



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري
Arab Academy for Science, Technology & Maritime Transport



The 6th International Maritime Transport and logistics Conference

GLOBAL INTEGRATION IN PORTS FUTURE OPPORTUNITIES

19 - 21 March 2017 Hilton Green Plaza hotel - Alexandria

Global Port Networking Trends: New Future

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MARITIME TRANSPORT**

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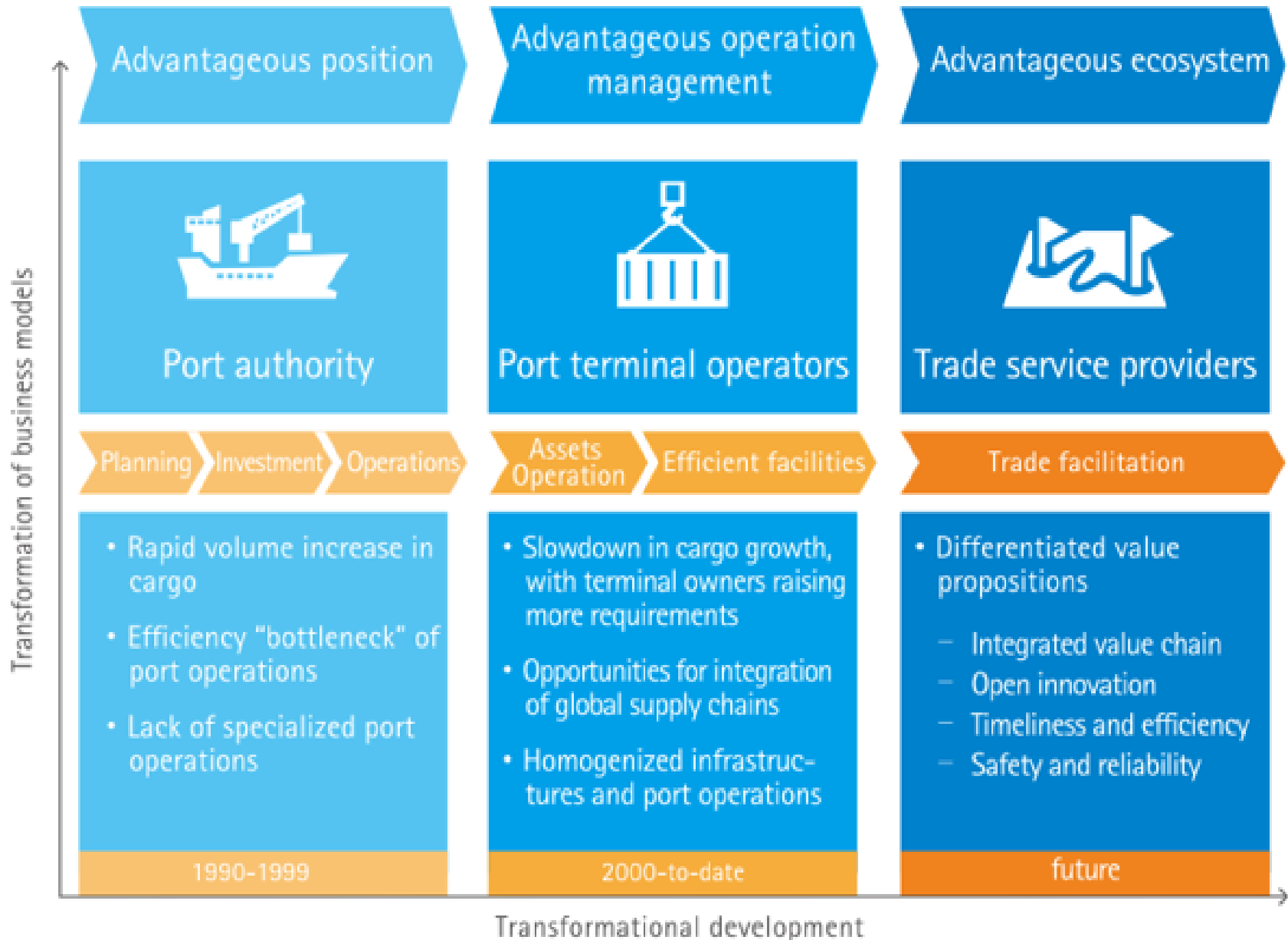
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1. Introduction

1. The trend toward upgrading and transformation
2. Technological innovation and division of labour
3. Specialized port operators
4. Ports evolved from trade centres to logistics hubs
5. Lax regulatory control
6. Logistics integration
7. Refocus on value innovation

-
- All major ports worldwide have begun to explore upgrading and transformation initiatives.
 - Create differentiated value propositions and gain competitive advantages





2. Port Reforms

1. To improve productivity
2. To obtain financial autonomy
3. To rationalize port structures
4. To minimize bureaucratic intervention
5. To diminish the role of government
6. To become more business-orientated in order to be able to compete in the free market
7. To deregulate the labour market
8. To attract private capital

3. Supply Chain and Ports

1. Value added services.
2. Information and communication technologies.
3. Performance measurement indicators.
4. Logistics concepts of 'lean' and 'agile'.



Integration is Key

4. Upstream Ports

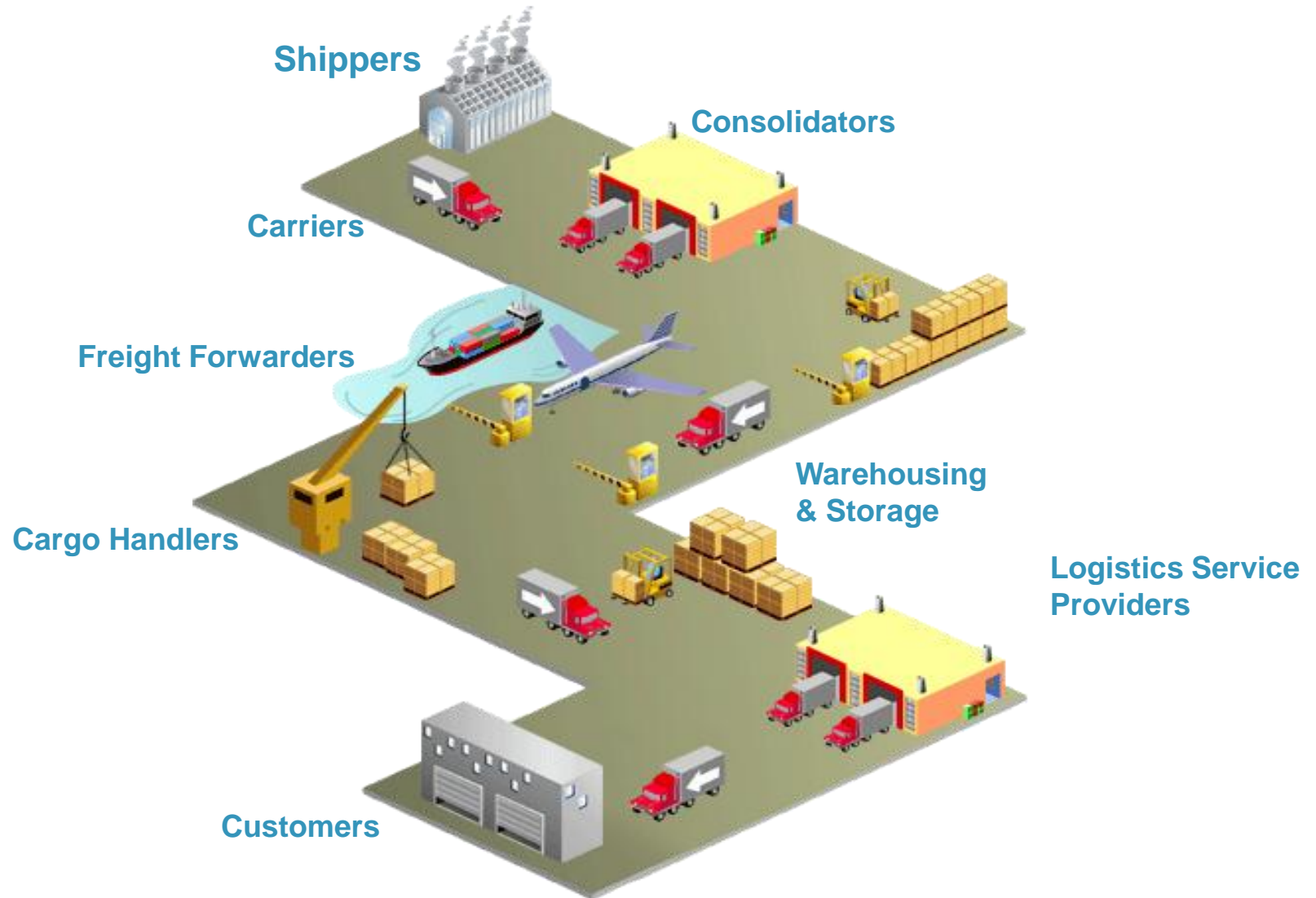
1. Use of Technology for Data Sharing
2. Relationship with Shipping Lines
3. Mode Integration
4. Relationships with Inland Transport Providers

Concept of port integration in supply chains

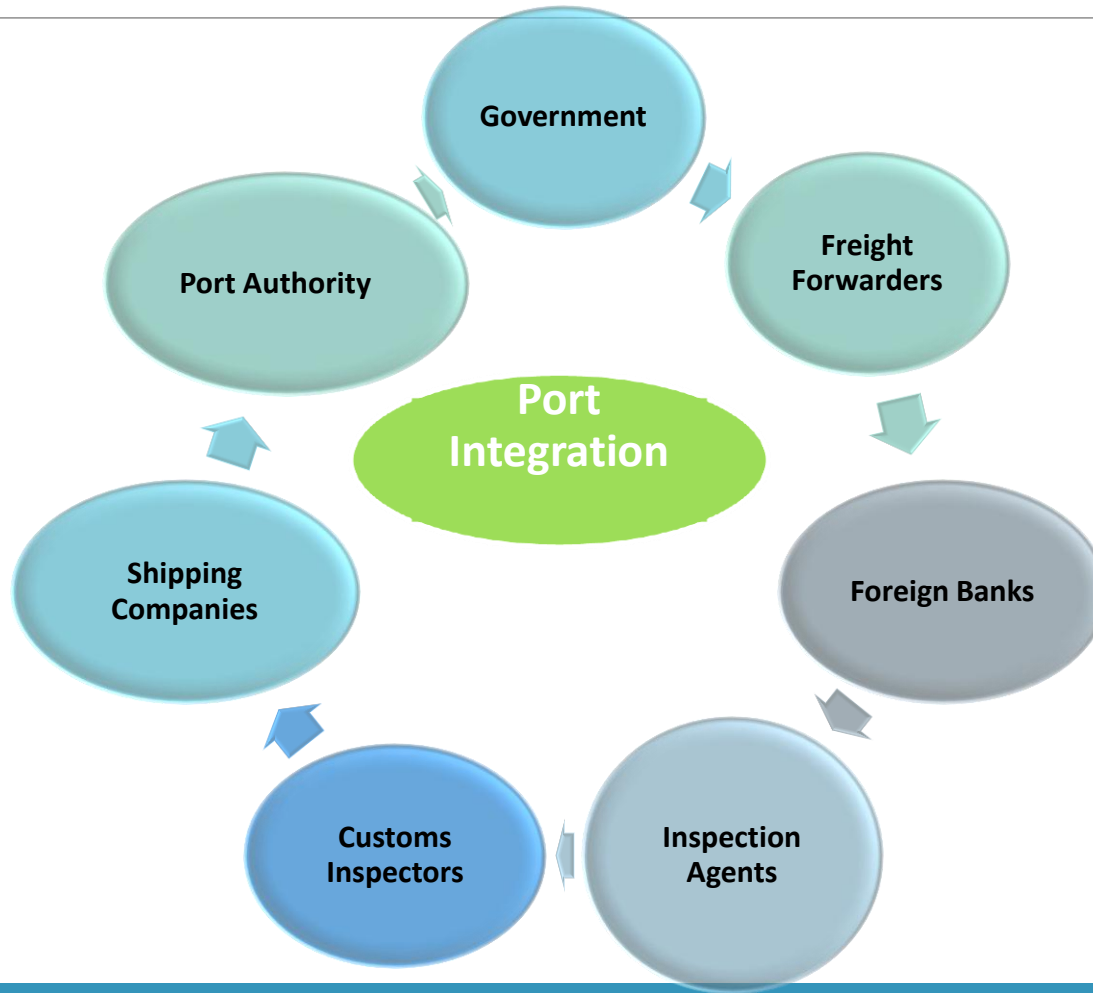
5. Upstream Ports Challenges

1. The supply chain is complex
2. Conflicting objectives between supply chain players
3. The supply chain is a dynamic system
4. The system varies over time
5. Matching supply and demand is difficult
6. Lead times variations and Transportation times
7. Lengthening of the Supply Chain
8. Difficulty & Cost Inefficiencies in Transportation Execution
9. Import/Export Compliance Procedures
10. Disconnect between International and Domestic Transportation
11. Lack of Strong Technology support
12. Lack of Experience and Skill Sets

Global Network



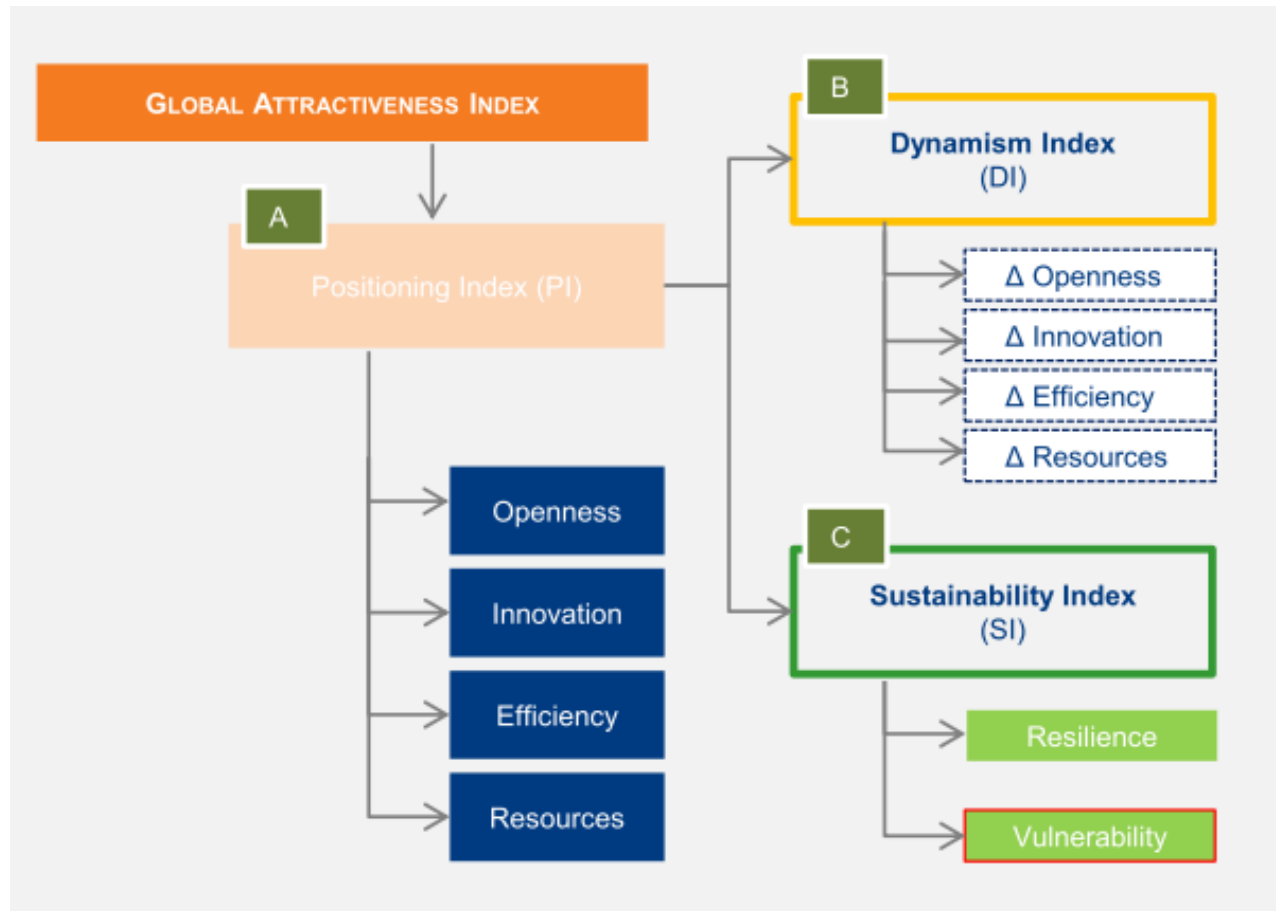
6. Global Port Integration



7. Integration Characteristics

1. Optimal Design of Global Supply Chain
2. Integrated Planning and Execution Processes
3. Integrated International and Domestic Logistics
4. Global Logistics Visibility
5. Dynamic Logistics Routes
6. Logistics Process Automation
7. Collaboration with Supply Chain Partners
8. Compliance to Changing Regulations
9. Making the Financial-Supply Chain Connection

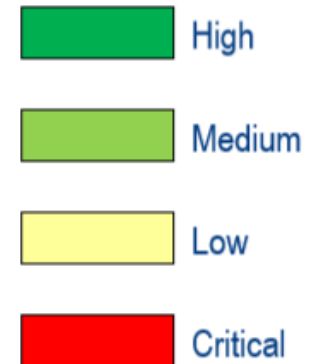
Global Integration Index of Ports







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- A reliable indicator of the Country's attractiveness to the business community and to policymakers
 - Attractiveness is a result of “hard and soft” elements
 1. Infrastructures
 2. Production facilities
 3. Human resources
 4. Expertise
 5. Social texture
 6. Quality and efficiency of the relations and organizational structures

8. Global Attractiveness Index

	Global Attractiveness Index Rank 2016	Country Dynamicity 2016	Sustainability of position 2016	
	PI	DI	SI	
USA	1	High	High	High
Germany	2	High	High	High
Japan	3	Low	Critical	Critical
Canada	4	Low	High	High
Singapore	5	High	Medium	Medium
UK	6	High	High	High
Australia	7	Critical	High	High
Netherlands	8	Low	High	High
Korea, Rep.	9	Medium	Medium	Medium
China	10	High	Critical	Critical
Switzerland	11	Medium	High	High
France	12	Medium	Medium	Medium
Hong Kong SAR	13	High	Critical	Critical
Italy	14	High	High	High



MAROCCO	83	26.2		
PARAGUAY	84	25.5		
GABON	85	25.3		
LAOS	86	24.5		
TIMOR-LESTE	87	24.4		
GHANA	88	24.2		
MACEDONIA	89	24.1		
REP. DOMINICANA	90	23.8		
SERBIA	91	23.6		
KENYA	92	23.4		
BOTSWANA	93	23.3		
MONGOLIA	94	22.9		
CAPO VERDE	95	22.6		
NIGERIA	96	21.9		
ARMENIA	97	21.7		
RWANDA	98	21.6		
EGITTO, REP. ARABA	99	21.5		

-
1. Large terminal shippers and third-party logistics (3PL) providers
 2. Optimizing supply chain networks in response to market demand
 3. Global 3PL has introduced trans-continental, multimodal shipping plans to provide more affordable logistics service
 4. Shipping company alliances require ports to handle large-scale, complex distribution and inter-port coordination
 5. Ports have to upgrade and transform

Cargo owner



Hinterland transportation



loading



Ocean transportation



unloading



Hinterland transportation



Delivery



Connected ports

Digitally-enabled port synchronization, import planning, resource and work flow optimization

Connected ships

Real-time monitoring, operations and availability optimization integrated with key stakeholders

Connected container trucks

Monitor in real time & analyze to support better vehicle, driver, operations & regulations management.

Connected workers

Mobile, safety, tracking analytics and technology to increase worker efficiency

E-Commerce Platforms

Real-time bookings, visibility, price transparency, customs and supplier integration with predictive analytics

Digital supply chains

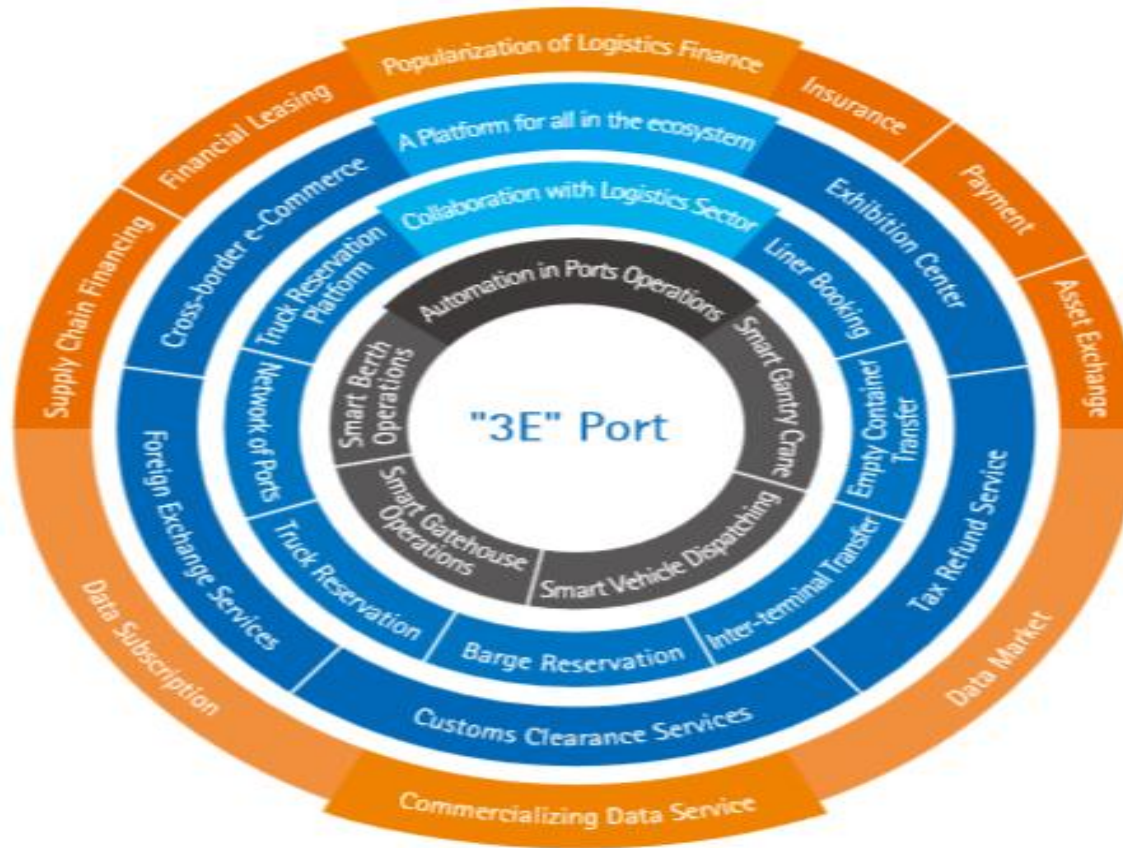
End to end monitoring, analytics, automation and integration across channels and supply chain stakeholders

9. 3Es-Class Port: New Future

- Digital, intelligent and innovative technology
- A connected port transform from a simple logistics and transport node to an open and efficient platform
- Participate in the global landscape of integrated world trade.
- The connected port is a '3E-class' port
- The **3Es represent**:
 1. Excelling for terminal operations
 2. Extending for ecosystem facilitation
 3. Exploring for the new



'3E' Strategic Theme for Integrated Ports



Exploring for the new

Extending for ecosystem facilitation

Excelling for Terminal operations

Strategic Themes for 3E-Ports

	Excel	Extend		Explore	
	Automation in port operations	Collaboration with logistics sector	A platform for all in the ecosystem	Popularization of logistics finance	Commercializing data service
Reliable and convenient customer experience	<ul style="list-style-type: none"> Logistics visualization 	<ul style="list-style-type: none"> Logistics visualization Participatory open innovation 	<ul style="list-style-type: none"> Personalized online services, such as customs clearance, refund and foreign exchange settlement 	<ul style="list-style-type: none"> Financial services based on the needs of logistics scenarios 	<ul style="list-style-type: none"> Visual data services throughout the process
Smart and reliable operation	<ul style="list-style-type: none"> Connected port scheduling Multimodal modal transportation plan 	<ul style="list-style-type: none"> Innovation in logistics transaction services, such as the consolidation center Standardized asset management Seamless connection with the hinterland transport network 	<ul style="list-style-type: none"> Information sharing between government and enterprises Real-time risk warning 	<ul style="list-style-type: none"> Scenario analysis and decision making based on different logistics and financial programs 	<ul style="list-style-type: none"> Real-time smart decision making and analysis based on environmental data
Efficient organization and supply chain collaboration	<ul style="list-style-type: none"> Collaboration and information sharing between connected ports 	<ul style="list-style-type: none"> Collaboration between ports in inland multimodal transport 	<ul style="list-style-type: none"> Collaboration and information sharing between connected ports 	<ul style="list-style-type: none"> Collaboration between industries 	<ul style="list-style-type: none"> Collaboration between corporate innovators

10. Conclusion



Smart gate



Smart shipping scheduling



Smart stowag



Smart vehicle scheduling



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Thank You for Listening

The floor is open for questions

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