



Investment in Port Infrastructure & Automation to Meet the Mega Vessel Trend

15th July 2016

Gavin Dow

General Manager – Strategy & Business Development
Modern Terminals

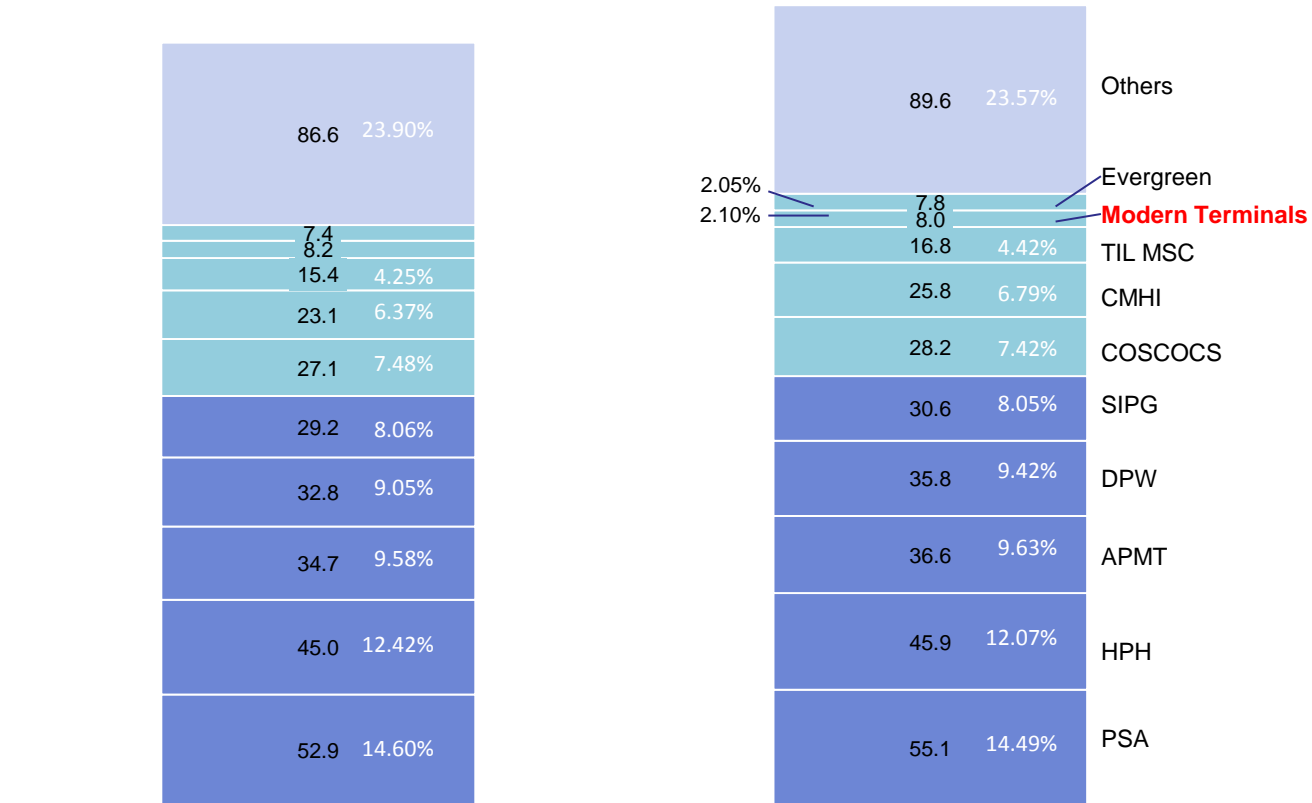


Overview

- Modern Terminals' Context
- The Mega Vessel Trend
- Impact on Container Terminals
- Addressing the Impacts
- Next Steps

Modern Terminals – A Top 10 Container Terminal Operator

Global Share of Capacity based on equity %









2013
 Share of Top 5 **53.7%**
 Share of Top 10 **76.1%**

2014
 Share of Top 5 **53.7%**
 Share of Top 10 **76.4%**

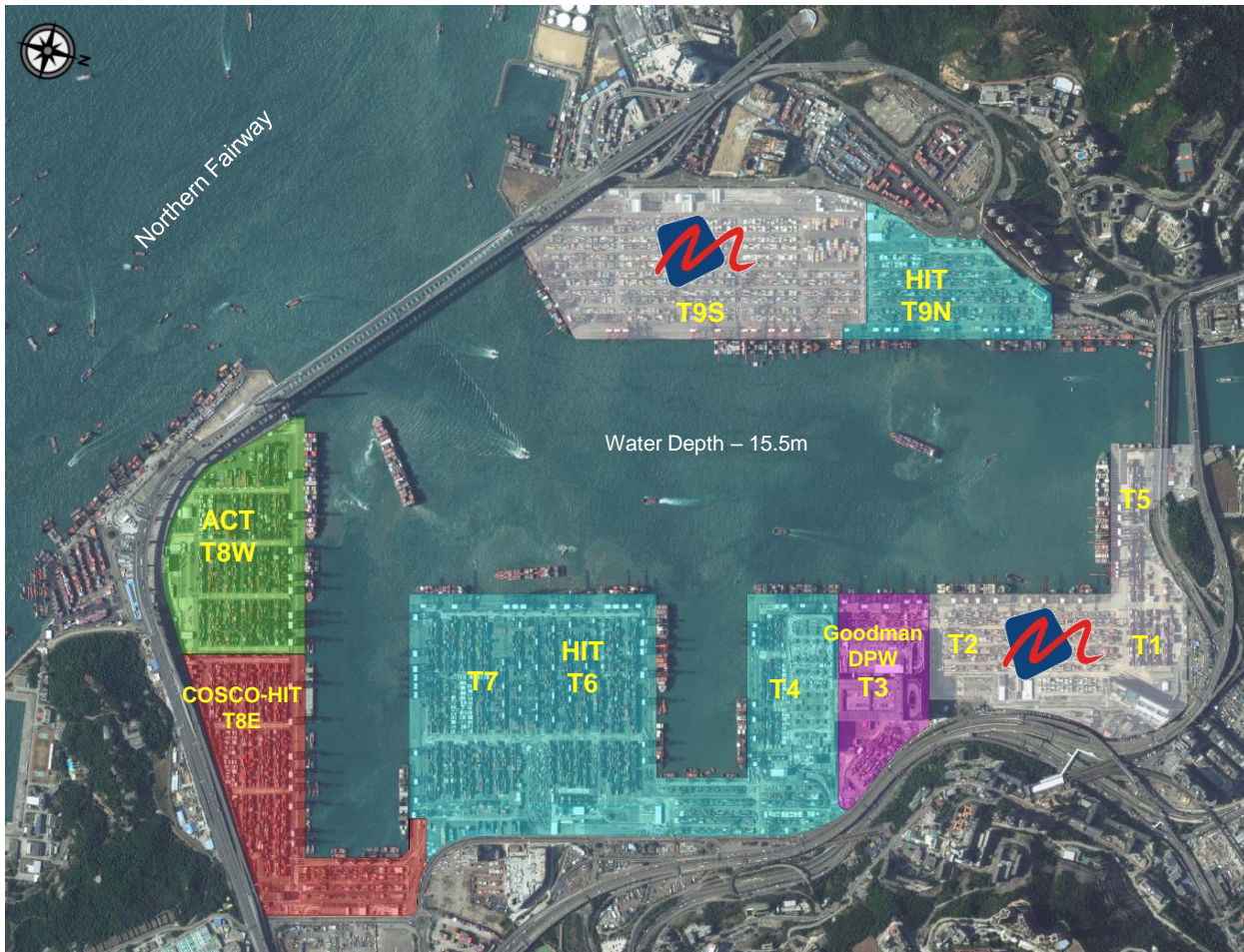
Source: Drewry

Modern Terminals portfolio in Hong Kong and Mainland China

| Year of shares acquisition | Container terminals | Locations | Percentage of shareholding | |
|----------------------------|---|------------------------------------|--|---|
| 1972 |  Modern Terminals | Hong Kong, South China | 100% |  <p>The map shows the following provinces: Henan, Anhui, Jiangsu, Hubei, Zhejiang, Hunan, Jiangxi, Fujian, Guangdong, and Taiwan. Terminal locations are marked with red dots: Taicang International Gateway (Shanghai), Da Chan Bay Terminal (Shenzhen), Shekou Container Terminals (Shenzhen), and Chiwan Container Terminal (Shenzhen). Modern Terminals is also indicated near Hong Kong.</p> |
| 1999 |  Chiwan Container Terminal | Shenzhen, South China | 20% Through JV | |
| 2002 |  Shekou Container Terminals | Shenzhen, South China | 20% | |
| 2004 |  Taicang International Gateway 太仓国际门户 | Yangtze River Delta, Central China | Phase I: 51% | |
| 2006 | | | Phase II: 70% <i>With Ningbo Port Group</i> | |
| 2007 |  Da Chan Bay Terminal 大铲湾码头 | Shenzhen, South China | 65% | |

Based in Hong Kong, one of the most productive ports in the world

Kwai Tsing Container Terminals



Modern Terminals

- 7 container berths
- 2 barge berths

Capacity

- 7m TEUs

Throughput

- 4.5 million TEUs in 2015

Customers

- Every major shipping line in the world

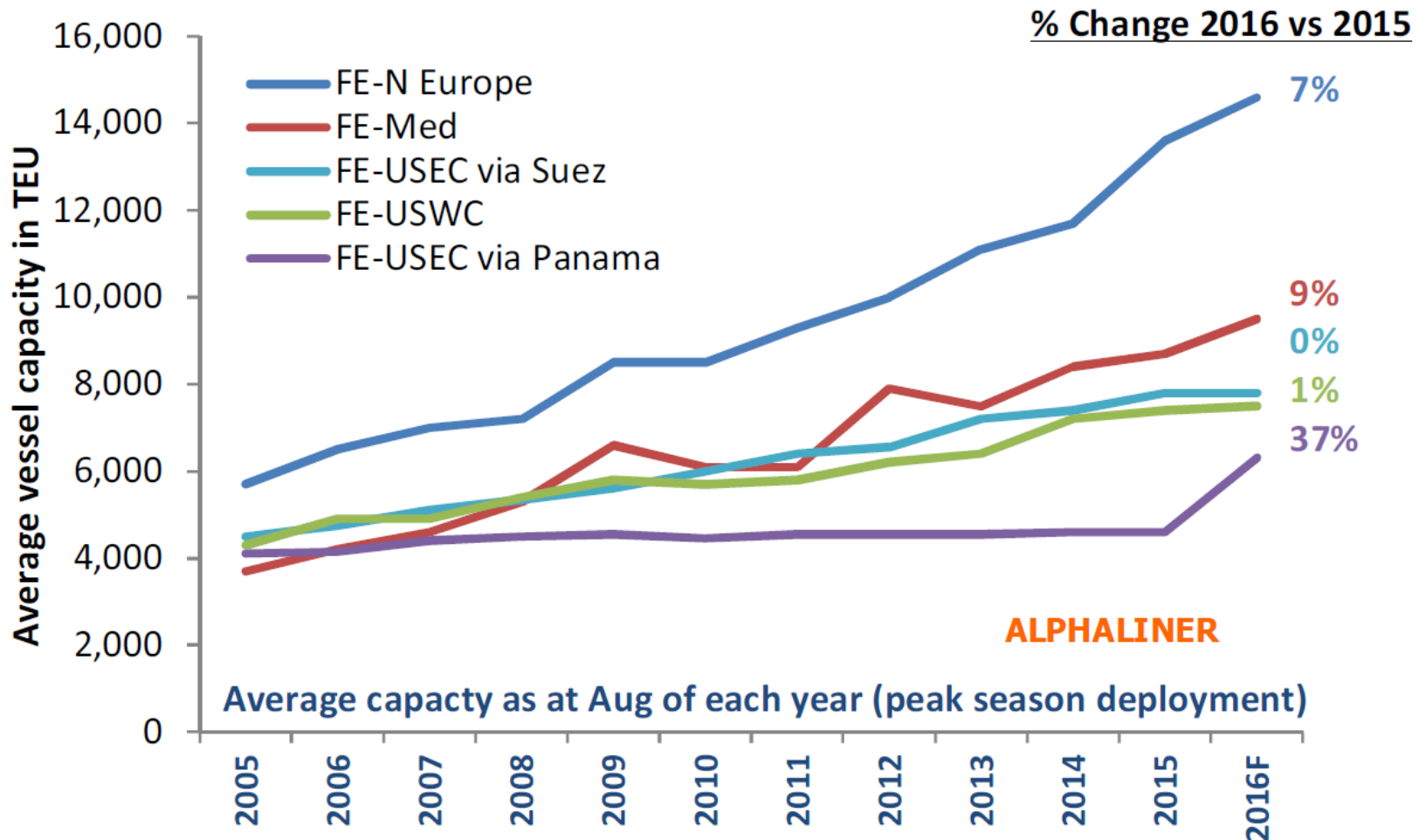
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Increasing vessel size is the defining shipping trend of the last decade

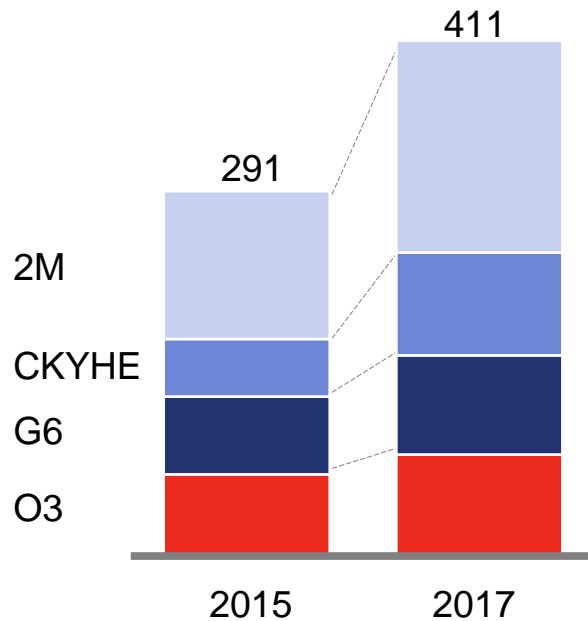
Average vessel size deployed on main East-West trades : 2005-2016



In the next 2 years mega-vessels will dominate the key East-West routes

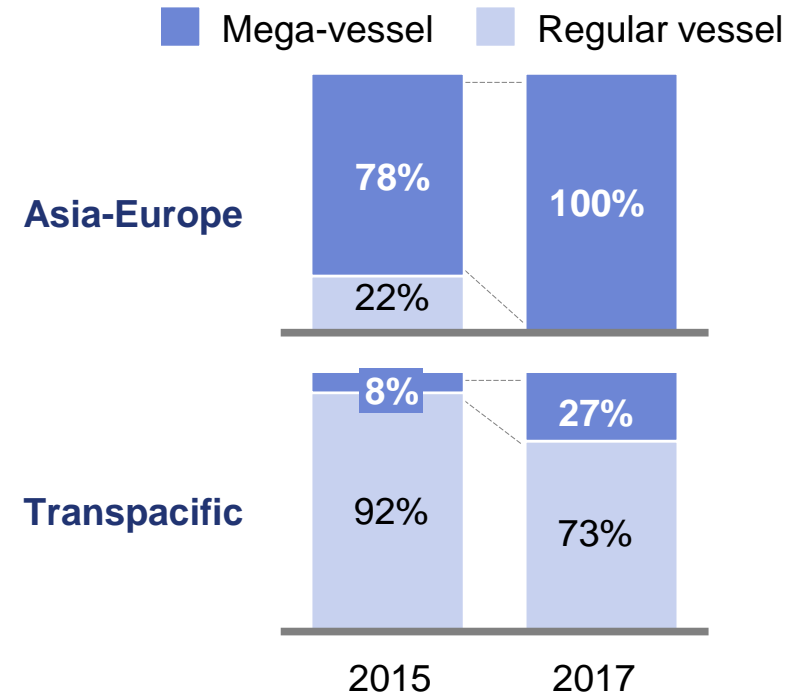
Mega-vessel fleet will increase by 40% in next 2 years as lines chase economies of scale

Number of mega-vessels deployed
(based on shipping lines' order book)

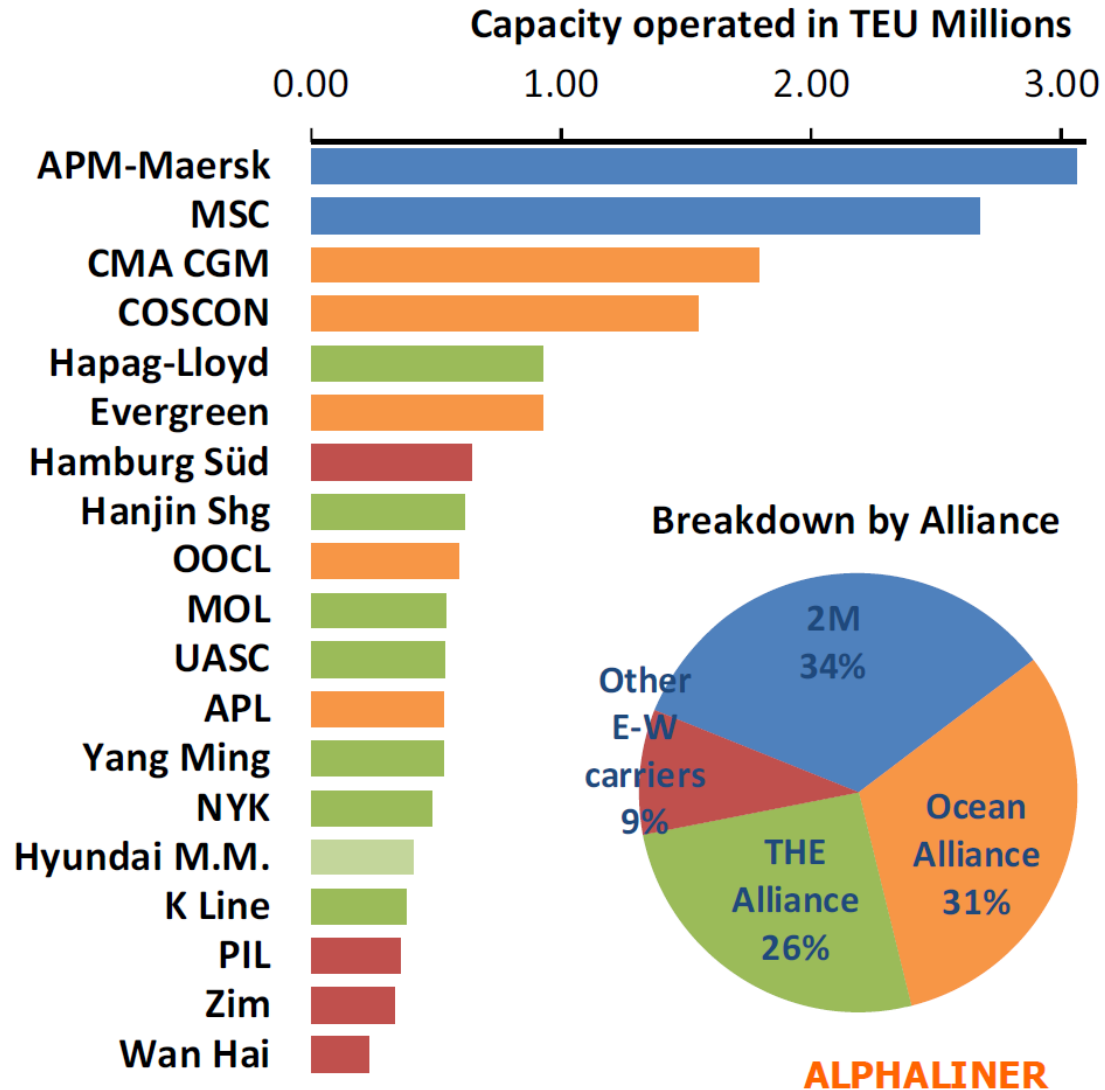


Modern Terminals vessel mix by trade lane

% of vessels by trade route



Alliances are the way shipping lines are consolidating capacity in the industry

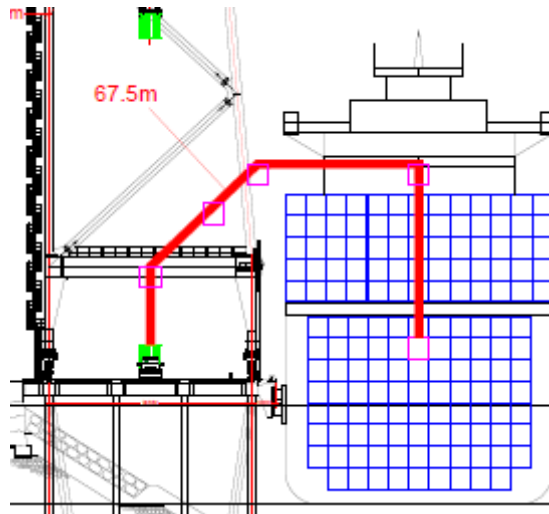


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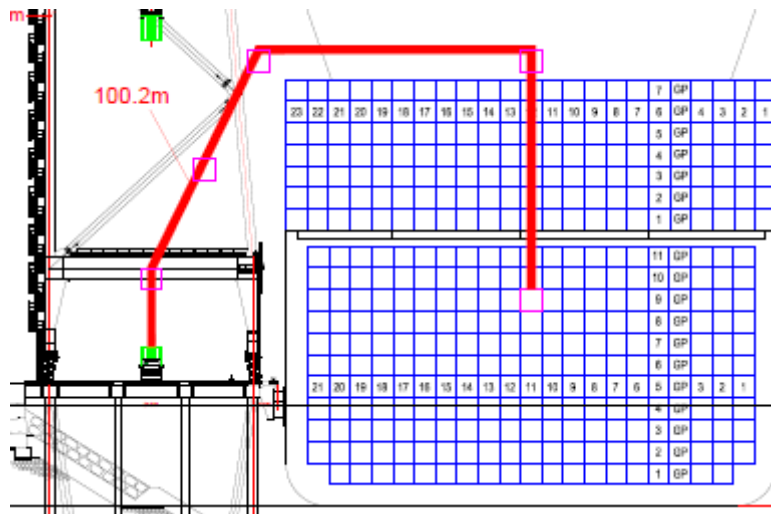
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Alliances add operational complexity and mega vessels can reduce productivity

Increasing Carry Distances On Mega Vessels

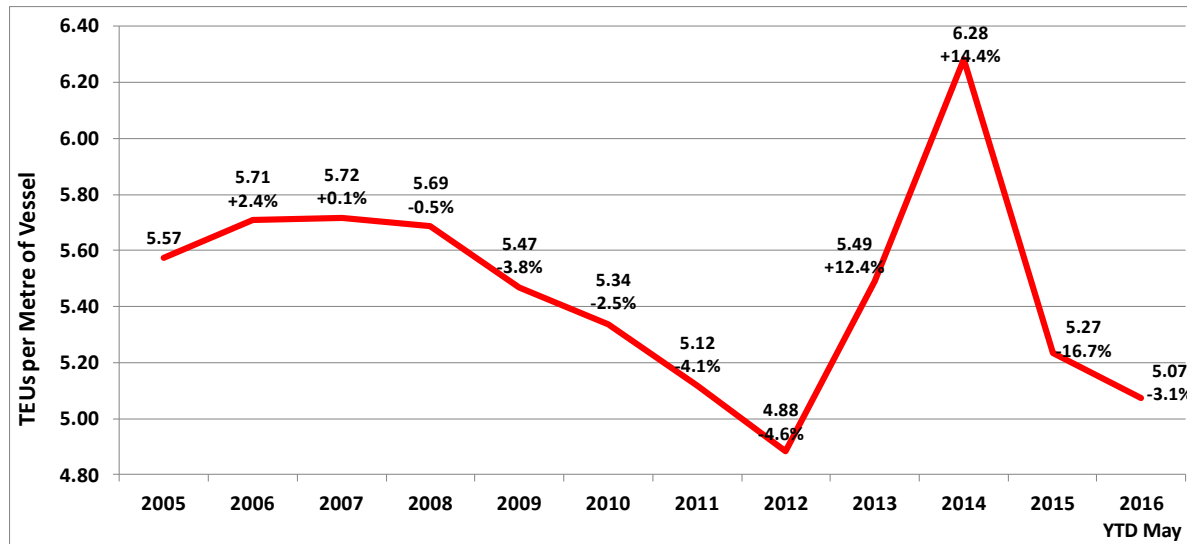


- Panamax Vessel
- 13 across
- 5 containers above deck

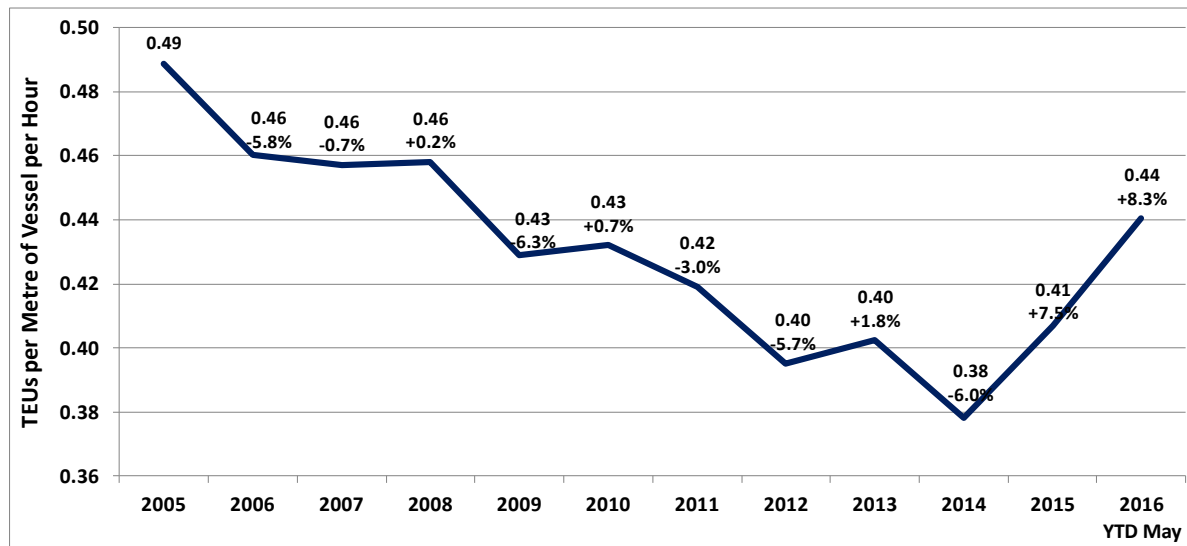


- Triple E Vessel
- 23 across
- 7 containers above deck
- Deck level is 7m higher than Panamax

Larger vessels don't necessarily bring more cargo



TEUs per metre of vessel per call

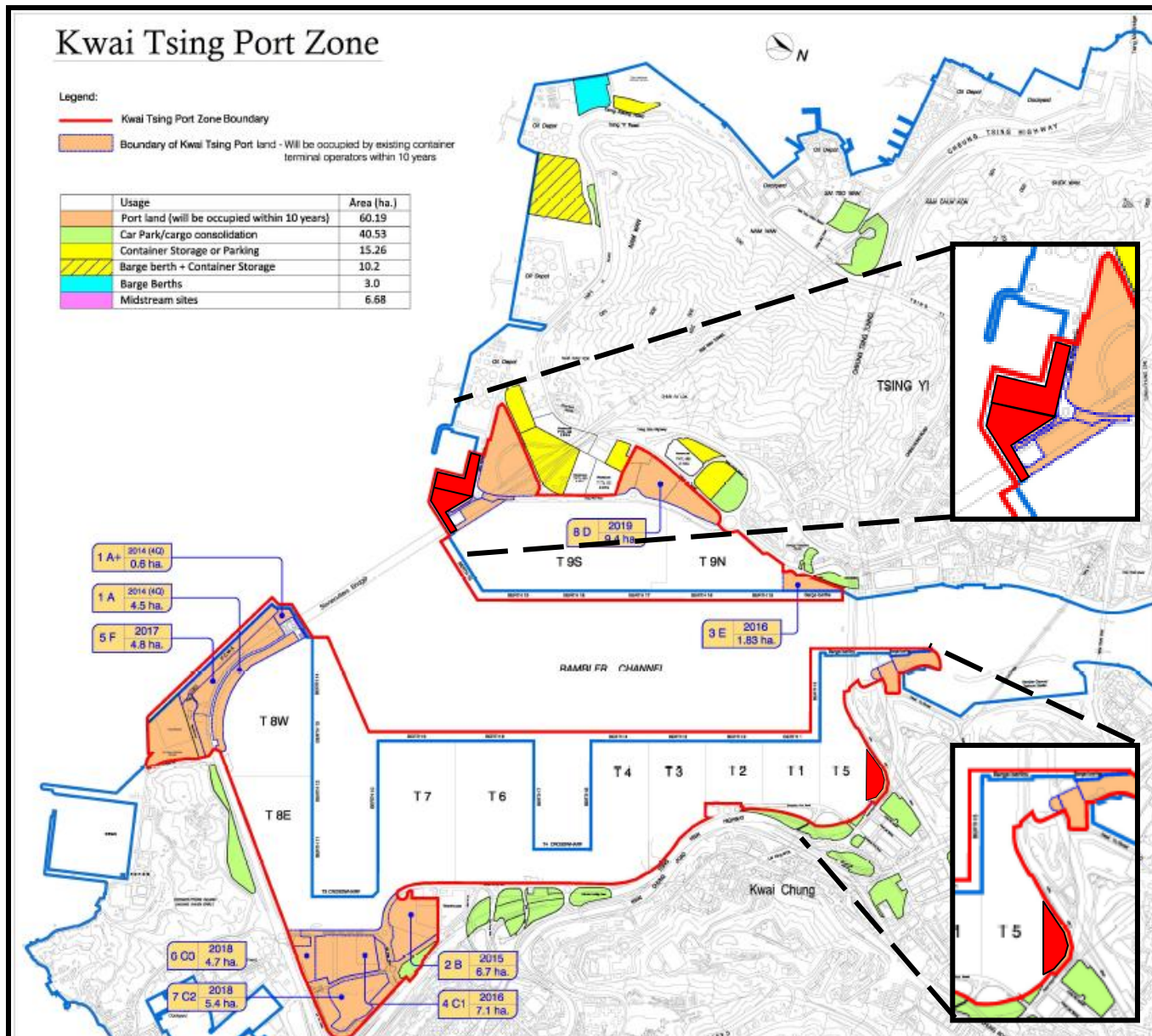


TEUs per metre of vessel per hour

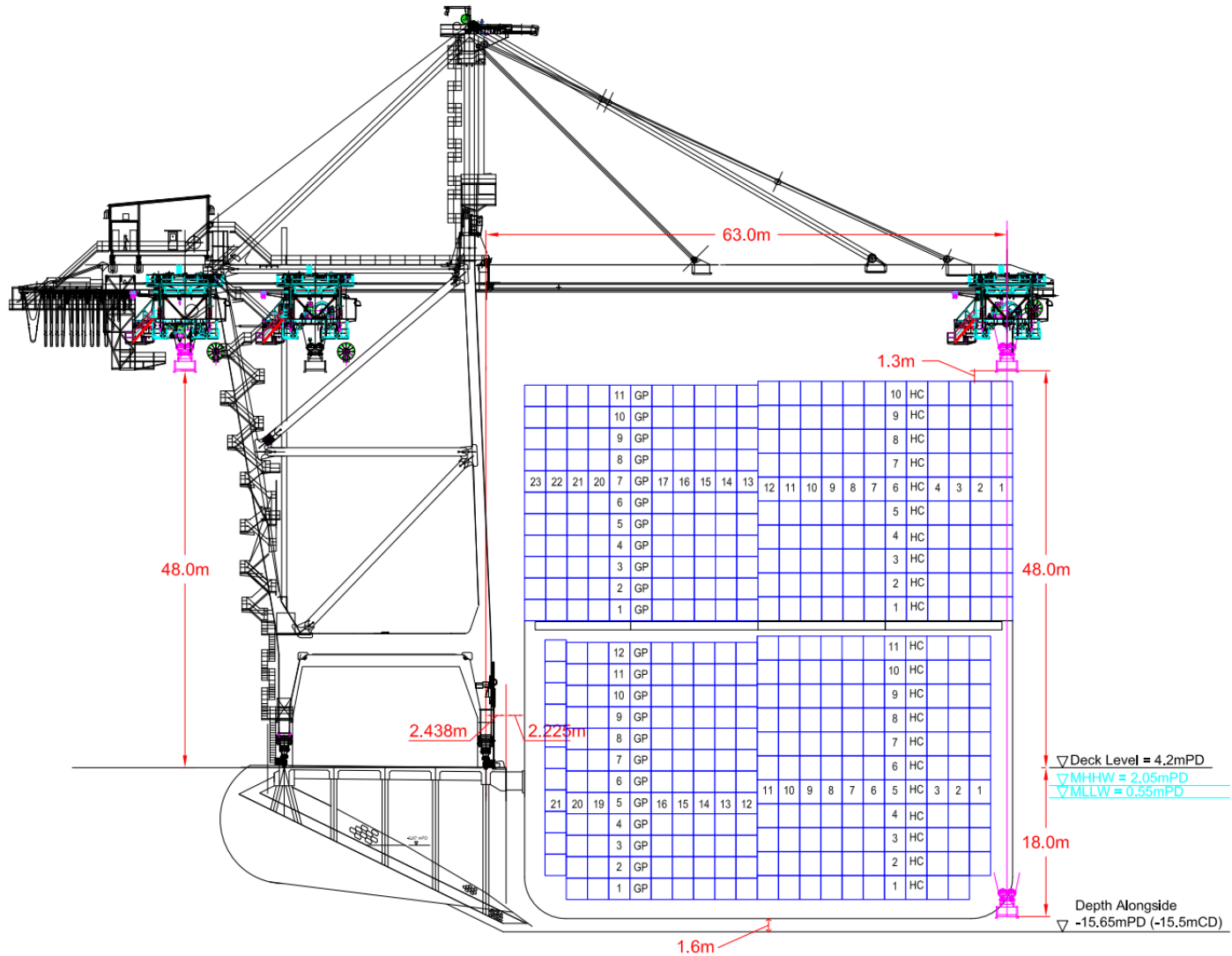
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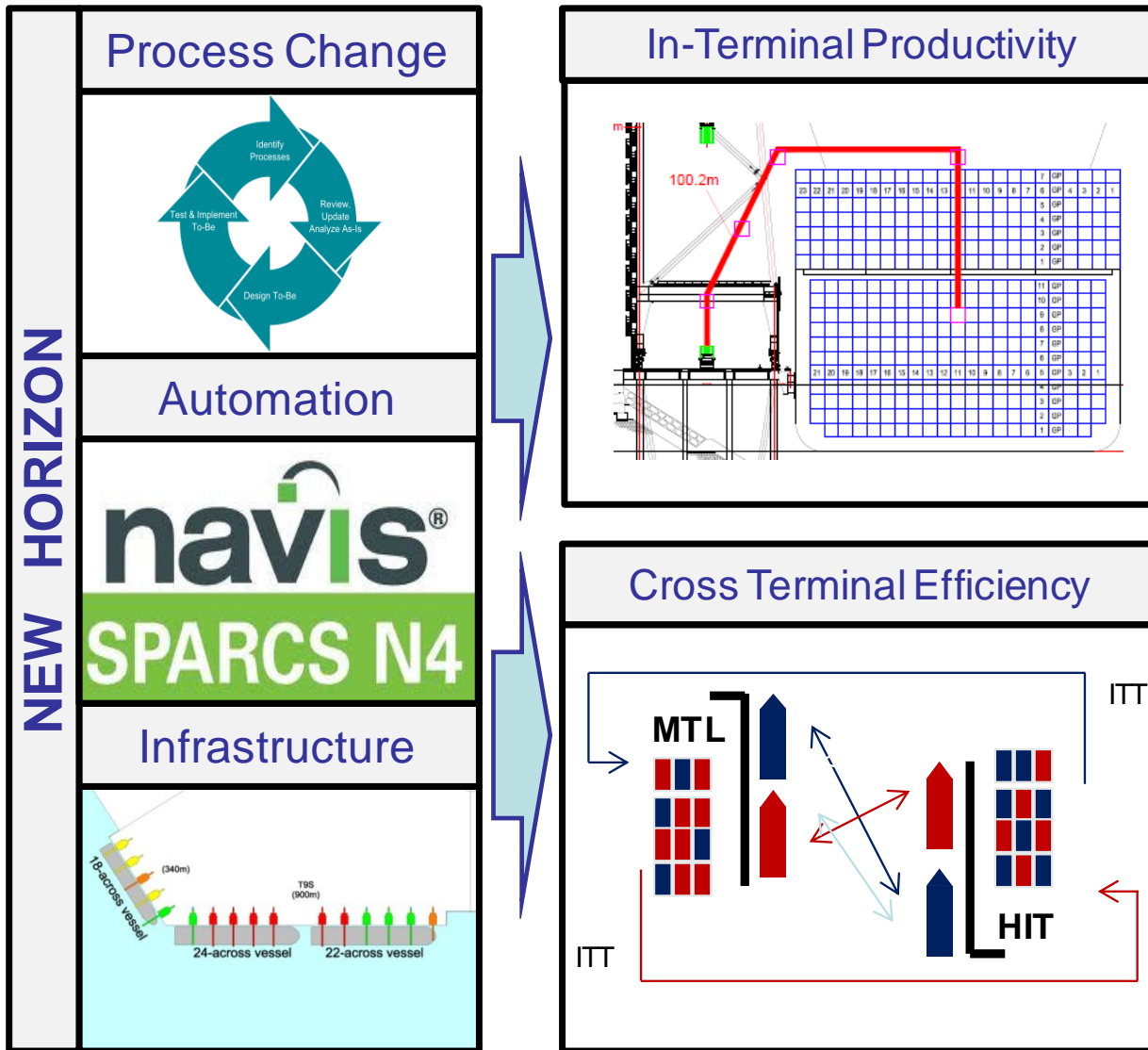
Land use around the port is being rationalised



Existing equipment is being upgraded to handle the largest vessels on order



Our New Horizon programme resulted in a step change in port performance



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Modern Terminals Competency – Port Lifecycle Model

Strategic
Review

Business
Development

Building the
Infrastructure

Building the
Business

Operating the
Business



Choosing the deals based on the competency



Winning the deals by strong brand with partners



Building the infrastructure by experience, together with environment-friendly culture

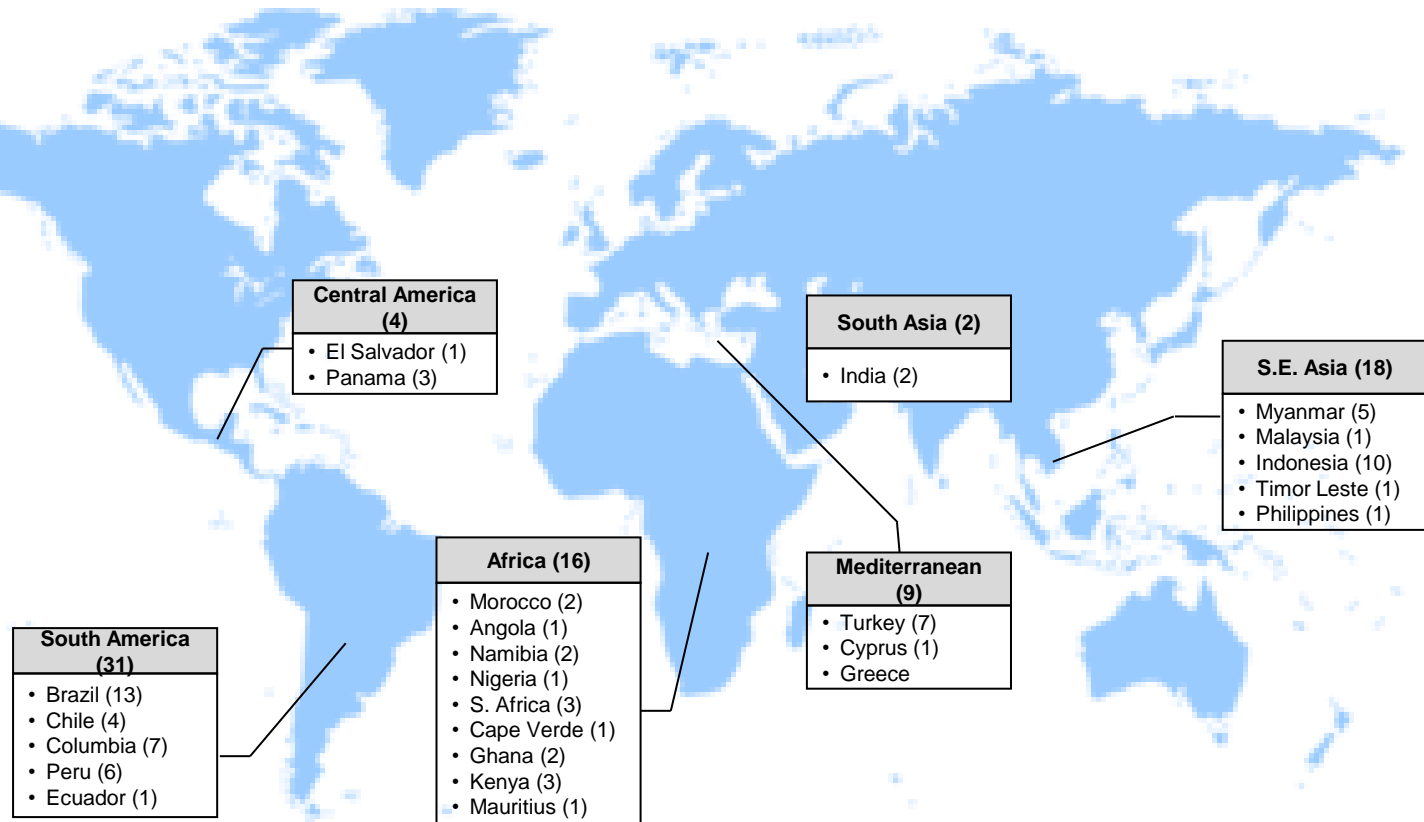


Building the business by strong brand name with customers



Operating the business based on decades of experience and successes

Identifying growth opportunities in Emerging Markets beyond China



- Alliances with regional port groups – *leveraging competencies*
- Greenfield development and brownfield redevelopment – *leveraging experience*



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