

# Container Business Overview



## Challenge on **Safety** and **Environment**

**Alireza Jahan**

Industrial Engineer

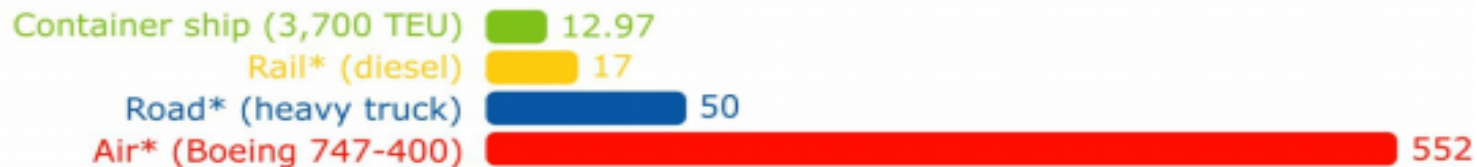
**Board Member**

**Shipping Association of Iran**

**Tehran – September 2015**

# Shipping is the most environmentally-friendly form of transportation

**CO<sub>2</sub>** emissions (grammes) to carry 1 ton of cargo 1km



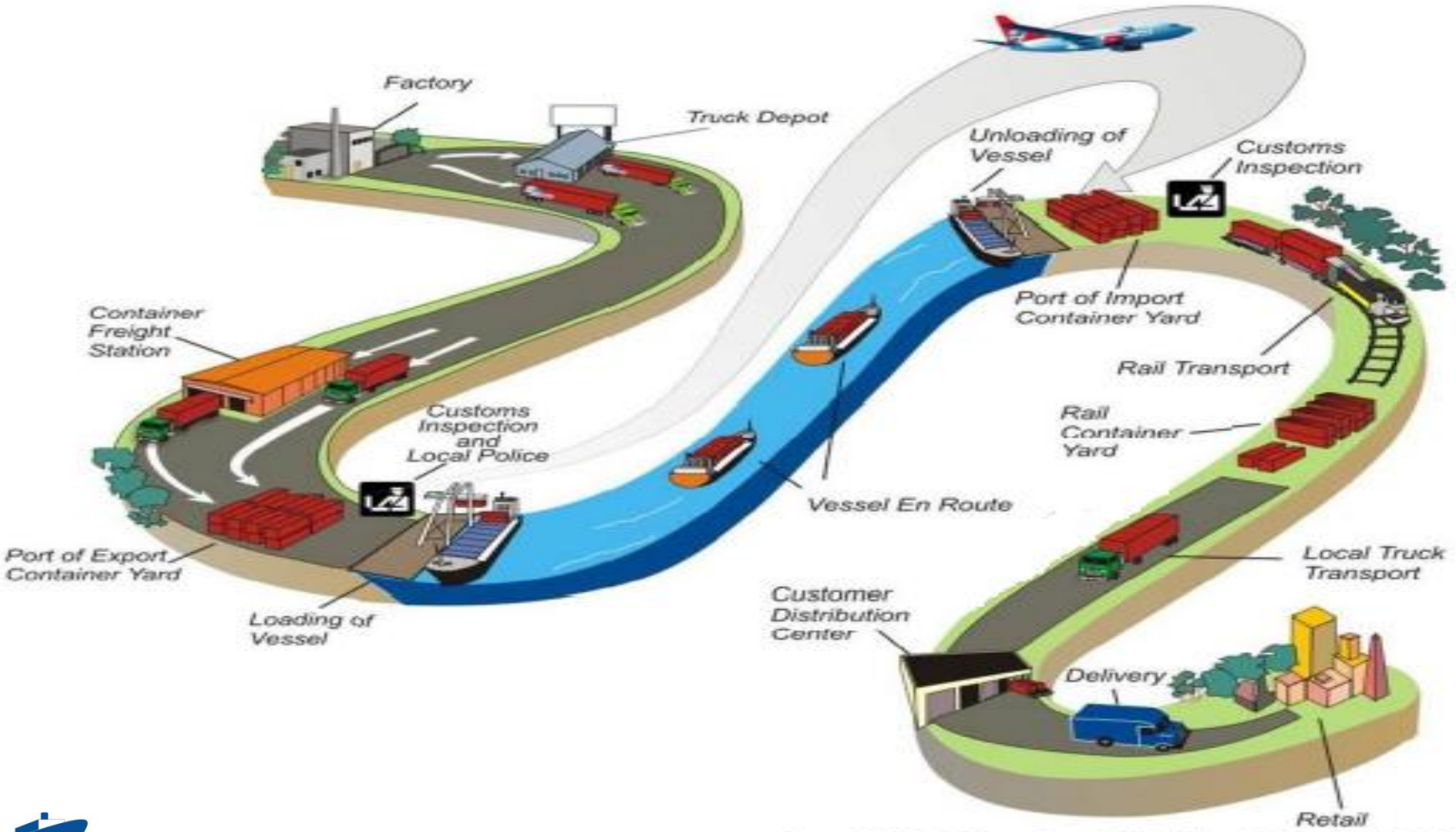
\*Source: The Network for Transport and the Environment

**Energy** used (kilowatts) to carry 1 ton of cargo 1km



\*Source: The Network for Transport and the Environment

# Supply Chain:



Source: John Isbell, former Director Global Inbound Delivery Logistics, Nike Inc.

## Total Existing Cellular Fleet:

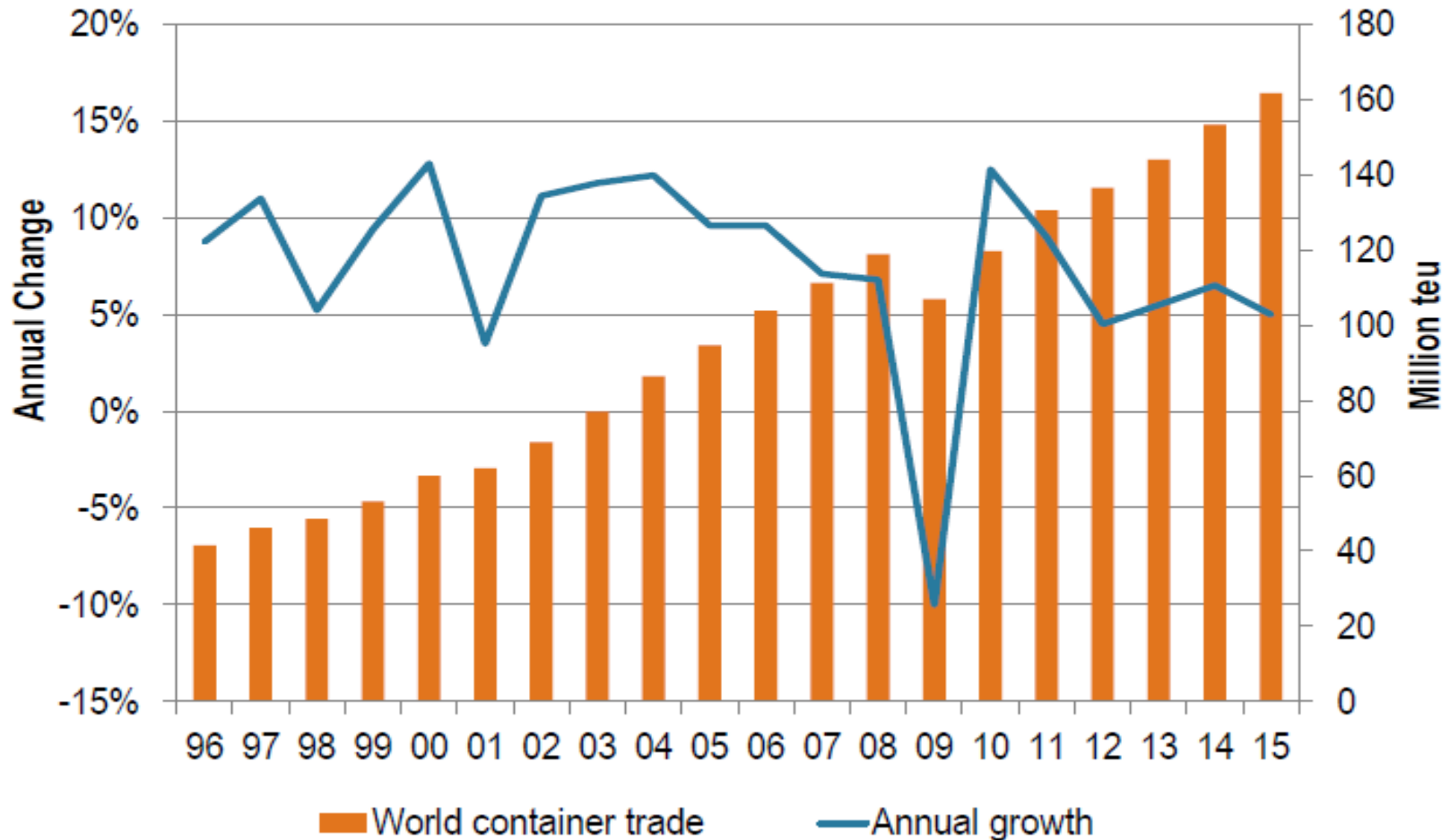
The total existing cellular fleet (all sizes / all positions) stands at **6,076** ships for **20,083,762** TEU (25<sup>th</sup> September 2015).

85% Cellular Container Vessel.

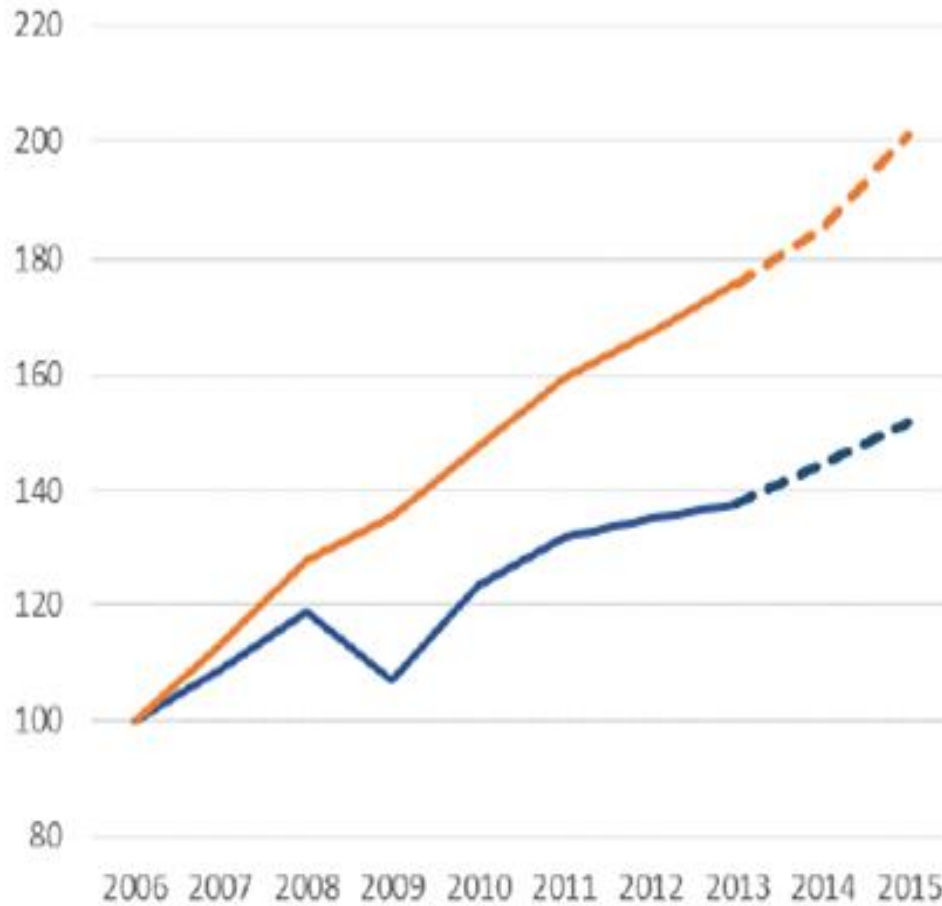


Source : <http://www.axs-alphaliner.com/top100/index.php>

# World Container Trade (1996-2015)



## Existing Fleet and Cellular Vessel Ordering

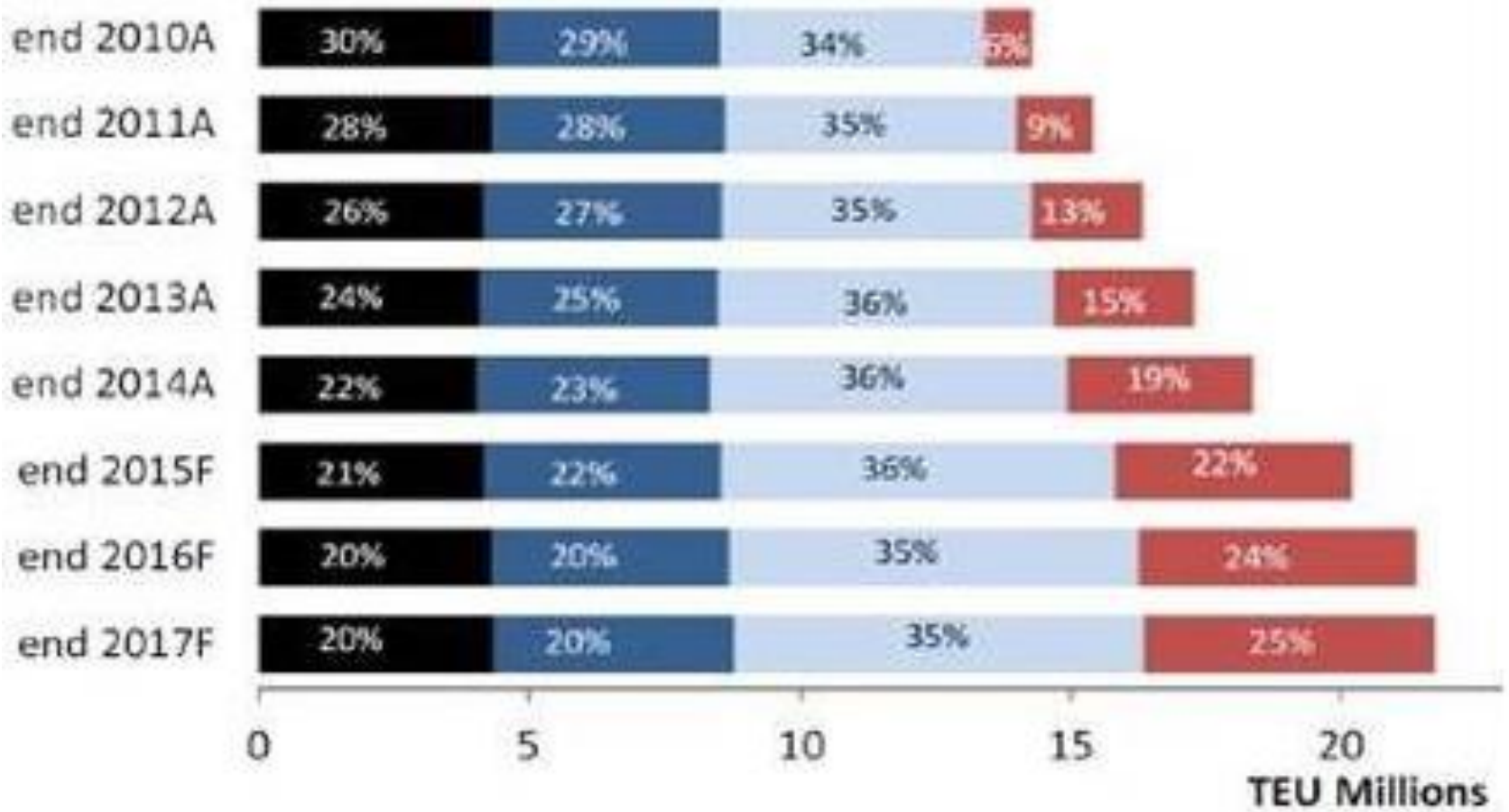


	Existing Fleet 01.03.2015	On Order
18000-20000 TEU	19	47
13300-17999 TEU	84	65
10000-13299 TEU	171	29
7500-9999 TEU	414	89
5100-7499 TEU	502	9
4000-5099 TEU	746	16
3000-3999 TEU	261	24
2000-2999 TEU	642	78
1500-1999 TEU	572	58
1000-1499 TEU	682	38
500-999 TEU	762	7
100-499 TEU	193	

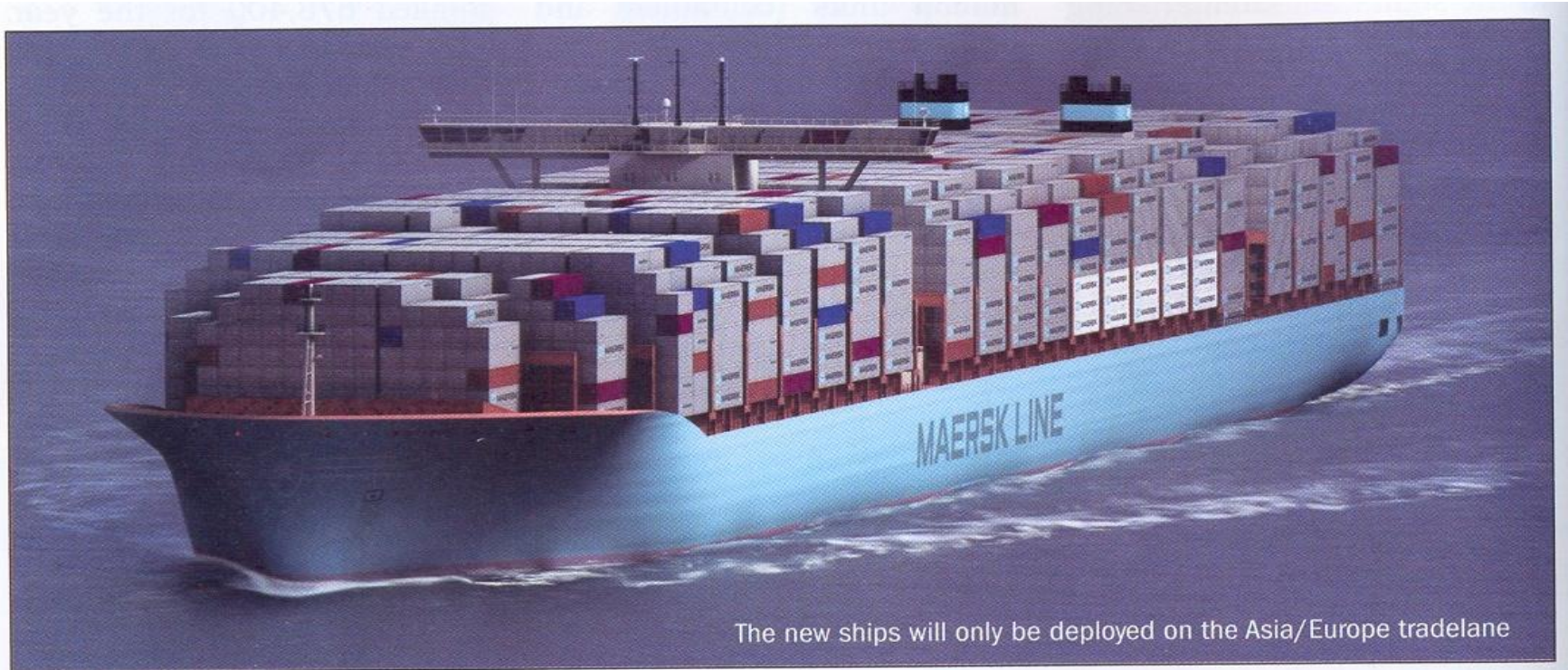
Orderbook data based on Alphaliner

— Demand — Supply

## Cellular Fleet Projections



# Third World's Largest Container Vessel: MAERSK Triple E Class July-2013 (18,340 TEU)



Tonnage: 165,000 [DWT](#)

Planned: 20 Ships Ordered

Length: 400 m

Cost: USD 185 Million

Beam: 59 m

Builder: DSME (Daewoo Shipbuilding and Marine Engineering) in South Korea

Draught: 14.5 m



# Second World's Largest Container Vessel: CSCL GLOBE November-2014 (19,100 TEU)



Tonnage: 184,605 [DWT](#)

Length: 400 m

Beam: 59 m

Draught: 16.0 m

Planned: 5 Ships Ordered

Crew: 31 persons

Builder: [Hyundai Heavy Industries](#)

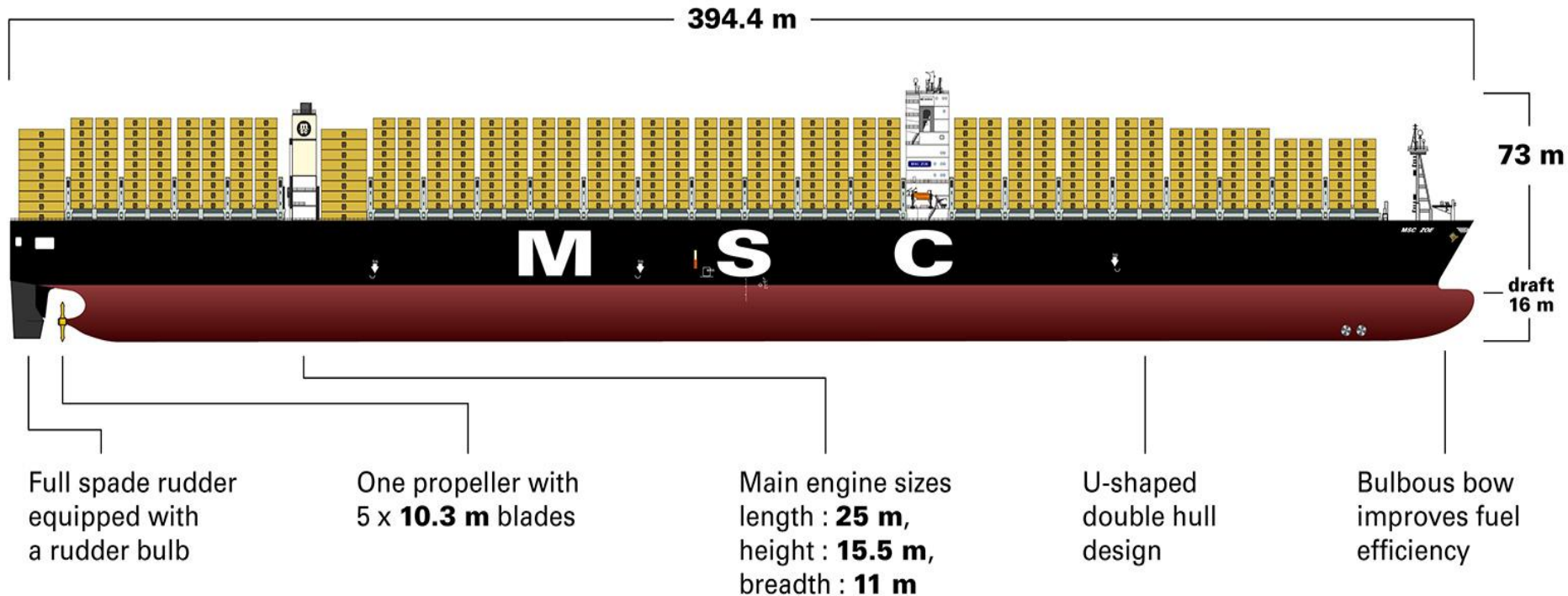
# World's Largest Container Vessel: MSC ZOE August-2015 (19,224 TEU)



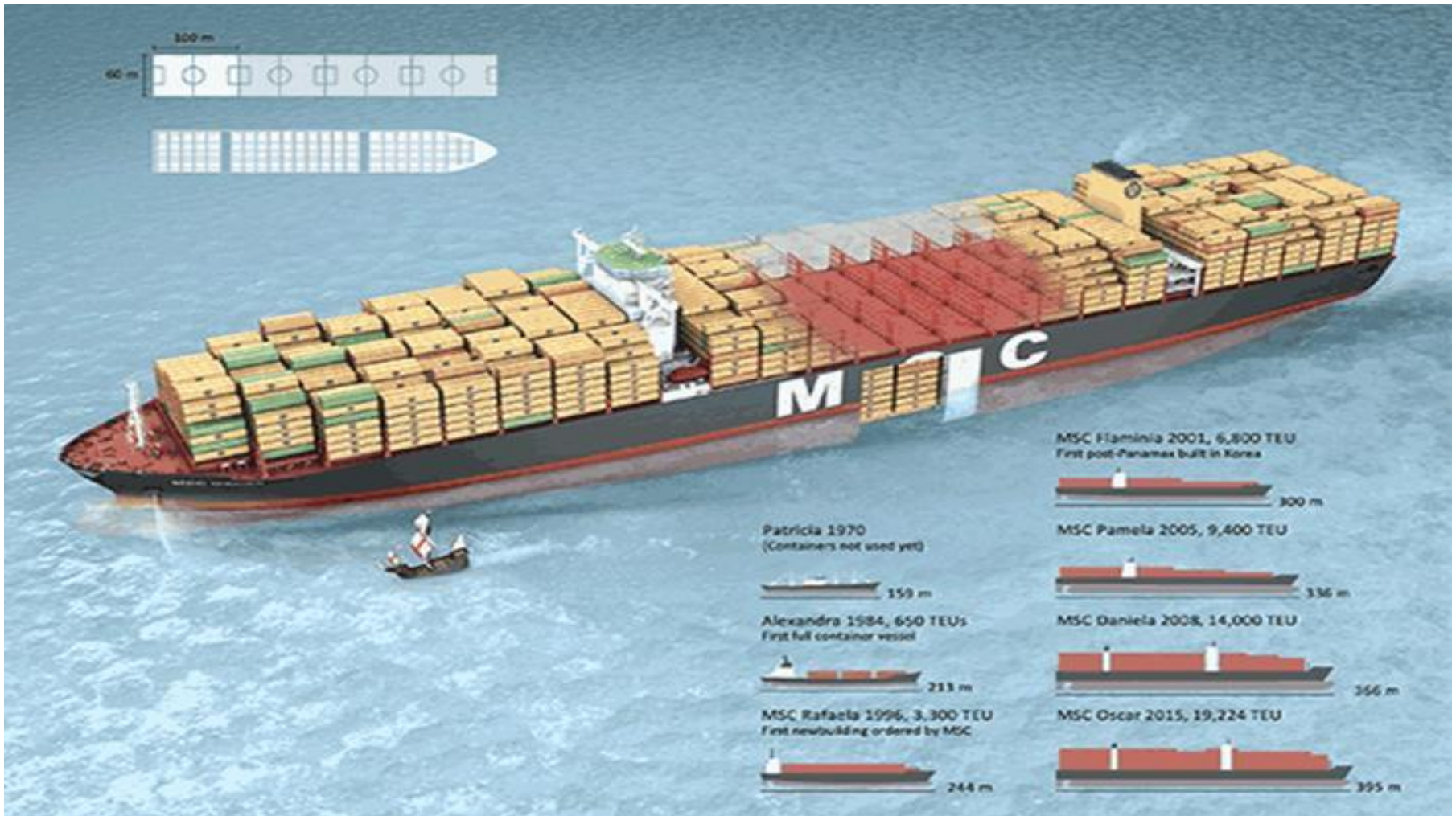
Tonnage:	197,362 <a href="#">DWT</a>	Planned: 18 Ships Ordered
Length:	394.4 m	Cost: USD 140 Million
Beam:	59 m	Builder: Daewoo Shipbuilding & Marine Engineering
Draught:	16.0 m	

# World's Largest Container Vessel: MSC ZOE August-2015 (19,224 TEU)

Service speed	Gross Tonnage	Breadth	Crew	Deadweight	TEU* capacity	Cost per ship
<b>22.8 knots</b>	<b>193.000 tons</b>	<b>59.0 m</b>	<b>35</b>	<b>197.362 tons</b>	<b>19.224</b>	<b>\$140 million</b>



# World's Largest Container Vessel: MSC Zoe August-2015 (19,224 TEU)



# World's Operated Container fleets - September 2015

Rnk	Operator	TEU	Share	Existing fleet	Orderbook
1	APM-Maersk	3,053,165	15.2%		
2	Mediterranean Shg Co	2,682,314	13.4%		
3	CMA CGM Group	1,829,745	9.1%		
4	Evergreen Line	955,568	4.8%		
5	Hapag-Lloyd	919,691	4.6%		
6	COSCO Container L.	860,465	4.3%		
7	CSCL	699,878	3.5%		
8	Hamburg Süd Group	639,575	3.2%		
9	Hanjin Shipping	628,764	3.1%		
10	OOCL	583,728	2.9%		
11	MOL	571,692	2.8%		
12	APL	540,865	2.7%		
13	Yang Ming Marine Transport Corp.	538,955	2.7%		
14	NYK Line	522,383	2.6%		
15	UASC	470,365	2.3%		
16	Hyundai M.M.	388,969	1.9%		
17	K Line	385,474	1.9%		
18	PIL (Pacific Int. Line)	372,938	1.9%		
19	Zim	361,778	1.8%		
20	Wan Hai Lines	209,121	1.0%		
21	X-Press Feeders Group	122,895	0.6%		
22	KMTC	103,671	0.5%		
23	HDS Lines	88,608	0.4%		
24	SITC	85,281	0.4%		
25	TS Lines	76,208	0.4%		
26	Simatech	56,625	0.3%		
27	Arkas Line / EMES	56,073	0.3%		
28	Quanzhou An Sheng Shg Co	51,513	0.3%		
29	Zhonggu Shipping	46,450	0.2%		
30	RCL (Regional Container L.)	45,497	0.2%		

## Iranian Container Fleet Development:

Saturday 26 September  
2015

فارسی



**IRISL**  
GROUP  
YOUR GLOBAL PARTNER

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Newly-appointed IRISL Managing Director:

Islamic Republic OF Iran must resume its place in world shipping.

The experts and highly-educated personnel of IRISL will elevate this company to 15th in the world ranking.

According to MANA reporter, Mohammad Saeidi appreciated the former managing director's efforts in IRISL in introduction session and stated that: IRISL is a well-performing company and this shows the efforts of successful top managers as well as taking advantage of skilled employees.

He informed his plans for IRISL by mentioning that: the company is 21st in the international ranking and it can be ranked less than 15th, taking advantage of the capabilities and resume our place in Middle East, Far East Asia and Europe as well.

## Mega Alliances

Global carriers have transformed into four big alliances, 2M, Ocean 3, G6 and the CKYHE.

Alliances allow their partners:

- To extend their geographical coverage
- To benefit from economies of scale through better use of large ships
- To offer a wider range of direct links
- To adapt quite easily the capacity on a given service by swapping ships between services
- In case of a downturn: to suspend one loop without affecting too much the quality of the service

*Expect the trend to continue with a few large alliances handling a majority of the trade...*

### Mega Alliances:

**2M:** MAERSK+MSC

**G6:** HAPAG LOYD+ APL + NYK+ HMM +OOCL+MOL

**OCEAN 3:** CMA CGM + CSCL + UASC

**CKYHE:** COSCO+KLINE+YANG MING+HANJIN + EVERGREEN

## Impact on Ports:



### Big Ships

Demand on  
additional resources



### Alliances

Complexity in  
port operations

***Ports need to adapt to the changing industry...***



### Infrastructure

- Longer berth lengths
- Deeper draft capabilities
- Larger quay cranes
- Bigger and more efficient yards



### Product

- Higher crane density
- Crane/Berth productivity
- Increased yard performance
- Faster vessel turnaround
- Consistency in performance



### Technology

- Automated equipment
- Automate gates
- IT to drive efficiencies
- Online services



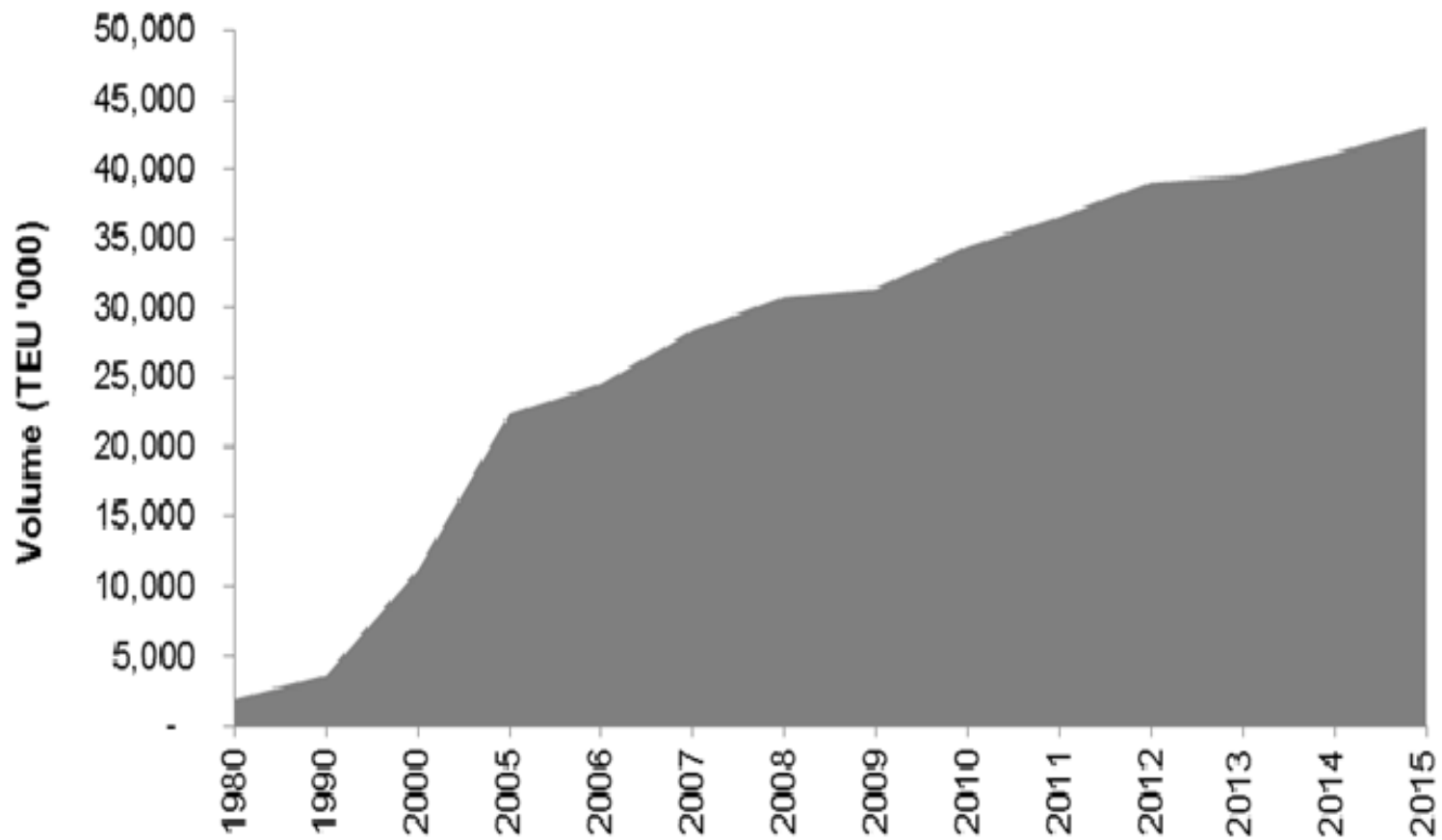
### Connectivity

- Multi-modal network connectivity – global & hinterland
- Global port connectivity



# Middle East Port Throughput

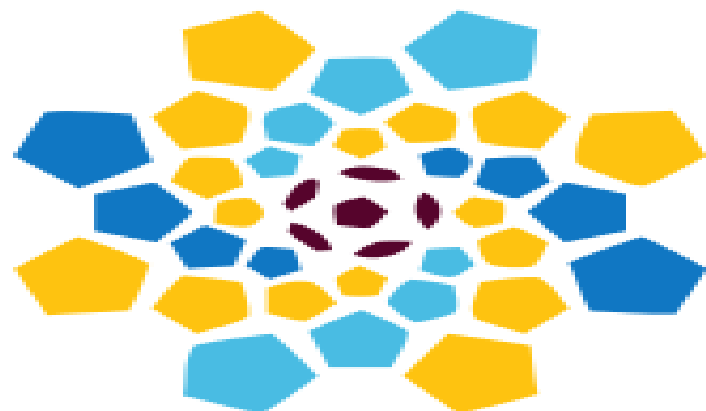
Drewry



Congratulations on Dubai's winning Bid  
Welcome Expo 2020



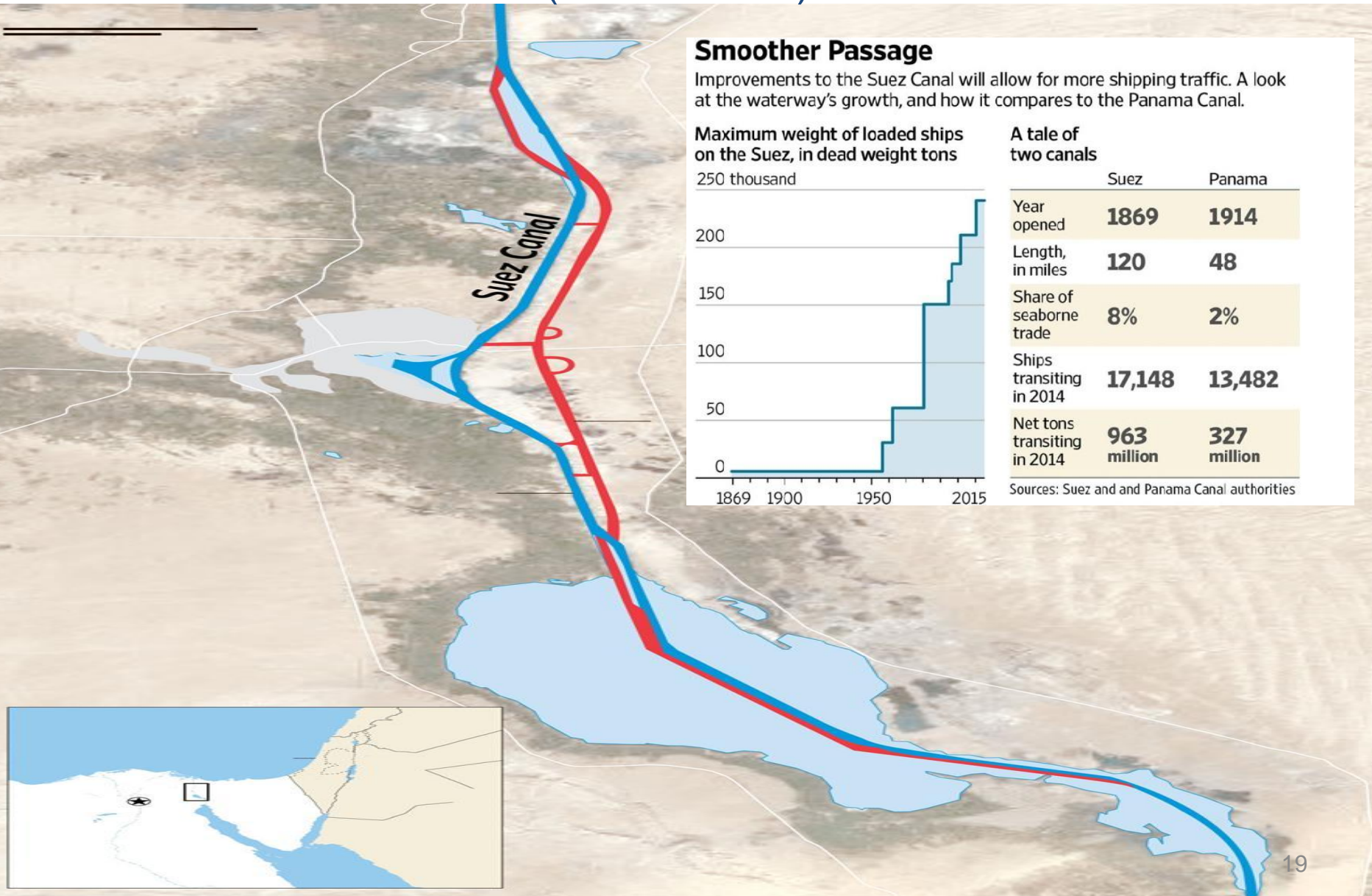
إكسبو 2020 EXPO  
دبي، الإمارات العربية المتحدة  
DUBAI, UNITED ARAB EMIRATES



Qatar  
2022

# SUEZ CANAL EXPANTION / Egypt (August-2015) :

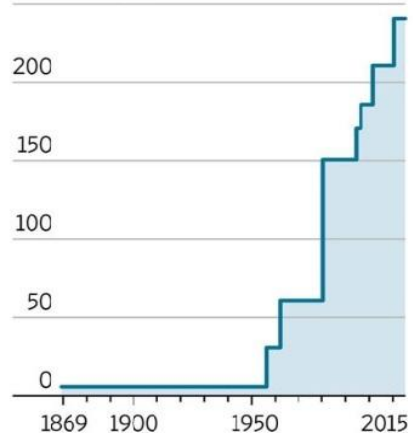
## Investment: USD 4bn (First Phase)



### Smoother Passage

Improvements to the Suez Canal will allow for more shipping traffic. A look at the waterway's growth, and how it compares to the Panama Canal.

**Maximum weight of loaded ships on the Suez, in dead weight tons**  
250 thousand



### A tale of two canals

	Suez	Panama
Year opened	<b>1869</b>	<b>1914</b>
Length, in miles	<b>120</b>	<b>48</b>
Share of seaborne trade	<b>8%</b>	<b>2%</b>
Ships transiting in 2014	<b>17,148</b>	<b>13,482</b>
Net tons transiting in 2014	<b>963 million</b>	<b>327 million</b>

Sources: Suez and Panama Canal authorities

## Jebel Ali / Dubai / UAE:

Capacity 2014: 17 Million TEU

Throughput 2014: 14.8 Million TEU

Rank (World): 9

Transshipment: 50%

Target: 22.1 Million TEU (2018)

Ongoing Investment: USD 1.6bn



## Jebel Ali / Dubai / UAE:



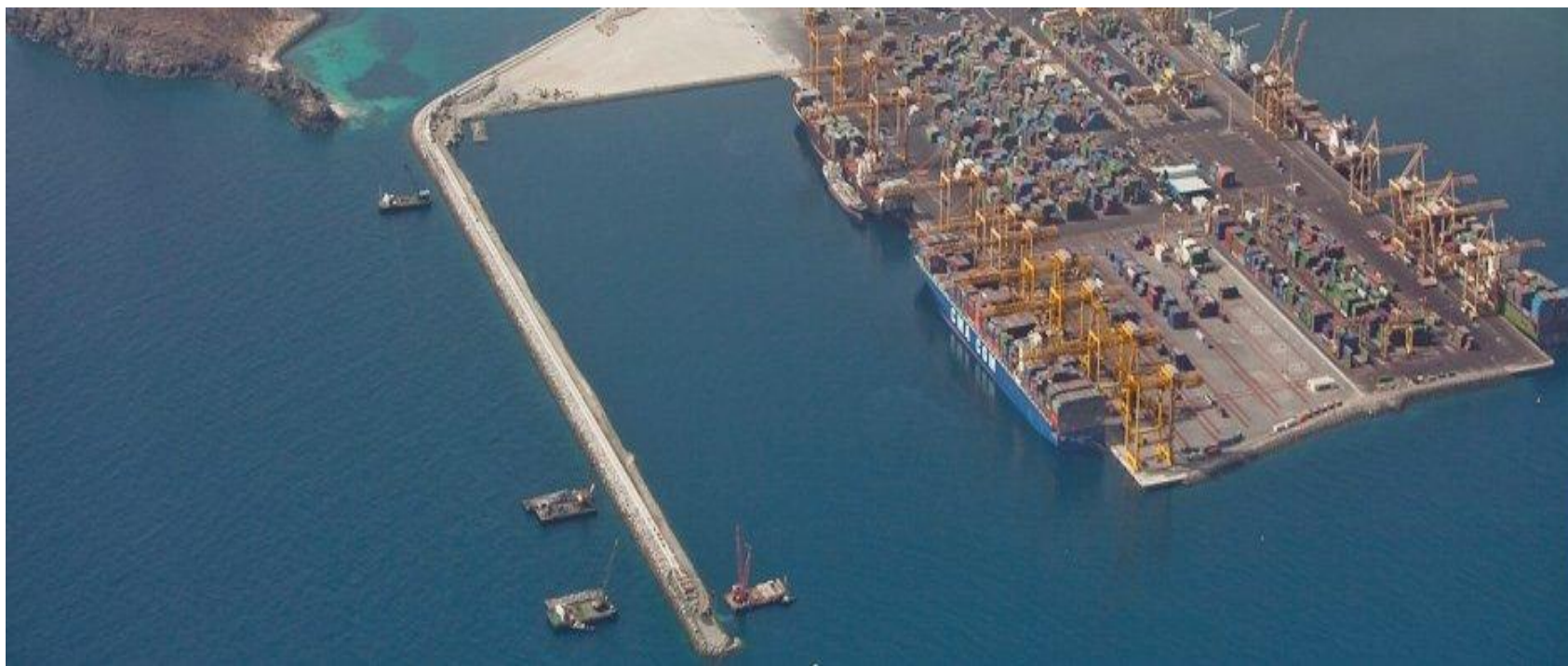
## Khorfakkan / Sharjah / UAE:

Capacity 2014: 5,000,000 TEU

Throughput 2014: 3,400,000 TEU

Transshipment: 90%

Recent Investment: USD 60,000,000 on equipment



## Khalifa Port/ Abu Dhabi / UAE:

Official Inauguration on: 12/12/12

Capacity 2014: 2,000,000 TEU

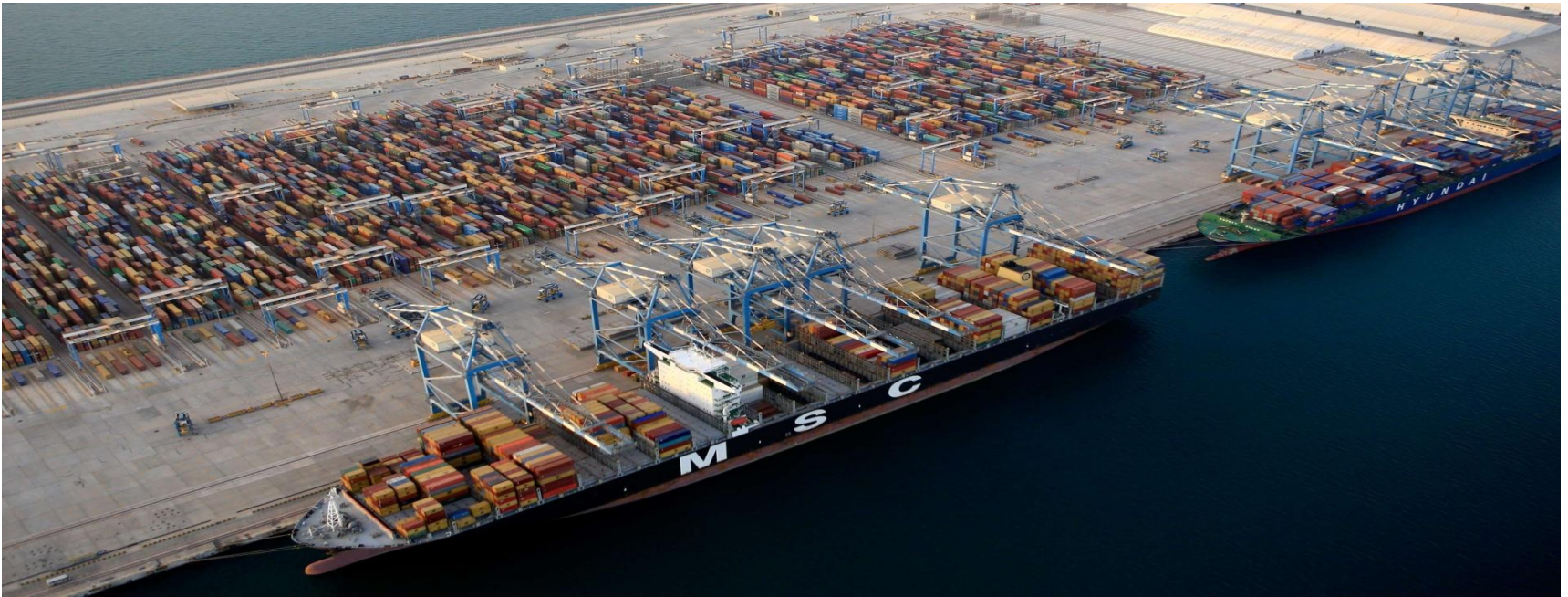
Throughput 2014: 1,130,000 TEU

Target (Short Term): 2,500,000 TEU (2017)

Target (Mid Term): 8,000,000 TEU (2020)

Target (Long Term): 15,000,000 TEU (2030)

Ongoing Investment: USD 80,000,000 (Abu Dhabi Commercial Bank)



## KIZAD/ Khalifa Port / Abu Dhabi / UAE





## Sohar/ Oman:



## Sohar/ Oman:

Capacity 2014: 1,500,000 TEU

Throughput 2014: 330,000 TEU

Target: 4,000,000 TEU (2017)

Ongoing Investment: USD 130,000,000



## Hamad Port/ Qatar:

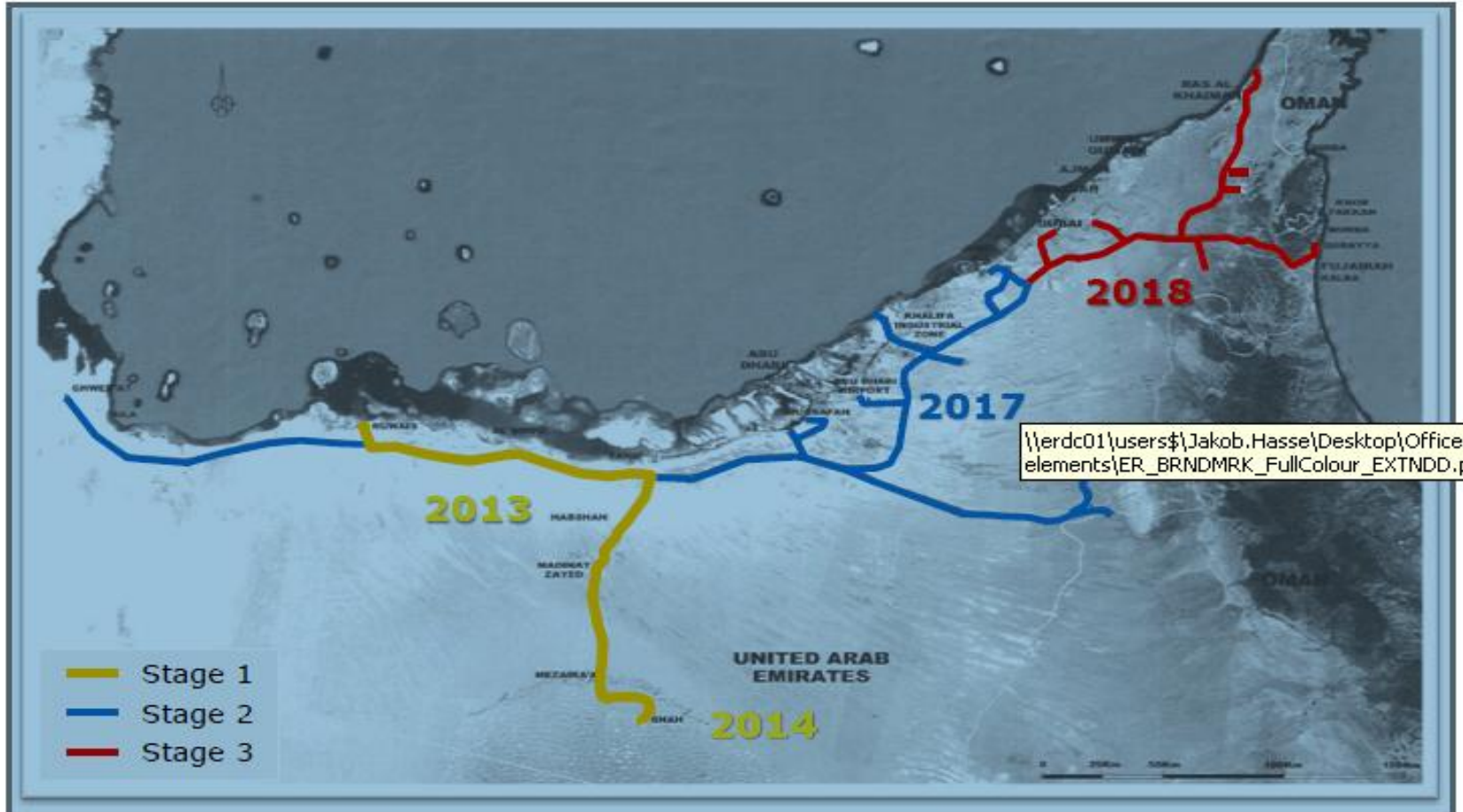
- **Project Elements:**
  - Hamad Port
  - Naval Base
  - An Economic Zone Canal- QEZ-3
- **Budget and Area:**
  - US \$ 7.4 Billion
  - 26.5 km<sup>2</sup>



## Hamad Port/ Qatar:



# The Etihad Rail Network



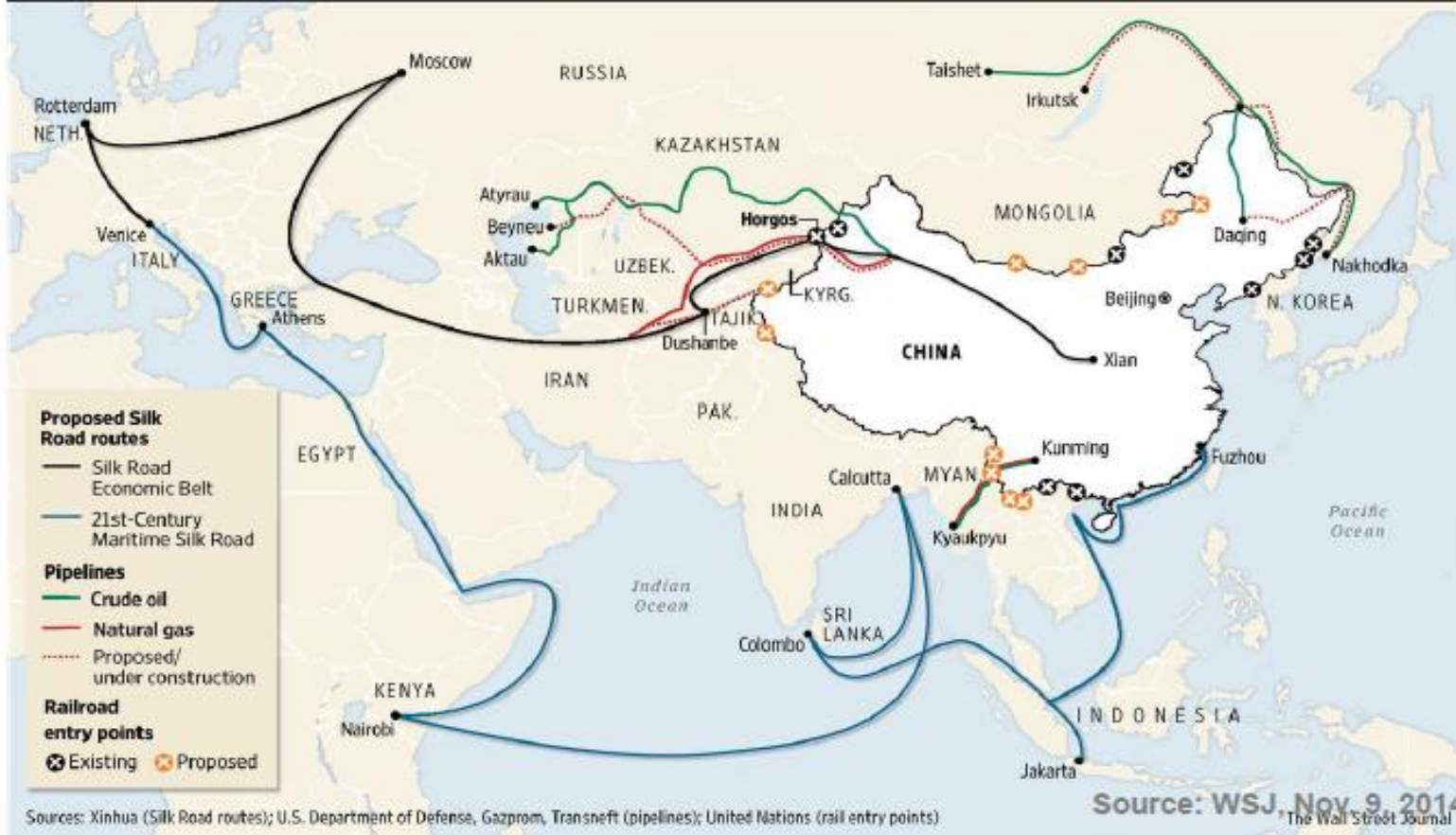
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# An Integral Part of the GCC Network



# President Xi's China Dream: One Belt and One Road

**New Silk Roads | China is assembling new trade routes, binding other regions closer to it**



**Helped by a US\$100bn Asian Infrastructure Investment Bank and a \$40bn Silk Road fund**

## Shahid Rajaei Port Complex / Bandar Abbas / Iran

Capacity 2014: 3,300,000 TEU  
Throughput 2013: 1,763,000 TEU  
Throughput 2014: 1,821,465 TEU  
Target (Phase II): 6,000,000 TEU (USD 450,000,000)  
Target (Phase III): 8,000,000 TEU (USD 500,000,000)

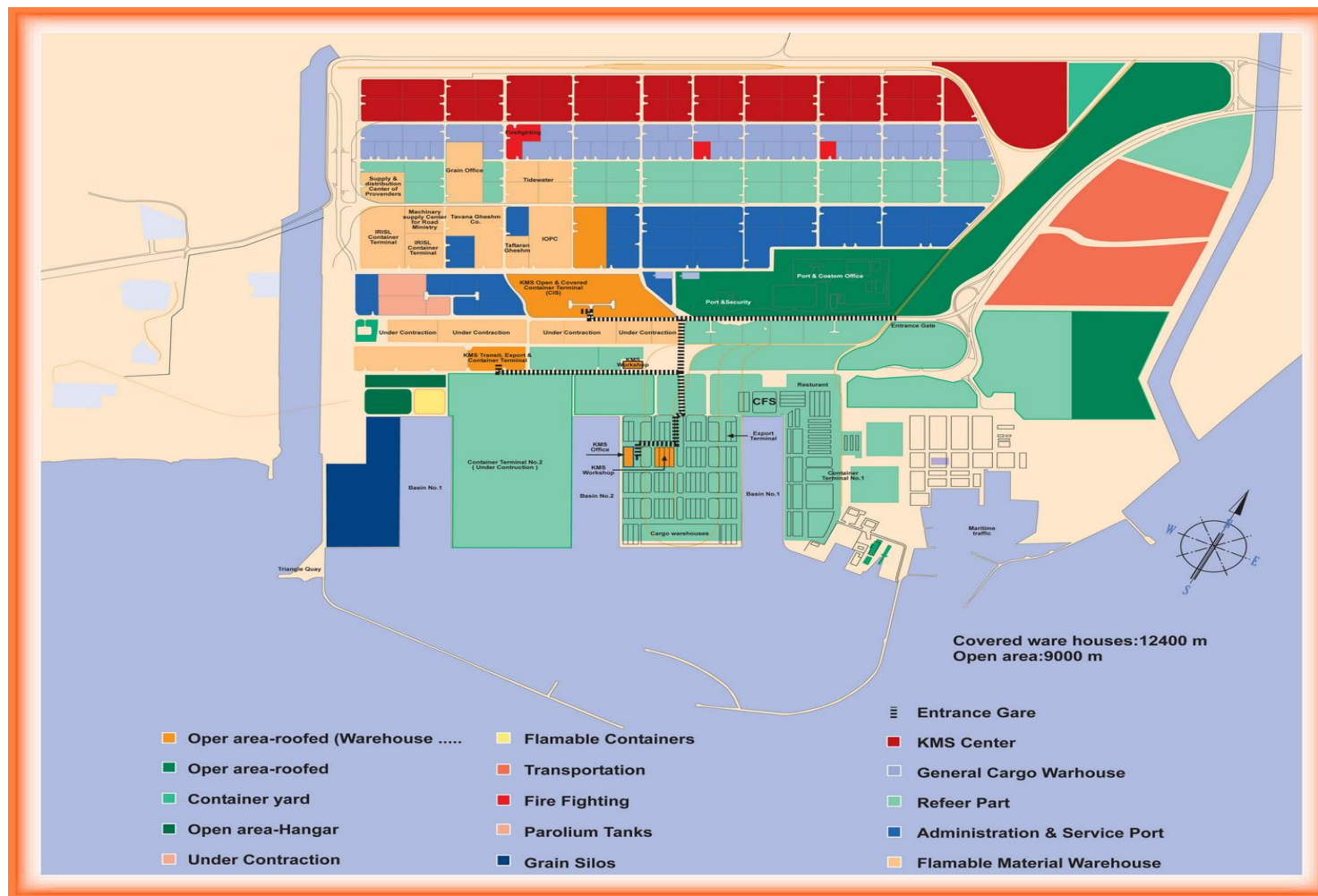




## Shahid Rajaee Port Complex / Bandar abbas / Iran



# Shahid Rajaei Port Complex / Bandar abbas / Iran







Port	Volume ( Annual Throughput - TEU)						
	2008	2009	2010	2011	2012	2013	2014
Jebel Ali/UAE	11,827,299	11,124,082	11,600,000	13,000,000	13,280,000	13,618,000	15,200,000
Khorfakkan-Sharjah / UAE	2,501,829	2,206,476	3,022,524	3,229,929	3,996,248	4,115,000	4,400,000
Bandar abbas/ Iran	2,000,230	2,206,476	2,591,945	2,839,268	2,318,000	1,763,000	1,821,465
Dammam/KSA	1,265,000	1,260,000	1,410,000	1,597,000	1,620,000	1,660,000	N/A
Abu Dhabi/UAE	-	-	-	-	780,000	897,000	1,130,000
Sohar/Oman	-	-	-	-	199,000	210,000	330,000

## Damage on Structure of Vessel



# Fire on Board



# Fire on Board





# Ship Stack Collusion



# Ship Stack Collusion



# Ship Stack Collusion



# Terminal Stack Collusion



# Accident at Terminal



# Accident at Terminal



# Road Accident



# Rail Accident





# Rail Accident



# THANK YOU



انجمن کشتیرانی و خدمات وابسته  
Shipping Association of IRAN