

Offshore International Trends

KORMARINE CONFERENCE 2024

Hyun-Buki Jeon | 13 November 2024





Agenda

ABS Address

State of the Market

Reactivation

Life Extension

Fleet Modernization

Our Safety-Centric and Mission-Driven Strategy Has Served Us Well

Our Mission Drives Our Existence

To serve the public interest as well as the needs of our members and clients by promoting the security of life, property and preserving the natural environment.

Our Strategy Ensures Relevancy and Sustainability

To be the global leader in classification, consulting and software services related to complying with safety and environmental requirements and managing risk and reliability for the marine, offshore, energy, and government sectors.

We will achieve this through investments in

- People
- Digital Technology
- New Products and Services

that support the advancement and application of industry standards and best practices.

Our Values Define Our Culture

The SPIRIT of ABS –

Safety | People | Innovation | Reliability | Integrity | Teamwork | Quality



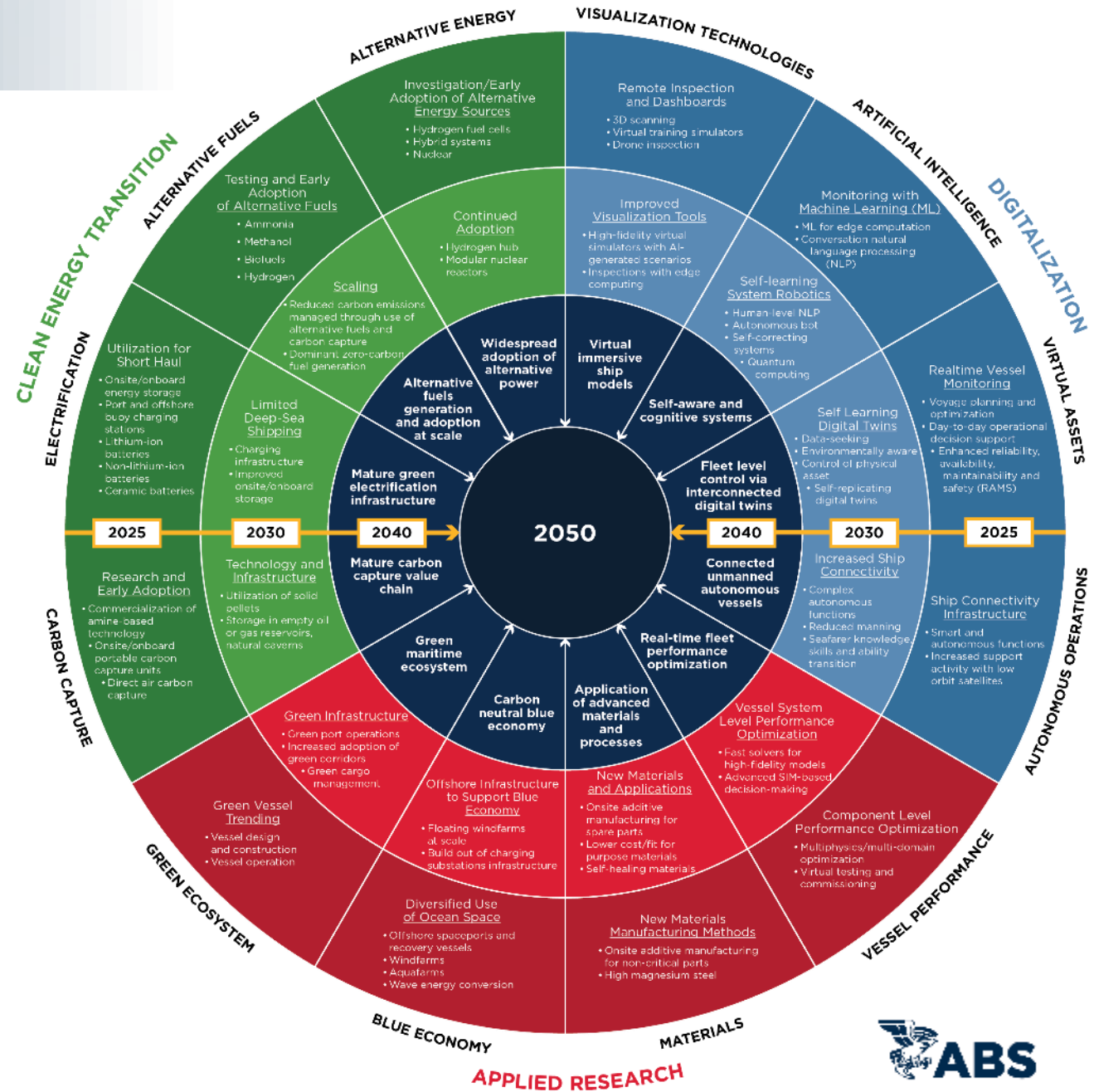
Innovation Outlook

Sustaining innovation for Net-Zero Carbon Environment



enabled by a

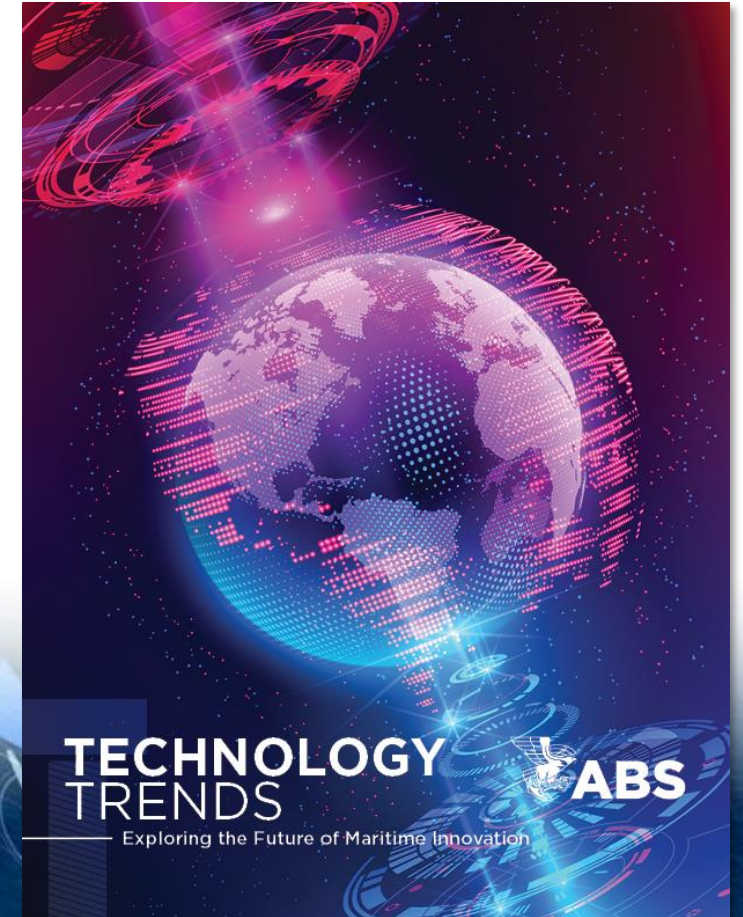
Digital Ecosystem



Executing Our Safety-Centric and Mission-Driven Strategy

Five Key Transformational Technologies

- Carbon Capture and Storage
- Clean Hydrogen
- Electrification and Energy Storage
- Digital Technology – AI, Data Analytics, Data Streaming, Etc.
- Renewable Power – Nuclear



What Are We Keeping Our Eyes On?

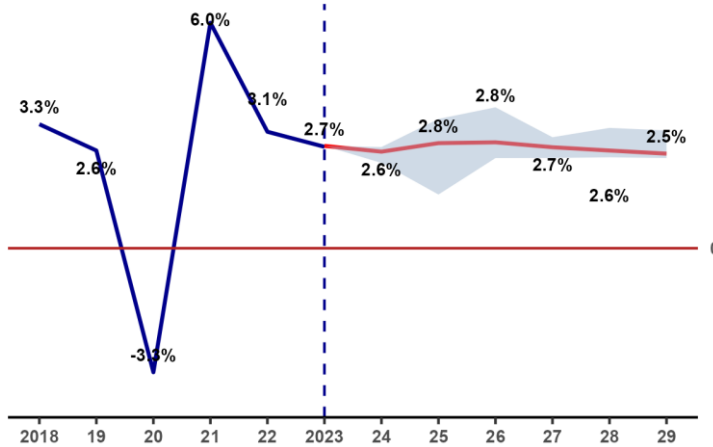
- Energy Security vs. Energy Transition
- Geopolitics and Threat of Global Recession
- The Middle East Situation
- Offshore Uplift
- Ordering and Shipyard Capacity
- The Regulatory Landscape
- Impact of Market-Based Measures
- Cost Compliance



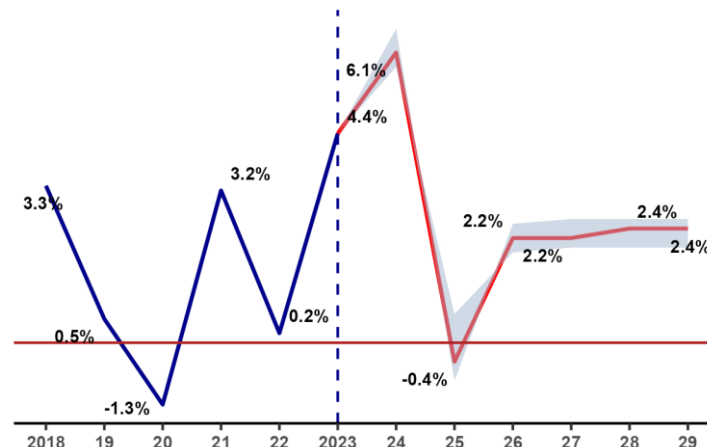
Macro Business Environment

Global economic prospects for 2024-25 have moderated with a projected U.S. soft landing but uncertainties and key risks from geopolitical tensions, U.S. election, economic indicators and a degree of consumer caution ... Middle east conflict, Red Sea crisis, China-Taiwan tensions, Russia – Ukraine conflict, interest rates and inflation cloud the economic outlook.

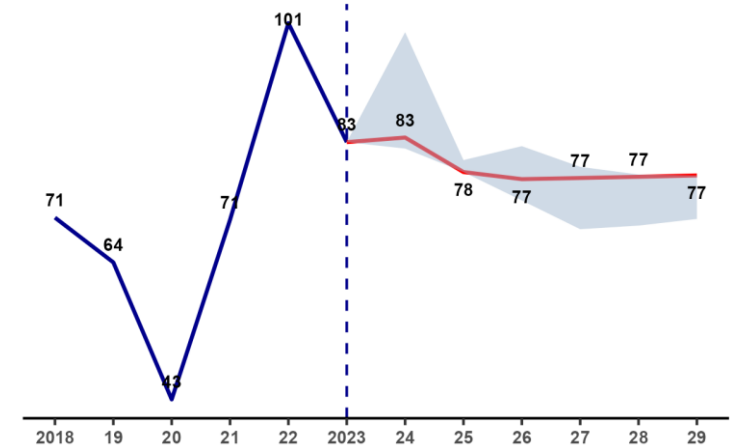
World GDP 2018-29 %YoY



World Seaborne Trade %YoY tonne-mile



Brent Oil Price 2018-29 US\$/b



- The global economy looks set for a sustained period of weaker growth with upside/downside risks near term

- 2024 trade growth driven Red Sea Crisis trade flow shifts... Crisis resolution will reduce average haul

- Projected annual average oil price within narrow range with volatility medium term from ME crisis

Three Megatrends and Several Wildcards

Decarbonization

- **Energy Transition** *Seaborne trade and fleet growth*
- **Fuel Transition** *New construction and retrofits*
- **Offshore Transition** *Renewables*

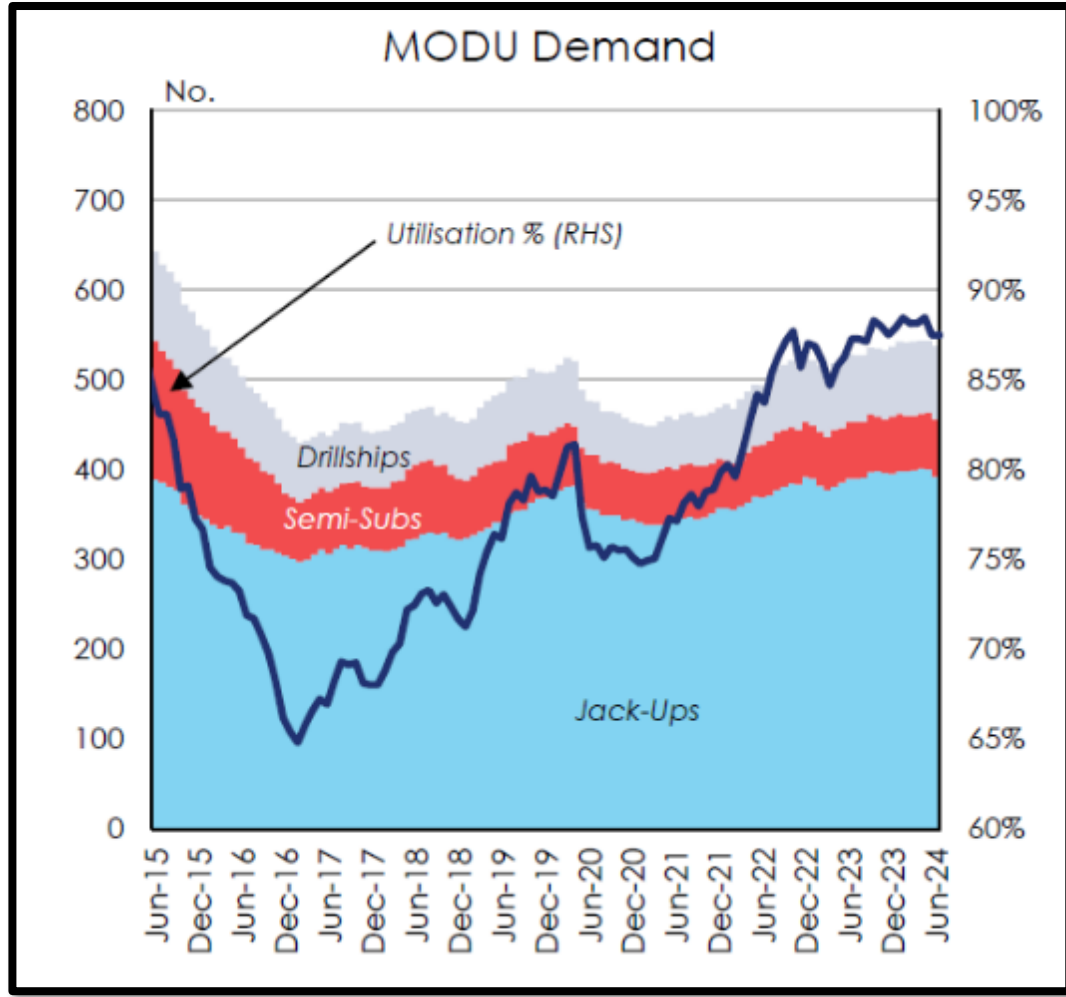
Technology

- **Digital Transformation for Efficiency, Compliance and Transparency...** *Asian mega yards, vessel design, operation (autonomy), supply chain - ports and multi-modal*

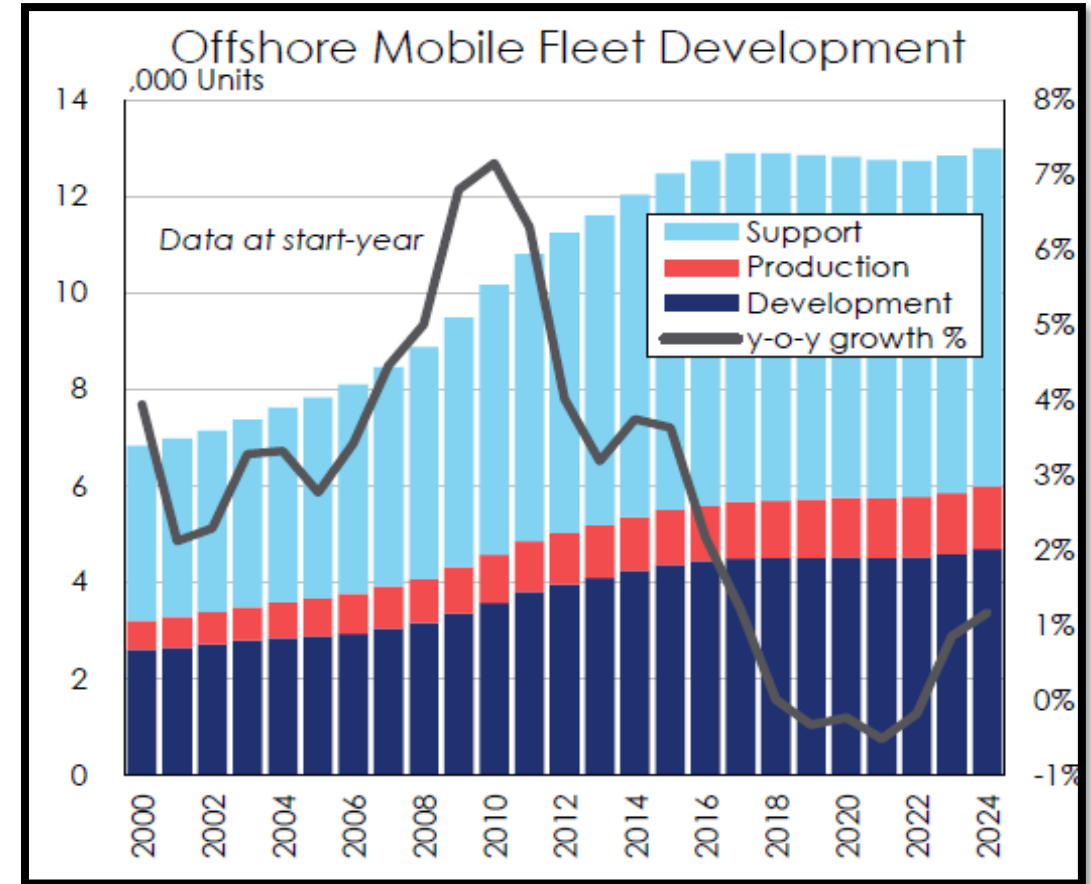
Markets, Trade and Supply Chain Security

- **Shift to Asia....** *Fleet ownership, financing*
- **Geopolitical, China Transition, Emerging Markets**
- **De-risking Supply Chains....** *3D printing / reshoring*

State of the Market



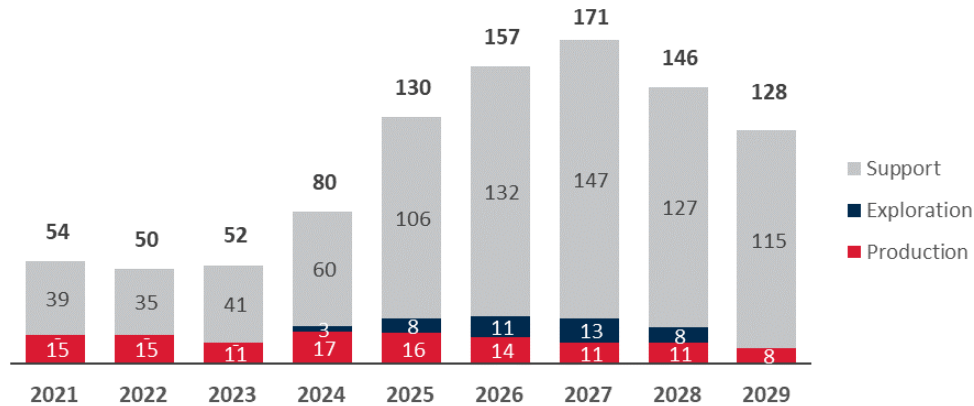
Clarksons



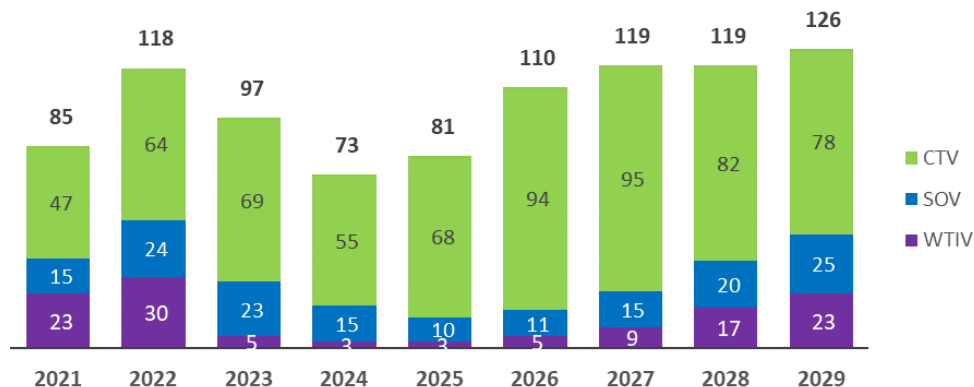
Clarksons

Offshore Market New Order Outlook

Base Case Offshore O&G New Orders – # Units



Base Case Offshore Wind New Orders – # Units



Continued recovery and positive outlook from energy security / stable oil price

- Exploration and Support Vessel reactivations - High vessel utilization... Drillship 93%, Jackup 86%, OSVs 76%
- CAPEX picking up but some macro headwinds from price inflation, equipment supply and yard capacity
- Energy security and decarbonization driving developments toward gas fields and wind

New construction activity picking up

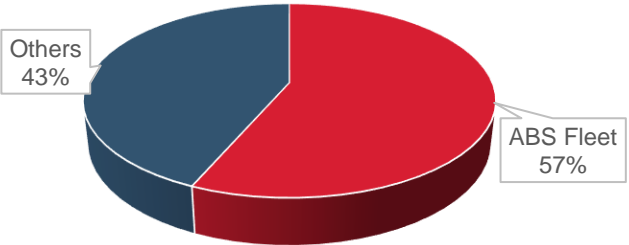
- Production activity to continue medium term ... 12-15+ units/pa short term
- Exploration at a minimum level... Stranded unit deliveries and retrofits
- Support increasing - high value vessels / automation / flexibility i.e., O&G+ wind

Decarbonization driving renewable sector fleet growth

- Renewable / Wind farm expansion worldwide
- Newbuild for wind service vessels + wind supply chain i.e., MPP rising rapidly
- Newbuild design focus on Green features... e.g., Batteries/ EST/ Alt. Fuels

Framing the Issue – Production Fleet Profile

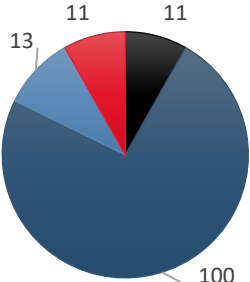
ABS 135 units of 230 unit Fleet



■ ABS Fleet ■ Others

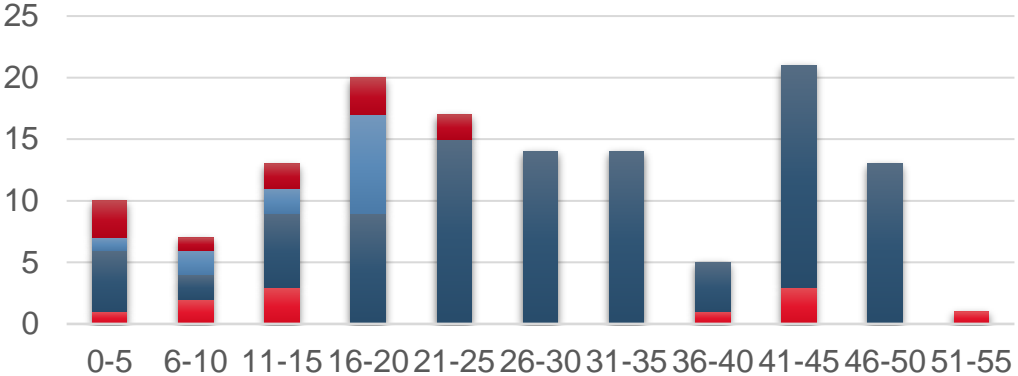
25% of the ship-shaped fleet is over 40 years old
75% are over 20 years old

ABS Fleet Distribution



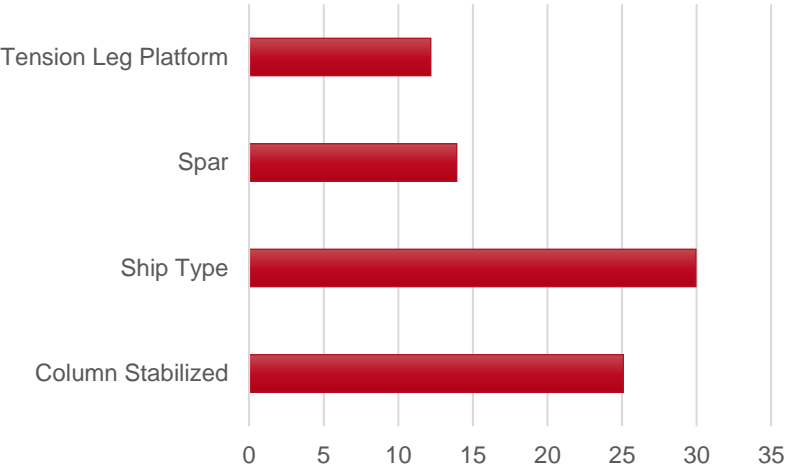
■ Column Stabilized Unit ■ Ship Type Unit ■ Spar ■ Tension Leg Platform

Age Distribution



■ Column Stabilized Unit ■ Spar ■ Ship Type Unit ■ Tension Leg Platform

Average Age

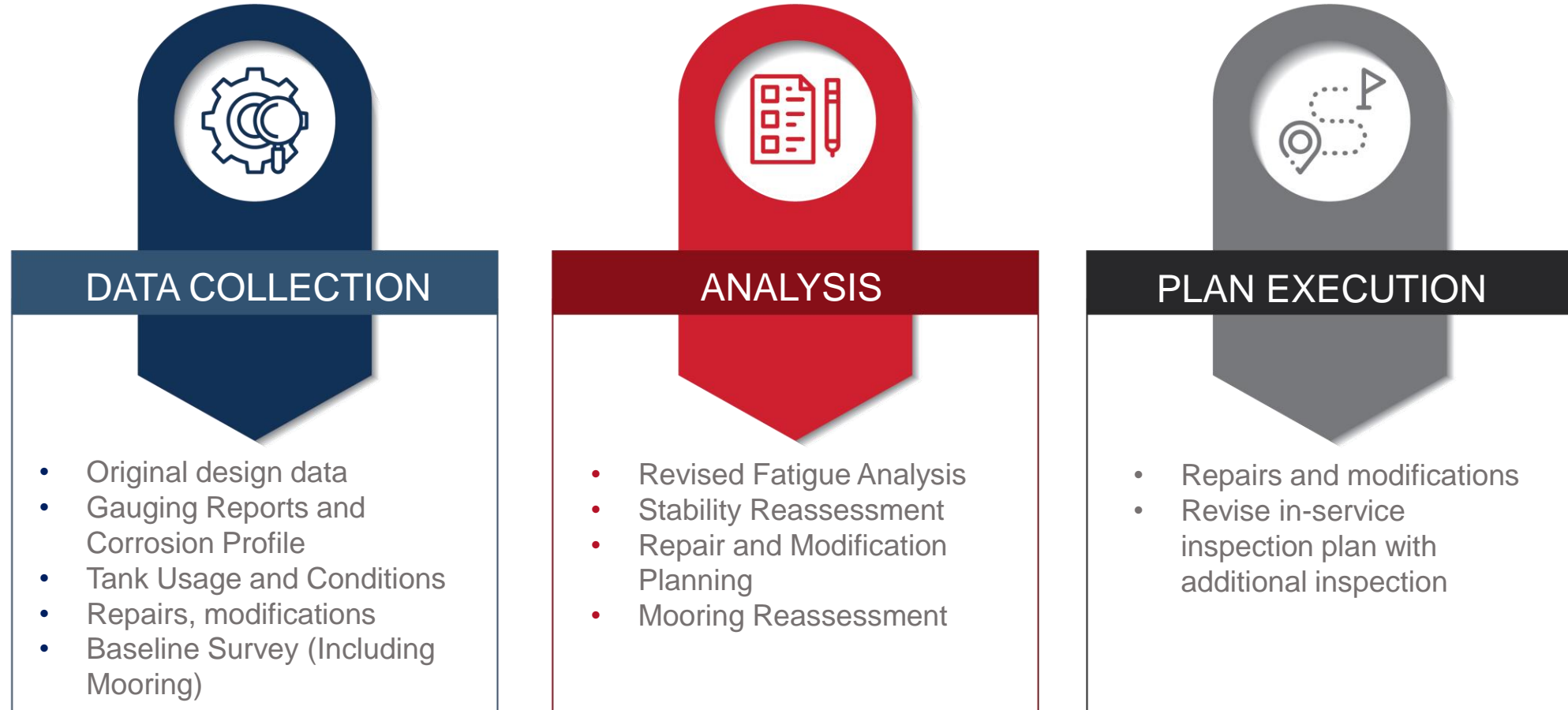


Reactivation

- Capacity is finite...and it's not all coming back to work
- Comprehensive asset condition evaluation is required
- Equipment availability and OEM capacity can drive timeline
- People. People. People.



ABS Life Extension Process



Industry Challenges with Life Extension Projects



- Timely completion of the process
- Updating design-basis information
- Obtaining accurate information on tank conditions
- Proper identification of corrosion rates
- Extensions on mooring lines/inspection challenges

Fleet Replacement and Modernization

DIGITALIZATION

SIMULATION



Connectivity
Standardization
Cybersecurity

SUSTAINABILITY

Fleet Renewal - Global Challenges



Shipyards



Equipment



People

If ordering accelerates, can the system accommodate?

Thank You

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