




2023 Smart Ports Conference Boston

Drive Toward Digitization: The Port's Role

Pawan Joshi, PhD
EVP Products & Strategy at e2open

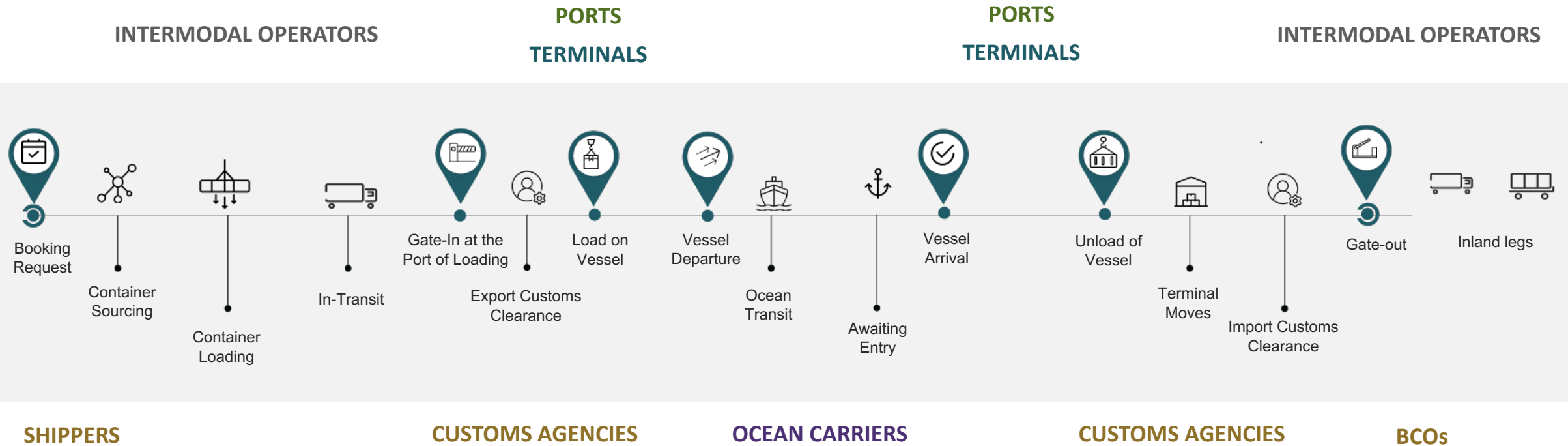
Containerization transformed shipping economics...



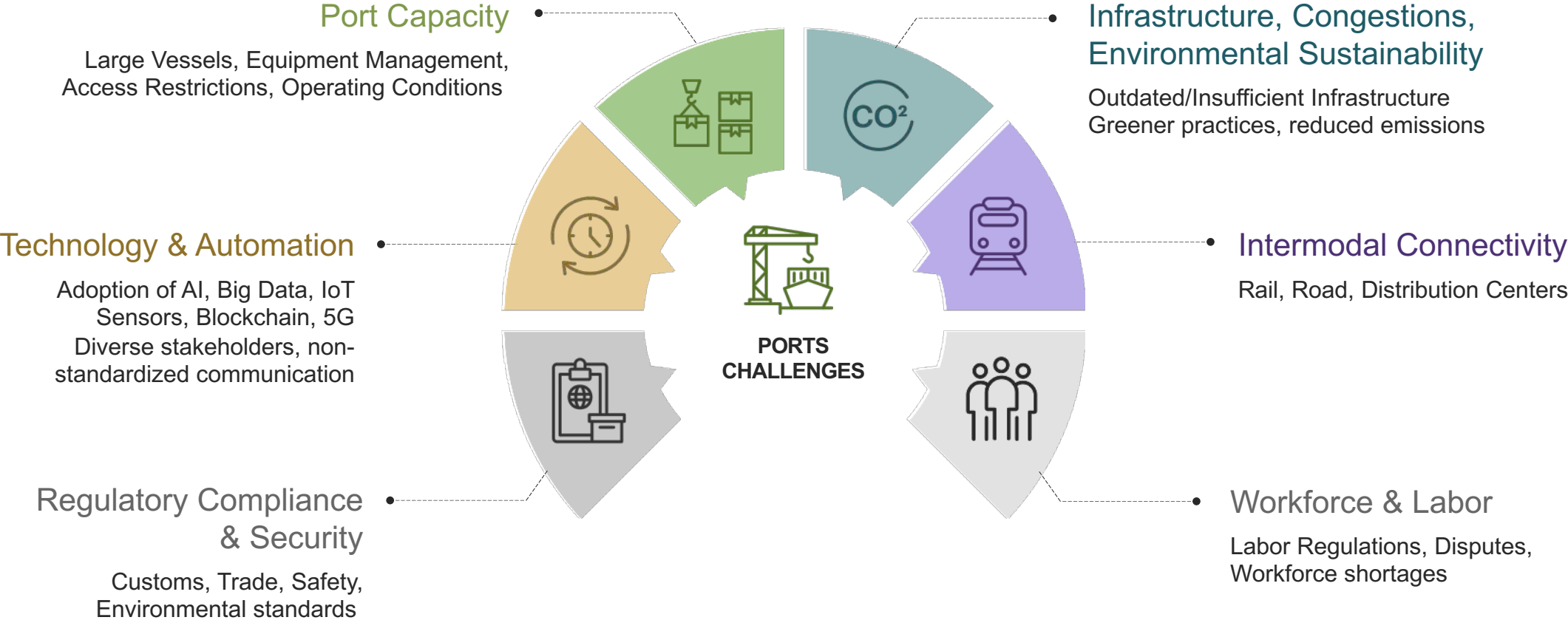
- 
- A large container ship is docked at a port. The ship is light blue and has "MARSEILLE MÆRSK" and "KØBENHAVN" written on its side. The deck is covered with stacks of colorful shipping containers. Several large blue cranes with "APM TERMINALS" written on them are positioned around the ship. The sky is overcast.
- ✓ Global Reach
 - ✓ Substantial Capacity
 - ✓ Cost-effective
 - ✓ Low(est) carbon footprint per ton-mile
 - Long Transit Times
 - Numerous Handoffs and Transfers
 - Actual Activity and Notifications Disconnected
 - Diversity in Processes and Technology

Ocean Shipping Ecosystem

Complex processes with handoffs across multiple stakeholders with different levels of technical maturity



Ports Challenges





Demand
Shocks...



Supply
Shocks...

Logistics Shocks...



Trade Wars

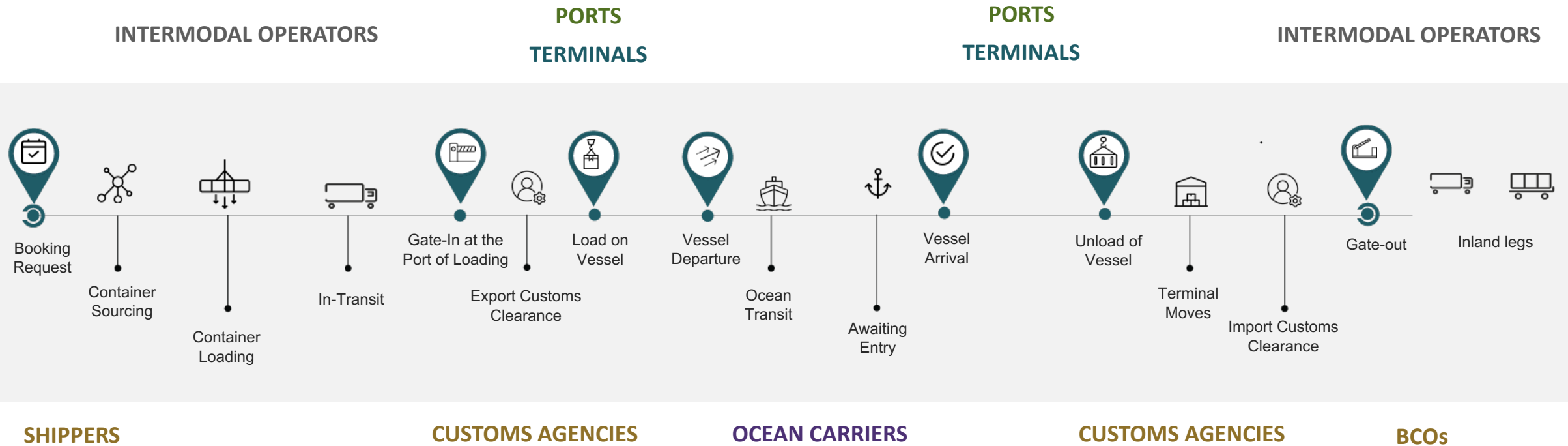




Physical Wars

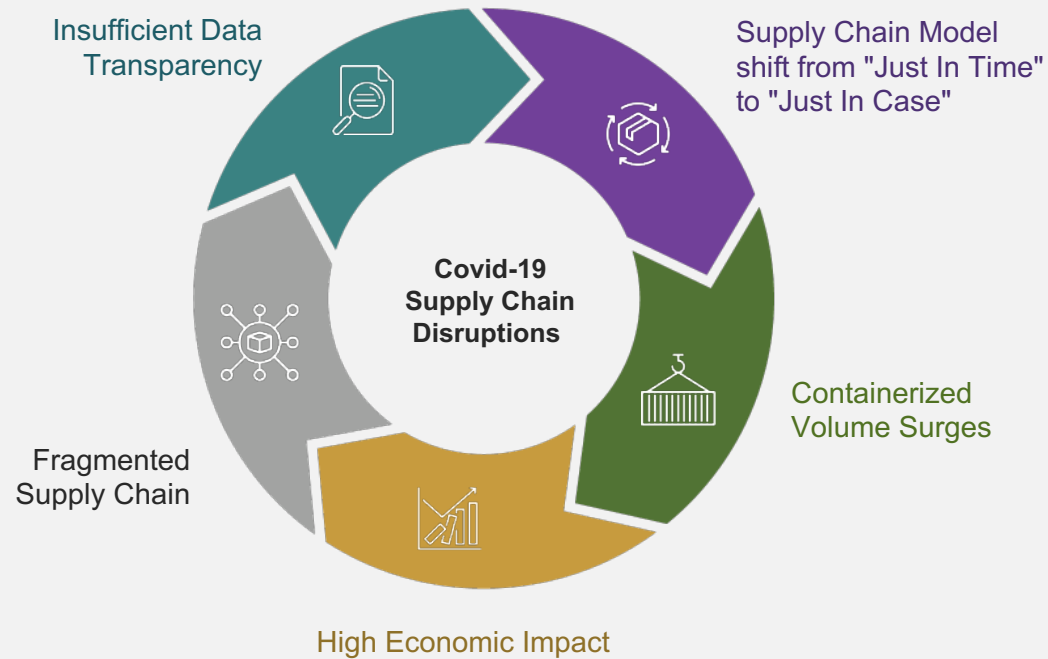
Ocean Shipping Ecosystem

Complex processes with handoffs across multiple stakeholders with different levels of technical maturity



FMC led discovery to identify issues with the US Maritime Supply Chain

SUPPLY CHAIN DISRUPTIONS DURING COVID-19



MTDI GOALS



Catalogue maritime data elements, metrics, transmission and access



Identify gaps in data definitions / classifications



Develop access policies / protocols / practices recommendations for common data standards

MTDS – Recommendations for Efficient US Maritime Transportation

Intermodal Rail Visibility

Extend in-transit visibility and terminal status information requirement to intermodal rail carriers servicing ocean carrier shipments



Real-Time Vessel Position with ETAs

Establish a system of information on planned ocean carrier voyages, with real-time vessel position and estimates of arrival

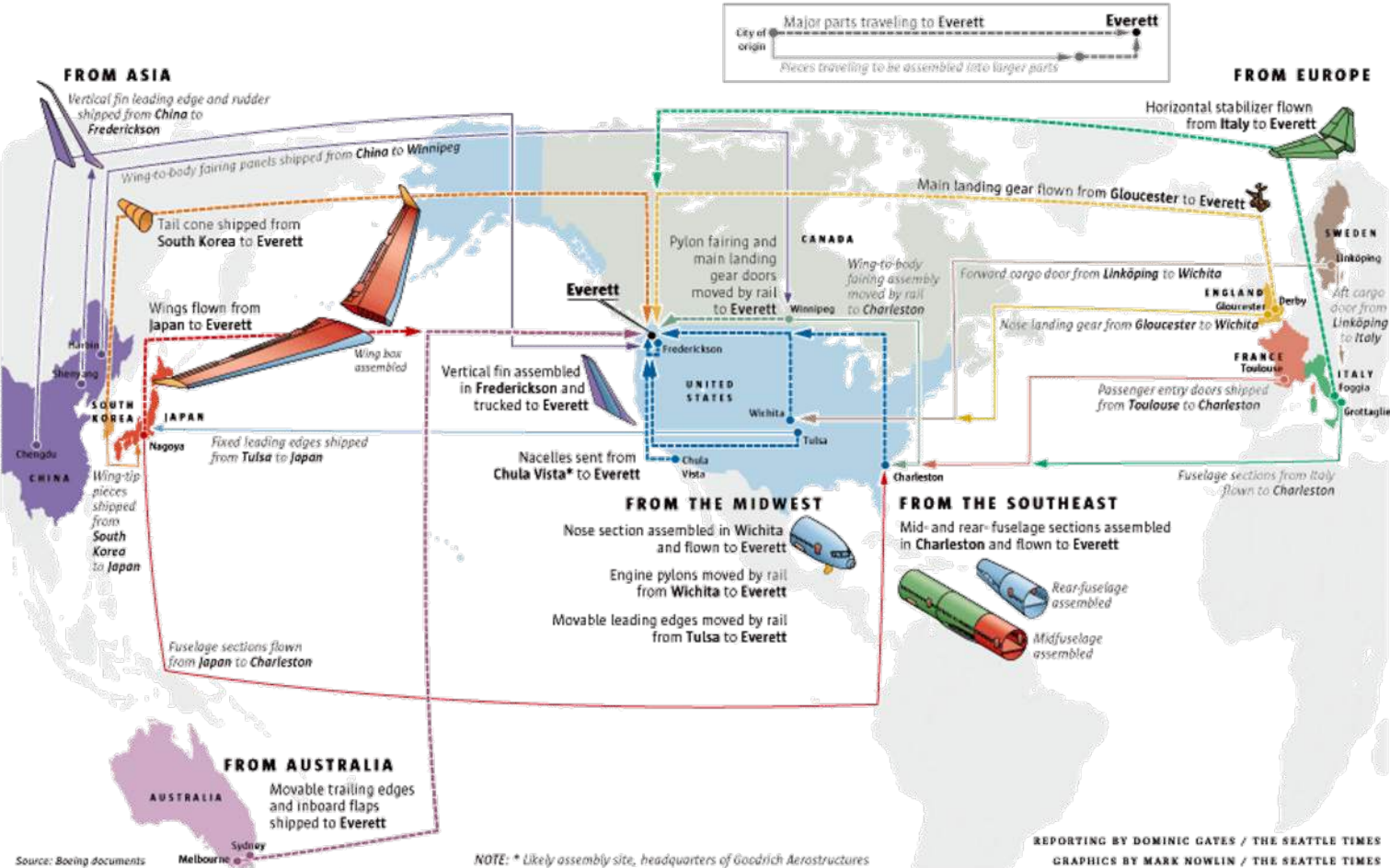


Harmonization of Standards

For public information related to terminal access for cargo retrieval and standardize the method of charactering cargo status for cargo retrieval from Marine Terminal Operators



Inspiration from other industries.....



Core principles evolved over two decades of operating the largest end-to-end supply chain networked platform



Network

All technical maturity

Always Connected and Bi-Directional



Data

Uniform Decision Grade

Harmonized, Timely, and Complete



Permissions

Data Governance

Owner Controlled Information Share



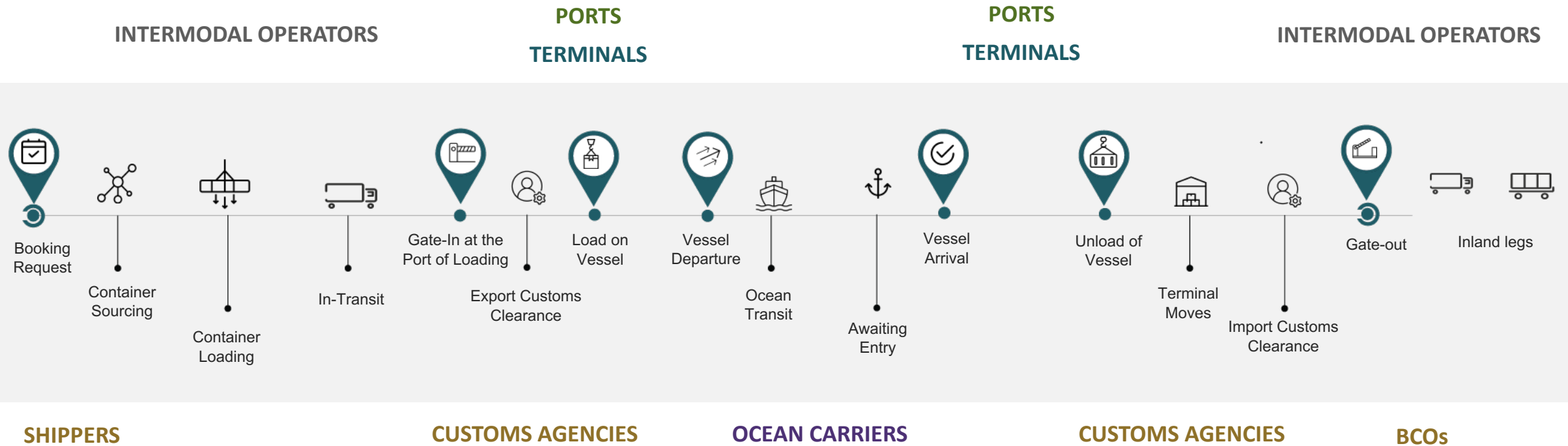
Shared Visibility

Smart Decisions

End-to-End Multi-Modal Visibility

Ocean Shipping Ecosystem

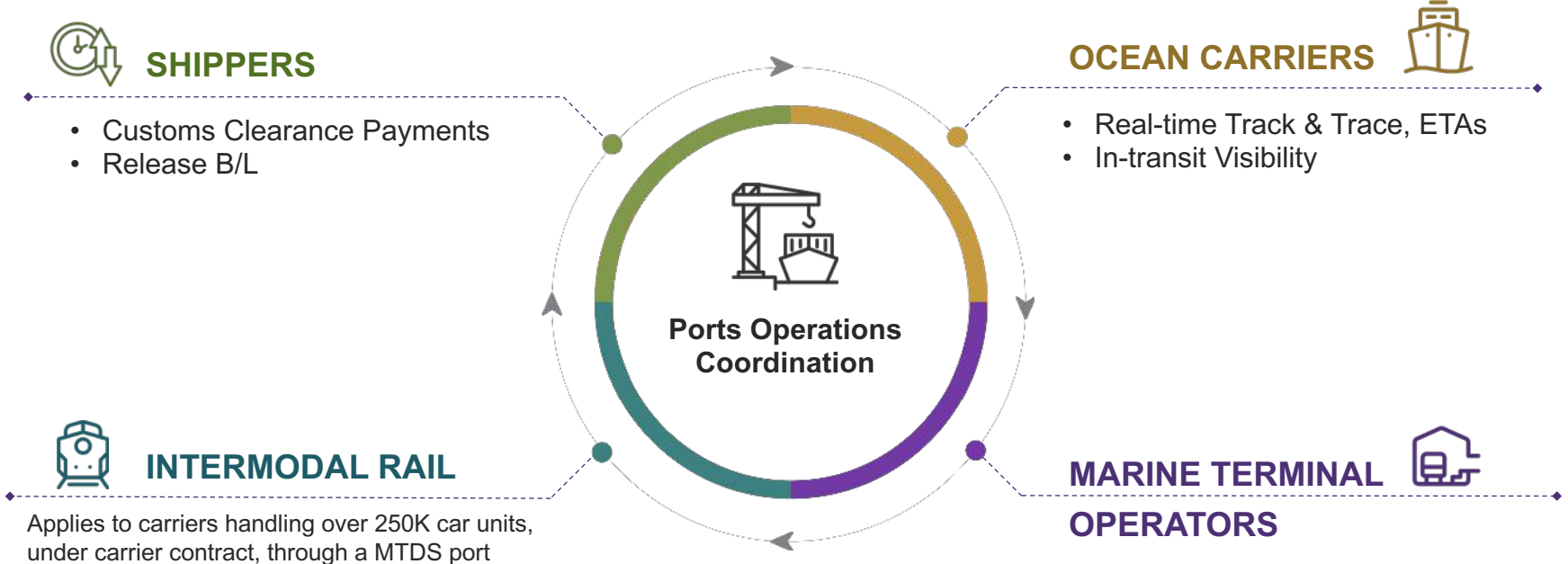
Complex processes with handoffs across multiple stakeholders with different levels of technical maturity



Ports Operation Coordination (POC) Recommendation

Applies to ports handling over 250K TEUs of import, export, or empty containers

GOAL: Provide Complete Visibility into the pickup status of the container (whether available or unavailable) to cargo owners and drayage providers



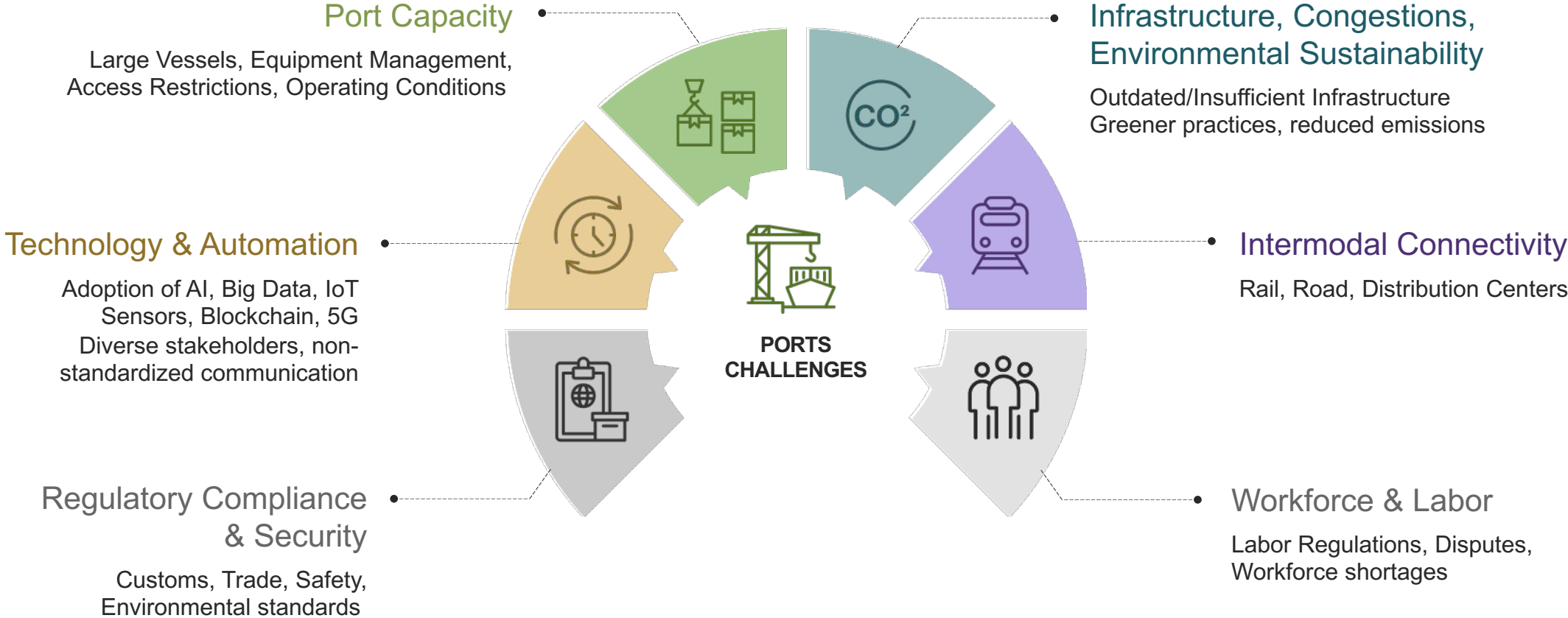
Private Information

- Container Pickup Status
- Cargo Handling
- Free-time, Demurrage

Public Information

- Earliest Return Date, Vessel/Rail Schedules
- Terminal Access, Appointments, Intermodal
- Storage, Special Operating Conditions

Ports Challenges





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Moving as one.™

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