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Global shipping trends in the East African region

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Intermodal Africa 2020

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Introduction

Current:

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a company of



**Royal
HaskoningDHV**
Enhancing Society Together

Past:

Drewry

ARUP

 **V.Group**

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Introduction

Ocean Shipping Consultants (OSC) is the maritime economic consultancy group of Royal HaskoningDHV, and a leading brand in the maritime sector with more than 35-years of experience

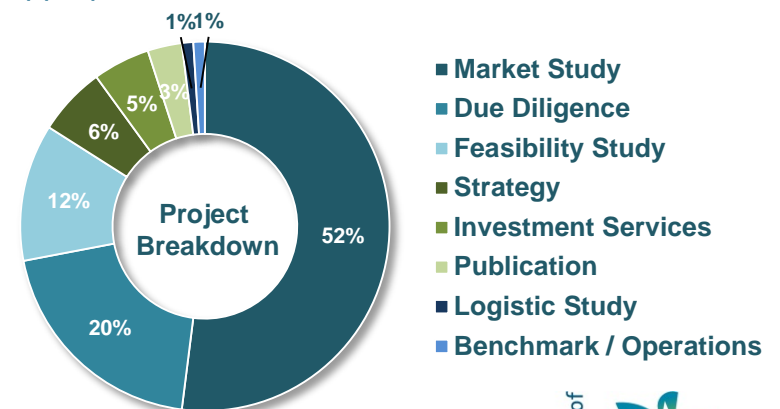
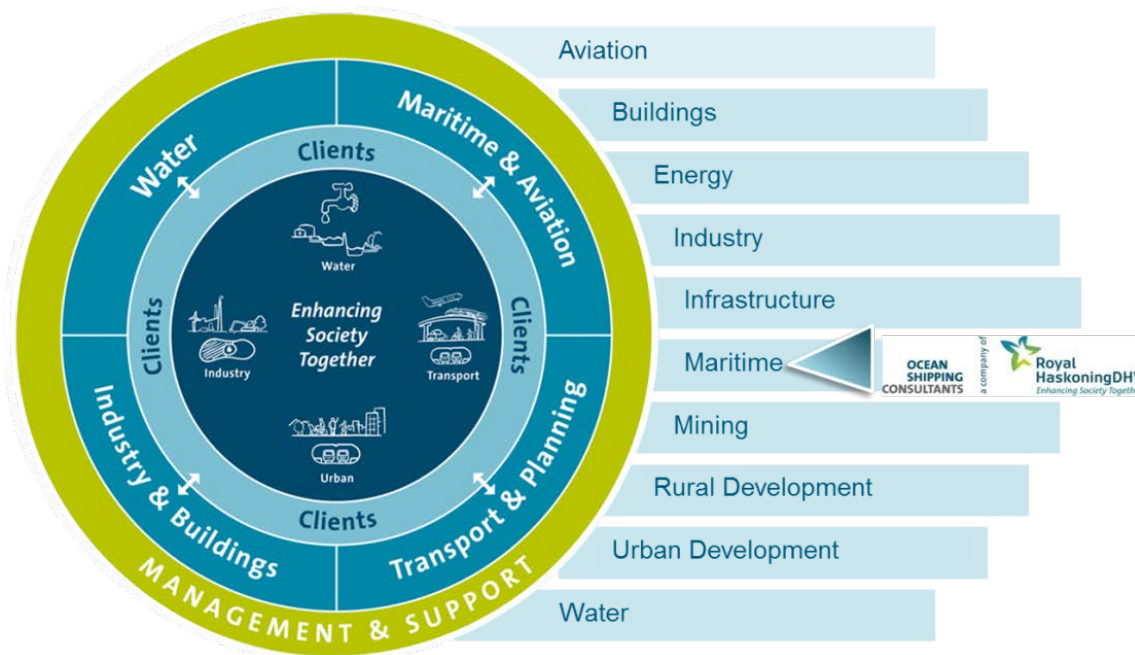
Key profile	Top International Design Firm	Resources
<ul style="list-style-type: none"> - Originally founded in 1881 - 138 years of experience - Turnover €607m (2017) 	<p>Ranked 4th in Top International Design Firms – Marine & Ports by ENR (2018)</p>	<ul style="list-style-type: none"> - 5,700 employees - 100 offices in 35 countries - 650 dedicated ports and maritime professionals

OCEAN SHIPPING CONSULTANTS

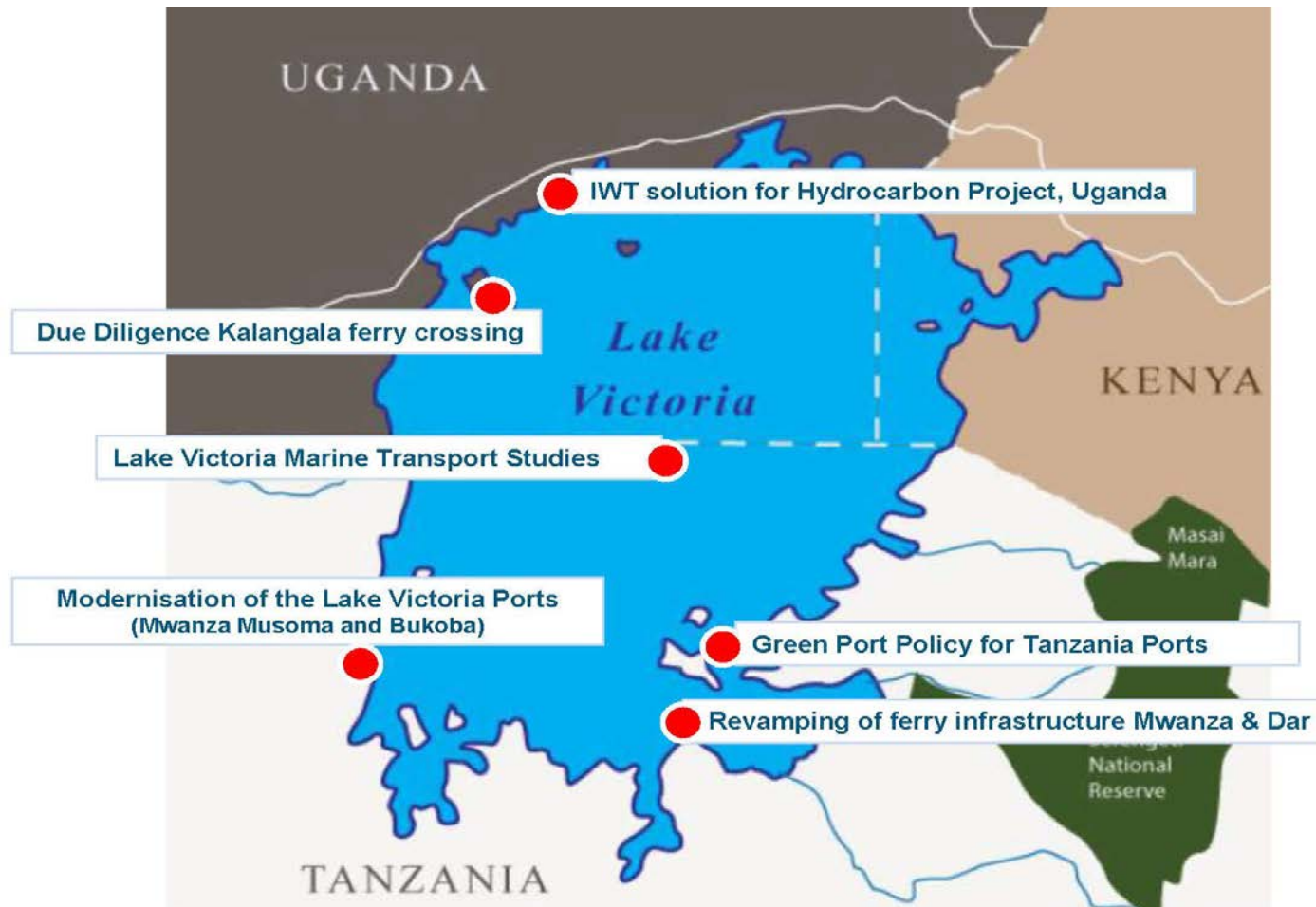
With over 350 projects in more than 65 countries successfully completed over the last 5 years, OSC provides global bespoke consultancy services from offices in London, the Netherlands and

Singapore to more than 200 different clients, including port authorities, terminal operating companies, governments, shipping lines, logistics operators and the wider financial community.

These range of services are undertaken for all cargo types and sectors ensuring that clients are able to make appropriate, well informed decisions at all times.



Examples of recent projects in Tanzania – Lake Victoria



Lake Victoria Dredging Feasibility Study, 2019

The improvement of transport on Lake Victoria is seen as a key factor for developing regional trade and industry for Kenya, Tanzania, Uganda, Rwanda and Burundi.

Relating to transport, Lake Victoria faces two main problems: the water levels fluctuate and lengthy periods with low water levels can persist; and the growth of water hyacinth can impede the access of vessels navigating the lake.

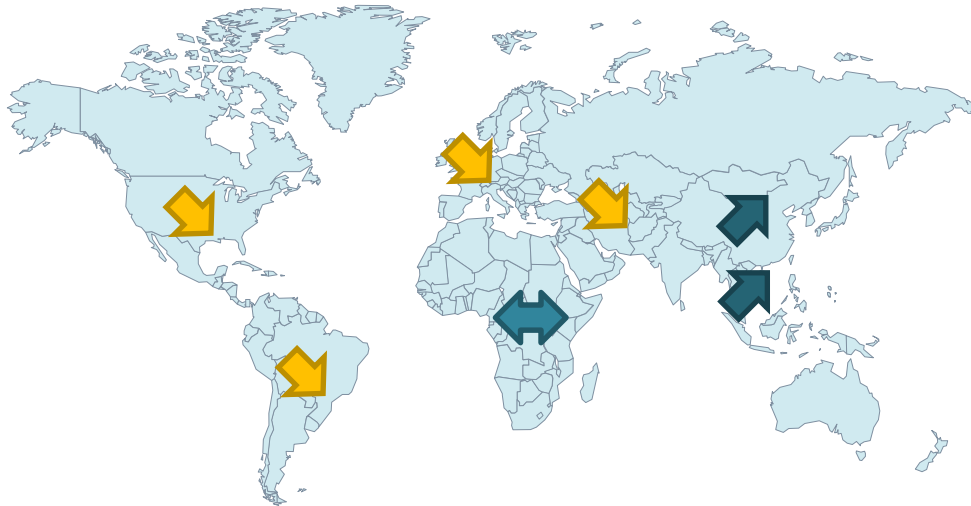
The World Bank therefore commissioned a study to investigate the feasibility of dredging the approach channels of the major lake ports, and to predict water hyacinth movements.



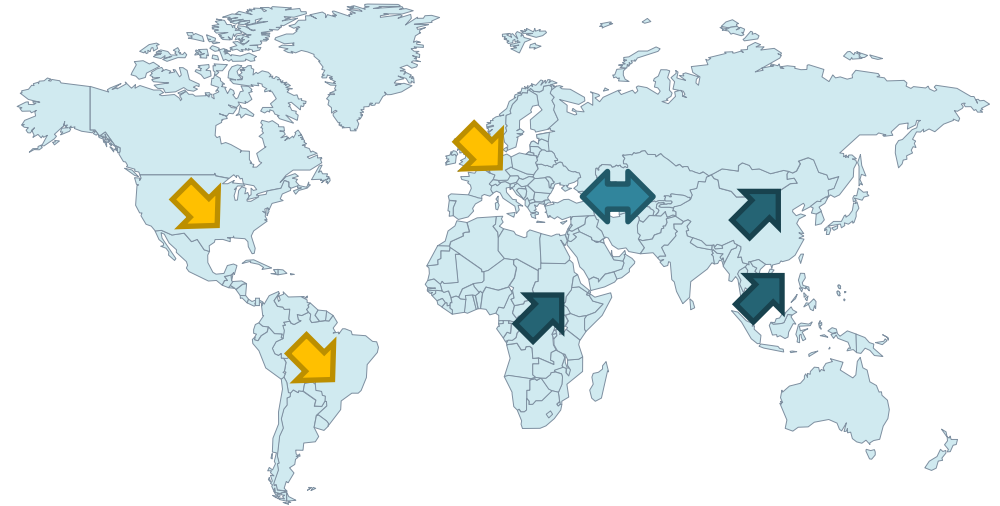
Global Economic Outlook & the Container Shipping Sector

**SE Asia and China are expected to out perform other regional economies in the near future.
But so is Africa.**

Current GDP Performance* by Region (2019)

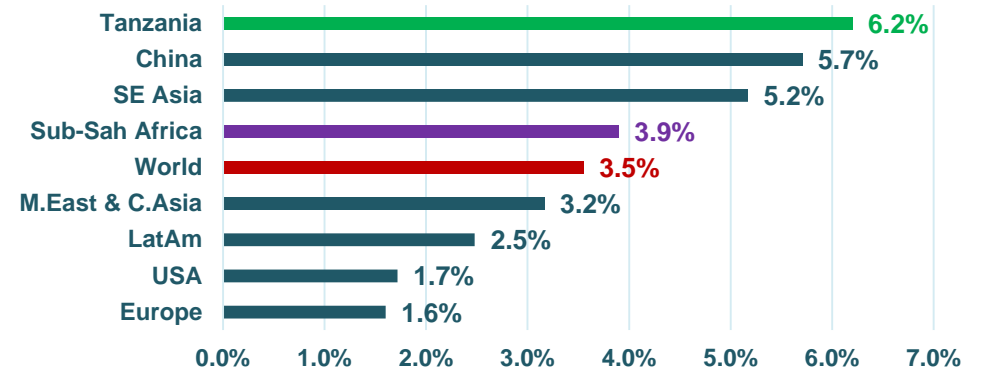


Future GDP Performance* Outlook by Region (2019-2024)



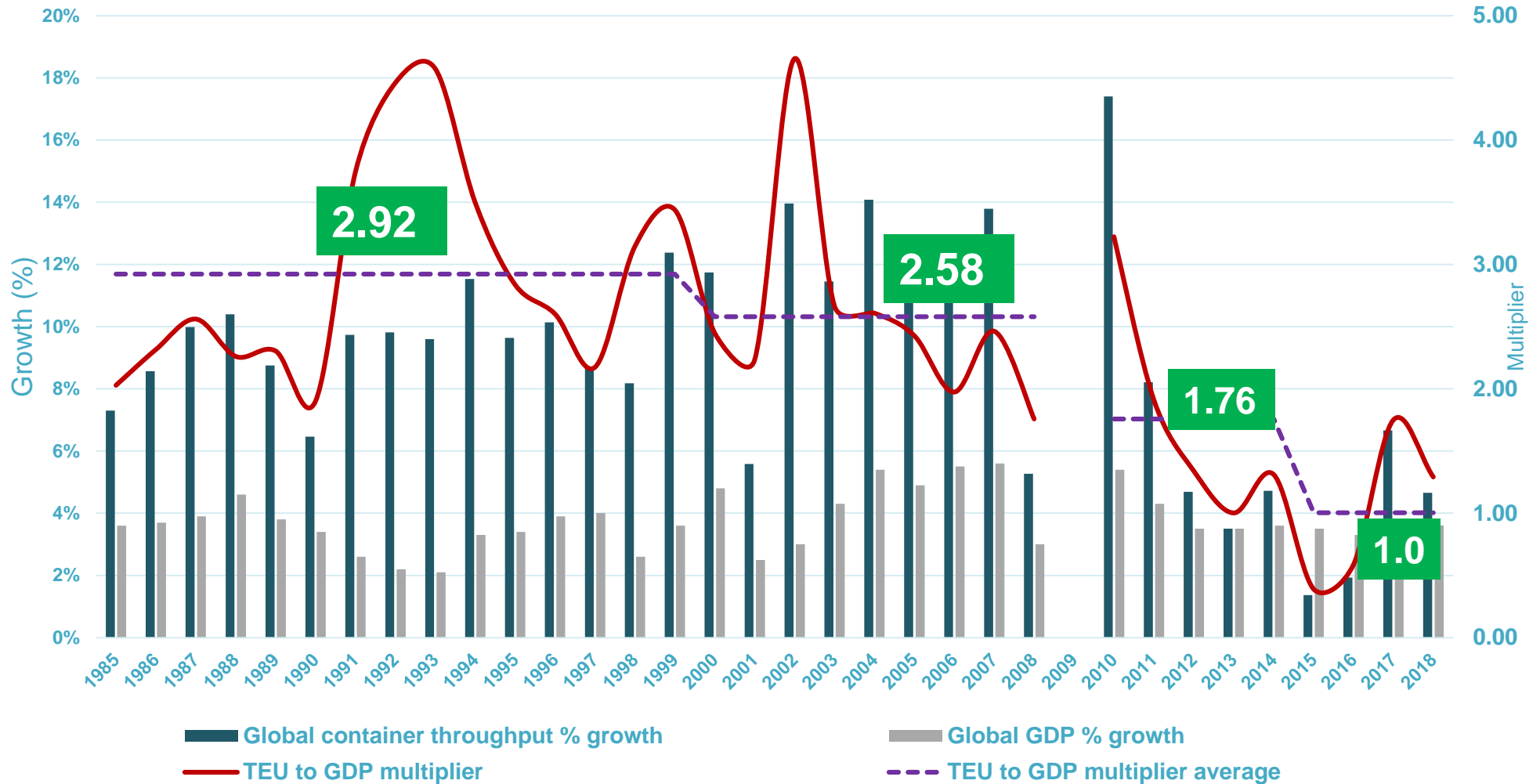
Source: OSC / IMF
*Performance as compared to Average World GDP Growth

GDP forecast CAGR, 2019-2024 (%)



Source: IMF

The declines in the container volume growth is putting pressure on Shipping Lines and Terminal Operators and means lower TEU demand than in previous years.



Source: OSC / Clarkson

The declining TEU/GDP multiplier is driven by underlying changes in the market.

Less offshoring, more reshoring:

- Offshoring to lower-cost countries is a onetime effect
- Increased reshoring (e.g. US)
- Chinese economy shifts toward domestic consumption / regional sourcing










Plateauing in the levels of containerization:

- Most commodities suitable for containerized transportation have already been migrated to containers
- Increasing trend toward miniaturization of manufactured goods

Improvement of port facilities to accommodate larger ships:

- More ports can be part of direct main line services
- Cascading of vessels means larger ships deployed on secondary routes
- Reduced need for transshipment

Driven by market share & economies of scale, the ship size revolution has continued

Container Ship Size Evolution		
Early Containerships (1956) 500-800 TEU		LOA (m) : 137 Beam (m): 17 Draft (m): 9
Fully Cellular (1970) 1000-2500 TEU		LOA (m) : 215 Beam (m): 20 Draft (m): 10
Panamax (1980) 3,000-4,000 TEU		LOA (m) : 250 Beam (m): 32 Draft (m): 12.5
Panamax Max (1985) 3,400-4,500 TEU		LOA (m) : 290 Beam (m): 32 Draft (m): 12.5
Post Panamax (1988) 4,000-5,000 TEU		LOA (m) : 285 Beam (m): 40 Draft (m): 13
Post Panamax Plus (2000) 6,000-8,000TEU		LOA (m) : 300 Beam (m): 43 Draft (m): 14.5
New Panamax (2014) 12,500 TEU		LOA (m) : 366 Beam (m): 49 Draft (m): 15.2
Post New Panamax (2006) 15,000 TEU & Triple E Class (2013) 18,000 TEU		LOA (m) : 400 Beam (m): 59 Draft (m): 15.5
New Generation 22,000 TEU*		LOA (m) : 430 Beam (m): 59 Draft (m): 15.5

Source: OSC, Alphaliner

Effect of Container Shipping Market

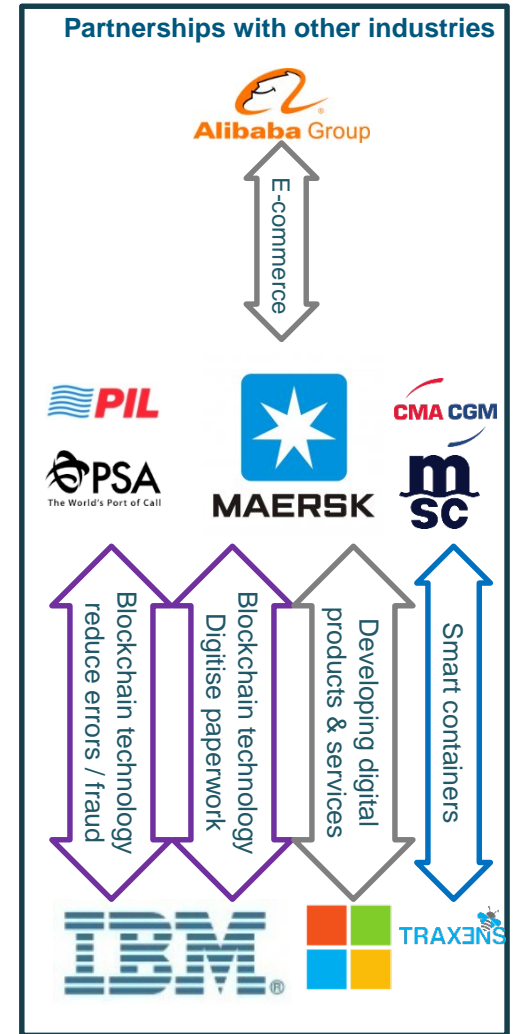
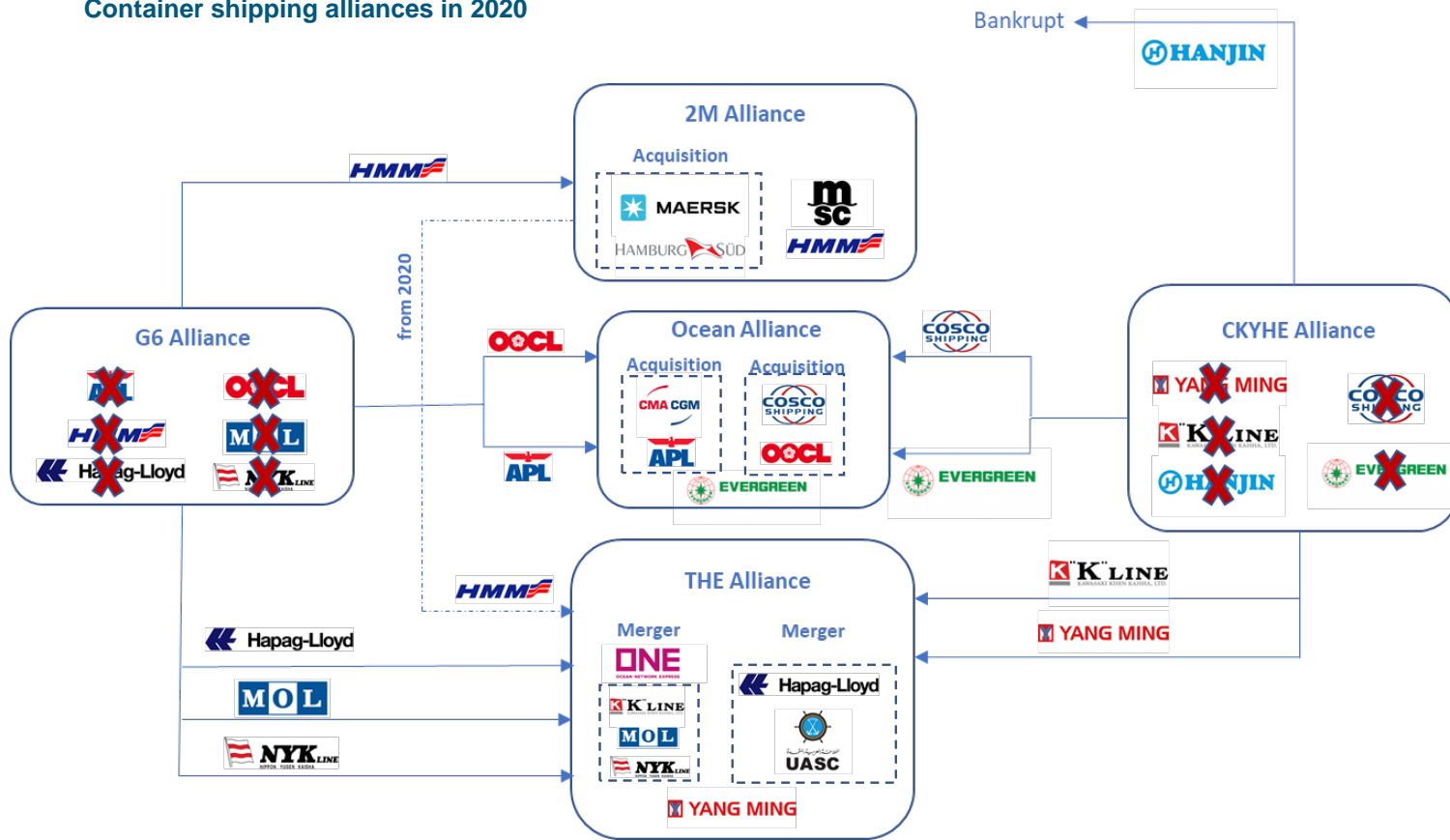
- Larger container volume exchanges on primary trade routes, but with a lower port call frequency
- Cascading of vessels as replaced ships are moved to other Secondary and Tertiary trade lanes
- Formation of fewer, larger alliances in an effort to maximise vessel utilisation

Ship sizes: Container vessel capacity has increased while dimensions (400m by 59m) remain largely unchanged until recently.



Complete reshape of shipping alliances and acquisitions since 2017.

Container shipping alliances in 2020

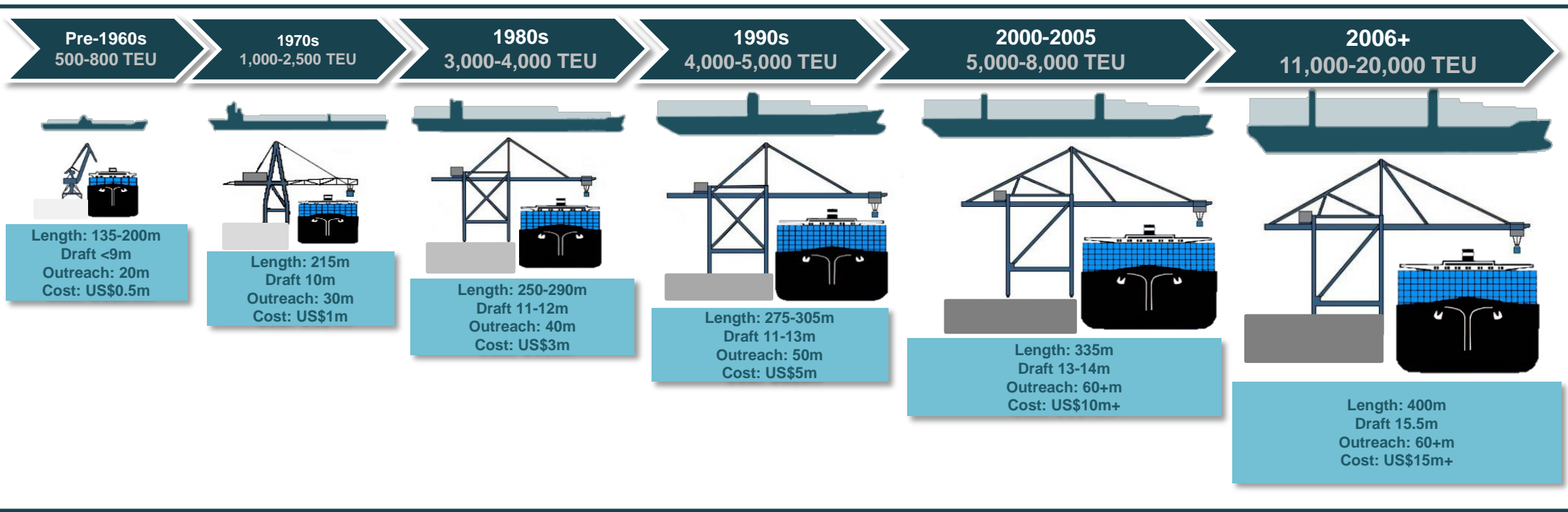


Top 12 lines outside major alliances

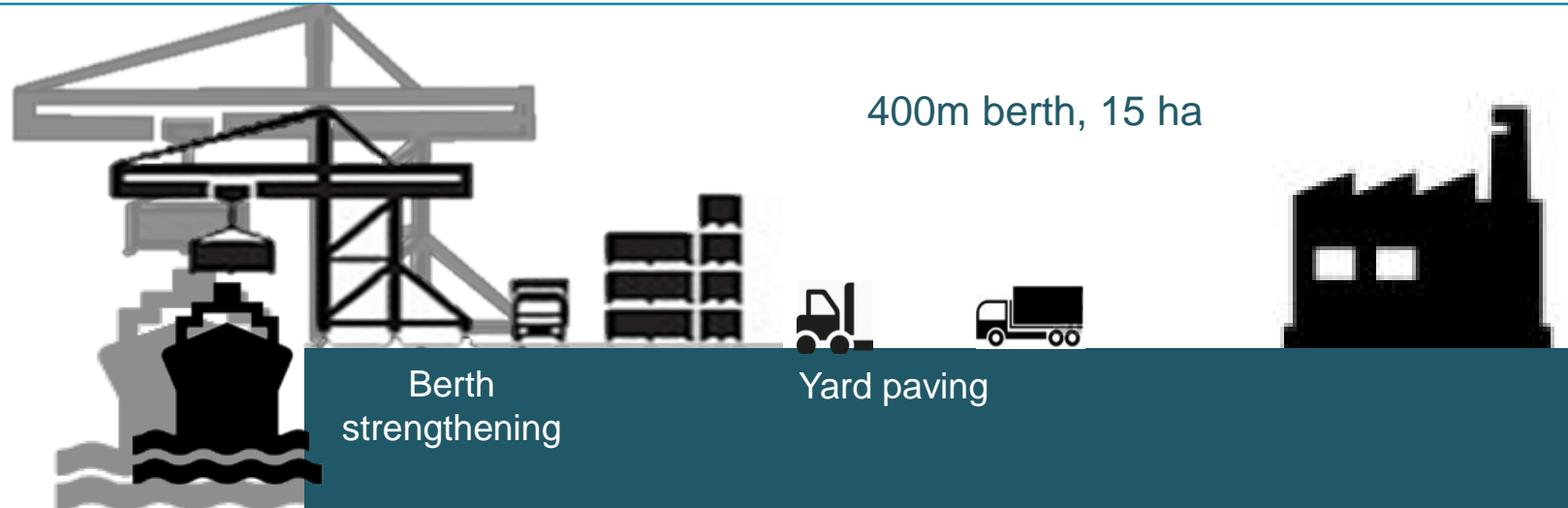
萬海航運股份有限公司
WAN HAI LINES LTD.

Costs are rapidly increasing for terminals due to larger ships, less frequent calls and larger alliances.

Larger Ships	Less frequent calls	Larger Alliances
<ul style="list-style-type: none"> ■ Larger cranes ■ Additional dredging ■ Other upgrading Quay wall strength, locks, bridges, etc ■ Increased insurance cost 	<ul style="list-style-type: none"> ■ Larger container exchanges Higher peak capacity & productivity required throughout the terminal ■ More flexible labour needed ■ Increased impact when losing a client 	<ul style="list-style-type: none"> ■ Increased bargaining power of Alliances ■ Lower number of port calls consolidated in fewer ports Some ports are bound to lose customers with port selection dictated by strongest alliance member



The increase in vessel sizes has resulted in port authorities and terminal operators incurring capital expenditure to upgrade their facilities.



Channel dredging Berth deepening

Area	Current	New	Estimated cost (US\$ millions)
Channel depth & width	1 km, 242m wide, 15m	295 wide, 16m	4
Berth depth	400m, 15.0m	16.0m	2
Equipment upgrades	4 cranes with 18 rows	4 cranes with 23 rows	40
Yard	15 ha	20ha	30
Total			76

Will the lines pay for these extra costs?

Port operators have responded by slowing or canceling greenfield terminal projects, forming alliances, partnering with shipping lines, or acquiring/merging with competitors.

Slowing or canceling greenfield terminal projects

- Total number of greenfield terminal projects has fallen by almost half compared to 10 years ago

Alliance & Partnerships

- Conference agreement between Port of Miami Terminal Operating Company (Pomtoc) and South Florida Container Terminal (SFCT)
- Co-management Agreement Between COSCO Shipping Ports and Hutchison Port Holdings of several terminal in Hong-Kong

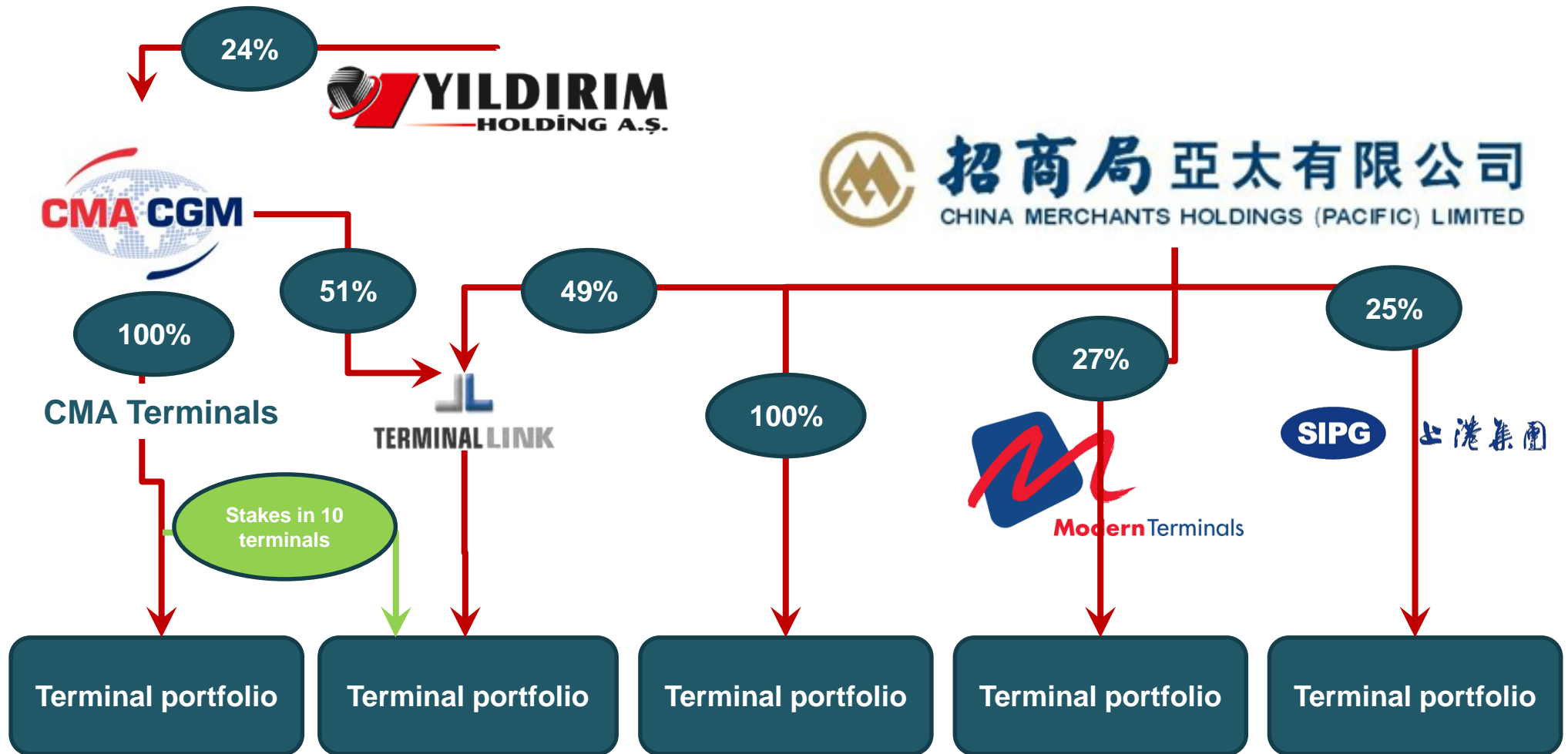
Mergers & Acquisitions

- APM Terminals acquired Grup TCB
- COSCO SHIPPING Ports acquire 40% interest in the Vado Terminals in Italy
- COSCO SHIPPING Ports acquire 35% interest in Euromax Terminal in Rotterdam
- COSCO SHIPPING Ports increase its stake in Qingdao Port International (QPI) to 18.41%
- DP World acquired an additional 23.94% stake in Pusan Newport Company (PNC) in South Korea
- DP World creating an investment fund with Caisse de dépôt et placement du Québec (55/45) to jointly invest in ports and terminals

Joint venture deals with shipping lines

- CMA CGM and PSA create a container terminal joint venture in Singapore
- COSCO Shipping and PSA create a container terminal joint venture in Singapore
- MSC and PSA create container terminal in Antwerp

Terminal Operator ownership complexity

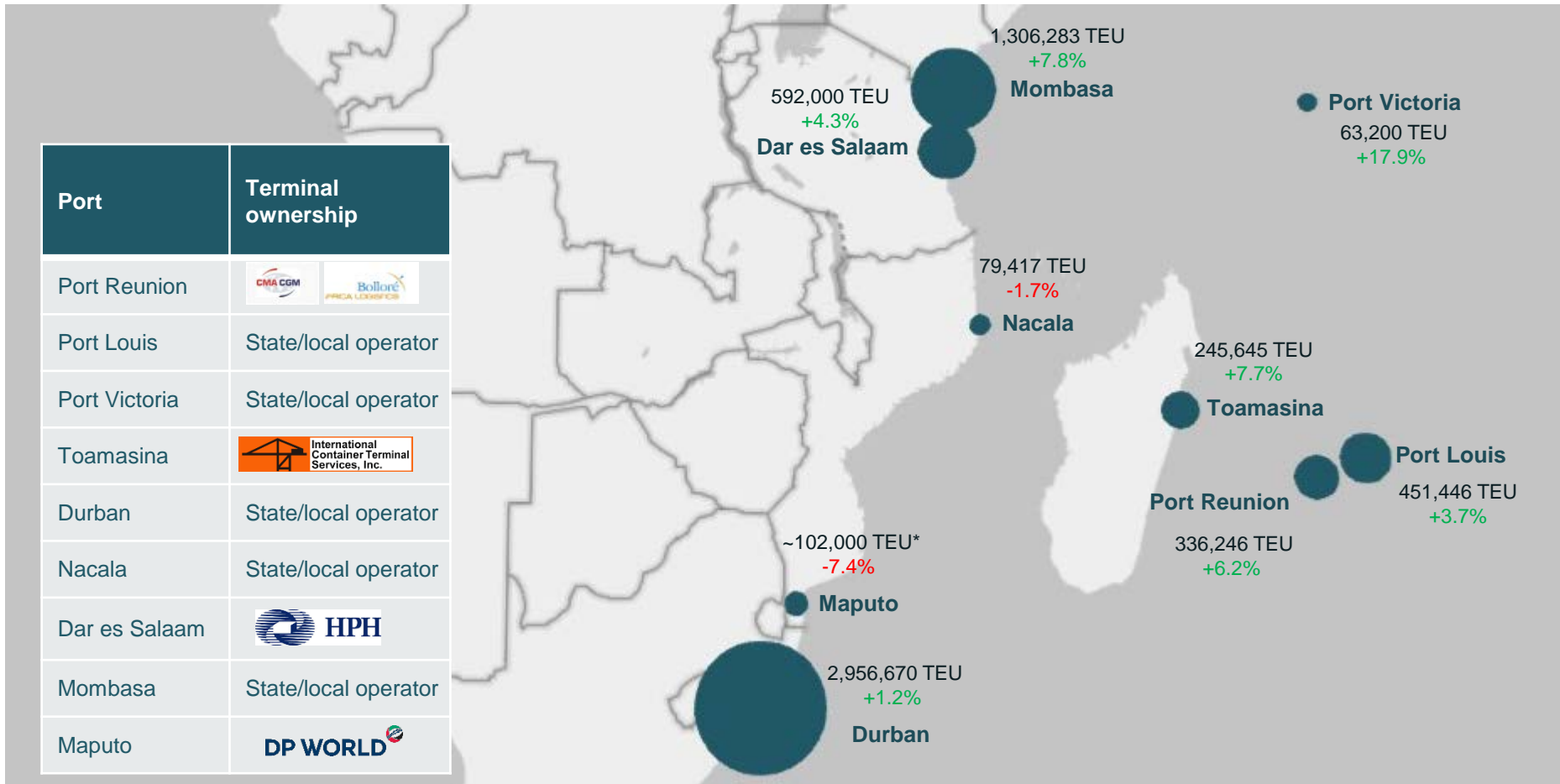




Regional Container Shipping Market

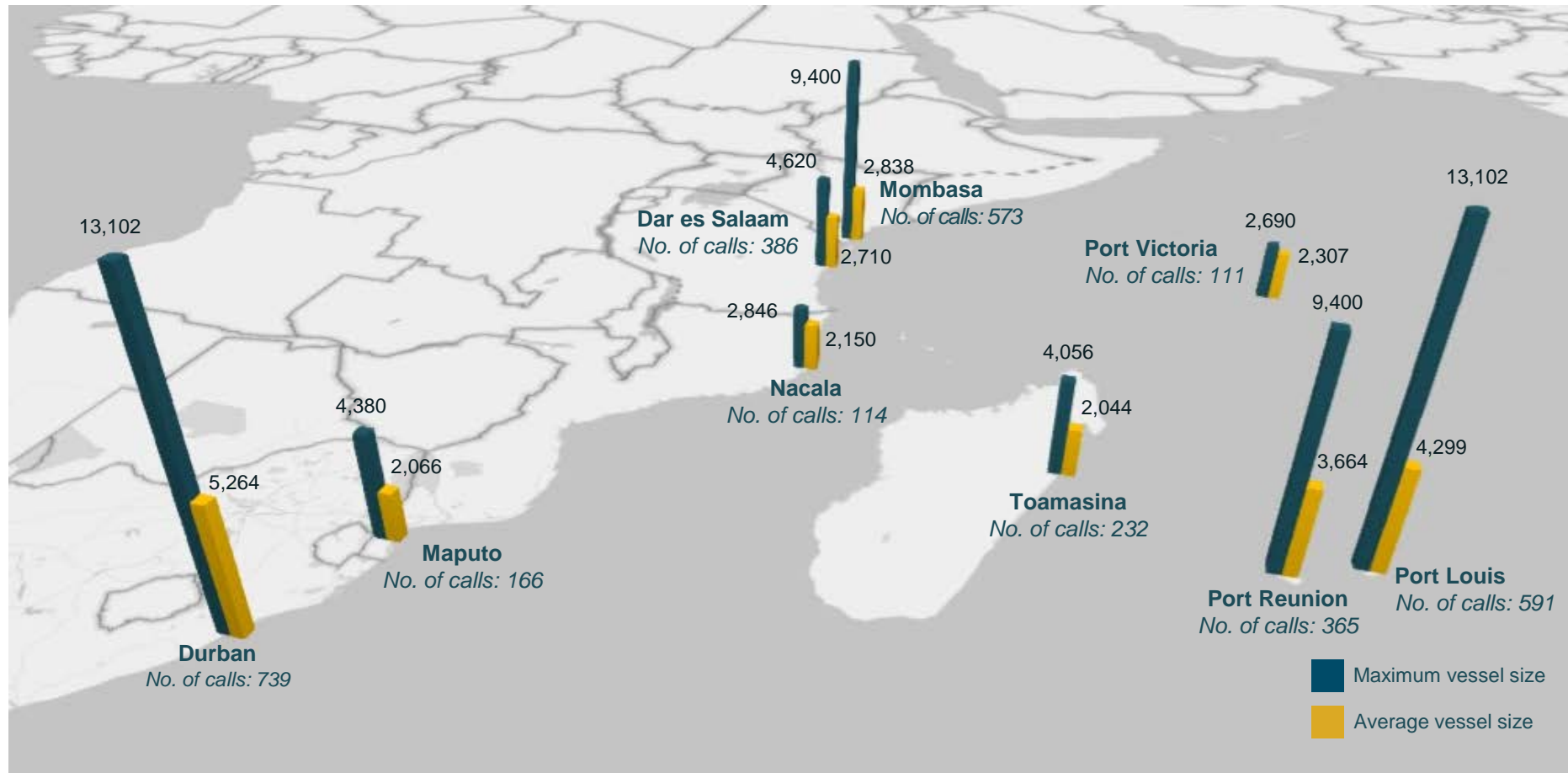
Regional Container Shipping Market

Regional ports container throughput (2018, CAGR 2011-2018)



Regional Container Shipping Market

Sizes of container vessels deployed in 2018 (average, maximum, TEU*)



*The data of the vessel calls is based on AIS data and might differ from the ports' official data

Contact

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*Thank
You!*