



**caribbean
shipping
association**

THE VOICE OF THE CARIBBEAN SHIPPING INDUSTRY

Future Ports, Decarbonisation & Green Logistics

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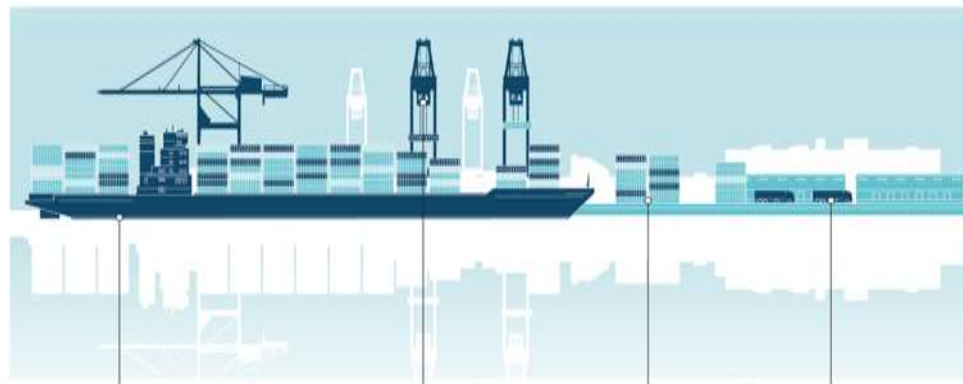
ABOUT THE CARIBBEAN SHIPPING ASSOCIATION

- Founded in 1970
- Objectives
 - Exchange views on areas of common interest
 - Produce reports on **industry practices and port development**
- Main groups:
 - National shipping associations
 - Shipping agencies and brokers
 - Port authorities/operators and container terminals
 - Shipping lines, cruise lines and bunkering companies
 - Non-vessel operating common carriers and ocean transport intermediaries
 - Dock yards, towage, salvage and hydro operators, insurance, maritime education institutes
- 4 different languages represented



Container shipping: The next 50 years

Port 4.0 will be powered by artificial intelligence, optimization through advanced analytics, and dynamic scheduling.



Real-time berth planning

Berthing slots and labor can be better used by forecasting ships' arrival times more accurately, resulting in up to 8 percentage points of EBITDA¹ potential for terminals

Predictive maintenance for key assets

Predictive and remote crane and vehicle maintenance can lead to a 30–50% reduction of total machine downtime, increasing the availability of critical port assets, such as STS² and RTG³ cranes

Automated yard planning

Advanced analytics and modeling make it possible to swap assets, reroute containers dynamically, and adjust routing and speed in real time

Demand planning at gate

More accurate predictions of consumer and production behavior can help terminals better estimate demand for gate arrivals

¹Earnings before interest, taxes, depreciation, and amortization.

²Ship to shore.

³Rubber-tired gantry.

Container shipping: The next 50 years

Digital start-ups are proliferating.

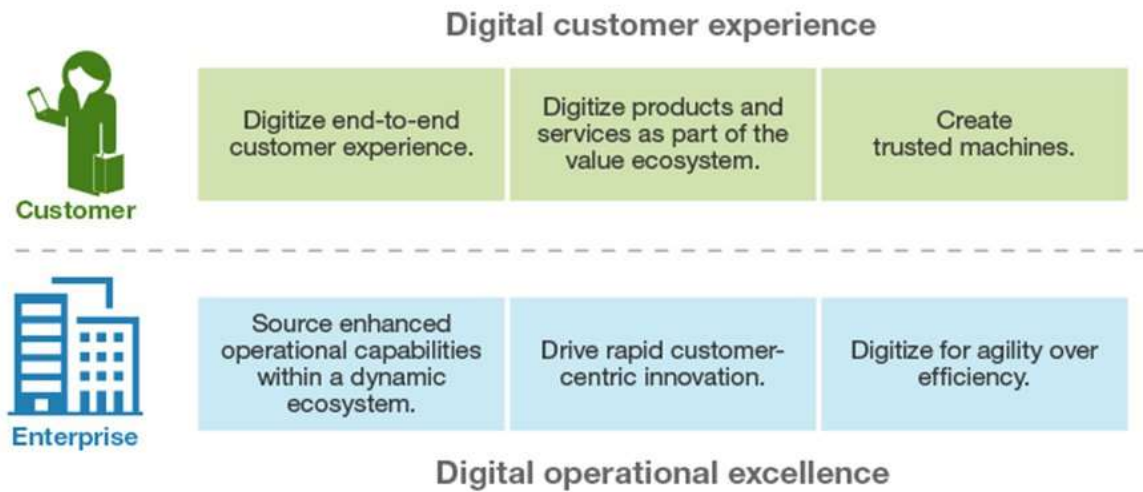
New players' offerings by value sources

		Supply chain transparency	Strong purchasing power	Scale	Software management	Leverage of infrastructure	Networked services	ETC offering	Physical consolidation	Solution leasing	Transportation
	Digital freight forwarders	Flexport	Freight Filter	Shippabo	Containers	iContainers					
New market players		Rate analytics * Freightos * Logitrade * Transporex * Xeneta	Collaboration platforms * GT Nexus							E-commerce fulfillment platforms * Amazon Fulfillment	
	Customer-facing specialists	Booking platform * Etica								Tracking platforms * ATIS * Detrack * Fleetmatic * HLocate * KeepTruckin * Traxx	
Enabler	Digital back-end/IT solutions		Exchange platforms * CargoX * Cargomatic * China Spark * Load Me * Trucking			Procurement platforms * M&M	Supply-chain control * Daringer			SeaD[®] or cloud-based optimization and information * CargoSmart * ClearLogistics * Ploufic * Transnetics * Transporon	

*Exchange to exchange.
 †Software as a service.

Two Key Imperatives: Digital Customer Experience And Digital Operational Excellence

March 2014 "The Future Of Business Is Digital"



Container shipping: The next 50 years

The view from 2067 A smart, customer-focused container industry

1

Invest in
digital

3

Integrate

2

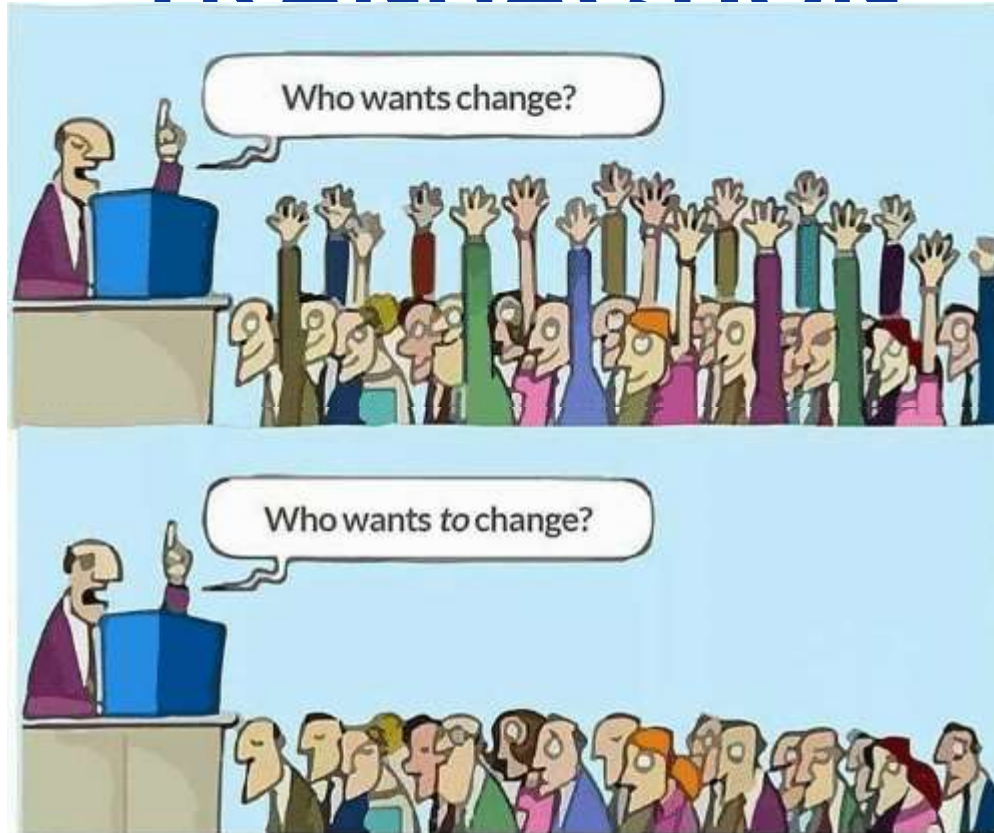
Think
consolidatio

4

Be bold



HUMAN INPUT OF EVERY TRANSACTION





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THANK YOU