



Investment Considerations of Operators

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Introduction to MTBS

Unique Qualifications of MTBS

- **MTBS** is the global leader in business & transaction advisory services in the port sector with a high success rate on both sell-side & buy-side transactions
- **MTBS** is a recognized content-leader: implementing international best practice transaction services and products.
- **MTBS's** track record encompasses a large number of transaction projects in Europe, Middle East, Africa, Latin America and the rest of the World.
- **MTBS** is independent, flexible and international.
- **MTBS** dedicated port team is the largest and most experienced team, certainly when compared with global accounting & strategy consultants.
- **MTBS'** senior experts have a long corporate history in blue chip organisations such as Deloitte, PWC, APMT, Royal Haskoning, Royal Boskalis, Port of Rotterdam etc.
- **MTBS's** team of experts all have deep-rooted experience in strategy, business valuation, transaction and finance.
- **MTBS** methodology focuses on delivery as well as skills transfers.

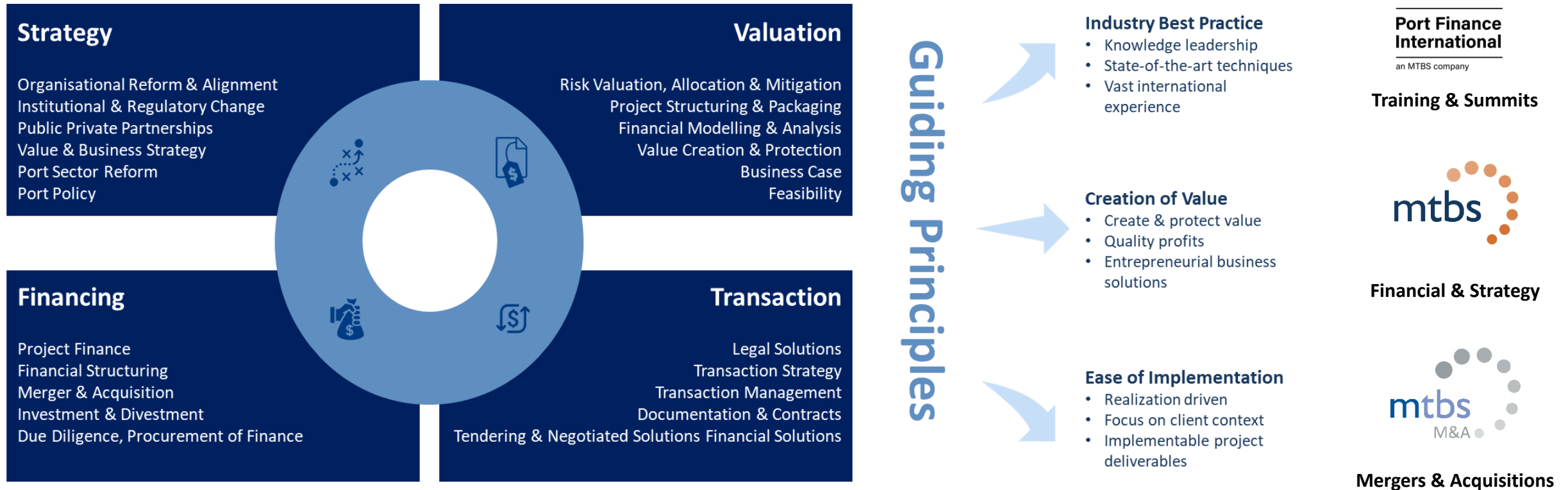


MTBS is proud to call the White House its 'home port'.
A Landmark building since its completion in 1898

Introduction to MTBS

Our Mission: Unlocking Value in the Maritime & Transport Industry

On the interface of land and water, positioned between public and private interests, ports are the most strategic nodes in global transport network. Therefore, MTBS believes that ports offer a unique value proposition. It is the mission of MTBS to unlock and protect this value by offering its clients entrepreneurial business solutions and creating the quality profits they seek.



Introduction to MTBS

Key Products in Port Business & Transaction Advisory

Areas of Expertise		
Deep-sea Ports	Dry Ports	Shipping
River Ports & IWT	Free Zones	IWT

Project Structuring	
DBFOM	DBFM
BOT	M&A: Equity Transactions

Analysis
Market Studies & Forecasts
Tariff Studies
Benchmark Studies
Feasibility Study

Planning & Operations
Master Planning
Business Planning
Technical & Operational Planning
Productivity Improvements

Financial Analyses & Financing	
Master Planning	Value for Money
Business Planning	Viability Gap Funding
Technical & Operational Planning	Financial Structuring
Productivity Improvements	Financial Due Diligence

Partnering
Partnering Strategy & Search
Market Sounding & Consultations
Operator Search

Procurement
Operators (Revenue)
Contractors (Capex)
Investors/Banks (Financing)
M&A (Equity)

Sell Side Transactions
Transaction Design & Management
Bid Documentation
Investor Selection
Negotiations & Close

Buy Side Transactions
Due Diligence
Bid Preparation & Support
Negotiations & Close

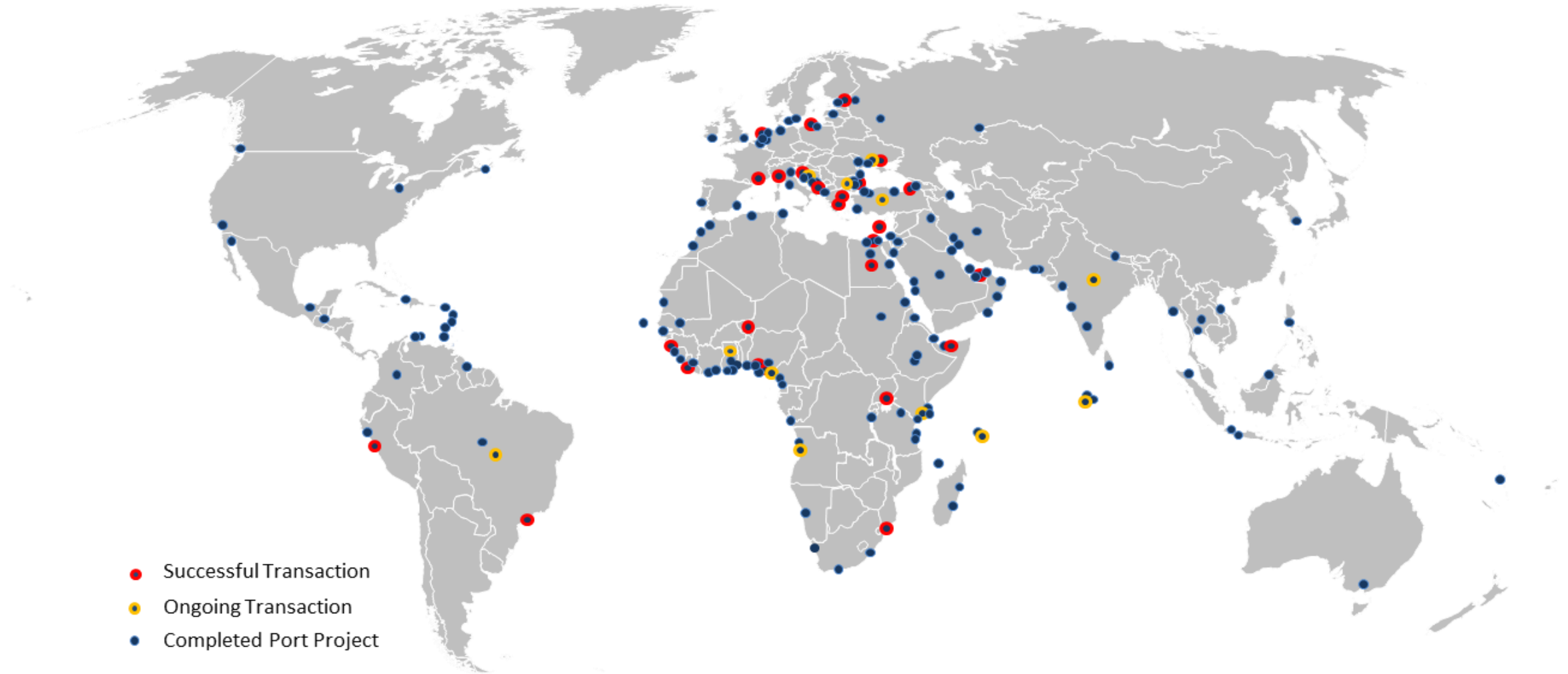
Introduction to MTBS

Overview of our Clients

Authorities			GTOs & Shipping Lines		Industrials	Governments	IFIs	Banks & Equity

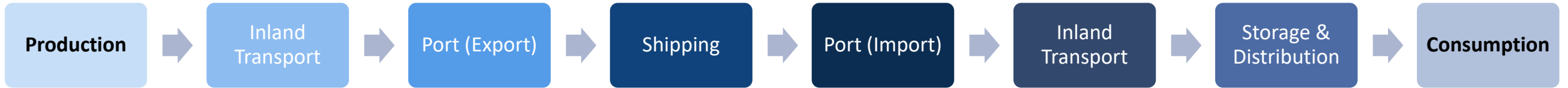
Entrepreneurial approach to deal-making

MTBS Track Record and Extensive Global Experience



Importance of shipping lines in the supply chain

Shipping lines are midstream supply chain kingpins. Ports are reactive to the trends of their customers.



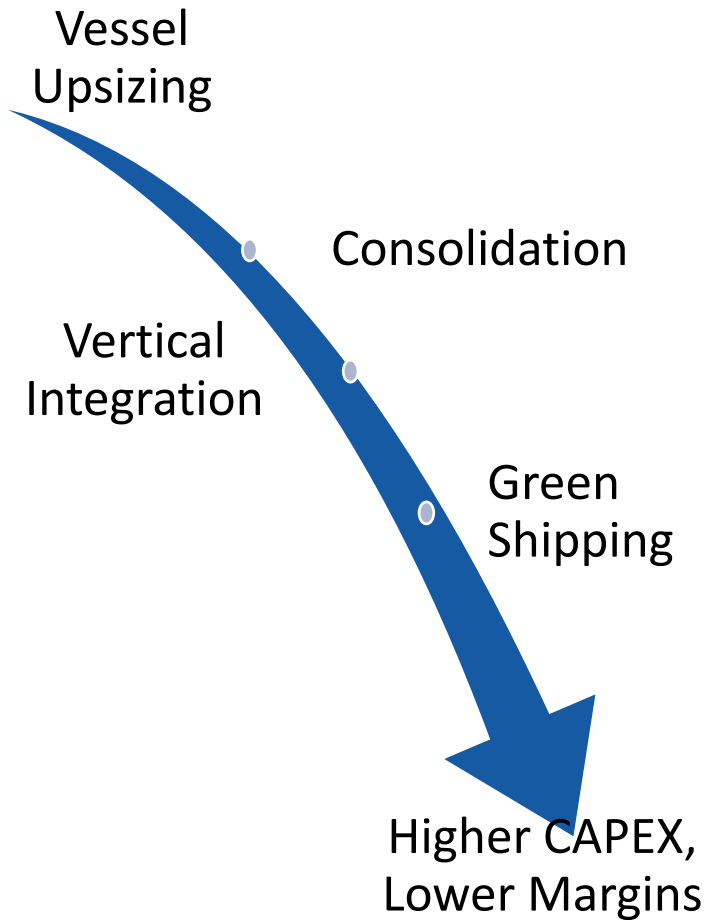
Consumption drives demand, generating shipping volumes

Stakeholders in direct contractual relationships with shipping lines



Challenges confronting port operators

Trends of customers in the past decade result in a dilemma for port operators. Continue investing, satisfied with mediocrity or exit the business?



Average EBITDA margin decreased from 42.2% in 2015 to 39.6% in 2021

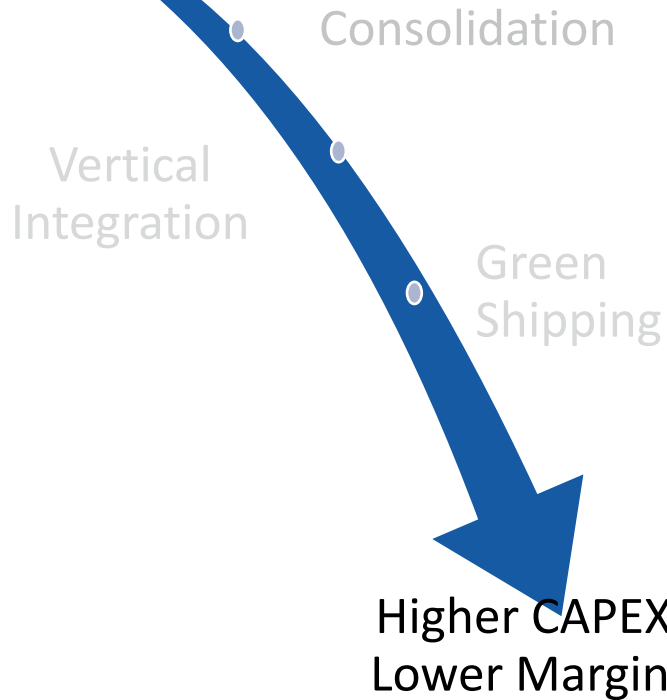


Source: Investor relation filings of the companies

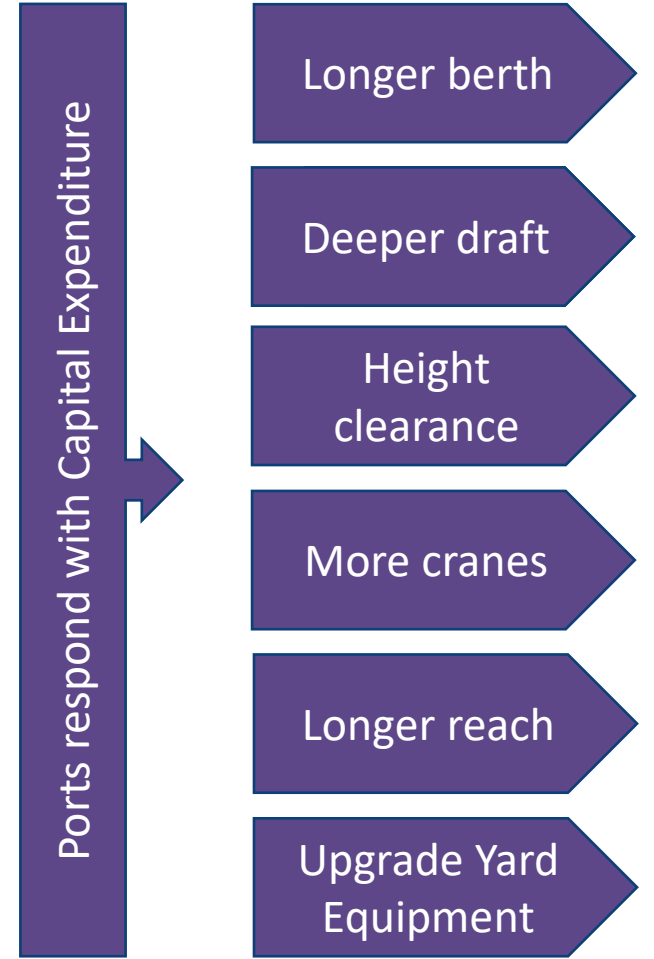
Impact of Vessel Upsizing

Incur substantial CAPEX (Civil & Equipment) or face obsolescence

Vessel Upsizing

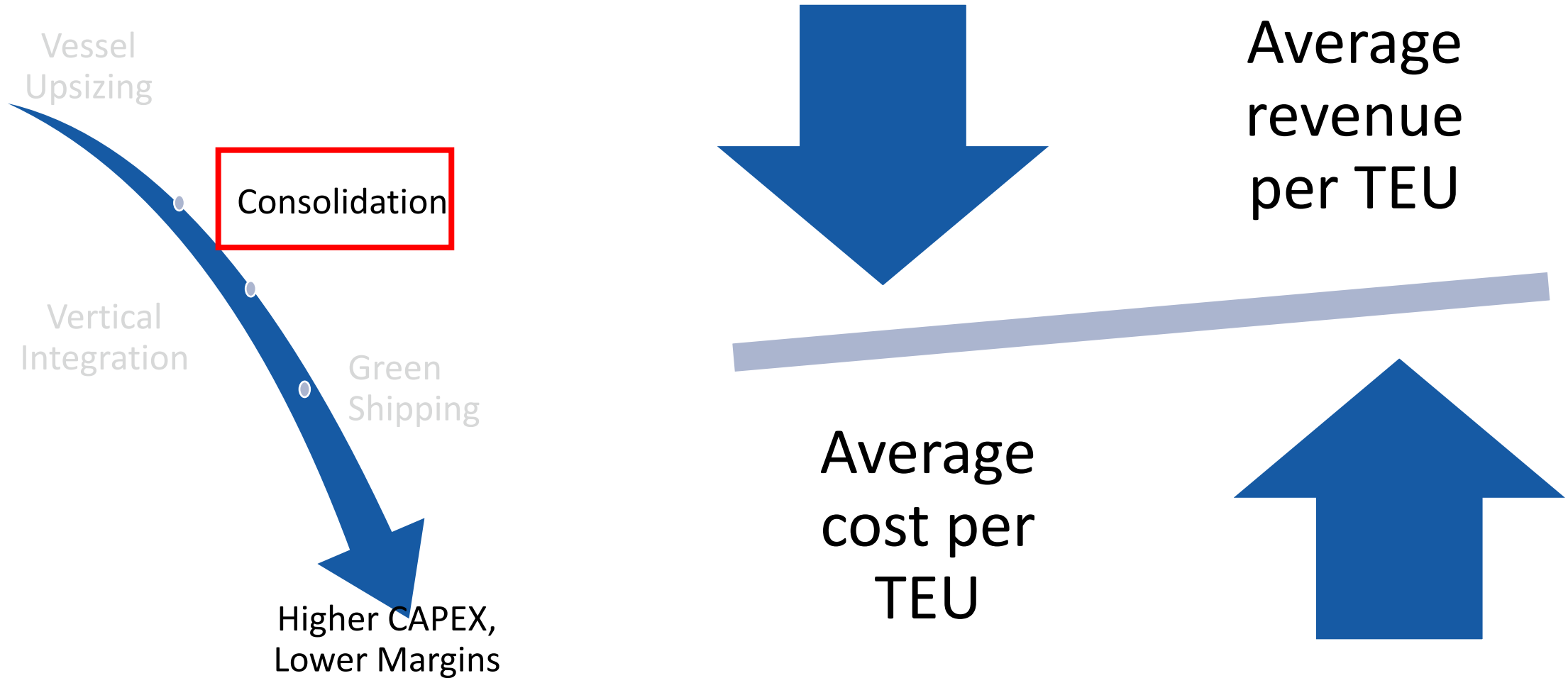


Early Containerships (1956) 500-800 TEU		LOA (m) : 137 Beam (m): 17 Draft (m): 9
Fully Cellular (1970) 1000-2500 TEU		LOA (m) : 215 Beam (m): 20 Draft (m): 10
Panamax (1980) 3,000-4,000 TEU		LOA (m) : 250 Beam (m): 32 Draft (m): 12.5
Panamax Max (1985) 3,400-4,500 TEU		LOA (m) : 290 Beam (m): 32 Draft (m): 12.5
Post Panamax (1988) 4,000-5,000 TEU		LOA (m) : 285 Beam (m): 40 Draft (m): 13
Post Panamax Plus (2000) 6,000-8,000 TEU		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 (2013) 18,000 TEU		LOA (m) : 400 Beam (m): 59 Draft (m): 15.5
Current Largest (2021) 24,000 TEU		LOA (m) : 430 Beam (m): 59 Draft (m): 15.5



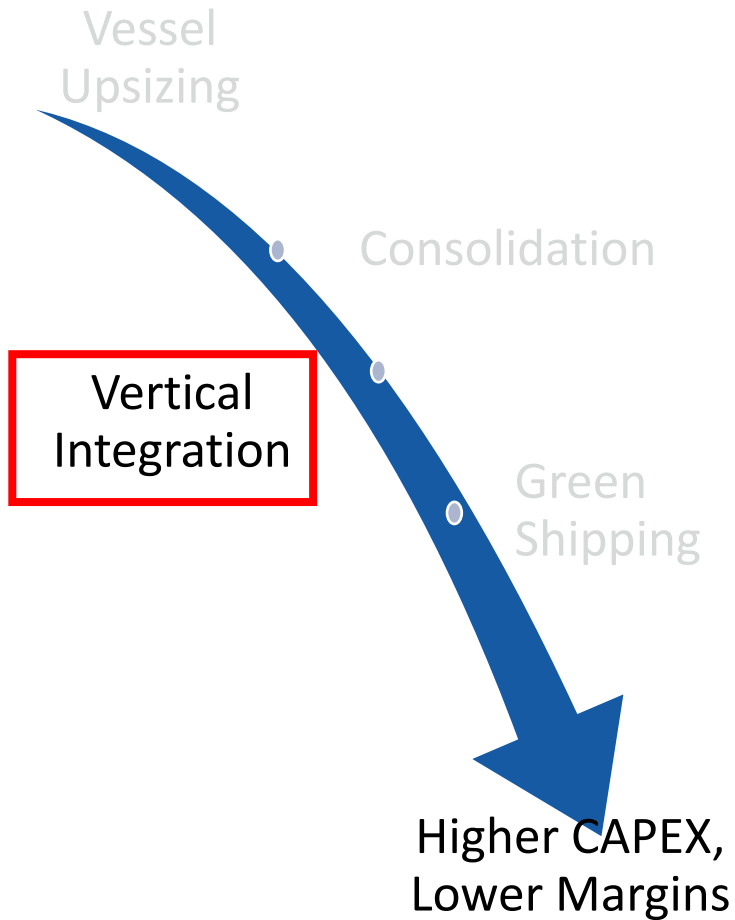
Impact of Shipping Line Consolidation

Tariff pressure and peaking problems

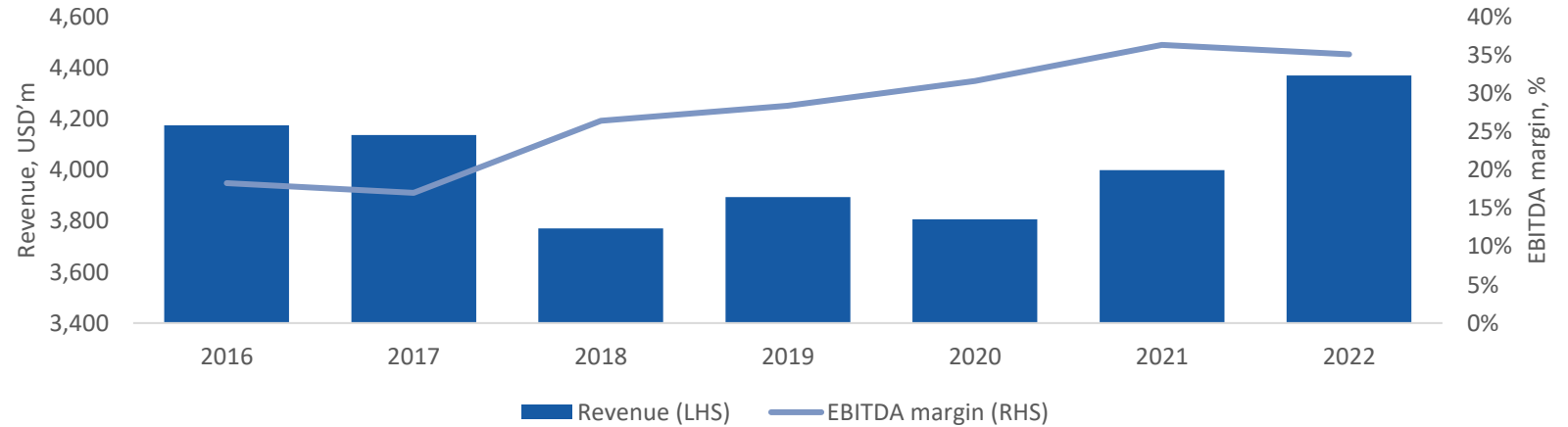


Impact of Vertical Integration

Ports with close affiliation with dominant shipping lines share the fortunes of their vertical chain, while profit centres face margin pressure.

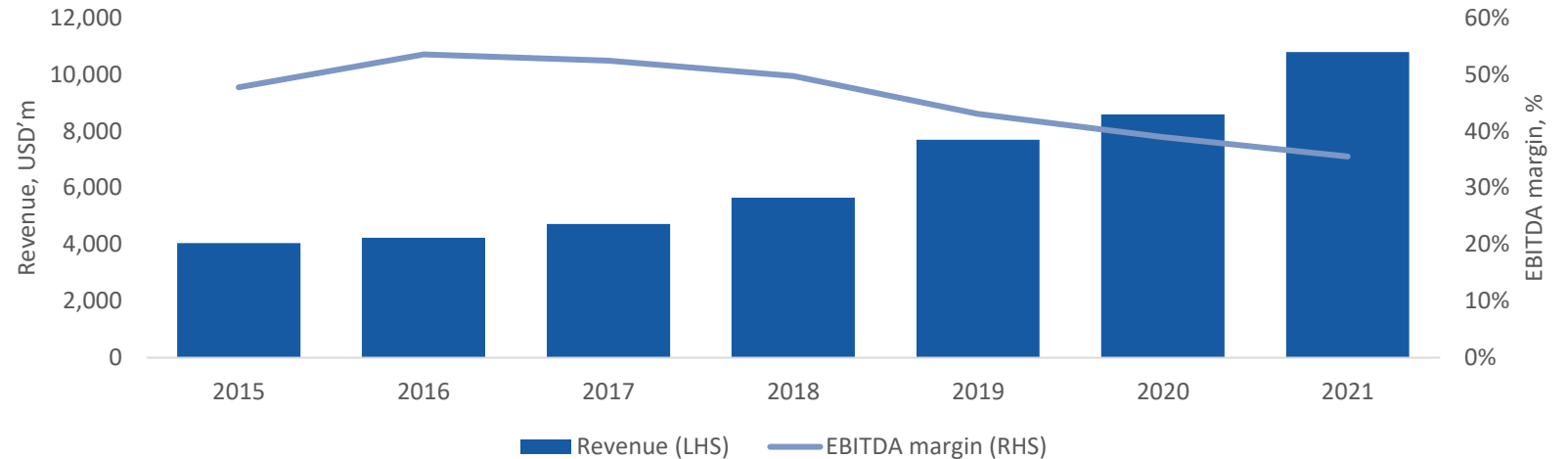


Profitability of APMT, 2016 – 2022 (million USD, %)



Source: APMM annual reports

Profitability of DP World, 2012 – 2021 (million USD, %)



Source: DP World annual reports

Impact of Green Shipping

Green shipping extends to port operations, translating into CAPEX requirement which may not bring about the incremental capacity and productivity



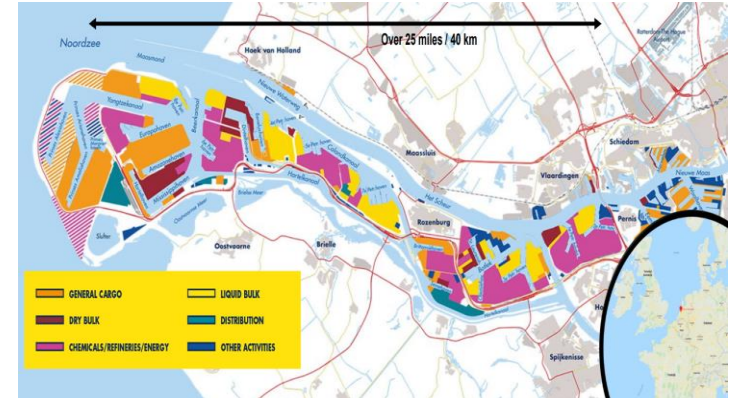
Hydrogen-Container Handler (LB, US)



Hydrogen-based tractor (Port of Imminghem, UK)



Establishing Green Shipping Corridors (Rotterdam, NL)



Solar installation at Aqaba CT

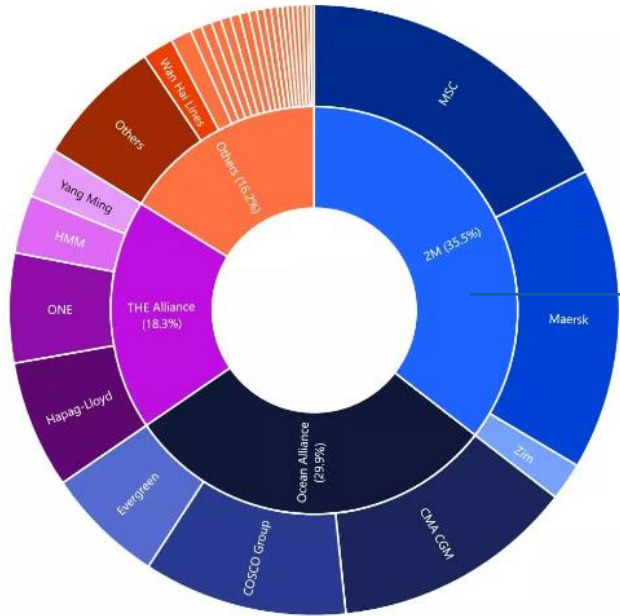


Source: Google images, Port of Rotterdam

Recent announcement of 2M alliance split

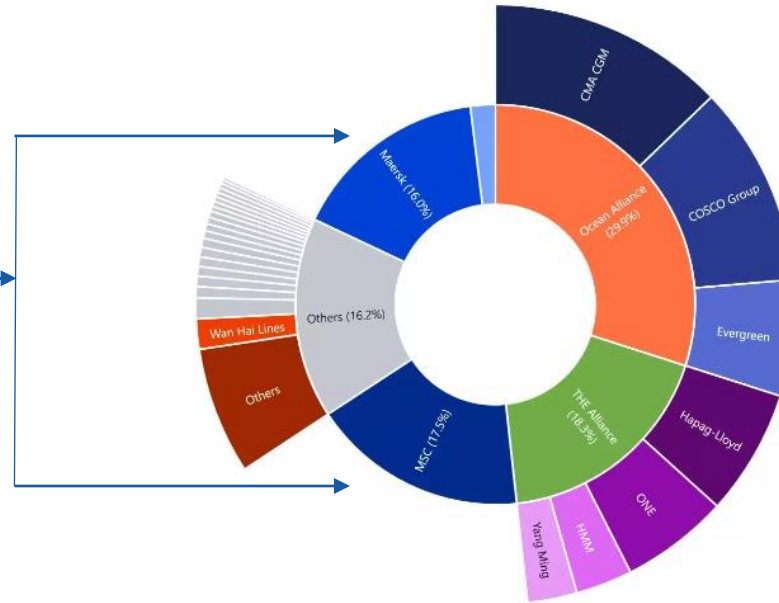
Bargaining power of ports may improve, but by how much?

Market share, Jan 2023

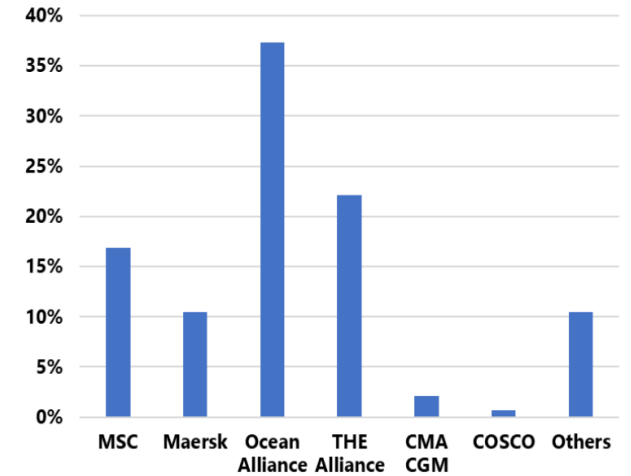


Source: Xeneta, Alphaliner

Market share, Post-Split in 2025



Capacity market share in Transpacific route



Source: Sea Intelligence

What can ports do to improve margins and mitigate risks?

Dissecting the aspects of a Business Plan – Commercial, Technical and Financial

Commercial



- Focus on Unique Selling Points
- Vertical Integration
- Strategic Partnerships, specifically for transshipment hubs

Technical



- CAPEX matching utilisation
- Automation, improving service reliability but not productivity
- Smart Interventions, optimizing OPEX

Financial



- Risk-sharing with port authorities
- Deleverage
- Hedge

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