

Modernising shipping through digitalisation

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Waves of digital (r)evolution

Digitization



Conversion of physical info to digital form



Digitalization



Improvement of current practices

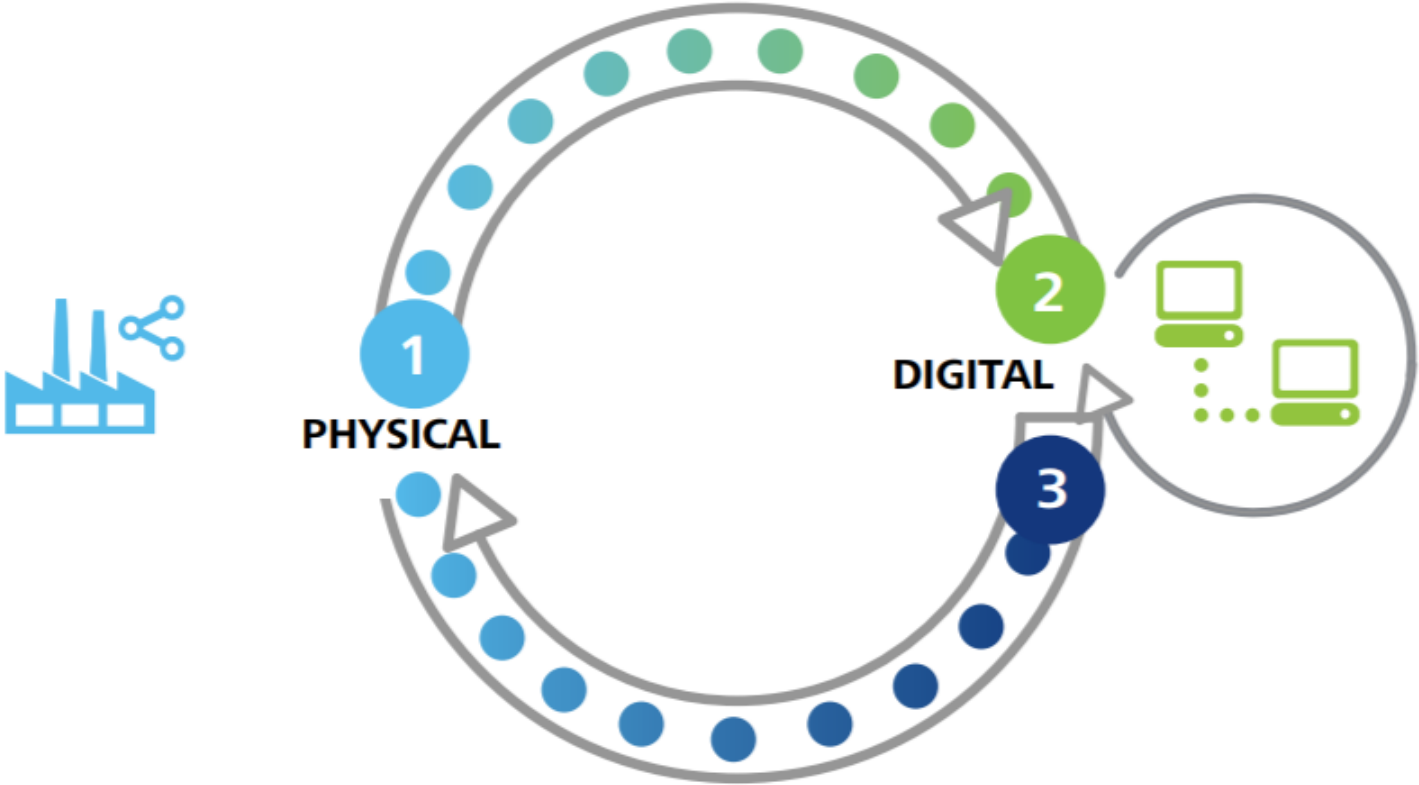


Digital Transformation



New practices, new business models
...new revenue streams

Industry 4.0



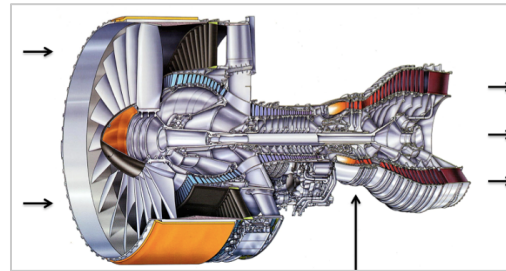
Other industries?

Power Industry



end of 1970's: Digital control technology began in the form of distributed control systems (DCS), which is still predominant until today.
IoT and big data analytics are now widely used for monitoring and risk assessment

Aerospace Industry



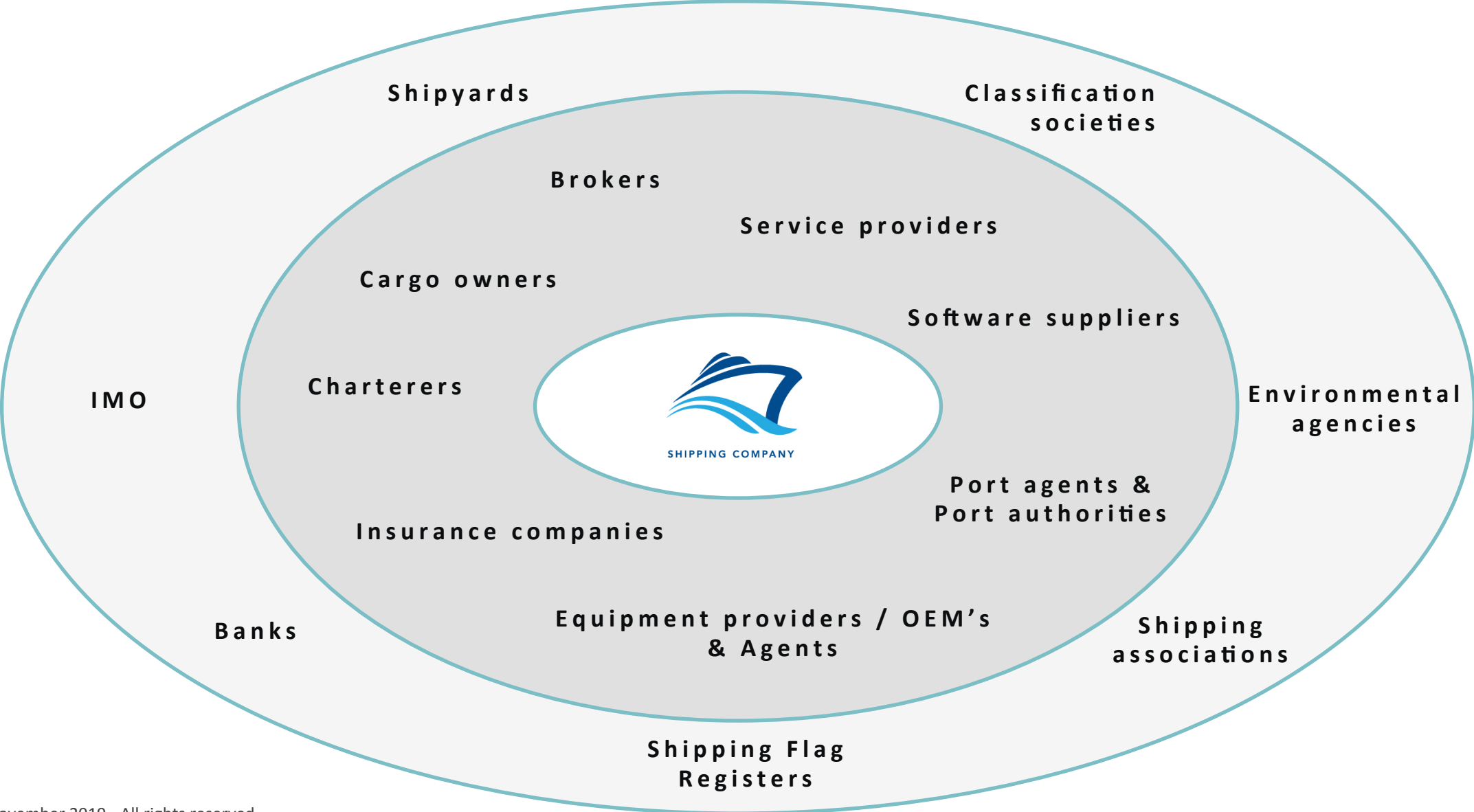
1960's: 'Power-by-the-Hour' (Rolls-Royce trademark) was invented. A complete engine and accessory replacement service was offered on fixed-cost-per-flying-hour, largely based on condition monitoring

Automotive Industry

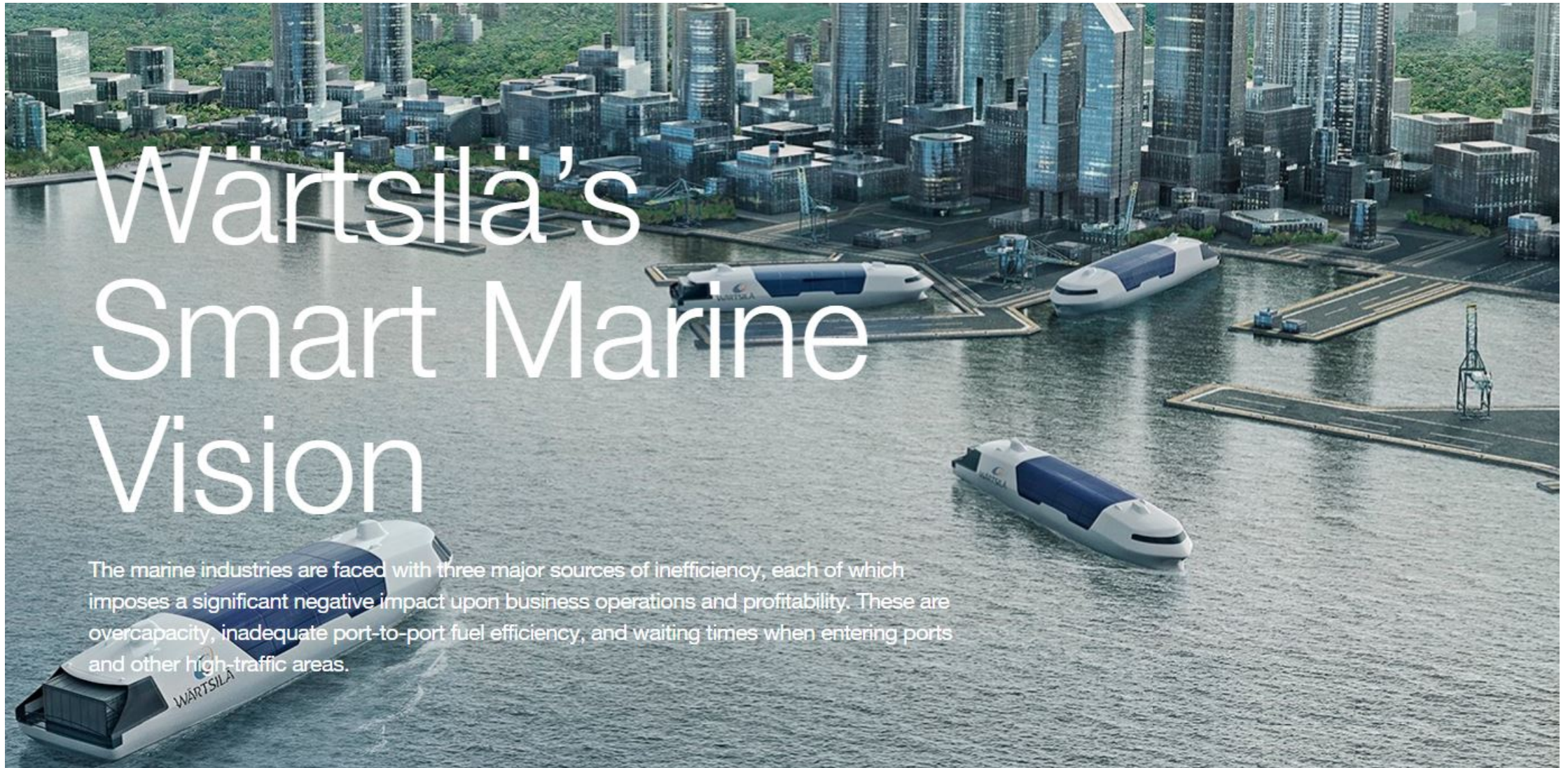


1996: OBD-II becomes mandatory in the US & **2001:** OBD-II also mandatory in the EU, allowing real time enabling monitoring, fault diagnostics, pollutant tracking, fleet management, 'pay-as-you-drive' insurance schemes etc.

Shipping ecosystem



Manufacturers



Wartsila's Smart Marine Vision

The marine industries are faced with three major sources of inefficiency, each of which imposes a significant negative impact upon business operations and profitability. These are overcapacity, inadequate port-to-port fuel efficiency, and waiting times when entering ports and other high-traffic areas.

Ports



SHIPPING

DOING BUSINESS

OUR PORT

PORT AUTHORITY

NEWS

CONTACT

KNOWLEDGE

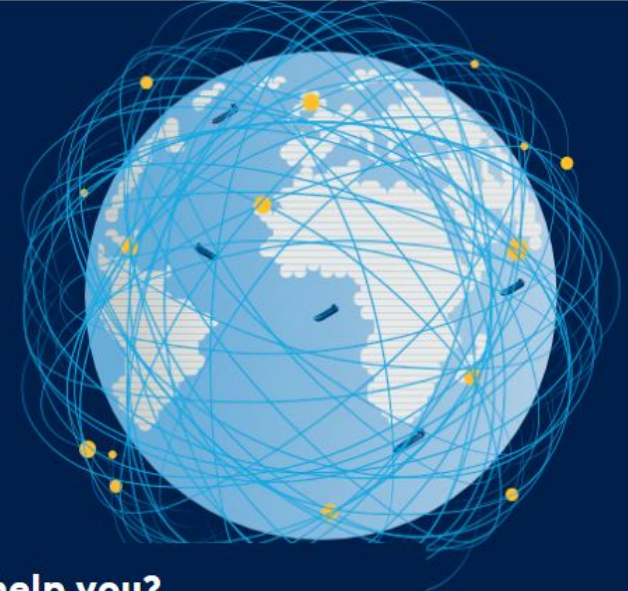
PRESS

EN



IS YOUR PORT READY FOR THE DIGITAL FUTURE?

Find out with the digital quick scan →



How can we help you?

 SEARCH

Most visited

→ ARRIVALS AND DEPARTURES

→ FUTURELAND

→ LOGISTICS

→ SETTING UP

→ ENERGY TRANSITION

→ SAFE PORT

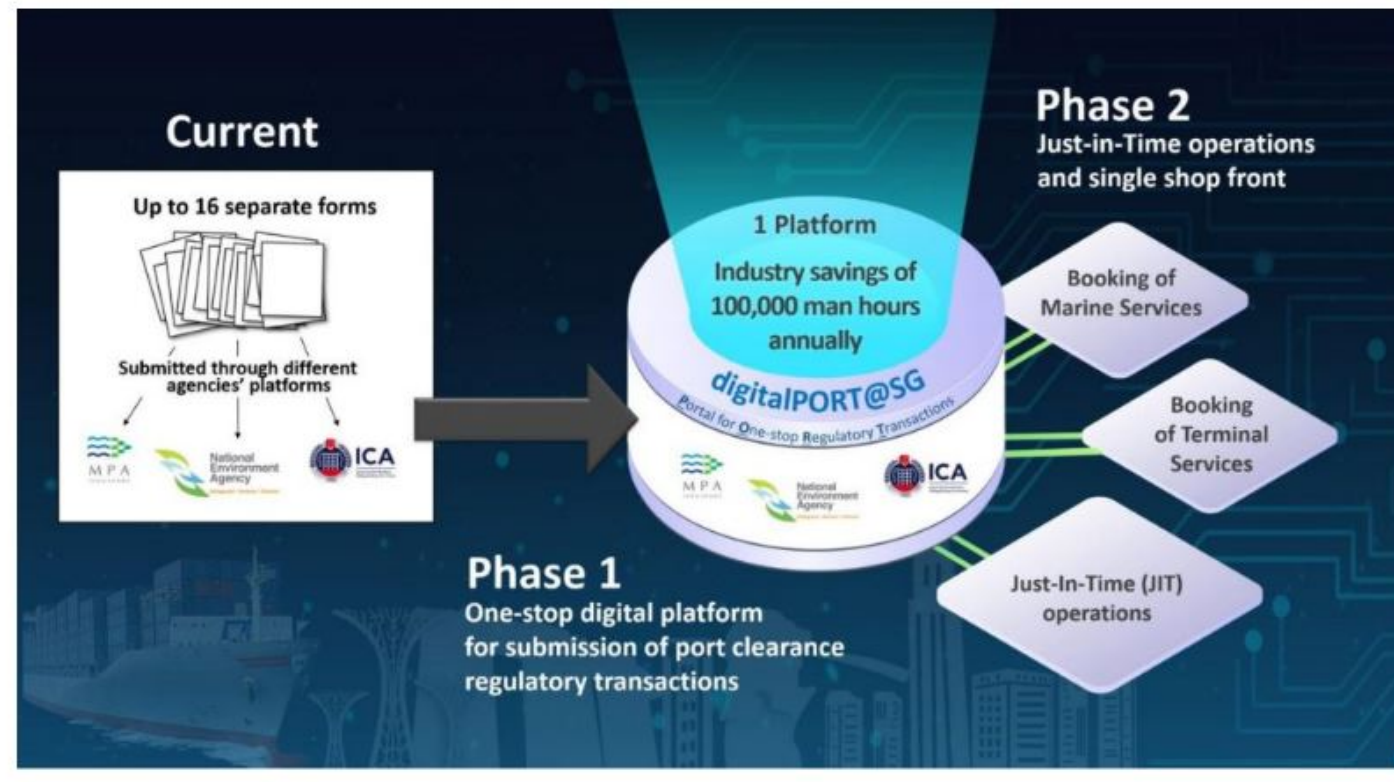
→ DIGITILISATION

→ INNOVATION

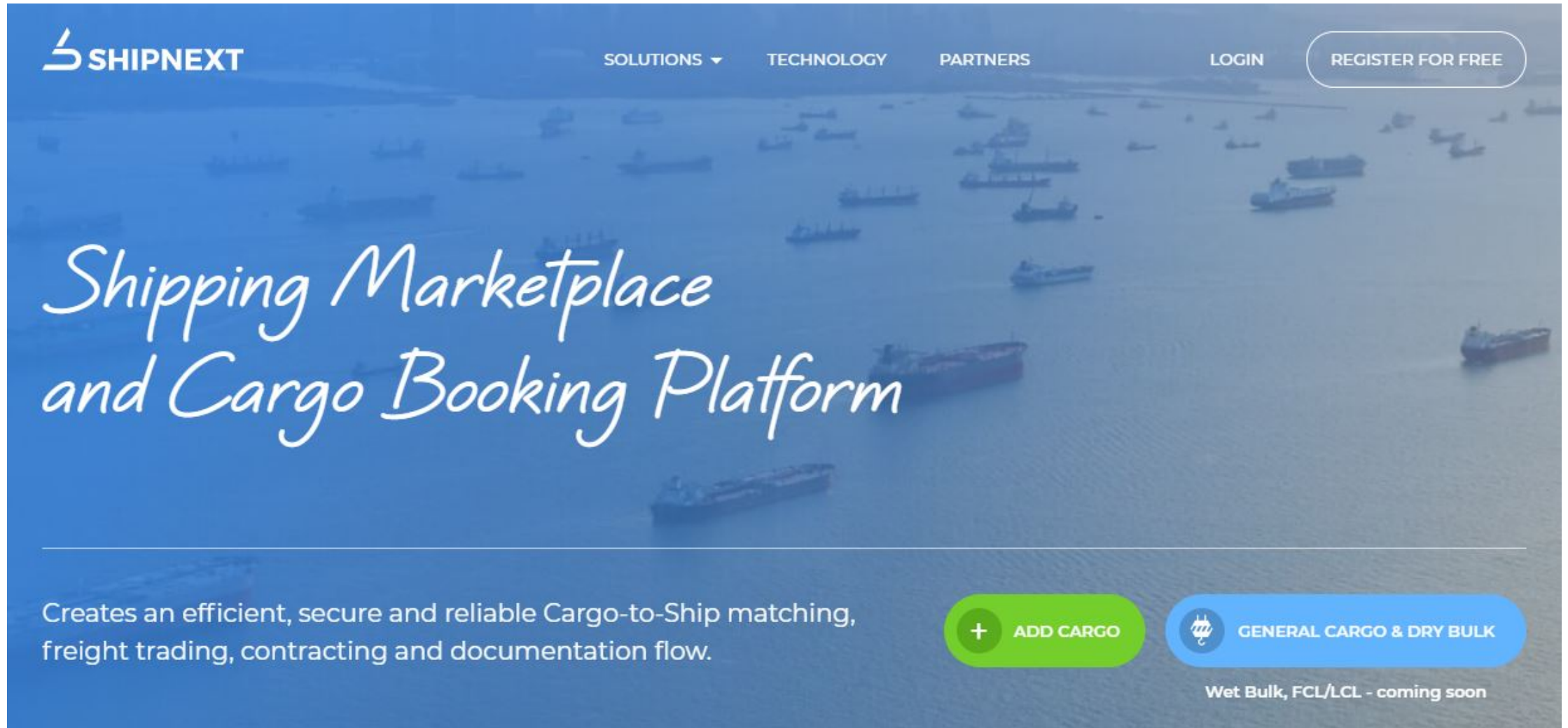
Ports

Singapore launches digital portal to process regulatory transactions

October 30, 2019 in PORTS AND LOGISTICS INTEGRATION



Cargo booking platforms

The image shows a website banner for SHIPNEXT. The background is a blue-tinted aerial view of a large harbor filled with numerous cargo ships. The SHIPNEXT logo is in the top left. Navigation links for SOLUTIONS, TECHNOLOGY, and PARTNERS are in the top center. LOGIN and REGISTER FOR FREE buttons are in the top right. The main headline is 'Shipping Marketplace and Cargo Booking Platform' in a white script font. Below this, a white line separates the headline from a descriptive text block. The text block contains a description of the platform's services and two call-to-action buttons: 'ADD CARGO' and 'GENERAL CARGO & DRY BULK'. A note about 'Wet Bulk, FCL/LCL - coming soon' is located below the second button.

SHIPNEXT

SOLUTIONS ▼ TECHNOLOGY PARTNERS LOGIN REGISTER FOR FREE

Shipping Marketplace and Cargo Booking Platform

Creates an efficient, secure and reliable Cargo-to-Ship matching, freight trading, contracting and documentation flow.

+ ADD CARGO

+ GENERAL CARGO & DRY BULK

Wet Bulk, FCL/LCL - coming soon

Classification Societies

The screenshot shows the ABS website's navigation and content. At the top, there are links for 'My Eagle', 'Contact Us', 'Careers', and 'ABS Group', along with social media icons for Facebook, Twitter, and LinkedIn. A search bar is located on the right. The main navigation bar includes 'Rules & Resources', 'Products & Services', 'Innovation', 'News & Events', and 'About'. The breadcrumb trail reads: 'American Bureau of Shipping (ABS) > Innovation and Technology > Digital Innovation > Condition-based Survey'. The main heading is 'CONDITION-BASED SURVEY'. Below it is an image of a person's hands at a computer workstation displaying complex technical diagrams. To the right, a 'DIGITAL INNOVATION' section lists: 'AI Driven Inspections', 'Autonomy', 'Inspection Technologies', and 'Smart Functionality for Marine and Offshore Assets', each with a right-pointing arrow. A red 'Contact Us' button is positioned below this list. At the bottom, a 'Related Content' section is partially visible.


My Eagle Contact Us Careers ABS Group

Search Eagle.org

Rules & Resources Products & Services Innovation News & Events About

American Bureau of Shipping (ABS) > Innovation and Technology > Digital Innovation > Condition-based Survey

CONDITION-BASED SURVEY



DIGITAL INNOVATION

- AI Driven Inspections →
- Autonomy →
- Inspection Technologies →
- Smart Functionality for Marine and Offshore Assets →

THE LIFECYCLE APPROACH TO SURVEY

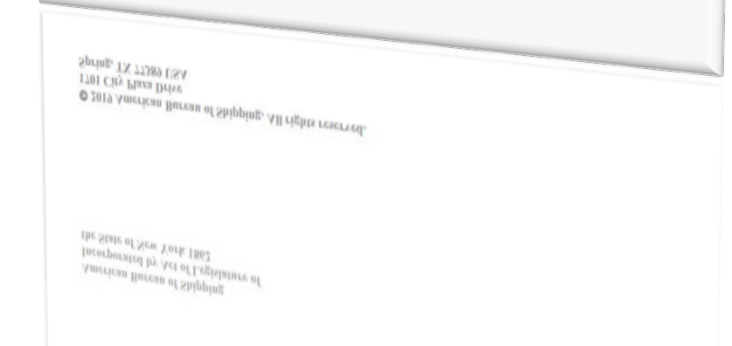
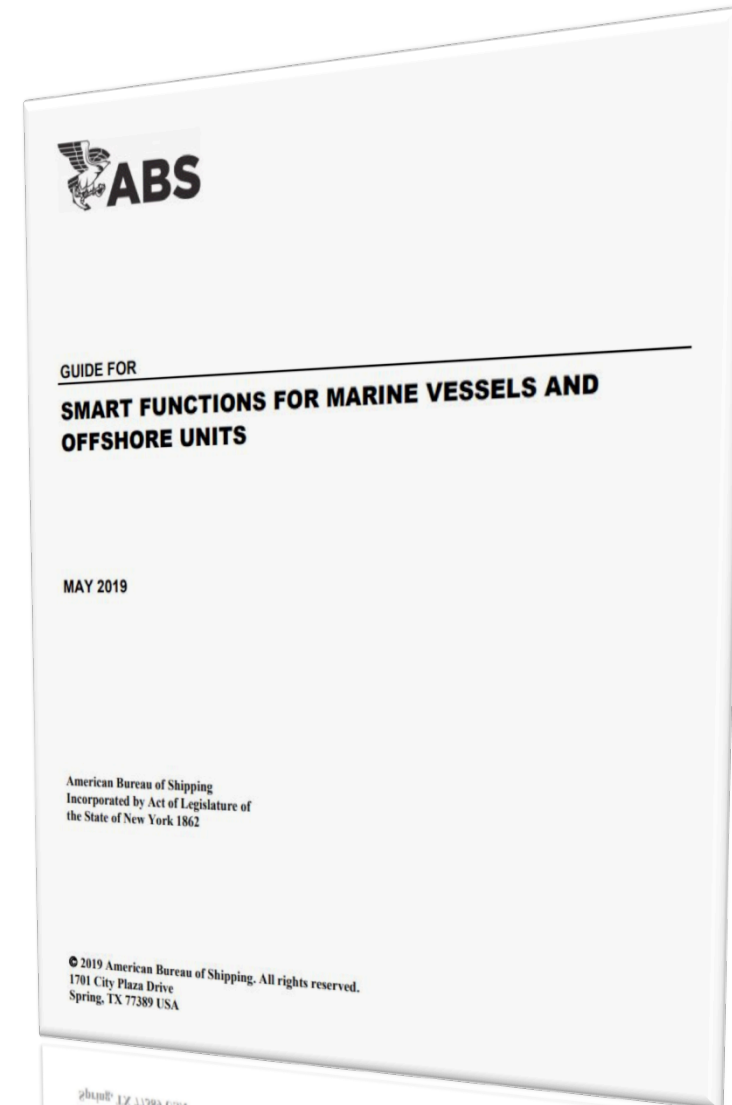
Survey after construction has been on an evolutionary path within the marine and offshore industry via digitalization and the large-scale use of data. The last 20 years have seen advances in how the surveys are conducted based on the actual condition of the asset and issues specific to vessel types and age, along with the condition of protective coatings, corrosion levels, and equipment-condition monitoring playing a role.

Contact Us →

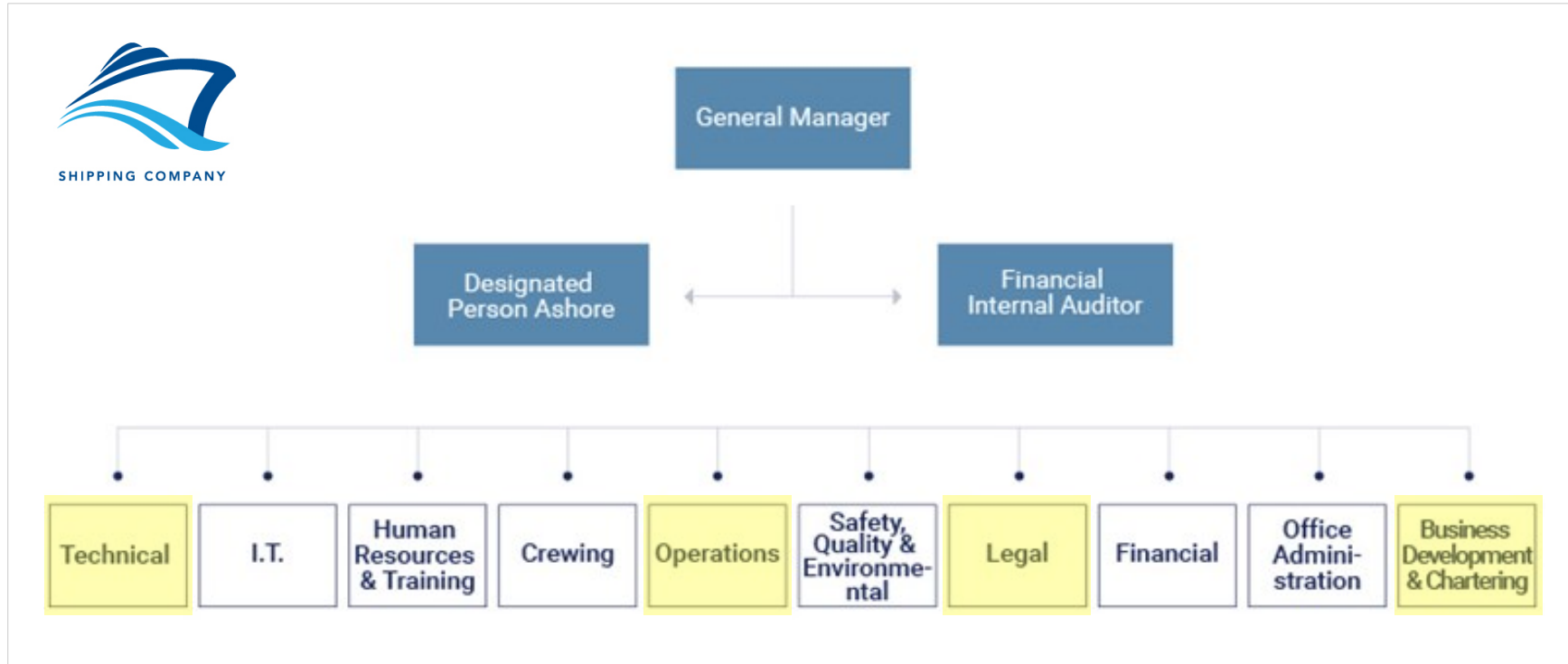
Related Content

Classification Societies

“ABS is introducing this Guide for *Smart Functions for Marine Vessels and Offshore Units* to provide the industry with technical and survey requirements for vessels fitted with Smart Functions”



Shipping company

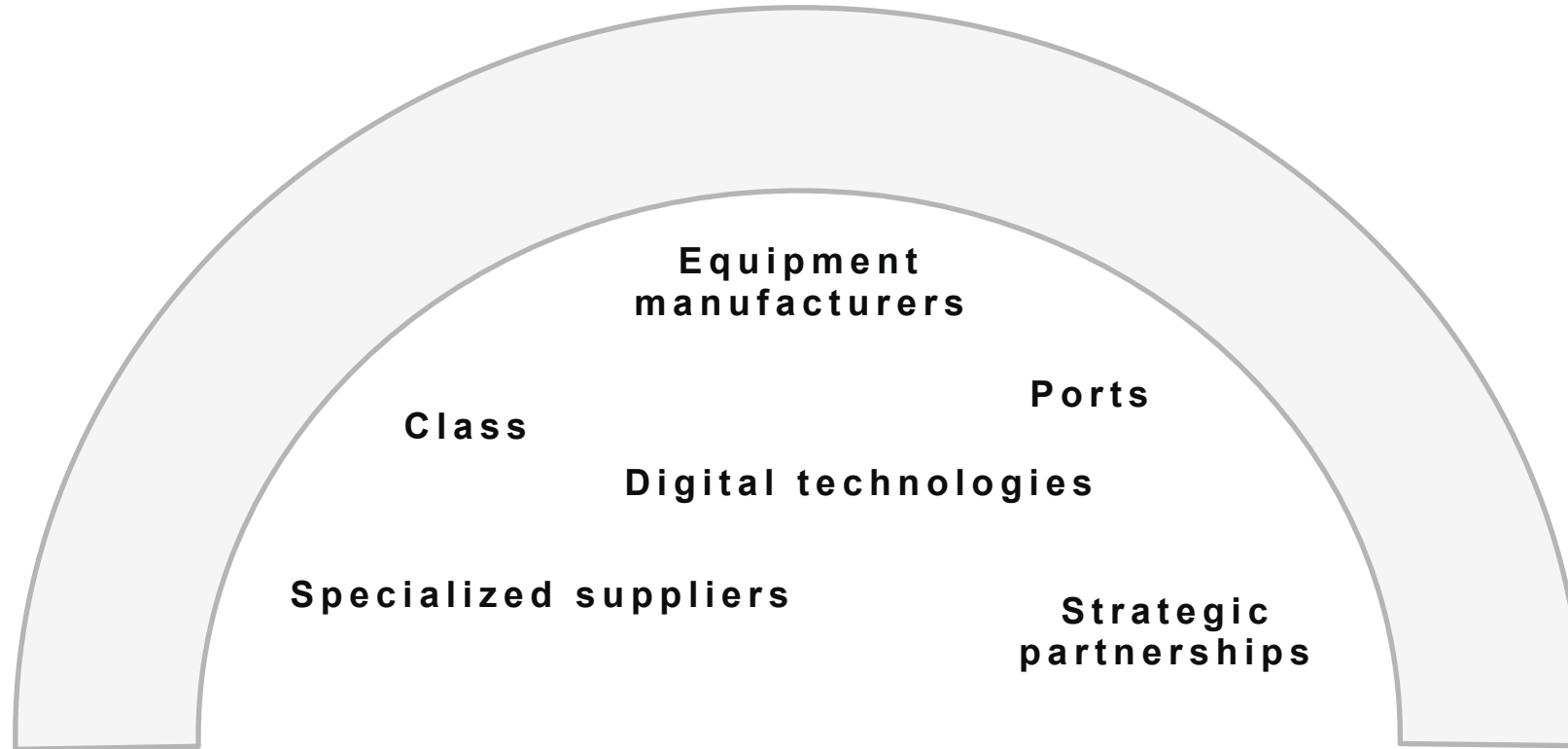


Energy efficiency - Performance
Maintenance planning

Fleet operation optimisation
Charter party monitoring

Compliance monitoring
Claims

Our vision for digitalization



Conclusions

- **Digitalization** in our industry is gaining traction and is becoming a trendy topic of discussion
- Digitalization is expected to be the **next big thing**, once Ballast Water Treatment Systems and IMO 2020 low sulfur regulation issues calm down
- **Players outside the shipping companies**, namely charterers & ports, regulation, and technology itself will act as **catalysts of change**
- Digitalization brings **transparency** – Typically this brings new business models and often re-shuffling of power

thank you!

