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## Innovation and productivity in the maritime industry

Kar Way TAN

Singapore Management University, [KWTAN@smu.edu.sg](mailto:KWTAN@smu.edu.sg)

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# **Innovation and Productivity in the Maritime Industry**

**facilitated by  
Kar Way TAN  
Asst. Professor (Practice)  
Singapore Management University  
School of Information Systems**

# TECHNOLOGY INNOVATIONS – BE “SMART”

Smart City  
Smart Port  
Smart Ship  
Smart Container  
Smart Vehicle  
Smart Crane  
Smart Seabed  
Smart yard

.....



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# MOTIVATION FOR INNOVATION



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- ↑ Turn around time
- ↑ Throughput
- ↑ Process efficiencies
- ↑ Resource utilization
- ↑ (Better) streamlined operations



# ...HOW CAN WE BE READY?

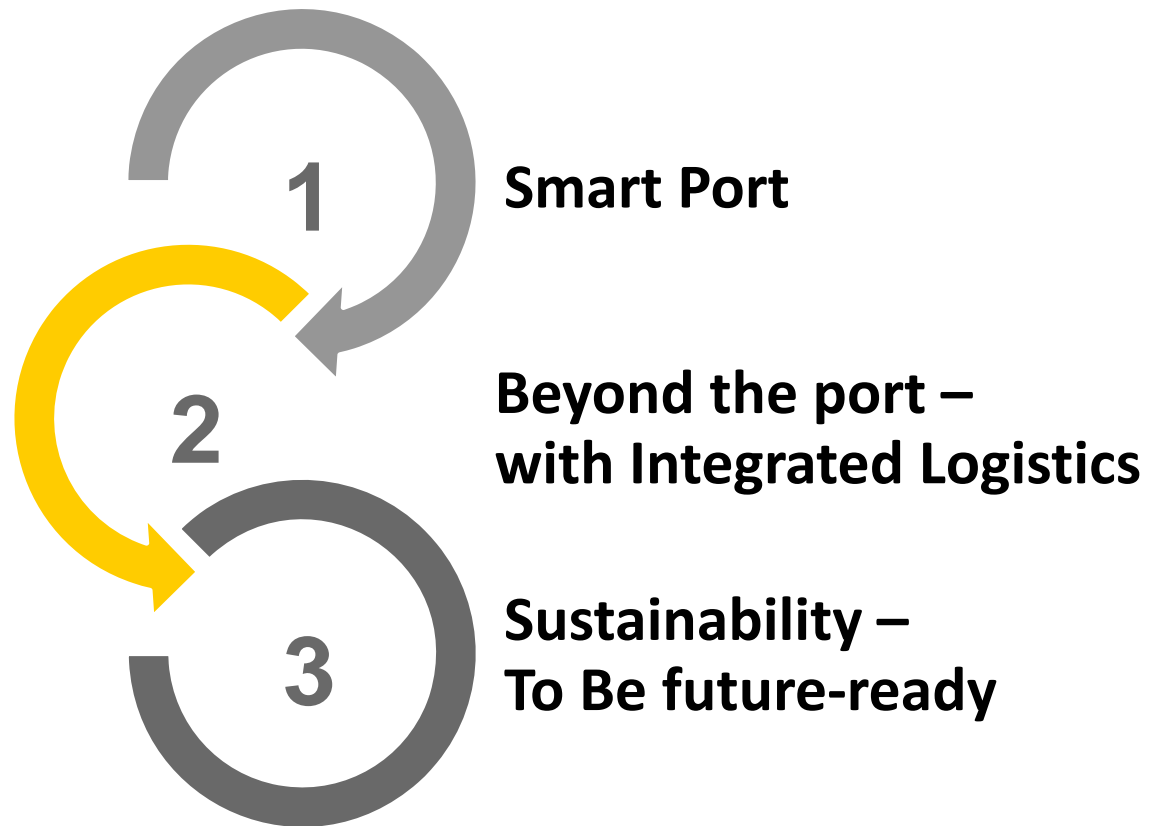


Mindset for shared/integrated services  
Policy-making and decisions  
Expectations

.....

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# DISCUSSION TOPICS



## Technology as Enablers

- ❖ Data Analytics
- ❖ Sensing / IoT
- ❖ Optimization
- ❖ Augmented reality
- ❖ Cloud computing
- ❖ Machine learning
- ❖ Enterprise systems
- ❖ ... many more ...

# DISCUSSION

- 1. Smart port technologies and innovations – What are the examples of innovations that you have seen in enabling smart ports, (for more efficient processes, to make better decisions)?
- 2. Integrated logistics - What are successful examples on integrated logistics (seamless processes between sea operations, ports operations and goods moving in and out of cities) that you have seen? How do data and technology play important roles in enabling integrated logistics for maritime? What are your thoughts about “shared value/shared economy”? Would parties come together to share data? What are the potentials and challenges? What are your thoughts about overcoming the challenges?
- 3. Sustainability – What are the innovations that helps to ensure sustainability (environment, financial, operations)? What are the challenges? Environmental sustainability is becoming essential in the maritime industry, how do the sustainability efforts support productivity? If the sustainability efforts impedes productivity, why? How do we overcome the challenges?