Steel Majors]

Companies	Country	2016	
		Rank	Volume
			Million Tonnes
ArcelorMittal	Luxembourg	1	95.5
China Baowu	China	2	63.8
HBIS	China	3	46.3
NSSMC	Japan	4	46.2
POSCO	South Korea	5	41.6
Shagang	China	6	33.3
Ansteel	China	7	33.2
JFE Steel	Japan	8	30.3
Shougang	China	9	26.8
Tata Steel	India	10	24.5
Shandong	China	11	23.0
Nucor	USA	12	22.0
Hyundai	South Korea	13	20.09

Source: World Steel Association

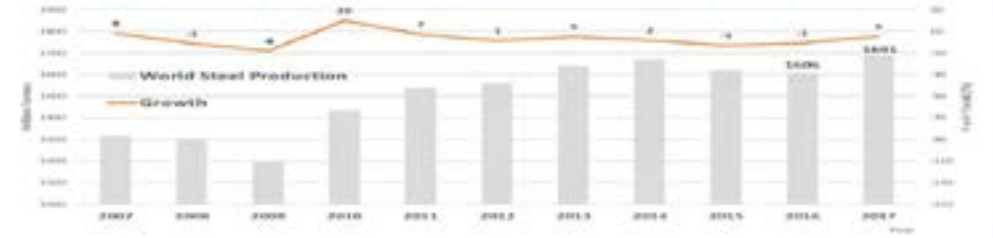
[Market Share, 2016]



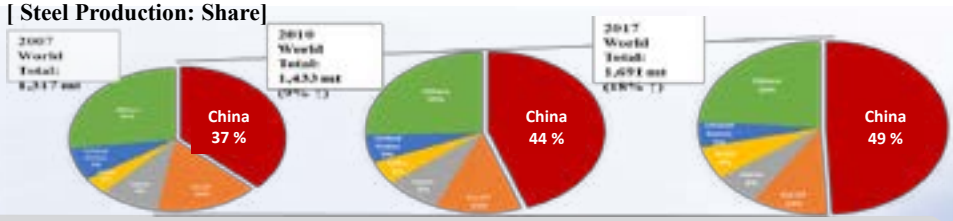
7

World Steel Production

Historical trend and Chinese Production

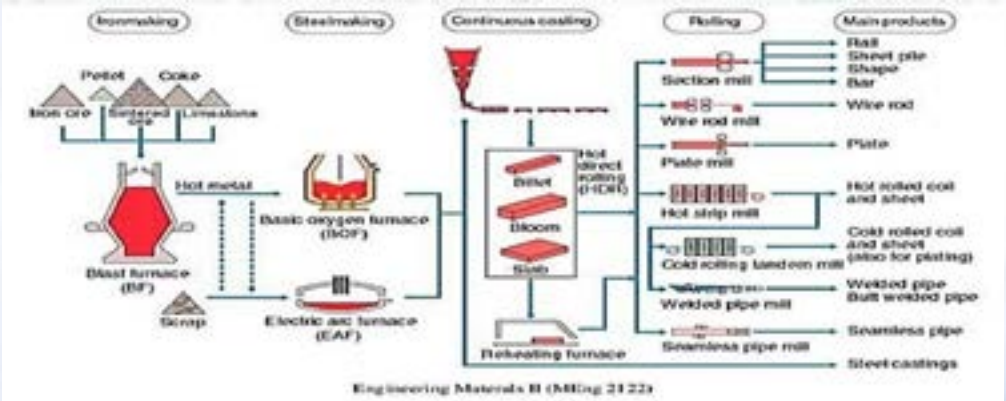


[Steel Production: Share]



Raw Materials and Products

Process



Source: https://www.slideshare.net/arpitgupta545402/iron-and-steel-industry-75991049, 2018

9

Maritime Transport

Iron Ore

Exporters and Importers

[Exporting Countries]

World Seaborne Iron Ore Trade : total 1,473 mt

Rank	Country	2017 Volume Million Tonnes	Share %
1	Australia	827.22	56
2	Brazil	380.20	26
3	South Africa	66.47	5
4	Canada	41.95	3
5	Ukraine	37.41	3
6	Sweden	23.67	2
7	Chile	14.70	1
8	Iran	19.66	1
9	Mauritania	11.68	1
10	Peru	15.59	1
11	India	29.02	2

[Importing Countries]

World Seaborne Iron Ore Trade : total 1,473 mt

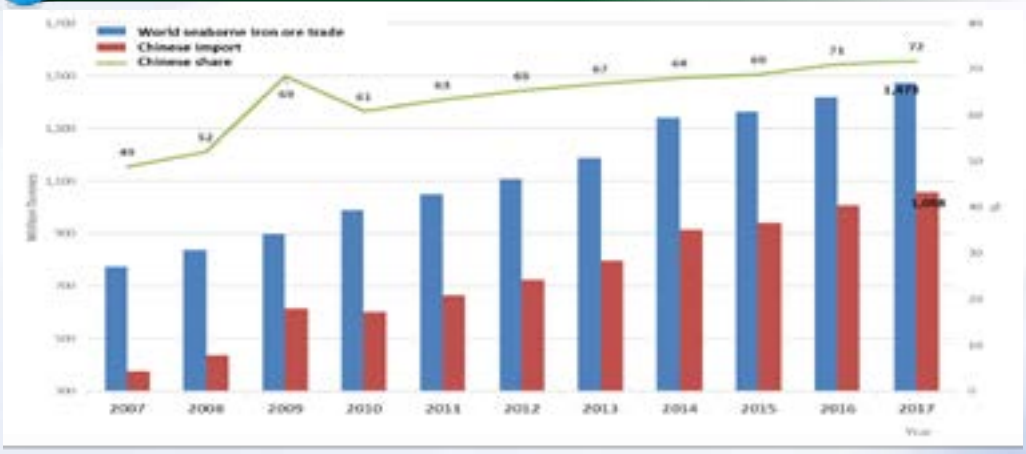
Rank	Country	2017 Volume Million Tonnes	Share %
1	China	1,057.91	71.8
2	Asia(excl.China)	214.67	14.6
3	Europe	106.73	7.2
4	Turkey	10.962	0.7
5	Oman	10.30	0.7
6	Bahrain	5.64	0.4
7	Egypt	5.55	0.4
8	US	5.41	0.4
9	Saudi Arabia	3.54	0.2
10	Qatar	3.10	0.2
11	Argentina	2.08	0.1
12	Libya	1.09	0.1

Source: Clarkson Research

11

Iron Ore Trade

Historical Trend and Chinese Share



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Determination of Trading Lots

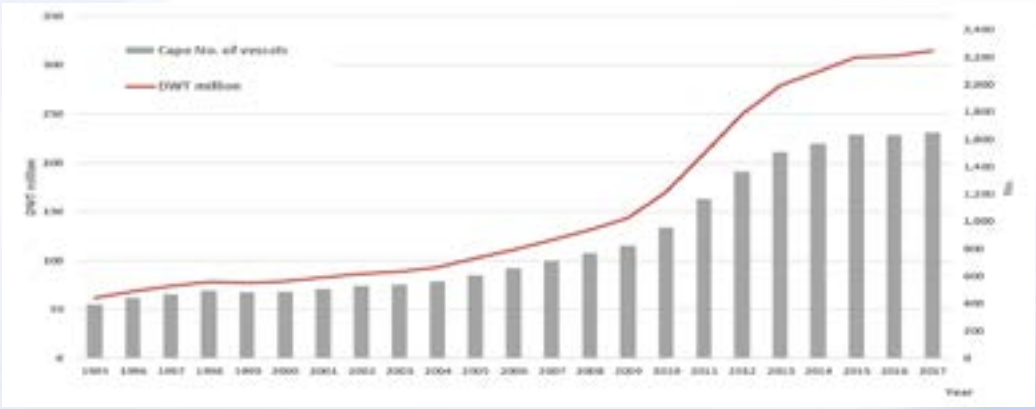
Determining Factors

- Commodity value
- Consumption cycle
- Storage capacity
- Port draft
- Loading/discharging facilities
- Newbuilding technology
- Distance

13

Vessels for Iron Ore Transport

Capesize Fleet Development



Source: Clarkson Research

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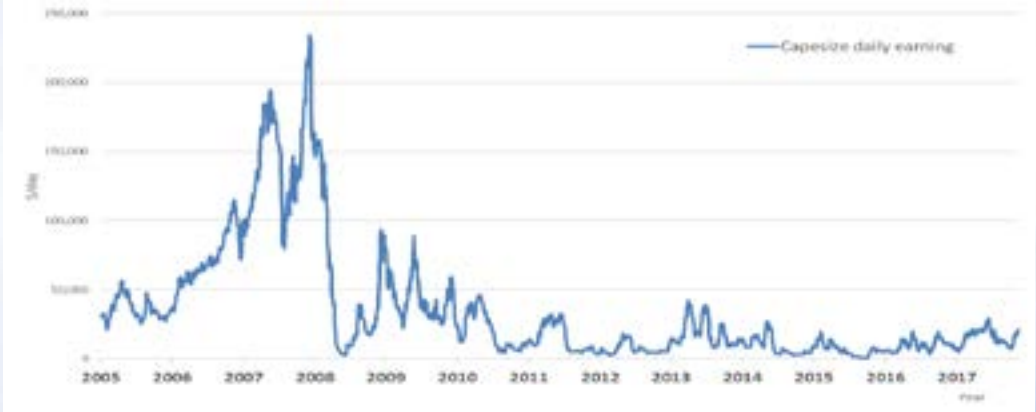
Vessels for Iron Ore Transport

Capesize Daily Earning



Source: Clarkson Research

15

Demand Calculation

Factors Affecting the Calculation

Trading volume

× Average trading distance

= Ton·Mile demand

÷ (Average vessel size x Utilization ratio)

= Vessel·Mile demand

÷ (Average speed x 24 x Average operating days)

= **Vessel Demand (No. of vessels)**

16

Cocking Coal

Exporters and Importers

[Exporting Countries]

World Seaborne Coking Coal Trade : total 257 mt

Rank	Country	2017 Volume Million Tonnes	Share %
1	Australia	144.00	56
2	US	46.37	18
3	Russia	18.00	7
4	Canada	3.92	2
5	China	2.30	1

[Importing Countries]

World Seaborne Coking Coal Trade : total 257 mt

Rank	Country	2017 Volume Million Tonnes	Share %
1	Japan	53.85	21
2	India	47.68	19
3	China	43.17	17
4	South Korea	24.49	10
5	France	2.74	1

Source: Clarkson Research

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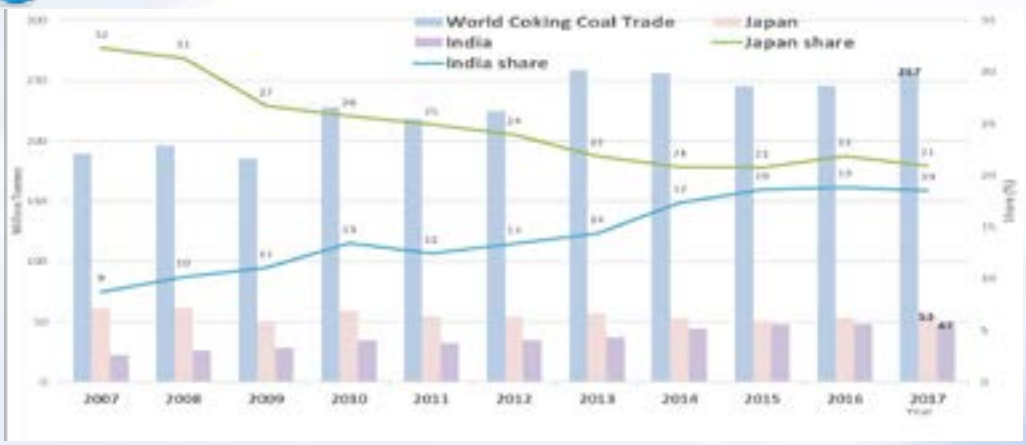
Cocking Coal Trade

Historical Trend and Impact



Source: Clarkson Research

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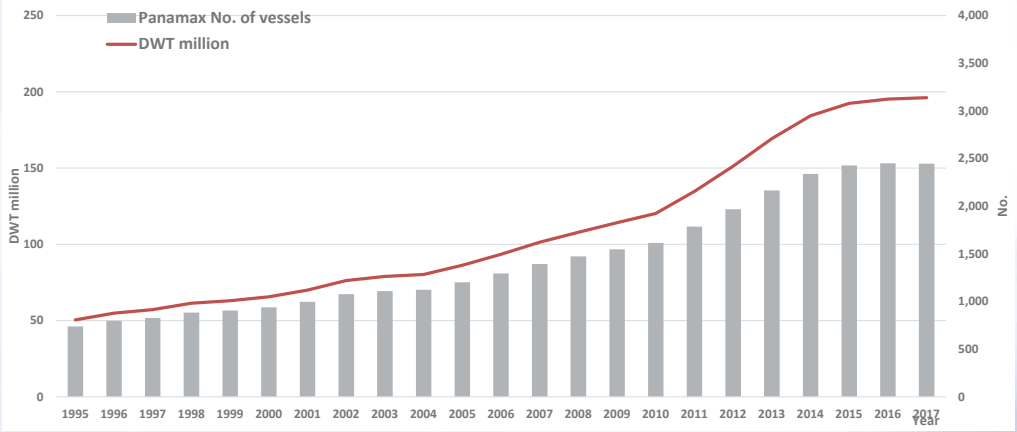
Vessels for Coking Coal Trade

Panamax Fleet



Source: Clarkson Research

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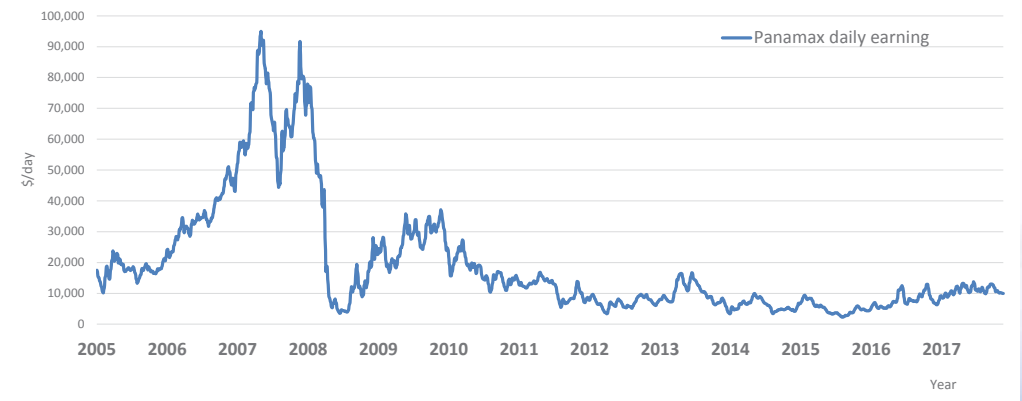
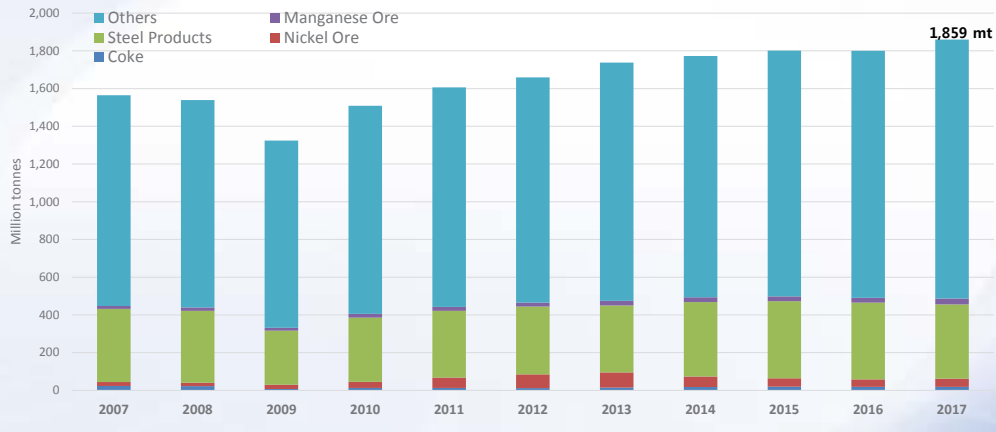
Vessels for Coking Coal Trade

Panamax Daily Earning



Minor Bulks

Minor Bulks Seaborne Trade



Source: Clarkson Research

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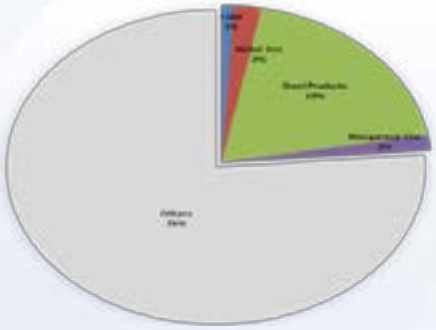
Minor Bulks

Minor Bulks Seaborne Trade

[Minor Bulks, 2017]

World Total 2017: 1,859 million tonnes



24 %

[Share, 2017]

Items	Minor bulk Trade	Share
	Million Tonnes	%
Coke	19	1
Nickel Ore	44	2
Steel Products	393	19
Manganese Ore	32	2
Others	1,565	76
Total	1,859	100

Source: Clarkson Research

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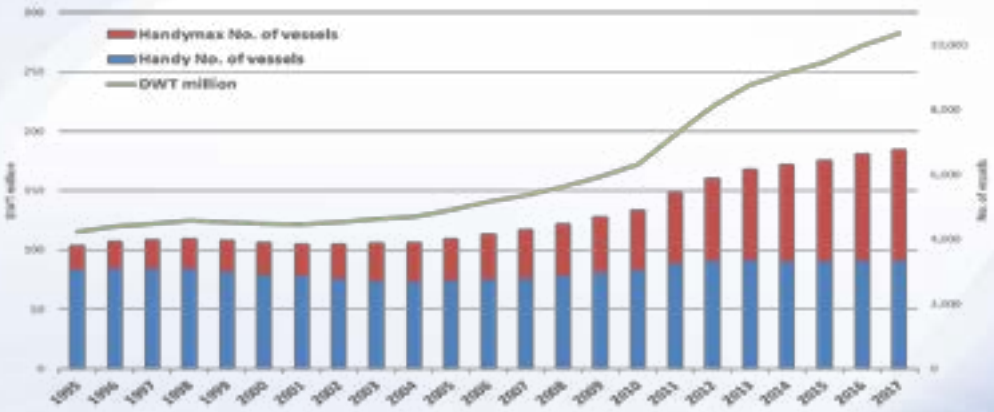
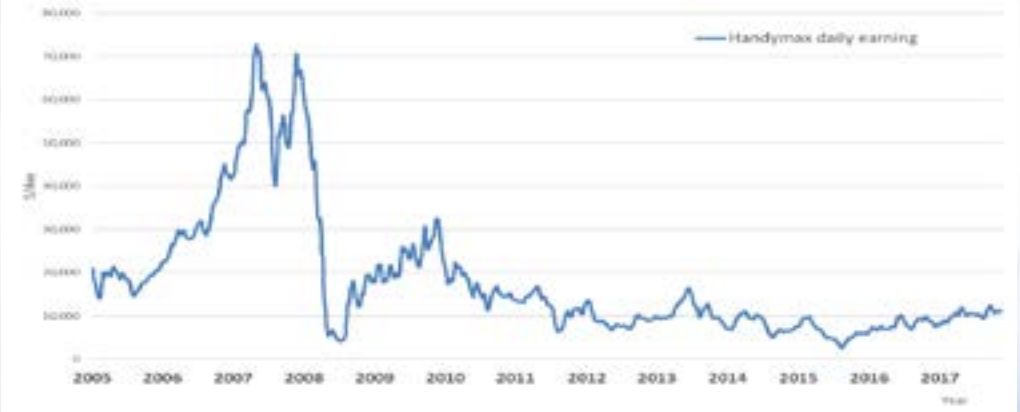
Vessels for Minor Bulk Trade

Handymax Fleet Development



Vessels for Minor Bulk Trade

Handymax Daily Earning



Source: Clarkson Research

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Wrap up

Summary

- ✓ Both steelmaking and iron ore mining are led by a small number of countries and companies.
- ✓ The steelmaking is dominated by China.
- ✓ The steelmaking industry requires the service of a wide range of dry bulk shipping i.e. Cape, Panamax and Handymax.
- ✓ Economies of scale has been the name of the game for bulk shipping.
- ✓ Trading lots are optimized at Cape for iron ore, Panamax for coal and Handymax for steel products.
- ✓ Severe market volatility of bulk shipping requires extensive research on the freight market and market risk management.
- ✓ A long-term relationship between the underlying industry and the shipping industry has the potential to produce win-win results in terms of market risk management.

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Q&A

On Interactive Development of China's Port and Shipping Industry with the "Belt and Road"

ANNUAL GSSTA 2018

Zhao Nan Assistant Secretary-general
Shanghai International Shipping Institute

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Contents

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Economic and Trade Development Background along the "Belt and Road" 01

- Connotation and scope of "Belt and Road"
- Economic and trade situations in countries along the "Belt and Road"
- Trade scale between China and countries along the "Belt and Road"

Connotation and Scope of "Belt and Road"

The "Belt and Road" is essentially an open and inclusive international regional economic cooperation platform without absolute boundaries.

(1) The Silk Road Economic Belt has three lines: the North Line centering around the Eurasia Land Bridge, the Central Line dominated by oil and natural gas pipelines, and the South Line dominated by transnational highroads. North Line - connecting China to Europe (the Baltic Sea), traversing Central Asia and Russia;

- Central Line - extending from China to the Persian Gulf and the Mediterranean Sea via Central Asia and West Asia;
- South Line - extending from China to Southeast Asia, South Asia and the Indian Ocean.

(2) The 21st Century Maritime Silk Road: mainly starting from China's coastal ports and leading to the Indian Ocean, as well as East Africa and Europe by way of South China Sea.

The "Belt and Road" connects the Asian-Pacific economic circle in the east and the developed European economic circle in the west.

Connotation and Scope of "Belt and Road"

47 countries along the Silk Road Economic Belt

Six South Asian countries	India, Pakistan, Bangladesh, Nepal, Bhutan and Afghanistan
Five Central Asian countries	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan
One North Asian country	Mongolia
16 West Asian countries	Iran, Turkey, Saudi Arabia, UAE, Oman, Kuwait, Qatar, Bahrain, Yemen, Lebanon, Syria, Jordan, Israel, Palestine, Iraq and Cyprus
19 European countries	Russia, Belarus, Ukraine, Romania, Bulgaria, Moldova, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Albania, Greece, Italy, Azerbaijan, Georgia, Armenia, Lithuania, Latvia, Estonia, Montenegro and Serbia

32 countries along the 21st century Maritime Silk Road

Five South Asian countries	**India, Pakistan, Bangladesh, Sri Lanka and Maldives**
10 West Asian countries	Iran, Turkey, Saudi Arabia, UAE, Oman, Kuwait, Qatar, Bahrain, Yemen and Iraq
Six Northeast African countries	Egypt, Sudan, Eritrea, Djibouti, Somalia and Kenya
11 Southeast Asian countries	Vietnam, Myanmar, Thailand, Laos, Malaysia, Indonesia, Philippines, Cambodia, Brunei, Singapore and East Timor

Economic and Trade Situations in Countries along the "Belt and Road"

National Economic Volumes of Countries along the 21st Century Maritime Silk Road in 2016

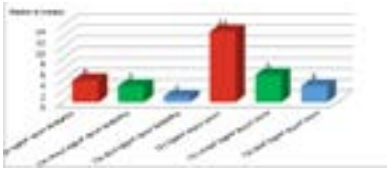
	GDP (million US dollars)	Share of GDP in the global total	Population (million people)	Share of population in the global total	Cargo and service imports and exports (million US dollars)	Share of cargo and service imports and exports in the global total
Five South Asian countries	2265138	2.99%	1701	23.42%	1061955	4.59%
10 West Asian countries	2838476	3.74%	278	3.83%	2165207	9.35%
Six Northeast African countries	505121	0.67%	198	2.73%	152912	0.66%
11 Southeast Asian countries	2553524	3.37%	638	8.79%	2409831	10.41%
Total	8162259	10.76%	2815	38.76%	5789905	25.01%

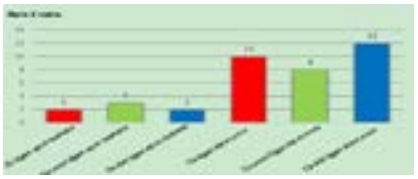
Economic Volumes of Countries along the Silk Road Economic Belt in 2016

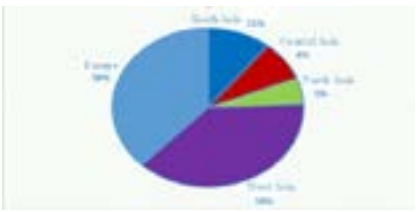
	GDP (million US dollars)	Share of GDP in the global total	Population (million people)	Share of population in the global total	Cargo and service imports and exports (million US dollars)	Share of cargo and service imports and exports in the global total
Six South Asian countries	2806934	3.70%	1744	24.02%	1078438	4.66%
16 West Asian countries	3277919	4.32%	326	4.49%	2423693	10.47%
Five Central Asian countries	254181	0.34%	70	0.96%	159434	0.69%
One North Asian country	11183	0.01%	3	0.04%	10085	0.04%
19 European countries	3961819	5.22%	339	4.67%	2416502	10.44%
Total	10312036	13.60%	2482	34.18%	6,088,152	26.30%

Source: World Bank

Trade between China and Countries along the "Belt and Road"







Economic and Trade Ties between China and Countries along the 21st Century Maritime Silk Road in 2016

Economic and Trade ties between China and Countries along the Silk Road Economic Belt in 2016

Source: The UN Comtrade Database

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Interaction between China's Port and Shipping Industry with Countries along the "Belt and Road" 02

- Silk Road Economic Belt and China's port and shipping industry
- The 21st Century Maritime Silk Road and China's port and shipping industry

Interaction between the Silk Road Economic Belt and China's Port and Shipping Industry

- The development of the Silk Road Economic Belt not only stimulates the trade between China and countries along the belt, but also promotes the trade activities of Japan, South Korea and even Singapore with Central Asian or European countries.

Changes in Europe-bound Transit Transport Volumes by Way of Kazakhstan in 2012-2014 (Statistics based on countries of dispatch) (Unit: ton)

	China	Japan	Singapore	South Korea
2012	38997	0	141	0
2013	48042	0	19	8
2014	86691	3426	750	697

Source: The Federal Customs Service of the Russian Federation

Value of Trade between Japan/South Korea and Central Asia in 2011-2014

	Imports	Exports	Imports and Exports
2011	38.1	13.2	51.3
2012	39.2	10.6	49.8
2013	44.3	10.5	54.8
2014	43.3	14	57.3

Source: World Bank

- The traditional struggle for sea power gradually shifts to the struggle for land power. Taking international leading liners as example, Maersk Shipping, Mediterranean Shipping and CMA-CGM have altogether 31 service points in landlocked developing countries.

Landlocked developing countries by region	Maersk Shipping	Mediterranean Shipping	CMA-CGM
Africa (14)	11	8	2
Asia (13)	1	4	-
Latin America (2)	2	2	2
Total (31)	14	14	4

Source: UNCTAD

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Interaction between the Silk Road Economic Belt and China's Port and Shipping Industry

- In 2017, China-Europe trains totaled 3,600 in operation, exceeding the total sum in six years from 2011 to 2016. The number of planned China-Europe trains in 2018 reaches around 4,000.
- The Erenhot Port has 15 China-Europe routes in operation, with 575 trains in service. The trains shipped 25,819 containers, that is, 318,400 tons of cargoes which value 2.512 billion US dollars.
- The opening of China-Europe trains is playing an increasingly prominent role in driving development of countries along the "Belt and Road". Many countries built up factories and logistics distribution bases near China-Europe railroads, which cuts down their logistics costs and boosts the rapid development of related industries.

Development of Ports along the "21st Century Maritime Silk Road"

Source: Drewry

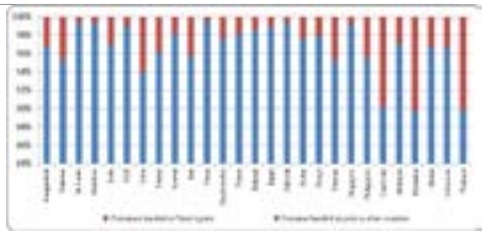
Source: World Bank

- **Southeast Asian ports enjoy stable growth:** Laem Chabang in Thailand, Ho Chi Minh in Vietnam, and Manila in the Philippines
- **South Asian ports welcome rapid growth.** Pakistan, Sri Lanka and Bangladesh all maintained an average annual growth close to double-digit.
- **West Asian ports demonstrate differentiated performance.** Dubai basically maintained steady and rapid growth, but its growth rate has been declining year by year in the past two years. Turkey, Iran and Oman suffered negative growth in the past two years due to political turmoil.
- **Northeast African ports present unsteady growth.** Northeast African ports showed a robust growing momentum in the past two years, yet their growth rates vary greatly because of economic, political and market factors among others.

Interaction between the Maritime Silk Road and China's Port and Shipping Industry

Opening of shipping routes: China COSCO Shipping opened container shipping routes including Far East-the Mediterranean Sea (6 lines), India and Pakistan/Middle East-Northwest Europe (2 lines), India and Pakistan/Middle East-Mediterranean (3 lines), Asia Pacific Routes-Persian Gulf (8 lines), Asia Pacific Routes-Red Sea (2 lines), Southeast Asia-Australia (2 lines), the Far East-Northeast Africa (3 lines), Thailand-Vietnam (11 lines), and the Middle East and India-Pakistan (8 lines). The shipping capacity amounted to 1.2 million TEUs, accounting for 68% of the company's total.

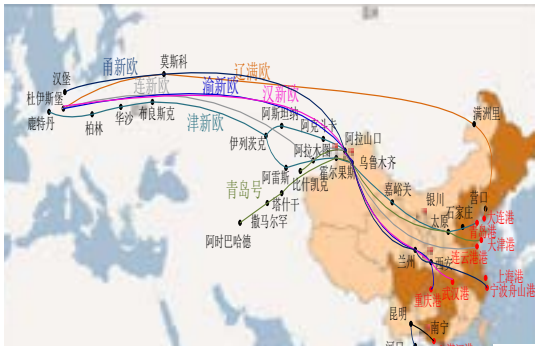
Terminal layout: 65% of Chinese enterprise invested terminals overseas are located along the 21st Century Maritime Silk Road. In the early phase, Chinese investments were dominated by port building enterprises which aimed to "go out". Recently Chinese investments have been dominated by port operators which look at speeding up the "going out" pace.



Ideas and Suggestions on the Interaction between the "Belt and Road" and the Shipping Industry 03

- Relationship between the "Belt" and the "Road"
- Suggestions

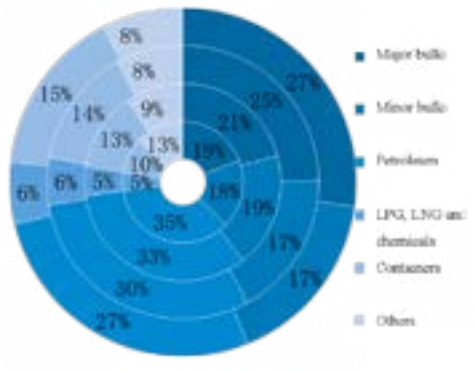
Relationship between the "Belt" and the "Road"



Europe	**Industries are evenly distributed. Among the Top 20 administrative areas in European economies in terms of economic volume, only seven are located in coastal areas, while the rest 13 are all in inland regions.**
China	Sources of containers are mostly concentrated in developed coastal cities near ports while the demand from inland hinterland is less sufficient. The ratio of foreign trade imports and exports of the cities where the eight major coastal container trunk ports in China are located has accounted for more than 50% of the country's total. These ports are connected to 60 cities within a radius of 200 kilometers around each of them and can accommodate 20,000-DWT ships, contributing 85% of the total foreign trade volume. 85% and 91% foreign trade containers are from areas within 200 and 300 kilometers away from ports. The trend of inland-ward industry movement has become prominent in the past two years. However, the industry scale in the inland area is still small compared with that in the coastal area.

Feature of market distribution: The market is concentrated in the inland hinterland.

Relationship between the "Belt" and the "Road"



Source: Drewry

Feature of cargo shipping demand

In the short term:

- The demand for shipping staple bulk cargoes accounts for a higher proportion, and marine shipping still has overwhelming superiority.
- The ratio of containers is on the rise, but it remains comparatively low.

In the long term:

The ratio of containers will rise significantly.

Relationship between the "Belt" and the "Road"

Sea-railway combined transport is confronted with many bottlenecks.

- Less sufficient cargo shipping demand and unbalanced cargo flows
- Infrastructure bottleneck and high cost
- System issues and unsmooth connection

Proportions of Cargo Collection, Distribution and Transport by Railway at Ports

China	Rotterdam	Antwerp	Hamburg	New York-New Jersey	Los Angeles-Long Beach
1.3%	7%-8%	Around 15%	17%-20%	Around 10%	Close to 30%

Railway Mileage in Several Countries

Country	Railway mileage (10,000 km)
United States	23
28 member states of EU	22
China	12

Suggestions for Developing Shipping Industry with Constructing "Interconnected" Channel of the "Belt and Road"

1 Logistics
- Integrate resources to build supply chain platforms of comprehensive services

2 Port
- Actively promote smart ports and port facilitation

3 Infrastructure and Shipping Routes
- Enhance infrastructure facilities and increase the density of ships on routes and trains on railways

4 Finance
- Innovate financial products to provide financial support services

Thanks!

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The booklet does not contain all the Conference Proceedings.

The presentations hereby included are those received until 30th May 2018.

Global Shipping Think Tank Alliance

3rd Plenary Meeting

Guest Speaker Presentations

BUNKERING: A NEW PERSPECTIVE ON THE SOUTH OF THE MEDITERRANEAN

PROF. AVV. MASSIMO DEIANA
PRESIDENT - PORT NETWORK AUTHORITY OF SARDINIAN SEA

LEGAL FRAMEWORK

LNG

EU DIRECTIVE 2014/94/EC (art. 6, clause 1)

D.lgs 257/2016 (art. 6, clause comma 1)

''Member States shall ensure, by means of their national policy frameworks, than an appropriate of refuelling points for LNG are put in place at maritime ports, to enable LNG inland waterway vessels or seagoing ships to circulate throughout the TEN-T Core Network by 31 December 2025. Member States shall cooperate with neighbouring member States where necessary to ensure adequate coverage of TEN- T Core Network.''

LEGAL FRAMEWORK

EU Directive 2016/802 *(art. 6)*

Maximum sulphur content of marine fuels used in territorial seas, exclusive economic zones and pollution control zones of Member States, including SOx Emission Control Areas, and by passenger ships operating on regular services to or from European Union ports.

"Member States shall take all necessary measures to ensure that marine fuels are not used in the areas of their territorial seas, exclusive economic zones and pollution control zones if the sulphur content of those fuels by mass exceeds: (a) 3,50 % as from 18 June 2014; (b) 0,50% as from 1 January 2020."

LEGAL FRAMEWORK

IMO DECISION (October 2017)

The IMO's Marine Environment Protection Committee (MEPC) revised the terms of Annex VI of the 2009 Marpol Convention, extending the Community time limits and deadlines to all of the ship belonging to the Convention, representing more than 90% of the tonnage of the world ship.

IMO AGREEMENT ON SHIPPING EMISSIONS (April 2018)

Carbon emissions from the global shipping industry will be cut by at least half by 2050 compared to 2008 levels.

At least a 40% reduction in carbon intensity by 2020 and pursuing efforts towards a 70% reduction by 2050 both compared to 2008 levels.

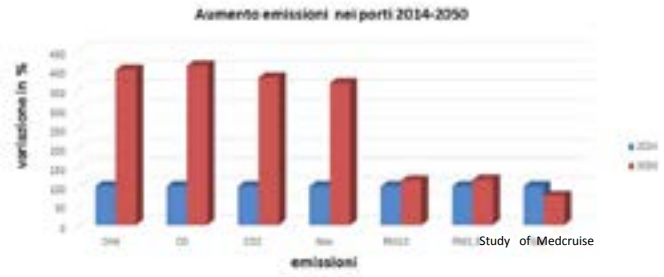
THE IMPERATIVE SCENARIO

- THERE IS NO ALTERNATIVE FROM THE POINT OF VIEW OF EITHER LEGISLATION OR SOCIAL RESPONSIBILITY
- MAKING SUSTAINABLE ECONOMIC AND COMPETITIVE CHOICES ON THE BASIS OF ENVIRONMENTAL RULES TOWARDS A MORE VIRTUOUS SYSTEM

THE GEOGRAPHIC SCENARIO

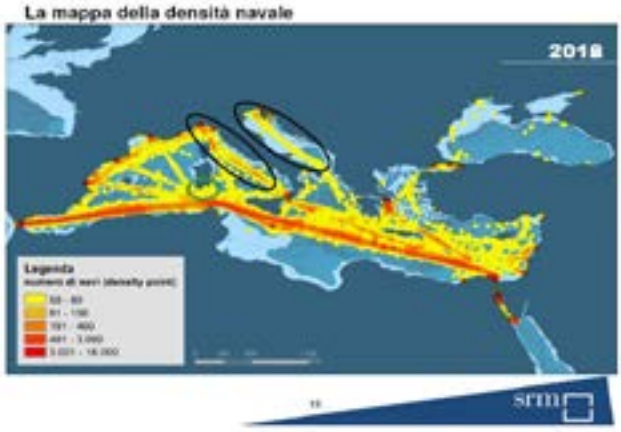
- Italian coasts: 7.500 km
- Italian territory: 300.000 kmq
- Italian territorial sea: 500.000 kmq
- Mediterranean Sea: 2,5 million kmq
- Italy owns 20% of the Mediterranean Sea
- States bordering the Mediterranean Sea: 23

INCREASED EMISSIONS IN PORTS (2014-2050)



SHIP TRAFFIC DENSITY IN 2017

(Number of ships / density point)



SHIP TRAFFIC DENSITY IN 2017

- Approximately 50.000 ships cross every year the Sardinian channel, between the coasts North Africa and those of Sardinia
- The minimum distance between Sardinia and Tunisia is about 100 miles (178 km)
- Malta is the main bunkering station in the south of the Mediterranean, with about 2,5 million tons of bunker

WHAT WE NEED TO DO

We must to try to intercept a significant percentage of this traffic

offering bunkering opportunities of

LNG

bunker with low sulphur level

LNG IN SARDINIAN PORTS (2019-2021)

In the next 3 years Sardinia will offer

3 ports with LNG facility:

CAGLIARI: 1 (pipe, truck & ship to ship)

ORISTANO: 3 (truck & ship to ship)

PORTO TORRES: 1 (pipe, truck & ship to ship)

LOW SULPHUR LEVEL FUEL

- The Gulf of Cagliari will benefit from a project for supplying bunker fuels to the ships berthing in the area or with the possibility to reach the filling point with a short haul deviation
- The proximity of *Sarlux* industrial site, one of the most complex refinery site in Europe, will allow to get the Ultra Low Sulphur Quality Fuel Oil to be adopted in 2020 as per the IMO resolution
- A further development of additional services (agency, quality testing, etc.) is also expected

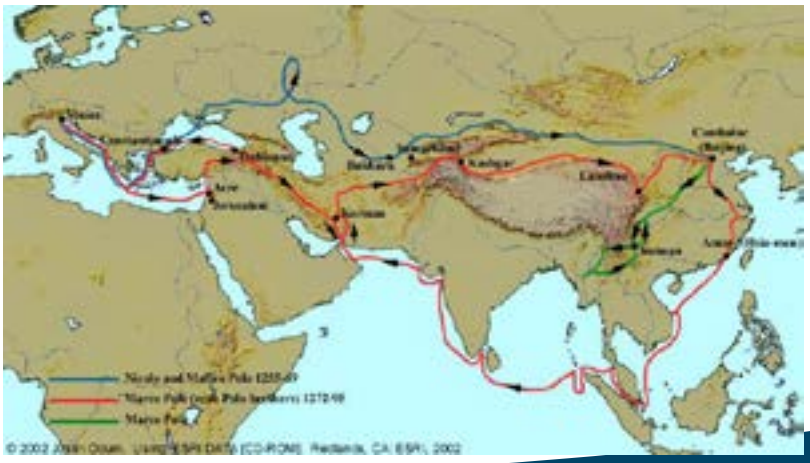
Belt and Road: user opportunities through chain cost calculations

University of Antwerp
Department of Transport and Regional Economics (TPR)

TPR
Departement of Transport and Regional Economics
University of Antwerp

Old Silk Routes

The old Marco Polo Silk routes



History

The Silk Road was a network of trade routes, formally established during the Han Dynasty.

The road originated from Chang'an (now Xian) in the east and ended in the Mediterranean in the west, linking China with the Roman Empire.

As China's silk was the major trade product, German geographer Ferdinand von Richthofen coined it the Silk Road in 1877.

→ Not just one road but rather a series of major trade routes that helped build trade and cultural ties between China, India, Persia, Arabia, Greece, Rome and Mediterranean countries.

China developments

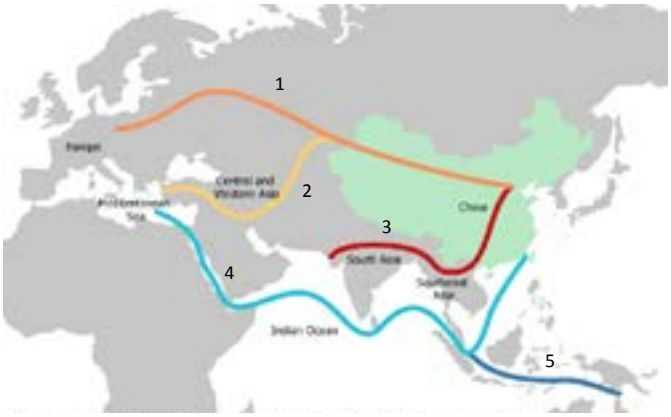
China is the largest beneficiary of this freight-focused rail network, having already shipped $2.5 billion worth of goods on this route to Europe since 2011.

Labour and land costs in coastal cities like Shanghai and Shenzhen have gone up, the Chinese government has been pushing and inducing foreign investors and domestic producers to move inland through its “Go West” policy.

Interior megacities like Chongqing and Chengdu have been booming as major destinations for large new manufacturing projects.

Having set up what would be Asia’s largest laptop factory in Chongqing, US computer giant Hewlett Packard has already shipped more than four million notebook computers to Europe by the Chongqing-Duisburg rail since 2011

The future?



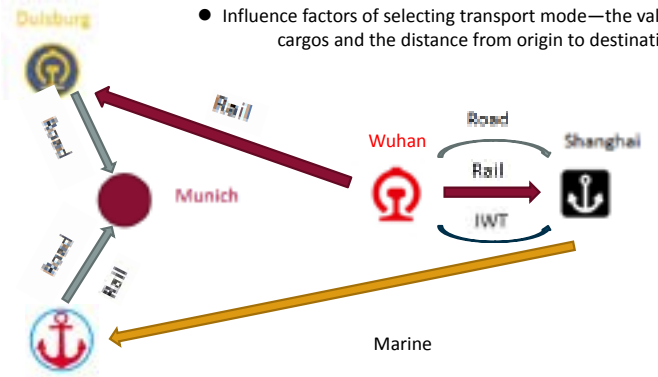
The present plan

Comparing routes (1)

Origin of a transport chain in one of the Chinese provinces.
Destination in Munich (Germany)
Three different routes:
- Maritime via HLH range (1)
- Maritime via Trieste/Koper region (2)
- Land based (rail connection) (3)

Comparing routes (1)

- The cost from Wuhan to Munich by train.
- The cost from Wuhan to Shanghai by train, road and LWT. And the comparing of the three modes.
- Influence factors of selecting transport mode—the value of cargos and the distance from origin to destination.



Seaport A: Antwerp
Seaport B: Trieste

Method: TPR Generalized Chain Cost model

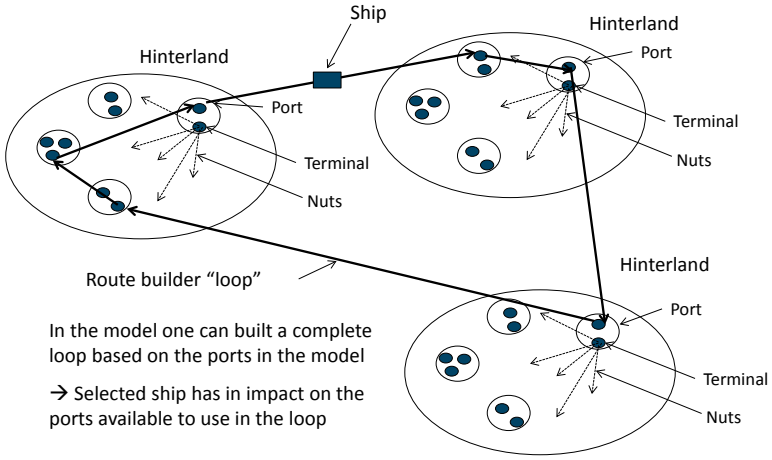
The main goal is to come to integrated model a complete maritime logistic chain

It should be possible to determine the competitive power of a port (or set of ports) in a complete logistic chain

Focus of the research is now on containers

Meersman, Van de Voorde (2012)

Method: Model structure (1)



In the model one can built a complete loop based on the ports in the model

→ Selected ship has in impact on the ports available to use in the loop

Generalized chain costs for Chinese cities of origin

Main results of the calculations from different origins to Munich (Germany)

	Cost		
	Current route	New Maritime Route	Land based route
Origin	[EUR/TEU]	[EUR/TEU]	[EUR/TEU]
Chengdu	3,288	2,917	2,318
Chongqing	2,500	2,150	2,000
Wuhan	1,905	1,535	2,245
Guiyang	2,923	2,488	3,906
Hong Kong	1,559	1,180	3,615
Shanghai	1,676	1,306	3,419
Hangzhou	1,625	1,254	2,920

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Generalized chain costs for Chinese cities of origin

Main results of the calculations from different origins to Munich (Germany)

	Time		
	Current route	New Maritime Route	Land based route
Origin	Days	Days	Days
Chengdu	42	33	16
Chongqing	35	32	18
Wuhan	51	41	20
Guiyang	86	71	31
Hong Kong	37	28	17
Shanghai	43	33	27
Hangzhou	44	34	17

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Generalized chain costs for Chinese regions of origin

Red: Land based route
Blue: New maritime route

First observation:

- The further the location in China is located away from the major sea ports, the more the use will be made from the land based route
- The new maritime route outperforms the "old route" → shorter sailing time

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Conclusions

First insights:

- Chinese regions located near the coastal region will prefer the new maritime route to the center of Europe.
- Chinese regions located more the heart of China will prefer the new rail link to Europe.
- The new maritime route (via Koper/Trieste/Venice) will outperform the maritime routes via the HLH range for destinations in the center of Europe
- Transport volumes of the maritime flows are, at this stage, much larger than for the land based route. → what happens if China starts to produce high value merchandized cargo? → **higher share of the land based route!?**

Ports in the HLH range could face some serious competition for both the maritime and land based silk routes

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Remaining research and other issues

- Add more Chinese regions
- Effect of government subsidies of rail transport in China and the transit countries
- The effect of the climate in the transit countries
- The prospects for reefer containers
- The effect of changes in the value of the cargo
- The effect of non-monetary factors like reliability, resilience, language barriers

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Global Shipping Think Tank Alliance
3rd Plenary Meeting

The Italian Maritime Cluster

Umberto Masucci
President Propeller Italy and VP Federazione del Mare

Naples,June 4th, 2018

The International Propeller Clubs in Italy

The INTERNATIONAL PROPELLER CLUBS

- **23 Clubs**
- **1.400 members**
- **Monthly Meetings**
- **International Missions**

Federazione del Mare

established in 1994

16 member associations

Aidim (**maritime law**)
Ania (**insurance**)
Ancip (**port operation**)
Assonave (**shipbuilding**)
Assoporti (**port administration**)
Assorimorchiatori (**towage**)
Confitarma (**shipowners**)
Collegio Capitani (**maritime staff**)
Cetena (**naval research**)
Federagenti (**ship agency**)
Fedepiloti (**port pilotage**)
Federpesca (**fishing**)
Fedespedi **freightforwarder**)
Inail (**welfare**)
Rina (**certification register**)
Ucina (**yachting**)

strong links with
maritime Institutions

The European Blue Economy

- **325 billions euros GDP**
- **1,2 millions employees**

(without Coastal Tourism)

Source: Cogea for EU

The Italian Maritime Cluster

- **32.6 billion** euros (2 % of Italian GDP)
- **471 000** employees (2 % of Italian employees)

Source: Censis , 5th Report on the Economy of the Sea

The Italian Maritime Cluster

33 billion Euro (2% of the GDP)

- **Shipping** : 11.8 billion (Production Value, PV)
- **Port Logistics and Services**:5.4 billion
- **Shipbuilding and related manufacturing:** 5.1 billion
- **Yachting**: 2.8 billion (PV, 4.5 billion GDP with downstream)
- **Nautical and cruise tourism**: 2 billion
- **Fishing**: 1.9 billion (PV, 4.8 billion GDP with downstream)
- **Institutional** activities: 4.6 billion (Navy, Coast Guard, Port Authorities, etc.)

Source: Censis , 5th Report on the Economy of the Sea

The Italian Maritime Cluster

European Leadership

- Ships and luxury yacht building, **1st place**
- Cruising passengers, 11 millions **1st place**
- Cabotage passenger 40 millions in transit in Italy **1st place**
- Import-export by sea **3rd place**

Source Censis, 5th Report on the Economy of the Sea

The Italian Maritime Cluster

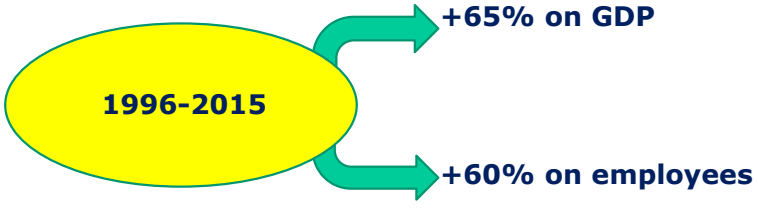
Worldwide leadership

- N. 1 in Ro-Ro **(5 million tons/250 ships)**
- N. 1 in Cruise Shipbuilding **(Fincantieri)**
- N. 2 in Luxury Yachtbuilding **(Azimut-Benetti)**
- N. 3 among G20 Fleets **(almost 17 millions tons)**

Source Censis, 5th Report on the Economy of the Sea

Italian Maritime Economy

A continuous growth in the last 20 years



Source: Censis , 5th Report on the Economy of the Sea

Charter of Global Shipping Think Tank Alliance

CHAPTER 1

GENERAL

Article 1

With the development of economic globalization, the internationalization of shipping industry increased accordingly. The shipping industry's healthy development depends on understanding, cooperation and coordination of the industry among all countries and regions. The Global Shipping Think Tank Alliance international shipping institute served as Deputy Secretary General of the alliance. (hereinafter referred to as the Alliance) was founded to gather famous shipping think tanks in different regions of the world, set up a platform for exchange and cooperation and promote solid interactions between shipping think tanks and the shipping industry. The Alliance aims to provide more valuable consultation services to the shipping and related maritime industry as well as to respective organizations and administrations and to create win—win benefits community for the promotion of the healthy development of global shipping industry.

Article 2

The Alliance is an unincorporated, not registered and unofficial academic body of shipping research institutes all over the world.

CHAPTER 2

FOUNDING ORGANIZATIONS

Article 3

The group of members of the Alliance includes Centre for Maritime Studies of National University of Singapore (CMS), China Academy of Transportation Sciences of the Ministry of Transport, Drewry, Hong Kong Maritime Research Centre, IMC—Frank Tsao Maritime Library and R&D Center, Institute of Shipping Economics and Logistics (ISL), Korea Maritime Institute (KMI), Marsoft, Port and Air Research Institute of Japan (PARI), Shipping Development Research Institute affiliated to Dalian Maritime University, SRM (Intesa Sanpaolo Banking Group), Shanghai International Shipping Institute, World Maritime University Shanghai Center.

Article 4

Based on the Alliance' s development, it will gradually accept other shipping think tanks and develop new members. The absorption of members is by the recommendation of the Secretariat or the submission of application. Such recommendation/application shall be voted by the meeting of the existing members, and one who wins 2/3 consent can become a new member.

CHAPTER 3

MAIN TASKS

Article 5

In principle, the alliance meeting will be held once every year. Members can apply to organize the meeting at their premises. If no one applies, the Secretariat arranges as planned. The meeting's focus shall be on the hot issues of the shipping industry and forward—looking study and discussion of the new trends. The contents of issues suggested by the Secretariat are in accordance with possible proposals of the members. Meanwhile, the members may exchange and discuss the related information of the global and national developments in the shipping, and actively provide suggestions to the shipping industry and the related organizations.

Article 6

The members of the Alliance are encouraged to carry out cooperative research based on their own characteristics. Funding provided, Alliance members will assign personnel to participate in each other's study. Research funding can be provided by the proposed research or be determined by consultations among partners. If the research task comes from non—member institutions, the funding shall be charged by the entrusted institute. Alliance members can jointly publish research reports. The principles of funding are consistent with the principles of collaborative research.

Article 7

In the case of not affecting the interests of Alliance members, the members shall share information and research results with each other. The Secretariat will found and maintain its website to promote development of the alliance and send information bulletins to its members regularly.

CHAPTER 4

ORGANIZATION

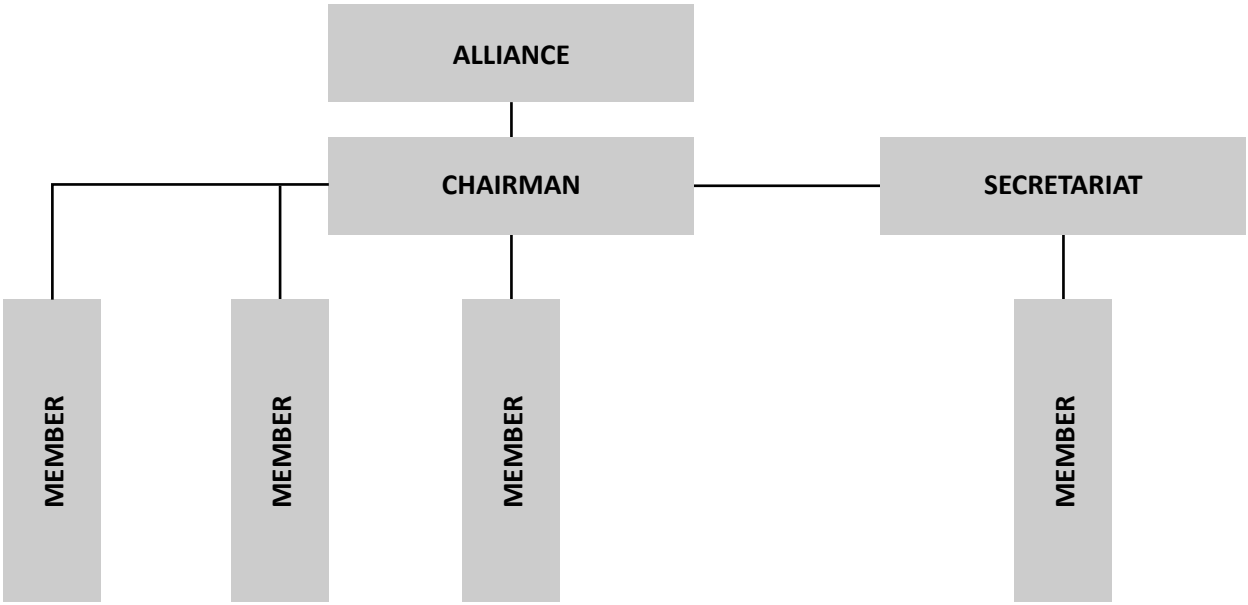
Article 8

The Alliance will have a chairman and a secretariat. The chairman is responsible for the overall coordination. Shanghai International Shipping Institute will undertake the first chairman, while later chairmen will be nominated by member organizations and elected at the liaison meetings by vote. The term of chairman is three years.

Article 9

The secretariat is set in SISI with a secretary-general who is appointed by SISI and is responsible for the daily work of the Alliance.

Figure 1 - Organizational structure of the Alliance



CHAPTER 5

OPERATIONAL MECHANISM

Article 10

Each member appoints a liaison officer. If the liaison officer is unable to attend the annual liaison meeting, the relevant member shall assign someone else to participate. The meeting can be conducted in the form of correspondence or by video conference. Topics of the meeting include the following:

1. The study of major issues concerning the development of the Alliance, providing guiding advice and communicating and coordinating major tasks in the work agenda;
2. Summarizing work in the previous year and discussing future work arrangements;
3. Discussing hotspot issues and trends of the global port and shipping industry, studying the shipping policy of various countries and the world at large and actively putting forth advice;
4. Voting to elect a chairman every three years.

CHAPTER 6

INVITING RELEVANT GOVERNMENT DEPARTMENTS AND ENTERPRISES TO SPECIAL SEMINARS ON SPECIFIC POLICY MEASURES

Article 11

According to the suggestions of the members, the Alliance will irregularly hold seminars inviting the relevant agencies of shipping industry. Seminars should be cost—covering.

Article 12

No membership fee will be collected and no direct economic relations exist. To carry out joint research, actively striving for funding from national and regional governments where a member is located is required. The secretariat bears the expenses for the website, bulletin compilation and printing and other publicity expenses, as well as the everyday business of the secretariat. Expenses for meetings organized by the Alliance are borne by the host organization, but travel expenses are borne by the organization of the participants.

ALLIANCE MEMBERS

Centre for Maritime Studies of National University of Singapore (CMS)
Singapore

China Academy of Transportation Sciences of the Ministry of Transport
China

DREWRY
UK

Hong Kong Polytechnic University
China

IMC-Frank Tsao Maritime Library and R&D Center
China

Institute of Shipping Economics and Logistics (ISL)
Germany

IHS Markit
UK (South Korea)

Korea Maritime Institute (KMI)
South Korea

Marsoft
USA

Port and Air Research Institute of Japan (PARI)
Japan

Shanghai International Shipping Institute (SISI)
China

Shipping Development Research Institute of Dalian Maritime University
China

SRM (Intesa Sanpaolo Banking Group)
Italy

World Maritime University Shanghai Center
China