

WÄRTSILÄ CORPORATION

Corporate presentation 2017

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

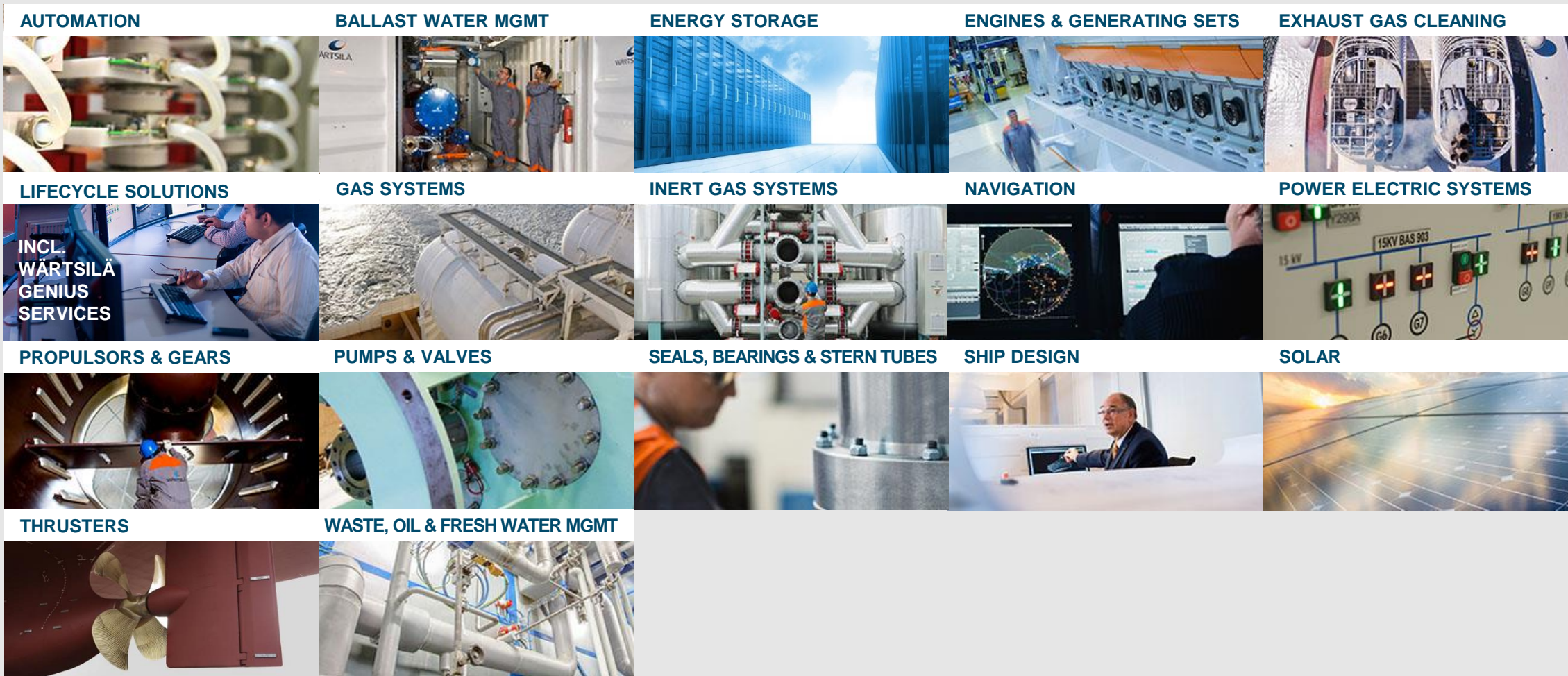


ENVIRONMENTAL SOLUTIONS



FUEL FLEXIBILITY

A Comprehensive product portfolio





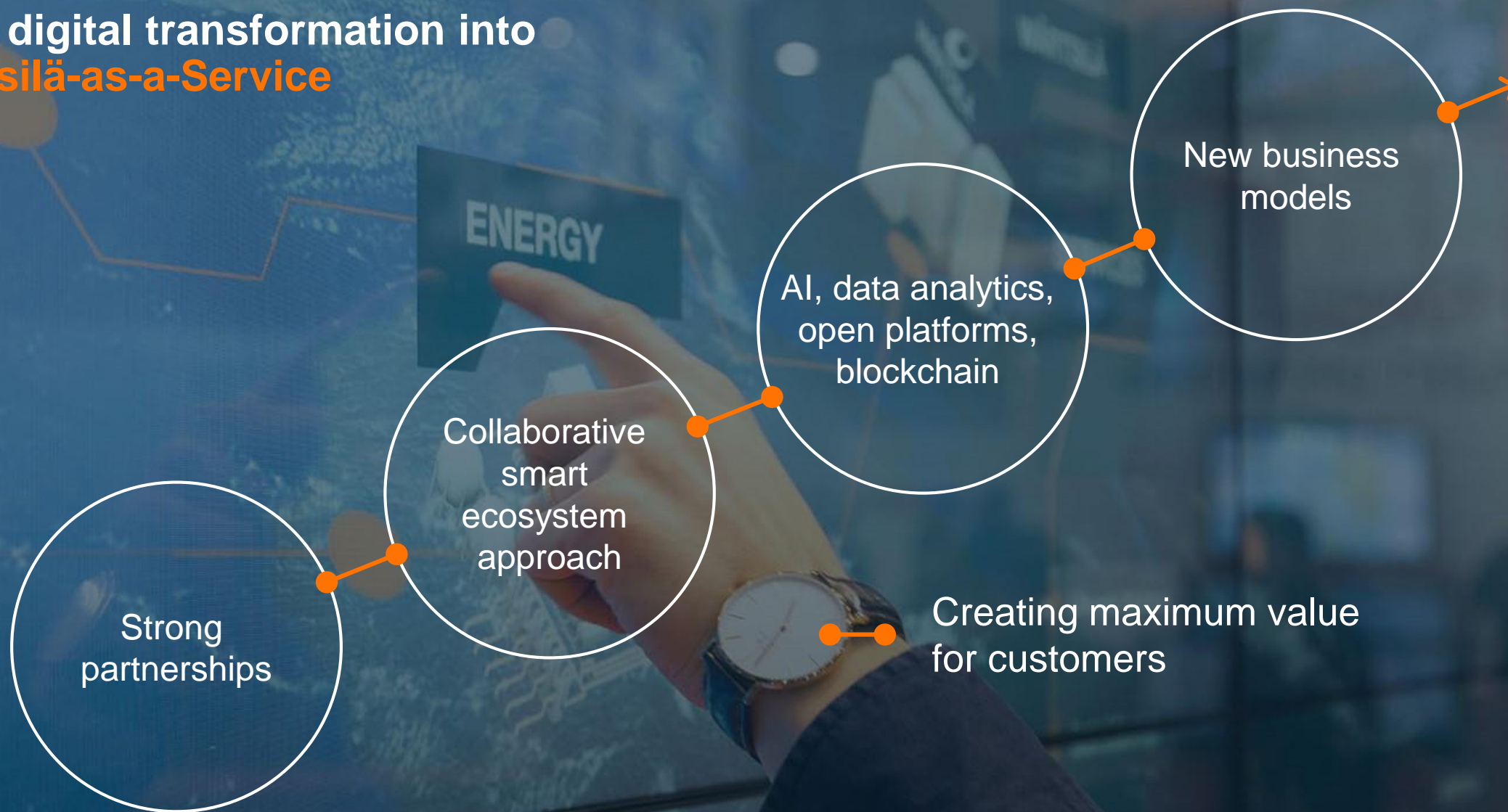
Smart technology company

Wärtsilä takes a leadership role in the Smart Marine and Smart Energy ecosystems throughout their entire lifecycle.

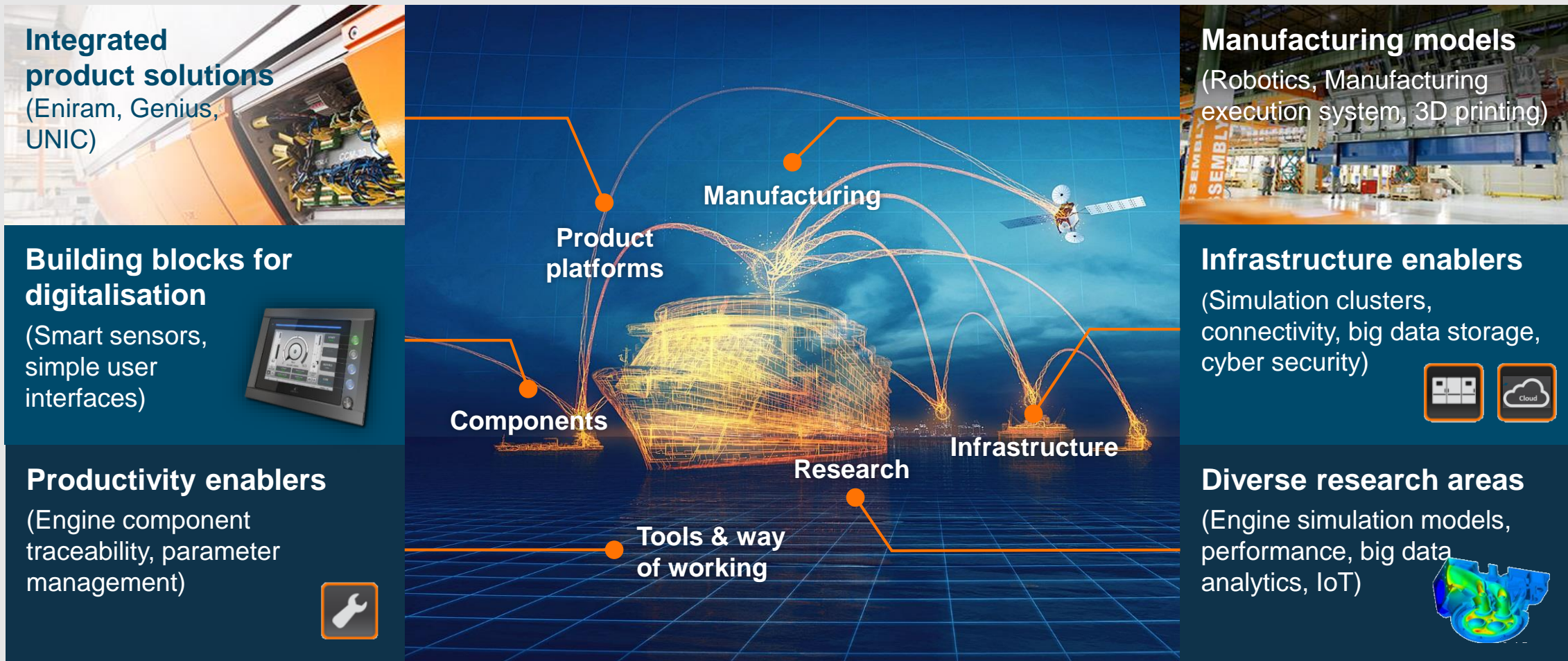
We aim at increasing efficiency while enabling a zero emission society.

- 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



Digital insight combined with solutions – examples



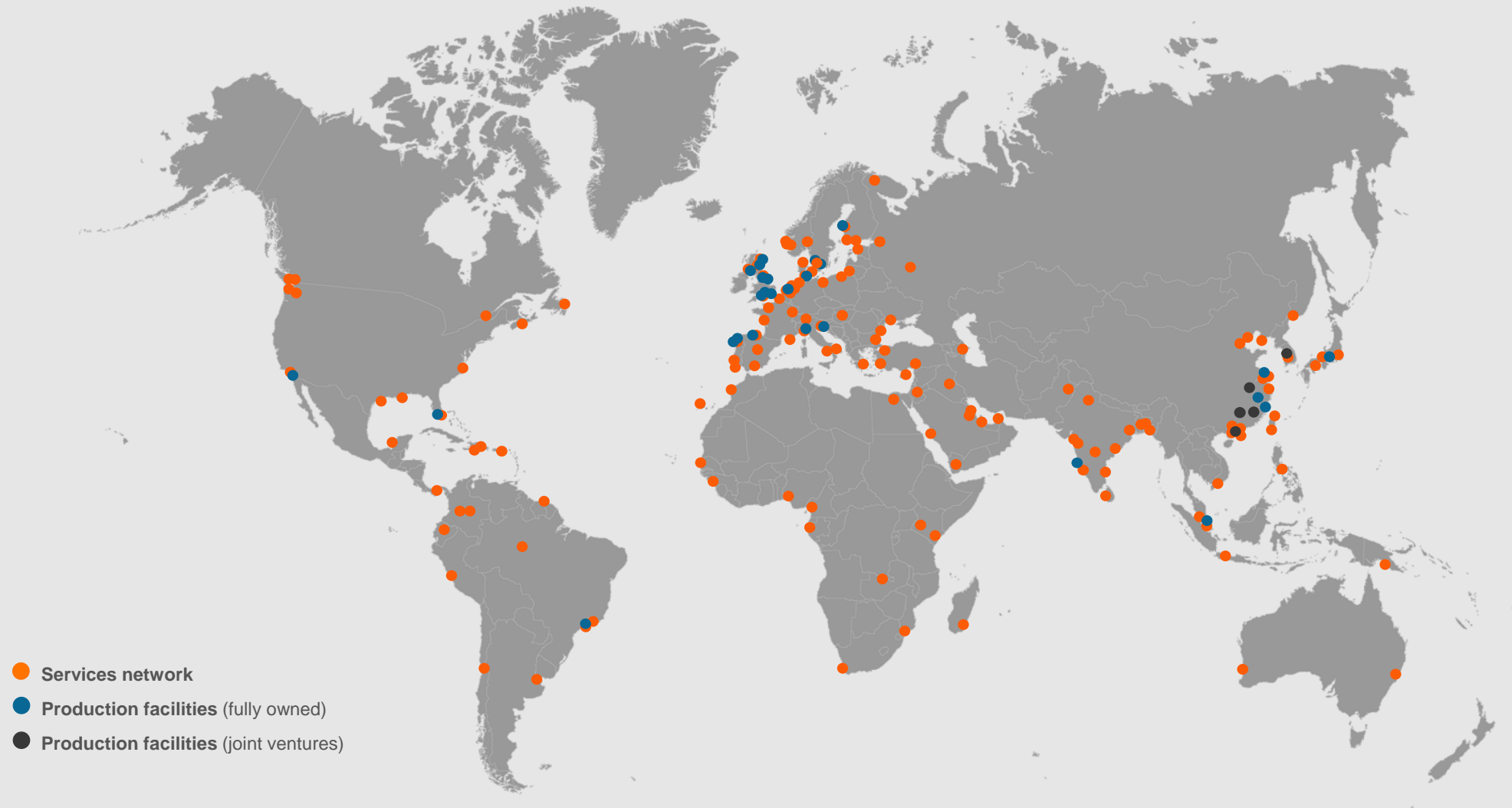


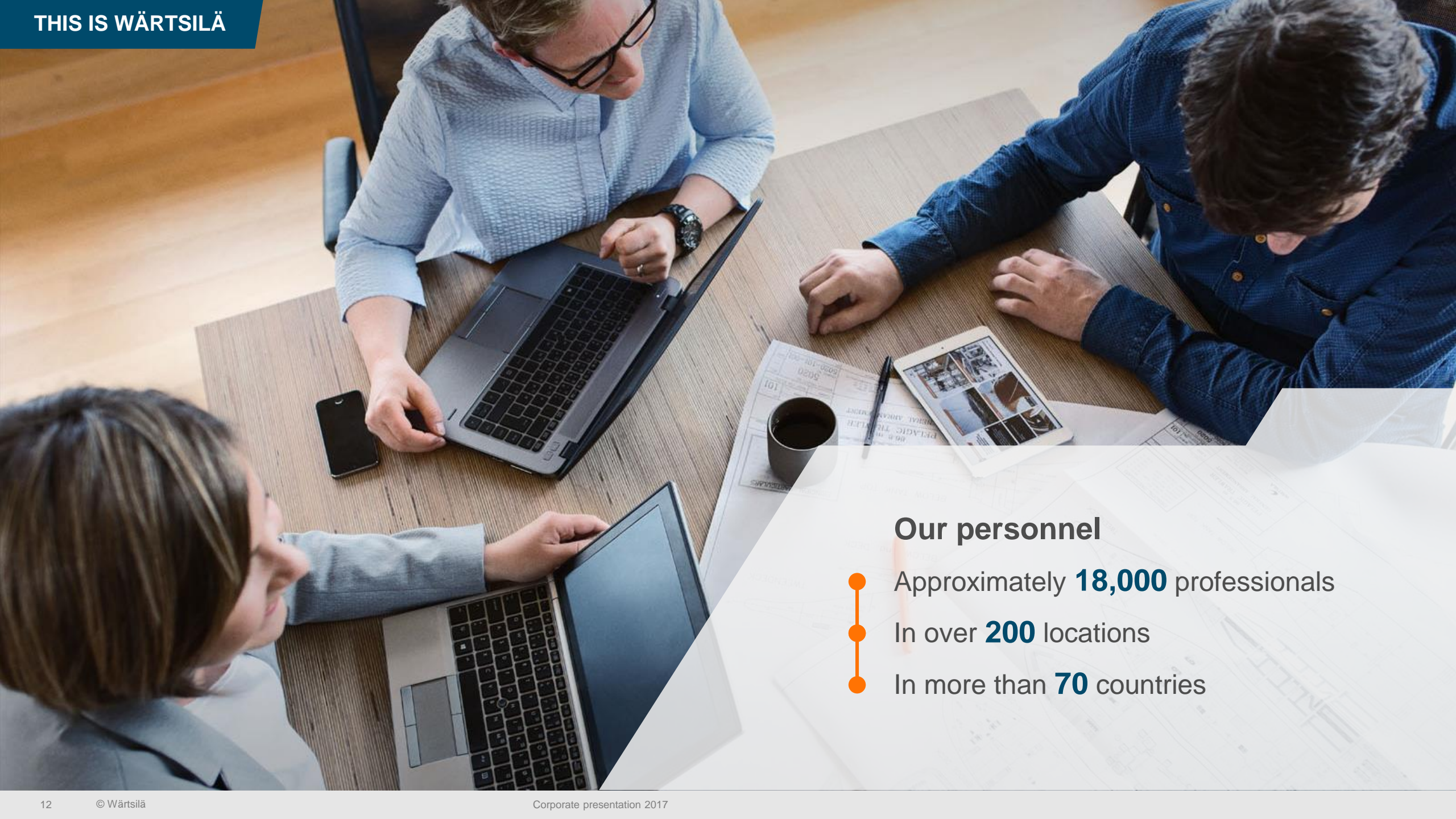
Focus on research and development

- 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



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

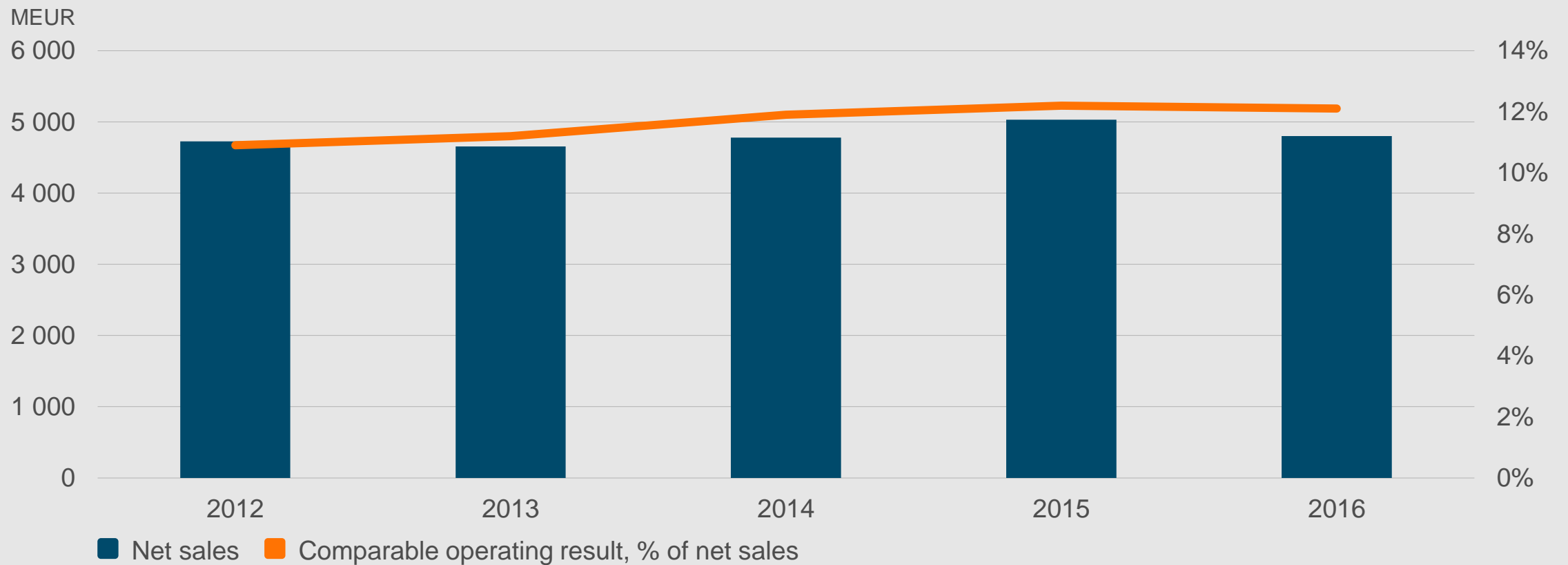


Making use of digital technology in lifecycle solutions to optimise the operations of our customers

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

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

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



**LIFECYCLE SOLUTIONS INCL.
WÄRTSILÄ GENIUS SERVICES**



SERVICE PROJECTS



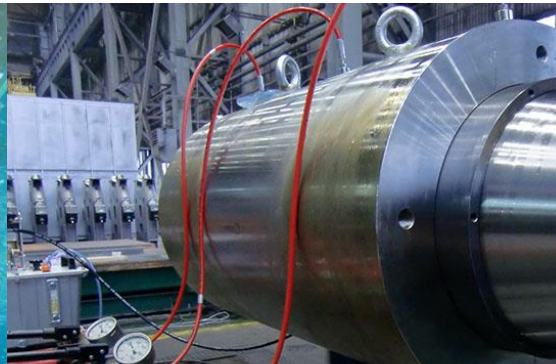
ENGINE SERVICES



TURBOCHARGER SERVICES



PROPULSION SERVICES



**SEALS & BEARINGS
SERVICES**



**HYDRO & INDUSTRIAL
SERVICES**

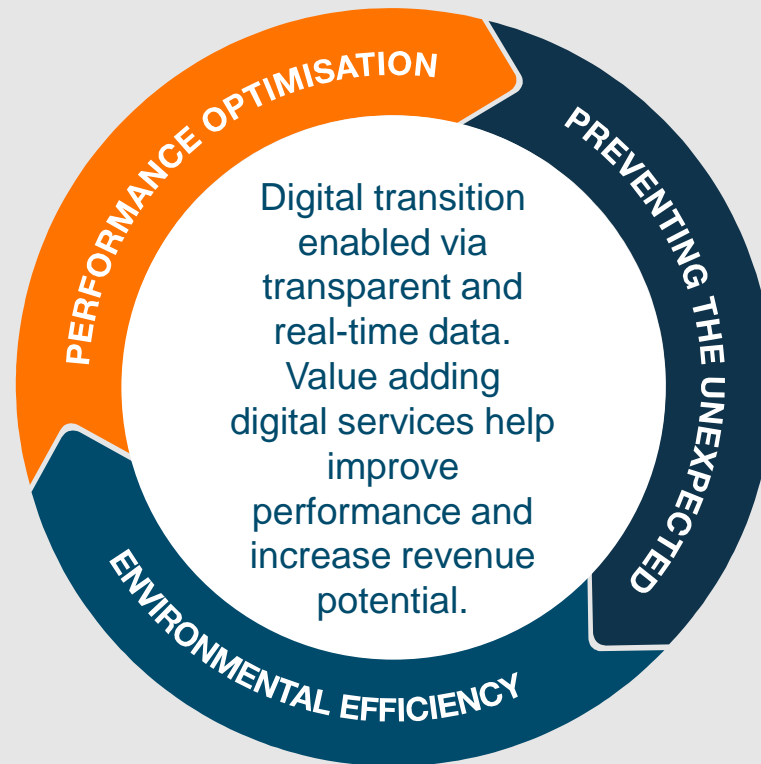


TRAINING SERVICES

Improving lifecycle efficiency

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

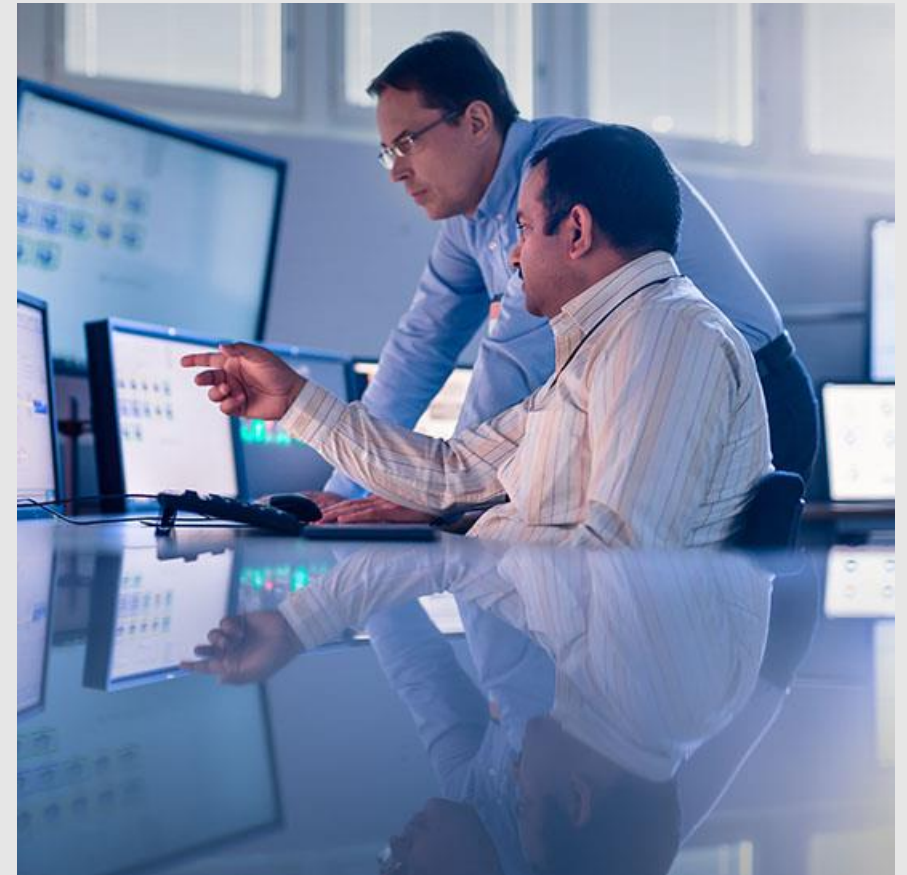
Environmental legislation and energy efficiency are major concerns for our customers. Sustainable solution options enable a reduced environmental impact and improved operational efficiency.



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

- 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	GO DIGITAL	ASSET & LIFECYCLE MANAGEMENT	NEW CUSTOMER ACCESS
			
<p>Growth in existing business by improving customer loyalty</p>	<p>Growth through optimising customer performance</p>	<p>Growth through value-adding lifecycle services & projects</p>	<p>Growth beyond the traditional Wärtsilä installed base</p>

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





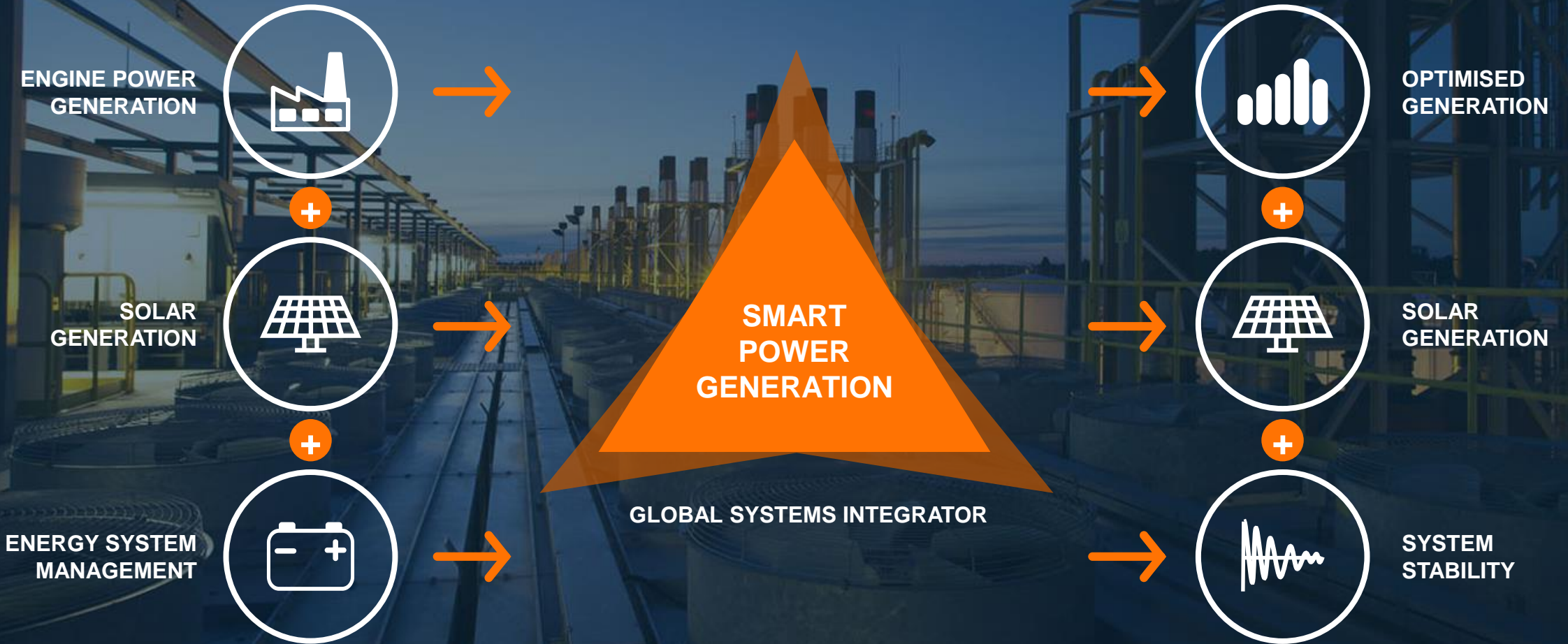
ENGINE POWER PLANTS

LNG INFRASTRUCTURE



**SOLAR PV AND ENGINE-SOLAR
HYBRID POWER PLANTS**

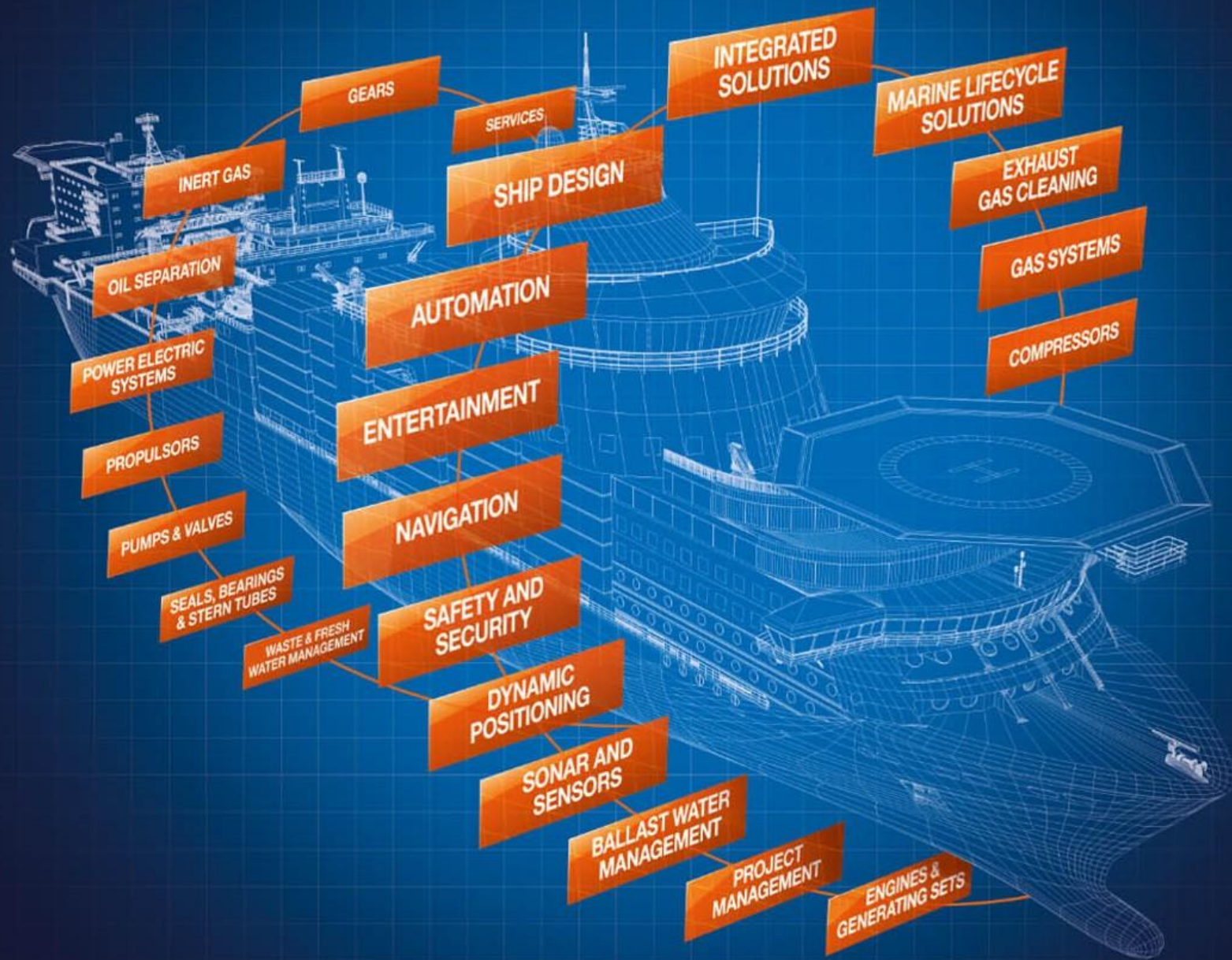




MARINE SOLUTIONS

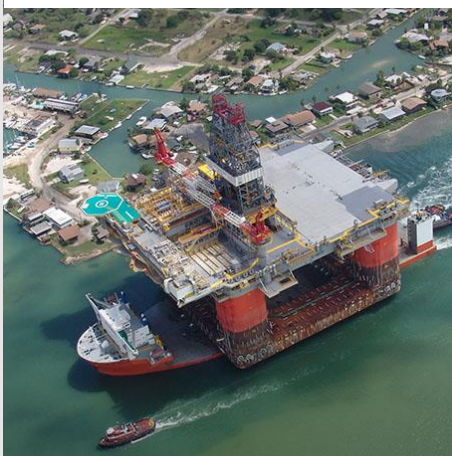
We are the leading provider of innovative products and integrated solutions in the marine and oil & gas industries. As a leader in our fields, we need to continuously develop and transform ourselves to meet changing customer needs. We have a passion to do right for our customers and the environment.



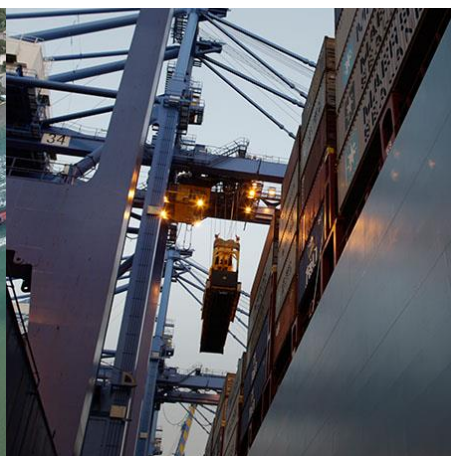


Our offering covers all market segments

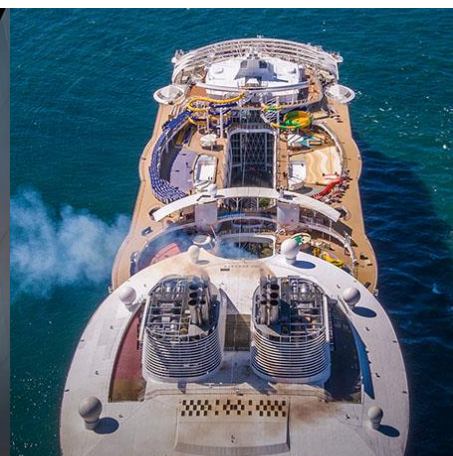
OIL & GAS



MERCHANT



CRUISE & FERRY



NAVY



SPECIAL VESSELS



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 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



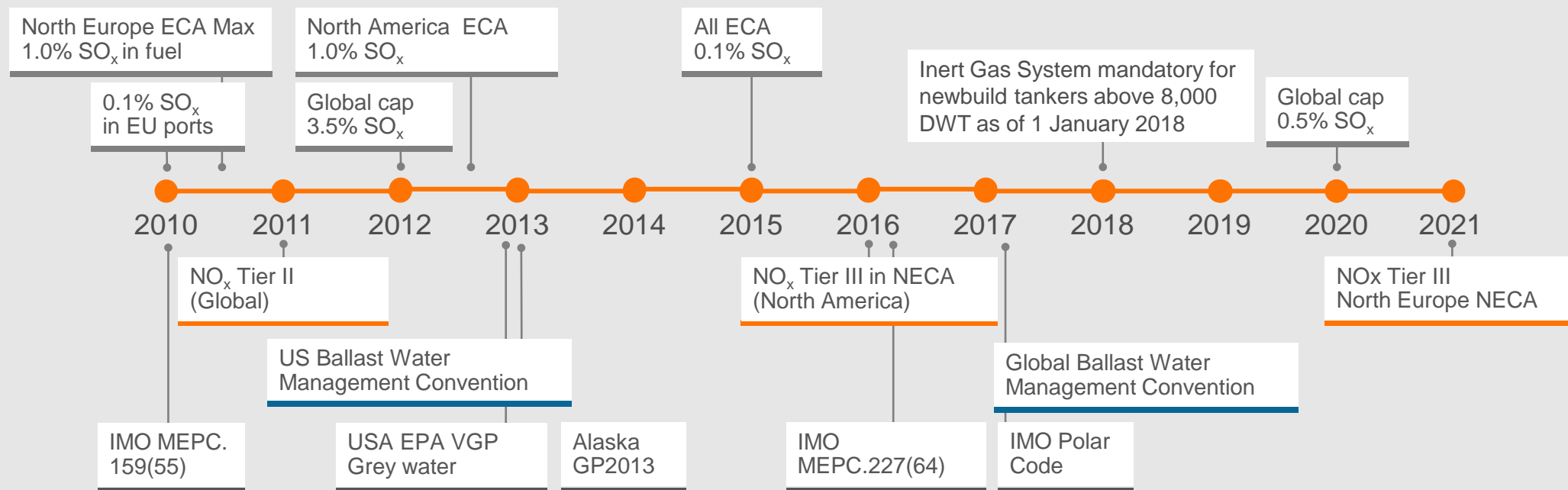
Data generation across the portfolio enabling big data analytics and a full-blown automation, navigation and control system offering

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

AI	= Artificial Intelligence	IPPs	= independent power producers
DWT	= deadweight tonnage	LNG	= liquified natural gas
E&A	= Electrical & Automation	MEPC	= Marine Environment Protection Committee
ECA	= emission control area	NECA	= nitrogen emission control area
EPA	= Environmental Protection Agency	NO_x	= nitrogen oxide
EPC	= engineering, procurement and construction	PV	= photovoltaic
GT	= Gross tonnage	R&D	= research & development
HFO	= heavy fuel oil	SO_x	= sulphur oxide
IMO	= International Maritime Organization	VGP	= Vessel General Permit
IoT	= The Internet of Things		

THANK YOU!



WÄRTSILÄ