SHIP POWER: RESILIENCE IN DEMANDING MARKETS

Jaakko Eskola, President, Ship Power & Senior Executive Vice President
The most complete marine offering on earth
Strategic focus

Ship Power’s strategic goal
To be recognised as the leading provider of innovative products and integrated solutions in the marine and offshore oil & gas industry.

Efficiency
Gas and dual-fuel solutions
Environmental solutions

LEADER IN

THROUGH OFFERING
- Lifecycle solutions for ship owners and operators
- Integrated solutions for the shipbuilding industry, owners and operators
- The most competitive products and delivery process for the marine industry
Continued innovations

- Propulsion
- Engines
- BWMS
- E&G
- Pumps & Valves
- Gas
Market environment
Ship Power operates in two industries

The marine industry
- Merchant, Cruise & Ferry, Navy and Special vessels

The Oil and Gas industry
- Newbuild vessels and rigs for exploration and production in offshore fields
- Gas distribution chain equipment and infrastructure (e.g. for liquefaction and regasification)

Developments in the global economy drive demand for:
- Seaborne cargo transportation
- Cruise and ferry services
- Navy vessels

Global demand and price level for oil and gas are crucial for:
- Investment into offshore oil and gas exploration and production (including support vessels)
- Investment into development of gas distribution chains

- Cautious outlook given increased uncertainty over developments in global economy and oil prices
- Environmental regulations, increased safety requirements, fuel costs and efficiency requirements continue to support investments
The marine industry: fundamentals in place despite a challenging 2014

World seaborne trade and GDP development

% Yr/Yr

Seaborne trade growth
GDP growth

Fundamentals supporting growth in seaborne trade:
- Growth in oil products trade to Asia and OECD countries
- Recovery in global container trade
- Continued consumer demand growth in developing economies

Deliveries, removals, and fleet growth

# vessels

Deliveries
Removals
Net fleet growth

Fleet growth bottoming out:
- Slower pace of deliveries
- Removals rate expected to stay high in the medium-term

Source: Clarkson Research Services, IMF 26.01.2015
Oil & Gas: supply grows, offshore remains important

IEA estimates:

- Investment of some $900 billion/year in upstream oil and gas development is needed by 2030 to meet projected demand
- Gas production increases almost everywhere, and unconventional gas accounts for almost 60% of global supply growth

Source: Clarkson Research (Sep 2014). IEA World Economic Outlook 2014
Offshore oil companies reduce investment in the near term

Exploration & Production Offshore CAPEX

<table>
<thead>
<tr>
<th>Year</th>
<th>EPCI</th>
<th>Well+Maintenance Services</th>
<th>Drilling</th>
<th>Transportation and Logistics</th>
<th>Seismic</th>
<th>Subsea Equipment</th>
<th>Topside and Processing Equipment</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>400</td>
<td>300</td>
<td>100</td>
<td>50</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>2015</td>
<td>360</td>
<td>270</td>
<td>140</td>
<td>50</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>

E&P CAPEX change 2014 vs 2015

100% = -38.2 billion USD

- **EPCI**: 32%
- **Topside and Processing Equipment**: 10%
- **Subsea Equipment**: 5%
- **Transportation and Logistics**: 4%
- **Seismic**: 7%
- **Well+Maintenance Services**: 15%
- **Other**: 4%

- 2015 total offshore E&P CAPEX foreseen to decline by 13% compared to 2014. EPCI, Drilling, and Well+Maintenance Services segments expected to face the biggest decline.
- Investments reduced across the board, with independents and small-cap companies decreasing the most.
- Wärtsilä supplies mainly two segments: Drilling and Transportation and Logistics.

Shipbuilding market
Specialised segment activity still resilient

Number of vessels contracted

Source: Clarkson Research Services, excluding contracts reported out of period
Shipbuilding volume
China continues to dominate

Total order book: 5,048 vessels
Merchant + Specials order book, 4,083 vessels
Offshore order book, 965 vessels

Source: Clarksons World Shipyard Monitor March 2015
Shipbuilding value
A more diversified picture

Total order book value: USD 305 billion

Merchant + Specials order book,
USD 204 billion

Offshore order book
USD 101 billion

Source: Clarksons World Shipyard Monitor March 2015
Overall cautious sentiment, segments uneven

Number of vessels contracted

<table>
<thead>
<tr>
<th>Segment</th>
<th>2013A</th>
<th>2014A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore</td>
<td>3072</td>
<td>437</td>
</tr>
<tr>
<td>Gas carriers</td>
<td></td>
<td>183</td>
</tr>
<tr>
<td>Cruise &amp; Ferry</td>
<td>1931</td>
<td>37</td>
</tr>
<tr>
<td>Containerships</td>
<td></td>
<td>133</td>
</tr>
<tr>
<td>Tankers</td>
<td></td>
<td>329</td>
</tr>
<tr>
<td>Bulk carriers</td>
<td></td>
<td>701</td>
</tr>
<tr>
<td>Other marine</td>
<td></td>
<td>111</td>
</tr>
</tbody>
</table>

2014A: Order potential challenging
2014A: Market normalising
2014A: Cruise majors expanding to Far East, LNG gaining traction
2014A: Positive outlook for large and med. sized containers
2014A: Active sector, expected to continue short-term
2014A: Limited activity; Baltic Dry Index at its lowest
2014A: RoRos positive

Typical Wärtsilä product offering

- **Offshore**: Main engines, auxiliary engines, E&A, propulsors, solutions, BWMS, waste water systems, pumps and valves, ship design, gas systems
- **Gas carriers**: Main engines, auxiliary gensets, propulsors, gas systems, BWMS, pumps and valves
- **Cruise & Ferry**: Main engines, auxiliary engines, E&A, gas systems, scrubbers, propulsors, BWMS, pumps and valves, waste water systems
- **Containerships**: Main engines, auxiliary engines, propulsors, BWMS ship design, waste water systems, pumps and valves
- **Tankers**: Main engines, auxiliary engines, propulsors, BWMS, pumps and valves, inert gas systems, ship design
- **Bulk carriers**: Main engines, auxiliary engines, propulsors, BWMS, pumps and valves
- **Other marine**: Main engines, auxiliary engines, propulsors, pumps and valves, E&A, BWMS, water systems

Note: Other marine = MPP, general cargo, RoRo, vehicle carriers and miscellaneous.
Source: Clarksons Marine and Offshore reports
We believe that gas, efficiency and environmental solutions are the future
LNG poised for long term growth

Source: BP Energy Outlook 2035
Increasing number of LNG trading countries

Number of LNG importing and exporting countries, volume of LNG trade

Significant growth in number of importing countries increases demand for small and medium scale receiving terminals and gas carriers

LNG as ship fuel gaining ground

LNG fuelled fleet

Number of vessels

* LNGC: LNG Carriers

Our offering to the gas value chain

**EXPLORATION AND DRILLING**
- Fuel gas handling for OSVs

**PRODUCTION AND LIQUEFACTION**
- On- & Offshore small scale liquefaction
- Antiflaring
- VOC
- Gas reformer
- Oil separation

**TRANSPORT**
- Fuel gas handling
- LPG, LEG, Ethane and LNG cargo handling

**STORAGE AND DISTRIBUTION**
- Jetty and Floating regasification
- Bunkering and barges
- Receiving terminals
- Loading stations

**END CONSUMERS**
Lower oil prices mean cheaper bunkers

Daily rate and bunker costs*, 3,500 TEU containership

Thousand USD


- Bunker $/day
- Charter rate $/day
- Bunker as a % of daily costs
  (Daily costs = Charter rate $/day + Bunkers $/day)

Jan 1994 30%
Jan 1994 30%

Jan 2006 51%
Jan 2006 51%

Jan 2012 92%
Jan 2012 92%

Jan 2015 80%
Jan 2015 80%

...however bunker share of daily costs is still very high (now at 80%):

1. Efficiency gains have big impact on bottom lines
2. Slow steaming expected to remain in the picture

* Bunker costs are paid by the charterer
Source: Clarkson Research Services (basis 3500 TEU ship, speed 22.5k on consumption of 105 tpd).
Efficient environmental products key for customers to fully comply with IMO legislation

- Finnlines selects Wärtsilä scrubber systems for six of its vessels to reduce Baltic Sea environmental impact
- Royal Caribbean will retrofit nearly half of its fleet (19 ships), with advanced emissions purification systems
- Singapore based Pioneer Marine orders 44 Wärtsilä ballast water management systems to 22 of its bulk carriers
- HHI selects Wärtsilä exhaust gas cleaning systems for 10 new large gas carrier vessels

Source: Trade Winds, Sustainable Shipping, Bunkerworld, Dow Jones & Company Inc. March 2015
Competitive landscape
Our competitors

E&A

Propulsion

Gas systems

4-stroke medium speed

Flow systems

Ship Power

2-stroke

Environmental solutions

Ship design

BWMS

Note: Converteam is a part of GE
Allweiler is a Colfax business unit
# Strong market position in key offerings

<table>
<thead>
<tr>
<th>Offering</th>
<th>Our market position</th>
<th>Wärtsilä key strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engines: 4-stroke</td>
<td>• Main engines: market leader</td>
<td>• Fuel flexibility and efficiency</td>
</tr>
<tr>
<td></td>
<td>• Auxiliary generating sets: market challenger</td>
<td>• Environmental footprint</td>
</tr>
<tr>
<td>Propulsion</td>
<td>• CPP, FPP &amp; STT: among the top players</td>
<td>• Well-engineered, efficient products</td>
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<tr>
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<td>• TT: market challenger</td>
<td>• Operational efficiency for dynamic positioning</td>
</tr>
<tr>
<td>Electrical &amp; Automation (excl. L-3 MSI)</td>
<td>• Established position in offshore, otherwise market challenger</td>
<td>• Multi-segment presence</td>
</tr>
<tr>
<td>Ship Design</td>
<td>• Among the leading ship design houses</td>
<td>• Low loss concept, efficiency and space savings</td>
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<td>• Track record in demanding applications, performance and safety</td>
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<td></td>
<td>• Frontrunner in fuel flexible, energy efficient and LNG powered ship designs</td>
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<td></td>
<td></td>
<td>• Experience: over 4,000 vessels built in offshore, specials and merchant segments</td>
</tr>
<tr>
<td>Offering</td>
<td>Our market position</td>
<td>Wärtsilä key strengths</td>
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<tr>
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<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Oil &amp; Gas systems</td>
<td>• Among the top players</td>
<td>• Strong LNG and LPG process technology know-how</td>
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<td>• Complete end-to-end gas cargo handling offering for a broad range of gas carriers</td>
</tr>
<tr>
<td>Pumps &amp; Valves</td>
<td>• Among the top players</td>
<td>• High efficiency with electric prime movers</td>
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<td>• Sophisticated material choices, durability</td>
</tr>
<tr>
<td>Environmental Solutions</td>
<td>• Among the top players</td>
<td>• Flexible design</td>
</tr>
<tr>
<td></td>
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<td>• Leader in technical performance and compliance</td>
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<td></td>
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<td>• Choice of technology for customers</td>
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<td></td>
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<td>• Partnership approach throughout the lifecycle</td>
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<td></td>
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<td>• Full turnkey capability, also for retrofits</td>
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</table>
Concluding remarks
Our broad portfolio gives us a resilient position

- First signs of recovery in the global economy, supports trade and shipping
- Lower oil prices:
  - Increases pressure in offshore markets
  - Presents opportunities in other marine markets
  - Efficiency remains a priority
- Fundamentals in gas and other specialised segments remain positive
- Regulatory pressures still in play, will attract investments (also for retrofits)
The most complete marine offering on earth got even more complete
Thank you!