

# New Challenges for Global Shipping & Logistics Companies

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# Logistics

- A part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption in order to meet customer requirements
- Logistics is about getting things to where they need to be, but is much broader than transportation
- Logistics is to achieve a targeted level of customer service at the lowest possible cost

# Logistics - Scope of activities

Transportation

Material Handling

Storage

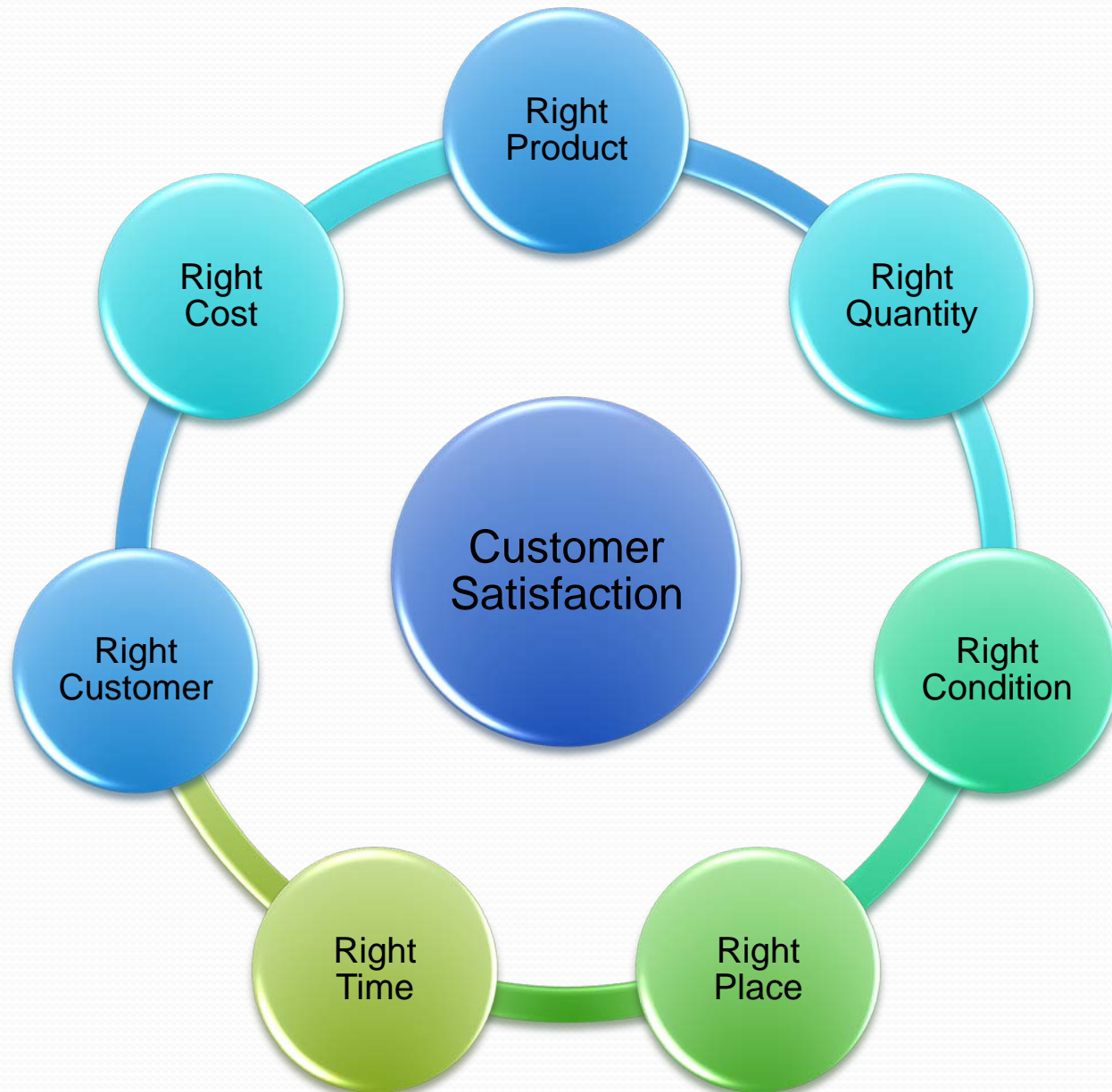
Information

Packaging

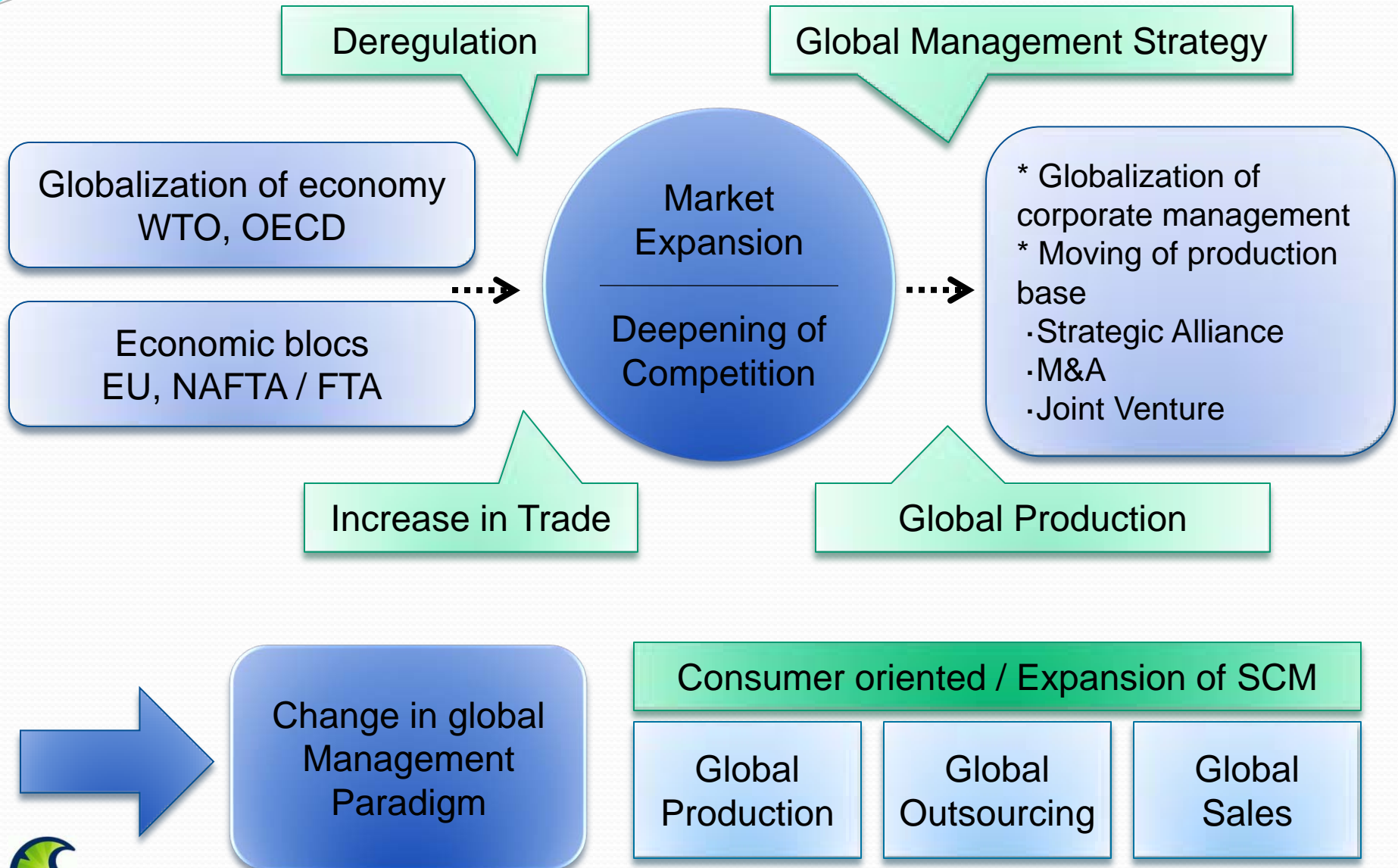
Customer Service

**Logistics add time and place utility**

# Logistics - 7R Principle



# Changes in Logistics Environment





## **SHIPPING COMPANIES' LOGISTICS CHALLENGES**



# Containerization

- 200 million containers move annually amongst the worlds top sea ports
- 90% of world cargo moves by container



# Containerization

- Almost half of incoming trade (by value) in the US arrives by container
- In the United Kingdom, Japan and South Korea, over 90% of trade volumes arrive or leave by sea





# Present Market Forces in the Liner Sector

## GLOBALIZATION



- Shippers' greater contractual strength
- Need of cheap and efficient transport systems



## FLEET OVERCAPACITY



- Difficult to control the freight rates (revenues)



## UNSATISFACTORY FINANCIAL PERFORMANCES



## COST CONTROL Economies of Scale

## TECHNICAL

Post-Panamax vessels



Transshipment(H&S)

## ORGANIZATIONAL

- M&A(market concentration)
- global alliances

# Present Market Forces in the Liner Sector

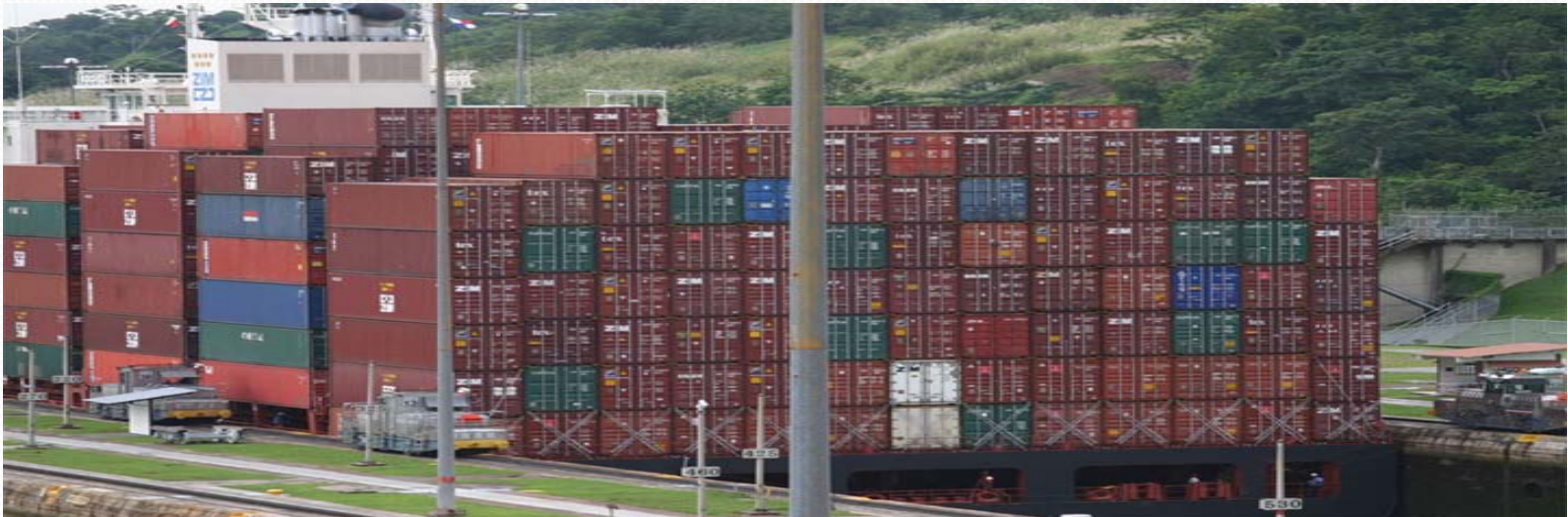
- This transformation led to substantial growth in the scope of **activities** performed by carrier, in terms of geographic coverage, frequency of services, faster transit times, supply chain management and provision of value added services.
- For these reasons the last decade was a period of significant change in container shipping had to face, **on the demand side** the new needs of shippers induced by globalization, while **on the supply side** chronic fleet over capacity (figure)

# Port Time Increase for Bigger Vessels

Vessel size(TEUs)	Speed	Time spent in ports(days)	% voyage
2,500	20/21	6.0	11%
4,000	21/22	9.7	17%
6,500	23/25	11.9	21%
8,000	22/24	13.2	24%

# Port Time Increase for Bigger Vessels

- One strategic answer of main carriers was to obtain growing economies of scale (both in vessel size and in organizational structure), which in turn enabled the sharing of investment costs and reductions in the average cost per slot.





# Port Time Increase for Bigger Vessels

- The need to decrease slot costs **induced** carriers to pursue economies of scale in vessel size.
- This change **implies** a transformation in system linkages and port size.



# Port Time Increase for Bigger Vessels

- Table

A dramatic port time increase for main carriers

A composition between 4,000 TEU panamax and 8,000 TEU super post-panamax shows the time spent in ports accounts for 17% of overall voyage (4,000 TEU) rising to 24% (8,000TEU)



# Port Time Increase for Bigger Vessels

- This means that terminal operation represent a critical phase in the transport chain, and play a key role in schedule reliability.



# Underlying Forces of Global Trends

- Bigger Vessels
  - Growing number of post-Panamax ships (in 2010 post-Panamax ships to increase to 682, nearly double the current fleet of 391)
  - Largest container ship about 10,000 TEUs and plans to construct bigger vessels of 14,500 TEUs





# Underlying Forces of Global Trends

- Advances in transport technology
  - Containerization
  - Intermodalism
  - Door-to-door transport services



# Globalization

## **1990s: the birth and explosion of globalization**

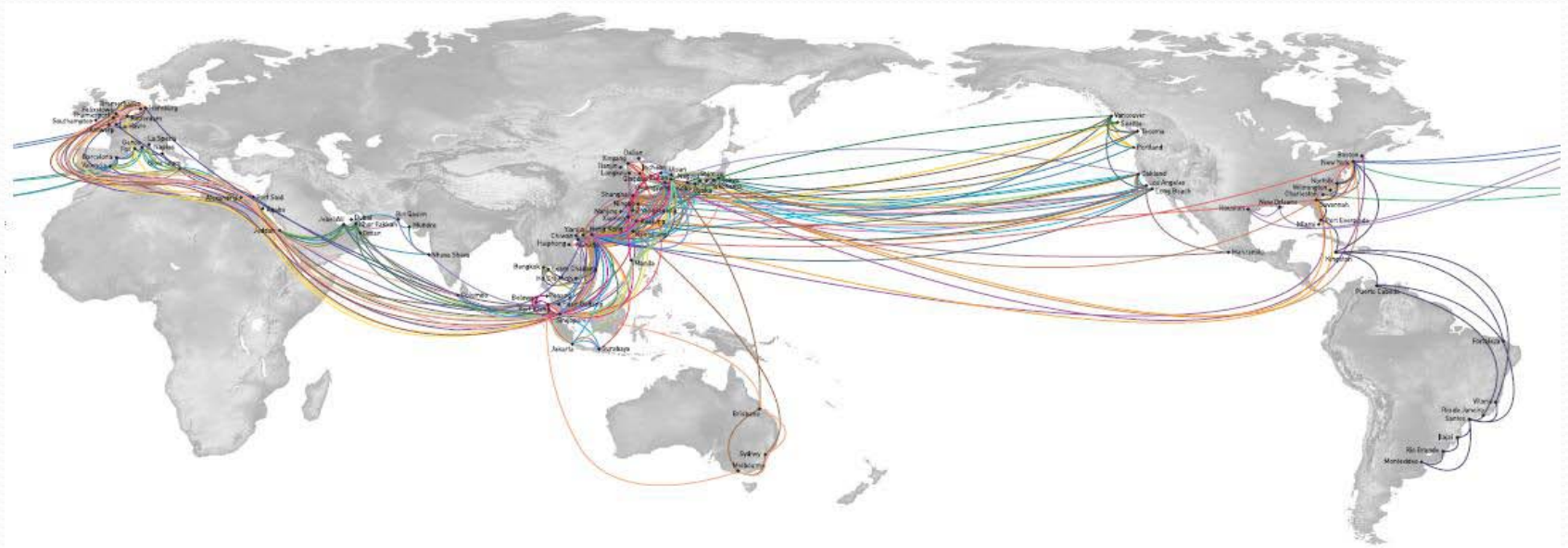
- Over the past half-century, most countries have seen an increase in export.
- In addition, sourcing of raw materials and finished products have become increasingly globalized, and producers in various, often distant, areas of the world are increasingly forced to compete.



# Globalization

## 1990s: the birth and explosion of globalization

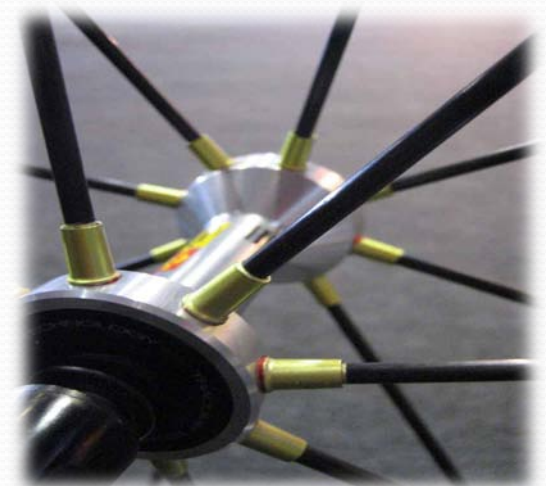
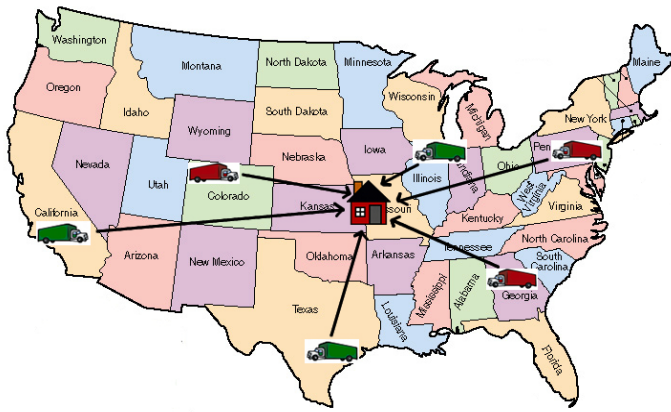
- Over the last few years, the world economy has passed **from** a multitude of markets separated by trade barriers(distance, time, politics, culture) **to** increasingly converging and integrating markets.





# Hub & Spokes

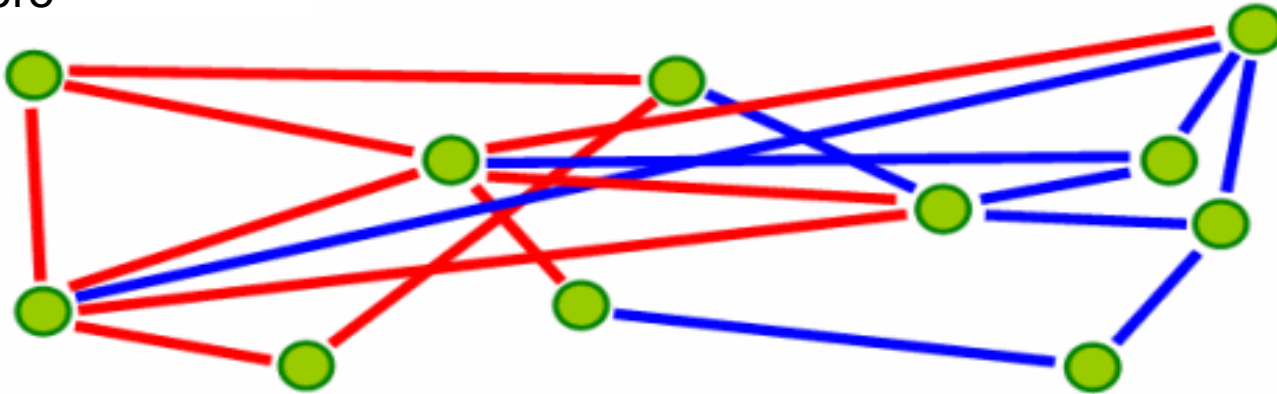
- a system of connections arranged like a chariot wheel, in which all traffic moves along spokes connected to the hub at the center
  - commonly used in particular in transport, telecommunications and freight
- A concept of forming radiation transport structure to gather and disperse passengers and cargo around one particular port as a transit base



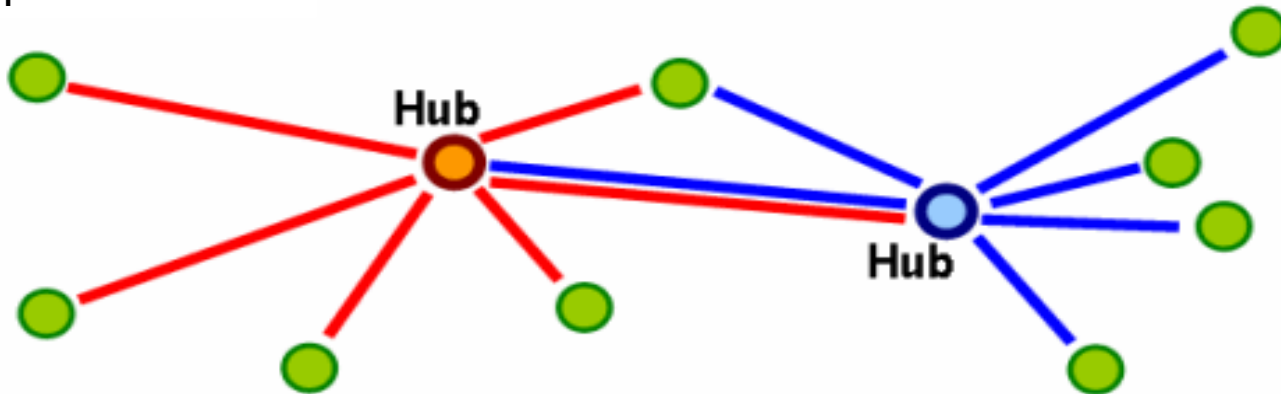


# Hub & Spokes

Before



After



# Hub & Spokes

Ocean  
Shipping

Transshipment

Feeder Service

Off-loading at  
Regional port

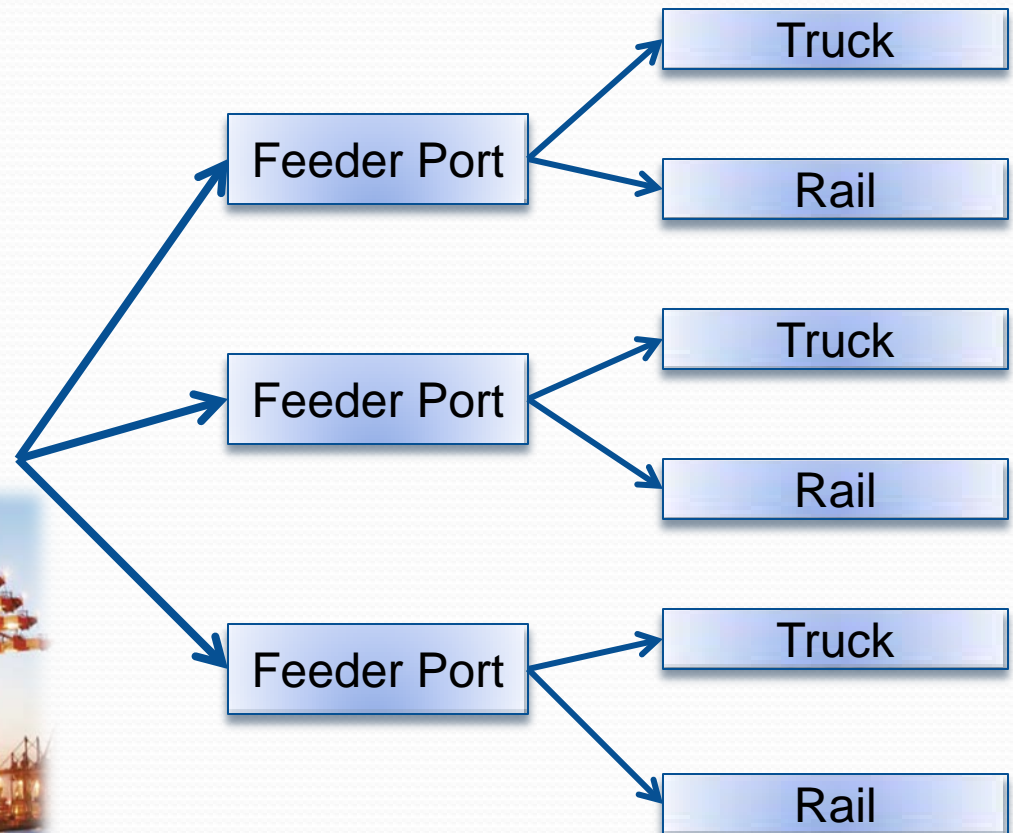
Onward  
Transport



International Container Ship



Hub Port



# Port Development

- “A Port is a special economic zone, in which a cluster of maritime related industries are making use of the maritime infrastructure and facilities, and are creating a corridor between different market”
- “Within a port area the development of the industry, through a co-operation between government and industry is a key success factor”





# Port Development

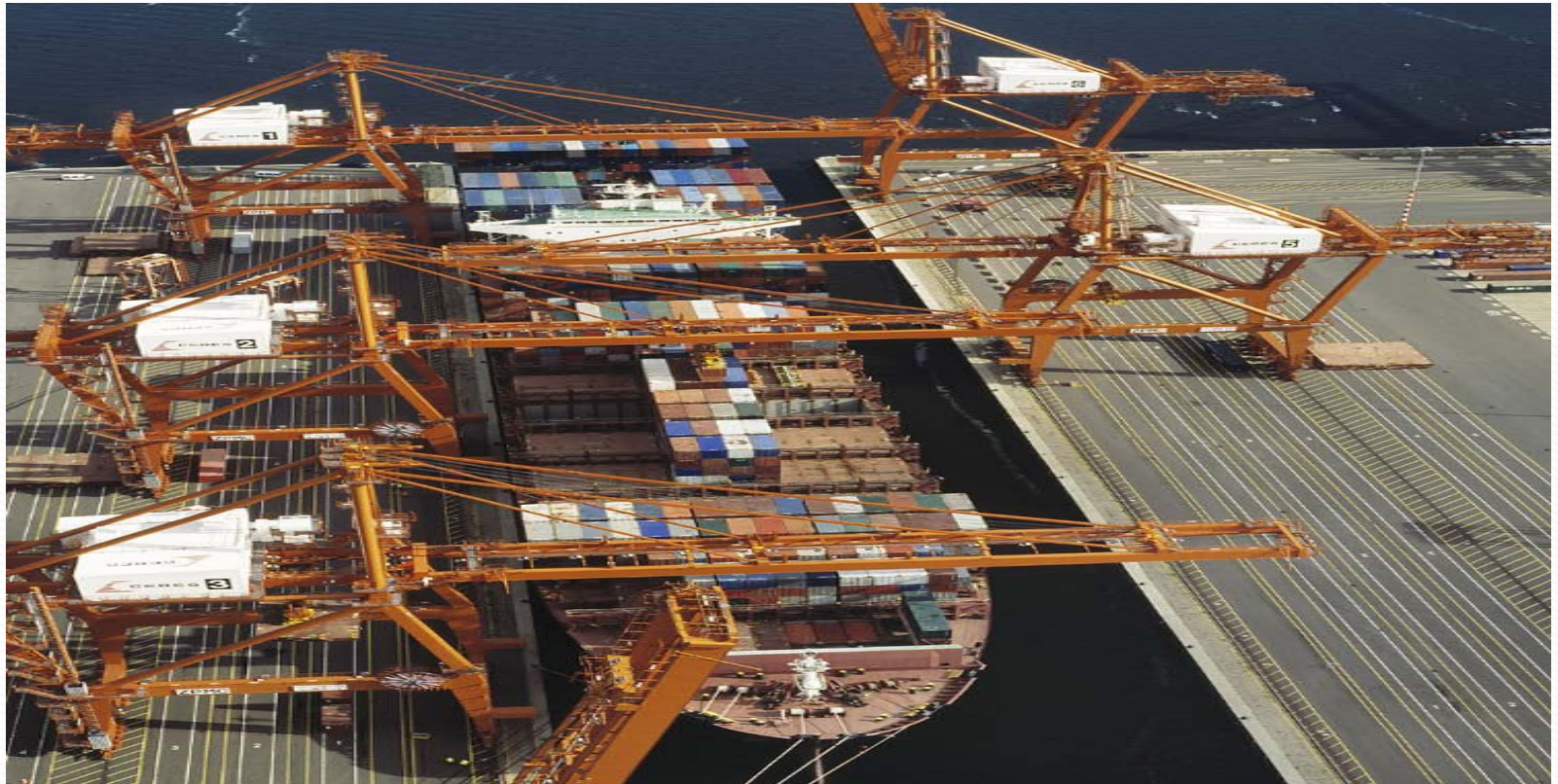
- Higher demand for infrastructure & superstructure facilities:  
Capacity & Performance
  - Deeper & larger navigational channels
  - Terminals: Longer outreach of cranes, bigger land area, increased container management system, increased intermodal capacity





# Port Development

- Raise of Globally operation Terminal Operators
- Increasing globalization of port authority



# Container Traffic (in thousands TEU)

Rank	Port	Country	2008	2007	2006
1	Singapore	Singapore	29,918	27,932	24,792
2	Shanghai	China	27,980	26,150	21,710
3	Hong Kong	Hong Kong	24,248	23,881	23,539
4	Shenzhen	China	21,414	21,099	18,469
5	Busan	South Korea	13,425	13,270	12,039
6	Dubai	UAE	11,827	10,653	8,923
7	Ningbo	China	11,226	9,349	7,068
8	Guangzhou	China	11,001	9,200	6,600
9	Rotterdam	Netherlands	10,784	10,791	9,655
10	Qingdao	China	10,320	9,462	7,702
11	Hamburg	Germany	9,737	9,890	8,862
12	Kaohsiung	Taiwan	9,677	10,257	9,775
13	Antwerp	Belgium	8,663	8,176	7,019
14	Tianjin	China	8,500	7,103	5,950
15	Port Klang	Malaysia	7,970	7,120	6,326

# Globalization Alliance

- Growing economies of scale are also linked to organizational aspects.
- Over the last few years, there have been considerable merges and acquisition (M&A) among shipping lines.
- The best-known acquisition was that of sealand by Denmark`s Maersk, which consolidated its world leadership

# Globalization Alliance

- Global alliances can be considered as a breakthrough in comparison to previous forms of agreement, because GA are not limited to a single trade lane but aim at covering all major routes, **as well as** significant north-south trade and regional feeder links.





# Globalization Alliance

- GA have also extended their area of influence **beyond** vessel operations **towards** the shared use of container terminals(albeit rarely), joint equipment management, intermodal transport, logistics and so on.



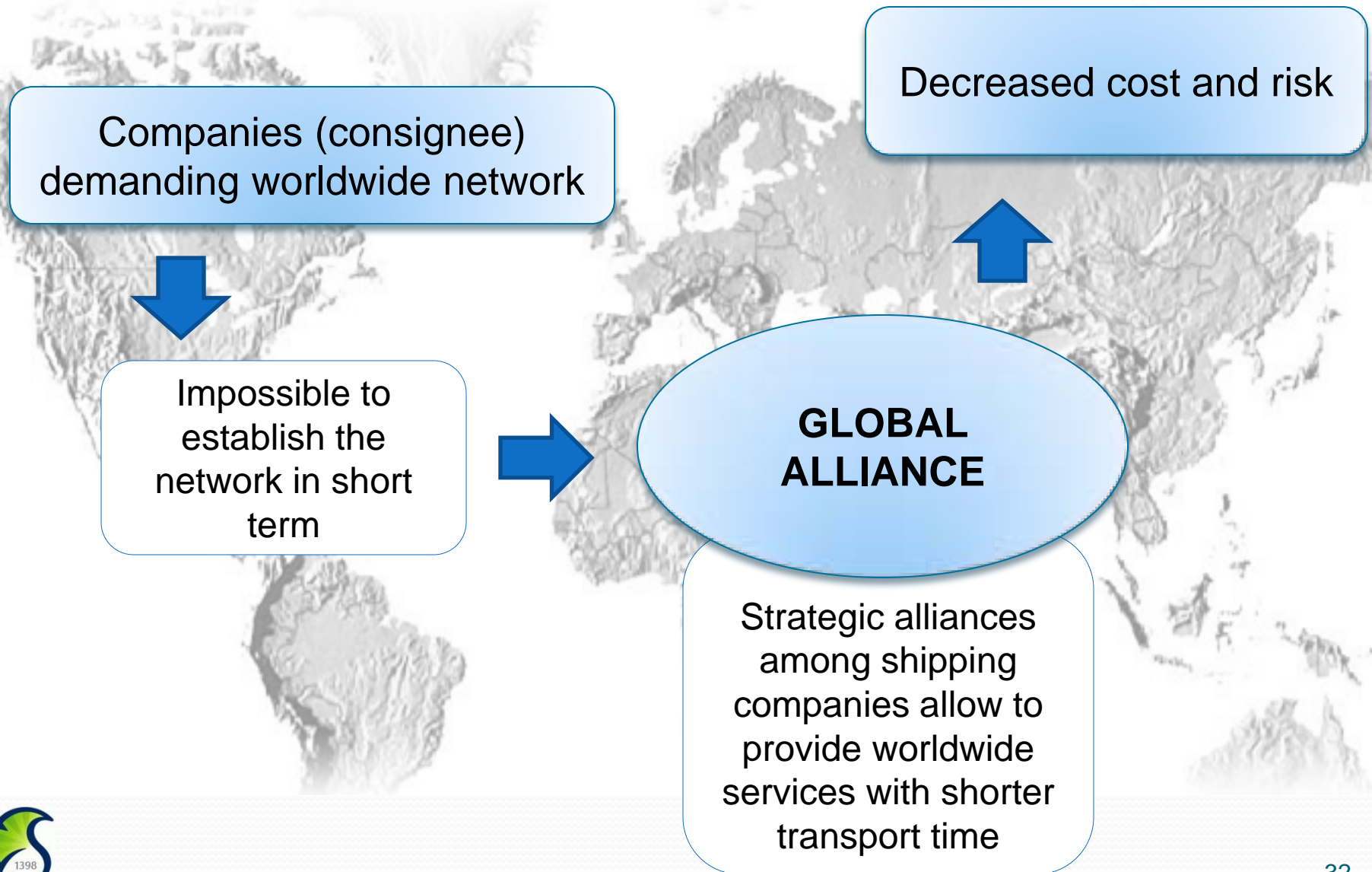
# Strategic Alliance of Shipping Companies

- Any form of long-term cooperative agreements or relationships between organizations in order to achieve common goal
- Two or more companies cooperating in various fields such as technology, production, marketing, capital, and etc
  - R&D, Patent, Production/Distribution, Joint Venture, Cooperative Ship Operation
- New trends in the industry
  - Forming multiple alliances among different shipping companies, while continuing the existing alliances

# Strategic Alliance of Shipping Companies

- Purpose of liner strategic alliance
  - Service improvement
    - More frequency
    - More direct call
    - Shorter transit time
  - Reduction of cost and risk of investment
    - to gain mutual contribution and complementary cooperation
    - to attain the economy of scale in the main routes
    - to obtain the any other service in the feeder routes and to restrain competitions among the lines

# Strategic Alliance of Shipping Companies





# Progress of global liner alliances

## 1994 Global Alliance



## 1995 Grand Alliance



## 1995 Hanjin/Tricon



Choyang Shipping



## 1995 Maersk/Sealand



# Progress of global liner alliances

## 1998 The New World Alliance



**Mitsui O.S.K. Lines**

## 1998 Grand Alliance



**P&O**

**Nedlloyd**



**P&O**



**Hapag-Lloyd**

## 1998 United Alliance



**HANJIN SHIPPING**

## 2002 CKYH Alliance



**HANJIN SHIPPING**

## 2005 MS/P&O Nedlloyds



**P&O**

**Nedlloyd**

# Container Shipping Firm in Asia

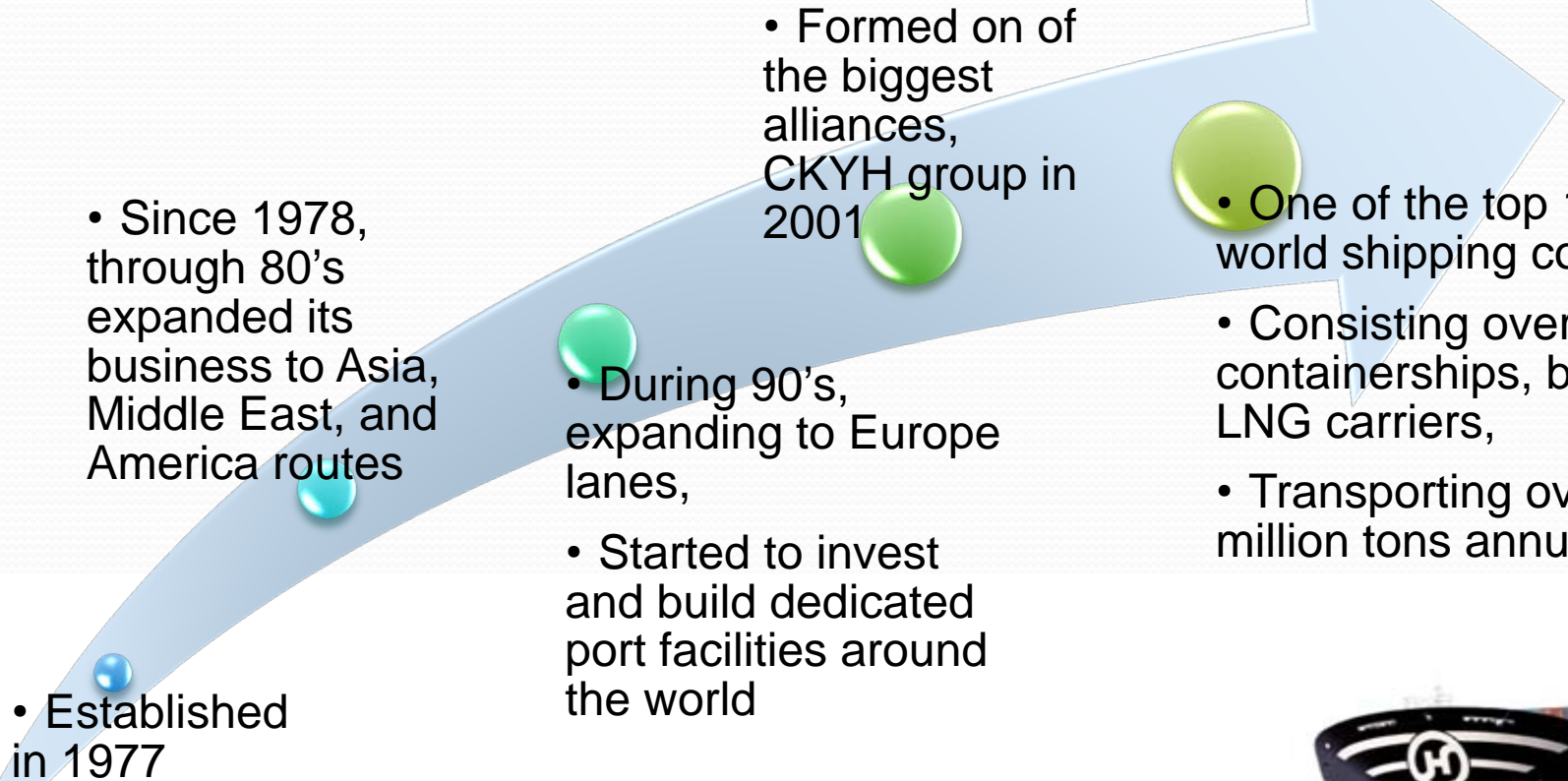
Location	Container shipping
Tokyo	NYK Line Mitsui OSK Lines K Line
Singapore	APL
Hongkong	OOCL
Seoul	Hanjin shipping Co. Hyundai Merchant Maine
Taipei	Evergeen/Uniglory Maine Corporations Yangming marine Transport
Beijing/Tainajin	Cosco
Shanghai	China Shipping container Lines

# HANJIN SHIPPING





# Hanjin Shipping (History)

- 
- Established in 1977
  - Since 1978, through 80's expanded its business to Asia, Middle East, and America routes
  - During 90's, expanding to Europe lanes,
    - Started to invest and build dedicated port facilities around the world
  - Formed on of the biggest alliances, CKYH group in 2001
  - One of the top 10 world shipping company,
    - Consisting over 200 containerships, bulk and LNG carriers,
    - Transporting over 100 million tons annually



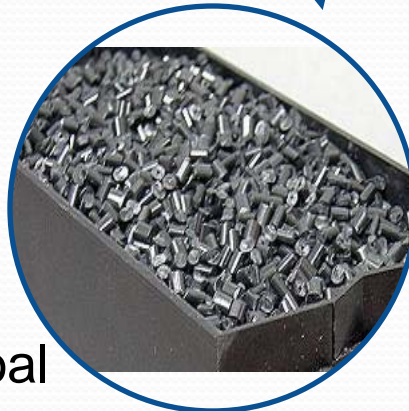
# Hanjin Shipping (Shipment)



Container



Special Cargo













Coal



Grain

# Hanjin Shipping (Top ten container shipping companies)

Company	Country	TEU capacity	Number of ships
<b>A.P. Moller-Maersk Group</b>	Denmark 	2,022,956	539
<b>Mediterranean Shipping Company S.A</b>	Switzerland 	1,517,200	409
<b>CMA CGM</b>	France 	1,023,208	365
<b>Evergreen Marine Corporation</b>	Taiwan 	594,154	162
<b>American President Lines</b>	United States 	531,865	135
<b>Hapag-Lloyd</b>	Germany 	475,282	120
<b>COSCO</b>	China 	469,848	146
<b>China Shipping Container Lines</b>	China 	449,469	139
<b>NYK Line</b>	Japan 	412,711	109
<b>Hanjin Shipping</b>	Korea 	<b>406,462</b>	<b>90</b>

# Hanjin Shipping

- Has a comprehensive global business network with 4 regional headquarters, 200 overseas branch offices, and 30 local corporations, earning about 90% of its total revenue overseas
- Korea's largest carrier that operates some 60 liner and tramper services around the globe
- With the need to deliver value-added logistics services, it operates a comprehensive network of logistics and intermodal services around the globe that revolve around dedicated container terminals, rail, feeder, barge and truck transportation within its core business in maritime carriage.

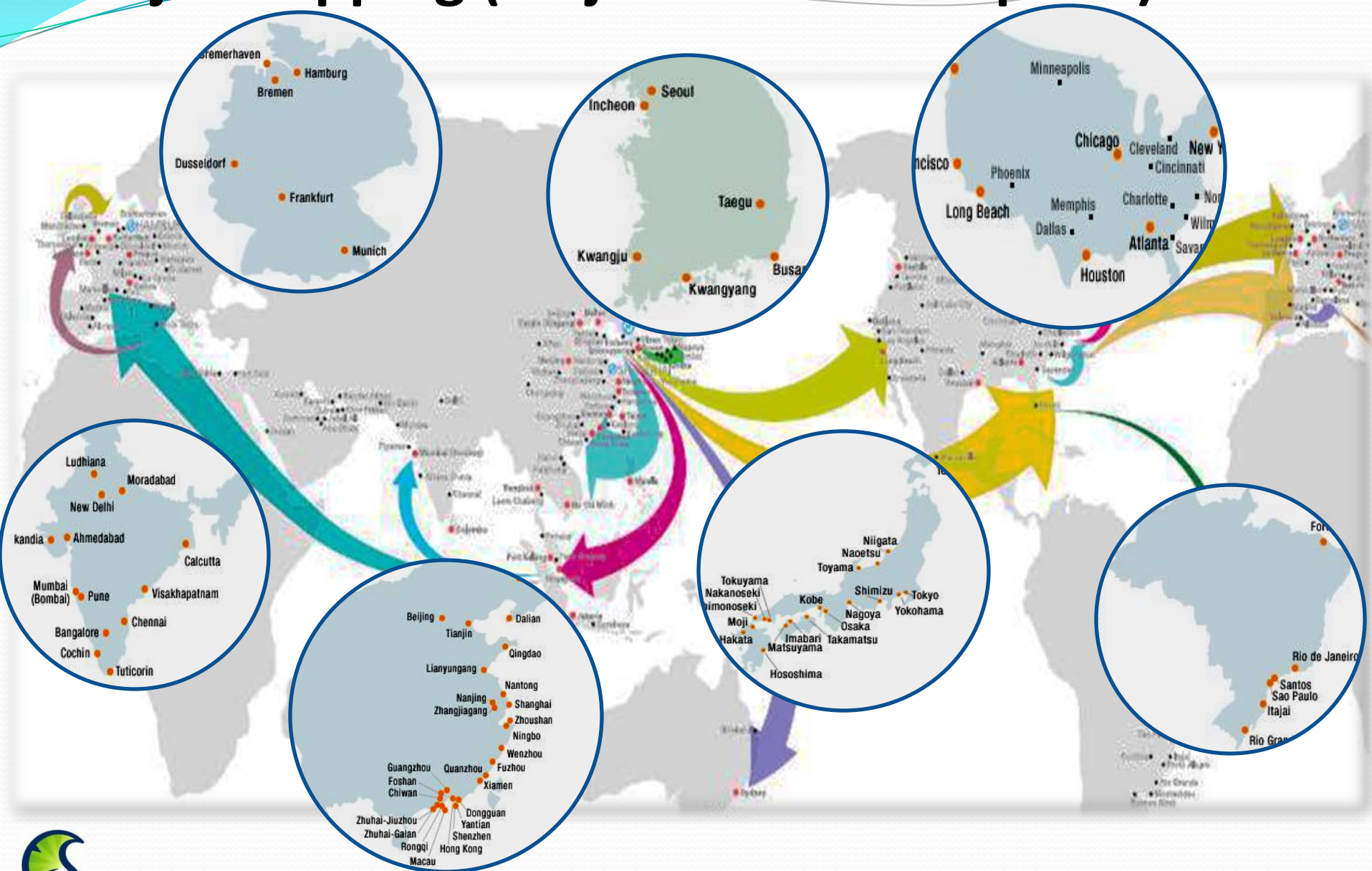


# Hanjin Shipping (Global Offices)



<b>Europe</b>	Algeria, Belgium, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom
<b>Middle East</b>	Bahrain, Iran, Israel, Kuwait, Oman, Saudi Arabia, U.A.E
<b>Asia</b>	Bangladesh, Cambodia, India, Indonesia, Malaysia, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Vietnam, China, Japan, Korea, Taiwan
<b>America</b>	Canada, U.S.A, Argentina, Brazil, Mexico, Uruguay
<b>Africa &amp; Oceania</b>	Australia, Egypt, Morocco, Tunisia

# Hanjin Shipping (major destination ports)





# Hanjin Shipping (global service network)



# Hanjin Shipping (Asia & Australia lanes)



## BKS Service (Bangkok Korea Service)



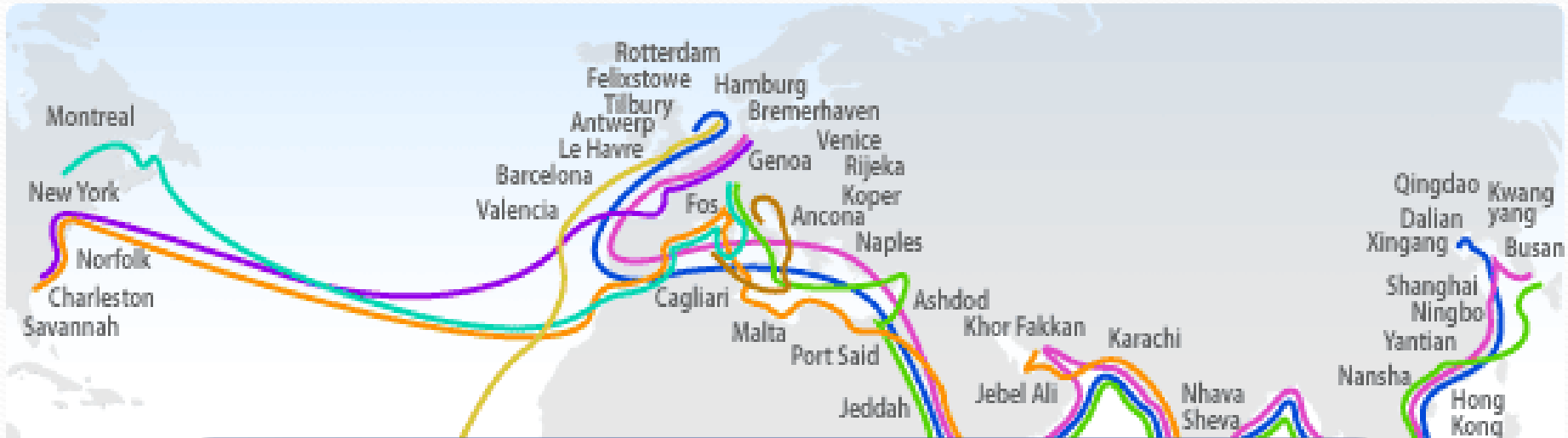
West Bound					days
From	To	PUS	HJG	SGN	BKG
Kwangyang		1	4	8	10
Busan			3	7	9
HongKong				4	6
Hochiminh					2

East Bound					days
From	To	LCH	HKG	PUS	KAN
Bang kok		0	4	8	9
Laem Chabang			4	8	9
Hong Kong				4	5
Busan					1



# Hanjin Shipping (Europe & Atlantic lanes)



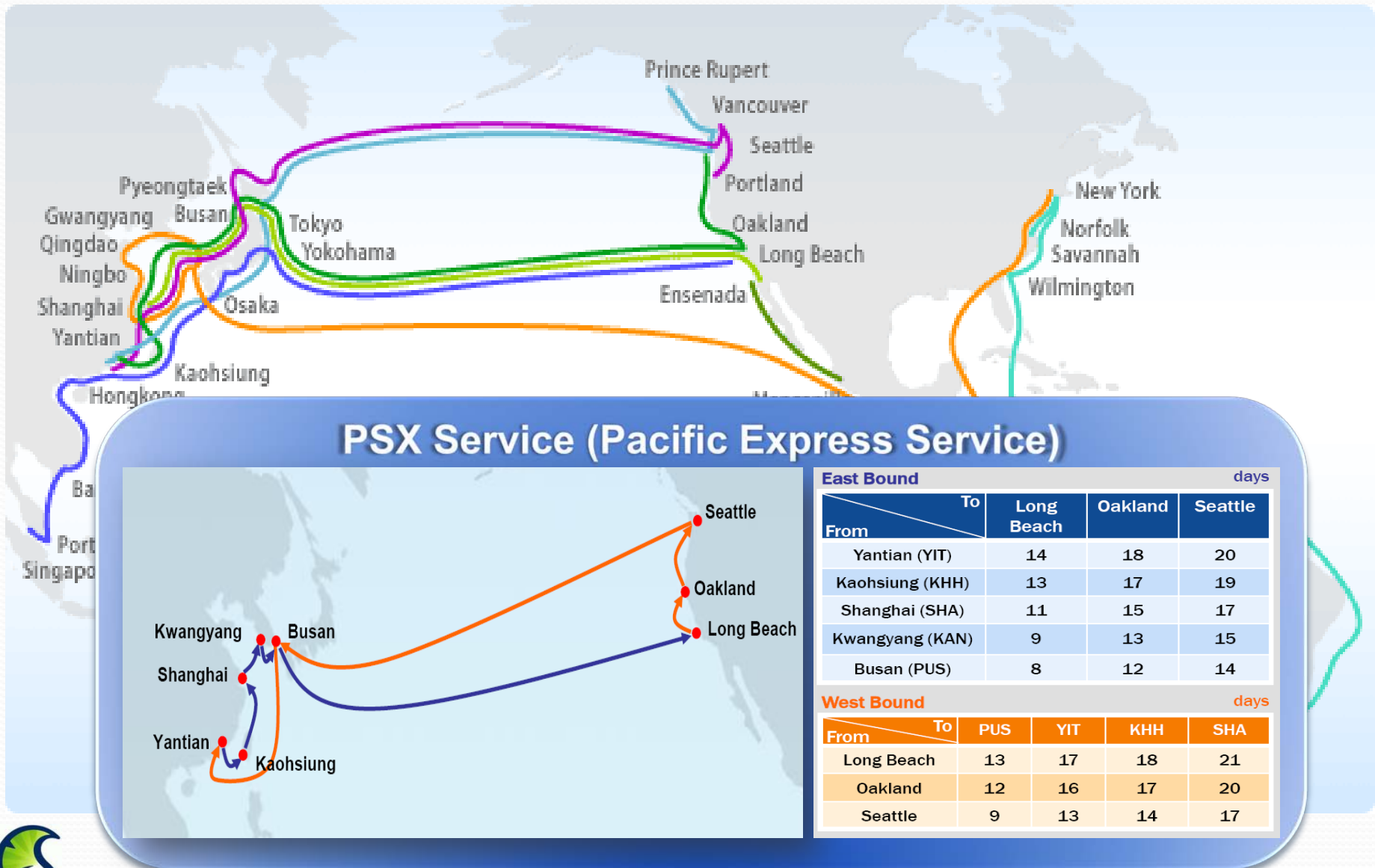
## NE4 Service (Asia-North Europe Service 4)



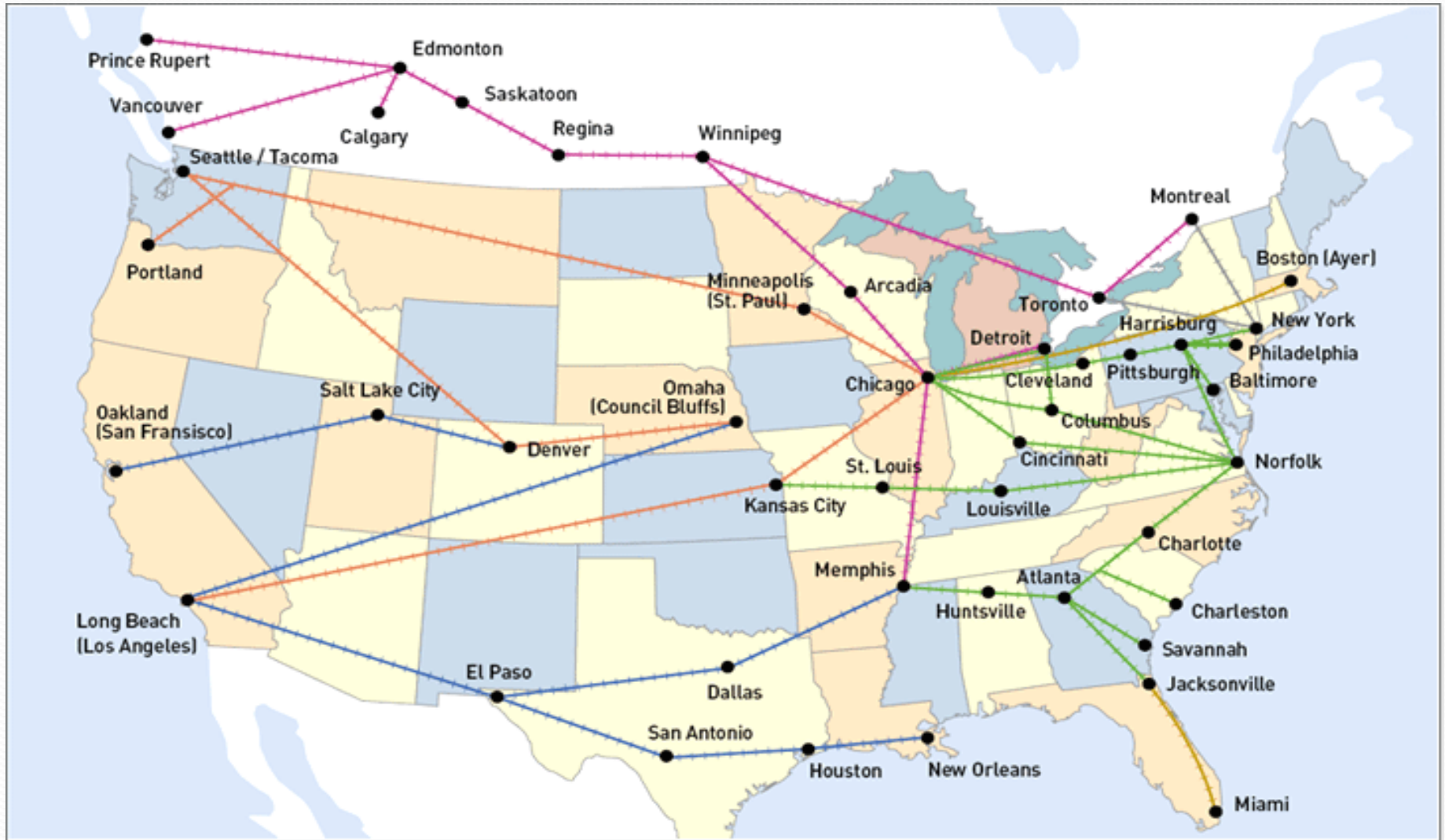
East Bound		days			
From	To	Singapore	Hong Kong	Kwangyang	Pusan
Hamburg		26	31	35	36
Rotterdam		23	28	32	33
Le Havre		22	27	31	32
Port Said		14	19	23	24

West Bound		days			
From	To	Hamburg	Rotterdam	Le Havre	Port Said
Kwangyang		26	28	30	38
Pusan		25	27	29	37
Ningbo		23	25	27	35
Shanghai		22	24	26	34
Singapore		16	18	20	28

# Hanjin Shipping (Trans Pacific lanes)



# Hanjin Shipping (US Intermodal services)



# Hanjin Shipping (US Intermodal transit time)

From	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
<b>Long Beach</b>	El Paso, TX	Houston, TX Salt Lake City, UT Dallas, TX San Antonio, TX	Chicago, IL Kansas City, KS Memphis, TN New Orleans, LA Denver, CO Omaha, NE	Atlanta, GA St. Louis, MO Huntsville, AL	Louisville, KY Columbus, OH	Boston,MA New York, NY Baltimore, MD Charleston, SC Miami, FL Norfolk, VA Savannah, GA Charlotte, NC
<b>Seattle</b>			Chicago, IL Minneapolis, MN	Detroit, MI Kansas City, KS	Columbus, OH	Boston,MA New York, NY Norfolk, VA Baltimore, MD
<b>Oakland</b>	-	Salt Lake City, UT	Denver, CO Chicago, IL		Columbus, OH	New York, NY
<b>Vancouver</b>	Edmonton, AB	Calgary, AB	Sasakatoon, SK	Toronto, ON Montreal, QC	-	-
<b>New York</b>	-	Chicago, IL	Columbus, OH	-	-	Long Beach, CA Oakland, CA Seattle, WA
<b>Norfolk</b>	Chicago, IL Columbus, OH	Louisville, KY Cincinnati, OH Cleveland, OH	Kansas City, MO	-	-	Long Beach, CA Oakland, CA Seattle, WA
<b>Savannah</b>	Atlanta, GA	Memphis, TN New Orleans, LA	-	-	-	Long Beach, CA
<b>Prince Rupert</b>				Chicago, IL	Memphis, TN Detroit, MI	Arcadia, WI



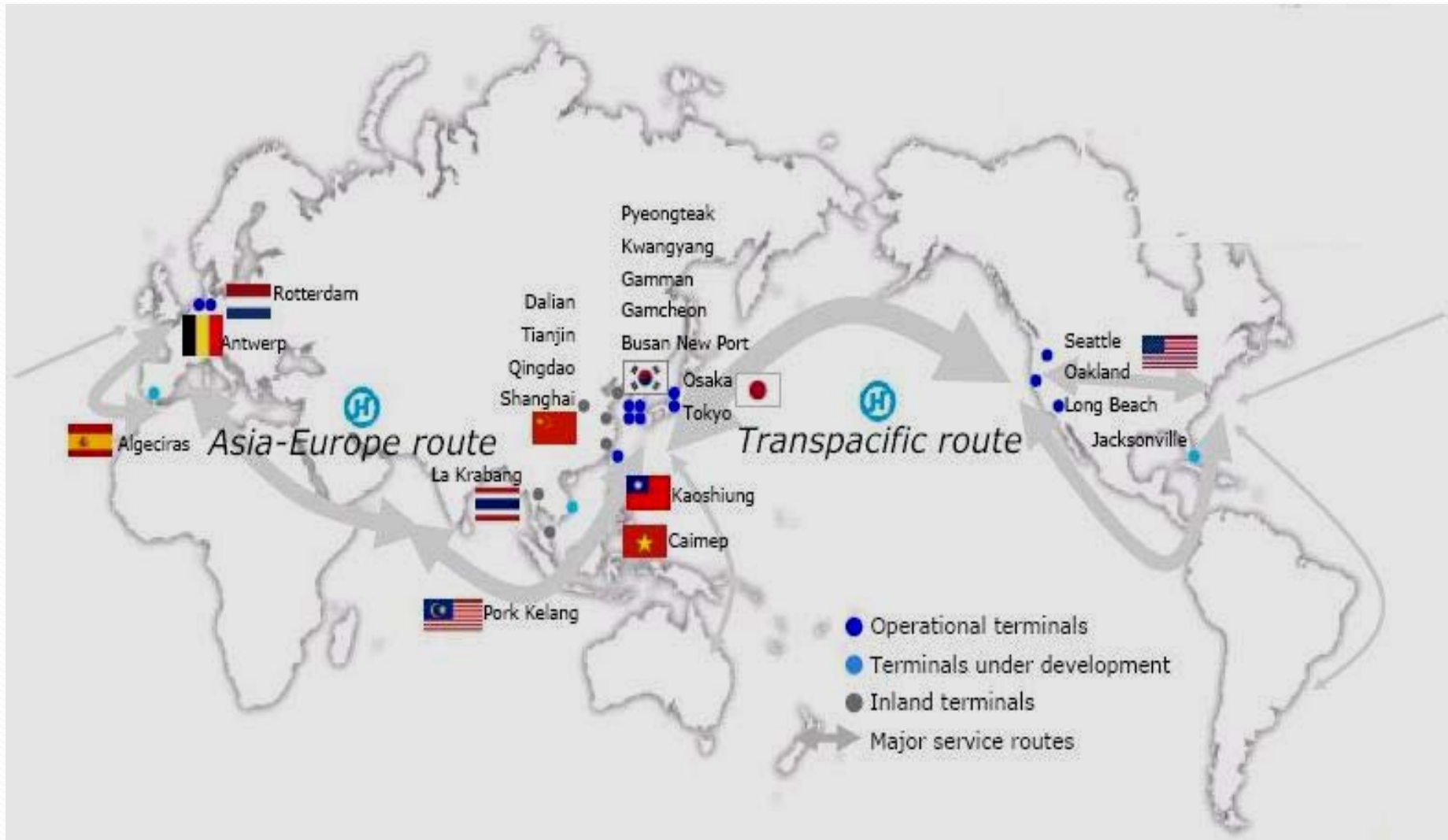
# Hanjin Shipping

- A member of the Hanjin Group, Hanjin Shipping has several subsidiaries and affiliates
  - logistics IT specialist - CyberLogitec
  - Pyeongtaek Container Terminal Co., Ltd.
  - ship management company - Hanjin SM (Ship Management)
  - terminal operation company - HPC (Hanjin Pacific)
- Hanjin Shipping has a comprehensive global business network with 4 regional headquarters, 200 overseas branch offices, and 30 local corporations, earning about 90% of its total revenue overseas.

# Hanjin Shipping

- Hanjin Shipping's world-class logistics network
  - 12 dedicated terminals in Rotterdam, Long Beach, Tokyo, Kaohsiung, Busan, and etc
  - 6 inland logistic bases in Shanghai, Qingdao, and Port Klang
  - More dedicated container terminals are scheduled to open in the near future; Algeciras and Vietnam in 2010 and Jacksonville in 2011
- Hanjin Shipping's ship repair yard in China
  - Opened in 2009, provides efficient repair services not only for its own vessels but also for other carriers, thereby functioning as a new source of income for the company.

# Hanjin Shipping



Dedicated terminals are operated in major ports for better services

# Hanjin Shipping

- In early 2003, Hanjin Shipping allied with COSCO of China, Yang Ming of Taiwan, K-Line of Japan to form 'CKYH Alliance,' the world's largest strategic alliance.

**COSCO**



**K-LINE**



**YANG MING**



**HANJIN**





# Hanjin Shipping

- The CKYH Alliance has enabled Hanjin Shipping to sharpen its competitive edge by broadening its service coverage, offering Express Services, and sharing space with the allies to lower costs.
- Further plans of the CKYH Alliance include joint operation of regional feeder services and joint development of terminals in Asia, the United States, and Europe.



# Hanjin Shipping

- Hanjin Shipping's seamless international shipping service was recognized by the Best Carrier Awards by Fred Meyer in 2004, Good Partner Awards by Target Store and Best Buy in 2005.
- Moreover, Hanjin Shipping was honored as the Ocean Carrier of the Year by Ryder System in 2006 and also by Owens Corning for six years from 2001 to 2008.



# Hanjin Shipping

- To achieve its goal of becoming "the premier total logistics service provider respected by the global community," Hanjin Shipping will continue to enlarge and efficiently operate its fleet, acquire more dedicated terminals, and reinforce its core businesses including container and bulk shipping.
- In addition, Hanjin is bringing 3PL business on track and building a ship repair yard as part of its business diversification efforts.





THANK YOU