

**BIC - Bureau International
des Containers**

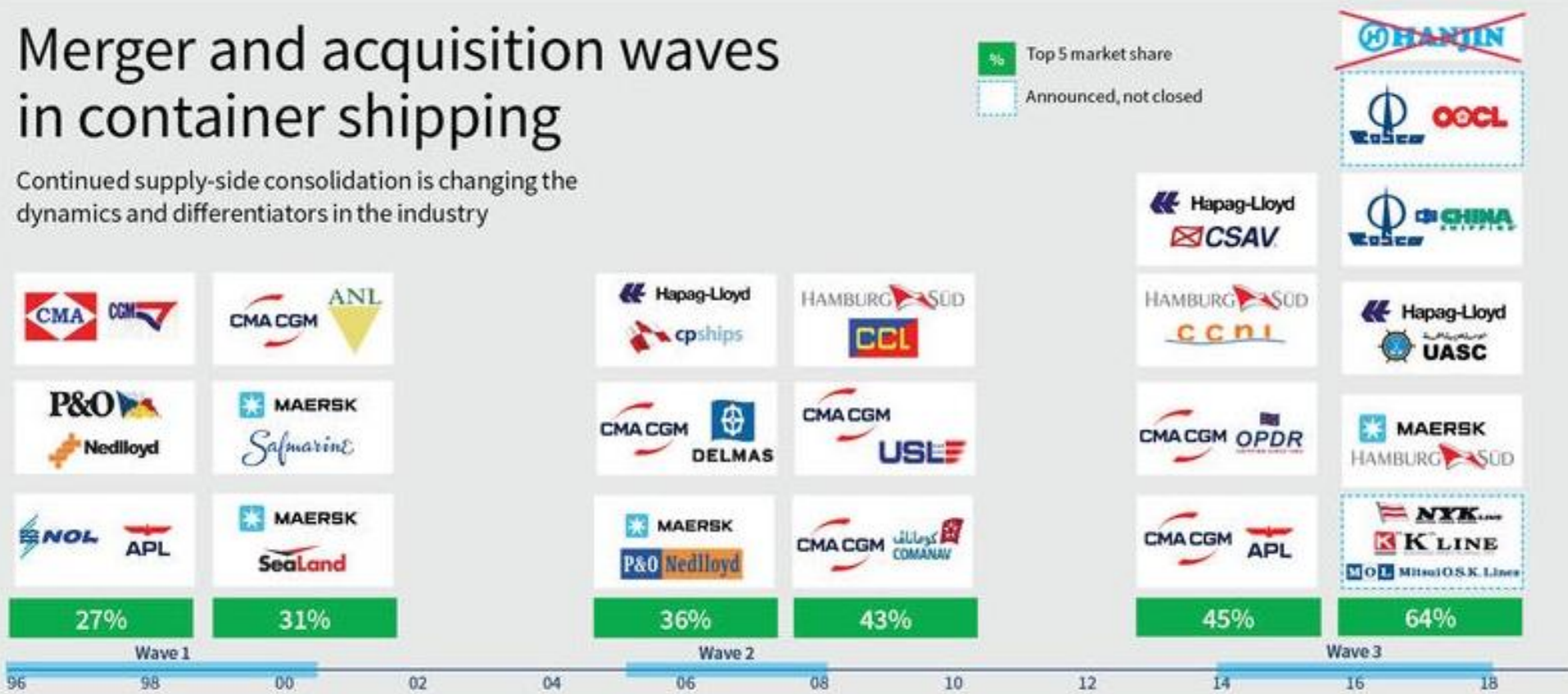
**Enabling digital supply chain:
Opportunities and challenges
of Smart Containers**

WCO IT FORUM – 13 June 2019

Where are we?

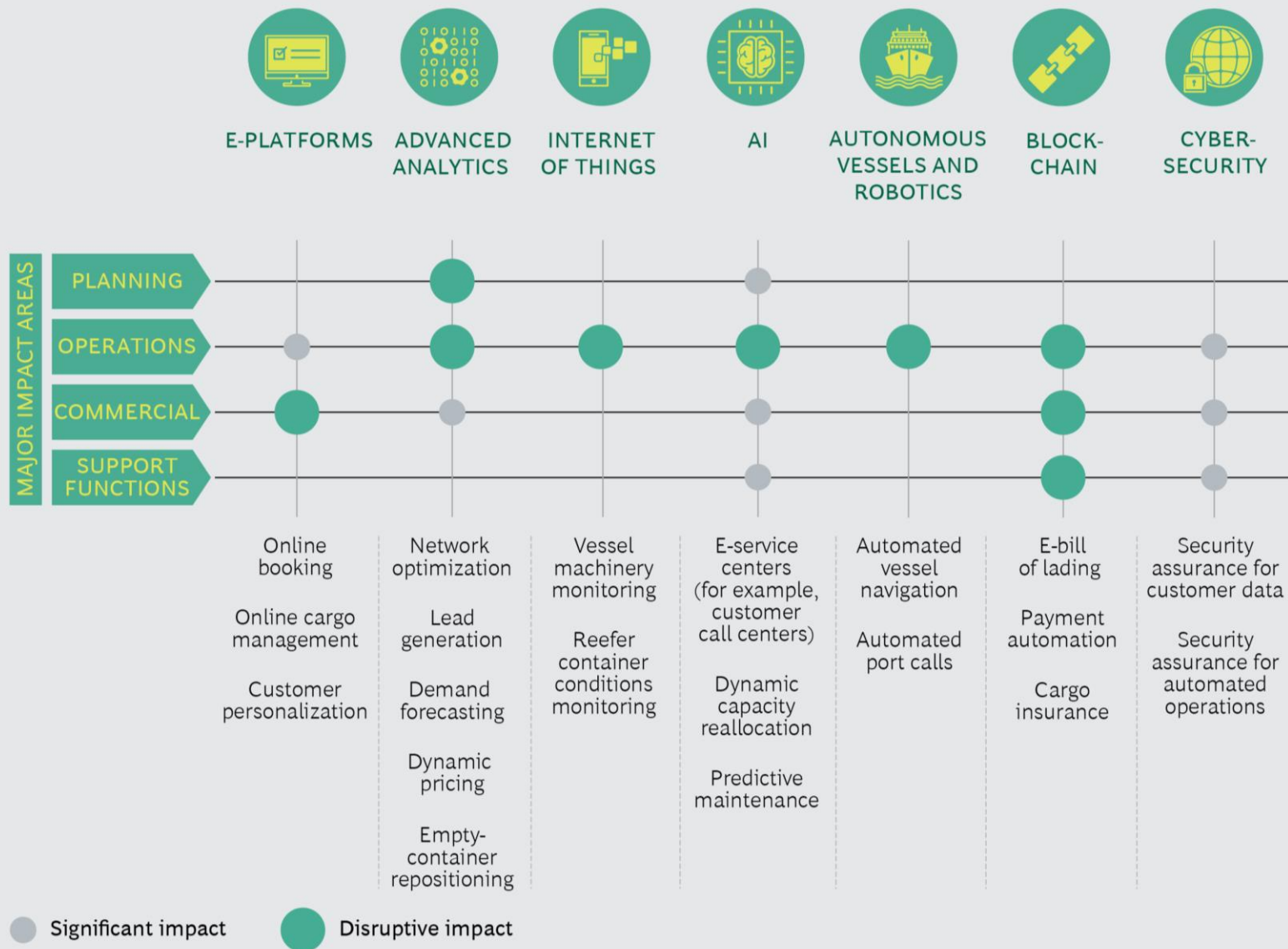
Merger and acquisition waves in container shipping

Continued supply-side consolidation is changing the dynamics and differentiators in the industry



- Cost crushing moment
- Environmental efficiency

7 Digital trends transforming Container Shipping



Source: BCG analysis.

Global systems for enhanced decision-making

- Flexibility, Transparency & Predictability
- Economic, Social and Environmental Competitiveness

Digital platforms

Smarter Containers

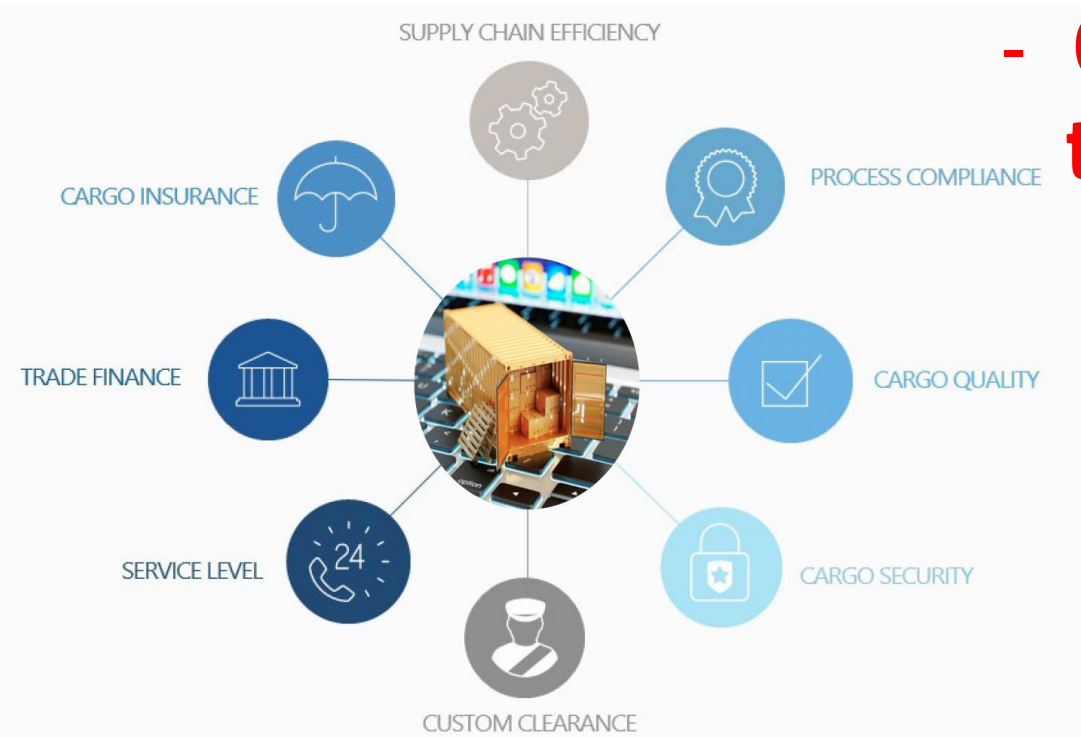
Integrity of Goods



Benefits of Smart Containers solutions



Challenges faced by Smart Containers solutions



- **Operational impediments to large scale deployment**

- **Absence of standards on data sharing**

Challenges faced by Smart Containers solutions

Installation

Return logistics



Loading
Warehouse



Transit



Port of
Loading



Vessel



Transshipment
Port



Port of
Discharge



Transit



Final Unloading
Warehouse



Enabling Smart Containers

Mechanisms for interoperability



Loading
Warehouse



Transit



Port of
Loading



Vessel



Transshipment
Port



Port of
Discharge



Transit



Final Unloading
Warehouse

Authorization

Authorization

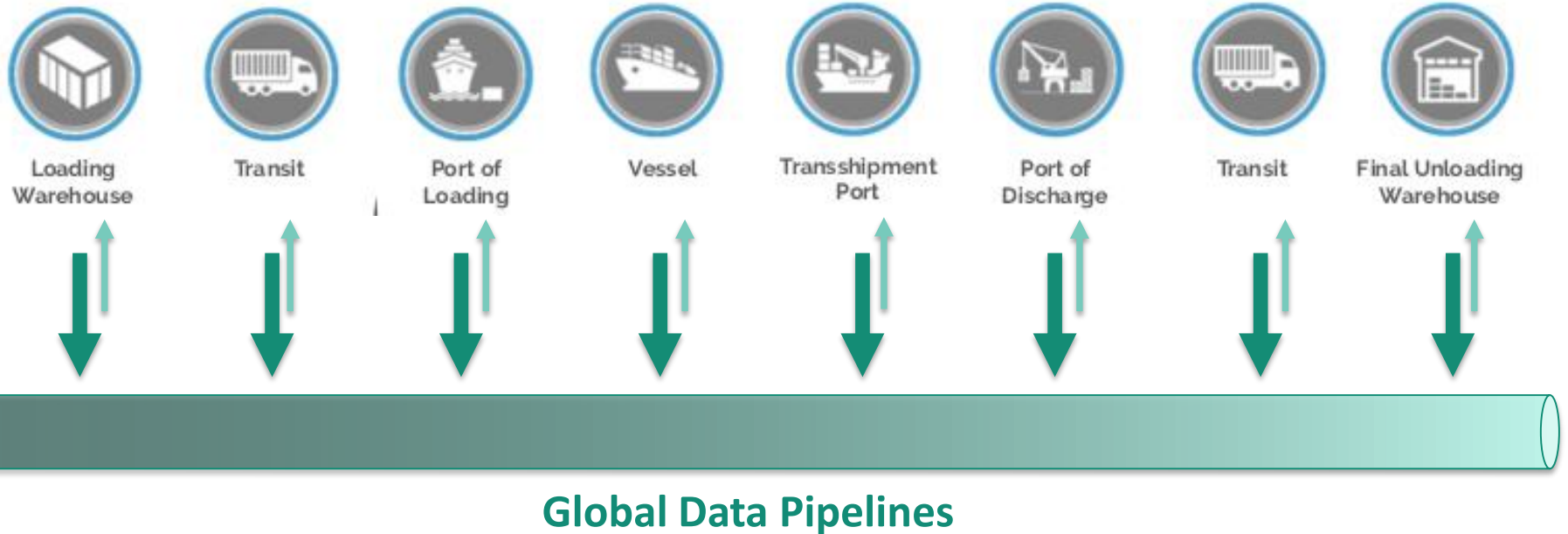


Global Data Pipelines

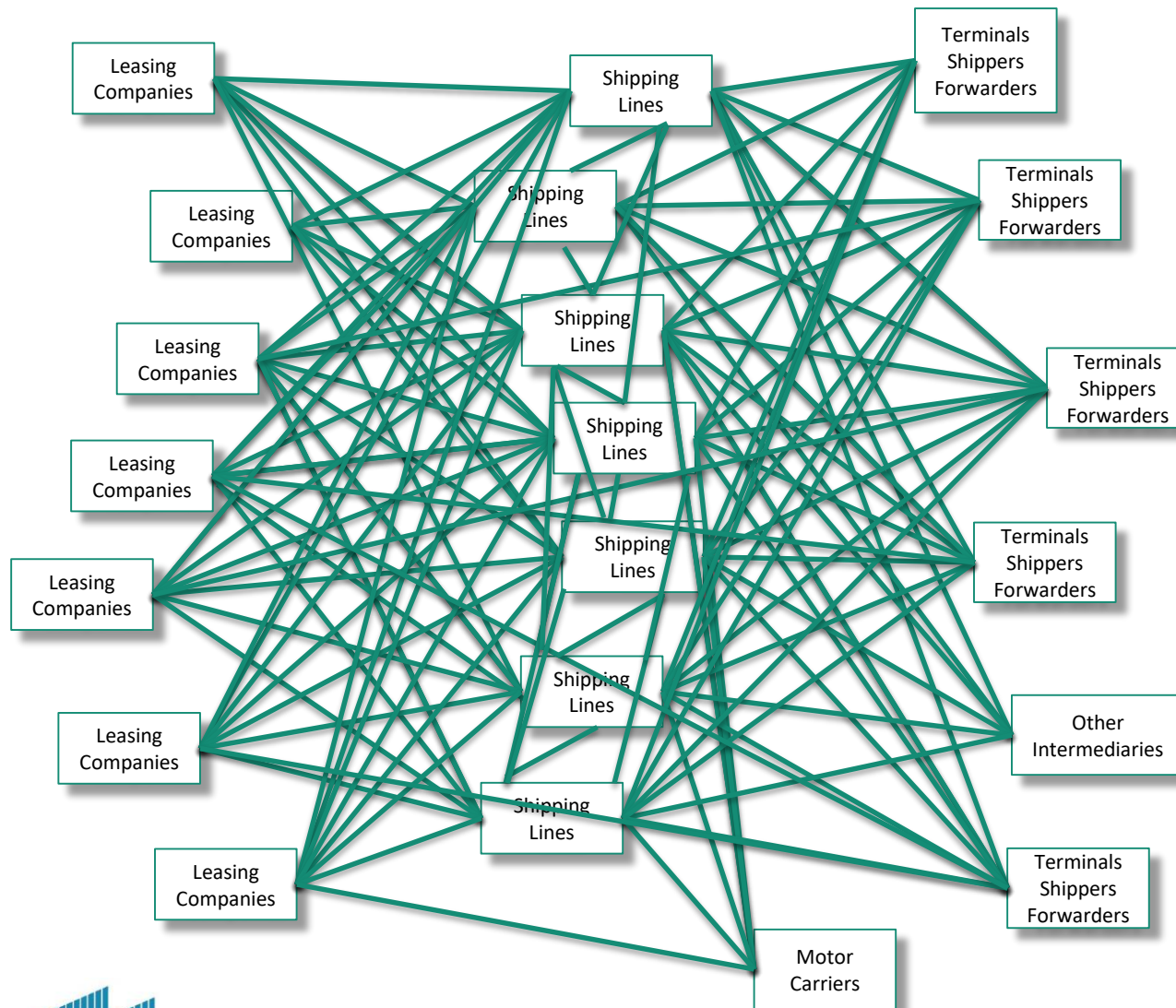
GOVERNANCE RULES / DATA OWNERSHIP



Enabling Smart Containers



What is this container?



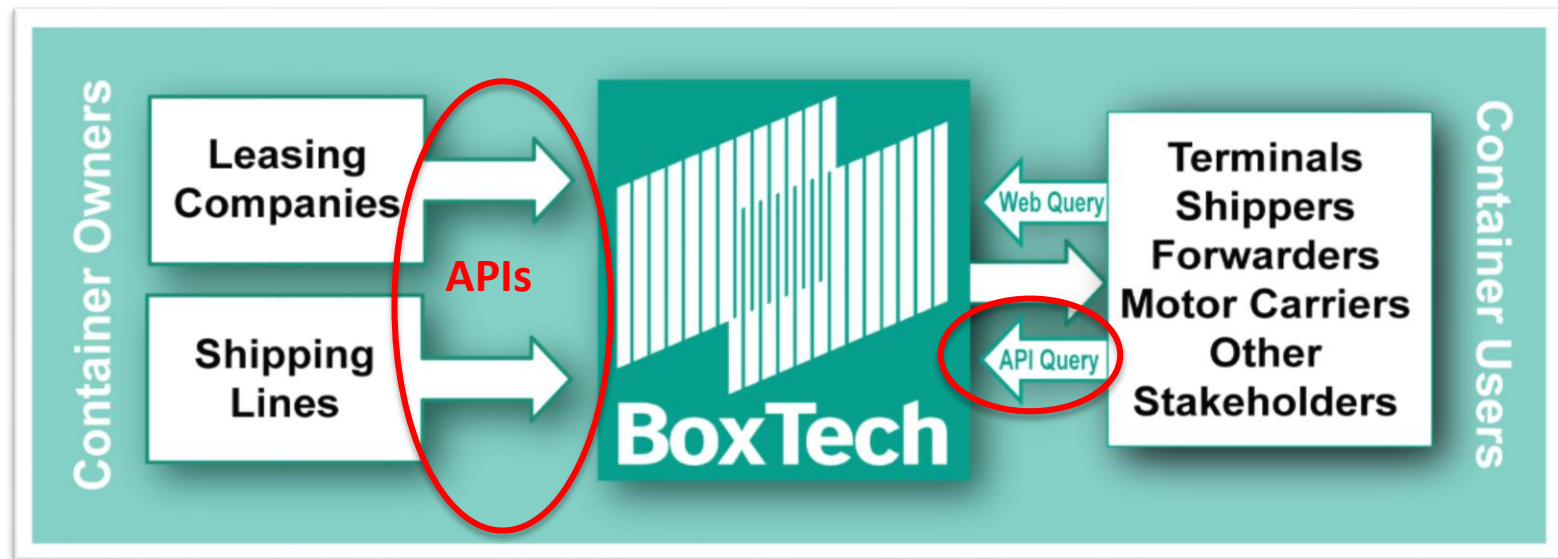
Container Owners

- Receive multiple inquiries via phone and email; employees are being used for non-core business
- Processes are not in place for sharing key data
- Building/maintaining an online database is not core business

Container Users and Intermediaries

- Must access multiple sources not always knowing who to contact
- Manual re-keying of data
- New processes needed for non-core business

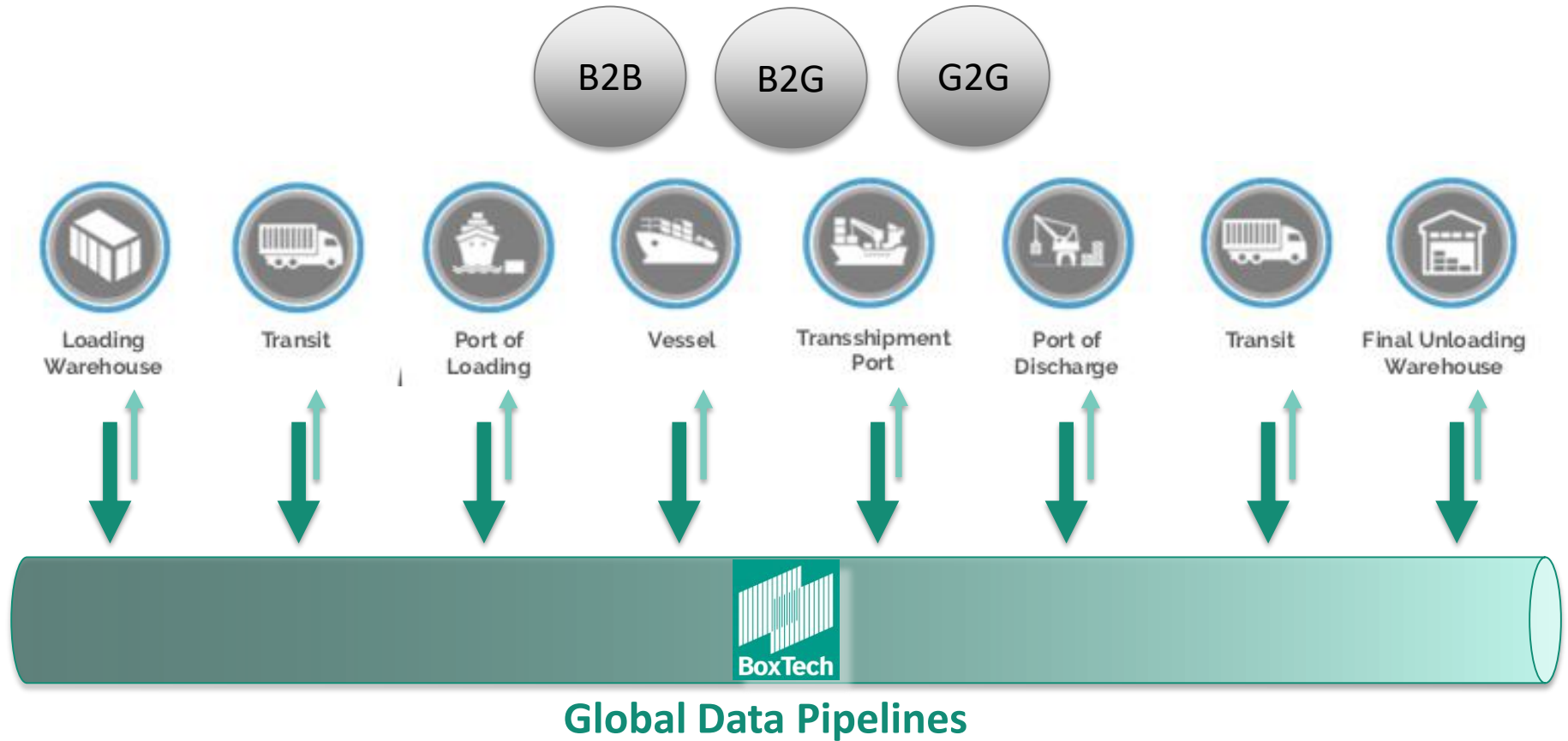
Centralized, Neutral Database for all parties



22G1		
MAX.GR.	30,480	KG
	67,200	LBS
TARE	2,200	KG
	4,850	LBS
NET	28,280	KG
	62,350	LBS

- Container characteristics
- Recovery Units / Alerts
- Sold unit flags
- Current operator

Enabling Smart Containers



B2B

B2G

G2G

Adoption of Industry Standards

- **ISO**
- **UNCEFACT**
 - White Paper on Smart Containers with use cases

- **WCO**
 - Mini-Group on Smart Security Devices for Containers
 - Data Model
 - ?



High potential for mutual benefits:

- Security
- Interoperability
- Facilitation of legitimate trade

***Key to green lanes
& AEO***

End-to-end supply chain visibility



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