

Wärtsilä Corporation

Corporate presentation 2016

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
MANAGEMENT**



**ENGINES &
GENERATING SETS**



EXHAUST GAS CLEANING



GAS SYSTEMS



INERT GAS SYSTEMS



NAVIGATION



OIL SEPARATION



**POWER ELECTRIC
SYSTEMS**



PROPULSORS & GEARS



PUMPS & VALVES



**SEALS, BEARINGS &
STERN TUBES**



SHIP DESIGN



THRUSTERS



**WASTE, OIL & FRESH
WATER MANAGEMENT**

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 2015 EUR 132 million, representing 2.6% of net sales
- In 2015 Wärtsilä made 56 patents for new inventions

“ Our market driven investments in R&D and our focus on digitalisation create a strong foundation for securing and strengthening our position at the forefront of technological innovation. ”

Production and services globally



Our personnel



- Approximately **18,800** professionals
- In over **200** locations
- In more than **70** countries

Our nationalities



Positioned for growth



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

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

Financial highlights

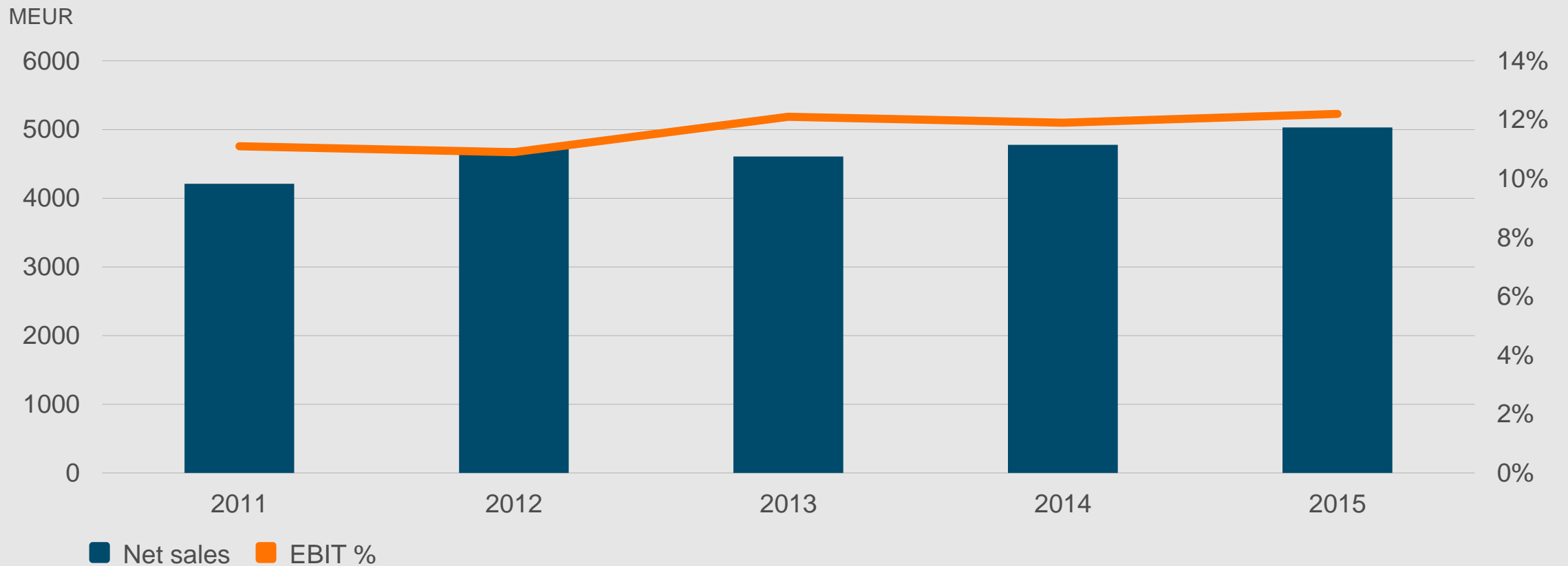
MEUR	2015	2014	2013 ²	2012 ³	2011
Order intake	4 932	5 084	4 821	4 940	4 516
Order book at the end of the period	4 882	4 530	4 311	4 492	4 007
Net sales	5 029	4 779	4 607	4 725	4 209
Operating result ¹	612	569	557	517	469
% of net sales ¹	12.2	11.9	12.1	10.9	11.1
Earnings/share, EUR	2.25	1.76	1.98	1.72	1.44

1) Figures shown before items affecting comparability

2) Figures related to the statement of income in the comparison period 2013 have been restated due to the two-stroke business being classified as discontinued operations.

3) The figures in the comparison period 2012 have been restated during year 2013 according to the revised IAS 19.

Solid profitability



Figures shown before items affecting comparability. Figures for 2013 have been restated due to the two-stroke business being classified as discontinued operations.

Energy Solutions

Our mission is to provide superior value to our customers with distributed, flexible, efficient, and environmentally advanced energy solutions



Offering

- Flexible baseload power plants
- Capacity for grid stability, peaking and load-following generation, and back-up power for integrating wind and solar energy
- Utility-scale solar PV power plants and solar-engine hybrid solutions
- Multi-fuel solutions enabling use of any gas or liquid fuels
- LNG terminals and distribution systems
- Project development and EPC capability



LNG Solutions



We provide our full range of project and lifecycle support to LNG receiving terminals. We have the capability to develop the entire LNG fuel supply chain in partnership with our customers.

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

Strategy

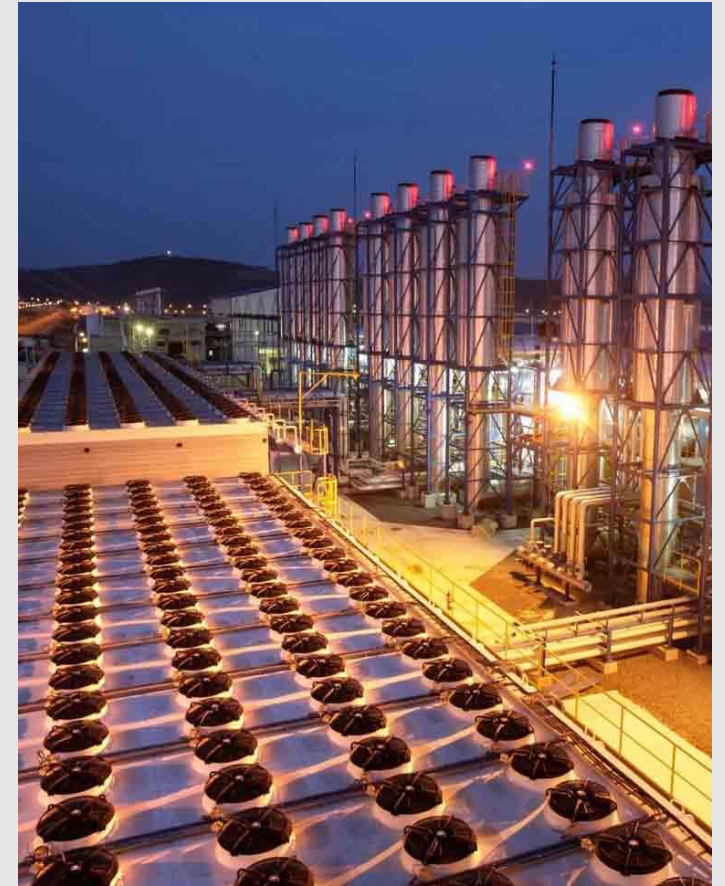
- Grow strongly in large utility gas power plants market by capturing market share from gas turbines
- Maintain our leading position in HFO & dual-fuel power plants
- Gain market share in utility-scale solar PV business with EPC capability
- Grow in the small to medium scale LNG terminal business by introducing a new value proposition to selected markets



Market trends & drivers

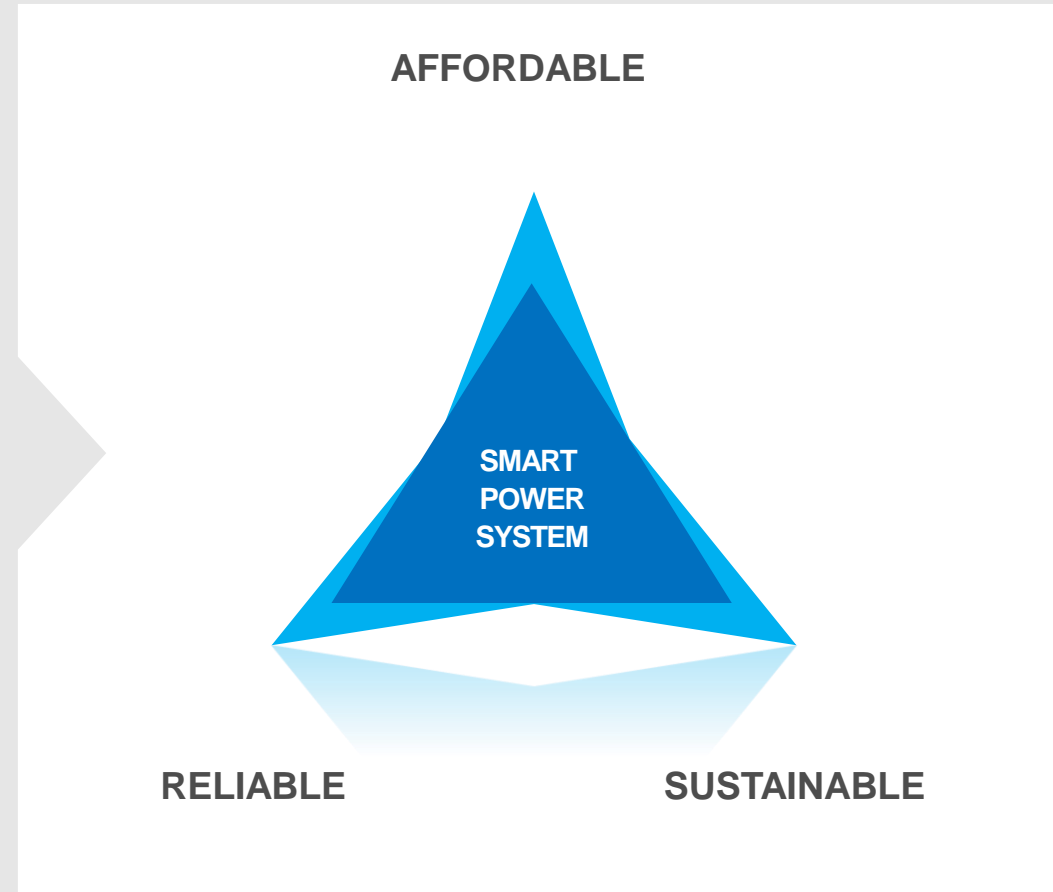
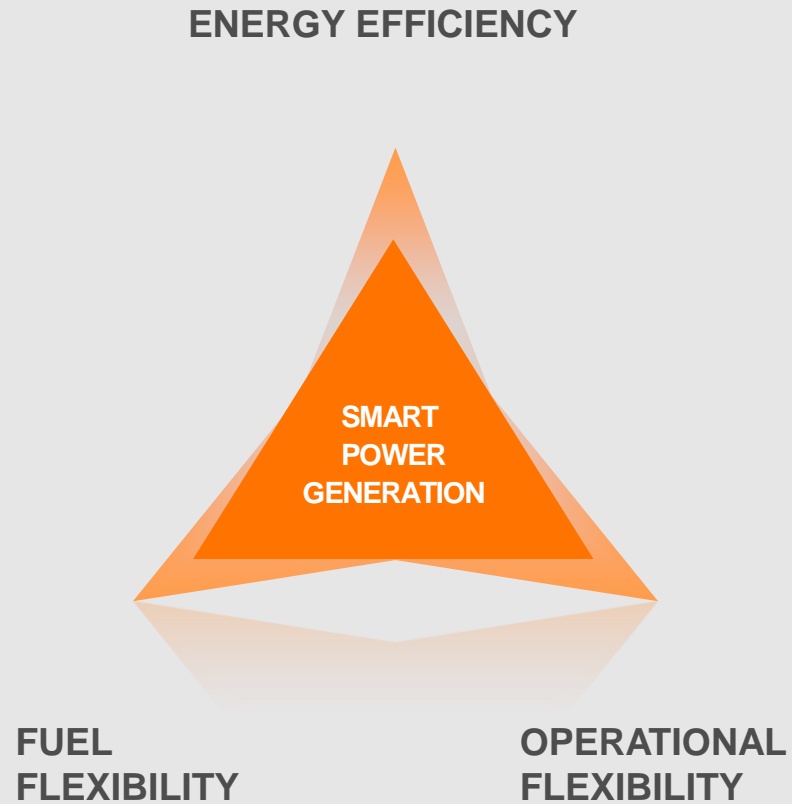
- Economic growth, electrification and increased standard of living
- Growth in sustainable energy and reducing carbon emissions
- Rapid growth of intermittent renewable generation and escalating demand fluctuation
- Increasing role of natural gas
- Ageing installed capacity

“ **The world needs clean, affordable and reliable power generation** ”



Smart Power Generation

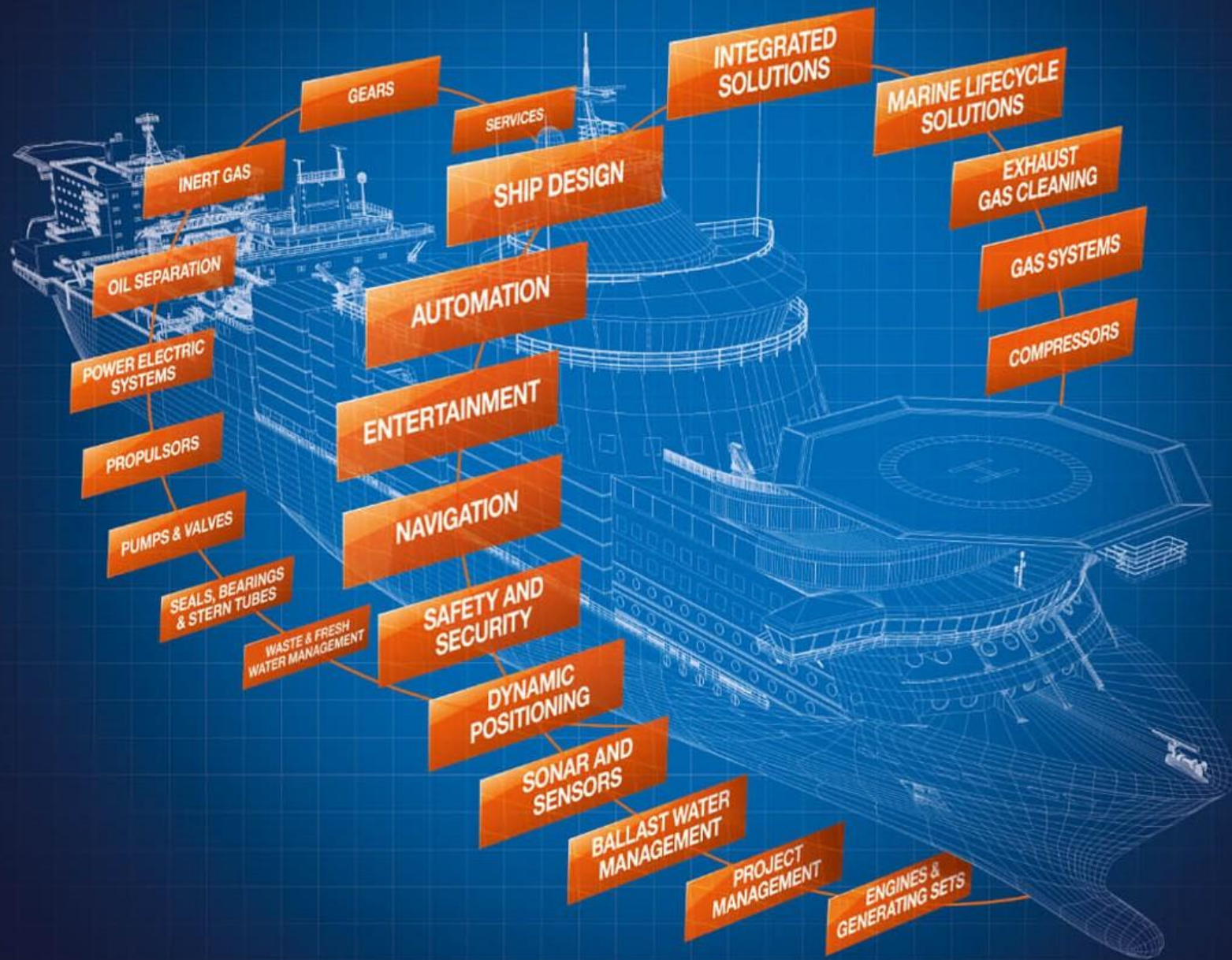
Enabling transition to a sustainable power system



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



OFFSHORE

OIL & GAS



MERCHANT

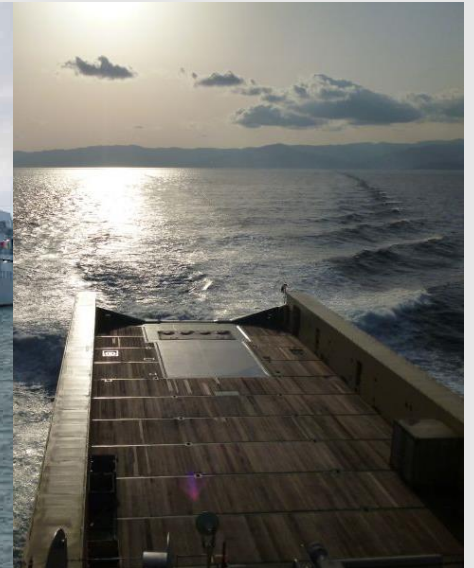
SHIPPING



**CRUISE &
FERRY**



NAVY



**SPECIAL
VESSELS**

Strategy

LEADER IN

EFFICIENCY

GAS AND DUAL-
FUEL SOLUTIONS

ENVIRONMENTAL
SOLUTIONS



THROUGH
OFFERING

- **Lifecycle solutions** for ship owners and operators
- **Integrated solutions** for the shipbuilding industry, owners and operators
- The best customer value and customer experience in the marine industry

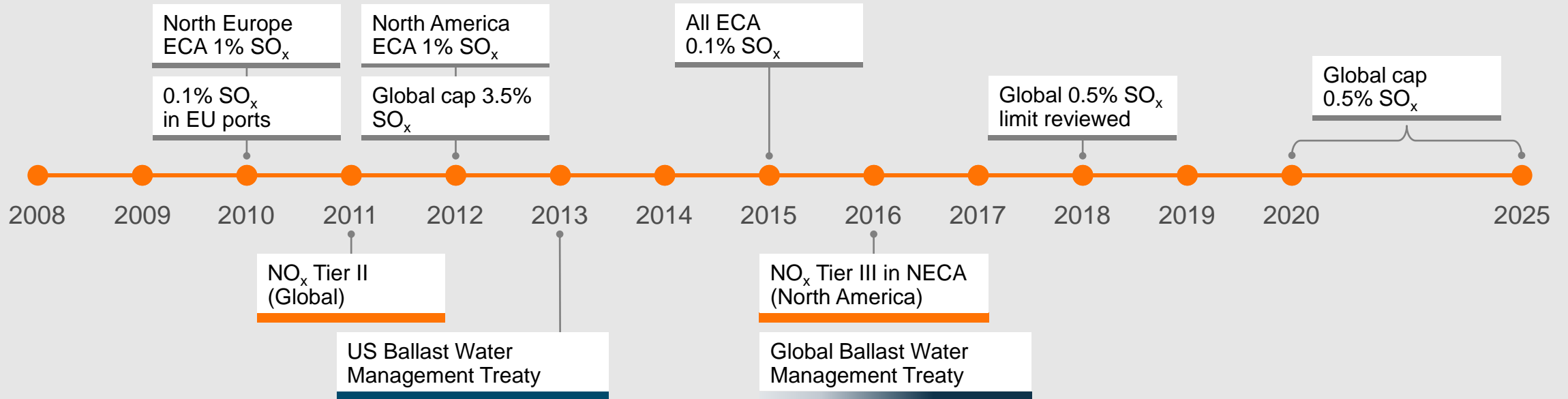
Market trends & drivers

- Urbanisation, globalisation and increase in population, support seaborne trade growth, and drive changing trade patterns
- Technological developments and new breakthroughs (digitalisation, disruptive technologies, batteries etc.) demand faster product development, and create new business models, opportunities, and new risks
- Increasing consumption and growing middle class population support demand for cruise sector and are most visible in Asia
- Growing energy demand
- Climate change drives stronger demand for renewables over fossil fuels, impacting investment in offshore
- Gas remains an important fuel from black to green energy

“ The contracting of ships is highly cyclical, and is strongly dependent on the state of the freight market and on the cycles of world economy. ”

Clarksons Research

Environmental legislation continues



SO_x legislation:

- Sulphur free fuels
 - LNG
 - Methanol, LPG, bio-fuels
 - Distillates
- Scrubbers in combination with HFO

NO_x legislation:

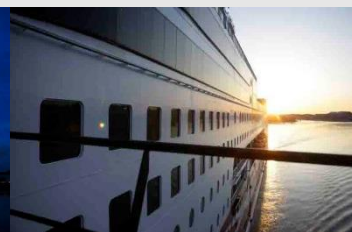
- Tier II
 - Engine internal methods
- Tier III
 - Secondary methods (SCR)
 - LNG/NG with lean burning process (dual-fuel engines)

Ballast Water Treaty:

- UV ballast water treatment system
- EC ballast water treatment system
- Minimised amount of ballast water through Ship Design

Wärtsilä dual-fuel references

>1,500 engines > 16 million running hours



MERCHANT

881 ENGINES

- 204 LNG carriers
- 14 Tankers
- 11 LPG carriers
- 4 Containers
- 3 Bulk carriers
- 2 Car carriers

OFFSHORE

132 ENGINES

- 24 Offshore supply vessels
- 6 FPSO vessels
- 2 FSO vessels
- 1 Jack-Up rig

SPECIALS

46 ENGINES

- 16 IWW vessels
- 6 Tugs
- 1 Navy vessel
- 1 Icebreaker
- 1 Hopper Dredger
- 1 Guide ship
- 1 Cable Layer vessel

CRUISE & FERRY

66 ENGINES

- 12 Ferries
- 3 ROPAX vessels
- 1 Cruise and ferry

DUAL-FUEL CONVERSION

36 ENGINES

- 4 FPSO vessels
- 3 Ferries
- 2 RORO vessels
- 1 IWW vessel
- 1 Chemical tanker

2 STROKE DUAL-FUEL

35 ENGINES

- 10 Large LNG carriers, 2 engines each
- 6 Container Feeder vessels
- 4 Chemical tankers
- 4 Asphalt Carriers
- 1 Small LNG carrier

DUAL-FUEL POWER PLANTS

376 ENGINES

- 82 plants
- Output **5,031 MW**
- Online since **1997**

Services

We create lifecycle services with our customers, enhancing their businesses – whenever, wherever



Benefits of working with Services

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.

- **11,000 service professionals with leading technology know-how**
- **Certified and extensive OEM experience**
- **Comprehensive digital approach for optimising operations and enabling growth**
- **Installed base 182,000 MW**
- **Global company with local reach**



A broad range of expertise and services



**LIFECYCLE SOLUTIONS INCL.
WÄRTSILÄ GENIUS SERVICES**



SERVICE PROJECTS



ENGINE SERVICES



**ENGINE CONTROL & PLANT
AUTOMATION**



PROPULSION SERVICES



SEALS & BEARING SERVICES



HYDRO & INDUSTRIAL SERVICES



TRAINING SERVICES

Strategic focus areas



CUSTOMER FIRST



GO DIGITAL



**ASSET & LIFECYCLE
MANAGEMENT**



**NEW CUSTOMER
ACCESS**

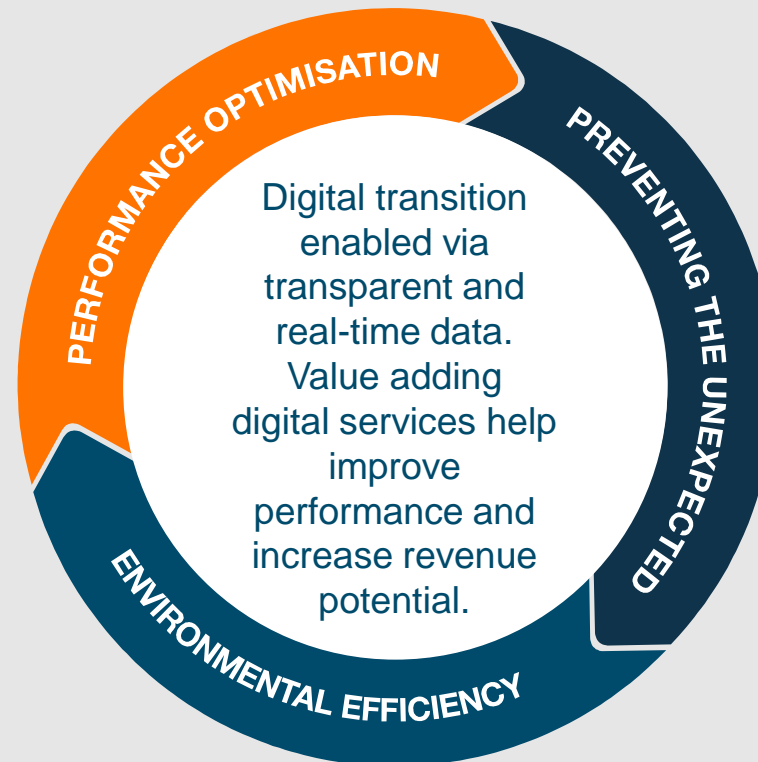
We will grow by

- Doing more business with existing customers
- Exploring opportunities within new customer segments by leveraging current competences
- Acquiring businesses in growing markets

Improving lifecycle efficiency

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

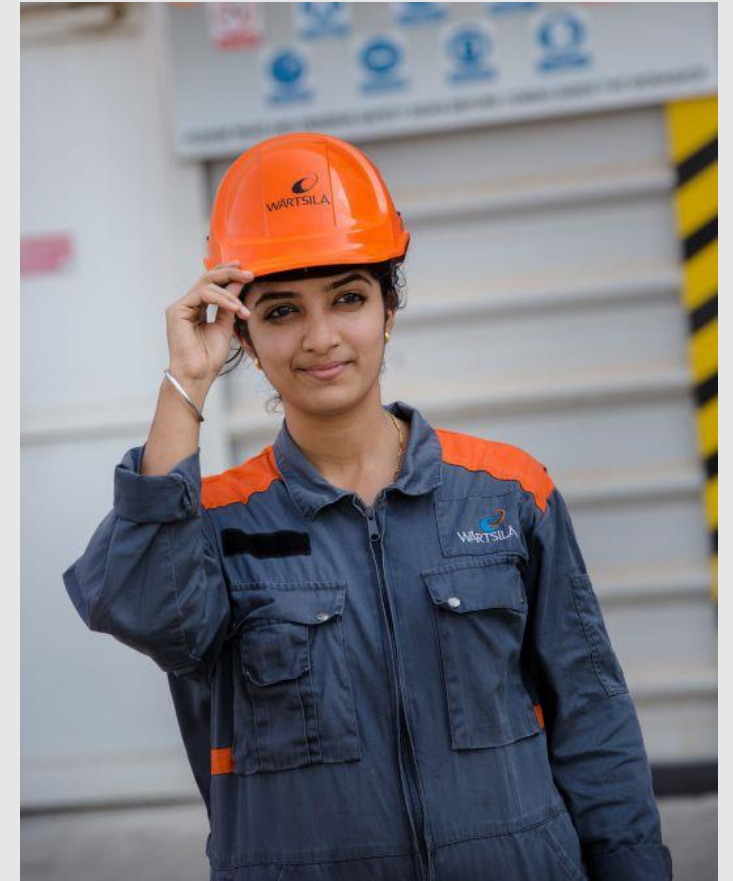
Environmental legislation and energy efficiency are major concerns for our customers. Sustainable solution options enable a reduced environmental impact and improved operational efficiency.



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

- Development of installed base and installation utilisation
- Growing importance of gas as a fuel
- Need for real time monitoring and analytics
- Need to increase uptime and availability
- Focus on efficiency
- New and stricter regulations
- A dynamic global market, but with distinctive segment-specific and local needs



E&A = Electrical & Automation
EBIT = earning before interests and taxes
ECA = emission control area
EPC = engineering, procurement and construction
FPSO = floating production, storage and offloading (vessel)
FSO = floating storage and offloading (vessel)
HFO = heavy fuel oil
IPPs = independent power producers
IWW = inland waterways (vessel)
LNG = liquified natural gas

LPG = liquified petroleum gas
MW = megawatt
NECA = nitrogen emission control area
NG = natural gas
NO_x = nitrogen oxide
OEM = original equipment manufacturers
R&D = research & development
ROPAX = combined RORO and passenger ship
RORO = roll-on/roll-off (vessel)
SCR = selective catalytic reduction
SO_x = sulphur oxide