THIS IS WÄRTSILÄ

A global leader in advanced technologies and complete lifecycle solutions for the marine and energy markets
Our vision, mission and values

**VISION**
We will be our customers' most valued business partner.

**MISSION**
We shape the marine and energy markets with advanced technologies and focus on lifecycle performance, to enhance our customers' business and benefit the environment.
Our business areas

ENERGY SOLUTIONS

MARINE SOLUTIONS

SERVICES
What we bring to the market

EFFICIENCY  ENVIRONMENTAL SOLUTIONS  FUEL FLEXIBILITY
A Comprehensive product portfolio

- Automation
- Ballast Water Mgmt
- Energy Storage
- Engines & Generating Sets
- Exhaust Gas Cleaning
- Lifecycle Solutions
- Gas Systems
- Inert Gas Systems
- Navigation
- Power Electric Systems
- Propulsors & Gears
- Pumps & Valves
- Seals, Bearings & Stern Tubes
- Ship Design
- Solar
- Thrusters
- Waste, Oil & Fresh Water Mgmt
Wärtsilä takes a leadership role in the Smart Marine and Smart Energy ecosystems throughout their entire lifecycle. We aim at increasing efficiency while enabling a zero emission society.

**Smart technology company**

- Unique market position
- Deep customer understanding
- Predictive analytics and asset optimisation
- Global service network
- Extensive product range
- Engineering and technology expertise
- Significant investments in future technology
Bold digital transformation into Wärtsilä-as-a-Service

- Strong partnerships
- Collaborative smart ecosystem approach
- AI, data analytics, open platforms, blockchain
- Creating maximum value for customers
- New business models
Digital insight combined with solutions – examples

**Integrated product solutions**
(Eniram, Genius, UNIC)

**Building blocks for digitalisation**
(Smart sensors, simple user interfaces)

**Productivity enablers**
(Engine component traceability, parameter management)

**Infrastructure enablers**
(Simulation clusters, connectivity, big data storage, cyber security)

**Manufacturing models**
(Robotics, Manufacturing execution system, 3D printing)

**Diverse research areas**
(Engine simulation models, performance, big data analytics, IoT)
Focus on research and development

• Strong emphasis on product and solution innovation, particularly in the areas of efficiency improvement, fuel flexibility, total cost of ownership, and the reduction of environmental impact
• Long-term co-operation with research institutes and partners
• R&D investments in 2016 EUR 131 million, representing 2.7% of net sales
• In 2016 Wärtsilä made 54 patents for new inventions

“In order to secure our leading position in sustainable innovation, we must continuously look into new ways of developing our business. Wärtsilä’s digital transformation is important in this context.”
Production and services globally
Our personnel

Approximately 18,000 professionals

In over 200 locations

In more than 70 countries
Our nationalities

- Finland
- India
- Italy
- Germany
- Netherlands
- China
- Norway
- Great Britain
- U.S.
- Brazil
- France
- Pakistan
- Poland
- Singapore
- Philippines
- Spain
- South Korea
- Denmark
- Bangladesh
- Canada
- Russia
- Indonesia
- Japan
- Sweden
- Kenya
- Ecuador
- Turkey
- Greece
- Myanmar
- Malaysia
- Switzerland
- Nigeria
- Senegal
- Dominica
- Colombia
- Lithuania
- Hungary
- Argentina
- South Africa
- Mexico
- Saudi Arabia
- Guinea
- Sri Lanka
- Cameroon
- Australia
- Zambia
- Estonia
- Romania
- Azerbaijan
- Puerto Rico
- Madagascar
- Portugal
- Taiwan
- Guyana
- Mauritania
- Jordan
- Panama
- Peru
- Papua New Guinea
- Gabon
- Macau
- Chile
- Oman
- Tanzania
- Vietnam
- Venezuela
- Iran
- Cyprus
- Guatemala
- Nepal
- Ukraine
- Dominican Republic
- East Timor
- Cuba
- Croatia
- Uruguay
- Bulgaria
- Egypt
- El Salvador
- Netherlands Antilles
- Serbia
- Ireland
- Jamaica
- Mozambique
- Slovenia
- Albania
- Ghana
- Latvia
- Morocco
- Somalia
- Uganda
- Antigua
- Austria
- Belgium
- Burkina Faso
- DR Congo
- Falkland Islands
- Mauritius
- New Zealand
- Suriname
- Syria
- Togo
- Thailand
- United Arab Emirates
- Afghanistan
- Angola
- Armenia
- Angola
- Belize
- Australia
- Congo
- Christmas Island
- Czech Republic
- Eritrea
- Ethiopia
- Faroe Islands
- Honduras
- Haiti
- Israel
- Iraq
- Iceland
- Cambodia
- Kazakhstan
- Lebanon
- Namibia
- North Korea
- Niger
- Paraguay
- Rwanda
- Sudan
- Slovakia
- Tunisia
- Yugoslavia
- Finland
- India
- Italy
- Germany
- Netherlands
- China
- Norway
- Great Britain
- U.S.
- Brazil
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- Pakistan
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- Singapore
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- Iraq
- Iceland
- Cambodia
- Kazakhstan
- Lebanon
- Namibia
- North Korea
- Niger
- Paraguay
- Rwanda
- Sudan
- Slovakia
- Tunisia
- Yugoslavia
Our key growth areas are defined around global megatrends

**ENERGY EFFICIENT SOLUTIONS**
- Smart Power Generation combining energy efficiency, fuel and operational flexibility
- Most complete offering of marine products and integrated solutions, including a broad portfolio of environmental products
- Hybrid power generation and global systems integration enable optimised asset performance over the lifecycle

**GAS BASED TECHNOLOGY**
- A forerunner in gas and multi-fuel engines, fuel systems, technology and services
- Offering that covers gas value chain from exploration to end consumers
- Wide LNG offering in small and mid-sized terminals

**INNOVATIVE SOLUTIONS**
- Making use of digital technology in lifecycle solutions to optimise the operations of our customers
- Building on E&A, engineering competence and digitalisation to offer hybrid solutions and new business models
- Strong and global track record in distributed energy project management
Solid profitability

Figures shown before items affecting comparability. Figures for 2012-2013 include both discontinued and continuing operations.
# Financial highlights

<table>
<thead>
<tr>
<th>MEUR</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
<th>2013(^1)</th>
<th>2012(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order intake</td>
<td>4 927</td>
<td>4 932</td>
<td>5 084</td>
<td>4 872</td>
<td>4 940</td>
</tr>
<tr>
<td>Order book at the end of the period</td>
<td>4 696</td>
<td>4 882</td>
<td>4 530</td>
<td>4 426</td>
<td>4 492</td>
</tr>
<tr>
<td>Net sales</td>
<td>4 801</td>
<td>5 029</td>
<td>4 779</td>
<td>4 654</td>
<td>4 725</td>
</tr>
<tr>
<td>Comparable operating result</td>
<td>583</td>
<td>612</td>
<td>569</td>
<td>520</td>
<td>517</td>
</tr>
<tr>
<td>% of net sales</td>
<td>12.1</td>
<td>12.2</td>
<td>11.9</td>
<td>11.2</td>
<td>10.9</td>
</tr>
<tr>
<td>Earnings/share, EUR</td>
<td>1.79</td>
<td>2.25</td>
<td>1.76</td>
<td>1.98</td>
<td>1.72</td>
</tr>
</tbody>
</table>

1) Figures for 2012-2013 include both discontinued and continuing operations.
2) The figures in the comparison period 2012 have been restated during year 2013 according to the revised IAS 19.
SERVICES

We create lifecycle services with our customers, enhancing their businesses – whenever, wherever
Our Services business is unrivalled in the market

Optimising customer operations whenever, wherever is our shared passion.

Our expertise and wide offering of services are developed to meet the needs of our customers according to their business objectives and match with environmental requirements.

- Proprietary global network consisting of 11,000 service professionals, and advanced technology competences
- Our advanced technology and installed base is a key driver for growth
- Extensive offering designed with a lifecycle perspective and beyond Wärtsilä’s installed base
- Digitalisation: business understanding & customer legacy combined with digital offering and virtual & mobile solutions
A broad range of expertise and services

<table>
<thead>
<tr>
<th>Lifecycle Solutions Incl. Wärtsilä Genius Services</th>
<th>Service Projects</th>
<th>Engine Services</th>
<th>Turbocharger Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propulsion Services</td>
<td>Seals &amp; Bearings Services</td>
<td>Hydro &amp; Industrial Services</td>
<td>Training Services</td>
</tr>
</tbody>
</table>
Improving lifecycle efficiency

Longer term strategies are aimed at improving business efficiency. Optimising performance of installations reduces operational expenses and improves uptime.

Environmental legislation and energy efficiency are major concerns for our customers. Sustainable solution options enable a reduced environmental impact and improved operational efficiency.

Digital transition enabled via transparent and real-time data. Value adding digital services help improve performance and increase revenue potential.

Reliable, continuous performance is essential. Planning the operational reliability through smart maintenance and access to highest quality of technologies, services and competences ensures smooth and safe operations.
Market trends & drivers

- An evolving global energy landscape with growing importance of **renewables**, **gas** as a fuel and increase of **decentralised power generation**

- **Real time monitoring** and **analytics** driving opportunities for using data to optimise our customers' business performance

- Customers face market pressures and need to drive **cost savings** and increase **competitiveness** while maximising **uptime** and **availability**

- Increased need for **energy efficient** solutions to comply with regulations and to improve efficiency

- **A dynamic global market**, but with distinctive segment-specific and **local needs**
Strategic focus areas

- **CUSTOMER FIRST**: Growth in existing business by improving customer loyalty
- **GO DIGITAL**: Growth through optimising customer performance
- **ASSET & LIFECYCLE MANAGEMENT**: Growth through value-adding lifecycle services & projects
- **NEW CUSTOMER ACCESS**: Growth beyond the traditional Wärtsilä installed base
ENERGY SOLUTIONS

We are a leading global systems integrator offering a broad range of environmentally sound solutions.

Our flexible and efficient solutions provide superior value to customers and enable a transition to a more sustainable and modern energy system.
Offering

- Flexible baseload power plants
- Capacity for grid stability, peaking and load-following generation, and back-up power for integrating wind and solar energy
- Multi-fuel solutions enabling use of any gas or liquid fuels

- Utility-scale solar PV power plants and solar-engine hybrid solutions
- Energy system integration capabilities
- Small and medium scale LNG liquefaction plants, LNG terminals and distribution systems
- Project development and EPC capability
Our customer segments

**UTILITIES**
Organisations providing electricity and/or heat to power markets or end users

**IPPS**
Financial organisations investing in power plants to sell power to utilities

**INDUSTRIAL CUSTOMERS**
Industrial businesses with captive power plants
Market trends & drivers

- Electricity generation paradigm changing → renewables new baseload
- Growth in sustainable energy, reducing carbon emissions
- Rapid growth of intermittent renewable generation and escalating demand fluctuation
- Ageing installed capacity driving investments in new technologies
- Natural gas replacing other fossil fuels
- Storage systems needed in order to support renewable intermittent energies
- Economic growth, electrification and improving standard of living
Strategy

- Grow strongly in large utility gas power plants market by capturing market share from gas turbines
- Maintain our leading position in HFO & dual-fuel power plants
- Gain market share in utility-scale solar PV business with EPC capability
- Grow in battery storage solutions
- Grow in small to medium-scale LNG terminals and liquefaction solutions by introducing new value propositions to selected markets
ENERGY SOLUTIONS A GLOBAL SYSTEMS INTEGRATOR FOR GREENER AND MORE EFFICIENT ENERGY SYSTEMS

LNG INFRASTRUCTURE

ENGINE POWER PLANTS

SOLAR PV AND ENGINE-SOLAR HYBRID POWER PLANTS
ENERGY SOLUTIONS

ENGINE POWER GENERATION

SOLAR GENERATION

ENERGY SYSTEM MANAGEMENT

SMART POWER GENERATION

OPTIMISED GENERATION

SOLAR GENERATION

SYSTEM STABILITY

GLOBAL SYSTEMS INTEGRATOR
MARINE SOLUTIONS

We are the leading provider of innovative products and integrated solutions in the marine and oil & gas industries. As a leader in our fields, we need to continuously develop and transform ourselves to meet changing customer needs. We have a passion to do right for our customers and the environment.
Our offering covers all market segments

<table>
<thead>
<tr>
<th>OIL &amp; GAS</th>
<th>MERCHANT</th>
<th>CRUISE &amp; FERRY</th>
<th>NAVY</th>
<th>SPECIAL VESSELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEADER IN:</td>
<td>EFFICIENCY</td>
<td>GAS AND DUAL-FUEL SOLUTIONS</td>
<td>ENVIRONMENTAL SOLUTIONS</td>
<td></td>
</tr>
<tr>
<td>THROUGH OFFERING:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lifecycle solutions for ship owners and operators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Integrated solutions for the shipbuilding industry, owners and operators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The best customer value and customer experience in the marine industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Market trends & drivers

- Urbanisation, globalisation and population growth support seaborne trade development and drive changing trade patterns
- Technological developments and new breakthroughs (digitalisation, disruptive technologies, batteries etc.) create a need for new business models
- Increasing consumption and growing middle class population support demand for cruise sector particularly in Asia
- Gas remains an important fuel from black to green energy
Opportunities through our broad product portfolio and connectivity

**WÄRTSILÄ KNOWS GAS**

Wärtsilä is involved in the whole **gas value chain**

**PORTFOLIO PROVIDES ROBUST SUPPORT FOR DIGITALISATION**

Data generation across the portfolio enabling big data analytics and a full-blown automation, navigation and control system offering

**MARINE HYBRID SOLUTIONS**

Wärtsilä’s **battery/hybrid systems** include energy management control, power electronics and battery integrations
Marine environmental regulations have taken a step forward

SO\(_x\) legislation:
- Current cost of low sulphur fuels have reduced the pressure to consider alternative solutions
- LNG gaining popularity

NO\(_x\) legislation:
- North American waters affected from 1.1.2016, Northern Europe from 1.1.2021
- NO\(_x\) reducing techniques such as selective catalytic reduction (SCR) or exhaust gas recirculation (EGR) are needed

Ballast Water Convention:
- The Convention will enter into force on 8 September 2017
- Applies for all vessels above 400GT in operation and newbuild

Black and grey water:
- Regulations being developed locally
- Non-discharge zones and port facilities compete with onboard cleaning
- EU Inland water ways 2013 Black and grey water
## APPENDIX: ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>DWT</td>
<td>deadweight tonnage</td>
</tr>
<tr>
<td>E&amp;A</td>
<td>Electrical &amp; Automation</td>
</tr>
<tr>
<td>ECA</td>
<td>emission control area</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>EPC</td>
<td>engineering, procurement and construction</td>
</tr>
<tr>
<td>GT</td>
<td>Gross tonnage</td>
</tr>
<tr>
<td>HFO</td>
<td>heavy fuel oil</td>
</tr>
<tr>
<td>IMO</td>
<td>International Maritime Organization</td>
</tr>
<tr>
<td>IoT</td>
<td>The Internet of Things</td>
</tr>
<tr>
<td>IPPs</td>
<td>independent power producers</td>
</tr>
<tr>
<td>LNG</td>
<td>liquified natural gas</td>
</tr>
<tr>
<td>MEPC</td>
<td>Marine Environment Protection Committee</td>
</tr>
<tr>
<td>NECA</td>
<td>nitrogen emission control area</td>
</tr>
<tr>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>nitrogen oxide</td>
</tr>
<tr>
<td>PV</td>
<td>photovoltaic</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>research &amp; development</td>
</tr>
<tr>
<td>SO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>sulphur oxide</td>
</tr>
<tr>
<td>VGP</td>
<td>Vessel General Permit</td>
</tr>
</tbody>
</table>
THANK YOU!