Impact of Digital Technologies: Opportunities and Challenges for Global Shipping Sector
About ASA

**ASA 5 STANDING (5 'S') COMMITTEES since 1992**
- Ship Recycling Committee (SRC)
- Seafarers Committee (SC)
- Ship Insurance and Liability Committee (SILC)
- Safe Navigation and Environment Committee (SNEC)
- Shipping Policy Committee (SPC)

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*Member regions/countries: Australia, China, Hong Kong, India, Japan, Korea, Chinese Taipei and Federation of ASEAN (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam)*
‘Digital Disruption’

A Buzzword in Shipping
‘Digitalisation’

An Opportunity for Future Value Creation
Blueprint for Success: ‘Embracing Digital’

**EXHIBIT 2 | Seven Digital Trends Will Transform Container Shipping**

- **E-PLATFORMS**
  - Online booking
  - Online cargo management
  - Customer personalization
- **ADVANCED ANALYTICS**
  - Network optimization
  - Lead generation
  - Demand forecasting
  - Dynamic pricing
  - Empty-container repositioning
- **INTERNET OF THINGS**
  - Vessel machinery monitoring
  - Reefer container conditions monitoring
- **AI**
  - E-service centers (for example, customer call centers)
- **AUTONOMOUS VESSELS AND ROBOTICS**
  - Automated vessel navigation
  - Automated port calls
- **BLOCKCHAIN**
  - E-bill of lading
  - Payment automation
  - Cargo insurance
- **CYBERSECURITY**
  - Security assurance for customer data
  - Security assurance for automated operations

**Major Impact Areas**
- **Planning**
- **Operations**
- **Commercial**
- **Support Functions**

**Source:** BCG analysis.
Uncertainty remains about the potential effects and reliability of some of new technologies on seafarers, as well as safety, security and cybersecurity of ships.
ICS Study on Seafarers and Digital Disruption

- No shortage in seafarer jobs for next two decades

- Shore-based roles requiring seafaring experience may evolve and compensate changes on board

- Job market looks bright, but training is crucial
Essential Takeaways
THANK YOU

Capt. Ang Chin Eng
Secretary General, ASA
www.asianshipowners.org