

AVEVA PI WORLD

Marine Industry Track

Hosted By: Matthew Miller and David Thomson

AVEVA



Matthew Miller

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WELCOME!!

Marine Industry Track

- Track Talk Lineup & Roundtable Discussion Topic
- Building a digital future across the Marine Ecosystem

Marine Industry Session Schedule

Offered in PDT and CET time zones

| Session Name | Presenter |
|--|-------------------------------------|
| Building a Digital Future Across the Marine Ecosystem | Matt Miller & David Thomson - AVEVA |
| The TS Queen Mary Story - Restoring a British Icon | Iain Sim, Andrew McGibbon |
| AVEVA and ABS My Digital Fleet: Expanding IIoT Capabilities and Smart Operations | Smarty Matthew John - ABS |
| The journey to sustainable and smart port operations | Pablo Giménez– Port of Valencia |
| Building towards a sustainable state-of-the-art grain operation at TEMCO | Kris Stone - TEMCO |
| The Future of Marine Digitization Lies at the edge | Martijn Handles - Helin |
| Live Group Roundtable Discussion | Pre-registration required |

The TS Queen Mary Story - Restoring a British Icon

Iain Sim

Chairman, Friends of TS Queen Mary

Andrew McGibbon

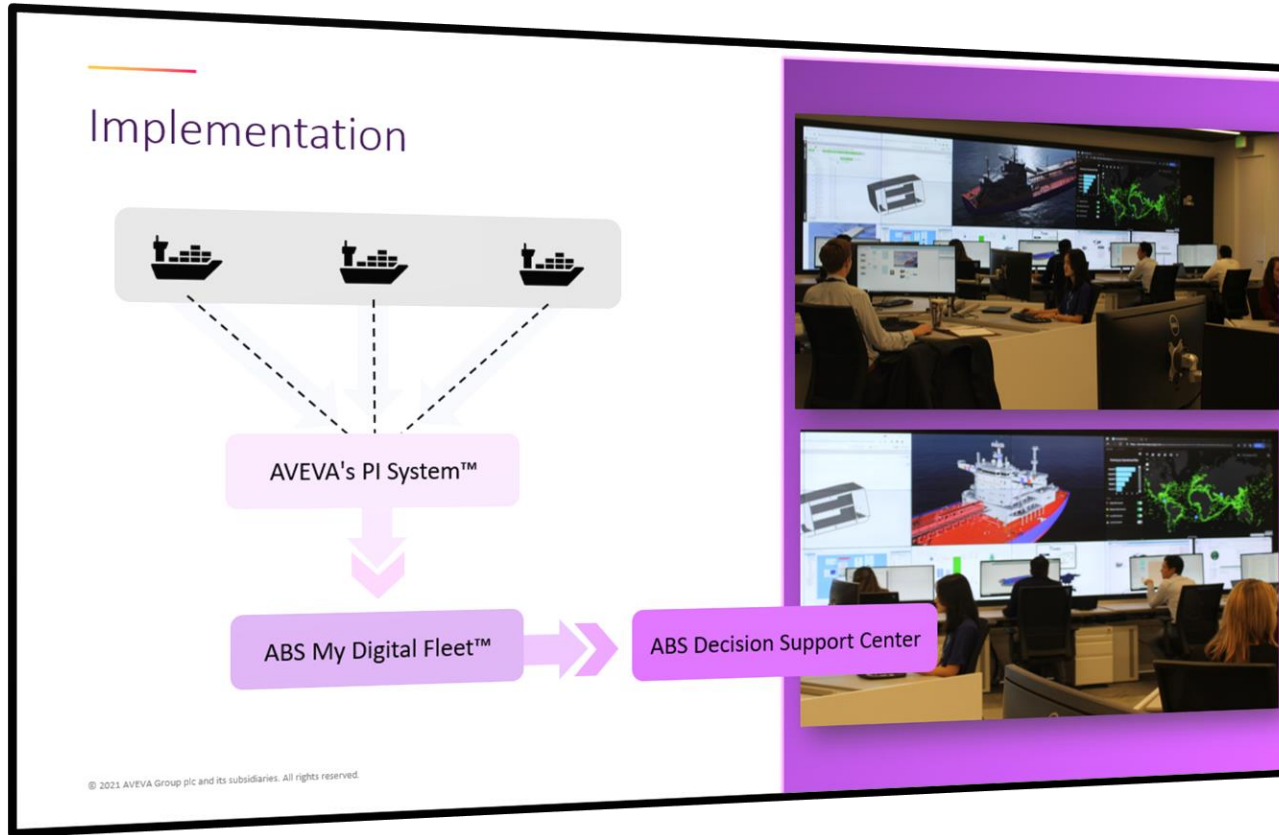
Navel Architect - Brookes Bell

Sustainability + Preservation

- Building a digital Twin from surveys
- Bringing to modern standards
- Becoming a Marine Training Vessel



AVEVA and ABS My Digital Fleet: Expanding IIoT Capabilities and Smart Operations



Smarty Mathew-John
V.P. Digital Solutions - ABS

Sustainability + Performance

Unlocking smarter ship operations:

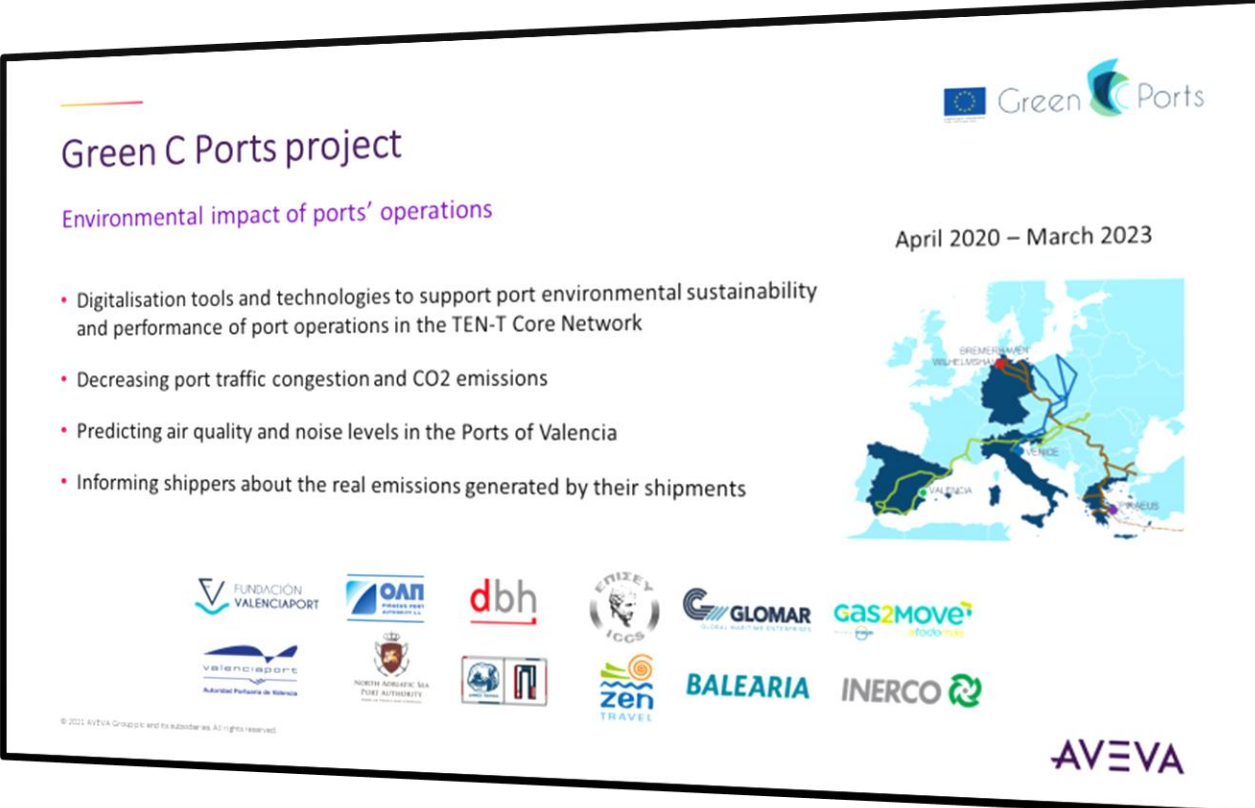
- ✓ Access to real-time IoT data
- ✓ Decision support through advanced analytics
- ✓ Faster retrieval of operational insights

The journey to sustainable and smart port operations at Port of Valencia

Pablo Giménez
Project Manager - Port of Valencia

Sustainability

- Create digital twins of devices and systems
- Visualize data related to specific events
- Managing environmental quality



The slide is titled "Green C Ports project" and focuses on the "Environmental impact of ports' operations". It features a list of four bullet points, a map of Europe highlighting the Mediterranean region, and a row of logos for various partner organizations. The slide is branded with the "Green C Ports" logo in the top right and the "AVEVA" logo in the bottom right.

Green C Ports project
Environmental impact of ports' operations

April 2020 – March 2023

- Digitalisation tools and technologies to support port environmental sustainability and performance of port operations in the TEN-T Core Network
- Decreasing port traffic congestion and CO2 emissions
- Predicting air quality and noise levels in the Ports of Valencia
- Informing shippers about the real emissions generated by their shipments

Logos: FUNDACIÓN VALENCIAPORT, OAN, dbh, ETIXA, GLOMAR, gas2move, valenciaport, NORTH ADRIATIC SEA PORT AUTHORITY, zen TRAVEL, BALEARIA, INERCO, AVEVA

Building towards a sustainable state-of-the-art grain operation at TEMCO

Vessel Loading

- 125+ Vessels per year
- Two ship loading spouts with a loading capacity of 120,000 BPH (3200 MTPH) each
- Capable of loading Panamax and Handymax vessels



Kris Stone - Maintenance and Reliability Leader - TEMCO

Asset Performance and Maintenance

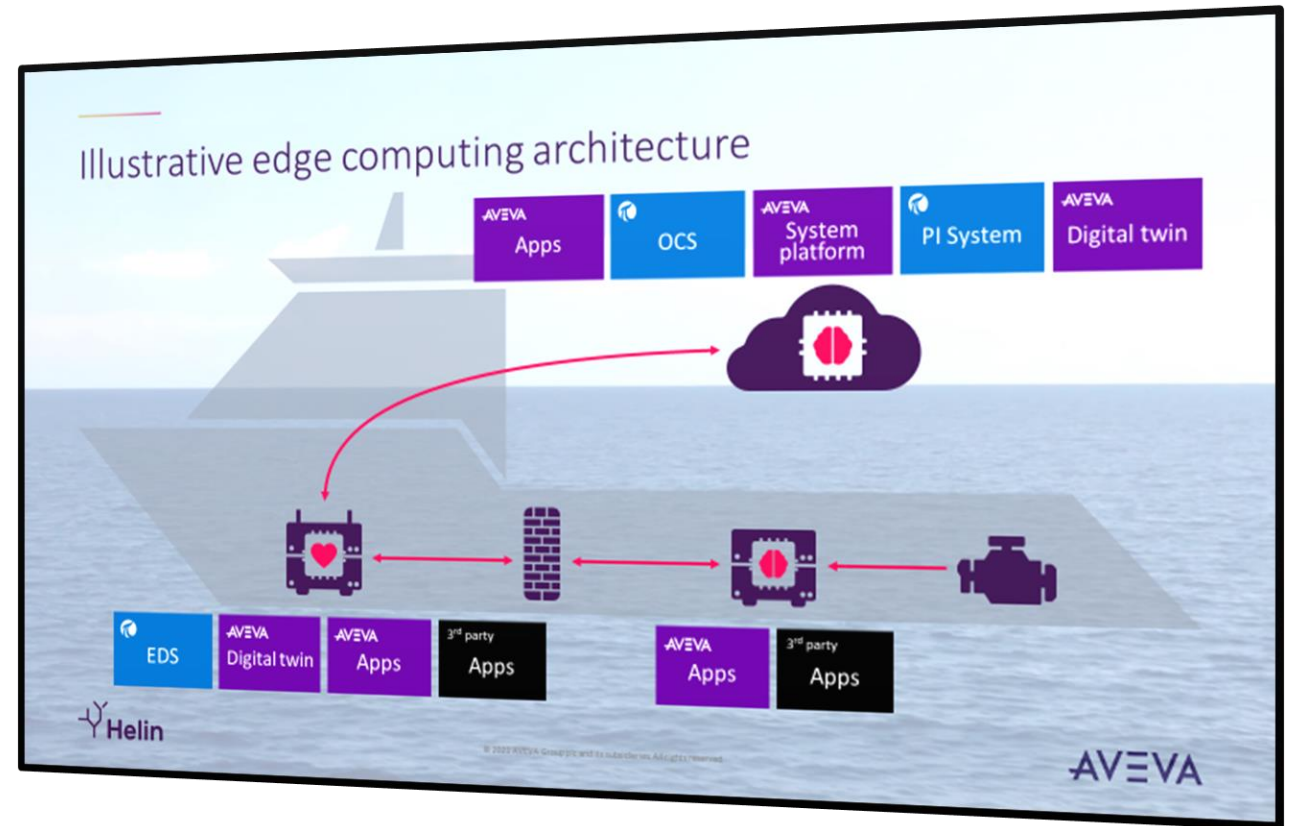
- Terminal Modernization
- Better visibility and response
- Shifting to Condition and Predictive Maintenance

The Future of Marine Digitization Lies at the Edge

Martijn Handels
Technical Director - Helin

Intelligent Performance

- Benefits of Edge AI
- Applications at the Edge
- Framework for Modern Deployment and support



Live Roundtable Discussion

Hosts: Matt Miller or
David Thomson

Building an Intelligent and Resilient Data Ecosystem in Marine operations.



- How are marine operations using data to increase productivity, enhance decision making and reduce wasted time, resources and emissions.
- Group lead topics may include:
 - digital handoff from shipyard to owner
 - collaboration with classification
 - Supply chain optimization
 - Overall operational envelopes
 - many others.

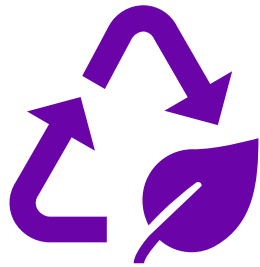
OCTOBER 20TH, 2021

Building a Digital Future Across the Marine Ecosystem

Presented by: Matthew Miller and David Thomson

AVEVA

Marine Industry Track Theme's



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Sustainability

- DRIVING TO A ZERO CARBON FOOTPRINT
- LOWER ENERGY USE
- MINIMIZING ENVIRONMENTAL IMPACTS

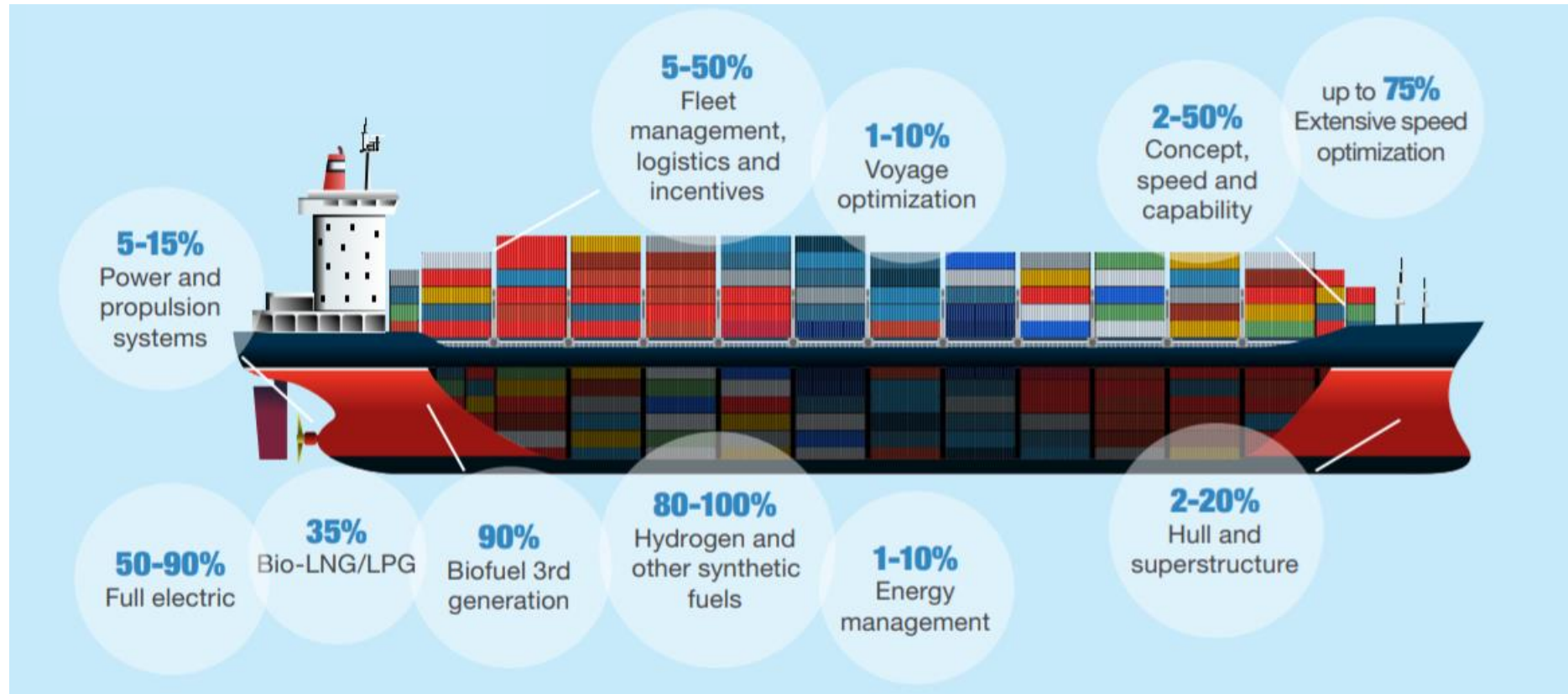
Performance

- ASSET AVAILABILITY AND UTILIZATION
- EFFICIENCY AND THROUGHPUT
- END-TO-END SUPPLY CHAIN OPTIMIZATION

IMO 2050 Goal - Zero GHG Footprint

How will the industry achieve this goal?

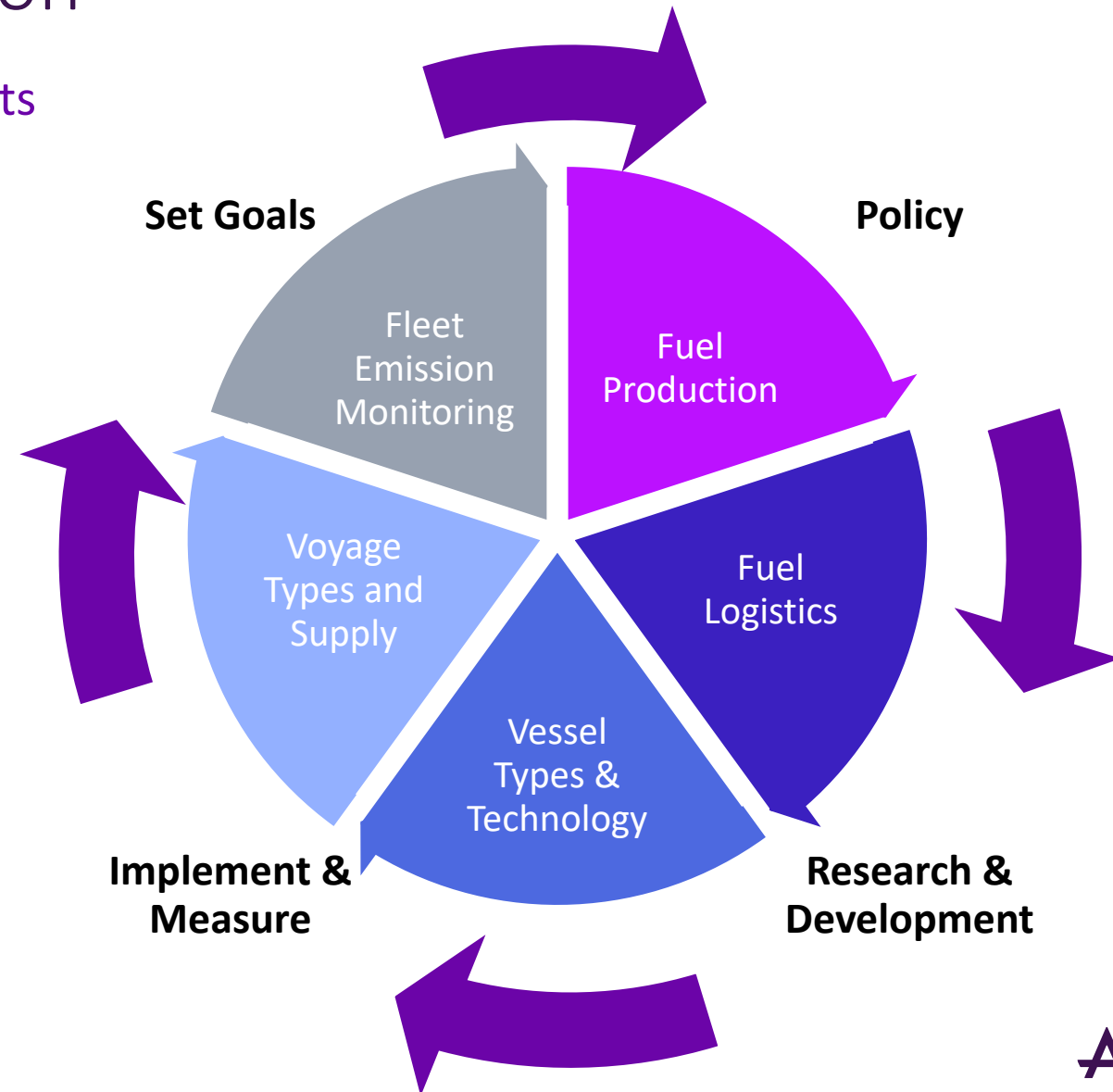
- ✓ SHIP DESIGN
- ✓ NEW FUELS
- ✓ OPERATIONAL EFFICIENCIES



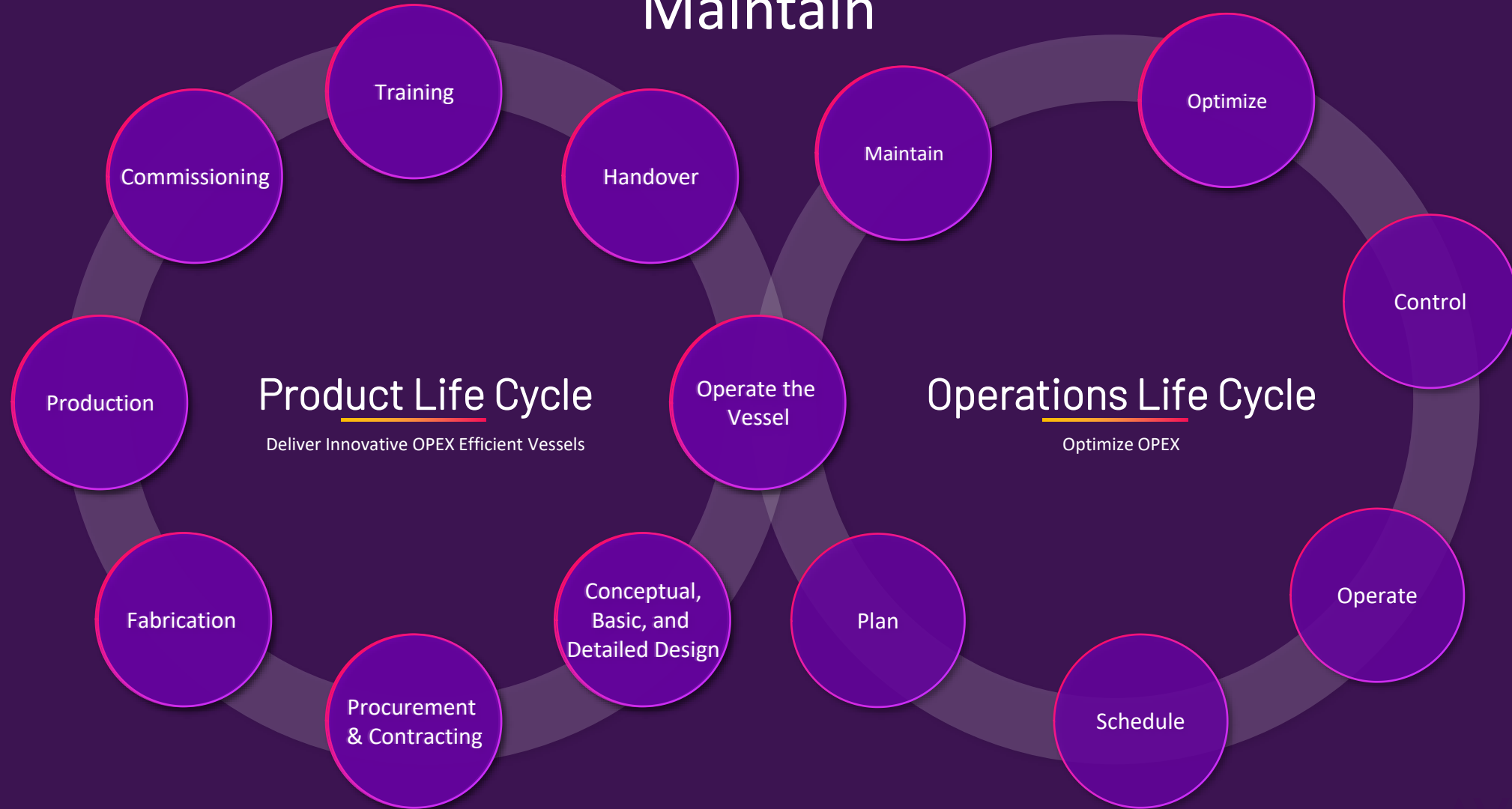
Source IMO Action to reduce GHG emission from International Shipping pamphlet

Sailing Toward Zero Carbon

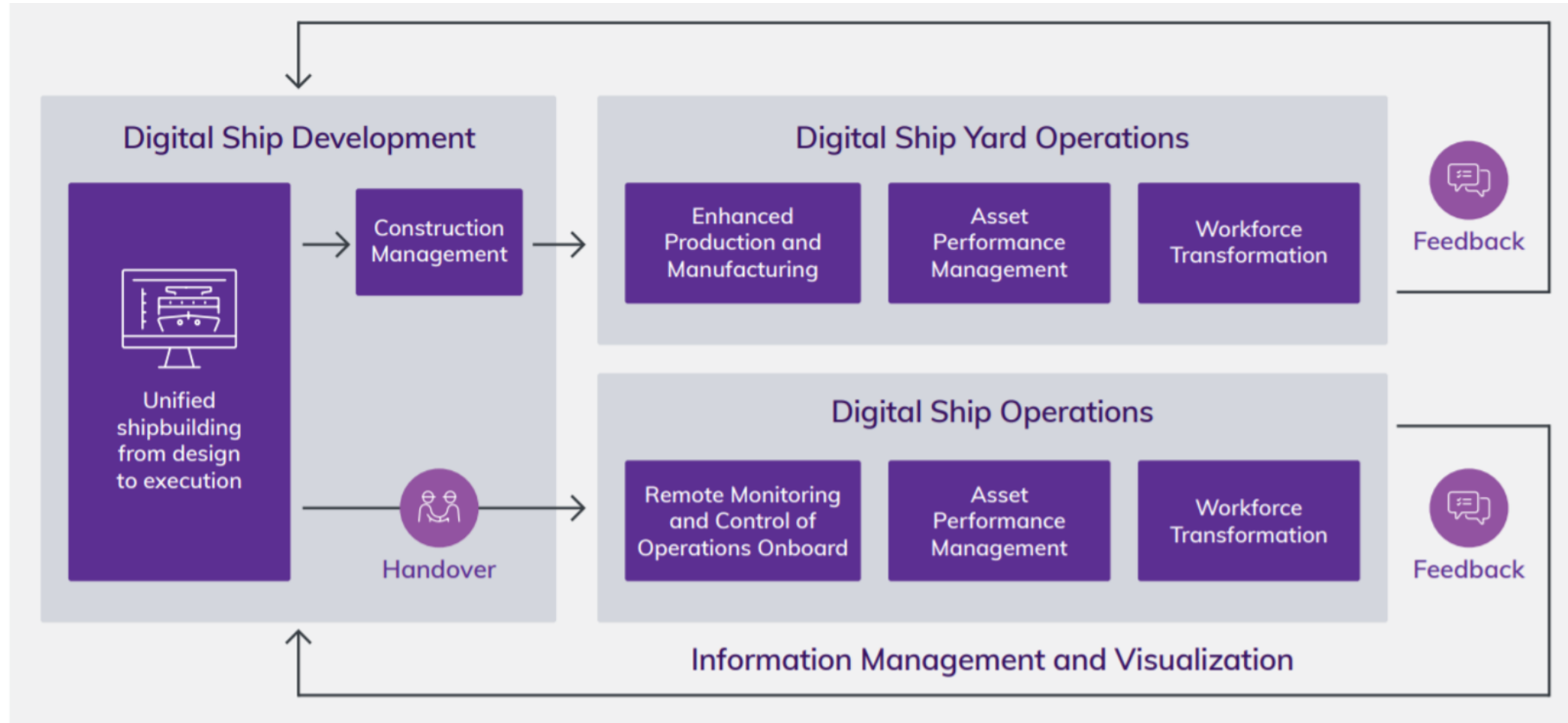
Required both continuous improvements
and step changes across the ecosystem



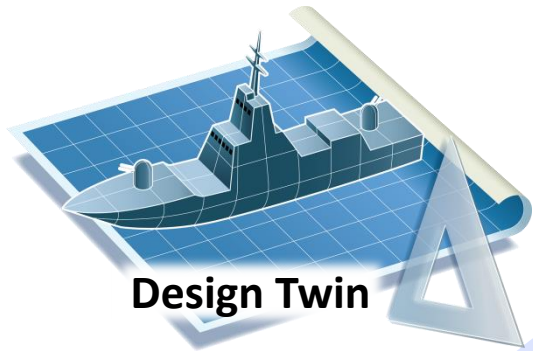
Vision - Complete 360° Digital Thread: Design, Build, Operate, Maintain



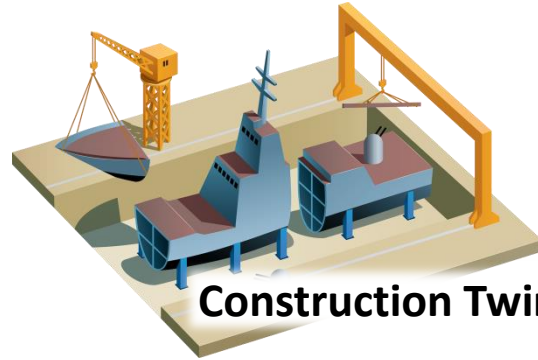
AVEVA's Marine Industry Vision- Vessels



Digital Twin Phases



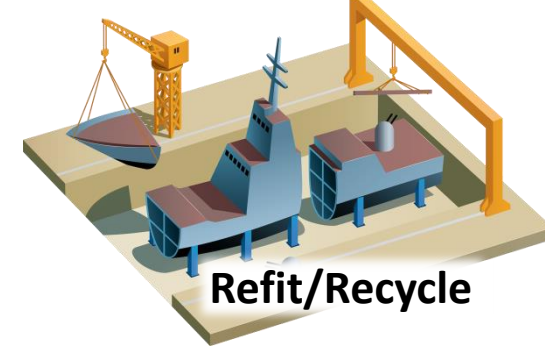
Design Twin



Construction Twin



Operations Twin



Refit/Recycle

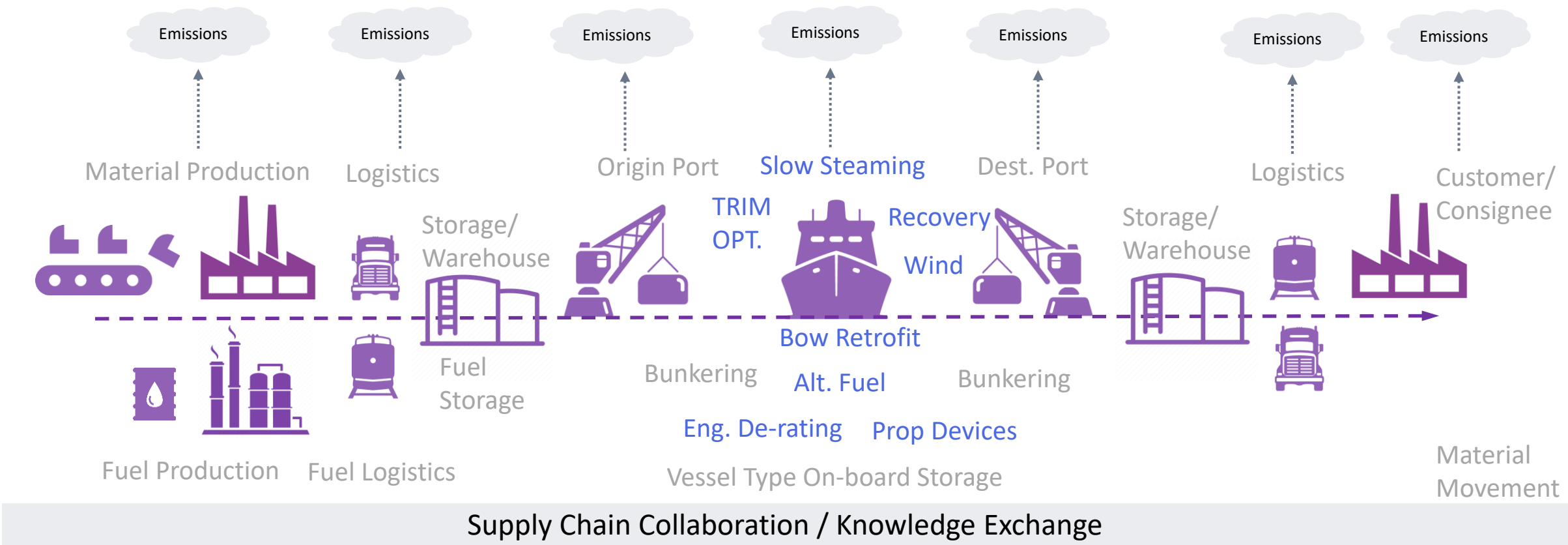
Capture as built digital assets in the project phase and use to optimise design and build for operations

Handover of IPR neutral digital asset into operations with assured data quality and Operations ready maintainable data sets

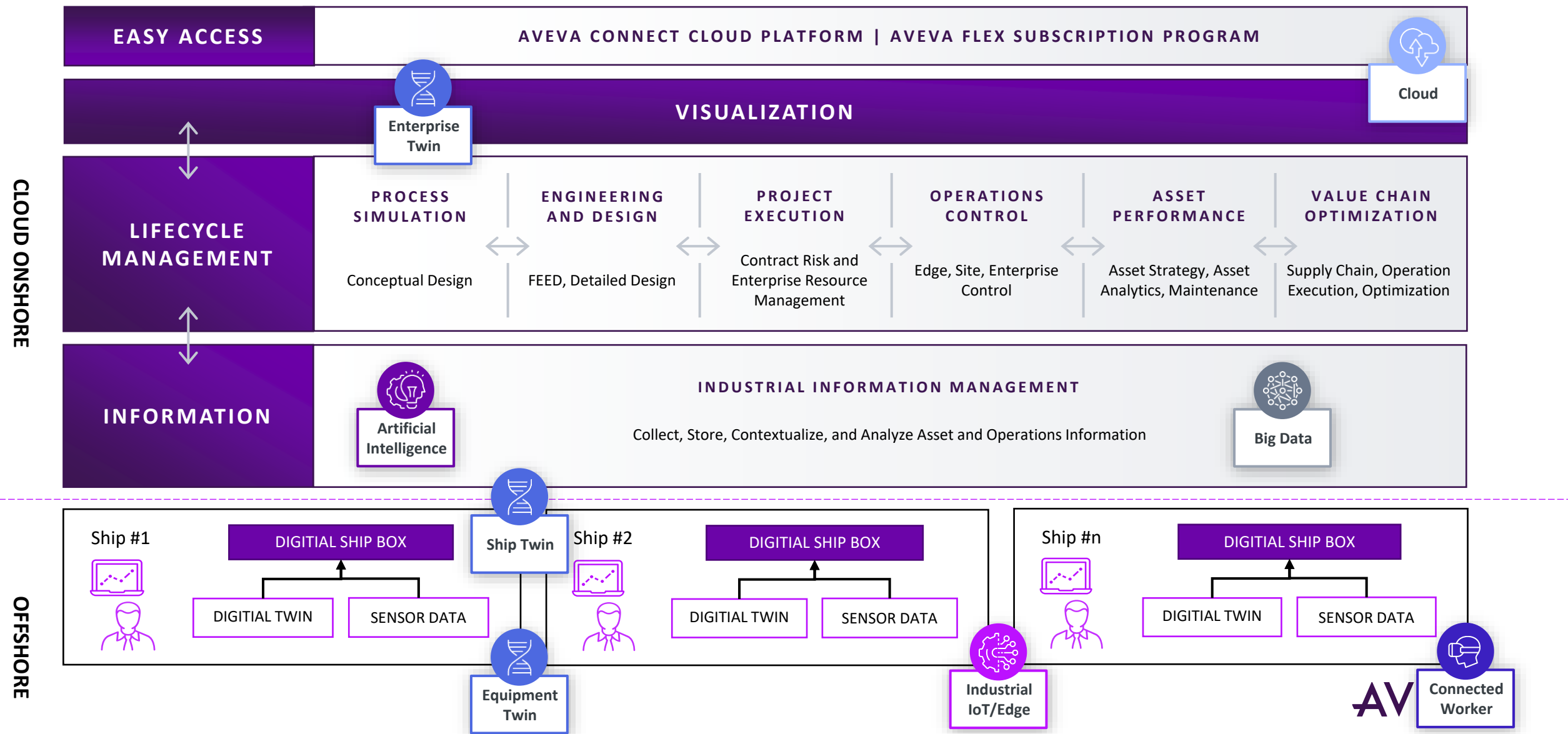
Re-use twin in operations and maintenance of an as operated digital asset, Integration of Monitoring and Control and Asset Management

Re-use twin to retrofit and repurpose assets to extend useful life

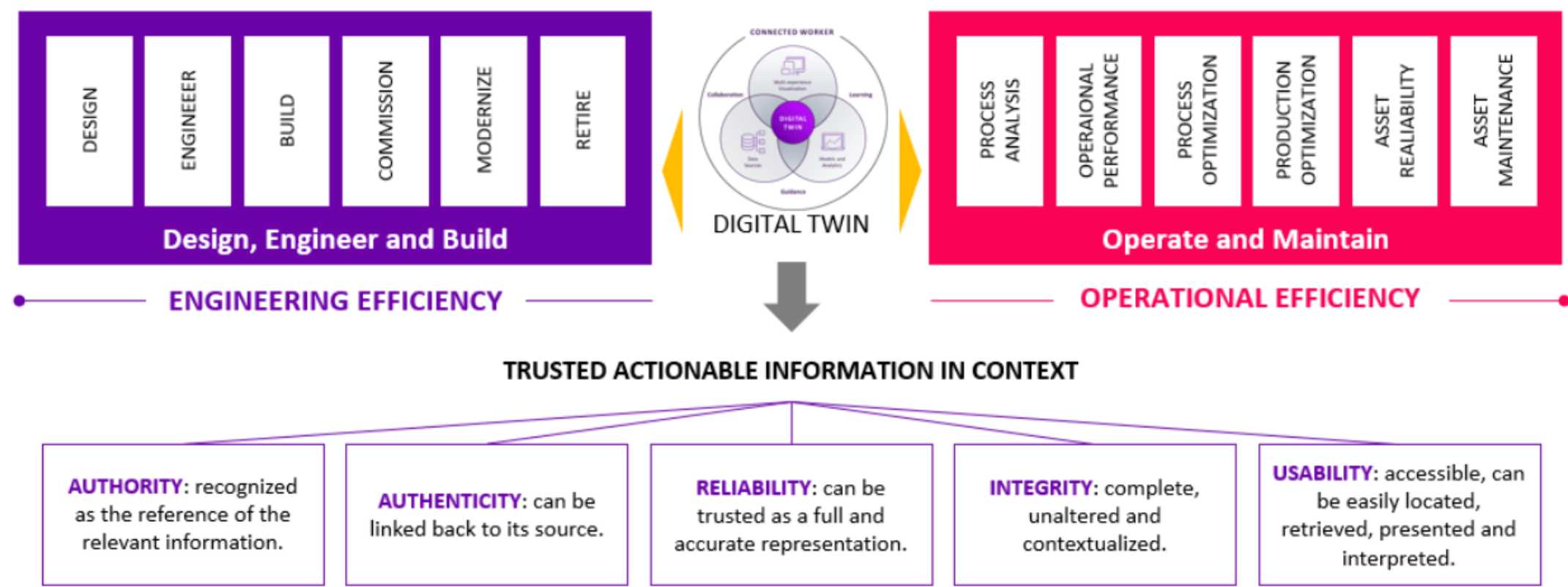
AVEVA Marine Vision – Optimizing the Value Chains



Unlocking Performance Intelligence



AVEVA is ideally positioned to work with industry leaders to join up the digital twins of shipbuilding and shipping to deliver transformational efficiency gains in engineering and operations.



Unified Operations Center - Enterprise Visualization

Converge and contextualize for end-to-end enterprise visibility



Enhanced layer of intelligence that ensures data works in service of organizational goals



How to get the most out of today?

- Enjoy the track sessions!
- Engage in the LIVE roundtable discussions
- Think about how these ideas can add value to your organizations
- Engage with us with your challenges, ideas and opportunities!!



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ABOUT AVEVA

AVEVA, a global leader in industrial software, drives digital transformation for industrial organizations managing complex operational processes. Through Performance Intelligence, AVEVA connects the power of information and artificial intelligence (AI) with human insight, to enable faster and more precise decision making, helping industries to boost operational delivery and sustainability. Our cloud-enabled data platform, combined with software that spans design, engineering and operations, asset performance, monitoring and control solutions delivers proven business value and outcomes to over 20,000 customers worldwide, supported by the largest industrial software ecosystem, including 5,500 partners and 5,700 certified developers. AVEVA is headquartered in Cambridge, UK, with over 6,000 employees at 90 locations in more than 40 countries. For more details visit: www.aveva.com