



Wärtsilä Corporation  
Annual Report 2018

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This is Wärtsilä

# This is Wärtsilä

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## CEO review

### Growth in order intake and net sales

The year 2018 was marked by positive momentum in ordering activity in our marine related businesses, and growth in net sales. The latter was primarily due to increased newbuild marine and energy deliveries, which, in combination with slower than anticipated development in transactional service volumes and higher costs related to research, development, and digitalisation, burdened profitability.

### Well positioned in challenging markets

In the energy markets, economic development, geopolitical uncertainty, and currency fluctuations resulted in a slowdown in customer decision-making, which adversely affected ordering activity. Although the competitive environment is demanding, our offering is well positioned to respond to the prevailing market trends. The costs of solar and wind power continue to decrease, and it has become increasingly economical to replace traditional baseload capacity with renewables and flexibility. This expansion of renewable energy was evidenced with major contracts from Australia and the USA being awarded to us. At the same time, the continued need for reliable capacity to support economic growth and alleviate power shortages is supporting power plant investments in the emerging markets.

The pace of recovery in the marine markets has been slower than anticipated, thus burdening the newbuild market and causing many customers to limit their service spend to essential repairs and maintenance. Overcapacity and geopolitical uncertainty are the primary sources of concern. Our broad market exposure has once again served us well, as vessel contracting activity has favoured the more specialised segments such as cruise and ferry and LNG carriers. Our customers' appetite for service in these segments has also remained healthy. Environmental considerations emerged as a key theme in the marine markets. For Wärtsilä, this was reflected in a significant growth in demand for exhaust gas cleaning systems in both the newbuild and retrofit markets, as customers sought to prepare themselves for compliance with the approaching IMO 2020 global sulphur cap.

### Progress towards realising our vision for the marine and energy markets

Maximising renewable generation is essential in ensuring a sustainable and profitable future for the energy industry. In this context, Wärtsilä launched a new vision for the energy market during the year. Our ambition is to lead the industry's transformation towards a future that utilises 100% renewable energy, with flexible capacity as the enabler. The introduction of new solutions for the integration of renewables and storage, such as the Wärtsilä Hybrid Solar and GridSolv, an advanced modularised energy storage solution, represents concrete examples of the steps we have taken in realising this vision.

The marine industry is being transformed through increasing connectivity, new business models, and a stronger focus on environmental compliance. We are committed to supporting our customers by taking a leading role in this transition. This forms the basis for our Smart Marine vision, which emphasises leveraging the opportunities offered by digitalisation to promote safety, alleviate environmental impact, and improve efficiency. A key milestone for the year was further strengthening our offering of smart solutions through the acquisition of Transas, a leader in marine navigation solutions, training and simulation services, as well as ship traffic control. Other examples of progress made in the field of intelligent shipping include the successful testing of our automated dock-to-dock concept, and a project initiated to develop an autonomously navigated harbour tug.

With the growth in digital solutions, cyber security has become vital to the operation and management of many safety, security, and protection systems in the shipping environment. With this in mind, we entered into a partnership with Templar Executives, a specialist cyber security company, to establish a cyber academy offering courses designed to support and enhance the collective cyber maturity of the wider shipping community. The partnership has also resulted in the introduction of a new international cyber intelligence and incident support platform, MCERT, that enhances cyber resilience for the maritime ecosystem.

## Emphasising collaboration, new ways of working, and responsible business conduct

Attracting and retaining personnel is key for safeguarding our future success. Our aim is to foster an inclusive corporate culture, emphasising diversity and high ethical standards, and safe working conditions. In this context, we are committed to supporting the UN Global Compact and its principles with respect to human rights, labour, the environment, and anti-corruption. In 2018, the lost-time injury frequency increased slightly to 2.50 (2.48). After successive years of improvement in this area, we are disturbed to see even this small increase. We will re-double our efforts towards achieving our goal of zero time lost through injuries.

Our organisation is developing along with its transformation into a technology services company. Collaboration and knowledge sharing, both within the Group and externally with partners, suppliers and customers, is central to aligning ourselves to changing market requirements and for developing the smart technologies needed. In this, we emphasise new working methods and sustainable development throughout the organisation. Our focus on these areas is enhanced with our move during the autumn into state-of-the-art office premises in Helsinki, wherein the latest smart real estate technologies are incorporated, and with our decision to build a new centre for research, development and production, in Vaasa, Finland. When finalised in 2020, this Smart Technology Hub will enable more agile and efficient testing, development, and production of solutions for the maritime, oil and gas, and energy industries. We also opened an Acceleration Centre in Singapore, focusing on areas such as intelligent vessels, connected smart port operations, cyber-physical security, and digital acceleration with start-ups. This represents yet another example of our commitment to promoting innovation and collaboration within our operating sphere.

## Looking ahead

We enter the year with a new organisation formed around two business areas that incorporate both newbuild activities and services. With this structure our primary focus is to enhance the value that we deliver to customers through a stronger emphasis on lifecycle solutions that are tailored to specific market needs, increased flexibility, and even faster response times. I am confident that this change will enable us to develop stronger partnerships with our customers and ensure the continued rapid development of innovative solutions, thereby accelerating our progression towards the long-term target of profitable growth.

Market conditions in 2019 are expected to be largely in line with those seen during the previous year. The pace of recovery in the marine markets will remain slow, and, while the need for flexible power capacity supports activity in the energy markets, the competitive environment remains a concern. For these reasons, the demand outlook for both our businesses is solid. To stay competitive in the current market environment, we must initiate actions to increase customer value and secure profitable growth. This is the basis for the group-wide realignment program announced in January 2019. In addition to reviewing our cost structure, planned actions include an increased focus on targeted sales activities, developing the agreements-based and “as-a-service” business, and optimising the business portfolio.

I would like to take this opportunity to thank the entire Wärtsilä personnel for its commitment to furthering our common goals, our customers for your trust in our solutions and services, and last but not least, our shareholders for your confidence in Wärtsilä’s future development.



Jaakko Eskola  
President & CEO

## Key figures

MEUR	2018	10-12/2018	7-9/2018	4-6/2018	1-3/2018	Restated	
						2017 <sup>3</sup>	2016
Net sales	5 174	1 532	1 330	1 246	1 066	4 911	4 801
Services	2 426	737	572	582	535	2 407	2 190
Energy Solutions	1 517	431	451	368	267	1 401	943
Marine Solutions	1 232	364	307	296	264	1 104	1 667
Depreciation, amortisation and impairment	-130	-37	-31	-31	-30	-134	-138
Comparable operating result <sup>1</sup>	577	226	141	123	88	576	583
Comparable operating result <sup>1</sup> , %	11.2	14.7	10.6	9.8	8.3	11.7	12.1
Profit before taxes	502	194	130	102	76	491	479
Earnings per share, EUR <sup>2</sup>	0.65	0.25	0.17	0.13	0.10	0.63	0.60
Order intake	6 307	1 874	1 372	1 553	1 507	5 644	4 927

MEUR	2018	31.12.2018	30.9.2018	30.6.2018	31.3.2018	Restated	
						2017 <sup>3</sup>	2016
Balance sheet total	6 059	6 059	5 880	5 906	5 632	5 648	5 391
Interest-bearing liabilities, gross	823	823	874	893	726	619	629
Cash and cash equivalents	487	487	221	245	282	379	472
ROI, continuing operations, %	18.1	18.1	18.6	18.9	19.7	18.5	17.1
Gearing	0.14	0.14	0.28	0.29	0.21	0.10	0.07
Order book, end of period	6 166	6 166	5 918	5 904	5 490	5 100	4 696
Year-end market capitalisation	8 222	8 222	9 935	9 959	10 621	10 375	8 418
Personnel, number at end of period	19 294	19 294	19 420	19 231	18 182	18 065	18 011

<sup>1</sup> Figures exclude items affecting comparability.

<sup>2</sup> The share issue without payment (share split) approved by Wärtsilä Corporation's Annual General Meeting on 8 March 2018 increased the total number of Wärtsilä shares to 591 723 390. Share related figures in the comparison periods have been restated accordingly.

<sup>3</sup> Figures for comparison period 2017 have been restated due to the adoption of IFRS 15 and an internal transfer of service activities.

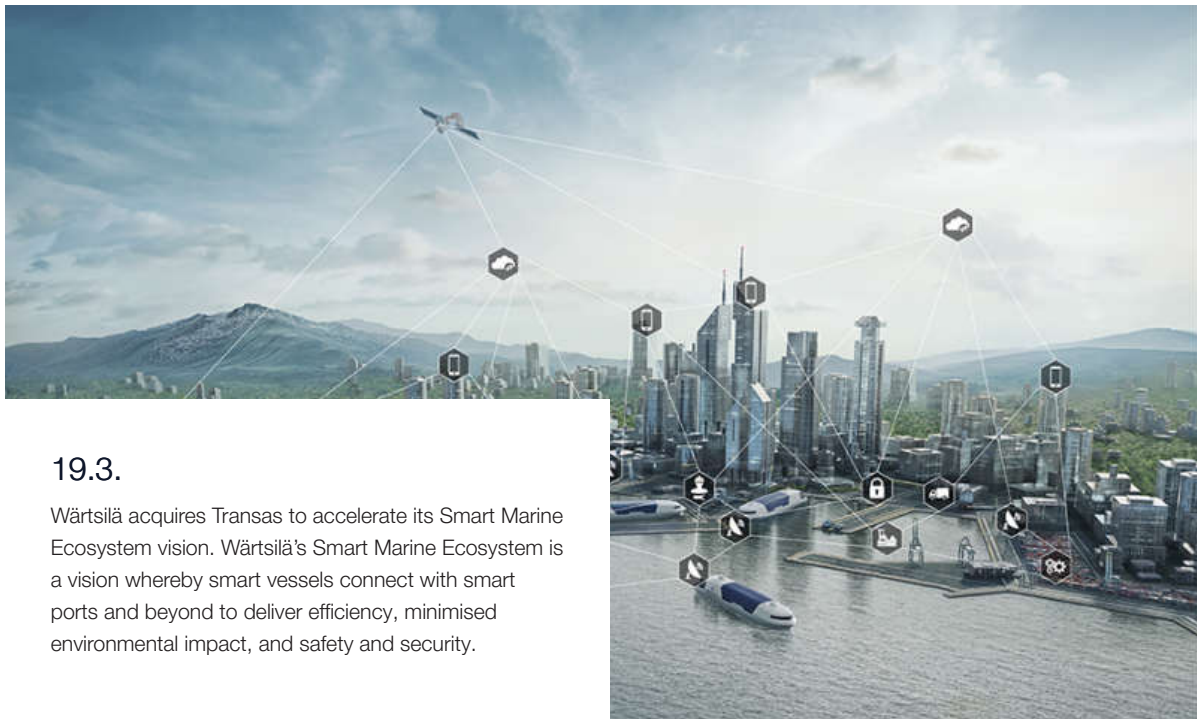


## Sustainability highlights



### 23.1.

Wärtsilä listed among the “2018 Global 100” Most Sustainable Corporations in the World. The recognition took place in Davos as an aside to the World Economic Forum. Selected from a pool of 5,994 publicly listed companies, the Global 100 companies represent 22 countries and encompass all sectors of the economy.



### 19.3.

Wärtsilä acquires Transas to accelerate its Smart Marine Ecosystem vision. Wärtsilä’s Smart Marine Ecosystem is a vision whereby smart vessels connect with smart ports and beyond to deliver efficiency, minimised environmental impact, and safety and security.





### 20.3.

Wärtsilä delivers the world's largest solar hybrid power plant to Burkina Faso, reducing annual CO<sub>2</sub> emissions by as much as 18,500 tons. By hybridising an existing 57 MW diesel power plant with the new solar PV plant and related hybrid plant controls, the plant's performance has been significantly enhanced.



### 26.3.

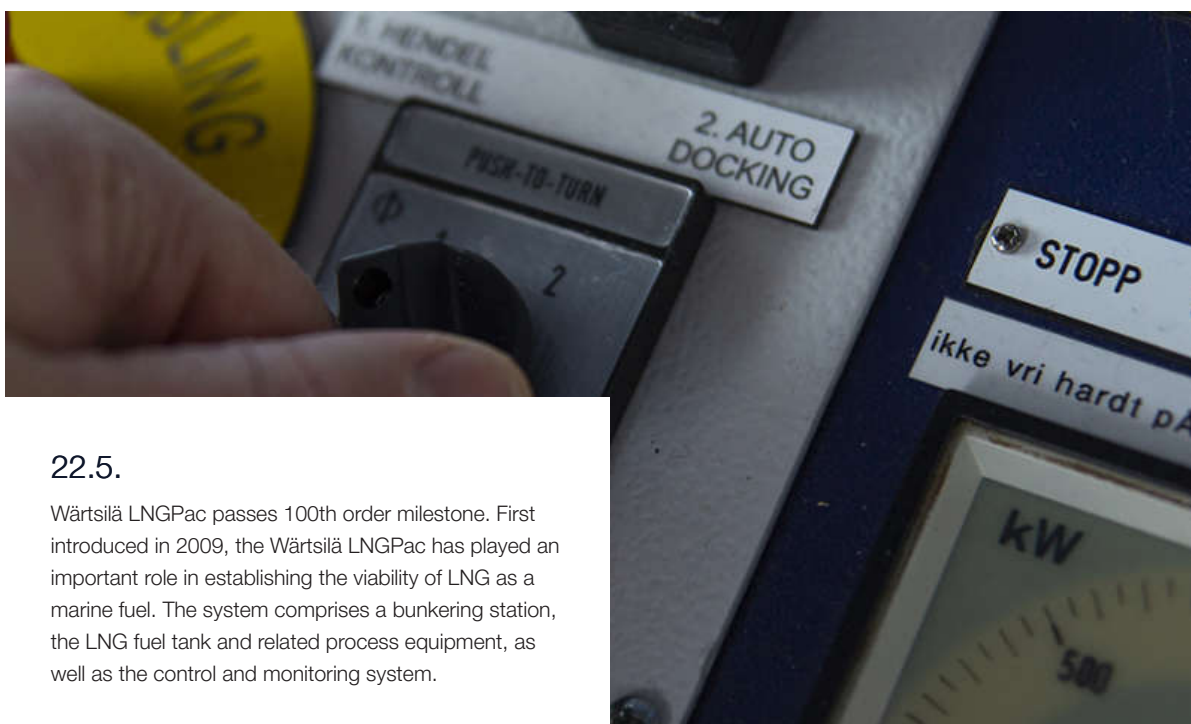
Wärtsilä contracted to supply VOC recovery systems for two new shuttle tankers, saving tons of fuel each year. The ships will operate on Liquefied Natural Gas (LNG) as the primary fuel, but VOC – the gas evaporating from the oil cargo tanks – will also be utilised as fuel by mixing it with the LNG.





25.4.

Wärtsilä contracted to supply a 130 MW Flexicycle power plant to Senegal, enabling lower energy costs and the integration of more renewable energy. The Malicounda power project will provide the flexibility needed to facilitate the integration of intermittent renewable energy into the country's network.



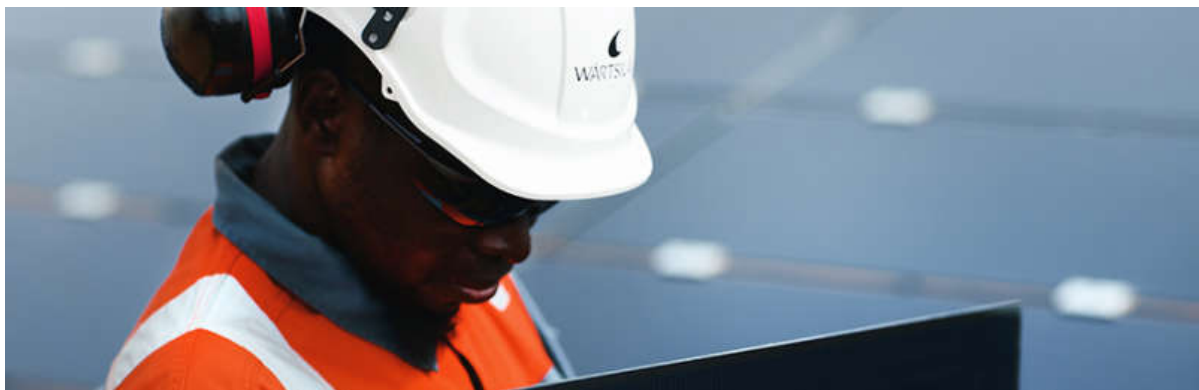
22.5.

Wärtsilä LNGPac passes 100th order milestone. First introduced in 2009, the Wärtsilä LNGPac has played an important role in establishing the viability of LNG as a marine fuel. The system comprises a bunkering station, the LNG fuel tank and related process equipment, as well as the control and monitoring system.



## 22.5.

Wärtsilä joins the Climate Leadership Coalition (CLC), a network of leading Finnish companies, research organisations and cities, aiming for the mitigation of climate change. The CLC believes that business solutions are central in tackling climate change, which is in line with Wärtsilä's purpose and strategy.

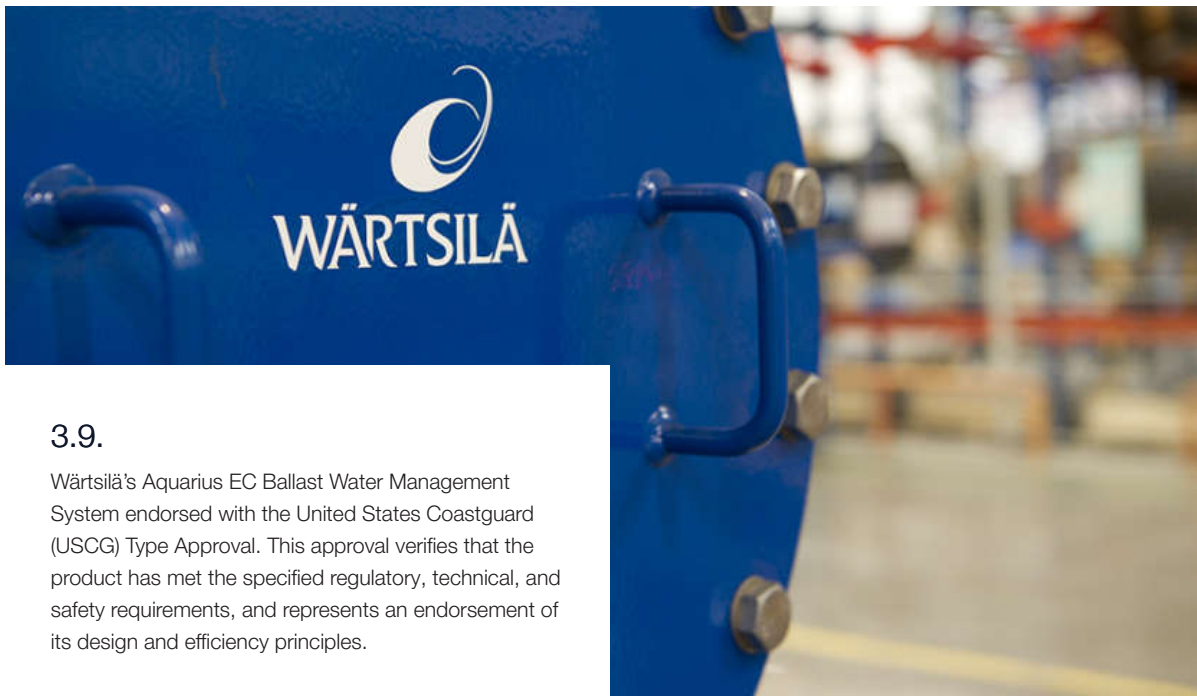


## 20.6.

Wärtsilä introduces its new hybrid solar PV and storage solution. The Wärtsilä Hybrid Solar integrates solar PV generation and storage to deliver a true "renewables as baseload" solution that is climate-friendly, increases resilience and efficiencies, and which can be supported by a power producer's existing grid infrastructure.

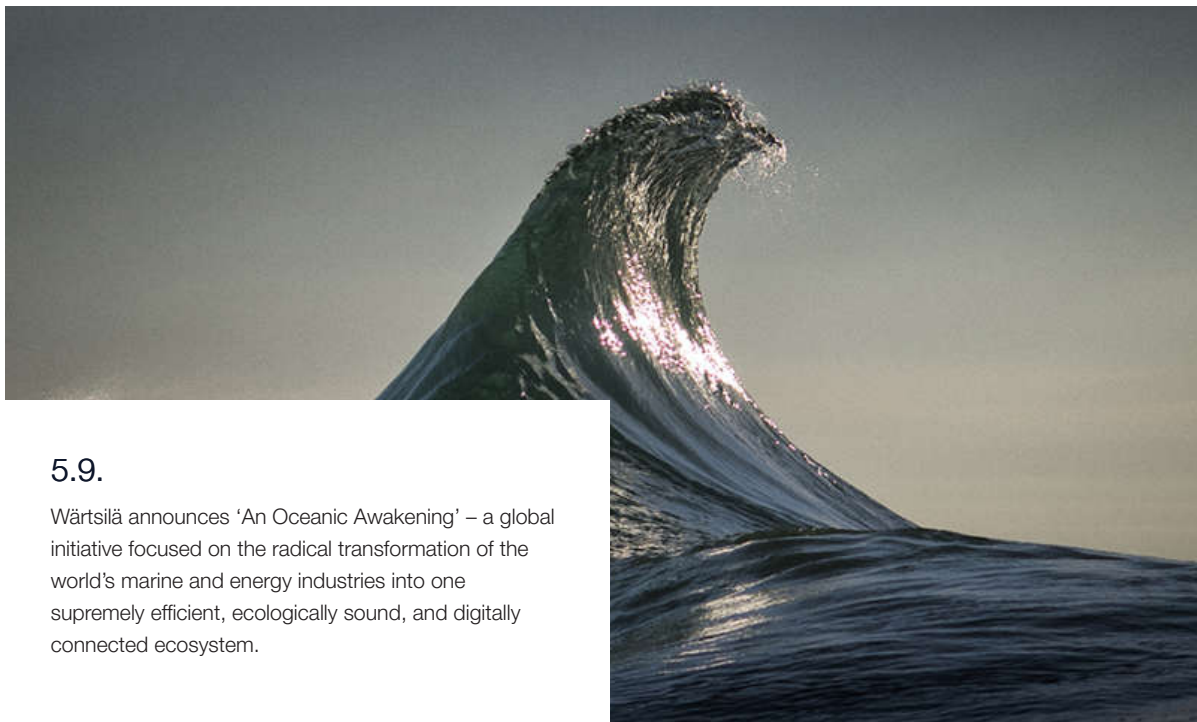






### 3.9.

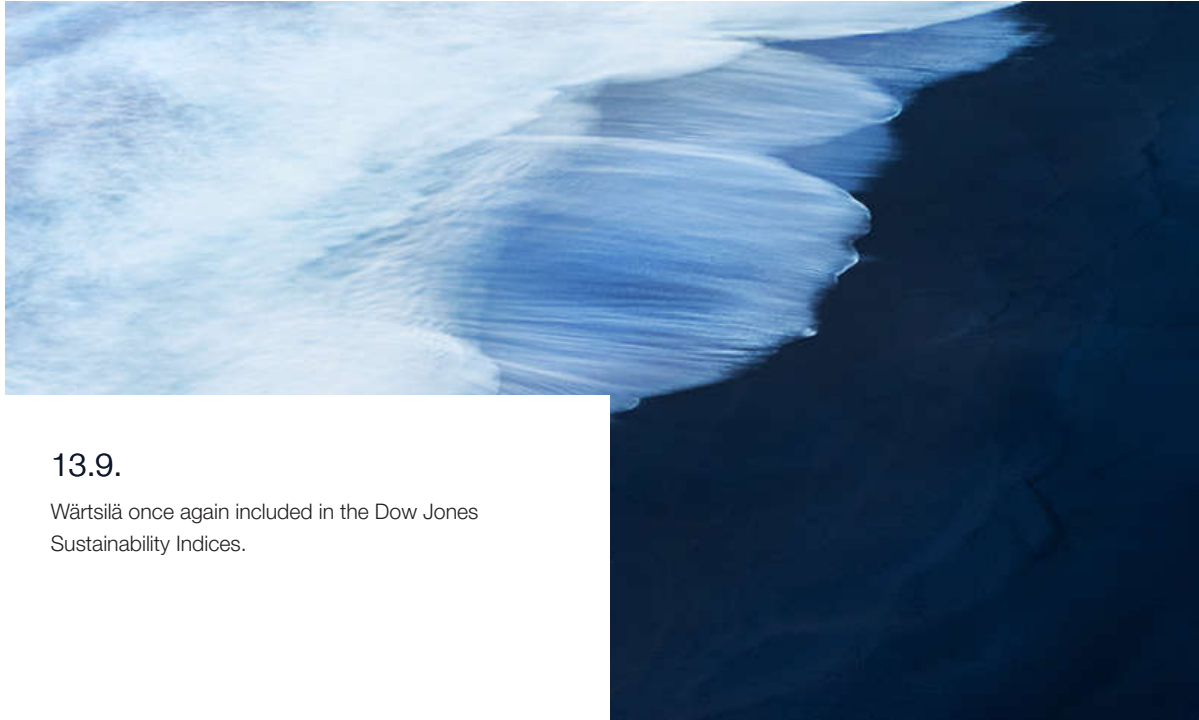
Wärtsilä's Aquarius EC Ballast Water Management System endorsed with the United States Coastguard (USCG) Type Approval. This approval verifies that the product has met the specified regulatory, technical, and safety requirements, and represents an endorsement of its design and efficiency principles.



### 5.9.

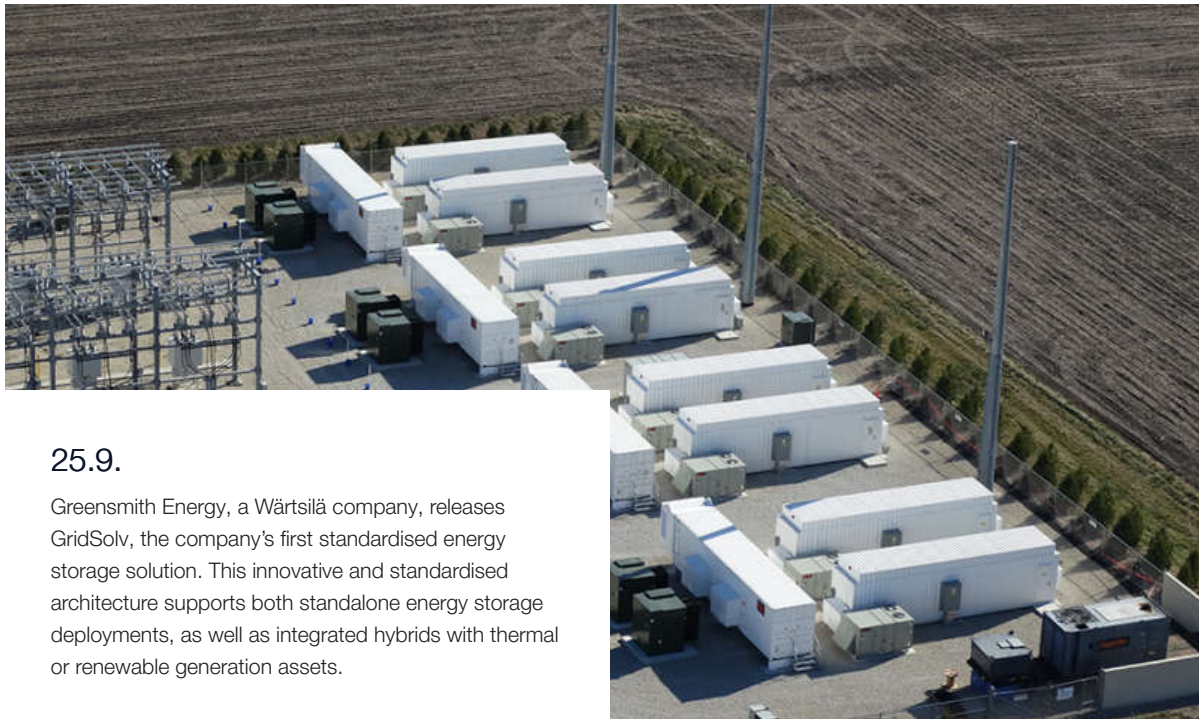
Wärtsilä announces 'An Oceanic Awakening' – a global initiative focused on the radical transformation of the world's marine and energy industries into one supremely efficient, ecologically sound, and digitally connected ecosystem.





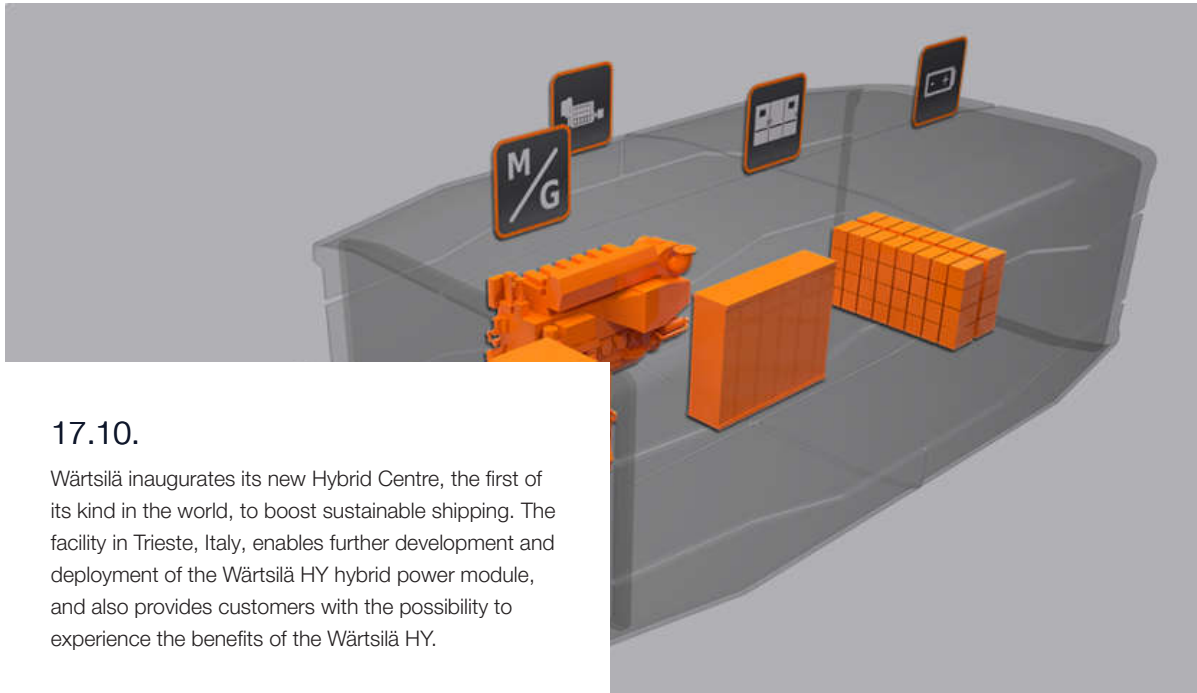
### 13.9.

Wärtsilä once again included in the Dow Jones Sustainability Indices.



### 25.9.

Greensmith Energy, a Wärtsilä company, releases GridSolv, the company's first standardised energy storage solution. This innovative and standardised architecture supports both standalone energy storage deployments, as well as integrated hybrids with thermal or renewable generation assets.



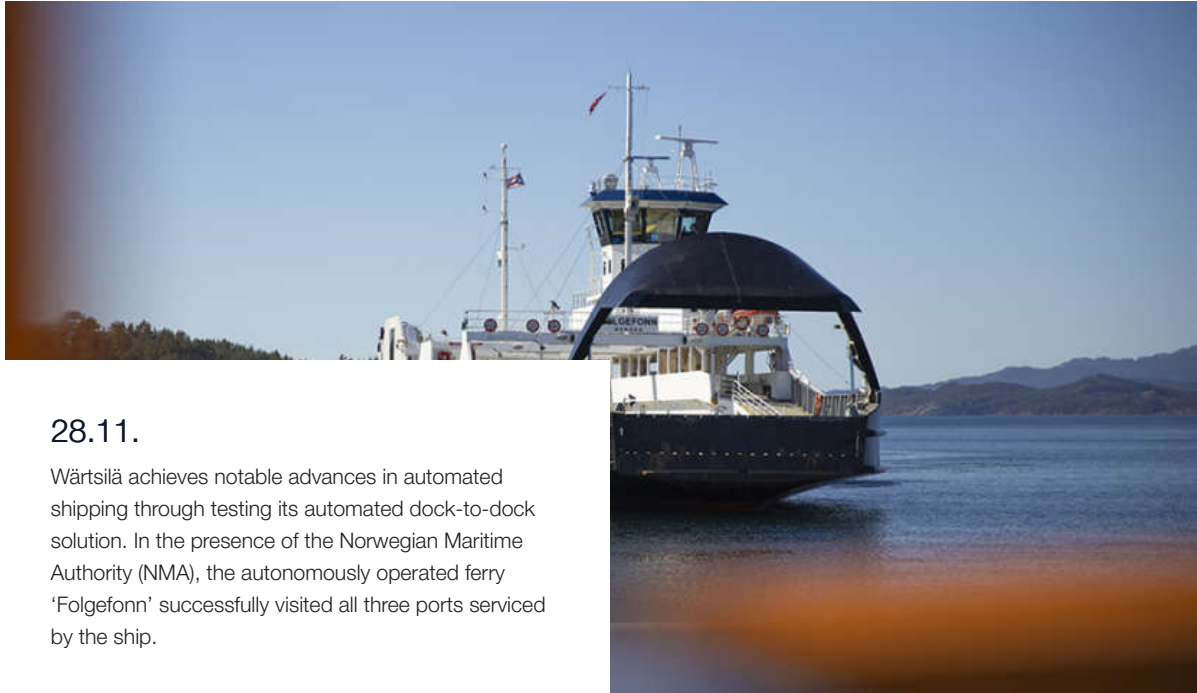
### 17.10.

Wärtsilä inaugurates its new Hybrid Centre, the first of its kind in the world, to boost sustainable shipping. The facility in Trieste, Italy, enables further development and deployment of the Wärtsilä HY hybrid power module, and also provides customers with the possibility to experience the benefits of the Wärtsilä HY.



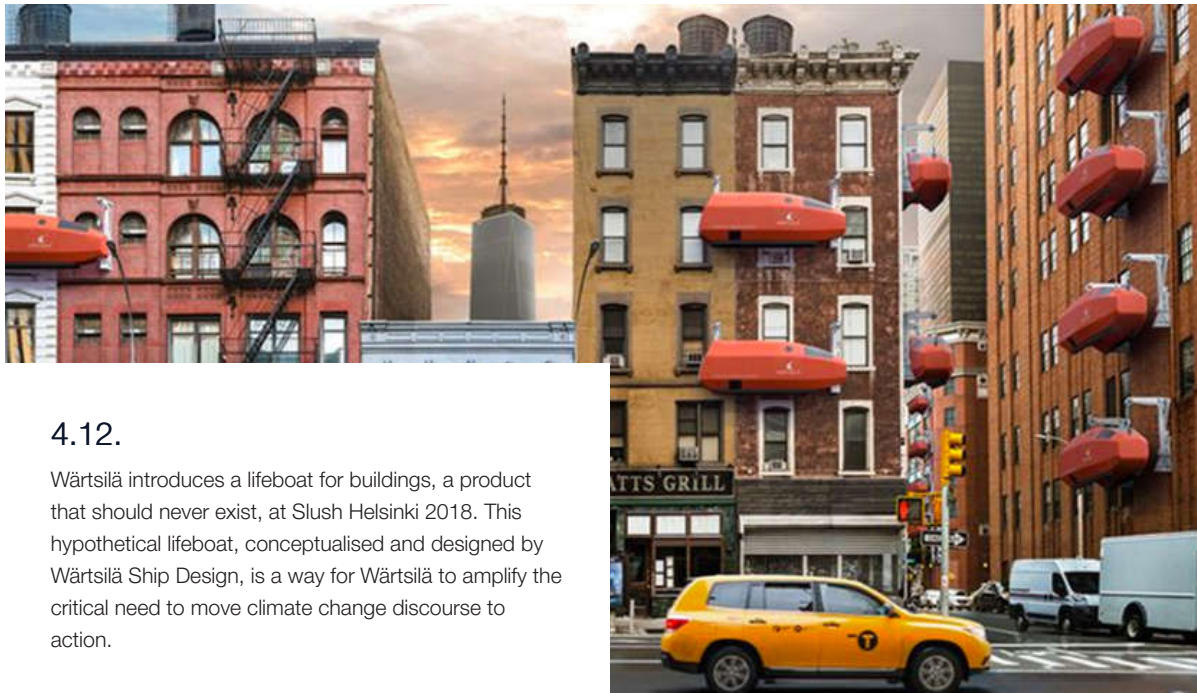
### 13.11.

Wärtsilä, Finland's Lappeenranta University of Technology (LUT), and Nebraska Public Power District (NPPD), sign a Memorandum of Understanding (MoU) for the study of the development of a business case for the use of alternative fuels, aiming towards a future with energy produced from 100% renewable carbon free sources.



## 28.11.

Wärtsilä achieves notable advances in automated shipping through testing its automated dock-to-dock solution. In the presence of the Norwegian Maritime Authority (NMA), the autonomously operated ferry 'Folgefonn' successfully visited all three ports serviced by the ship.



## 4.12.

Wärtsilä introduces a lifeboat for buildings, a product that should never exist, at Slush Helsinki 2018. This hypothetical lifeboat, conceptualised and designed by Wärtsilä Ship Design, is a way for Wärtsilä to amplify the critical need to move climate change discourse to action.

# Strategy

Wärtsilä's purpose is to enable sustainable societies with smart technology. The demand for clean and flexible energy, and the need for efficient and safe transportation are increasingly affecting the way that customers operate. This forms the basis for our Smart Marine and Smart Energy visions. With an integrated portfolio of services, systems, and products that covers customer needs across the full lifecycle, we are well positioned to respond to the demand for energy efficient and innovative solutions. Strong emphasis is given to optimising installation performance, using data analytics and artificial intelligence to support customer business decisions. Wärtsilä's digital transformation will provide enhanced customer value through an increased focus on collaboration and knowledge sharing. A strong presence in key markets and a superior global service network support our profitable growth ambitions.

With our flexible production and supply chain management, we constantly seek new ways to maintain high quality and cost efficiency - often in co-operation with customers and leading industrial partners. The investments in R&D and the focus on digitalisation create a strong foundation for securing and strengthening the company's position at the forefront of market innovation. This innovative culture, together with a constant emphasis on safety, diversity, and high ethical standards, attracts skilled and committed people and creates the basis for a high performing organisation. The implementation of operational excellence ensures that we are easy to do business with, and drives increased productivity and efficiencies for its customers.

## Smart Energy

Wärtsilä creates optimal paths towards 100% renewable energy systems. Our objective is for customers to recognise the company as the leading energy systems integrator, providing all the essential technologies, services, and solutions for sustainable and reliable power systems.

The energy market landscape is in transition and is moving towards more flexible energy systems with a rapidly increasing share of renewable energy, declining inflexible baseload generation, and wider applications of storage technology. The declining cost of renewables has begun to reduce new investments in coal and other inflexible baseload technologies, and this transition will eventually enable renewables to become the new baseload, which will require flexibility and storage to ensure reliable generation.

Our solutions are at the very core of the energy systems of the future. We understand the role that different technologies play in our customers' power systems, and enhance the assets of the customer through software, EPC offerings, and global service capabilities. Wärtsilä's engine power plants act as a stepping stone for the ongoing energy industry transition, and provide a unique combination of energy efficiency, and fuel and operational flexibility throughout all its phases. Our energy storage and integration solutions handle second and daily level variations in supply, which is the key for renewables penetration.

Wärtsilä provides asset and lifecycle management services that optimise the performance of our customers' installations through upgrades, modernisations, fuel conversions, and safety solutions. Asset Management targets energy supply reliability and optimisation. With connectivity, we optimise asset performance throughout the lifecycle and provide strategic input to customers in order to enhance their business growth through smart technologies. Asset management will drive future growth in lifecycle solutions and enable new "as-a-service" business models. To secure future growth and profitability, the main focus will be on optimising the current business and building a solid foundation for developing future business models.



## Smart Marine

Wärtsilä's aim is to lead the industry's transformation towards a Smart Marine Ecosystem. Building on the sound foundation of being a leading provider of innovative products, integrated solutions, and lifecycle services to the marine and oil & gas industries, we aim to unlock new customer values through connectivity, digitalisation, and smart technology.

The marine industry is moving towards a future that is increasingly connected. The opportunities offered through smart technology will foster a new era of collaboration and knowledge sharing with customers, suppliers, and partners. Industry players are faced with major sources of inefficiency that impose a significantly negative impact on business operations and profitability, the three most notable of these being overcapacity, inadequate port-to-port fuel efficiency, and time wasted waiting when entering ports and other high traffic areas. Eliminating these inefficiencies forms the basis of Wärtsilä's marine strategy towards ecosystem thinking. We have identified four primary forces that will re-shape the industry. Shared capacity will improve fill rates and reduce unit costs; big data analytics will optimise both operations and energy management; intelligent vessels will enable automated and optimised processes; and smart ports will result in smoother and faster port operations.

Wärtsilä is ideally positioned, together with its customers and partners, for positive disruptive development and to lead the transformation into a new era of shipping. Building on our extensive offering portfolio, and our vast installed base and industry know-how, we will continue to develop the smart technologies, business models, and competences needed to create a Smart Marine Ecosystem.

By applying smart technology and performance optimisation services, Wärtsilä aims to deliver greater efficiencies, minimised climate impact, and a higher level of safety to the shipping industry. This will result in more sustainable, safe, and profitable operations for ship owners and operators around the world. The ultimate goal is to enable sustainable societies with smart technologies.

## Sustainability

### Economic

Wärtsilä aims to meet shareholder expectations and contribute towards the well-being of society. This requires efficient, profitable, and competitive company operations. Good economic performance establishes a platform for the other aspects of sustainability – environmental and social responsibility.

### Environment

Wärtsilä's aim is to be a forerunner in sustainable innovation and furthermore reduce emissions in our customer's operations and in societies overall. Wärtsilä supplies smart technologies and services that help to mitigate climate change and protect our oceans and seas. We continuously work on achieving high environmental standards in our operations, and improving the environmental performance and efficiency of our products and solutions through R&D, collaboration, partnerships, and active engagement in ecosystems. In doing this, we help our customers and society at large to meet the goals of the tightening global environmental regulations and guidelines.

### Social

We have high ethical standards and we care about the communities in which we operate. Our business operations and relations with our stakeholders are governed by our Code of Conduct. Wärtsilä is a responsible employer, and we seek to offer our employees an interesting and exciting workplace where openness, respect, trust, equal opportunities, and scope for personal development prevail. A further aim is to offer a hazard-free working environment to our employees and contractors, and to minimise the health and safety risks associated with the use of our products and services. Through effective supply chain management and continuous development we strive to ensure that our values expressed in the Code of Conduct are promoted in our whole value chain.

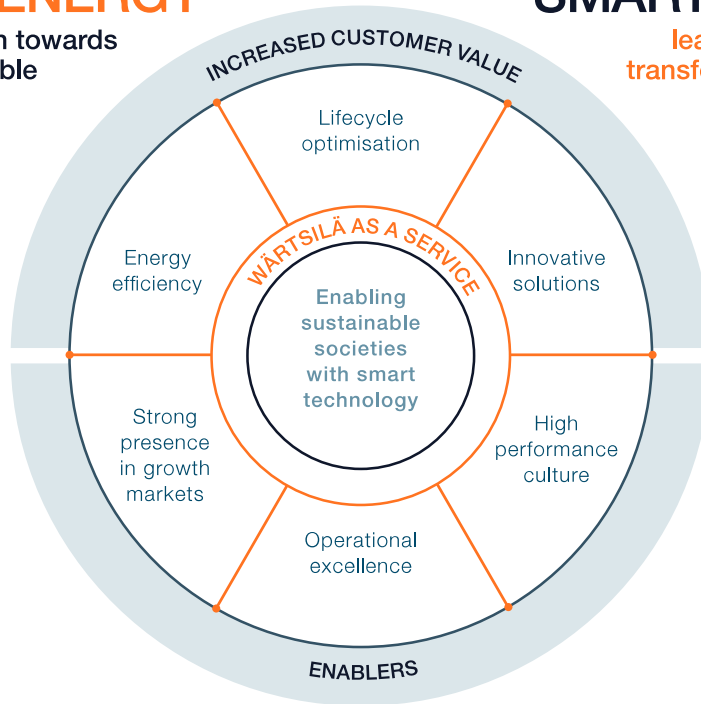
Wärtsilä's strategy

# SMART ENERGY

leading the path towards a 100% renewable energy future

# SMART MARINE

leading the industry transformation towards a smart marine ecosystem



# Targets

## Financial targets

### Net sales

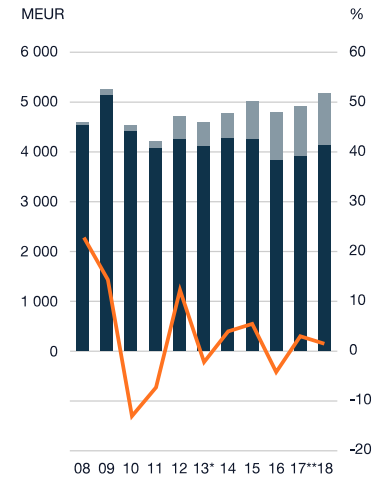
#### TARGET

Wärtsilä's target is to grow faster than global GDP.

#### DEVELOPMENT

In 2018, net sales increased by 5% to EUR 5,174 million.

### Growth over the cycle



Net sales  
 Cumulative new acquisitions  
 Growth, % (incl. acquisitions)

World nominal GDP growth 2008-2018 averages 2.9% USD denominated (source: IMF).  
 \* Restated, figures include continuing operations.  
 \*\* Restated due to IFRS 15.

## Profitability

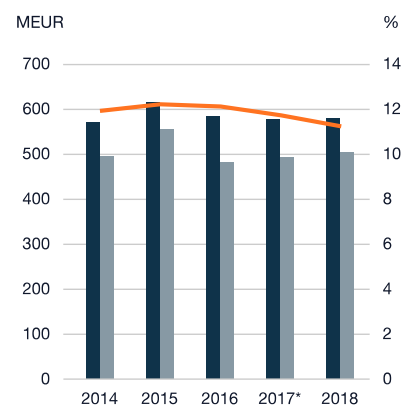
### TARGET

Wärtsilä's operating profit margin (EBIT%) target is 14% at the peak of the cycle. At the trough of the cycle, the target is to keep the operating profit margin above 10%.

### DEVELOPMENT

In 2018, the comparable operating result was EUR 577 million, which represents 11.2% of net sales.

## Result



■ Comparable operating result  
 ■ Profit before taxes  
 — Comparable operating result, %

\* Restated due to IFRS 15.

## Capital structure

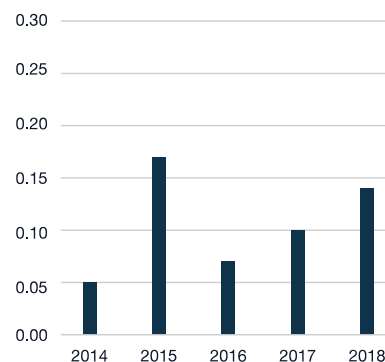
### TARGET

Wärtsilä's target is to maintain gearing below 0.50.

### DEVELOPMENT

In 2018, gearing was 0.14.

## Gearing





## Dividend

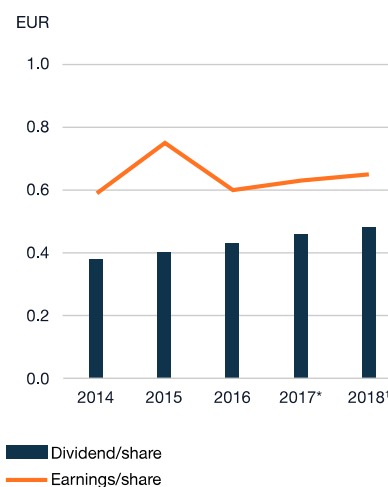
### TARGET

Wärtsilä's target is to pay a dividend of at least 50% of earnings over the cycle.

### DEVELOPMENT

The Board of Directors proposes that a dividend of EUR 0.48 per share be paid for the financial year 2018, which represents 73.7% of operational earnings.

### Dividend/share, earnings/share



\* Restated due to IFRS 15.

† Proposal of the Board

Dividend/share and earnings/share for comparison periods have been restated to reflect the increased number of shares.

## Sustainability targets



### Sustainable power systems

#### TARGET

Contribute to the development of an affordable, reliable, sustainable and modern power system worldwide.

Schedule: 2020

#### DEVELOPMENT

In 2018, Wärtsilä announced its energy vision of leading the energy market's transition towards a 100% renewable energy future. Some 2860 MWs of new modern, highly efficient, and flexible gas and liquid fired Smart Power Generation plants were sold during the year. Wärtsilä also released several innovative solutions, including the standardised energy storage solution GridSolv, Wärtsilä Hybrid Solar a hybrid solar PV and storage solution, and the latest generation of Wärtsilä's advanced energy management software platform GEMS 6.



### Small-medium scale LNG solutions

#### TARGET

Establish Wärtsilä solutions as an important link in the global LNG value chain. This develops opportunities, and builds the infrastructure for clean-burning LNG to replace liquid fuels.

Schedule: 2020

#### DEVELOPMENT

In 2018, Wärtsilä had three LNG terminal projects in Finland. A ground-breaking ceremony for the new Hamina LNG terminal was held, and the tank slip forming and lifting of the roof were completed. At the Tornio Manga LNG Terminal, most of the performance tests were completed, and availability testing was started. At Raahe, the installation and commissioning work was completed, and the terminal was handed over to the customer.



## Solar and hybrid solutions

### TARGET

Solar and solar hybrid power plants to provide cleaner energy and fuel savings. Delivery of 200 MW solar power by the end of 2018.

Schedule: 2018

### DEVELOPMENT

During 2018, Wärtsilä delivered a 15 MWp solar hybrid power plant to Essakane Solar SAS in Burkina Faso, reducing annual CO<sub>2</sub> emissions by 18,500 tons. In addition, under construction was a 52 MWp solar photovoltaic (PV) power plant at AM Solar BV/ Jordan. Altogether, 163 MWp worth of deals were announced during the review period 2017-2018.



## Climate change

### TARGET

By 2020, the aim is to reduce greenhouse gas (GHG) emissions from gas engines by 15% from 2015.

Schedule: 2020

### DEVELOPMENT

During 2018, Wärtsilä released its Wärtsilä 31SG gas engine to the market, and was able to reduce greenhouse gas emissions from gas engines by 8% from the baseline year.


 **Decarbonisation of transport****TARGET**

Contribute to the development of more sustainable transportation through gas based and other technologies.

Schedule: 2020

**DEVELOPMENT**

In 2018, Wärtsilä inaugurated the world's first real-scale hybrid centre in Trieste (Italy), successfully tested the world's first automated dock-to-dock solution, and launched important new solutions. These included the Skylight 3.0 for fleet performance monitoring, and the Wärtsilä 14, the first Wärtsilä-branded high-speed engine. In addition, Wärtsilä presented its end to end concept to optimise vessel speed and trim based on weather conditions, traffic, and berth availability at ports.

 **Climate change****TARGET**

Reduce more than 300,000 tons of CO<sub>2</sub> annually from vessels with the help of Eniram solutions.

Schedule: 2020

**DEVELOPMENT**

The estimated reduction in CO<sub>2</sub> emissions in 2018 was approximately 197,000 tons. This was a 13% increase in savings compared to the previous year.



## Energy savings

### TARGET

Reduce energy consumption by at least 7% in terms of absolute consumption (GWh) from 2015 levels by 2025.

Schedule: 2025

### DEVELOPMENT

By the end of 2018, energy savings of 2.9 GWh were achieved, representing 9.8% of the final target.



## Ethical behavior

### TARGET

Ensure commitment to the Code of Conduct throughout the organisation (Code of Conduct training coverage to be 100%).

Schedule: 2020

### DEVELOPMENT

Training records are continuously monitored. At the end of 2018, the Code of Conduct training programme coverage was 89.8% of all employees.



 Occupational safety

## TARGET

Reach the long-term goal of zero injuries.

Schedule: 2020

## DEVELOPMENT

In 2018, the corporate lost-time injury frequency rate was 2.50, which was 1% higher than in 2017 and above the internal target for the year (2.3.). However, Wärtsilä managed to increase the focus on proactive measures, and near miss/hazard reporting increased by 19% compared to 2017. By the end of the year, 3,200 Wärtsilä leaders had completed a “Leader in Safety, Leader in Business” safety workshop.

 Climate change

## TARGET

Prepare an analysis of the impact of the Paris Climate Change Agreement on Wärtsilä.

Schedule: 2018

## DEVELOPMENT

During 2018, Wärtsilä continuously monitored the proceedings of climate negotiations covering both the marine and energy sectors. In addition, the preparation of a technology strategy programme covering solutions for reducing greenhouse gas emissions was initiated.



## Well being at work - careers

### TARGET

Establish a balance between external and internal recruitments, with more than 50% of the open vacancies filled from the internal applicant pool, including promotions and lateral moves.

Schedule: 2020

### DEVELOPMENT

In 2018, 40% of all open vacancies were filled through internal selections for job levels 3 and up, and 60% through external selections.



## Personnel development

### TARGET

Complete 100% coverage for development discussions.

Schedule: 2020

### DEVELOPMENT

By the end of 2018, altogether 96.1% of the company's employees had completed development discussions.



## Diversity

### TARGET

Increase the share of female employees to 20%.

Schedule: 2020

### DEVELOPMENT

In 2018, the share of female employees was 17%.



## Supplier lifecycle management

### TARGET

Risk-based supplier assessment and management process in use by 2018:

- Phase I: new suppliers by 2017
- Phase II: existing suppliers by 2018

Schedule: 2018

### DEVELOPMENT

The new risk-based Supply Relationship Management Tool was taken into use for new suppliers during 2018. The tool will be taken into use for existing suppliers in 2019. All existing suppliers are required to submit a self-assessment by the end of 2020.



## Supplier monitoring

### TARGET

Achieve the following rating coverage for suppliers:

- 96% of direct global supplier spend rated
- 70% of indirect supplier spend rated
- 75% of local supplier spend rated

Schedule: 2020

### DEVELOPMENT

In 2018, Wärtsilä achieved its rating coverage targets. The rating coverage of direct global supplier spend was 97%, 77% of indirect supplier spend and 82% of local supplier spend. For the year 2018, the supplier rating target level for local suppliers was raised to 80% from the original 75%. Nevertheless, this target was also achieved.

## Wärtsilä Energy Business

Wärtsilä Energy is leading the transition towards a 100% renewable energy future. As an energy systems integrator, we understand, design, build and serve optimal power systems for future generations. Our offering includes flexible internal combustion engine-based power plants, hybrid solar power plants, energy storage and integration solutions, as well as gas to power systems. We support our customers throughout the lifecycle of their installations with services that enable increased efficiency and guaranteed performance. Wärtsilä's solutions provide the needed flexibility to integrate renewables and ensure the reliability of power systems.

### We serve three main customer segments

Wärtsilä's three main customer segments in the energy markets are utilities, independent power producers (IPPs), and industrial customers.

Utilities supply electricity and gas to residential, commercial, and industrial end users. They invest in various types of power generation and storage assets to ensure adequate load coverage, and the right palette of cost-effective and reliable products and services for their customers.

IPP's are financial investors investing in power generation and storage assets, and who then sell the generated power to utilities, or directly to end customers. Their investments are return driven, and as with utilities, their technical requirements are application driven.

Industrial customers are mainly private companies with energy intensive production operations. By investing in captive power, they are able to achieve lower energy costs and can be prepared for any grid reliability issues, thus ensuring security of supply. Wärtsilä serves the top end of this customer group, i.e. large industries requiring a relatively high electrical load, such as data centres, and cement and mining facilities.

### Our offering is based on flexibility and lifecycle support

Wärtsilä's energy solutions are used for a wide variety of applications. These include baseload generation, capacity for grid stability, peaking and load-following generation, and for the integration of wind and solar power. We provide our customers with a comprehensive understanding of energy systems, including fully integrated assets and advanced software, complete with value adding lifecycle services.

Our engine power plants are tailored according to the specific requirements of the customer, utilising modular products and services. The delivery scope ranges from equipment deliveries to complete engineering, procurement and construction (EPC) projects, supported by superior project management capabilities. Wärtsilä's solutions provide the best means for supporting power systems by offering the highest degree of flexibility, enabling major savings, and creating an optimised response to rapid changes in intermittent generation. Combined with our offering of energy storage, hybrid solutions, and advanced software for energy management, we enable the transition to a sustainable, reliable, and affordable low carbon power system.

With services ranging from spare parts and basic support to full operations and maintenance services, we maximise the life and increase the availability of power plants, while providing a lifecycle cost guarantee. The performance of our customers' installations is optimised through upgrades, modernisations, fuel conversions and safety solutions. As business models change, the need for asset management services is increased, which drives opportunities for using real time monitoring and analytics to optimise the business performance of our customers.

### Market drivers

In the energy markets, the main drivers for Wärtsilä are:

- Economic growth, electrification, and improving standards of living
- Rapidly increasing use of renewables
- Decentralised energy
- Increasing role of flexible gas



- Emerging storage technologies
- Data and digitalisation

Economic growth, improving standards of living, and consequential electrification are jointly resulting in increased electricity consumption in non-OECD countries. The development of a more sustainable energy infrastructure is being driven by climate policies, energy security, and economics. Tightening emissions legislation is forcing the closure of ageing capacity, with carbon-intensive energy sources being replaced by low carbon fuels, such as natural gas and renewable source solutions. Investments in renewable generation are growing as solar and wind become increasingly cost competitive. This, in turn, is decreasing the running hours of conventional thermal capacity and creating a substantial need to add flexibility into power systems through energy storage and flexible capacity. Gas as a fuel is seen as having a key role in providing flexibility to the system, and in the future gas will be more and more carbon neutral. New data and platform-based business models and solutions enable system level integration and asset base optimisation.

## Competitive landscape and market position

Wärtsilä's main competitors in larger gas-fired projects are gas turbine manufacturers, such as GE, Siemens, and Mitsubishi Hitachi Power Systems. When competing against gas turbines, Wärtsilä's combination of high efficiency, greater fuel flexibility, and superior operational flexibility enables better value propositions to many customer projects. In smaller gas power plants, and in the liquid fuel power plant market, the competitors are mainly other internal combustion engine suppliers, such as MAN Energy Solutions, Caterpillar (MAK), and Rolls-Royce, as well as high speed engine manufacturers. Wärtsilä's advanced gas and dual-fuel engine technology, optimised modular power plants, superior project management capabilities, and the global service support provided throughout the lifecycle of installations, have led to Wärtsilä's market leading position in the gas and liquid fuel combustion engine power plant markets.

When looking at energy system integration, software and battery storage systems, the competition comes from companies such as Fluence, NEC and Tesla, among others. Competition within maintenance activities is fragmented in nature and consists mainly of local players with a limited offering scope. The competition for lifecycle solutions comes from a few regional players capable of offering plant operational services. In asset performance management related services there are both new and more established competitors that provide software and analytics across industries, while some utilities are establishing these skills and knowledge in-house.

Wärtsilä's strengths:

- Competitive capital cost and engineering, procurement and construction (EPC) capability
- Unique operational and fuel flexibility
- Value adding hybrid solutions for existing and new customers
- The most proven software platform for integrating renewable energy sources
- Systems integration offering with lifecycle support
- Global technical support capabilities and know-how
- Strong track record in operations & maintenance, optimising operating costs, and increasing plant availability and efficiency

# Wärtsilä Marine Business

Wärtsilä has a strong position in the marine and oil & gas industries. By providing solutions and services that are optimised, and environmentally and economically sound, we enhance the viability and profitability of maritime operations and enable the development of sustainable societies. Our reputation is based on an in-depth understanding of our customers’ businesses, technological leadership, a broad product portfolio, and the industry’s most extensive service network.

## Serving ship owners, shipyards and ship management companies

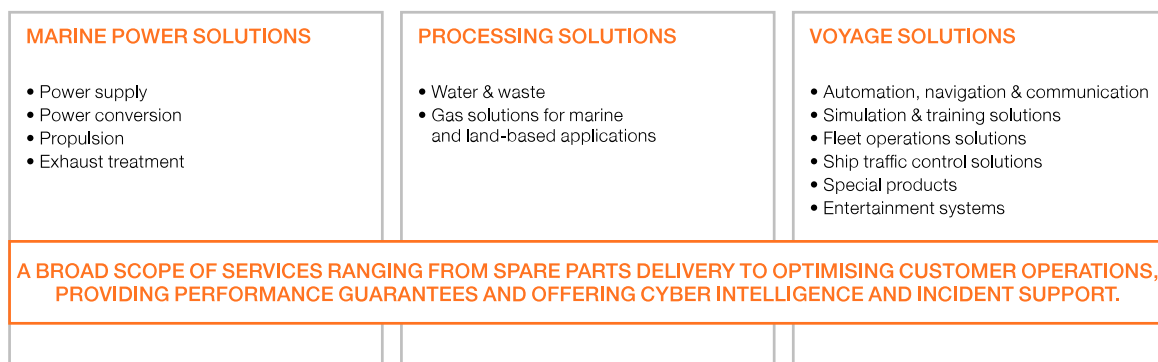
Wärtsilä’s marine customer base covers all the main segments, including traditional merchant vessels, gas carriers, cruise & ferry, navy, and special vessels. In the oil & gas industry, we are active in serving offshore installations and related industry vessels, as well as land-based gas installations.

Our customers comprise ship owners, shipyards and ship management companies; the needs and demands of which differ significantly. Ship owners require safe and efficient operations, reliability and support, as well as the availability of services. Their decision-making is also impacted by freight rates, interest rates, and the capital and operating costs of the ship. Both ship owners and operators are increasingly taking other factors, such as environmental compliance and fuel flexibility, into consideration in their decision-making. Ship management companies provide ship owners and operators with technical management and the maintenance of ships. Among other things, they also provide the crews and take care of commercial operations on behalf of the owner or operator. The decision-making process of shipyard customers is typically affected by product prices, delivery times and reliability, project management, ease of installation, and the supplier’s ability to manage large delivery scopes.

We are committed to meeting the needs of these customer groups. Success is achieved through a comprehensive understanding of their businesses, operating models, and requirements. This understanding, backed by our portfolio and service strengths, enables us to support our customers throughout the lifecycle of their installations with products and solutions that best serve their business interests.

## Our offering is the broadest in the industry

Wärtsilä’s market presence, combined with the broadest offering in the industry, enables us to understand the particular needs and requirements related to each of these segments – from initial vessel design choices to everyday operations throughout the vessel’s lifecycle. We provide innovative and competitive products and solutions, delivered efficiently and with high quality.



Through the use of digitalisation and greater connectivity, and by applying smart technology and performance optimisation services, we create greater efficiencies, a minimised environmental impact, and enhanced safety to the shipping industry. In so doing, we enable more sustainable, safe, and profitable operations for ship owners and operators around the world.

## Market drivers

In the marine markets, the main drivers for Wärtsilä are:

- Developments in the global economy and their impact on world trade
- Fuel prices and availability
- Environmental compliance
- Technological developments and innovations

The global demand for new vessels in the shipbuilding and shipping industries is mainly driven by developments within the global economy, and the resulting impact on trade and transportation capacity requirements. The global economy also influences fuel prices, which in turn have both a direct and an indirect impact on the marine and oil & gas industries. Price, availability, and demand are the driving factors in the oil & gas industry, while in the general shipping industry, high fuel costs increase the demand for equipment upgrades, the rethinking of operational profiles, and for more efficient vessel designs. Other factors, such as shipyard capacity, newbuild prices, decommissioning and scrapping, as well as interest and freight rates, also affect these industries.

Another important driver is the increasing stringency of environmental regulations and their impact on the demand for optimised vessel efficiency, environmental solutions, and gas as a marine fuel. Our in-depth expertise and system skills make it possible for customers to respond to these demands, and to achieve the performance, cost, and environmental compliance parameters that specifically match their operating profile.

Technological developments and innovations act as an enabler for the marine industry to become more efficient, sustainable, and safe by advancing fleet design, system solutions and operations. Being a main source of differentiation, and a competitive edge provider for owners and operators, they also drive the markets. By partnering with customers, regulators, universities and various other key stakeholders, we are well-positioned to deliver solutions and services that support the specific interests of our customers.

## Competitive landscape and market position

Wärtsilä's field of competitors is extensive due to the broad offering portfolio and global market presence. It includes a variety of Original Equipment Manufacturers (OEM), including engine companies such as MAN Energy Solutions, Caterpillar and HiMSEN, propeller makers such as Schottel and Thrustmaster, and environmental and auxiliary equipment providers like Alfa Laval. Our competitors also include electrical and automation houses, notably Siemens, GE, ABB and Kongsberg, gas system providers, such as TGE Marine, and companies with a broad range of offerings such as Rolls-Royce. In the service market, the main source of competition is from independent service companies operating globally, and local players with a limited offering scope, such as parts traders, repair yards, local workshops, component suppliers for spare parts (non-OEM), and field service businesses. Wärtsilä is recognised as a proven supplier of innovative and sustainable technologies across its portfolio serving the marine and oil & gas markets.

Our extensive offering, experience, and service network gives us a competitive advantage, and a solid foundation for supporting new and existing customers in improving their performance, safety and sustainability.

Wärtsilä's strengths:

- Strong presence in all major marine and offshore oil & gas segments
- The broadest portfolio of reliable and high performing products, systems, and solutions in the industry
- Fuel efficient solutions that are compliant with the strictest environmental requirements
- The ability to deliver cost efficiencies and to unlock new revenue streams through integration, digitalisation and interconnectivity
- A complete lifecycle service offering supported by an unmatched global service network and technical support
- The capability to deliver operational and asset performance optimisation globally

# Manufacturing and R&D

Wärtsilä's approach to manufacturing emphasises safe, innovative, and digitally connected processes. A strong culture of operational excellence, and a commitment to continuous improvement, form the basis for ensuring on time, cost competitive, and quality deliverables from advanced production environments.

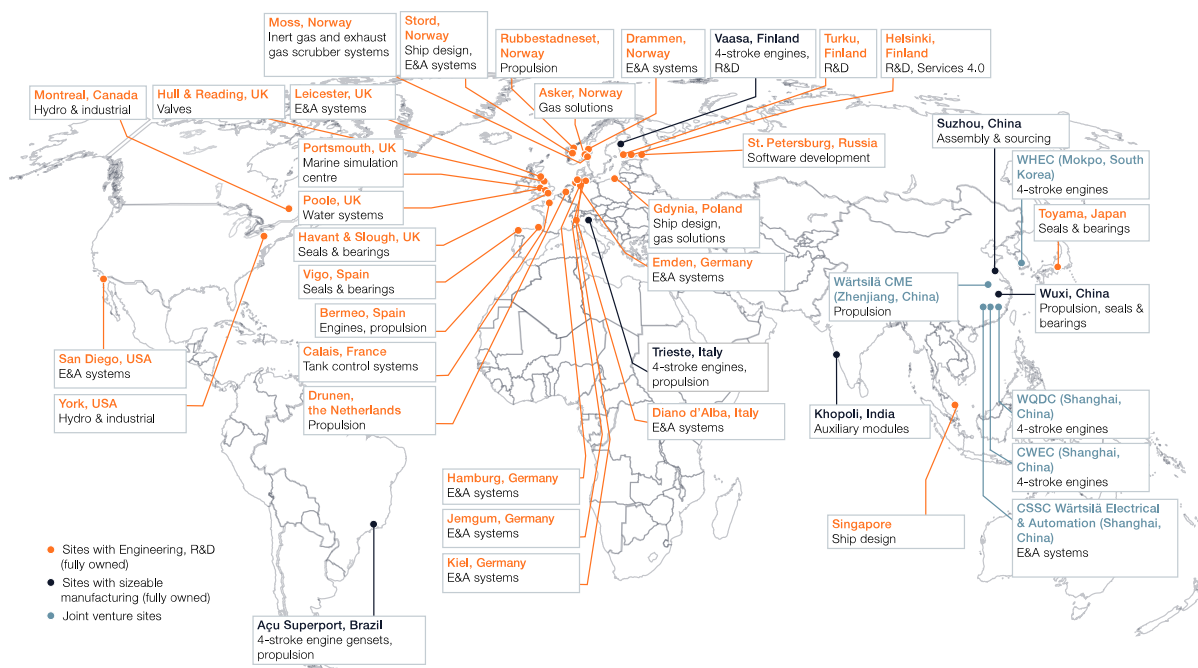
The main manufacturing activities of our digitalised factories are focused on the assembly, testing, and finishing of products, as well as the in-house production of key components. Technology leadership is continuously emphasised in our R&D activities.

## A global manufacturing footprint supported by an extensive supplier network

We have a global manufacturing footprint that is continuously optimised for competence, availability, customer presence, and efficiency. Being located close to our customers enables us to provide better service locally, thereby boosting the entire value chain, eliminating waste, and allowing savings in both production and transportation costs. Our assembly-based manufacturing model, which is strongly connected to a broad network of suppliers, guarantees a high level of flexibility in capacity.

Through close co-operation, excellent relations, and the sharing of information with suppliers, we are able to ensure market-conforming lead times for component supplies. We work with numerous suppliers globally. The sourcing strategy is to focus on carefully selected suppliers, with a strong emphasis on performance, innovation, and a presence close to our manufacturing units and joint ventures. The aim is to continuously develop and strengthen the company's global supply chain with a strong emphasis on quality and cost competitiveness.

### Wärtsilä's sites with more than 50 FTEs



## Technology leadership through R&D

The focus of our R&D activities is on digitalisation, smart technologies, and on new products and solutions that are flexible, efficient, reliable, safe, and cost-efficient to operate. It is also essential that they impose a minimal environmental impact throughout their lifecycles. A substantial proportion of the investments we make in product



development is targeted at securing environmental compliancy, providing short- and long-term benefits for our customers, and enabling sustainable societies.

By concentrating on the initial stages of the development process, and by utilising modularity, simulation, virtual testing, and validation, we shorten lead times for new solutions, thereby securing reliability and safety aspects without compromising quality. Validation testing on site with existing installations, in co-operation with the customer, is an important element in furthering the improved performance of existing solutions. It also assists in finding new and better solutions while, at the same time, gaining long-term experience under actual field conditions. A field installation also provides an opportunity to gain valuable learning and insight regarding new technologies and solutions. Only after the product has successfully passed all the validation process steps, both in the laboratory and in the field, and its performance meets Wärtsilä's high standards, can it be delivered to the market.

Through close attention to Intellectual Asset Management, and the continuous development of internal key competences, we strive to protect our innovation and competitiveness. Networks and clusters are formed to further extend our know-how, skills, and capabilities by committing to long-term relationships with suppliers, engineering companies, university partners, and with other Original Equipment Manufacturers.

## Increased agility through Open Innovation

Forming meaningful connections with a wide range of stakeholders, including customers, suppliers, partners, government, academia and start-ups, are the foundation for our Open Innovation activities. By co-creating and collaborating with our ecosystem, we are able to significantly decrease the span of time from innovation to market, and to respond faster to new market needs with the development of holistic solutions. This is amplified by co-creation activities with customers to ensure that all new products and solutions create maximum value, from the assembly line through to the full asset lifecycle.

The Open Innovation approach is promoted through our increased presence in start-up activities globally. We regularly participate in a variety of start-up accelerators and have invited start-up companies to co-create, rapidly prototype, and validate new products and solutions. By working together with start-ups in Wärtsilä's R&D centres, quick insights into the potential customer values are able to be identified. This collaboration also furthers our efforts towards more agile ways of working.

## The HERCULES programme

Wärtsilä was involved in the long-term HERCULES R&D programme, which was conceived in 2002 and concluded in 2018. It was set up within the context of the EU's sixth and seventh Framework programmes. Sharing a joint vision, the major low- and medium-speed engine manufacturers, Wärtsilä, Winterthur Gas & Diesel, and MAN Diesel & Turbo, collaborated with universities, research institutions, and other industrial partners to increase engine reliability and efficiency, while striving to reduce harmful emissions. The programme had a combined budget of over EUR 100 million.

The HERCULES project included the HERCULES A, B and C projects, as well as the fourth phase, the HERCULES-2 project, that was kicked off in 2015. HERCULES-2 focused on the integration of technologies developed in the earlier projects. Many of these technologies have found their way into Wärtsilä products such as the Wärtsilä 31.

## Innovating for sustainability

Wärtsilä's purpose is to enable sustainable societies with smart technologies. As a global leader in complete lifecycle solutions for the marine and energy markets, Wärtsilä plays a key role in providing environmentally sound solutions and services that enable its customers to develop their businesses in a sustainable way. This forms the basis of the company's offering and sustainability approach, and is supported by its strong commitment to responsible business conduct.

Climate change, combined with the world's growing energy needs and the scarcity of natural resources, is increasing the demand for clean and flexible energy and the need for efficient and smart transportation. To secure its leading position at the forefront of sustainable innovation, Wärtsilä continuously invests in developing technologies that benefit the entire power system and marine ecosystem. Innovation and product development, plus the willingness to explore new technologies, are essential for meeting current customer needs, future requirements, and for remaining an industrial frontrunner.

## Minimising environmental impact through R&D

Wärtsilä develops smart and sustainable solutions across a broad front, including technologies related to efficiency improvement, the reduction of gaseous and liquid emissions, waste reduction, noise abatement, as well as effluent and ballast water treatment. The company's proactive approach to meeting future demand has resulted in the development of both primary and secondary abatement technologies, and has broadened the range of usable fuels. Wärtsilä actively seeks to utilise opportunities provided by the digital transformation taking place in the maritime and energy sectors. Wärtsilä's commitment to investing in research and product development benefits its customers as well as the environment, both in the short term and over a longer time span.

## Minimising environmental footprint through R&D

### Improvements in efficiency

#### Total ship efficiency:

An efficient and low emission system for the entire vessel is achieved by combining optimised ship design with Wärtsilä's knowledge of automation, machinery, propulsion, and control systems. Wärtsilä has developed numerous efficiency concepts, such as Low Loss Concept (LLC) and Low Loss Hybrid (LLH). Wärtsilä's digital solutions enable its customers to maximise efficiency through insights for operations optimisation and asset management, and to cut emissions.

#### Power plant efficiency:

Wärtsilä engine-based power plants offer the highest single cycle efficiencies from a broad range of fuels with outstanding flexibility. Total plant efficiency can further be improved and optimised by adding hybrid solutions (batteries and PV), Flexicycle™ solutions (steam combine cycles), combined heat and power (CHP) or trigeneration (power, heat and cooling). Wärtsilä also offers tools for smart integration of energy production and storage at system level.

#### Engine efficiency improvements:

A long-term focus on improving engine efficiency has resulted in Wärtsilä engines having the highest efficiency ratings among existing prime movers. A key success factor has been the development of integrated engine functionalities that enable low emissions and high engine efficiency. The new Wärtsilä 31 has the best 4-stroke engine fuel economy in the world.

#### Propeller efficiency upgrades:

Propulsion products incorporate environmental features and are critical for the overall environmental impact of the vessel. The new generation propulsion units and energy saving solutions such as EnergoFlow result in significant fuel efficiency improvements (5–12%) that also result in fewer emissions.

### Reducing emissions to air

#### Greenhouse gases (GHG):

Wärtsilä focuses on the development of technologies that reduce GHG emissions in numerous ways. These include, among others, gas and multi-fuel engines, environmentally advanced vessel solutions, voyage optimisation solutions, and energy storage solutions.

Wärtsilä's flexible energy solutions enable a transition towards a 100% renewable energy future. At system level GHG emission reduction is achieved by enabling optimal integration of renewable energy sources and use of renewable fuels.

#### SO<sub>x</sub> emissions:

Wärtsilä provides several solutions to help customers reduce emissions of SO<sub>x</sub> and comply with local and global regulations. Wärtsilä's technology development supports solutions that enable the use of fuels with different sulphur contents, as well as systems that clean sulphur from the exhaust gas, and enable the use of alternative fuels with close to zero sulphur content, e.g. natural gas. Exhaust Gas Cleaning Systems reduce the SO<sub>x</sub> emissions, as well as remove Particulate Matter and Black Carbon. These systems can be tuned for both the 0.1% limit in Emission Control Areas and the global 0.5% cap agreed within IMO.

#### NO<sub>x</sub> emissions:

All marine Wärtsilä engine portfolio products are IMO NO<sub>x</sub> Tier II compliant. Wärtsilä solutions for IMO NO<sub>x</sub> Tier III are:

- Selective Catalytic Reduction (SCR)
- Gas engine (dual-fuel in gas mode)

The NO<sub>x</sub> emission levels of Wärtsilä stationary engine-based power plants are low enough to meet most current environmental regulatory requirements. To comply with even the strictest environmental regulations Wärtsilä offers solutions such as SCR.

### Reducing emissions to water

#### Ballast water management systems:

Wärtsilä's Aquarius range of IMO and USCG approved Ballast Water Management Systems (BWMS) offer solutions to limit the spread of ballast water-related invasive species and prevent their introduction to aquatic ecosystems. The Aquarius BWMS range offers both Ultraviolet UV (USCG AMS approved) and Electro Chlorination EC technology (USCG type approved).

#### Waste water cleaning:

Wärtsilä solutions facilitate the management and treatment of both grey and black wastewater, in accordance with the most stringent global legislation, including the removal of nutrients such as phosphorous and nitrogen compounds, as required for special areas such as the Baltic and Alaska.

The key features of Wärtsilä's environmentally sound solutions include:

- Reliability, safety, and long life span
- Low emission levels
- Renewable energy integration with engines and storage systems
- Fuel flexibility
- Efficiency improvement with lower lifecycle costs
- Low water consumption
- Design and operational optimisation of vessels

By combining these key features, and understanding the system level benefits of its offering, Wärtsilä is able to provide solutions that enable the development of sustainable shipping and power systems.

## Partnerships and innovations enhancing sustainability

In 2018, Wärtsilä announced several new R&D partnerships, such as with the Maritime and Port Authority of Singapore to promote maritime innovation and R&D, and Hyundai Motor Group to utilise second-life electric vehicle (EV) batteries for the growing energy storage market. During 2018 Eniram, a Wärtsilä company, signed a Memorandum of Understanding (MoU) with Athens-based Arista Shipping to participate in the Project Forward initiative, which aims to develop the cleanest and most efficient fleet of cargo ships in the world. Wärtsilä, together with Finland's Lappeenranta-Lahti University of Technology (LUT) and Nebraska Public Power District (NPPD), the largest electricity utility in the state of Nebraska, also signed a Memorandum of Understanding (MoU) for developing a business case for the use of alternative fuels with Wärtsilä generating sets.

In 2018, Wärtsilä launched Future Innovation Days which comprised a gathering of marine industry stakeholders – ship owners, yards, ports, politicians, scientists, and students. These co-creation events were arranged to jointly solve notable industry challenges, such as zero emissions in shipping, producing, and storing clean energy, implementing smart vessels, ports, and a marine ecosystem, as well as new business models and the future of services. These first design thinking workshops were organized in Stord, Norway, Wuxi, China, and Hamburg, Germany. In Singapore and Shanghai, the events were combined also with the introduction of the *An Oceanic Awakening* initiative. As a result, 400 people attended, and 70 new idea concepts were co-created. In 2019, some of those ideas will be brought forward, and further developed in new events to be planned in Rotterdam, Seoul, Helsinki, Tokyo, Trieste, Panama, and Oslo. These events will also explore the paths of major cities towards 100% renewable energy.

Wärtsilä, together with three companies; Tieto, St1, and Fortum, as well as the think tank Demos Helsinki, introduced an Innovation Community initiative at the end of 2018. The goals of the community include building a vision and roadmap for accelerating the transition to renewable energy sources, and experimenting and bringing to market promising new initiatives.

During 2018, Wärtsilä developed, tested and launched several products, systems and solutions, which advance the company's realisation of its Smart Marine and Smart Energy Visions. Among other things, Wärtsilä launched a new standardised energy storage solution, GridSolv, which is an advanced design offering maximum flexibility and speed of deployment. Wärtsilä also successfully tested its automated docking solution for vessels, which provides considerable value-adding benefits in terms of better efficiency, greater safety, lower fuel consumption and, therefore, reduced exhaust emissions. Without human intervention, the ferry was able during the tests to leave the dock, manoeuvre out of the harbour, sail to the next port of call, manoeuvre through the harbour entrance, and dock alongside the terminal. Among its other product introductions, Wärtsilä also introduced the first Wärtsilä-branded high-speed engine. The Wärtsilä 14 is a high-speed, compact engine designed to fit requirements for limited space and weight, lower capital expense, compliance with current and future global emissions regulations, and to provide customers with improved efficiency, safety, and environmental sustainability.

## Sustainable Innovations in 2018

### Smart Energy Systems

- Unveiling of an advanced energy storage solution, GridSolv, that is designed to offer maximum flexibility and speed of deployment. This innovative and standardised architecture supports both standalone energy storage deployments as well as integrated hybrids with thermal or renewable generation assets.



- Introduction of a new hybrid solar PV and storage solution, Wärtsilä Hybrid Solar, which is climate-friendly, increases resilience and efficiencies, and can be supported by a power producer's existing grid infrastructure.
- Release of GEMS 6 (Greensmith Energy Management System, version 6), which is the latest generation of the award-winning software platform proven across grid-scale deployments globally.

### Smart Marine Ecosystems

- Development of a new shuttle tanker concept by TEEKAY, in close co-operation with Wärtsilä, which is expected to reduce annual emissions of CO<sub>2</sub> equivalents by more than 40% compared to conventional shuttle tankers.
- Launch of Eniram SkyLight 3.0 for fleet performance monitoring, and Eniram Mobile to offer real-time decision-making support via mobile notifications. The tool provides the operator with insights into how efficiently a route has been planned. Route import enables fleet-wide optimisations that lead to savings and gaining a competitive edge, while also reducing emissions.
- Successful testing of the world's first automated dock-to-dock vessel sailing solution. The tests were carried out with the Norwegian ferry 'Følgefonn'. The vessel is equipped with hybrid propulsion with wireless shore connection capable of fully electric operation, and features numerous other Wärtsilä innovations, including its wireless inductive battery charging solution and energy storage systems.

- Introduction of QuantiServ's robotised laser cladding technology for pistons. The new coating offers environmental efficiency and extends the piston head's lifespan and time between overhauls (TBO), compared to conventional chromium layers.
- Introduction of the first Wärtsilä-branded high-speed engine. The compact Wärtsilä 14 engine is designed to fit requirements for limited space and weight, lower capital expense, current and future global emissions regulation compliance, and to provide improved efficiency, safety, and environmental sustainability.



## Why invest in Wärtsilä

Wärtsilä's strengths lie in our integrated services and solutions offering, data-driven innovations, close and long-standing customer relationships, and an unparalleled global presence.

### Supporting customers with lifecycle solutions

Our business model is based on providing the marine and energy markets with smart technologies and optimised lifecycle services. Our service activities represent nearly 50% of total net sales, which provides a good foundation for achieving the long-term target of profitable growth.

The demand for Wärtsilä's services is supported by the increasing technological sophistication of the installed equipment base. Digitalisation provides further opportunities to develop a value-adding customer offering. It also enables the leveraging of new technologies to build capabilities that will create a future offering with equipment-as-a-service.

### A leader in smart technology for the marine and energy markets

The shift towards clean and flexible energy production, and the need for efficient and safe transportation, form the basis of our offering of smart solutions. As an industry frontrunner, we are well positioned to respond to the need for innovative and energy efficient solutions. Our digital transformation will provide increased customer value through an increased focus on collaboration and knowledge sharing. Continuous investing in research and development is vital for ensuring the competitiveness of our product portfolio, and for securing a leading position in sustainable innovation.

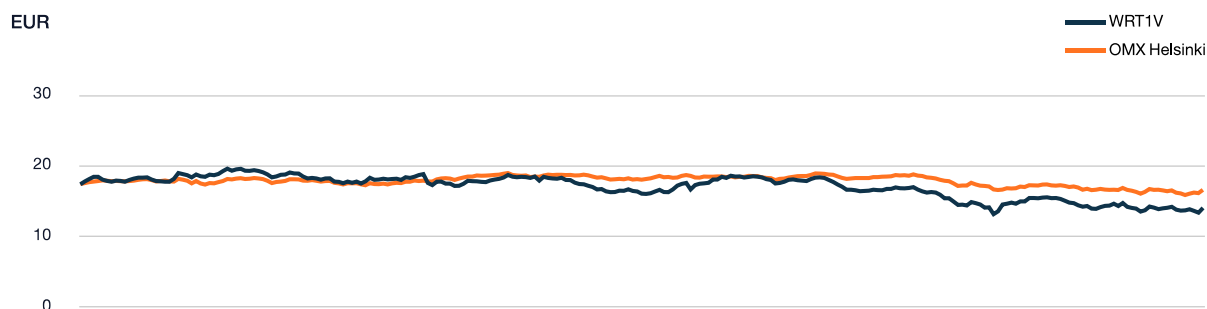
### A capital-light business model emphasising increased efficiency

Our manufacturing model is assembly-based, with shared production and R&D facilities. This creates flexibility in aligning operations to market conditions, and synergies in innovation processes. Achieving operational excellence by focusing on continuous process improvement throughout the organisation is a central pillar for reaching our financial targets.

### Investing in technological leadership and providing shareholder returns

Our financial position enables investments in research and development activities and developing the business through acquisitions, thereby securing our future competitiveness. It also enables us to offer solid dividends to our shareholders.

## Wärtsilä's share price development in 2018



## Q1

Order intake and net sales developed well in the equipment businesses.

## 23.1.

Wärtsilä listed among the "2018 Global 100" Most Sustainable Corporations in the World.

## 6.3.

Wärtsilä signs EPC contract in Australia with AGL Energy Limited for Smart Power Generation plant.

## 8.3.

The Annual General Meeting held in Helsinki approved Board proposal of a free share issue (share split).

## 12.3.

394,482,260 new shares entered in the trade register, bringing Wärtsilä's total number of shares to 591,723,390.

## 19.3.

First dividend instalment of EUR 0.69 per share paid.

## 19.3.

Wärtsilä acquires Transas to accelerate its Smart Marine Ecosystem vision.

## Q2

Good development in orders received.

## 26.4.

Wärtsilä establishes a world-class cyber academy in Singapore together with Templar Executives.

## 26.4.

World's first autodocking installation tested by Wärtsilä.

## 31.5.

Wärtsilä's CMD, held in Helsinki, Finland, focuses on the Smart Marine and Smart Energy visions.

## 20.6.

Wärtsilä introduces new hybrid solar PV and storage solution.

## 26.6.

Wärtsilä and Hyundai Motor Group announce energy storage partnership maximising second-life electric vehicle batteries.

## Q3

Good development in net sales.

## 13.7.

Wärtsilä announces a EUR 170 million scrubber deal.

## 20.8.

Marco Wirén appointed head of Energy Solutions and Arjen Berends CFO.

## 21.8.

Wärtsilä announces its plans of building a Smart Technology Hub in Vaasa.

## 23.8.

Wärtsilä delivers its first engine plus storage hybrid installation.

## 3.9.

Wärtsilä's Aquarius EC Ballast Water Management System granted Type Approval by the United States Coastguard authorities.

## 27.9.

Second dividend instalment paid. In accordance with the share split, the second instalment was divided between one old and two new shares so that EUR 0.23 was paid on each share.

## Q4

Growth in order intake and net sales.

## 1.10.

Wärtsilä announces decision to reorganise into two business areas, Wärtsilä Marine Business and Wärtsilä Energy Business, as of 1.1.2019. With this change, Wärtsilä aims to deliver increased value to its customers by better serving their needs across the full lifecycle.

## 4.10.

Wärtsilä and Royal Caribbean strengthen their long-term cooperation by extending their service agreement to the year 2028.

## 16.10.

Wärtsilä launches new Acceleration Centre and an International Maritime Cyber Centre of Excellence in Singapore.

## 31.10.

Wärtsilä acquires Spanish Burriel Navarro, S.L to support the growth of its underwater services and expands the company's local presence in the European market.

## 31.10.

Wärtsilä divests its pumps business to a Scandinavian investment company Solix Group. The divestment will enable Wärtsilä to devote greater focus to its Smart Marine vision.

## 28.11.

Wärtsilä broadens its Smart Marine portfolio with addition of high-speed, compact engine: The Wärtsilä 14.

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Ethibel Sustainability Index (ESI)  
Excellence Europe



ECPI Global Carbon Equity Index  
& ECPI Global ESG Best in Class  
Equity index



OMX GES Sustainability Nordic  
Index & OMX GES Sustainability  
Finland Index



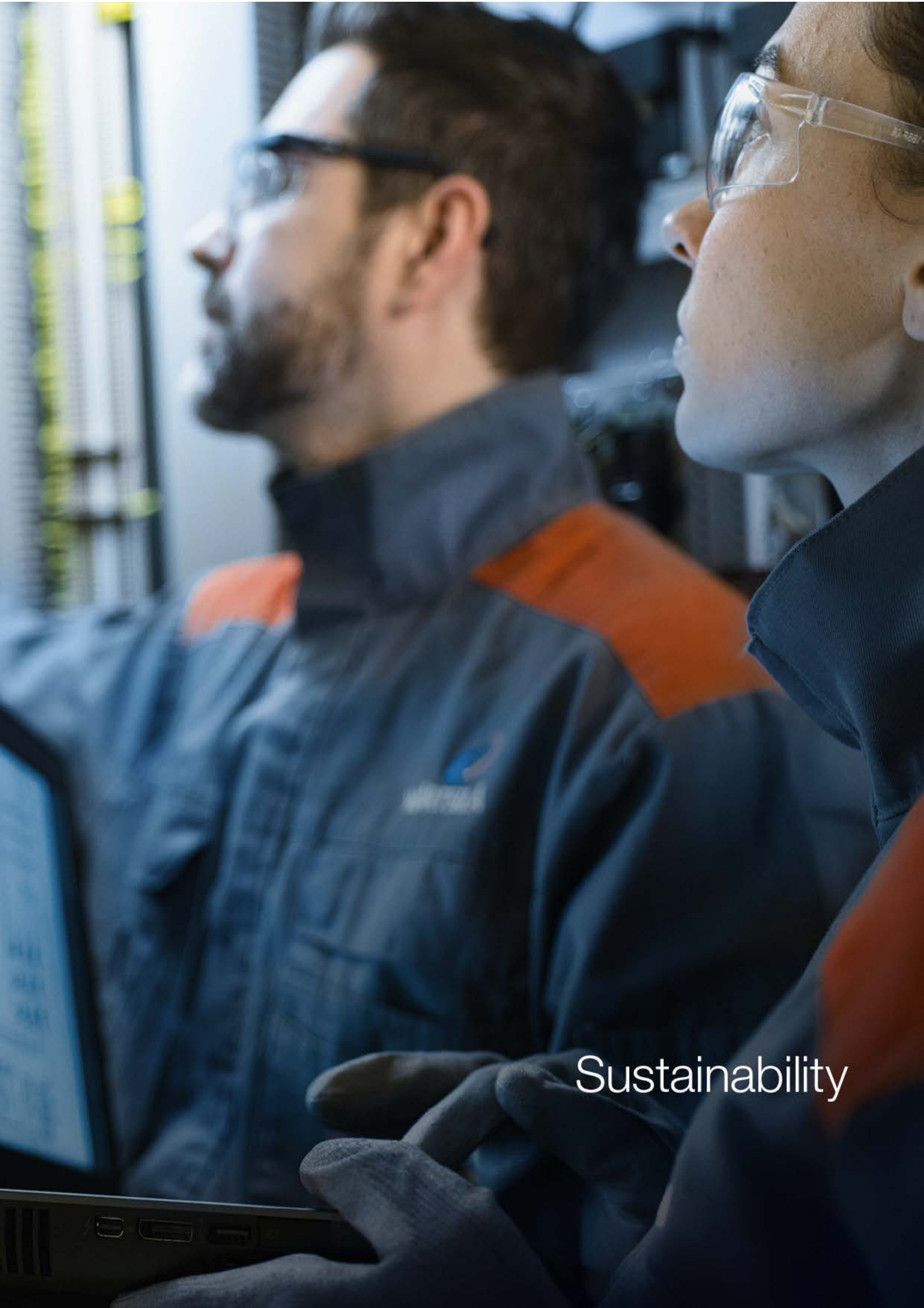
RobecoSAM Sustainability  
Yearbook



STOXX Global ESG Leaders index



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Sustainability Indices



Sustainability

# Sustainability

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# Sustainability at Wärtsilä

Our commitment to sustainability and responsible business is based on our purpose and strategy, which along with our sustainable development objectives create the framework for developing the company's activities and products. Wärtsilä's strategy is based on three key areas, energy efficient solutions, lifecycle optimisation, and innovative solutions, all of which contribute to a more sustainable future in both the energy and the marine industry.

Our strength is our technological leadership and therefore technology plays a central role in our sustainability work. Wärtsilä Energy Business and Marine Business focus on developing and providing sustainable solutions and services for the industries in which they operate. The utilisation of lifecycle data analytics will enhance our efforts on enabling sustainable societies with smart technology.

Wärtsilä identifies and assesses its sustainability risks on an annual basis. Based on the current assessment, the sustainability risks are considered to be at a moderate level, and sustainability forms an opportunity for Wärtsilä.

## Wärtsilä's sustainability approach



Wärtsilä's sustainable development is based on three closely interrelated pillars: economic, environmental, and social performance. In the field of sustainable development, Wärtsilä's overriding focus is on the following:

- Economic: profitability
- Environment: environmentally sound products and services
- Social: responsible business conduct

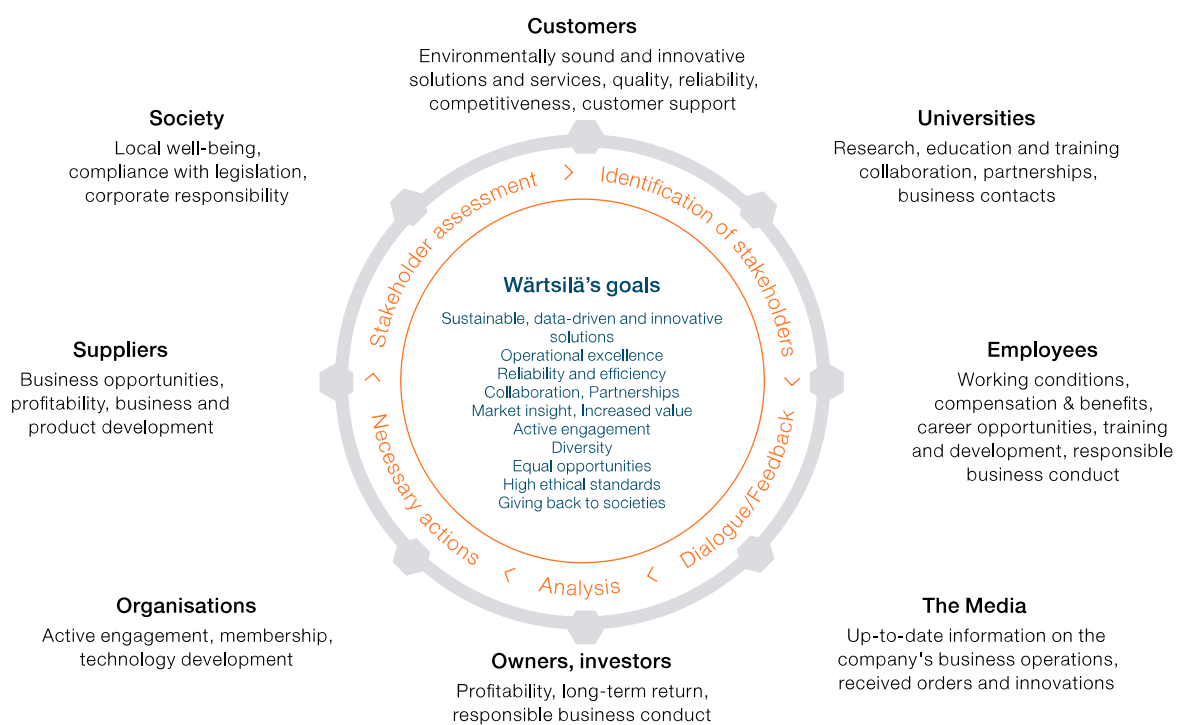
For the sustainability reporting purposes Wärtsilä has identified the following topics as material: Emissions, environmental compliance, economic performance, training and education, and occupational health and safety.

The overall management approach of sustainability is presented in the picture Wärtsilä's sustainability approach. Wärtsilä's strategy for environmental and social responsibility is presented in the [Strategy](#) section. Wärtsilä sets corporate level [sustainability targets](#) for the core areas.

## Stakeholder relations

Wärtsilä actively engages with its stakeholders to develop its operations, products, and services. At the corporate level, Wärtsilä has defined its most important stakeholders as being its customers, owners, suppliers, employees, and society in general. Wärtsilä's subsidiaries define their own primary stakeholders. In addition to the ones mentioned above, these typically include local residents close to production plants, educational institutes, and public authorities. Wärtsilä's Code of Conduct provides the foundation for the management of stakeholder relations, while the priorities involved vary within Wärtsilä from one subsidiary to another.

### Main expectations of Wärtsilä's stakeholders and Wärtsilä's goals



In order to facilitate active dialogue with its customers, Wärtsilä arranges Customer Days for existing and potential customers at locations in various parts of the world. During these events, subjects of topical interest from both local and global perspectives are reviewed, and existing and future needs and challenges are discussed.

In addition to these Customer Days, the Marine Solutions and Energy Solutions businesses arranged or participated in more than 330 industry-related events globally during 2018, including international and national seminars, exhibitions, and conferences. These events were attended by customers, potential customers, and other stakeholders, such as investors, consultants, suppliers, students, and other interested parties.

Long-term research programmes and partnerships are an important means of enhancing open dialogue and co-operation with key industry players and important research institutions. Wärtsilä has actively initiated and participated in the development and work of common research programmes, both locally and internationally.

Dialogue with employees takes place in many formats. More information about the procedures and processes to support active and engaging dialogue with Wärtsilä employees is described in the section covering Consultation and information procedures in Group companies.

Wärtsilä also engages in an active and open dialogue with local and international public authorities and officials. The aim is to share information, provide expertise, and support authorities in improving the quality of regulatory matters. Wärtsilä participates in public consultations in areas that are of importance to the company.

## Voluntary commitments

Wärtsilä has signed the United Nations Global Compact initiative and supports its ten principles with respect to human rights, labour, the environment, and anti-corruption. Wärtsilä is committed to aligning its strategy, culture, and day-to-day operations with these principles, and to engage in collaborative projects that advance sustainable development. Wärtsilä's Code of Conduct and sustainability approach provide the main framework for promoting the principles within the company's sphere of influence.

Wärtsilä has joined the Sustainable Shipping Initiative (SSI) and is a signatory to its Vision for a Sustainable Shipping Industry in 2040. The initiative brings together some of the most prominent companies in the maritime sector. Wärtsilä has also signed the Finnish Business and Society's (FIBS) Diversity Charter, and an Energy Efficiency Agreement whereby Finnish industry voluntarily endeavours to use energy more efficiently for the period 2017-2025. Wärtsilä North America Inc. has signed the Customs Trade Partnership Against Terrorism (C-TPAT) agreement.

## Activities in organisations

In 2018, Wärtsilä participated in activities organised by various national and international organisations and associations. New memberships during the year included, for example, the European Commission's Digital Transport and Logistics Forum (DTLF) and the Finnish Climate Leadership Coalition (CLC). Wärtsilä also renewed its membership in the European Sustainable Shipping Forum (ESSF) for the next five year period.

The key organisations for Wärtsilä and the nature of Wärtsilä's involvement in these organisations are presented in the table below.

Stakeholder	Organisation	Nature of activity
Interest groups	Confederation of Finnish Industries (EK), Federation of Finnish Technology Industries, Finland Chamber of Commerce, International Chamber of Commerce (ICC), ICC Finland	Membership and participation in activities.
Industrial organisations	Association of Singapore Marine Industries (ASMI), Brazilian Institute of Oil and Gas (IBP), Brazilian Thermoelectric Generators Association (ABRAGET), Caribbean Utilities Association (CARILEC), Cogen Europe, Confederation of Indian Industry (CII), Cruise Line International Association (CLIA), BIMCO, EnergyVaasa, Engine Manufacturers Association (EMA), European Association of Engine Manufacturers (Euromot), European Engine Power Plants Association (EUGINE), Exhaust Gas Cleaning System Association (EGCSA), Hong Kong Shipowners Association, Indian Diesel	Board membership and participation in activities of specific working groups (CARILEC, CII, CIMAC, Cogen Europe, EMA, Euromot, EUGINE, SEA\LNG, VDMA, WaterBorne TP).  Membership and participation in activities (ABRAGET, ASMI, BIMCO, CLIA, EGCSA, EURELECTRIC, EnergyVaasa, Hong Kong Shipowners Association, IBP, IDEMA, Interferry, SGMF, SolarPower Europe).

	Engine Manufacturers Association (IDEMA), Interferry, International Council on Combustion Engines (CIMAC), SEA\ LNG Society for Gas as a Marine Fuel (SGMF), Union of the Electricity Industry (EURELECTRIC), Verband Deutscher Maschinen- und Anlagenbau (VDMA), WaterBorne TP, SolarPower Europe	
Standardisation organisations	International Organisation for Standardisation (ISO), Finnish Standards Association (SFS)	Participation in activities.
International and EU organisations	Digital Transportation Logistics Forum (DTLF), European Sustainable Shipping Forum (ESSF), International Maritime Organization (IMO), Global Compact Nordic Network (GCNN), Global Industry Alliance (GIA)	Participation in activities through national delegations (IMO). Participation in activities (DTLF, ESSF, GCNN, GIA).
Other	Climate Leadership Coalition (CLC), Cleantech Finland, Finnish Business & Society (FIBS), European Energy Forum (EEF), Sustainable Shipping Initiative (SSI)	Participation in activities.

## Sustainability management

Wärtsilä's sustainability is systematically managed through the Group-wide guiding principles and management systems and practices in place for material sustainability aspects and impacts. Wärtsilä's global guiding principles together with the company's values ensure a harmonised way of working towards sustainable development. Wärtsilä's Corporate Manual includes a description of the company's operating procedures, responsibilities, and the management system structure that are applicable for the entire company. Wärtsilä's governance and risk management principles are described in the [Governance section](#).

The key elements of Wärtsilä's sustainability management are described in the table below. The guiding principles lay the foundations for uniform management practices. The management approach covers procedures, processes, and systems to manage and monitor material aspects.

Guiding principles	Management area	Material aspect	Targets
	<a href="#">People management</a>	Personnel skills and development	<a href="#">Wärtsilä Corporate Sustainability targets</a>
<a href="#">Code of Conduct</a>	<a href="#">Product design principles</a>	Environmental impacts of Wärtsilä's products and services	Locally defined targets
<a href="#">QEHS Policy</a>	<a href="#">Environmental management</a>	Occupational health and safety	

<u>Policy on human rights, equal opportunities and fair employment practices</u>	<u>Occupational health and safety management</u>	Compliance with laws and regulations
Corporate Manual	<u>Responsible business conduct</u>	Anti-corruption and - bribery
Other policies and guidelines	<u>Supply chain management</u>	Economic impacts to stakeholders

## Guiding principles

Wärtsilä's Code of Conduct defines common rules for all employees, and provides guidance on Wärtsilä's approach to responsible business practices. The key areas of the Code of Conduct include: compliance with laws, transparency and continuous stakeholder dialogue, respect for human and labour rights, fair employment practices, anti-corruption, anti-fraud, and data privacy.

Wärtsilä takes an active approach to the application of the Code of Conduct, and promotes its implementation through the effective communication of its contents to its employees. Application of the Code is monitored internally. Wärtsilä has also implemented an externally hosted whistleblowing channel for all employees to report potential misconduct relating to the Code of Conduct or other Wärtsilä policies. Such reporting can be made anonymously and in 16 languages.

Suppliers and business partners are an important and integral part of the total value chain of the company's products and services. They are expected to conduct their businesses in compliance with the same high legal and ethical standards and business practices as Wärtsilä. Wärtsilä also promotes the application of the Code of Conduct by monitoring the actions of its suppliers and business partners, and has a stringent pre-qualification and monitoring programme for all sales intermediaries complemented with a tailored e-learning programme.

Group-wide policies complement the Code of Conduct and the commitment to maintain the highest legal and ethical standards in everything the company does. Wärtsilä's Quality, Environmental, Health and Safety Policy sets principles for managing the environmental impacts of Wärtsilä's products and services. Wärtsilä's corporate policy on human rights, equal opportunities and fair employment practices creates a common framework for employee practices in all group companies. It covers the following issues: equal opportunities, human and labour rights, well-being at work, non-harassment, and remuneration. Wärtsilä's Corporate Manual also includes other policies, such as anti-corruption, compliance reporting, and Wärtsilä's supply management policies. The purpose of the manual is to safeguard compliance with relevant legislation, and to provide further guidance concerning daily business conduct.

## Values and Code of Conduct programme

Wärtsilä executes a Values and Code of Conduct programme, including various actions to strengthen the ethical culture of the company. The programme elements include Wärtsilä Values and Code of Conduct discussion modules, the signing of an individual Code of Conduct Undertaking, an e-learning programme, and inclusion of the Code of Conduct topic into the annual development discussions covering all employees. The purpose of the Values and Code of Conduct discussions is to create a common understanding and to strengthen the values and principles of the Wärtsilä Code of Conduct. Additionally, every employee is required to sign a personal undertaking letter indicating that they have read the Code of Conduct and that they commit to complying with its contents in their work.



**Code of conduct**

- Introduction
- Compliance with law
- Openness
- Respect for human and labour rights
- Fair employment practices
- Conflict of interest
- Anti-corruption
- Environment
- Occupational health and safety
- Relationships with authorities and local communities
- Innovation and protection of proprietary information
- Accuracy of accounting records
- Competition and fair dealing
- Anti-fraud
- Implementation
- Reporting violations
- Sanctions

**Policies**

- Quality, Environmental, Health and Safety
- Human Rights, Equal Opportunities and Fair Employment Practices
- Anti-corruption
- Compliance Reporting
- Broker
- Agent
- Distributor
- Accounting Manual
- Intellectual Property
- Competition Law Compliance
- Wärtsilä Supply Management
- Trade Compliance
- Personal Data Protection

**Communication and Training**

- Group-wide e-learning programmes for Code of Conduct and for Anti-corruption Policy
- Signing of an individual Code of Conduct Undertaking
- Information on intranet: dedicated pages for Code of Conduct and Compliance with information packages and presentation sets in multiple languages
- Values & Code of Conduct discussion sessions
- Trainings via Skype for implementing the Policies
- Tailored classroom trainings and locally specified training days

**Code of Conduct**

**Introduction**

Wärtsilä is committed to carrying out its business in a sustainable way. In order to promote the long-term interests of Wärtsilä and its stakeholders, the company strives to maintain the highest legal and ethical standards in all its business practices. Each employee is expected to act responsibly and with integrity and honesty, and to comply with this code and its underlying policies and instructions.

**Compliance with laws**

All business and other activities of Wärtsilä shall be carried out strictly in compliance with all applicable laws and under the principles of good corporate citizenship in each country where such activities take place.

Each employee is expected to comply with the requirements of those laws and regulations that apply to Wärtsilä's operations and to his/her job and with the Wärtsilä principles of good corporate citizenship.

**Openness**

Wärtsilä promotes openness and transparency as well as continuous dialogue with its stakeholders, including customers and other business partners, shareholders, personnel, authorities, local communities, and the media. Stock exchange rules and competitive considerations may, however, in some cases restrict such openness and transparency.

Wärtsilä strives to be honest and accurate when communicating with its stakeholders, and also Wärtsilä employees shall make their statements in accordance with this principle.

**Respect for human and labour rights**

Wärtsilä supports and respects the protection of human rights as defined in the United Nation's Universal Declaration on Human Rights. No employee is allowed to take any action that violates these human rights principles, either directly or indirectly.

Wärtsilä supports basic labour rights as defined by the International Labour Organization. In this respect, Wärtsilä upholds the freedom of association and the effective recognition of the right to collective bargaining. In the case that these rights are restricted by local law, Wärtsilä endeavours to offer its employees alternative means to present their views. Wärtsilä does not accept any form of forced or compulsory labour, or the use of child labour.

**Fair employment practices**

Wärtsilä promotes freedom from discrimination based on race, ethnic or national origin, colour, gender, family status, sexual orientation, creed, disability, age, political beliefs or other characteristics protected by law. Wärtsilä fosters equal opportunity and our employees are selected and treated on the basis of their abilities and merits.

Wärtsilä does not accept any form of discrimination, harassment or bullying from its employees.

#### Occupational health and safety

Wärtsilä endeavours to create hazard-free workplaces for its employees, contractors and others working in various locations by applying high standards of occupational health and safety. Wärtsilä strives to assure the safety of its products and solutions through its world-class product and solution development processes.

Each employee is responsible for complying with the safety instructions, for using personal protection equipment when required, and for reporting on any shortcomings regarding safety instructions or protection measures.

#### Conflicts of interest

Wärtsilä expects full loyalty from its employees. Employees must avoid situations where their personal interests may conflict with those of Wärtsilä. This means, for instance, that employees are not allowed to accept gifts or entertainment from a stakeholder, except a gift or entertainment of a minor value given on an occasional basis, providing it does not create a conflict of interest situation.

#### Anti-corruption

No Wärtsilä company or any of its employees may, directly or indirectly, promise, offer, pay, solicit or accept bribes or kickbacks of any kind, including money, benefits, services or anything of value. Such payments and favours may be considered bribery, which violates local legislation and internationally recognised principles for combatting corruption and bribery.

#### Environment

Wärtsilä's target is to develop and produce for its customers environmentally advanced solutions and services that fulfil essential requirements, such as low emissions and high efficiency. Efforts are made to achieve sustainable development by means of raw material selection, processes, products, wastes and emissions through the use of the latest technical advances. Each employee shall comply with the policies and instructions regarding environmental protection.

#### Relationship with authorities and local communities

Wärtsilä maintains constructive co-operation with authorities and regulatory bodies, at both local and international levels. Wärtsilä seeks to play a role in serving the needs of the local communities whenever possible.

#### Innovation and protection of proprietary information

Wärtsilä supports and encourages innovation by its employees in all areas of its activities.

Wärtsilä's intellectual property is one of its most valuable assets, and the patents, trademarks, copyrights, trade secrets, and other proprietary information of Wärtsilä must be protected. At the same time, each Wärtsilä employee must respect the intellectual property rights of others.

#### Accuracy of accounting records

Wärtsilä accounting records must be accurate and reliable in all material respects. Unrecorded funds are prohibited. The records must not contain any false, misleading, or artificial entries.

#### Competition and fair dealing

Competition laws aim to protect consumers and businesses against unfair business practices. Each employee shall comply with those laws. Actions such as participation in cartels, abuse of a dominant position in the market place, or the exchange of price or other commercial information between competitors are prohibited. Wärtsilä employees should be sensitive to competition concerns when attending occasions where competitors, or potential competitors, can be present.

#### Anti-fraud

Wärtsilä does not tolerate fraudulent behaviour or activities, such as embezzlement, fraud or theft. Such violations will lead to immediate termination of employment and are subject to criminal sanctions.

### Implementation

Wärtsilä takes an active approach to the application of this Code and promotes its implementation through the effective communication of its contents to employees. Wärtsilä monitors the application of this Code internally.

Suppliers and business partners are an important and integral part of the total value chain of the products and services of Wärtsilä. They are expected to conduct their businesses in compliance with the same high legal and ethical standards and business practices as Wärtsilä. Wärtsilä promotes the application of this Code by monitoring the actions of its suppliers and business partners.

In the case that questions arise regarding the interpretation of, or compliance with, this Code, Wärtsilä Legal Affairs should be contacted.

The application of the Code will be reviewed from time to time by the Board of Management, which may decide on necessary revisions or interpretations.

### Reporting violations

Any Wärtsilä employee becoming aware of a potential violation of this Code must contact his or her superior or Wärtsilä Legal Affairs. The president of the respective subsidiary must be informed, unless he or she is party to the alleged violation, in which case the Group General Counsel of Wärtsilä Corporation must be contacted. Wärtsilä will investigate all reported matters with discretion. Wärtsilä shall not take any adverse actions as a result of such reporting against any employee reporting in good faith what he or she believes to be a violation of this Code.

### Sanctions

Violation of this Code may lead to a warning, the termination of employment, and the payment of damages. Additionally, certain violations of a criminal nature can lead to criminal sanctions, such as fines or imprisonment.

Approved by the Board of Management in 2011.

## Quality, Environment, Health and Safety Policy

We shape the marine and energy markets with advanced technologies, and focus on lifecycle performance to enhance our customers' business and benefit the environment being:

- Reliable and safe
- Efficient and environmentally sound
- Compliant with the applicable legal requirements and regulations.

We continue to improve our performance and reduce adverse environmental impact to satisfy our customers and other stakeholders.

We create and maintain safe and healthy workplaces for our employees and partners in all of our business operations. We give our employees the authority to stop work if conditions are unsafe or quality is compromised.

Our skilled organisation acts as a responsible global citizen.

Approved by Wärtsilä Board of Management 10.12.2015



Jaakko Eskola  
President & CEO

## Policy on human rights, equal opportunities and fair employment practices

### Human and Labour Rights

Wärtsilä supports and respects the protection of internationally proclaimed human rights, as defined in the United Nation's Universal Declaration on Human Rights, ILO standards, and the UN Global Compact principles.

Wärtsilä supports basic labour rights as stated by the International Labour Organization. In this respect the Group upholds the freedom of association and the effective recognition of the right to collective bargaining. In case these rights are restricted by local law, the company endeavours to offer personnel alternative methods to present their views. Wärtsilä does not accept any form of forced and compulsory labour or the use of child labour.

Wärtsilä complies with local legislation, regulations and agreements concerning human rights, employment and equal opportunities, including all laws pertaining employee data privacy, immigration, working time, wages and hours and employment discrimination. Temporary and part-time employees are offered the same benefits as permanent employees according to local legislation and collective agreements.

Wärtsilä applies European Union directives, local acts of cooperation in the companies and corporations, collective agreements, and equivalent regulations concerning consultation and local bargaining.

### Equal opportunities

Wärtsilä is committed to fostering equal employment opportunities, in which individuals are selected and treated on the basis of their job-relevant merits and abilities and are given equal opportunities within Wärtsilä.

Wärtsilä's policy is to treat all employees equally on the basis of their merits, without discriminating them on the basis of their race, ethnic or national origin, colour, gender, family status, sexual orientation, creed, disability, age, or political beliefs.

### Employee benefits and remuneration

The basic principle for remuneration in the company is to pay the same wage for the same job and the same performance. The salary is meant to be just, fair, and encouraging. Differences in individual salaries are based on how demanding the job is, on differences between competence, work experience, and performance, and not on gender.

In general, temporary and part-time employees are offered the same benefits as permanent employees. In some countries, eligibility is linked to months or years of service – such differences being typically based on collective agreements according to local legislation.

Individual salaries are reviewed once a year in connection with the performance review and in the framework of annual salary increase guidance. The company may pay employees an annual bonus in accordance with company rules and based on separate bonus agreements. Based on financial and individual performance, the bonus outcome is determined once a year. Employees may be paid a spot bonus based on exceptional performance. Benefits, such as a company car, service year award, and well-being, fitness, and health services, are planned and implemented locally taking into account both company guidelines and national practices.

### Minimum notice period

Wärtsilä complies with European Union directives, local acts of co-operation in the companies and corporations, collective agreements and equivalent regulations concerning consultation and local bargaining. Concerning the termination of employment, Wärtsilä respects national labour union agreements and employment legislation.

In the case of occurrences having significant business or social implications, such as personnel redundancies, the transfer in full or part of production facility location, structural changes, as well as transnational effects, the EWC Working Committee and/or local employee representatives are consulted before decisions about such matters are made or, if that is not possible, as soon as possible. The objective is to provide information about any significant operational change at the time of planning.

### Competency management

Wärtsilä's Competency Management and Development frame is a structured way to carry out long-term competence development plans within our businesses and functions. Wärtsilä has defined 16 global job families consisting of generic job descriptions for seven different demand levels. In the job description, the most critical competencies of the job are defined and used as a basis for individual position competence requirements. Typically, in the connection of annual development discussion, individual competencies are assessed against the job requirements and position profile. Competence assessment of our employees and a comparison with competence targets allow us to analyse competence gaps and create development plans accordingly.

All learning and development activities in Wärtsilä strive to develop, maintain, and renew the short- and long-term skills and competencies required to fulfil our strategy. Having the right competencies available at the right time and being able to continuously adapt to a changing business environment are critical success factors for Wärtsilä.

### Consultation and information procedures in Group companies

Wärtsilä's procedures for consultation and information within the Group are arranged in each country according to local legislation. Wärtsilä's Code of Conduct calls for ongoing and open dialogue between the company's management and employee representatives through co-determination bodies, and employees are kept informed of both the Group's situation and that of their particular company. Company management and personnel engage in an open discussion also in those countries where there are no formal co-determination bodies as such. Regular briefings for personnel are an integral part of the operating procedures of Wärtsilä companies. Employee participation in decision-making also extends to occupational health and safety (OHS). Most Wärtsilä units have an OHS committee with representatives from all personnel groups.

In addition to Wärtsilä's procedures for consultation and information for employees at the local level, the European Works Council (EWC) handles issues that affect at least two companies located in the EU and the Group as a whole. The EWC and its working committee play an active role in considering and pursuing transnational issues.

Dialogue at the individual level is conducted through development discussions, which are held at least once a year. The subjects covered in these discussions range from the Group's and business unit's targets to the individual's job description, competence development, career alternatives, personal targets, and feedback. Development discussions are by definition held with all employees.

Employees are able to have a direct impact on the company's operations and their development by making suggestions. Each Wärtsilä employee can offer suggestions for improvement in operations either through the continuous improvement process (CIP) or by submitting private initiatives. CIP-proposals are discussed jointly and need a common decision to be put into effect. Individual initiatives are evaluated by experts within the company and, if found to be feasible, are put into effect. Another global channel for new ideas is SPARK, a Wärtsilä-wide collaborative innovation platform which enables the handling of ideas in a transparent and efficient way, and gives all Wärtsilä employees the opportunity to be a part of the ideation process.

Business performance updates are given to all personnel on a regular basis in connection with Wärtsilä interim reporting. The company intranet "Compass" and the employee magazines are the common global channels for internal communication.

### Recognition of excellent performance

Wärtsilä encourages its employees to be innovative by granting an annual Technology and Innovation Award either to an individual or to a team for the best technical innovation of the year. The award criteria are that the invention must be innovative and environmentally sound, it must represent leading technology, improve a product or process, and offer potential for cost savings. Wärtsilä also grants annually a Customer Care Award for a team or individual who actively participated in the initiatives leading to development of business operations, quality improvements in how we serve and partner with customers, customer satisfaction, or Wärtsilä values demonstration.

## Management system

Wärtsilä's management system aims to generate added value for Wärtsilä's various stakeholders, achieve the company's strategic objectives, support sustainability performance, manage operating risks, and enhance Wärtsilä's performance through the continuous improvement process. The system includes a range of tools, such as systems for managing quality, the company's environmental responsibilities, and occupational health and safety. Management reviews are conducted at various levels of the organisation to monitor the effectiveness of the system, the achievement of targets, and the development of key performance indicators. Wärtsilä's processes are developed in the Businesses, the Business lines, and the Functions. These development projects are governed by the Wärtsilä Controllers' meeting and OD Portfolio Management Team, Wärtsilä Presidents' Quality Reviews, the Functional Management Teams, and Wärtsilä Digital Leadership team.

Wärtsilä's Board of Management is responsible for defining the company's main strategies, principles and policies, and for the management system itself. The Board of Management regularly monitors the effectiveness and performance of the management system. Responsibilities are distributed to the line organisation at all levels of the company, and the management system defines a specific sphere of responsibility for each Wärtsilä employee. Work groups for developing the management system are appointed at the corporate level and in most Wärtsilä subsidiaries. At the Group level, the following work groups coordinate the development of product and operational issues:

Work group	Focus	Main tasks
Wärtsilä Presidents' Quality Review	Quality	Overall responsibility for Wärtsilä's quality, quality process improvement, and achievement of strategic quality goals.
Wärtsilä Controllers' Meeting	Strategic operational development	Overall responsibility for Wärtsilä's operational development and the operational development plans, and governing the work of IM and Process development.
Business Line Quality Reviews	Quality	Support and oversee quality development based on customer perception of our quality and full end-to-end lifecycle view. Platform for focusing on the key improvement areas with the biggest impact to our customers. Cross-functional decision making to increase efficiency and shorten resolution lead time.
Digital Leadership Team	Group Digital solutions and Platforms	The divisions drive Wärtsilä's Digital strategy through digital roadmaps. The Digital Leadership Team ensures alignment across all digital initiatives through roadmap alignment and portfolio management.
Wärtsilä OD Portfolio Management Team	Operational development	Operational development road map, targets, and guidelines based on business strategies and targets, and overall operational development process responsibility for the approval of the Wärtsilä Controllers' Team. Cross-divisional operational development alignment and harmonisation.



Wärtsilä EHSS Management Team	Environmental, health and safety and security (EHSS)	Overall responsibility for Wärtsilä EHSS, EHSS management system development, corporate level EHSS measuring and target setting, and monitoring of legislation developments.
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## Management systems

Proportion of Wärtsilä companies with certification	
Quality (ISO 9001)	93%
Environment (ISO 14001)	67%
Occupational health and safety (ISO 18001)	69%

## People management

Wärtsilä's People Strategy, as an integral part of group strategy, supports the company's businesses and the successful implementation of their ambitions. This is achieved by developing the company's organisation, competencies and way of working to meet both current and future business needs.

The key focus areas of the strategy are the further development of leadership skills and a leadership culture, as well as an emphasis on high performance and operational excellence throughout the organisation. Strengthening accountability and ownership is encouraged by promoting employee engagement through a culture of open communication, integrity, and innovation. At the same time, the strategic actions are aimed at ensuring that the businesses have the required resources and skilled and motivated people at their disposal. This involves the readiness to make changes within the organisation, a continuous focus on competence development and performance excellence, emphasising quality in the setting of targets, proper and regular feedback, the evaluation of overall performance, and recognition of outstanding performance.

## Efficient and value adding people process management



Wärtsilä Human Resources works to develop people management processes, tools, and ways of working that are consistent across national and organisational boundaries. In particular, an intensive effort has been made to further promote the skills needed in people management. In 2018, the focus of the performance management process continued to be on improving the feedback process within the organisation and supporting line managers in their daily leadership role. Wärtsilä Human Resources invests in technologies and tools that enable quick access to online reports, employee information, and annual compensation planning for both local and multi-country teams.

### Transforming company culture

Together with the company’s digital transformation initiatives, Wärtsilä promotes new ways of working and a company culture that is defined for a changing world. Wärtsilä’s purpose is driving all our activities, and the company’s values of “Energy, Excellence and Excitement” are strengthened by the diversity of its employees. Wärtsilä aims to capture opportunities and make things happen, to do things better than any of its competitors, and to foster openness, respect, and trust while creating an exciting work environment. A diverse workforce generates innovation, higher profits, has better complex problem-solving skills, and enables access to a larger talent pool.

### Performance management

One of the essential elements of Wärtsilä’s People Strategy is to embrace and develop a culture of performance excellence throughout the organisation. Coaching to achieve better performance through smart target setting, together with continuous and real-time feedback, is central to this aim.

The well-executed performance management process supports Wärtsilä in reaching its business targets by translating business strategies into team and individual objectives. Each Wärtsilä employee needs to know and understand Wärtsilä’s business strategies and their goals. More importantly, everyone needs to know the main targets set for their own units, and the target areas related to their own work. Greater attention has been given to the quality and impact of the process by emphasising the importance of continuous feedback, clarifying expected behaviours, and creating opportunities for both professional and personal growth.

Good coverage of the annual development discussions has continued globally, with 96.1% being achieved in 2018. As a part of the performance management process, each employee receives performance feedback and an evaluation based on their overall job performance, as well as a personal development plan for the future. Overall performance evaluation is one of the considerations in compensation decisions, and is in line with the principle of performance-based rewarding.

## Learning and Talent development

In 2018, Wärtsilä continued its leadership development activities in many areas. New learning solutions for line managers have been developed to support them in their people management and leadership roles. The annual executive development programme (LLP) was held in November, and four other global leadership development programmes for senior managers were held during the year.

The first implementation of the Growth Lab programme, which focuses on future leaders' development, was kicked off in August 2016, with the third running of the programme being started in August 2018. Twenty Wärtsilä managers and future leaders, with 7 to 15 years' work experience, were selected for this action learning programme based on applications. The participants have been given three project assignments by the Board of Management. These projects are aimed at analysing and building possible future business opportunities. The third Growth Lab programme will end at the end of April 2019.

Wärtsilä's HR organisation has developed the Operational Excellence Academy learning framework, and an Operational Excellence learning portal with supporting materials for all those staff members in the organisation involved in leading operational excellence. Close to 2,000 Wärtsilä managers and employees have participated in the programme during 2016, 2017 and 2018. The aim of the OE Academy is not only to learn, but to establish operational excellence as an integral part of the company culture and way of working, and to ensure continuous efficiency improvement.

Learning on the job, self-learning, mentoring, coaching, job rotation, and assignments designed to encourage competence development and the sharing of competence and skills by experienced employees with their younger colleagues, are integral parts of the development of knowledge and competence within the company. Employees are given formal classroom training at all organisational levels; from induction training for new employees, to training courses for the company's top executives. Wärtsilä employees attended a total of 41,258 training days during 2018; an average of 2.2 training days per employee.

## Engagement

At Wärtsilä, equal opportunities and opportunities for professional and personal growth are core principles. The company supports its employees in self-imposed learning and in finding their own career path within the company. Recruiting and retaining the best talent enables Wärtsilä to be a valued business partner to its customers, and the employer of choice for current and future employees.

In autumn 2017, it was decided that Wärtsilä will invest in a new recruitment system and, more importantly, in the development of recruitment and onboarding processes. The system was launched in August of 2018. Through this change Wärtsilä endeavours to attract new talent, improve the candidates' experience, and promote Wärtsilä's employer brand.

MyVoice is the Wärtsilä employee engagement survey, where all Wärtsilä employees are invited to give their feedback on topics related to leadership, culture, development and work.

A MyVoice Survey has been conducted globally since 2004 at approximately two year intervals. During the years, MyVoice has been proven to be an important means for developing our way of working and strengthening our work culture.

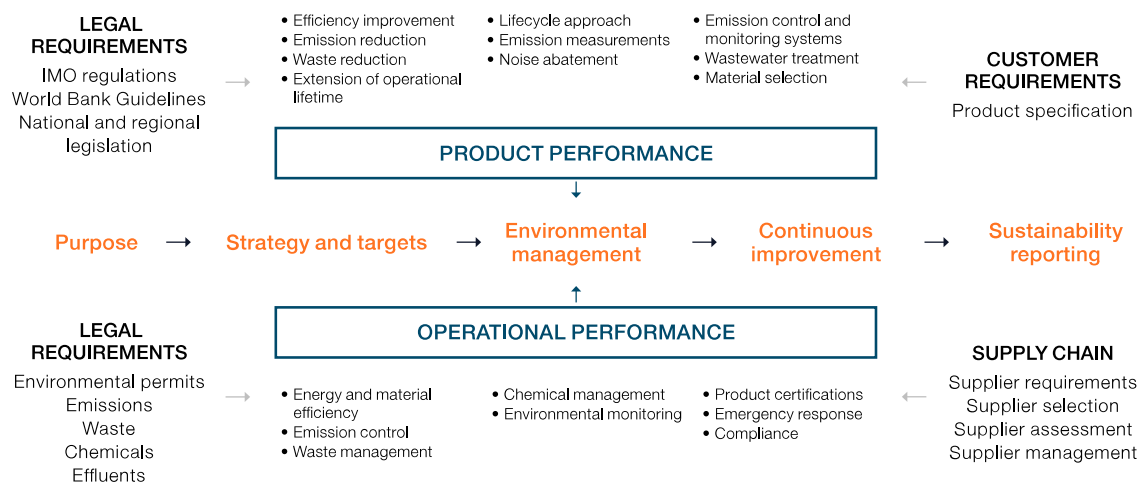
In 2018, the survey was updated to better meet our current needs. The renewed survey is shorter and gives more attention to engagement and motivation. It is completely online and available on mobile devices. The survey will be conducted globally once a year in the future, instead of every two years. The new MyVoice survey is available in 17 languages and was conducted in January 2019.

# Environmental management

One of the three key ingredients in Wärtsilä’s purpose of “enabling sustainable societies with smart technology” is to achieve a clean environment. Wärtsilä’s environmental management practices give full support to reaching this goal.

For Wärtsilä, environmental responsibility has two dimensions: products and operations. Most of the efforts to improve the company’s environmental performance, including its operations, are conducted as part of the product development and improvement processes. This work is supported by operational measures, which are based on achieving high environmental standards and which seek constant improvement.

## Environmental management in Wärtsilä



The continual improvement in environmental performance requires the organisation to consistently work in a systematic way. This work is guided by the company’s strategy and its environmental targets, the Code of Conduct, and policies relating to Quality, Environment, Health and Safety, and it is coordinated and monitored by the cross-business EHSS Management Team. In developing its operations, processes and products, Wärtsilä endeavours to utilise the latest technologies available for improving efficiency in areas such as material and energy consumption, as well as for reducing and managing emissions and waste throughout the lifecycle of its products and services.

Wärtsilä continuously develops and improves its operations and products with the help of certified environmental management systems. The principle means is to apply certified Environmental, Health and Safety (EHS) management systems based on ISO 14001 and OHSAS 18001 in all Group companies, excluding those companies focusing purely on sales. Wärtsilä’s EHS management systems cover all operations carried out by its subsidiaries. This promotes environmental protection and allows the reduction of adverse impacts to be carried out on a wide front.

The company’s EHS management system emphasises compliance with legal requirements, identifying and reducing environmental impacts and risks, training personnel and clearly defining their responsibilities, the full documentation of activities and procedures, actions to be taken in emergencies, and the continuous improvement of environmental performance. The company’s subsidiaries and business units set their own targets for covering the significant environmental aspects of their operations, and for monitoring the overall performance of their management systems.

At the end of 2018, 56 Wärtsilä companies operated with a certified environmental management system. These certified environmental management systems cover roughly 86% of Wärtsilä’s total workforce.

## Occupational health and safety

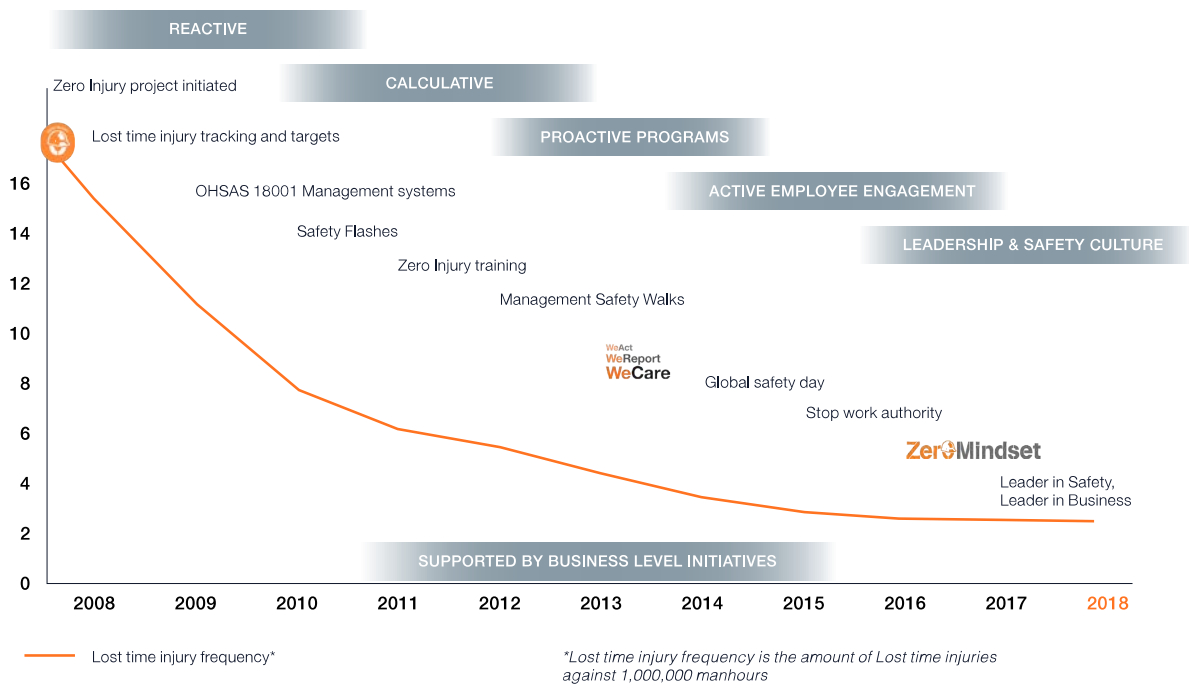
Wärtsilä's occupational health and safety principles are defined in the Code of Conduct, the company's Quality, Environmental, Health and Safety (QEHS) Policy, and in the directive on environment, health, and safety (EHS). Wärtsilä's subsidiaries are required to have a management system in place that conforms to the QEHS Policy and the EHS directive. The main aspects of the management system relate to compliance with legislation, identifying and minimising occupational health and safety risks, personnel training, implementing effective health and safety programmes and instructions, recording and investigating occurred incidents, and the continual improvement of occupational health and safety performance. At the end of 2018, 57 Wärtsilä companies, covering roughly 86% of Wärtsilä's total workforce, operated with a certified occupational health and safety management system in place.

In addition to the management system, Wärtsilä companies apply occupational health and safety programmes as required by local legislation. These are normally developed by occupational health and safety committees made up of company management and personnel representatives. Altogether, 78% of all Wärtsilä companies currently have an occupational health and safety committee.

The indicators used to measure occupational health and safety performance include the number of accidents, the time of absence due to sickness, the frequency of accidents, and the number of near miss / hazard observation reports. Wärtsilä has set a corporate level target of achieving zero injuries. This target is a long-term commitment from the company to strengthen the safety culture, and it requires actions from all Wärtsilä companies and employees. The safety performance of each company is monitored on a monthly basis, and the results are reviewed by the Board of Management. To further strengthen Wärtsilä's safety culture, a global programme known as ZeroMindset has been introduced. ZeroMindset focuses on three key elements: leadership, the shared safety mindset of individuals, and effective safety tools and practices. During 2017-2018, the main focus of the ZeroMindset programme has been on leadership, and 3,200 Wärtsilä management level employees have participated in face-to face "Leader in Safety, Leader in Business" workshops led by certified local facilitators throughout the Wärtsilä network. The first group to participate in this workshop was Wärtsilä's Board of Management, followed by 21 senior business management teams.

In addition, Wärtsilä held its fourth global Safety Day, which took place on 15 March 2018 at Wärtsilä locations all around the world. Employees spent the day learning about road traffic safety, the importance of being aware of the risks, and helping others to make safe choices when travelling on the road. This Safety Day was a great success throughout the entire Wärtsilä network.

### Safety evolution in Wärtsilä



Introduced activity	Description
Lost time injury tracking and targets	Safety performance is reviewed on a monthly basis by the Board of Management, and targets are set on a yearly basis.
OSHAS 18001 Management systems	QEHS Management is certified based on the OHSAS 18001 standard within the business organisations.
Safety Flashes	Safety flash reports are lessons learned from occurred injuries and near misses, and which are distributed globally within the organisation.
Zero Injury Training	Global training consists of e-learning (4h) and a practical workshop (4h).
Management Safety walks	A leadership tool that involves holding conversations on safety with employees.
Global Safety Day	An annual safety celebration that takes place throughout the Wärtsilä network. The theme changes every year.
Stop work authority	Wärtsilä QEHS policy authorises everybody to stop work in unsafe situations.
Leader in Safety, Leader in business	A leadership safety engagement training programme for all line managers and employees who have direct impact on front line operations. Duration is for one day.



# Responsible business conduct

## Human and labour rights

Wärtsilä supports and respects basic human values as outlined in the UN's Universal Declaration of Human Rights. Wärtsilä also supports the Ten Principles of the UN Global Compact, of which six principles are related to Human and Labour rights.

Wärtsilä's employees represent 137 nationalities. The company supports fair and equal treatment of all its employees. Wärtsilä supports the work-related rights defined by the International Labour Organization. Therefore, the company works to ensure that there is freedom of association and right to collective bargaining in the company. In those countries where local legislation does not recognise these rights, Wärtsilä endeavours to give employees other channels for expressing their opinions.

Wärtsilä does not accept the use of forced labour or child labour in any form. Human and Labour rights are a part of the Wärtsilä Code of Conduct training material and also the Wärtsilä Supplier Handbook. At the end of 2018, 89.8% of Wärtsilä's employees had successfully completed the renewed Code of Conduct training.

## Preventing corruption and bribery

Wärtsilä's Code of Conduct, Anti-Corruption Policy, as well as specific Policies implemented for sales intermediaries, namely Agent, Broker and Distributor Policies, expressly prohibit the company and its employees from offering or accepting any kind of benefit considered to be a bribe and from taking actions that could give rise to a conflict of interest or breach of loyalty. The instructions make it compulsory to comply with anti-corruption laws of all the countries in which Wärtsilä does or intends to do business and urge the reporting of any cases of corruption and bribery. The company continues to rendering an extensive training programme for its personnel on anti-corruption principles and applicable legislation as well as the relevant company policies and procedures. At the end of 2018, 91.8% of Wärtsilä's employees had successfully completed the Anti-corruption training.

## Political lobbying

Wärtsilä's policy is to engage in an open dialogue and discussion with both local and international public authorities and officials. The aim of the dialogue is to share information and improve the quality of regulation. Wärtsilä participates in public consultations in the areas of importance to the company. Wärtsilä is part of the Transparency Register of the European Commission.

## Competition regulation

In 2018, Wärtsilä launched a fully updated competition compliance programme aiming at further improved risk management, and the company's management is strongly committed to implementing this programme. The new programme builds upon an e-learning module, which is based upon a fully updated competition law manual, both providing information and guidance for Wärtsilä's personnel. In addition, competition compliance trainings were held in 2018 for the Board of Management as well as other relevant personnel in order to promote knowledge of competition laws and full compliance therewith.

## Security management

Wärtsilä has a corporate security policy and various guidelines, which incorporate human rights considerations and international best practices. Wärtsilä's security management principles and strategies are reviewed and approved in the Wärtsilä Security Steering Group, which consists of Presidents of each Business, Executive Vice Presidents for Digitalisation, Corporate Relations and Legal Affairs, as well as Finance and Control and security professionals. Security management in Wärtsilä is divided into six specific security areas: Personnel, Premises, Information, Cyber, Crisis Management, and Travel Security. Operational security management in these areas is implemented on the business and local level. Wärtsilä prefers security service providers who are members of ICoCA (International Code of Conduct Association).

## Local community approach

Wärtsilä aims to contribute towards the well-being of local communities in which the company is present. This can be reached, for example, by creating employment, paying taxes and social dues, providing training and education to employees, co-operating with local stakeholders, and by supporting local development.

The guiding principle of Wärtsilä's Code of Conduct is to promote openness and good interaction with its stakeholders locally. This applies as much to the families of personnel, our neighbours, educational institutions, and the media, as to local authorities and officials. The methods used towards this end include Open Door days, press briefings, and different modes of communication for different target groups.

As a truly international company, Wärtsilä has delivered solutions to more than 170 countries. Wärtsilä supports its solutions globally during their entire lifecycle, often spanning up to 30 years. Thus, Wärtsilä can at times be present in countries facing various uprisings, ethnic conflicts, area disputes, or violations of human rights. Conducting business locally emphasises the importance of responsible business practices. Governments and the international community define the proper framework for companies to conduct their business. Wärtsilä complies with relevant legislation and international conventions. Wärtsilä complies with all relevant guidelines of the OECD and the International Chamber of Commerce and with the sanctions set by the United Nations and the European Union, by supporting their implementation. In addition, the Wärtsilä Code of Conduct applies to all Wärtsilä employees. We are committed to sustainable development and responsible business conduct, and we promote the Ten Principles of the UN Global Compact within the sphere of our influence.

Wärtsilä's impact on employment, the public sector, and the company's activities for charitable purposes are described in the Economic Performance section of this report. Measures to evaluate the impacts on local communities in case of operational changes of Wärtsilä subsidiaries are determined case by case.

## Product design principles

Wärtsilä strives to develop environmentally sound, safe, and reliable products and solutions for its customers. By providing lifecycle maintenance, reconditioning, and retrofitting services for its products, Wärtsilä is able to support its customers' operations throughout the entire life of service of Wärtsilä products. Reconditioning of engines and components increases the reliable service life of the products. Modernising can improve current operational performance of installations and enables customers' operations to meet tightening future regulative requirements.

### Meeting regulatory requirements

The majority of the international environmental policies and requirements for Wärtsilä's products and solutions are set by the International Maritime Organization (IMO), and the International Finance Corporation (IFC), a member of the World Bank (WB) group. On the regional or national level, organisations such as the United Nations Economic Commission for Europe (UNECE), the European Union (EU), and the US Environmental Protection Agency (EPA), and other emission standards such as in Germany, Japan, and India, are also important policy and regulatory directors for Wärtsilä products.

The IMO is responsible for adopting its own standards for the safety and security of shipping and the prevention and control of marine pollution and emissions from vessels. The IMO regulates nitrogen oxides and fuel sulphur content as well as ballast water treatment procedures and limitations. Wärtsilä's engines are designed to meet the requirements of the EU Machinery Legislation, the IMO Convention for the Safety of Life at Sea (SOLAS) and other relevant safety directives. Wärtsilä's propulsion systems are designed to comply with the SOLAS and safety requirements of relevant classification bodies. Type approval is acquired from classification societies before new products are launched. Wärtsilä's ship design follows class society and flag state rules in the design process to secure safe and compliant designs for its clients. Class approval is required for drawings and calculations to be delivered to the client before construction of the vessel starts.

The IFC provides general and industry specific examples of Good International Industry Practice (GIIP) such as the Environmental, Health, and Safety (EHS) Guidelines for Thermal Power Plants, which is today considered the

minimum environmental standard in larger global power plant projects. The EHS guidelines together with the IFC's Environmental and Social Performance Standards are adhered to in most of the projects financed by international financial institutions in emerging markets. In the EU, the Industrial Emissions Directive (IED) and the Medium Combustion Plant Directive (MCPD) set the main requirements for large and medium-sized combustion plants to lower emissions from different industrial sources throughout the EU.

In order to ensure Wärtsilä's ability to respond to future regulation requirements, the company actively monitors legislative initiatives and changes in environmental legislation. As a result, Wärtsilä has focused its R&D activities on the development of new environmentally sound products and solutions that meet the future demands of the changing operating environment.

### Lifecycle approach

Wärtsilä's products have a long operational life. Therefore, identifying the lifecycle impacts of our products is essential for understanding their total environmental impact. Wärtsilä manages the lifecycle of its products through product design, careful selection of suppliers, production methods, optimising transportation, maintenance and repair during the operational lifetime of the products, and by training and advising our customers in using the products and systems in the most efficient way. Wärtsilä offers service agreements and products that help customers to optimise their operations. Furthermore, Wärtsilä actively supports customers in selecting suitable solutions in the early phase of projects.

Wärtsilä's products are delivered with adequate user guides that include basic information about the products and full instructions for their use. In addition, Wärtsilä provides specific training to ensure environmentally sound and safe utilisation of Wärtsilä's products at customers' daily operations.

## Supply chain management

Suppliers play a significant role in our delivery process. We aim to have close and excellent relationships with our key suppliers in order to ensure that both parties understand and comply with our strict process and product requirements.

Apart from financial benefits, close relationships stimulate knowledge sharing, create an environment of innovation, and integrate more strongly strategic suppliers into Wärtsilä's value chain. Wärtsilä has an extensive supply base with around 27,000 active suppliers, most of whom are located in Europe, where we have our main production units. We are also continuously investing in developing a strong supply chain network in Asia.

### Wärtsilä supplier requirements

Wärtsilä has defined processes for selecting suppliers, determining their compliance with Wärtsilä requirements, and developing the supply relationship. We offer our suppliers a partnership that strengthens the competitiveness of both parties. A precondition of this partnership is an open and continuous dialogue. The partnership approach is also applied in Wärtsilä's research and development activities, in which we often collaborate with universities, research institutes, and key suppliers.

In addition to requirements relating to general features and product-specific issues, Wärtsilä has clear expectations towards its suppliers in terms of compliance with relevant legislation, environmental, quality, and occupational health and safety management, and social performance. Suppliers must demonstrate their compliance with these requirements in order to receive approved supplier status. These requirements are also included in standard supply contracts. Wärtsilä monitors that suppliers comply with these requirements by using performance indicators and conducting various types of audits.

### Supplier assessment and selection

Wärtsilä assesses and manages its suppliers through its Supplier Management System. Wärtsilä assesses potential new suppliers before the supplier relationship begins, in a pre-assessment phase. For suppliers of higher criticality and risk, in terms of management system, offered scope and geographical location, this phase is more advanced,

including audits for the most critical ones. Audits are also conducted for existing suppliers whose performance does not meet Wärtsilä's requirements. In addition, performance reviews are carried out to identify and solve issue-specific deviations from the Wärtsilä's supplier requirements.

As part of the supplier evaluation, Wärtsilä conducts a rating based upon Wärtsilä's supplier requirements. This rating is a result of an assessment of various information sources, such as pre-assessment questionnaires, dialogue with suppliers, and conducted audits. Based on this rating, the suppliers receive a status: approved, approved with remarks, or banned. The rating is reviewed regularly, as are the results of conducted audits.

### **Wärtsilä reached its supplier rating coverage targets for 2018**

By the end of 2018, we rated 763 out of our 1,199 direct global suppliers, which covers 97% of the related spend (target for the year was 96%). The rating coverage of local supplier spend was 82% (target 80%), and of indirect supplier spend 77% (target 70%). In 2018, 32 suppliers were banned because of non-compliance with Wärtsilä's requirements, including 17 for sustainability reasons.

Wärtsilä develops its supply management system on a regular basis. In 2018, Wärtsilä launched a risk-based supplier assessment and management system for new suppliers. The tool will be applied in 2019 also to existing suppliers. All existing suppliers are required to submit the self-assessment by the end of 2020.

# Sustainability data

## Economic

Wärtsilä's objective is to achieve profitable growth and create long-term value for our shareholders and society at large. Achieving this depends on our ability to satisfy the expectations of multiple stakeholders. These include providing customers with high-quality and environmentally sound products, solutions and services, building long-term partnerships with suppliers, offering employees competitive compensation and working conditions, as well as contributing to the well-being of the local communities in which Wärtsilä operate. Good economic performance establishes a platform for the other aspects of sustainability – environmental and social responsibility.

### Economic performance

#### Direct economic value generated and distributed (GRI 201-1)

MEUR	2018	2017*	2016	2015	2014
<b>Customers</b>					
Net sales	5 174	4 911	4 801	5 029	4 779
<b>Suppliers</b>					
Cost of goods, materials, and services purchased	3 327	3 024	2 969	3 136	3 066
Value added	1 847	1 888	1 831	1 893	1 713
<b>Distribution of value added</b>					
Distributed to stakeholders	1 615	1 651	1 593	1 555	1 475
<b>Employees</b>					
Wages and salaries	954	1 000	939	935	906
<b>Public sector</b>					
Taxes and social dues	336	331	343	349	313
<b>Creditors</b>					
Net financial items	-40	-47	-53	-34	-28
<b>Shareholder</b>					
Dividends	284	272	256	237	227
<b>Communities</b>					
Donations given	1	1	2	1	1
<b>For business development</b>	232	237	238	338	239

\*Restated due to IFRS 15.

	2018	2017*	2016	2015	2014
<b>Customers</b>					
Net sales (MEUR)	5 174	4 911	4 801	5 029	4 779
Net sales by market area (MEUR)					
Europe	1 485	1 526	1 581	1 566	1 402
Asia	1 867	1 933	1 774	2 051	1 989
Americas	1 245	1 132	1 039	1 006	840
Africa	283	221	313	329	398
Other	294	100	94	78	150
<b>Suppliers</b>					
Cost of goods, materials, and services purchased (MEUR)	3 327	3 024	2 969	3 136	3 066
<b>Employees</b>					
Salaries and wages (MEUR)	954	1 000	939	935	906

Salaries and wages by market area (MEUR)					
Europe	643	689	650	632	637
Asia	150	156	153	163	144
Americas	134	130	110	112	99
Africa	20	18	19	21	18
Other	7	7	7	8	8
Net sales/employee (TEUR)	274	275	262	271	265
<b>Public sector</b>					
Taxes and social dues (MEUR)	336	331	343	349	313
Taxes and social costs by market area (MEUR)					
Europe	252	236	246	246	220
Asia	38	44	45	50	42
Americas	33	38	47	44	37
Africa	10	12	5	6	12
Other	4	1	0	2	2
Subsidies received (TEUR)	7 085	9 891	8 343	9 669	11 486
Net financial items (MEUR)	-40	-47	-53	-34	-28
<b>Community</b>					
Donations given, Board of Directors (TEUR)	110	110	1 365	110	110
Donations given, Wärtsilä companies (TEUR)	627	673	533	511	608

\*Restated due to IFRS 15.

#### Financial implications and other risks and opportunities due to climate change (GRI 201-2)

Wärtsilä Italia S.p.A is the only subsidiary that falls into the scope of the EU Emission Trading Scheme (ETS) because of the heating plant of the factory. The EU ETS has not had any impact on the company's profitability. Wärtsilä's response to climate change is to develop and provide products, solutions, and services that enable our customers to reduce their greenhouse gas emissions. More information about Wärtsilä's solutions for climate change can be found on our website: [www.wartsila.com](http://www.wartsila.com). The potential business risks related to climate change and Wärtsilä's products are presented under the sustainability and climate change chapter under the Risks and risk management section.

#### Defined benefit plan obligations and other retirement plans (GRI 201-3)

The pension cover is based on the legislation and agreements in force in each country. In Finland, most of the pension obligations are covered by the Employee Pensions system (TyEL). The largest defined benefit plans are used in Switzerland, Germany, Great Britain and Sweden. Most of these defined benefit pension plans are managed by pension funds, and their assets are not included in the Group's assets. Wärtsilä's subsidiaries make their payments to pension funds in accordance with the local legislation and practices in each country. Authorised actuaries in each country have performed the actuarial calculations required for the defined benefit plans. More information on the Group's pension obligations can be found in the Financial Review, Note 23. Pension obligations.

#### Financial assistance received from government (GRI 201-4)

Subsidies received (TEUR)	2018	2017	2016	2015	2014
	7 085	9 891	8 343	9 669	11 486

The value of the subsidies received in 2018 was EUR 7 085 thousand and they were among others related to R&D projects. The most contributing countries in 2018 were Finland and Spain.

## Market presence

#### Ratios of standard entry level wage by gender compared to local minimum wage (GRI 202-1)

Wärtsilä applies and follows local employment legislation in all countries, and respects local collective labour agreements, which often define the minimum wage levels. In addition, entry level salaries are benchmarked against the market references by function and educational qualification. While laws and regulations determine the minimum level, the actual salaries often exceed these levels. A total compensation package for employees in each country is in line with the corporate rewarding guidelines, local market practices, and labour agreements. The base salary is set to meet market conditions, the demands of the job, and individual competence and performance.



**Proportion of senior management hired from the local community (GRI 202-2)**

Wärtsilä always publishes all open vacancies internally, thus ensuring an equal opportunity to apply for Wärtsilä positions. If there is no specific reason, such as a competence transfer need from other countries, to hire expatriates to the position, local residents are hired. This principle also applies to senior management positions. Senior management consists of global business and corporate management and local company management positions. Globally, 80% of Wärtsilä's senior management is locally hired, in other words from the same country as the Wärtsilä subsidiary they work for.

## Environment

The environmental impacts of Wärtsilä's operations largely relate to manufacturing. The main environmental aspects of manufacturing relate to the use of energy and natural resources and thus also to the emissions that are produced by the manufacturing processes. Product development also requires the testing of products and individual components which, alongside manufacturing, loads the environment. However, the positive impacts of product improvements on the environment far outweigh the negative impacts of testing when taking the product's entire lifecycle into account.

### Materials

**Materials used by weight or volume (GRI 301-1)**

The main materials used in Wärtsilä products are various metals: cast iron, alloy and structural steel, aluminium alloys, and bronze. In 2018, the total material usage was 103,332 tons (73,738). The major material groups were various metals 83%, sand 13%, and various chemicals 1%.

Materials	2018	2017	2016	2015	2014
Total material usage (t)	103 332	73 738	84 913	100 767	88 736
Metals (t)	85 820	55 416	59 898	73 285	65 363
Sand (t)	13 055	13 493	18 399	20 915	16 445
Chemicals (t)	1 422	1 575	1 831*	5 025	5 447
Others (t)	3 035	3 255	3 601	1 542	1 481

\* A substantial error in reporting classifications was corrected in 2016, meaning that the figure is not directly comparable to earlier years.

**Recycled input materials used (GRI 301-2)**

The main materials used in Wärtsilä products are various metals: cast iron, alloy and structural steel, aluminium alloys and bronze. Recycled material content of these metals vary depending on the material and supplier in question. Recycled material, such as end-of-life coins and bronze propellers, is used for example in the casting of new propellers.

### Energy

**Energy consumption within the organisation (GRI 302-1)**

The total energy consumption (in terajoules, TJ) includes the electricity, heat, and fuels used in Wärtsilä companies in recent years. The fuels are used mainly in engine testing, but also in heating, production, and transportation. In 2018, the fuels were from non-renewable sources.

Wärtsilä uses electricity in its manufacturing operations - for example in machining components - and in service workshops and offices. Both the electrical and the heat energy generated during engine test runs can be utilised. Wärtsilä's aim is to use the electrical energy for its own purposes while also selling part of this electrical energy to local power companies. Due to the nature of engine test runs, the production of electricity and the company's electricity demand are not equivalent; this allows the surplus energy to be sold to local power companies.

Heating for factories and offices accounts for most of Wärtsilä's consumption of heat energy. In several factories, the heat generated in engine test runs is used for heating. Some factories and offices are connected to a local district heating network, some have their own heating plant, and some use electricity for heating.

Energy	2018	2017	2016	2015	2014
Total energy consumption (TJ)	1 538	1 477	1 471	1 539	1 475
Electricity consumption (MWh)	132 572	131 960	139 363	142 819	140 713
Purchased electricity (MWh)	128 878	128 176	132 771	131 501	131 896
Generated electricity (MWh)	3 694	3 784	6 592	11 318	8 817
Sold electricity (MWh)	32 019	28 066	23 620	21 834	25 548
Heat consumption (MWh)	32 937	36 890	33 542	30 161	25 073
Light fuel oil (t)	6 223	4 327	3 918	4 801	4 461
Heavy fuel oils (t)	3 381	3 798	3 647	3 675	3 579
Natural gas (t)	9 783	8 393	8 614	9 750	8 721
Other fuels (t)	1 238	2 811	3 209	2 834	3 348

#### Energy intensity (GRI 302-3)

Energy	2018	2017	2016	2015	2014
Total energy consumption (TJ/ Net sales)	0.300	0.308	0.313	0.334	0.319

#### Reduction of energy consumption (GRI 302-4)

From the start of 2017, Wärtsilä set an energy saving target to reduce energy consumption by at least 7% in terms of absolute consumption (GWh) by 2025, compared to the energy consumption in 2015. By the second year to the target, permanent energy savings of 2.9 GWh have been reached, mainly by reducing electricity or heat consumption. Wärtsilä's previous energy saving target period was launched in 2008 and ended in 2016, resulting in permanent energy savings of 43.3 GWh.

Energy savings	2018	2017	2016	2015	2014
Annual energy savings (GWh)	2.0	0.9	1.3	4.6	1.9
Cumulative energy savings (GWh)	2.9	0.9	43.3	42.0	37.5

## Water

#### Water withdrawal by source (GRI 303-1)

Wärtsilä's water consumption can be divided into two categories: domestic use and cooling use. Domestic water is used mainly for sanitary purposes and by industrial equipment, such as machine tools and washing machines. Some factories also use domestic water to produce moulds or to fill in their closed-loop cooling system needs. Wärtsilä uses seawater for its engine and process cooling needs.

Total annual water consumption split by the water withdrawal source: Out of cooling water about 99% comes from local surface watercourses where only heat is released along with clean water, and about 1% of cooling water comes from municipal water utilities. Out of Wärtsilä's total water consumption in 2018, about 95% was seawater for cooling purposes, about 5% was from municipal water supplies, and about 0.5% was directly withdrawn groundwater or rain water.

Water	2018	2017	2016	2015	2014
Total water consumption (1 000 m <sup>3</sup> )	12 607	12 749	8 444	6 971	7 774
Consumption of domestic water (1 000 m <sup>3</sup> )	652	631	613	703	683
Consumption of cooling water (1 000 m <sup>3</sup> )	11 954	12 118	7 831	6 268	7 091

#### Water sources significantly affected by withdrawal of water (GRI 303-2)

No water source has been found to be significantly affected by any Wärtsilä subsidiary water withdrawal.

#### Percentage and total volume of Water recycled and reused (GRI 303-3)

Wärtsilä Italia S.p.A. recycled 122,557 m<sup>3</sup> of water in 2018 by running it through a water treatment plant and reusing the cleaned water in production processes. The amount corresponds to roughly 35% of Wärtsilä Italia's annual water consumption and 1% of Wärtsilä's total water consumption in 2018. No other major water recycling processes are in use in Wärtsilä production facilities globally.

## Emissions

### Greenhouse gas (GHG) emissions and intensity (GRI 305-1, 305-2, 305-3, 305-4)

In addition to direct CO<sub>2</sub> emissions, Wärtsilä's operations generate indirect CO<sub>2</sub> emissions. In 2018, the calculated secondary CO<sub>2</sub>e emissions (location-based method) were 47,347 tons (56,002) (from purchased electricity and heat) and the CO<sub>2</sub>e emissions from flights totalled 44,652 tons (43,553). There were no biogenic CO<sub>2</sub> emissions in 2018.

GHG emissions (location-based)	2018	2017	2016	2015	2014
Emissions of carbon dioxide (tCO <sub>2</sub> e) (direct) (SCOPE 1)	59 949	57 998	57 355	63 441	57 477
Emissions of carbon dioxide (tCO <sub>2</sub> e) (indirect) (SCOPE 2)	47 347	56 002	59 697	60 317	55 989
Emissions of carbon dioxide (tCO <sub>2</sub> e) (indirect) (SCOPE 3) *	208 330	155 537*	168 571*	39 033	39 619
GHG emissions intensity (all)	61.5	56.1	60.8	35.3	33.1

\* Includes indirect emissions from materials, energy, and flights from 2016 onward. Pre-2016 figures only include emissions from flights.

GHG emissions (market-based)	2018
Emissions of carbon dioxide (tCO <sub>2</sub> e) (direct) (SCOPE 1)	59 949
Emissions of carbon dioxide (tCO <sub>2</sub> e) (indirect) (SCOPE 2)	63 768
Emissions of carbon dioxide (tCO <sub>2</sub> e) (indirect) (SCOPE 3)	204 065
GHG emissions intensity (all)	63.9

### Reduction of greenhouse gas (GHG) emissions (GRI 305-5)

Wärtsilä has taken several measures to reduce its indirect CO<sub>2</sub> emissions. The energy efficiency commitment aims to reduce energy consumption and emissions. In addition, Wärtsilä's focus lies on reducing travelling by implementing a strict travel policy and by using virtual meeting concepts: Skype instant messaging, which enables live chats between two people or more, Skype meetings allowing multi-person meetings from personal computers, in which presentation material can be shared, and the videoconferencing system. In Wärtsilä, Skype and videoconferences are in everyday use. Approximately 1,700 Skype conferences are arranged daily, and there are 150 video conference rooms in 46 countries. Additionally, several other collaboration tools have been taken into use. Although estimating the reductions from the above mentioned measures is not possible, several local measures have been estimated to have achieved permanent reductions of total 5,524 tons CO<sub>2</sub>e in 2018.

### Nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), and other significant air emissions (GRI 305-7)

Air emissions are mainly caused by test runs and the painting of completed engines or other Wärtsilä products. Test run emissions consist of nitrogen oxides (NO<sub>x</sub>), sulphur dioxide (SO<sub>x</sub>), carbon dioxides (CO<sub>2</sub>) and particles, as well as small amounts of other emission components. The painting of engines and other Wärtsilä products generates VOC emissions (volatile organic compounds). Engine emissions are reduced through research and development, as well as product development and testing. These measures also generate emissions, but their results reduce the future emissions of manufactured engines.

Emissions	2018	2017	2016	2015	2014
Emissions of nitrogen oxides (t)	545	534	500	553	519
Emissions of sulphur oxides (t)	55	62	59	63	76
Emissions of total hydrocarbons (t)	164	131	116	145	87
Particulates (t)	7	8	9	9	9
Emissions of VOC (t)	45	36	30	40	40

The primary sources of manufacturing noise are the engine test runs and the ventilation machinery on factory roofs. This noise is mostly low frequency and is therefore not easily detected by the human ear. Wärtsilä has specifically addressed the issue of noise protection using technical means and has succeeded in lowering noise levels considerably. However, noise abatement is a continuous need and requires regular monitoring.

## Effluents and waste

### Water discharge by quality and destination (GRI 306-1)

Wärtsilä uses seawater for its engine and process cooling needs, in which case the cooling water system is kept separate so that only heat is released into the natural water system. Wastewater is sewerred and piped to the local wastewater treatment plant or treated on site before being discharged. If the effluent is not suitable for discharge, it is taken away for appropriate processing, for example to a special treatment plant for hazardous wastes.

Several Wärtsilä subsidiaries have environmental permits allowing clean or properly treated water discharge into natural water bodies. Most of this discharge is clean cooling water released back into local surface watercourse, where only heat is released.

In 2018, the total amount of water discharge was 12,665,551 m<sup>3</sup>.

2018 water discharge	Municipal sewer	Sea	River	Ground	Re-used by other entity
Amount (m <sup>3</sup> )	219 844	11 950 057	471 100	23 942	608
% of total water discharge	2	94	4	0	0

### Waste by type and disposal method (GRI 306-2)

Manufacturing activities cause various wastes. These are divided into two main categories: hazardous and non-hazardous wastes. Hazardous wastes include cutting fluids, various types of waste oil, paints and solvents, oily wastes, solid wastes, etc. Non-hazardous wastes include scrap metal, metal swarf, waste plastics, waste wood, domestic waste, cardboard, and paper waste. All Wärtsilä companies sort their waste according to local municipal regulations. Generally speaking, the main sorting categories are waste to be incinerated, waste for landfills, and waste for recycling.

Waste management in Wärtsilä has four aims, listed in their order of priority:

- to reduce the amount of waste generated in processes
- to use waste as a material
- to use waste as energy
- to dispose of waste in an environmentally sound way

Waste	2018	2017	2016	2015	2014
Total waste (t)	36 025	32 580	50 020	52 037	46 829
Non-hazardous waste (t)	31 240	28 928	42 663	44 864	39 409
Hazardous waste (t)	4 785	3 651	7 357	7 173	7 420
Waste for landfills (t)	4 051	3 198	9 962	8 593	9 621
Waste for recycling (t)	24 791	23 647	30 695	34 074	27 328
Waste for incineration (t)	2 305	1 990	1 889	2 197	2 460
Waste for composting (t)	92	95			
Hazardous waste for landfills (t)	579	548	964	2 586	2 504
Hazardous waste for recycling (t)	3 063	2 113	5 470	3 502	3 792
Hazardous waste for incineration (t)	1 143	990	923	1 084	1 124

## Products and services

### Extent of impact mitigation of environmental impacts of products and services

Environmental products and services are the most important means for Wärtsilä to mitigate the environmental impacts. Wärtsilä has a key role in providing environmentally sound solutions and services that enable our customers to develop their business in a sustainable way. The value of sustainable innovation is delivered across a wide range of environmentally sound products and solutions, including technologies related to efficiency improvement, reduction of gaseous and liquid emissions, effluent and ballast water treatment, as well as to products and solutions that are flexible, efficient, reliable, safe, cost-efficient to operate, and that have a minimal environmental footprint throughout their lifecycles.

## Expenditures

### Total environmental protection expenditures and investments

Concerning Wärtsilä's operations, we have defined expenditures as environmental expenditures if they are related to soil, water and air pollution control, waste management, environmental management, or noise control.

A substantial proportion of the company's investments in product development are targeted at securing environmental compliancy providing short- and long-term benefits for the whole value chain and ultimately for the environment.

Expenditures	2018	2017	2016	2015	2014
R&D costs (MEUR)	165	141	131	132	139
Environmental costs					
Environmental capital expenditures (MEUR)	0.6	4.0	0.7	0.5	1.9
Environmental operating expenditures (MEUR)	4.0	3.8	4.0	4.6	4.8

## Social

Wärtsilä's aim is to provide the best value and service to its customers by continuously developing its competences and way of working. The strategic goal of Wärtsilä's social responsibility and people strategy is to bring the business strategy alive by developing Wärtsilä's organisation and competences to meet the evolving business needs.

The aim is to have energetic, competent, and motivated personnel with exciting and meaningful jobs and career opportunities led by excellent leaders. Good performance is recognised and diversity respected. By applying high standards of occupational health and safety, Wärtsilä strives to offer a hazard-free workplace to its employees, contractors, and others working in different parts of the corporation.

Good corporate citizenship is accomplished through active co-operation, open communication, and good relationships with stakeholders. Wärtsilä's operations and relations with its stakeholders are based on the company's Code of Conduct, with which each Wärtsilä company and individual is required to comply.

### Significant changes to the organization and its supply chain in 2017 (GRI 102-10)

In February, Wärtsilä announced the expansion of its QuantiServ service offering with the acquisition of Lock-n-Stitch Inc., an American engineering company specialised in cast iron repairs. The acquisition strengthened Wärtsilä's service portfolio for customers operating multiple brands.

Wärtsilä also completed the acquisition of Trident BV, a Netherlands based company specialised in underwater ship maintenance, inspection, and repair services. The acquisition enables Wärtsilä to become a leading global operator in the underwater services market. The company employs 35 persons.

In March, Wärtsilä announced the acquisition of Transas, a global market leader in marine navigation solutions that include complete bridge systems, digital products and electronic charts. The company is also a leader in professional training and simulation services, ship traffic control, as well as monitoring, and support. The company has 22 regional offices worldwide and a distribution network that spans 120 countries. It has a workforce of approximately 1000 employees. Transas business and operations will be integrated within Wärtsilä's Marine Business.

In October, the technology group Wärtsilä decided to reorganise into two business areas, Wärtsilä Marine Business and Wärtsilä Energy Business, covering both new sales and services for the respective markets. With this change, Wärtsilä aims to deliver increased value to its customers by better serving their needs across the full lifecycle. The new organisational structure is operational as of 1 January 2019. Forming two business areas will enable Wärtsilä to accelerate growth and the implementation of the Smart Marine and Smart Energy strategies. Integrating the newbuild and service activities enhances customer value by strengthening the focus on complete lifecycle solutions tailored to specific market needs. It also allows Wärtsilä to more effectively serve its customers with increased flexibility and faster response times.

In October, Wärtsilä divested its pumps business to Solix Group, a Scandinavian investment company with offices in Copenhagen, Denmark and Malmö, Sweden. Wärtsilä Pumps has belonged to the Wärtsilä Marine Solutions organisation and became part of the company along with the acquisition of Hamworthy in 2012. This divestment concerned 227 employees. The divestment enables Wärtsilä to devote greater focus to its Smart Marine vision.

In October, Wärtsilä acquired underwater services provider Burriel Navarro, S.L. which operates and enjoys a long-standing reputation in the main ports of Spain. This acquisition supports the growth of underwater business by increasing service locations and by complementing the position of Trident – a Wärtsilä Company in Europe. The company employs 19 persons.

## Employment

### Information on employees and other workers in 2018 (GRI 102-8, GRI 401-1)

In addition to direct employment, Wärtsilä employed also indirectly an external workforce totalling 7,000 man-years in subcontracting at its factories and units. The units located in Finland had a total personnel of 3,885 employees.

All in all, 1,641 employees left and 3,316 joined Wärtsilä globally during 2018 for different reasons. Wärtsilä had 19,293 employees at the end of 2018.

Personnel	2018	2017	2016	2015	2014
Number of employees at the end of the year	19 293	18 065	18 011	18 856	17 717
Personnel by business					
Services	11 051	10 624	10 567	10 592	10 692
Marine Solutions	6 267	5 845	6 074	6 847	5 603
Energy Solutions	1 171	1 038	903	959	978
Other	805	559	467	459	444
Personnel by market area					
Europe	11 693	10 463	10 399	10 893	9 633
Asia	4 726	4 890	4 992	5 297	5 477
Americas	2 074	1 960	1 919	1 917	1 840
Other	801	753	701	748	767
Average age of employees	41.4	41.5	41.0	41.0	40.2
Permanent employees (%)	93	92	89	89	88
Temporary employees (%)	7	8	11	11	12
Full-time employees (%)	98	98	98	98	98
Part-time employees (%)	2	2	2	2	2
Employee turnover (resigned) (%)	5.7	5.3	5.3	5.2	6.2
Net employment creation	923	-213	-840	-755	-283

Number of employees by employment contract and gender in 2018	Permanent	Temporary
Total	17 852	1 441
Male	14 934	1 155
Female	2 918	286

Number of employees by employment contract and region in 2018	Permanent	Temporary
Europe	11 193	500
Asia	4 002	724
America	2 046	28
Other	611	190

Permanent employees by employment contract type and gender in 2018	Full-time	Part-time
Total	17 517	335
Male	14 815	125
Female	2 703	210

New employee hires in 2018	Employees	Rate (%)
Total	3 316	17.2
Gender		
Male	2 534	15.8
Female	782	23.8
Age group		



< 30 years	1 078	40.1
30–50	1 891	15.6
> 50 years	347	7.7
Market area		
Europe	2 188	18.7
Asia	641	13.6
Americas	365	17.6
Other	122	15.2
<b>Employee turnover (resigned) in 2018</b>		
	<b>Employees</b>	<b>Rate (%)</b>
Total	1 011	5.7
Gender		
Male	807	5.0
Female	203	6.2
Age group		
< 30 years	187	10.6
30–50	660	5.7
> 50 years	164	3.6
Market area		
Europe	573	5.1
Asia	267	6.7
Americas	137	6.7
Other	33	5.4

#### Benefits provided to full-time employees that are not provided to temporary or part-time employees (GRI 401-2)

In general, temporary and part time employees are offered the same benefits as permanent employees. In some countries, eligibility is linked to the number of months or years of service – such differences being typically based on collective agreements according to local legislation.

#### Labour / management relations

##### Minimum notice periods regarding operational changes (GRI 402-1)

Wärtsilä way of working concerning minimum notice periods is described in the Policy on human rights, equal opportunities and fair employment practices.

#### Occupational health and safety

##### Workers representation in formal joint management–worker health and safety committees (GRI 403-1)

Wärtsilä companies apply occupational health and safety programmes as required by local legislation. These are normally developed by occupational health and safety committees consisting of representatives from both management and personnel. Altogether 78% of Wärtsilä companies have an occupational health and safety committee covering in total 92% of Wärtsilä's employees.

##### Type of injury and rates of injuries, occupational diseases, lost days and absenteeism, and total number of work-related fatalities (GRI 403-2)

The lost time injury frequency for 2018 was 2.50, which was 1% higher than in the previous year.

Wärtsilä regrets to report a fatality at a shipyard in China. A Wärtsilä employee was commissioning engines in a container vessel and intending to leave the vessel after the work. There was an unprotected side on the deck of the vessel, which the employee did not notice. The employee fell down to the cargo hold and lost his life.

In 2018, Wärtsilä started reporting the number of lost time injuries and lost time injury frequency also for Wärtsilä contractors, as well as the number of lost time injuries in geographical areas.

Injuries	2018	2017	2016	2015	2014
Total number of injuries, employees	398	446	439	461	510
Number of lost time injuries resulting in at least 1 day absence - employees, total	90	88	95	104	130
Europe	62	60	69	72	90
Asia	14	9	17	15	21
Americas	13	16	6	16	15
Africa	1	3	3	1	4
Number of lost time injuries resulting in at least 1 day absence - contractors, total	35				
Europe	19				
Asia	6				
Americas	10				
Africa	0				
Lost time injuries / million working hours					
Employees	2.5	2.5	2.6	2.8	3.5
Contractors	3.1				
Absence rate, employees					
Absence due to illness (% of total working hours)	2.2	2.0	2.2	1.9	2.0
Absence due to lost time injury (% of total working hours)	0.1	0.1	0.1	0.1	0.1
Absence due to occupational diseases (% of total working hours)	0.0	0.0	0.0	0.0	0.0
Fatalities					
Number of fatalities, total	1	1	1	1	5
Employees	1	0	0	1	3
Contractors	0	1	1	0	2

#### Workers with high incidence or high risk of diseases related to their occupation (GRI 403-3)

Wärtsilä employees constantly work close to running engines while conducting overhaul or testing activities, which exposes them to high levels of noise. Wärtsilä has occupational safety and health programmes in place to prevent hearing loss, including providing hearing protectors to those employees at risk of hearing loss or impairment. In 2018, there were in total 7 cases of occupational disease diagnosed, which is equivalent to 0.2 cases / million worked hours.

#### Training and education

##### Average hours of training per year per employee (GRI 404-1)

Wärtsilä's average number of training days in 2018 for male employees was 2.17 and for female employees 2.23.

Training days/employee	2018	2017	2016	2015	2014
All employees	2.2	2.2	3.0	3.0	4.2
Managers and superiors	2.9	3.5	3.7	3.5	5.1
Other white-collar employees	2.1	3.0	2.9	2.9	3.5
Blue-collar employees	2.1	2.0	3.0	3.1	4.4

##### Programs for upgrading employee skills and transition assistance programs (GRI 404-2)

Wärtsilä programmes for skills management is described in the People Management section. Wärtsilä offers a wide variety of internal training and learning opportunities for its employees, covering more than 20 training categories. These include topics such as engine technology, health and safety, language and culture, project management, environment, security, and leadership.

## Percentage of employees receiving regular performance and career development reviews (GRI 404-3)

Development discussions held annually	2018	2017	2016	2015	2014
Coverage %	96	96	96	92	92

## Diversity and Equal opportunity

## Diversity of governance bodies and employees (GRI 405-1)

A diverse workforce generates higher profits, better complex problem-solving skills, and access to a larger talent pool. Wärtsilä's Diversity Initiative began in 2012 and is aimed at driving an inclusive corporate culture at all levels to meet both global and local requirements. By investing in diversity and supporting employees of varied gender, age, personality, and educational background, Wärtsilä becomes an even more attractive employer and a more valued business partner for its customers.

Gender diversity	2018	2017	2016	2015	2014
Male/female ratio (%)	83/17	84/16	84/16	85/15	86/14
Executive positions globally: male/female ratio (%)	87/13	89/11	89/11	89/11	90/10
Regional diversity					
Number of nationalities	137	136	134	131	122

Number of employees per age group in 2018	Employees	Ratio (%)
< 30 years	2 687	13.9
30–50	12 107	62.8
> 50 years	4 499	23.3

Percentage of members of Board of Management (BoM) and Board of Directors (BoD) per age group in 2018	BoM (%)	BoD (%)
< 30 years	0	0
30–50	25	25
> 50 years	75	75

Percentage of members of Board of Management (BoM) and Board of Directors (BoD) per gender in 2018	BoM (%)	BoD (%)
Female	13	25
Male	87	75

## Customer satisfaction

## Results of surveys measuring customer satisfaction (GRI 102-43)

Wärtsilä always puts the needs of our customers first. We show this by carefully listening and acting upon our customers' feedback, at both operative and management levels. Wärtsilä places great emphasis on earning our customers' long-term trust by keeping its promises. While challenges may arise at any time in this business, relationships are strengthened by focusing on our customers. We observe our customers' perception of loyalty and satisfaction by applying a Net Promoter Score methodology, NPS. The results are monitored on a monthly basis and last three years shows considerable improvements.

Our Customers' feedback on project deliveries and the operation of their installations, are welcomed. To know what works and where to improve, as well as, understanding our customers' operational environments, is critical in developing the company's products and services. To ensure our customers' needs and expectations are met, Wärtsilä collects feedback during different events, activities, and interactions with our customers and acts upon that feedback.

Customer loyalty and satisfaction	2018	2017	2016
Customer satisfaction			
Marine Solutions	82%	76%	76%
Services	90%	87%	90%
Energy Solutions	85%	95%	97%
NET promoter score			
NPS	53	45	41
Sample	3 356	4 875	4 899

Customer satisfaction percentage is based on one question: Are you satisfied with Wärtsilä's overall performance? Answering options: Satisfied, Neutral or Dissatisfied. Percentage shows Satisfied as part of total answered.  
Net promoter score scale is from -100 to 100.

## Compliance

Wärtsilä is committed to carrying out its business in a sustainable way. In order to promote the long-term interests of Wärtsilä and its stakeholders, the company strives to maintain the highest legal and ethical standards in all its business practices. All business and other activities of Wärtsilä shall be carried out strictly in compliance with all applicable laws and under the principles of good corporate citizenship in each country where such activities take place. This requires all employees to act responsibly and with integrity and honesty.

Wärtsilä is committed to ensuring compliance with the Wärtsilä Code of Conduct in all of its business operations globally and has, therefore, established a Group policy for reporting misconduct incidents and suspected Code of Conduct violations. Wärtsilä employees are encouraged to voice their concerns as to potential violations of the Code and its underlying policies and instructions. The reported misconduct cases are investigated either locally or centrally, as appropriate. The primary way for reporting suspected misconduct incidents is via the line management. However, employees also have alternative reporting routes, including an externally hosted whistleblowing channel, reporting directly to the compliance function, or by informing legal affairs. Should a suspected violation involve the top management of Wärtsilä Corporation, or where the suspected case is believed to be significant, the Audit Committee of the Board of Directors of Wärtsilä Corporation may be contacted directly. An employee who reports a potential Code of Conduct violation in good faith shall suffer no harassment, retaliation, or adverse employment consequences. Finally, Wärtsilä employees are instructed to seek advice on ethical and lawful behaviour and on matters of integrity from Wärtsilä legal counsels or from the compliance function.

### Environmental compliance

Wärtsilä companies comply with all local environmental legislation. The operations of Wärtsilä's manufacturing companies require a valid environmental permit, the terms of which are generally met. Incidents of non-compliance are described in the following chapters.

#### Significant spills (GRI 306-3) and complaints

The number of disturbances, complaints, and incidents of non-compliance are presented in the table below. Reported disturbances typically cover incidents in which the Wärtsilä company concerned has been obliged to report the disturbance to the authorities.

The main environmental disturbances that occurred in Wärtsilä's business locations in 2018 were five minor fuel or oily water spills. These disturbances were investigated and the appropriate corrective actions to minimise the impact on the environment were taken in each case. Wärtsilä North America, Inc.'s customer received noise complaints related to a power plant in Marquette, Michigan, which has three Wärtsilä engines installed. Wärtsilä has met all its contractual obligations related to noise, but still has proposed the customer a discussion in order to find a solution to the issue in co-operation.

#### Non-compliance with environmental laws and regulations (GRI 307-1)

Wärtsilä Brasil Ltda. was charged a fine of EUR 1 616 by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), for lacking permission to import lithium batteries used in Electrical and Automation – related field service works.

Wärtsilä China Co. Ltd. received a fine of EUR 1 584 for malfunctioning environmental protection equipment in a chroming workshop. The equipment has been repaired and inspected.

Wärtsilä Italia S.p.A was charged a fine of EUR 5 166 for incomplete registration of a waste amount produced by a water treatment plant in Trieste.

Disturbances, complaints, and non-compliances	2018	2017	2016	2015	2014
<b>Environmental</b>					
Disturbances	5	6	12	3	11
Non-compliances	3	1	0	3	1
Complaints	1	1	2	2	1
<b>Social</b>					
Non-compliances	2	1	4	4	1
Fines of non-compliance cases (EUR)	25 962	22 575	37 860	30 111	9 824

#### Incidents of discrimination and corrective actions taken, and non-compliance with laws and regulations in the social and economic area (GRI 103-2, GRI 406-1, GRI 419-1)

Wärtsilä supports and respects basic human values as outlined in the UN's Universal Declaration of Human Rights. Wärtsilä also supports the Ten Principles of the UN Global Compact, of which six principles are related to Human and Labour rights.

Wärtsilä's employees represent 137 nationalities. The company supports fair and equal treatment of all its employees. Wärtsilä supports the work-related rights defined by the International Labour Organisation (ILO), and works, therefore, to ensure that there is freedom of association and the right to collective bargaining in the company. In those countries where local legislation does not recognise these rights, Wärtsilä endeavours to give employees other channels for expressing their opinions.

Wärtsilä does not accept the use of forced labour or child labour in any form. Wärtsilä is unaware of any cases of human rights being breached, discrimination, infringements of rights at work, or the use of forced or child labour. During the reporting period the following misconducts were realised:

Wärtsilä Korea Ltd. was charged a penalty fee of EUR 15 646 for not fulfilling its legal obligation to hire disabled persons as a minimum 5% of the company's total employees. The company has mainly hired blue-collar employees, which limits the suitable job offerings to disabled persons.

Wärtsilä Singapore Pte Ltd. was charged a fine of EUR 1 950 by the Workplace Health and Safety authority for lacking safe work procedure for boilers servicing activities. The safe work procedure has been established and the authority was informed.

#### Non-compliance cases presented in previous reports

Wärtsilä Korea Ltd. was not able to fulfill its legal obligation to hire the legal minimum amount of disabled persons.

#### Communication and training about anti-corruption policies and procedures, and Confirmed incidents of corruption and actions taken (GRI 205-2, 205-3)

During the review period, no instances of corruption or bribery were identified. Wärtsilä's Anti-Corruption Policy is provided to sales intermediaries such as agents. Wärtsilä has arranged specifically tailored trainings to agents and other sales intermediaries. Wärtsilä's Anti-Corruption Policy is available for suppliers and any person or organisation upon request.

#### Political contributions (GRI 415-1)

During 2018, Wärtsilä did not make any direct contributions to political parties. Wärtsilä participated in two fundraising seminars in Finland, the contents of which had relevance for Wärtsilä. The participation fees totalled EUR 1 690.

#### Legal actions for anti-competitive behavior, anti-trust, and monopoly practices (GRI 206-1)

Wärtsilä arranged, as it has earlier, a number of competition law training seminars in 2018 for relevant personnel in order to further promote their knowledge of competition laws, and thus ascertain full compliance with such laws.

#### Incidents of non-compliance concerning health and safety impacts of products and services, product and service information, marketing communications and customer privacy and data (GRI 416-2, GRI 417-2, GRI 417-3, GRI 418-1, GRI 419-1)

During the review period, no instances of non-compliance related to product health and safety or information liability, or customer privacy were identified.

# Report profile

## Data collection

The data on the products' environmental performance is based on measured test results. Performance data on the environmental and social aspects of sustainability has been collected from the Wärtsilä companies using a detailed questionnaire. Economic performance data is based mainly on audited financial accounts.

The sustainability data is collected and reported according to Wärtsilä's specific internal reporting guidelines that include all the definitions and instructions necessary for this purpose. Environmental expenditure and investments are reported applying the Eurostat instructions.

Each company has a nominated individual responsible for collection and consolidation of the data, and for its quality and reliability. The management of each company approves the data before it is consolidated at the Group level. The companies report their sustainability data using Wärtsilä's sustainability reporting system. The reported data is checked at both local and Group levels before its consolidation. The content of this Sustainability Report was reviewed and approved by Wärtsilä's Board of Management.

## Report assurance

DNV GL Business Assurance Finland Oy Ab (DNV GL) has independently assessed the report against GRI Standards (2016). As part of the assurance process, DNV GL assesses local level data management and processes, evaluates the relevance and reliability of the data reported to headquarters, and assesses whether the reporting guidelines of Wärtsilä are well understood and applied. This is achieved through conducting site visits and videoconferencing. Site visits were carried out in Trieste, Italy and Hamburg, Germany. Wärtsilä Canada, Wärtsilä China, Wärtsilä Netherlands and Wärtsilä United Arab Emirates were assessed through videoconferencing.

## Additional sources of information

Wärtsilä has previously published the following reports:

Wärtsilä Environmental Report 2000  
Wärtsilä Sustainability Report 2002  
Wärtsilä Sustainability Report 2004  
Wärtsilä Sustainability Report 2005  
Wärtsilä Annual Report 2006  
Wärtsilä Annual Report 2007  
Wärtsilä Annual Report 2008  
Wärtsilä Annual Report 2009  
Wärtsilä Annual Report 2010  
Wärtsilä Annual Report 2011  
Wärtsilä Annual Report 2012  
Wärtsilä Annual Report 2013  
Wärtsilä Annual Report 2014  
Wärtsilä Annual Report 2015  
Wärtsilä Annual Report 2016  
Wärtsilä Annual Report 2017

These reports and their sustainability data are available on Wärtsilä's website: [www.wartsila.com](http://www.wartsila.com).

Sustainability Report Project Team

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# Materiality assessment

Identified material topics and boundaries

## Entities included in the organization's consolidated financial statements (GRI 102-45)

The entities included in Wärtsilä's Consolidated Financial Statements are listed in the Notes to the Consolidated Financial Statements 34. Subsidiaries.

All the Group companies are included in Wärtsilä's Sustainability reporting. The report covers Wärtsilä's businesses. At the company level, the report includes the parent company and its subsidiaries as well as its manufacturing, service and sales units. The report excludes Wärtsilä's associated companies, joint ventures, and supply chain companies.

## Process for defining report content and aspect boundaries (GRI 102- 46, 102-54)

Wärtsilä's Sustainability Reporting 2018 is prepared according to the GRI (Global Reporting Initiative) Standards (2016) and the Reporting Principles for Defining report content. This report has been prepared in accordance with the GRI Standards: Comprehensive option. This means that our reporting covers all the General Disclosures of the GRI Standards framework and all the sustainability topics we have identified as material in our operations.

In 2017, Wärtsilä updated the assessment of material sustainability topics. The process included an assessment of economic, environmental, and social topics from the stakeholders' point of view and as an impact to Wärtsilä's business. Stakeholder views were collected through a questionnaire answered by 88 key stakeholder contacts in various Wärtsilä units and functions worldwide. The aim of the stakeholder questionnaire was to evaluate how important different sustainability topics are for assessments and decision-making of Wärtsilä's stakeholders. Sustainability topics for the stakeholder evaluation were identified based on Wärtsilä's previous experience on material sustainability topics, industry peer review, and analysis of significant economic, environmental and social impacts in Wärtsilä's value chain. The focus on stakeholder assessment was in investors and financiers, major customers, personnel, local societies, and media.

The significance of identified topics was then analysed as a current or potential business impact on Wärtsilä. The business implications of identified sustainability topics were evaluated based on direct financial impacts as well as risks and opportunities. In addition the level of internal policies or practices were used as an indication of potential business impact.

As a result of the materiality assessment, the following GRI topics were identified as material for Wärtsilä:

- Emissions
- Environmental Compliance
- Economic Performance
- Training and education
- Occupational health and safety
- In addition to the identified material aspects Wärtsilä discloses sustainability data on several other areas, because they are frequently asked by Wärtsilä's stakeholders or they are considered important on the basis of continuity of sustainability reporting.

Topic boundaries for the identified material topics were then evaluated in reflection to the sustainability context that is based on the significance of their economic, environmental, and social impacts in our value chain. A more detailed description of the topic boundaries and completeness of data collection for the identified material topics can be found in the GRI 103-1-b and GRI 103-1-c, Topic boundary within the organisation and Topic boundary outside the organisation.

## Material topics (GRI 102-47)

From a sustainability impact point of view, product related environmental issues are the most significant for Wärtsilä. The use of Wärtsilä's products has an environmental impact both locally and globally. Other dimensions of sustainability mainly have a local impact.

Sustainability impact	Local	Global
<b>Economic</b>	•	
<b>Environmental</b>		
• Product related	•	•
• Operational	•	
<b>Social</b>	•	

The following GRI topics have been identified as material for Wärtsilä's sustainability reporting:

Category	Topics	Identified material topic for Wärtsilä, reported in accordance with GRI Standards	Other topics included in Wärtsilä Sustainability Reporting	Excluded from Wärtsilä Sustainability Reporting
<b>Economic</b>	Economic performance	•		
	Market presence		•	
	Indirect economic impacts			•
	Procurement practices			•
	Anti-corruption			•
	Anti-competitive behaviour			•
<b>Environmental</b>	Materials		•	
	Energy		•	

	Water		•	
	Biodiversity			•
	Emissions	•		
	Effluents and waste		•	
	Environmental Compliance	•		
	Supplier Environmental assessment		•	
<b>Social</b>	Employment		•	
	Labour/ management relations		•	
	Occupational health and safety	•		
	Training and education	•		
	Diversity and equal opportunity		•	
	Non-discrimination		•	
	Freedom of association		•	
	Child Labour		•	
	Forced or compulsory labour		•	
	Security practices			•
	Rights of indigenous people			•

Human rights assessment	•
Local communities	•
Supplier social assessment	•
Public policy	•
Customer health and safety	•
Marketing and labelling	•
Customer privacy	•
Socioeconomic compliance	•

Wärtsilä's sustainability reporting provides a full disclosure of the management approach, relevant general disclosures and material topic-specific disclosures defined by the GRI Standards.

#### Topic boundary within the organisation (103-1-b and 103-1-c)

The topic boundary for the material topics is all Wärtsilä companies. The economic performance data covers all Wärtsilä companies. The data on environmental and social performance covers all Wärtsilä companies except the following:

- Transas
- Trident B.V.
- Burriel Navarro S.L.

These companies will be included in Wärtsilä's sustainable development reporting in the forthcoming years. Wärtsilä's Sustainability Reporting is an integrated part of its annual reporting, and therefore Wärtsilä publishes its sustainability data annually.

Coverage of operational data

#### Operational data, % of Wärtsilä companies

	2018	2017	2016	2015	2014
<b>Economic</b>	100	100	100	100	100
<b>Environmental</b>	97	86	93	83	94
<b>Social</b>	100	100	100	100	100

#### Operational data, % of personnel

	2018	2017	2016	2015	2014
<b>Economic</b>	100	100	100	100	100
<b>Environmental</b>	93	96	98	91	98
<b>Social</b>	100	100	100	100	100

#### Operational data, % of product manufacturing

	2018	2017	2016	2015	2014
<b>Economic</b>	100	100	100	100	100
<b>Environmental</b>	100	100	100	95	100
<b>Social</b>	100	100	100	100	99

Topic boundary outside the organisation (GRI 103-1-c)

Wärtsilä's Sustainability Report does not cover performance data collected outside the Group companies.

Explanation of the effect of any re-statements of information provided in earlier reports (GRI 102-48)

As of 1 January 2018, Wärtsilä adopted the *IFRS 15 Revenue from Contracts with Customers* standard, and as a result, the financials 2017 were restated accordingly.

Significant changes from previous reporting periods (GRI 102-49)

There are no significant changes from previous reporting periods in the reporting topic boundaries. Historical data covers all entities that were part of the Group at the end of each reporting period.

## Reporting principles

### Economic performance data

The economic performance data is based on audited financial accounting and covers all Wärtsilä subsidiaries unless otherwise stated.

**Donations:** The data of this indicator included 15 major Wärtsilä subsidiaries and the parent company in 2018.

**Subsidiaries:** The data of this indicator included all Wärtsilä subsidiaries and the parent company in 2018.

**The social costs** for employees contribute to the funding of pensions, unemployment, and other social benefits that provide security and improve the quality of life for the company's employees and their families.

**Senior management** includes all employees with the highest job grade levels 12-15. At the end of 2018 this covered 92 employees.

### Environmental performance data

**Materials** include all the major material flows used in the production processes globally. The most material consuming product categories include engines, propellers, and propulsion systems.

**Total energy consumption** includes both direct and indirect energy usage. The direct energy usage includes the fuels used by Wärtsilä subsidiaries. Lower heating values (LHV) are used to calculate the energy consumption of fuels in joules. LHVs are based on information supplied by vendors or results of fuel analysis for engine testing and R&D purposes, and for other fuel consumption the source is the DEFRA (the UK government Department for Environment, Food and Rural Affairs). The indirect energy usage includes the purchased electricity and heat. Since the efficiency of purchased electricity and heat generation is not known, the energy conversion is done directly from the purchased values.

**Fuel consumption** data is based on either invoices or measured values.

**Heat and electricity data** is based on either invoices or measured values.

**Energy intensity** describes the ratio of total internal energy consumption divided by the total net sales of the subsidiaries included in the data gathering in a particular year (MJ/euro).

**GHG emissions intensity** describes the ratio of total greenhouse gas emissions (Scope 1, 2 and 3) divided by the total net sales of the subsidiaries included in the data gathering in a particular year (gCO<sub>2</sub>/euro).

**Reduction of GHG emissions** data is collected on a site level, based on permanent GHG emissions reduction measures, and either calculated or estimated (Scope 1 and 2).

**Reduction of energy consumption** data is collected on a site level, based on permanent energy saving actions, and either calculated or estimated.

**Water consumption:** The reported figures are based on either measured values or invoices. The cooling water usage might also be calculated from the heat load in some units.

**Recycled water:** The reported amount is the total measured recycled water used in Wärtsilä Italia S.p.A. Their water treatment plant provides reusable water for manufacturing processes.

**Water discharge:** The reported figures are based on either measured values or invoices. The cooling water discharge might also be calculated from the heat load in some units.



**Emissions:** The reported figures are mainly based on measured values, based on which specific emission factors are determined. The specific emission factors are determined for various fuels and engine types. The emissions of the heating boilers are either measured or calculated. For electricity consumption the indirect CO<sub>2</sub> emissions (Location-based scope 2) are calculated by using the emission factors from IEA (International Energy Agency), and the indirect CO<sub>2</sub> emissions (Market-based scope 2) are calculated by using the residual mix emission factors where available (for Europe and USA), and for other countries the IEA emission factors. For district heating the indirect CO<sub>2</sub> emissions (scope 2) are calculated by using the emission factors from the DEFRA (the UK government Department for Environment, Food and Rural Affairs). The indirect CO<sub>2</sub> emissions (scope 3) of energy consumption are calculated by using the emission factors from DEFRA. The indirect CO<sub>2</sub> emissions (scope 3) of material consumption are calculated by using the emission factors from thinkstep's GaBi database. The CO<sub>2</sub> emissions of air travel (Scope 3) are based on calculations by Wärtsilä's travel agency and are based on DEFRA defined factors. The other-than-GHG emissions of vehicles are calculated by using the VTT (Technical Research Centre of Finland) Lipasto database emission factors. GWP factor used for converting methane emissions to CO<sub>2</sub>-equivalent is 25. Only CO<sub>2</sub> and methane are considered for the CO<sub>2</sub> emissions.

**Waste:** Information on waste disposal methods normally comes from the waste disposal contractor.

**Environmental disturbances:** As such are considered major incidents, which generally require communication to local authorities.

## Social performance data

**Total number of injuries:** The reported figures include all types of reported work-related injuries, including first-aid cases, as well as commuting injuries and possible fatalities.

**Lost time injuries:** The reported figures include all reported work-related injuries resulting in absence from work of at least one scheduled work day, lost day counting from the first day after the injury.

**LTI frequency** is expressed as reported lost time injuries and possible fatalities per million working hours. The working hours are actual paid working hours. The lost time injury rate does not include commuting injuries.

**Net employment creation** is calculated by deducting the number of permanent employees having left the company for any reason from the amount of newly hired permanent employees during the reporting period.

**Employee turnover** is calculated from permanent employees. The number of resigned permanent employees is divided by the number of permanent employees at the end of the reporting period.

**Employees and other workforce:** The data on Wärtsilä employees is mainly from the global SAP HR database. Less than 3% of employees, the amount varying between indicators, have not had all their employment details in the global HR processes, and thus their qualities have been assumed to be the same as on average among the rest of the global employees, i.e. their gender, employment and contract type. The new-hires and resigned employee numbers do not include any such assumptions of employees having joined but still lacking the formal record of that activity.

# Independent Assurance Report

## Independent Limited Assurance Report

To the Management of Wärtsilä Corporation

### Scope of Engagement

**Wärtsilä Corporation** ("Wärtsilä") commissioned **DNV GL Business Assurance Finland OY/AB** ("DNV GL") to conduct a limited assurance engagement over selected sustainability disclosures presented in the Wärtsilä Annual Report ("Report") for the reporting period 1<sup>st</sup> January to 31<sup>st</sup> December 2018.

### Selected Information

The scope and boundary of our work is restricted to the General and Topic-specific GRI-disclosures (the "Selected Information"). The location of Selected information in the Report is specified in the "GRI and UNGC index". In addition, we have reviewed the sustainability information presented in the "Stories" -section marked with "Sustainability Assured".

To assess the Selected Information, which includes an assessment of the risk of material misstatement in the Report, we have used Global Reporting Initiative's GRI-standards (2016) and Wärtsilä's reporting principles, (the "Criteria", see Reporting Principles -section of the Report).

We have not performed any work, and do not express any conclusion, on any other information that may be published in the Report or on Wärtsilä's website for the current reporting period.

### Our conclusions

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information is not fairly stated and has not been prepared, in all material respects, in accordance with the Criteria. We believe that the Report is in line with the "Comprehensive" requirements of the GRI-standards.

This conclusion relates only to the Selected Information, and is to be read in the context of this Assurance Report, in particular the inherent limitations explained below.

### Standard and level of assurance

We performed a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' (revised), issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance.

DNV GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less detailed than those undertaken during a reasonable assurance engagement, so the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion, so that the risk of this conclusion being in error is reduced, but not reduced completely.

## Basis of our conclusion

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information; our work included, but was not restricted to:

- Assessing the appropriateness of the Criteria for the Selected Information;
- Conducting interviews with Wärtsilä's management to obtain an understanding of the data management systems and processes used to generate, aggregate and report the Selected Information;
- Two site visits and four video conferences to review process and systems for preparing site level data consolidated at Head Office. The site level review was conducted at:
  - Wärtsilä Italia (Trieste, Italy);
  - Wärtsilä SAM Electronics (Hamburg, Germany);
  - Wärtsilä Canada;
  - Wärtsilä China;
  - Wärtsilä Gulf, UAE; and
  - Wärtsilä Netherlands.

DNV GL was free to choose the sites on the basis of materiality;

- Reviewing data at source and following this through to consolidated Group data;
- Reviewing whether the evidence, measurements, and scope of the Selected Information is prepared in accordance with the Criteria; and
- Reviewing the Report and narrative accompanying the Selected Information in the Report with regard to the Criteria.
- Evaluation of the disclosed information in the Report for "in accordance – Comprehensive" reporting requirements of GRI-standards.

## Inherent limitations

Our assurance relies on the premise that the data and information provided by Wärtsilä to us as part of our review procedures have been provided in good faith. Because of the selective nature (sampling) and other inherent limitations of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities may not have been detected. Energy use data utilized in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for determining such data. Finally, the selection of different but acceptable measurement techniques may result in materially different measurements.

DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Assurance Report.

## Our competence, independence and quality control

DNV GL established policies and procedures are designed to ensure that DNV GL, its personnel and – where applicable – others are subject to independence requirements (including personnel of other entities of DNV GL) maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals, whose members have not been involved in the development of any of the Criteria. Our multi-disciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

## Responsibilities of the Management of Wärtsilä and DNV GL

The Management of Wärtsilä have sole responsibility for:

- Preparing and presenting the Selected information in accordance with the Criteria;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the Selected Information that is free from material misstatements;
- Measuring and reporting the Selected Information based on their established Criteria; and
- Contents and statements contained within the Report and the Criteria.

Our responsibility is to plan and perform our work to obtain limited assurance about whether the Selected Information has been prepared in accordance with the Criteria and to report to Wärtsilä in the form of an independent limited assurance conclusion, based on the work performed and the evidence obtained. We have not been responsible for the preparation of the Report.

**For and on behalf of DNV GL Business Assurance Finland OY/AB**

Espoo, Finland, 8<sup>th</sup> February 2019

**Mikael Niskala**

Lead Auditor

DNV GL – Business Assurance

**Shaun Walden**

Principal Consultant and Reviewer

DNV GL – Business Assurance

## GRI and UNGC index

### General Disclosures

#### GRI 102: General Disclosures

GRI Standard / Disclosure	Links	Remarks	UNGC
<b>Organisational profile</b>			
102-1 Name of the Organisation	<a href="#">Strategy</a>		•
102-2 Activities, brands, products, and services	<a href="#">Strategy</a> <a href="#">Wärtsilä Energy Business</a> <a href="#">Wärtsilä Marine Business</a>		•
102-3 Location of headquarters	<a href="#">Shares</a>	Helsinki, Finland	•
102-4 Location of operations	<a href="#">Strategy</a>	<a href="http://www.wartsila.com">www.wartsila.com</a>	•
102-5 Ownership and legal form	<a href="#">Shares</a>		•
102-6 Markets served	<a href="#">Strategy</a>		•
102-7 Scale of the organization	<a href="#">Strategy</a> <a href="#">Shareholders</a>		•
102-8 Information on employees and other workers	<a href="#">Social</a>		•
102-9 Supply chain	<a href="#">Supply chain management</a>		•
102-10 Significant changes to the organization and its supply chain	<a href="#">Social</a>		•
102-11 Precautionary Principle or approach	<a href="#">Product design principles</a> <a href="#">Risks and risk management</a> <a href="#">Manufacturing and R&amp;D</a>		•
102-12 External initiatives	<a href="#">Stakeholder relations</a>		
102-13 Membership of associations	<a href="#">Stakeholder relations</a>		
<b>Strategy</b>			
102-14 Statement from senior decision-maker	<a href="#">CEO review</a>		•
102-15 Key impacts, risks, and opportunities	<a href="#">Risks and risk management</a> <a href="#">Strategy</a> <a href="#">Wärtsilä Energy Business</a> <a href="#">Wärtsilä Marine Business</a> <a href="#">Innovating for sustainability</a>		•
<b>Ethics and integrity</b>			
102-16 Values, principles, standards, and norms of behavior	<a href="#">Strategy</a> <a href="#">Guiding principles</a>		•
102-17 Mechanisms for advice and concerns about ethics	<a href="#">Guiding principles</a> <a href="#">Compliance</a>		•
<b>Governance</b>			
102-18 Governance structure	<a href="#">Corporate governance</a> <a href="#">Board of Directors</a>		•
102-19 Delegating authority	<a href="#">Corporate governance</a> <a href="#">Board of Directors</a>		•

102-20 Executive-level responsibility for economic, environmental, and social topics	<a href="#">Board of Management</a>		•
102-21 Consulting stakeholders on economic, environmental, and social topics	<a href="#">Annual General Meeting</a> <a href="#">Internal control</a>		•
102-22 Composition of the highest governance body and its committees	<a href="#">Board of Directors</a>		•
102-23 Chair of the highest governance body	<a href="#">Board of Directors</a>		•
102-24 Nominating and selecting the highest governance body	<a href="#">Annual General Meeting</a> <a href="#">Board of Directors</a>	The nomination committee proposes new board members. The committee consults major shareholders, and in their proposals they take into account the specific needs of the Board, including sustainability competencies and diversity.	•
102-25 Conflicts of interest	<a href="#">Board of Directors</a> <a href="#">Insider management</a> <a href="#">Shareholders</a>		•
102-26 Role of highest governance body in setting purpose, values, and strategy	<a href="#">Board of Directors</a> <a href="#">Internal control</a>		•
102-27 Collective knowledge of highest governance body	<a href="#">Internal control</a> <a href="#">Board of Management</a>		•
102-28 Evaluating the highest governance body's performance	<a href="#">Board of Directors</a>	The evaluation is of general nature, but also includes sustainability issues if such concerns arise. The evaluation partly affects the membership changes within the Board.	•
102-29 Identifying and managing economic, environmental, and social impacts	<a href="#">Board of Directors</a> <a href="#">Risks and risk management</a>		•
102-30 Effectiveness of risk management processes	<a href="#">Board of Directors</a>		•
102-31 Review of economic, environmental, and social topics	<a href="#">Board of Directors</a> <a href="#">The Board's committees</a> <a href="#">Internal control</a>	11 meetings in 2018	•
102-32 Highest governance body's role in sustainability reporting	<a href="#">Report profile</a>		•
102-33 Communicating critical concerns	<a href="#">Internal control</a>		•
102-34 Nature and total number of critical concerns		This information is not publicly disclosed.	•
102-35 Remuneration policies	<a href="#">Remuneration report 2018</a>		•
102-36 Process for determining remuneration	<a href="#">The Board's committees</a> <a href="#">People management</a>		•
102-37 Stakeholders' involvement in remuneration	<a href="#">Remuneration report 2018</a>		•
102-38 Annual total compensation ratio		This information is not publicly disclosed.	•
102-39 Percentage increase in annual total compensation ratio		This information is not publicly disclosed.	•
<b>Stakeholder engagement</b>			
102-40 List of stakeholder groups	<a href="#">Stakeholder relations</a>		•
102-41 Collective bargaining agreements		57% of Wärtsilä employees were covered by collective bargaining agreements in 2018.	•



102-42 Identifying and selecting stakeholders	<a href="#">Stakeholder relations</a>		•
102-43 Approach to stakeholder engagement	<a href="#">Stakeholder relations</a> <a href="#">Customer satisfaction</a>		•
102-44 Key topics and concerns raised	<a href="#">Stakeholder relations</a>		•
<b>Reporting practice</b>			
102-45 Entities included in the consolidated financial statements	<a href="#">Materiality assessment</a>		
102-46 Defining report content and topic Boundaries	<a href="#">Materiality assessment</a>		
102-47 List of material topics	<a href="#">Materiality assessment</a>		
102-48 Restatements of information	<a href="#">Materiality assessment</a>		
102-49 Changes in reporting	<a href="#">Materiality assessment</a>		
102-50 Reporting period	<a href="#">Report profile</a>		•
102-51 Date of most recent report	<a href="#">Report profile</a>		•
102-52 Reporting cycle	<a href="#">Report profile</a>		•
102-53 Contact point for questions regarding the report	<a href="#">Report profile</a>		•
102-54 Claims of reporting in accordance with the GRI Standards	<a href="#">Materiality assessment</a>		•
102-56 External assurance	<a href="#">Independent Assurance Report</a>		•

**GRI 103: Management Approach**

GRI Standard / Disclosure	Links	Remarks	UNGC
103-1 Explanation of the material topic and its Boundary	<a href="#">Materiality assessment</a>		•
103-2 The management approach and its components	<a href="#">Sustainability management</a>		•
103-3 Evaluation of the management approach	<a href="#">Sustainability management</a> <a href="#">Targets</a> <a href="#">Sustainability data</a> <a href="#">Risks and risk management</a>		•

**Topic-specific standards****GRI 200 Economic Standard Series**

GRI Standard / Disclosure	Links	Omissions	UNGC	Material topic disclosures
<b>GRI 201: Economic Performance</b>				
201-1 Direct economic value generated and distributed	<a href="#">Economic performance</a>			•
201-2 Financial implications and other risks and opportunities due to climate change	<a href="#">Economic performance</a>	The costs of actions taken to manage the risks or opportunities is not applicable, as it is not		•

		possible to calculate specifically		
201-3 Defined benefit plan obligations and other retirement plans	<u>Economic performance</u>	Details in points a – e will be studied and analysed in 2019		•
201-4 Financial assistance received from government	<u>Economic performance</u>	Divisions by country will be studied and analysed in 2019		•
<b>GRI 202: Market Presence</b>				
202-1 Ratios of standard entry level wage by gender compared to local minimum wage	<u>Market presence</u>	Only reported the Management Approach disclosure	•	
202-2 Proportion of senior management hired from the local community	<u>Market presence</u>		•	
<b>GRI 205: Anti-corruption</b>				
205-1 Operations assessed for risks related to corruption	<u>Risks and risk management</u>	Coverage of risk management processes is 100% of our operations		
205-2 Communication and training about anti-corruption policies and procedures	<u>Responsible business conduct</u>	Employees' classification by employee category and region, as well as by business partners, will be studied and analysed in 2019.		
205-3 Confirmed incidents of corruption and actions taken	<u>Compliance</u>			
<b>GRI 206: Anti-competitive behaviour</b>				
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	<u>Compliance</u>			

**GRI 300 Environmental Standard Series**

GRI Standard / Disclosure	Links	Omissions	UNGC	Material topic disclosures
<b>GRI 303: Materials</b>				
301-1 Materials used by weight or volume	<u>Materials</u>		•	
301-2 Recycled input materials used	<u>Materials</u>	The recycled material input of metals varies between 20% and 95%, depending on the type of furnace and foundry used by the metal recycling companies in the supply chain, of which there are too many to state an exact percentage.	•	
<b>GRI 301: Energy</b>				
302-1 Energy consumption within the organization	<u>Energy</u>		•	
302-3 Energy intensity	<u>Energy</u>		•	
302-4 Reduction of energy consumption	<u>Energy</u>		•	
<b>GRI 303: Water</b>				
303-1 Water withdrawal by source	<u>Water</u>		•	

303-2 Water sources significantly affected by withdrawal of water	<a href="#">Water</a>			
303-3 Water recycled and reused	<a href="#">Water</a>			
<b>GRI 305: Emissions</b>				
305-1 Direct (Scope 1) GHG emissions	<a href="#">Emissions</a>		•	•
305-2 Energy indirect (Scope 2) GHG emissions	<a href="#">Emissions</a>		•	•
305-3 Other indirect (Scope 3) GHG emissions	<a href="#">Emissions</a>		•	•
305-4 GHG emissions intensity	<a href="#">Emissions</a>		•	•
305-5 Reduction of GHG emissions	<a href="#">Emissions</a>	It is not possible to state the exact amount of GHG emission reductions achieved from the reduced travelling, because such a figure would be purely hypothetical.	•	•
305-6 Emissions of ozone-depleting substances (ODS)	<a href="#">Emissions</a>	Not applicable, Wärtsilä does not produce, import or export ODS.	•	•
305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	<a href="#">Emissions</a>		•	•
<b>GRI 306: Effluents and Waste</b>				
306-1 Water discharge by quality and destination	<a href="#">Effluents and waste</a>		•	
306-2 Waste by type and disposal method	<a href="#">Effluents and waste</a>		•	
306-3 Significant spills	<a href="#">Effluents and waste</a>		•	
<b>GRI 307: Environmental Compliance</b>				
307-1 Non-compliance with environmental laws and regulations	<a href="#">Compliance</a>		•	•

**GRI 400 Social Standard Series**

GRI Standard / Disclosure	Links	Omission	UNGC	Material topic disclosures
<b>GRI 401: Employment</b>				
401-1 New employee hires and employee turnover	<a href="#">Employment</a>		•	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	<a href="#">Employment</a>			
<b>GRI 402: Labor/Management Relations</b>				
402-1 Minimum notice periods regarding operational changes	<a href="#">Labour/Management Relations</a>		•	
<b>GRI 403: Occupational Health and Safety</b>				
403-1 Workers representation in formal joint management-worker health and safety committees	<a href="#">Occupational health and safety</a>		•	•
403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	<a href="#">Occupational health and safety</a>	Injury rate (non-lost time), occupational disease rate classifications by region and gender not reported. These will be studied and analysed in 2019.	•	•

403-3 Workers with high incidence or high risk of diseases related to their occupation	<u>Occupational health and safety</u>		•	•
403-4 Health and safety topics covered in formal agreements with trade unions	<u>Responsible business conduct</u>	In some cases local collective bargaining agreements also cover OHS issues. Detailed listing of the topics not applicable, as it is not considered meaningful information.	•	•
<b>GRI 404: Training and Education</b>				
404-1 Average hours of training per year per employee	<u>Training and education</u>		•	•
404-2 Programs for upgrading employee skills and transition assistance programs	<u>Training and education</u>	Various types of training can be offered in restructuring situations, however specific actions are defined case by case.		•
404-3 Percentage of employees receiving regular performance and career development reviews	<u>Training and education</u>	Employees' classification by gender and employee category will be studied and analysed in 2019.	•	•
<b>GRI 405: Diversity and Equal Opportunities</b>				
405-1 Diversity of governance bodies and employees	<u>Employment Diversity and equal opportunity</u>		•	
<b>GRI 406: Non-discrimination</b>				
406-1 Incidents of discrimination and corrective actions taken	<u>Compliance</u>		•	
<b>GRI 415: Public Policy</b>				
415-1 Political contributions	<u>Compliance</u>		•	
<b>GRI 416: Customer Health and Safety</b>				
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	<u>Compliance</u>			
<b>GRI 417: Marketing and Labeling</b>				
417-2 Incidents of non-compliance concerning product and service information and labeling	<u>Compliance</u>			
417-3 Incidents of non-compliance concerning marketing communications	<u>Compliance</u>			
<b>GRI 418: Customer Privacy</b>				
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	<u>Compliance</u>			
<b>GRI 419: Socioeconomic Compliance</b>				
419-1 Non-compliance with laws and regulations in the social and economic area	<u>Compliance</u>			

## UN Sustainable Development Goals and Wärtsilä

The Sustainable Development Goals (SDGs) set by the United Nations (UN) entered into force in 2016. The 17 goals and 169 targets, which are part of a wider 2030 Agenda for Sustainable Development, are intended to address a range of issues from gender inequality to climate change, with the overall goal of ending global poverty. The SDGs are applied to all countries and actors, including governments, businesses, and civil society. The role of the private sector is seen as being vital to the delivery of innovative changes that can have significant influence.

Sustainability forms the core of Wärtsilä's business operations, products and solutions. Several of the SDGs deal with issues to which Wärtsilä contributes in a positive way. We continue to develop such means that make a difference to our customers and partners - and to the communities in which we operate.

### Respect for people

Wärtsilä's efforts to promote people's health, safety, and well-being covers employees, suppliers, customers and local communities. Our high standards in environmental, health and safety (EHS) matters are aimed at zero injuries among employees and contractors, and our products and solutions are designed to be reliable and safe to use. Wärtsilä offers solutions with zero or very low levels of emissions, and which comply to even the strictest local emission regulations, thus contributing positively to air quality while minimising the impact on people's health. We are also committed to continuous improvement in our environmental and social performance to avoid causing harm to the communities close to our operations.

Wärtsilä supports the work-related rights defined by the International Labour Organization, and upholds the freedom of association and the right to collective bargaining. We promote gender equality and are committed to including women in all aspects of our business. Wärtsilä's Diversity Initiative has been in place since 2012, fostering an inclusive corporate culture at all levels.

Wärtsilä contributes to sustainable economic growth by promoting global corporate citizenship, an inclusive corporate culture, and local employment. Continuous learning and self-development are encouraged by offering a wide range of competence development options at all levels of the organisation.



### Towards a 100% renewable future

Wärtsilä plays an important role in helping to meet the world's increasing demand for sustainable energy. Our flexible energy solutions enable the transition towards a 100% renewable energy future. Wärtsilä's Smart Power Generation engine power plants provide energy efficiency as well as fuel and operational flexibility, thus enabling the effective integration of wind and solar power into the grid. In addition, our strong capabilities in offering energy storage, utility-scale solar PV power plants and hybrid solutions, including the most advanced software for energy management, enable the share of renewables into the energy mix to be maximised. This provides sustainable, reliable, and affordable power, particularly in countries and regions with isolated or weak electricity grids. Wärtsilä's offering also includes Dry Flexicycle power plants, which can reduce water consumption almost entirely, making it possible to place power plants in water-stressed areas.

We engage actively in an open dialogue with various stakeholders to provide expertise and support for enhancing clean energy technology and research on a global scale.



## Enhancing a Smart and Low-Carbon Marine Ecosystem

Wärtsilä aims to connect smart vessels with smart ports to lead the shipping industry towards a Smart Marine Ecosystem with greater efficiency, negligible climate impact, and the highest levels of safety. Digitalisation sets new standards for the industry and enables the optimisation of individual vessels, fleets, or entire value chains, providing opportunities for lifecycle efficiency improvements.

Wärtsilä's Smart Marine Vision builds on its strong existing portfolio of environmentally sound products and solutions, which includes environmentally advanced vessel solutions, dual-fuel marine engines, and systems for voyage optimisation, ballast water management, wastewater treatment, and exhaust gas cleaning. By eliminating or reducing polluting discharges and emissions from our customers' processes, we ensure that they can continue to operate in environmentally sensitive areas around the world.

In 2018, Wärtsilä announced 'An Oceanic Awakening', a global initiative which focuses on the radical transformation of the world's marine and energy industries into one efficient, ecologically sound, and digitally connected ecosystem. The initiative was supported by the establishment of SEA20, an international forum of Smart and Ecologically-Ambitious marine cities. We are also involved in numerous other global and local partnerships, such as the IMO's Global Industry Alliance (GIA) and the European Sustainable Shipping Forum (ESSF).



## Responsible business conduct

Wärtsilä is committed to sustainability and responsible business in its purpose statement and strategy. Our values and Code of Conduct define common rules for all employees and provide guidance on our approach to responsible business practices.

Wärtsilä's Code of Conduct and supporting policies expressly prohibit the company, its employees, and suppliers from offering or accepting any kind of benefit considered a bribe, and from taking actions that could give rise to a conflict of interest or breach of loyalty. We comply with international good practices and anti-corruption laws of the countries in which we operate, and urge the reporting of any cases of corruption and bribery. The implementation of our Code of Conduct and main policies on responsible business conduct include Wärtsilä Values and Code of Conduct discussion modules, the signing of an individual Code of Conduct Undertaking, e-learning training, and inclusion of the Code of Conduct topics into the annual development discussions covering all employees. In addition, Wärtsilä has an externally hosted whistle blower channel for all employees to report concerns related to potential misconducts of the Code of Conduct or the company's policies.

We aim to contribute towards the well-being of the local communities in which we are present. The means for this include, for example, creating employment, paying taxes and social dues, providing training and education to employees, co-operating with local stakeholders, and supporting local development.







Governance

# Governance

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# Corporate governance

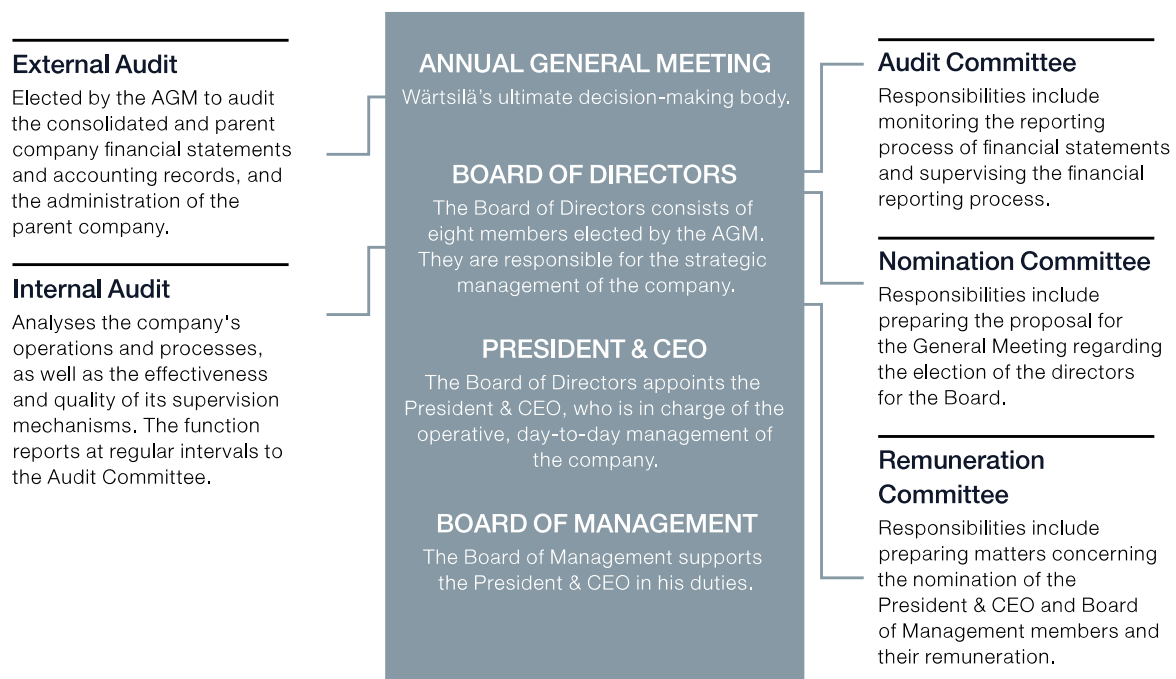
Wärtsilä Corporation complies with the guidelines and provisions of its Articles of Association, the Finnish Limited Liability Companies Act, and the rules and regulations of Nasdaq Helsinki Ltd. Wärtsilä also applies the Global Reporting Initiative's G4 Sustainability Reporting Guidelines and complies with the Finnish Corporate Governance Code 2015 ("Code") issued by the Finnish Securities Market Association. The Code is publicly available on <http://cgfinland.fi/en>. Wärtsilä has not deviated from any of the Code's recommendations.

Wärtsilä's Corporate Governance Statement, prepared in accordance with the recommendations of the Code, is published as a separate statement on Wärtsilä's website as well as in this Annual Report. The content of this Corporate Governance section corresponds fully to Wärtsilä's Corporate Governance Statement. Wärtsilä's Audit Committee has reviewed the Corporate Governance Statement. The Company's external auditor has monitored the issuing of the statement, and has verified that the description of the main features of the internal control and risk management section, as related to the financial reporting process included in the statement, matches the Financial Statements.

## Governing bodies

Wärtsilä implements a single-tier governance model, by which management of the Wärtsilä Group is the responsibility of the General Meeting of shareholders, the Board of Directors, and the President & CEO. Their duties are for the most part defined by the Finnish Companies Act. The General Meeting of shareholders elects the Board of Directors and auditor. The Board of Directors is responsible for the strategic management of the company, and is assisted in its work by the Board Committees. The Board appoints the President & CEO who is in charge of the operative, day-to-day management of the company, with support from the Board of Management.

### Wärtsilä's governance model



## Annual General Meeting

Wärtsilä's ultimate decision-making body is the General Meeting of shareholders. It resolves issues as defined for General Meetings in the Finnish Companies Act and the company's Articles of Association. Agenda items for the General Meeting of shareholders include the following:

- approving the financial statements
- deciding on the distribution of dividends
- discharging the company's Board of Directors and President & CEO from liability for the financial year, and
- electing the company's Board of Directors and auditor and deciding on their remuneration.

A General Meeting of Wärtsilä Corporation shareholders is held at least once a year, at a time no later than the end of June. If needed, the company may also hold Extraordinary General Meetings. An invitation to the General Meeting is published on the Company's website or in not less than two daily newspapers, which are commonly distributed in Finland, as decided by the Board of Directors. The invitation shall be published no earlier than two months, and no later than three weeks, prior to the General Meeting. It shall, however, be published at least nine days prior to the shareholders' record date. Wärtsilä also publishes invitations to its General Meetings as stock exchange releases. The documents and draft resolutions to be submitted to the General Meeting can be found on Wärtsilä's website.

Shareholders have the right to add items falling within the competence of the Annual General Meeting to the meeting's agenda. The request must be submitted to the Board of Directors in writing sufficiently in advance of the meeting so that the item can be added to the Notice of the General Meeting. Wärtsilä publishes on its website the date by which a shareholder must notify the company's Board of Directors of an issue that he or she demands to be addressed at the General Meeting. This information is given no later than by the end of the financial period preceding the General Meeting, and includes the postal or email address to which the demand shall be sent. The demand is always deemed to have arrived in sufficient time if the Board has been notified of the demand at the latest four weeks before the delivery of the Notice of the General Meeting.

All shareholders registered by the record date in the company's list of shareholders maintained by Euroclear Finland Ltd have the right to attend the Annual General Meeting. Each share entitles the holder to one vote. The General Meeting is organised in such a manner that shareholders can participate in the meeting as extensively as possible. The Chairman of the Board of Directors, the members of the Board of Directors, and the President & CEO are present at the General Meeting. The auditor-in-charge also attends the Annual General Meeting. Director candidates shall also be present at the General Meeting that decides upon their election.

### Annual General Meeting 2018

Wärtsilä's Annual General Meeting was held on 8 March 2018. A total of 1,795 shareholders representing 112,402,425 votes participated in person or by proxy.

The Annual General Meeting approved the financial statements and discharged the members of the Board of Directors and the company's President & CEO from liability for the financial year 2017. The audit firm PricewaterhouseCoopers Oy was elected as the auditor of the Company for the year 2018. The Meeting approved the Board of Directors' proposal to pay a dividend of EUR 1.38 per share in two instalments. The first instalment of EUR 0.69 per share was paid on 19 March 2018. In accordance with the approved share issue without payment (share split), the second instalment was divided between one old and two new shares so that EUR 0.23 was paid on each share. The second dividend instalment was paid on 27 September 2018. Adjusted to reflect the increased number of shares resulting from the share issue, the dividend amounted to EUR 0.46 per share. The Annual General Meeting approved the Board of Directors' proposal to issue new shares to the shareholders without payment in proportion to their holdings so that two new shares are issued for each share. Thereby, a total of 394,482,260 new shares were issued. The new shares were registered in the trade register on 12 March 2018. The Annual General Meeting authorised the Board of Directors to repurchase and/or distribute a maximum of 57,000,000 shares.



All resolutions were taken without voting. The minutes of the meeting and other related documents can be found on Wärtsilä's website; [www.wartsila.com/investors/governance](http://www.wartsila.com/investors/governance).

## Board of Directors

### Mikael Lilius

Independent of the company and significant shareholders. Chairman of the Board of Wärtsilä Corporation. Born 1949, B.Sc. (Econ.). Member of the Board of Wärtsilä Corporation since 2010, Chairman of the Board since 2011.

#### Primary working experience

Fortum Oyj, President & CEO, 2000-2009; Gambro AB, President & CEO, 1998-2000; Incentive AB, President & CEO, 1991-1998; KF Industri AB (Nordico), President & CEO, 1989-1991 and Huhtamäki Oy, President of the Packing Division, 1986-1989.

#### Other positions of trust

Ahlström Capital Oy and Metso Corporation, Chairman of the Board; Evli Bank Ltd., Member of the Board; Ab Kelonia Oy, Member of the Supervisory Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 61,260 shares



### Tom Johnstone CBE

Independent of the company, dependent of significant shareholders. Born 1955, Master of Arts, Honorary Doctorate in Business Administration and Honorary Doctorate in Science. Member of the Board of Wärtsilä Corporation since 2015, Deputy Chairman of the Board since 2017.

#### Primary working experience

Several management posts within the SKF Group, the latest as President and CEO of AB SKF, 2003-2014.

#### Other positions of trust

British Swedish Chamber of Commerce, Combient AB and Husqvarna AB, Chairman of the Board; Investor AB, Northvolt AB and Volvo Cars, Member of the Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 8,594 shares



### Maarit Aarni-Sirviö

Independent of the company and significant shareholders. Born 1953, M.Sc. (Tech.), eMBA. Secretary General of Directors' Institute Finland – Hallitusammattilaiset ry; Managing Director of Boardview Oy. Member of the Board of Wärtsilä Corporation since 2007.

#### Primary working experience

Mint of Finland Ltd., President and CEO, 2008-2010; Borealis Group, 1994-2008, several senior positions of which the most recent was Vice President BU Phenol, 2001-2008, Vice President BU Olefins, 1997-2001 in Copenhagen, Denmark and Neste Oyj 1977-1994.

#### Other positions of trust

Directors' Institute Finland – Hallitusammattilaiset ry and ecoDa (The European Confederation of Directors' Associations), Member of the Board. Finland National Committee for UN Women, Chairman of the Board.

#### Relevant prior positions of trust

Board memberships: Berendsen plc, 2014-2017; Rautaruukki Oyj, 2005-2012; Ponsse Oyj, 2007-2010 and Vattenfall AB, Sweden, 2004-2007.

Holdings in Wärtsilä Corporation on 31.12.2018: 32,437 shares



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### Kaj-Gustaf Bergh

Independent of the company and significant shareholders. Born 1955, B.Sc., LL.M. Member of the Board of Wärtsilä Corporation since 2008.

#### Primary working experience

Managing Director of Föreningen Konstsamfundet r.f., 2006-2018; Skandinaviska Enskilda Banken, Member of management, 2000-2001; SEB Asset Management, Director, 1998-2001; Ane Gyllenberg Ab, Chief Executive Officer, 1986-1998; Oy Bensow Ab, Director, Executive Vice President, 1985-1986; Ane Gyllenberg Ab, Administrative manager, 1984-1985 and Ky von Konow & Co, Administrative manager, 1982-1983.

#### Other positions of trust

Julius Tallberg Oy Ab, Chairman of the Board; Stockmann plc, Ramirent Group and JM AB, Member of the Board.

#### Relevant prior positions of trust

Board chairmanships: Mercator Invest Ab 2014-2018; KSF Media Holding Ab 2007-2018; Sponda Oyj 2013-2017; Stockmann plc 2014-2016; Fiskars Corporation 2006-2014; Ålandsbanken Abp 2011-2013 and Aktia Abp 2005-2009. Board memberships: Fiskars Corporation 2014-2015 and Stockmann plc 2007-2013.

Holdings in Wärtsilä Corporation on 31.12.2018: 30,103 shares



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### Karin Falk

Independent of the company and significant shareholders. Born 1965, B.Sc. (Econ.). Senior Vice President Volvo Trucks Services & Customer Quality. Member of the Board of Wärtsilä Corporation since 2017.

#### Primary working experience

Volvo Group, Executive Vice President, Corporate Strategy & Brand Portfolio 2012-2016; Volvo Group, President, Non-Automotive Purchasing 2008-2012. Volvo Car Corporation, Vice President, Volvo Car Customer Service 2006-2008; Volvo Car Corporation, President, Volvo Car Special Vehicles 2001-2006; Various positions within Volvo Cars and Volvo Group 1988-2001.

#### Other positions of trust

Volvo Group Venture Capital, Member of the Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 3,007 shares



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### Johan Forssell

Independent of the company, dependent of significant shareholders. Born 1971, M.Sc. (Economics and Business Administration). President and CEO of Investor AB. Member of the Board of Wärtsilä Corporation since 2017.

#### Primary working experience

Investor AB, Head of Core Investments and Member of the Management Group, 2006-2015; Investor AB, Project Director, 2014; Aleris AB, Head of Research, 2003-2006; Investor AB, Head of Capital Goods and Healthcare sector, 2001-2003; Investor AB, Head of Capital Goods sector and Analyst, 1995-1999.

#### Other positions of trust

Atlas Copco, Epiroc AB, EQT AB and Patricia Industries, Member of the Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 3,007 shares



**Risto Murto**

Independent of the company and significant shareholders. Born 1963, Ph.D. (Econ.). President & CEO of Varma Mutual Pension Insurance Company. Member of the Board of Wärtsilä Corporation since 2014.

**Primary working experience**

Investments, Varma, Executive Vice President, 2010-2013; Investments, Varma, Chief Investment Officer, 2006-2010; Opstock Ltd, Managing Director, 2000-2005; Opstock Ltd, Head of Equities and Research, 1997-2000; Erik Selin Ltd., Head of Research, 1993-1997.

**Other positions of trust**

University of Oulu and The Finnish Pension Alliance TELA, Chairman of the Board; Finance Finland (FFI) and Sampo plc, Member of the Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 8,947 shares

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**Markus Rauramo**

Independent of the company and significant shareholders. Born 1968, M.Sc. (Econ. and Pol. Hist.). Chief Financial Officer and Member of the Fortum Executive Management Team. Member of the Board of Wärtsilä Corporation since 2011.

**Primary working experience**

Fortum Corporation, Executive Vice President, City Solutions Division 2016-2017; Fortum Corporation, Executive Vice President, Heat, Electricity Sales and Solutions Division, 2014-2016; Fortum Corporation, Chief Financial Officer, 2012-2014; Stora Enso Oyj Helsinki, CFO and Member of the GET, 2008-2012; Stora Enso International London, SVP Group Treasurer, 2004-2008; Stora Enso Oyj Helsinki, VP Strategy and Investments, 2001-2004; Stora Enso Financial Services Brussels, VP Head of Funding, 1999-2001 and Enso Oyj Helsinki, several financial tasks, 1993-1999.

**Other positions of trust**

Teollisuuden Voima Oyj, Member of the Board; Uniper SE, Vice Chairman of the Supervisory Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 16,609 shares

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## Operations of the Board of Directors

Responsibility for the management of the company and the proper organisation of its operations is invested in the company's Board of Directors, which is composed of five to ten members. Board members serve for one year at a time and are elected by the General Meeting.

According to the Corporate Governance Code's recommendation 10, the majority of Board members shall be independent of the company and at least two of the members representing this majority shall be independent of significant shareholders of the company. The Board evaluates the independence of its members annually and re-evaluates as necessary.

The Nomination Committee prepares the proposal for the General Meeting regarding the election of directors to the Board, and communicates with significant shareholders, when required, on matters pertaining to the proposal. The proposal for the composition of the Board is included in the Notice of the General Meeting. The same applies to a proposal for the composition of the Board made by shareholders with at least 10% of the votes carried by the company shares, provided that the candidates have given their consent to the election, and the company has received information on the proposal sufficiently in advance as to be included in the Notice of the General Meeting. The candidates proposed shall be disclosed separately. Wärtsilä publishes the biographical details of the candidates for the Board on its website in connection with publication of the Notice of the General Meeting.

The Board elects a chairman and a deputy chairman from among its members. The Board steers and supervises the company's operations, and decides on policies, goals, and strategies of major importance. The principles applied by the Board to its regular work are set out in the Board Charter. The Board also approves the rules of procedure applied by the Board's committees setting out their main tasks and working principles. In addition to matters requiring its decision, the Board is also given updates at its meetings on the Group's operations, financial position and risks.

The Board conducts an annual self-evaluation of its operations and working methods. The purpose of this evaluation is to assess how the Board has executed its tasks during the year and to act as a basis for developing Board functions.

The Board of Directors convenes 8-11 times a year following a pre-determined schedule. In addition to these meetings, the Board convenes as necessary. All board meetings are documented.

### Diversity principles

In order for the Board of Directors to discharge its duties in the most effective manner, the Board must be highly qualified and sufficiently diverse. When preparing its proposal for the Board's composition, the Nomination Committee takes into account the educational and professional background of the individual candidates, as well as their international experience so that the composition of the Board represents a wide variety of competencies and qualifications. The Nomination Committee also takes into account the candidates' age, as having different seniority levels on the Board is considered beneficial in terms of ensuring mutually complementing experience.

Wärtsilä's principle with regard to gender is to have both genders represented on the Board. In December 2018, Wärtsilä had two female board members out of eight members in total. The objective of the Company is to achieve over time a more balanced representation of both genders on the Wärtsilä Board. The Nomination Committee assesses the potential candidates, not only in terms of their individual qualifications and characteristics, but also in terms of their ability to effectively work together and jointly support and challenge the company management in a proactive and constructive way.

### Board of Directors in 2018

As of 8 March 2018, the Board consisted of the following eight members: Ms Maarit Aarni-Sirviö, Mr Kaj-Gustaf Bergh, Ms Karin Falk, Mr Johan Forssell, Mr Tom Johnstone (Deputy Chairman), Mr Mikael Lilius (Chairman), Mr Risto Murto, and Mr Markus Rauramo.

All eight Board members were determined to be independent of the company and six members were determined to be independent of significant shareholders. Mr Tom Johnstone was determined to be dependent of significant shareholders, due to his position on the board of Investor AB. Mr Johan Forssell was determined to be dependent of significant shareholders, due to his position as the President and CEO of Investor AB.

Until 8 March 2018, the Board consisted of the following eight members: Ms Maarit Aarni-Sirviö, Mr Kaj-Gustaf Bergh, Ms Karin Falk, Mr Johan Forssell, Mr Tom Johnstone (deputy chairman), Mr Mikael Lilius (chairman), Mr Risto Murto and Mr Markus Rauramo.

During 2018, Wärtsilä's Board of Directors held 11 meetings. The average attendance of all directors was 100%. The financial and strategic development of Wärtsilä and its position in the markets, its growth opportunities, and the general further development of the Company have been, among others, the major items on the Board's agenda. People matters are also an important and continuous part of the Board's work, as they contribute to Wärtsilä's long-term success. During 2018, areas of particular focus included implications of escalating trade tensions, the organisational design of the Group, Wärtsilä's digital strategy, business development in the USA, as well as the acquisition of Transas.

#### Board member meeting participation in 2018

	Number of meetings	% of meetings
Mikael Lilius, Chairman	11/11	100
Tom Johnstone, Deputy Chairman	11/11	100
Maarit Aarni-Sirviö	11/11	100
Kaj-Gustaf Bergh	11/11	100
Karin Falk	11/11	100
Johan Forssell	11/11	100
Risto Murto	11/11	100
Markus Rauramo	11/11	100

## Responsibilities of the Board of Directors

The Board considers all matters stipulated to be the responsibility of a board of directors by legislation, other regulations, and the company's Articles of Association. The most important of these are:

- the annual and interim financial statements
- matters to be put before the General Meetings of shareholders
- the appointment of the President & CEO, the Executive Vice Presidents and the CEO's deputy, if any
- the organisation of financial supervision within the company

The Board is also responsible for considering any matters that are so far-reaching with respect to the area of the Group's operations, that they cannot be considered to fall within the scope of the Group's day-to-day administration. Examples of such matters include:

- approval of the long-term goals of the Group and its businesses, as well as the strategies to achieve them
- monitoring the developments, opportunities and threats in the external environment, and their impact on goals and strategy
- approval of the annual business plan and target setting for the Group
- approval of risk management principles
- monitoring and assessing the performance of the President & CEO
- approval of the remuneration and pension benefits of the President & CEO, the Executive Vice Presidents and the CEO's deputy
- approval of the corporate governance principles

- overseeing that the Company complies with legal and regulatory requirements and its Code of Conduct and other established values and ethical principles in its operations
- discussing and monitoring the R&D and product development plans of the Company
- the appointing of the Board committees
- the granting of charitable donations
- approval of other matters that are strategically or financially important, such as significant investments, acquisitions or divestments.

## The Boards' committees

The Board of Directors appoints annually an Audit Committee, a Nomination Committee, and a Remuneration Committee, and may also nominate other committees if considered necessary in its constitutive meeting following the Annual General Meeting. The Board appoints the members of these committees, and their chairmen, taking into consideration the expertise and experience required for the duties of the committee. The Board also has the right to remove a member from a committee. The members of each committee are appointed for the same term of office as the Board itself. In addition to the committee members, other Board members may participate in committee meetings, if they so wish. The purpose of the Board's committees is to prepare matters to be put before the Board for its decision. The committees have no decision-making authority of their own.

### The Audit Committee

The Board of Directors appoints an Audit Committee to assist it in the performance of its supervisory duties. The Board appoints from among its members at least three members to the Committee. These members shall have the qualifications necessary to perform the responsibilities of the Audit Committee. The majority of the members of the Audit Committee shall be independent of the company and at least one member shall be independent of the company's significant shareholders.

The Board defines the duties of the Audit Committee in the charter confirmed for the Committee. The Audit Committee monitors the reporting process of financial statements, supervises the financial reporting process, and monitors the efficiency of the internal control, internal audit and risk management systems. Furthermore, the Committee reviews the description of the main features of the internal control and risk management systems pertaining to the financial reporting process, monitors the statutory audit of the financial statements and consolidated financial statements, evaluates the independence of the statutory audit firm, and prepares the proposal for resolution on the election of the auditor. Other duties of the Audit Committee include reviewing the accounting principles of the company and approving any amendments to them, reviewing the interim and financial statements of the company and the reports prepared by the auditor for the Audit Committee, as well as evaluating the processes aimed at ensuring compliance with laws and regulations and monitoring the company's credit position and taxation. The Audit Committee also reviews the company's Corporate Governance Statements and reviews and resolves any special issues raised by the Board of Directors that fall within the competence of the Audit Committee.

The Chairman of the Audit Committee convenes the Committee as required. The Chairman also reports the Committee's proposals to the Board of Directors and regularly reports to the Board on the Committee's meetings.

#### Audit Committee in 2018

Chairman Markus Rauramo, members Maarit Aarni-Sirviö and Risto Murto. All members are independent of the company and significant shareholders. The Audit Committee met five times in 2018. The average attendance of all Committee members was 100%.

### The Nomination Committee

The Board of Directors appoints a Nomination Committee to assist it in its work. The Board appoints at least three of its members to serve on the Committee. The majority of the members of the Committee shall be independent of the company.

The Board defines the duties of the Nomination Committee in the charter confirmed for the Committee. The Nomination Committee prepares the proposal to be put before the General Meeting regarding the election of the directors to the Board. The Committee communicates, when required, with major shareholders on matters pertaining to the election of the directors for the Board. The Nomination Committee prepares matters concerning the remuneration applying to Board members. The Nomination Committee monitors and reports to the Board of Directors the achievement related to the Board's diversity objectives on a yearly basis, and, if needed, the Committee proposes adjustments to the Diversity Policy for the Board of Directors.

The Chairman of the Nomination Committee convenes the Committee as required. He also reports the Committee's proposals to the Board of Directors and regularly reports to the Board on the Committee's meetings.

#### Nomination Committee in 2018

Chairman Mikael Lilius, members Kaj-Gustaf Bergh, Johan Forssell and Risto Murto. All members are independent of the company and three are independent of significant shareholders. In addition to several discussions, the Nomination Committee held one formal meeting in 2018. The average attendance of all Committee members was 100%.

### The Remuneration Committee

The Board appoints a Remuneration Committee to assist it in its work. The Board appoints at least three of its members to sit on the Committee. The majority of the members of the Committee shall be independent of the company.

The Board defines the duties of the Remuneration Committee in the charter confirmed for the Committee. The Remuneration Committee prepares, as necessary, matters concerning the appointment of the President & CEO, the CEO's deputy and other Board of Management members for the Board of Directors. The Committee prepares proposals for the Board of Directors concerning the remuneration principles, incentive schemes and remuneration that apply to the President & CEO and the Board of Management members. External consultants used by the committee are independent of the company and management.

The Chairman of the Remuneration Committee convenes the Committee as required. He also reports the Committee's proposals to the Board of Directors and regularly reports to the Board on the Committee's meetings.

#### Remuneration Committee in 2018

Chairman Mikael Lilius, members Maarit Aarni-Sirviö and Tom Johnstone. All members are independent of the company and two are independent of significant shareholders. The Remuneration Committee met three times in 2018. The average attendance of all Committee members was 100%.

#### Board member committee meeting participation in 2018

	Audit Committee	Nomination Committee	Remuneration Committee
Mikael Lilius	-	1/1	3/3
Tom Johnstone	-	-	3/3
Maarit Aarni-Sirviö	5/5	-	3/3
Kaj-Gustaf Bergh	-	1/1	-
Karin Falk	-	-	-
Johan Forssell	-	1/1	-
Risto Murto	5/5	1/1	-
Markus Rauramo	5/5	-	-

## Board of Management

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### Jaakko Eskola

President & CEO of Wärtsilä Corporation since 2015. Born 1958, M.Sc. (Eng.). Joined the company in 1998.

#### Primary working experience

Wärtsilä Corporation, Senior Executive Vice President and Deputy to the CEO, 2013-2015; President, Marine Solutions, 2006-2015; Vice President, Power Plants Sales & Marketing, 2005-2006; Wärtsilä Development & Financial Services Oy, President, 1998-2005; PCA Corporate Finance, Executive Director, 1997-1998; Kansallis-Osake Pankki, various managerial positions in international project finance, 1986-1997; Industrialization Fund of Finland, Corporate Analyst, 1984-1986; VTT Technical Research Centre of Finland, Researcher, 1983-1984.

#### Positions of trust

The Federation of Finnish Technology Industries and The Finnish Foundation for Share Promotion, Member of the Board.

#### Relevant prior positions of trust

European Marine Equipment Council (EMEC), President, 2008-2011.

Holdings in Wärtsilä Corporation on 31.12.2018: 41,739 shares



### Arjen Berends

Executive Vice President and Chief Financial Officer since 1 October 2018. Born 1968, MBA. Joined the company in 1988.

#### Primary working experience

Wärtsilä Corporation: Vice President Finance & Business Control, Marine Solutions, 2012-2018; Vice President Finance & Business Control, Wärtsilä Industrial Operations, 2010-2012; Finance Director, Wärtsilä Industrial Operations, 2007-2010; Finance Director, Propulsor Business & Finance Director, Wärtsilä Propulsion Netherlands B.V., 2002-2007; Controller Marine / Manufacturing & Finance Director, Wärtsilä Norway AS, 1998-2002; various controller positions in Wärtsilä Netherlands B.V., 1988-1998.

Holdings in Wärtsilä Corporation on 31.12.2018: no shares



### Päivi Castrén

Executive Vice President, Human Resources since 2012. Born 1958, M.Sc. (Soc. Sc.). Joined the company in 2005.

#### Primary working experience

Wärtsilä Corporation, Vice President, Human Resources, 2005-2011; Nokia Corporation, Director, Human Resources, Nokia Finland, 2002-2005; Nokia Networks, HR Director, 2000-2002; Nokia Networks, Networks Systems division, HR Director, 1999-2000; Nokia Networks, HR manager, 1995-1998; Valmet Paper Machinery, HR manager, 1988-1995.

#### Positions of trust

The Federation of Finnish Technology Industries, Chairman of the Committee of Education and Employment; Wilhelm Wahlforss Foundation, Chairman of the Board; Member of the IMD Executive Education Advisory Council.

Holdings in Wärtsilä Corporation on 31.12.2018: 14,799 shares



## Kari Hietanen

Executive Vice President, Corporate Relations and Legal Affairs since 2012, Company Secretary since 2002. Born 1963, LL.M. Joined the company in 1989.

### Primary working experience

Wärtsilä Corporation, Executive Vice President, Human Resources and Legal Affairs, 2002-2011; Wärtsilä Power Divisions, Group General Counsel, 2000-2002; Wärtsilä Diesel Group, General Counsel, 1994-1999; Metra Corporation and Wärtsilä Diesel Group, Legal Counsel, 1989-1994.

### Positions of trust

European Engine Power Plants Association, EUGINE, Vice President; German-Finnish Chamber of Commerce, Member of the Board; Finnish-Russian Intergovernmental Economic Commission, II Deputy Chairman; Finnish-Korean Trade Association, Deputy Chairman of the Board; East Office of Finnish Industries Ltd, Member of the Board; Confederation of Finnish Industries (EK), Member of the Trade Policy Committee; International Trade Committee, Finland Chamber of Commerce / ICC Advisory Board, ICC Finland, member.

Holdings in Wärtsilä Corporation on 31.12.2018: 15,633 shares



## Roger Holm

President, Marine Solutions and Executive Vice President, Wärtsilä Corporation, since 2015. Born 1972, M.Sc. (Econ.). Joined the company in 1997.

### Primary working experience

Wärtsilä Corporation: Senior Vice President, Engines, 2013-2015; Vice President Seals & Bearings, 2011-2013; Vice President Solutions Management, Services, 2010-2011; Vice President Business Development, Services, 2008-2010; Chief Information Officer, 2006-2008; Program Director, Global ERP Program, 2002-2006; Corporate Controller, 2001-2002; Wärtsilä Finland Oy & Wärtsilä NSD Finland Oy: various managerial positions, 1997-2001.

### Positions of trust

Hanken School of Economics, Member of the Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 11,796 shares



## Atte Palomäki

Executive Vice President, Communications & Branding, since 2008. Born 1965, M.Sc. (Pol.). Joined the company in 2008.

### Primary working experience

Nordea Bank AB (publ.), Group Chief Press Officer, 2007-2008 and Chief Communication Officer, Finland, 2005-2006; Kauppalehti, Senior Business Correspondent, 2002-2005; MTV3, Senior Economic Correspondent, 2000-2002, News Producer, 1995-2000 and News Anchor, 1993-1995.

### Positions of trust

European Association of Communication Directors (EACD) and Management Group of the Finland Promotion Board, Member of the Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 14,493 shares





**Marco Ryan**

Executive Vice President and Chief Digital Officer since 2016. Born 1966, BSc (IM). Joined the company in 2016.

**Primary working experience**

Flint Group, Interim Chief Digital Officer, 2016; Thomas Cook Group, Chief Digital Officer, 2013-2015; Thomas Cook Touristik GmbH, Managing Director Omnichannel, 2013-2014; Accenture Interactive, Managing Director (ASEAN), 2011-2013; Premier Farnell Plc, Senior Vice President eCommerce and Digital, 2006-2011; Capgemini Consulting, Executive Consultant, 2001-2006; Interactive Collector Plc, VP Interactive Services, 1999-2001; Telematix and Keyhaven Ltd, Managing Director, 1997-1999; British Army, Officer with various management and operational roles, 1985-1997.

Holdings in Wärtsilä Corporation on 31.12.2018: no shares

**Marco Wirén**

President, Energy Solutions and Executive Vice President, Wärtsilä Corporation, since 1 October 2018. Born 1966, M.Sc. (Econ.). Joined the company in 2013.

**Primary working experience**

Wärtsilä Corporation, Executive Vice President and Chief Financial Officer, 2013-2018; SSAB, Executive Vice President and CFO, 2008-2013; SSAB, Vice President Business control, 2007-2008; Eltel Networks, CFO and VP Business Development, 2002-2007; NCC, VP Business Development and Group Controller, 1995-2001.

**Positions of trust**

Neste Corporation, Member of the Board.

Holdings in Wärtsilä Corporation on 31.12.2018: 20,184 shares



**Pierpaolo Barbone** acted as Deputy to the CEO since 2015 and President, Services & Executive Vice President, Wärtsilä Corporation, until 31 December 2018.

**Javier Cavada Camino** acted as President, Energy Solutions & Executive Vice President, Wärtsilä Corporation, until 30 September 2018.



## The President & CEO and the Deputy CEO

The Board of Directors appoints a President for the Group who is also its Chief Executive Officer. The President & CEO is in charge of the day-to-day management of the company and its administration, in accordance with the company's Articles of Association, the Finnish Companies Act, and the instructions of the Board of Directors. He is assisted in this work by the Board of Management. The President & CEO's service terms and conditions are specified in writing in his service contract. The President & CEO of the company is Mr Jaakko Eskola. Mr Pierpaolo Barbone served as the deputy to the President & CEO until the end of 2018.

## Operations of the Board of Management

Following the organisational redesign into two business areas on 1 January 2019, the company's Board of Management comprises eight members: the President & CEO, the Chief Financial Officer, the Executive Vice Presidents heading the Wärtsilä Energy Business and Wärtsilä Marine Business, the Chief Digital Officer, and the Executive Vice Presidents heading the Communications & Branding, the Corporate Relations & Legal Affairs, and the Human Resources functions. Board of Management members are appointed by the company's Board of Directors, which also approves their remuneration and other terms of employment.

The Board of Management is chaired by the President & CEO. It considers strategic issues related to the Group and its businesses, as well as investments, product policy, and the Group's structure and corporate steering systems. It also supervises the company's operations.

The Chief Financial Officer's main areas of responsibility include group accounting and control, treasury (including project and customer financing), taxation, process development, corporate planning, and investor relations. The Executive Vice Presidents heading the businesses are each responsible for the sales volumes and profitability of their respective global businesses, deploying the capabilities of the Group's worldwide subsidiaries. The Chief Digital Officer leads the Information Management organisation and is responsible for developing and executing Wärtsilä's digital strategy, and related digital governance. The main areas of responsibility of the Executive Vice President, Corporate Relations & Legal are corporate relations and legal affairs, intellectual asset management and sustainability, as well as environmental and occupational health and safety, and quality. The Executive Vice President, Human Resources is responsible for people related processes. The main areas of responsibility of the Executive Vice President, Communications & Branding are external and internal communications, as well as branding. Information on the members of the Board of Management and their areas of responsibility and holdings can be found in the [Board of Management CVs](#).

### The Board of Management in 2018

The Board of Management met 13 times during 2018. The main issues addressed by the Board of Management included market development and business strategy, new growth areas, the profitability of the company, as well as issues relating to developments regarding competitiveness, costs, and Wärtsilä's organisational structure. Areas of special focus included the decision to build the Smart Technology Hub, a new centre for research, development and production, in Vaasa, Finland; as well as the decision to redesign the Wärtsilä organisation into two business areas covering both new sales and services for the marine and energy markets respectively. Digitalisation and security, in particular cybersecurity, were also high on the agenda, as were occupational health and safety, and operational excellence. Carrying out the acquisition of Transas, and planning and implementing the integration process was another important area of focus. Furthermore, the Board of Management continuously addresses the development of the regulatory operating environment, order intake and production capacity, as well as supplier and other stakeholder relationships.

## Corporate management

The company's Corporate Management includes, in addition to the Board of Management, the following directors responsible for corporate functions:

### **Juha Hiekkänen**

Vice President, Financial Controlling  
Born 1978, M.Sc. (Econ.)

### **Riitta Hovi**

Deputy General Counsel, Corporate Legal Affairs  
Born 1960, LL.M., MBA

### **Anu Hämäläinen**

Vice President, Group Treasury and Financial Services & Support  
Born 1965, M.Sc. (Econ.)

### **Sari Kolu**

Director, Compliance  
Born 1967, Master of Laws, Executive MBA

### **Jukka Kumpulainen**

Vice President, Chief Information Officer (CIO)  
Born 1968, M.Sc. (Eng.)

### **Antti Kuokkanen**

Vice President, Group Business Control, Development and M&A  
Born 1977, M.Sc. (Econ.), M.Sc. (Eng.)

### **Vesa Riihimäki**

Vice President, Quality  
Born 1966, M.Sc. (Eng.)

### **Tom Unnéus**

Vice President, Corporate Internal Audit  
Born 1972, M.Sc. (Eng.)

### **Marko Vainikka**

Director, Corporate Relations and Sustainability  
Born 1970, M.Sc. (Eng.)

### **Natalia Valtasaari**

Director, Investor Relations  
Born 1984, M.Sc. (Econ.)

## Business Management teams

Each business head is supported by a Business Management team. The Business Management teams are comprised of the heads of the business units and business lines, as well as business specific support function heads. They are responsible for executing the respective business strategies and ensuring that the Businesses' performance is in line with agreed targets.

## Managing Directors of the subsidiaries

The Managing Directors of the Group's subsidiaries are responsible for ensuring that local resources are correctly dimensioned to meet the needs of the businesses, and that the subsidiary's personnel development needs are met.

The Managing Directors are also responsible for ensuring that the subsidiary's operations fulfil the requirements stipulated in the Group processes, including the quality system, that these operations comply with the respective country's legal requirements and with good business practices, and that communication within the subsidiary is conducted according to the targets of the Group.

## Internal control

Wärtsilä has defined its objectives for internal control according to the international COSO framework. Wärtsilä defines internal control as a process implemented by Wärtsilä's Board of Directors, the Management, the Boards of Directors of Group companies, and other personnel, which is designed to provide reasonable assurance regarding the achievement of objectives.

Internal control covers all the policies, processes, procedures and organisational structures within Wärtsilä that help management, and ultimately the Board, to ensure that Wärtsilä is achieving its objectives, that the business conduct is ethical and in compliance with all applicable laws and regulations, that the company's assets, including its brand, are safeguarded, and that its financial reporting is correct. Internal control is not a separate process or set of activities, but is embedded within Wärtsilä's operations.

The system of internal control operates at all levels of Wärtsilä. Wärtsilä maintains and develops its internal control system with the ultimate aim of improving its business performance and, at the same time, of complying with laws and regulations in countries where it operates.

## Performance management

Planning and target setting, an integral part of performance management in Wärtsilä, is a regular management activity and not part of Wärtsilä's internal control system. The establishment of objectives, however, is an important pre-requisite for internal control. Through the performance management process, financial and non-financial targets are set for Wärtsilä annually at the Group level. These Group level targets are then translated into targets for the Businesses, Group companies, and eventually for individuals.

The achievement of the annual targets is monitored through monthly management reporting. The performance of the Businesses and the achievement of the annual targets are reviewed on a monthly basis in the respective Management team meetings. The performance relating to the targets set by the Group and the different Businesses are reviewed on a monthly basis by the Board of Management. The respective management teams and the Board of Management also address the reliability of Wärtsilä's financial reporting.

Wärtsilä's financial reporting is carried out in a harmonised way in all major Group companies, using a single instance ERP system and a common chart of accounts. The International Financial Reporting Standards (IFRS) are applied throughout the entire Group. Wärtsilä's finance and control process is essential for the functioning of internal control. Adequate controls in the financial management and accounting processes are needed to ensure the reliability of financial reporting.

The Board of Directors regularly assesses the adequacy and effectiveness of Wärtsilä's internal controls and risk management. It is also responsible for ensuring that the internal control of accounting and financial administration is arranged appropriately. The Audit Committee of Wärtsilä's Board of Directors is responsible for overseeing the financial reporting process. The Group Business Control function, together with the Business Control functions in the Business areas, are responsible for notifying relevant levels of management regarding deviations from plans, analysing the underlying reasons, and suggesting corrective actions. These functions support the Businesses in decision-making and analyses to ensure the attainment of financial targets. They maintain and develop the company's performance management processes, so that the management at different levels of the organisation is able to receive timely, reliable, and adequate information regarding the achievement of the organisation's objectives. In addition, they are responsible for developing the financial reporting processes and respective controls.

## Legal and compliance management

Legal and compliance management practices and processes occupy a central role in Wärtsilä's system of internal control. Wärtsilä's policy is to act in accordance with the applicable laws and regulations in all countries where it operates.

Legal and compliance management acts predominantly in a proactive manner. Legal Affairs supports the President & CEO and the businesses in analysing and making decisions on matters involving contract policy, risk management, and regulatory considerations. Other key activities are to lead compliance management, and to strengthen and ensure the culture of appropriate conduct and behaviour, both internally and in external business transactions. Compliance management is based on the Code of Conduct and relevant group level policies and directives. Company-wide control mechanisms and processes are a part of the overall internal control system.

## HR management

Human resource management practices and processes play an active role in Wärtsilä's system of internal control. Wärtsilä's main human resource management processes with respect to internal control are; compensation and benefits, HR development, recruitment and resourcing management, individual performance management, as well as processes for collecting employee feedback. The HR function is responsible for maintaining and developing Wärtsilä's people related processes to enable effective internal control, also at the individual level.

## Other management systems

The Board of Management is responsible for developing and implementing Wärtsilä's management system, continuously improving its performance, and ensuring that it operates effectively. The Wärtsilä management system covers all global processes and management procedures within Wärtsilä related to fulfilling customer requirements. The proper functioning of the management systems highlighted below ensures, for their part, the attainment of Wärtsilä's internal control objectives.

### Quality

The quality of Wärtsilä's solutions, and thus quality management, is a top priority for Wärtsilä. Compliance with Wärtsilä's Quality Management System ISO 9001:2000 is compulsory throughout the Group, and compliance with the system is rigorously monitored.

### Sustainability

Wärtsilä is strongly committed to sustainability. Wärtsilä's purpose and values, together with a solid financial performance, form the basis for sustainable development within Wärtsilä. Wärtsilä applies global guiding principles, such as the Quality, Environmental, Health & Safety policy (QEHS policy) and the Code of Conduct, which, together with the company's values, ensure a harmonised way of working towards sustainable development. In addition to the aforementioned, the Corporate Manual includes other policies and directives, a description of the company's operating procedures, responsibilities, and the management system structure.

Wärtsilä's Board of Management has overall responsibility for sustainability performance. The Board of Management approves the guiding principles and reviews the content on a regular basis. The Board of Management defines sustainability targets and monitors performance against these set targets. Performance is reviewed in connection with the management reviews at both Wärtsilä's Board of Management and Business Management Team levels.

The Board of Directors reviews major sustainability issues on an annual basis. In addition, the Board of Management identifies major critical concerns and, when necessary, communicates such concerns to the Board of Directors.

Wärtsilä's sustainability function is responsible for providing the necessary information to management, identifying development needs, as well as for coordinating sustainability programmes and preparing instructions. The function cooperates closely with the Businesses and the supporting functions, such as Human Resources, Legal Affairs, Compliance and Quality. It also collects and consolidates sustainability data from the subsidiaries.

Wärtsilä has clearly defined responsibilities, which are supported by necessary instructions and training. This training covers, for example, the Code of Conduct, anti-corruption, as well as environmental and occupational health and safety issues. Wärtsilä monitors its sustainability performance by utilising the information provided by various sustainability tools and activities, such as internal audits and compliance processes.

**Risk management**

Internal control within Wärtsilä is designed to support the company in achieving its targets. The risks related to the achievement of targets need to be identified and evaluated in order for them to be managed. Thus, the identification and assessment of risks is a pre-requisite for internal control within Wärtsilä. Wärtsilä's internal control mechanisms and procedures provide management assurance that risk management actions are carried out as planned.

Wärtsilä has defined and implemented entity level and process level control activities, as well as information system controls. Control activities at different levels are needed to directly mitigate risks at the respective levels. Wärtsilä's risk management processes consist of Group-wide risk assessment and management processes, as well as project-specific risk assessments and project risk management. The Group-wide risk assessment process results in the creation of action plans for the identified and prioritised risks.

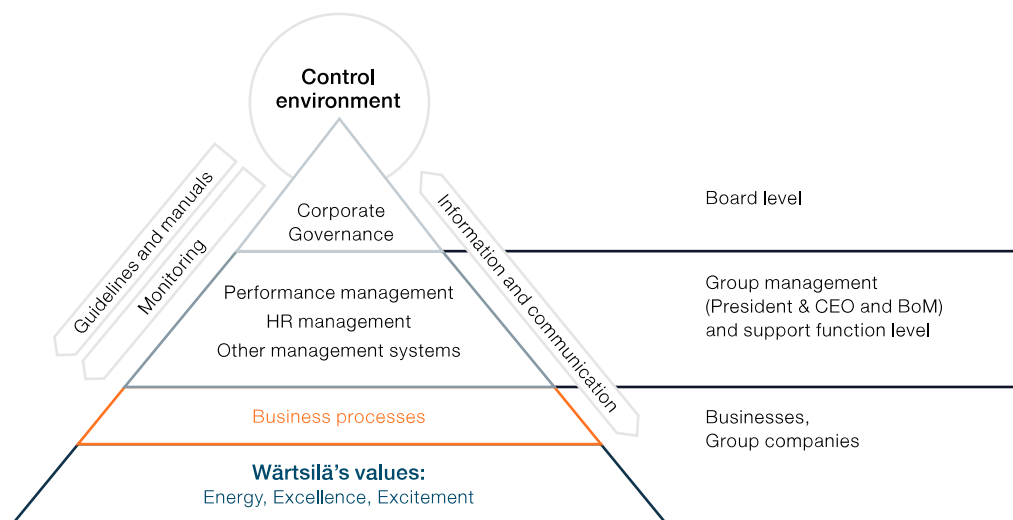
Each Business reports its main risks to Wärtsilä's Board of Management, which reviews on a regular basis the execution of the defined risk management action plans. Wärtsilä's Board of Directors is responsible for defining the Group's overall level of risk tolerance, and for ensuring that Wärtsilä has adequate tools and resources for managing risks. The Board reviews the risk profile regularly. The President & CEO, with the assistance of the Board of Management, is responsible for organising and ensuring risk management in all of Wärtsilä's operations. Business management is responsible for defining action plans for managing the most important risks.

Wärtsilä's most important strategic, operational and financial risks can be found in the Risks and risk management section of this report.

**Information management**

Information management plays a key role in Wärtsilä's internal control system. Information systems are critical for effective internal control as many of the control activities are programmed controls.

**Main components of Wärtsilä's internal control**



## Values and the control environment

The foundation of Wärtsilä's internal control system lies its values: Energy, Excellence and Excitement. Wärtsilä's values are reflected in its day-to-day relations with its suppliers, customers and investors, and in internal guidelines, policies, manuals, processes and practices. The control environment sets the tone for internal control within Wärtsilä and influences the control awareness of its people. It provides discipline and structure for all the other components of internal control. The elements of Wärtsilä's control environment are included in the corporate culture, the integrity, ethical values and competence of Wärtsilä's personnel, as well as in the attention and direction provided to the personnel by the Board of Directors of Wärtsilä. Wärtsilä's values and control environment provide Wärtsilä's Board of Directors and Management with the basis for reasonable assurance regarding the achievement of the objectives for internal control. The President & CEO and the Board of Management define Wärtsilä's values and ethical principles, which are reflected in the Code of Conduct, and set an example for the corporate culture, which in combination create the basis for the control environment. They, together with Business management, are responsible for communicating Wärtsilä's values to the organisation.

## Business processes

The controls embedded in Wärtsilä's business processes play a key role in ensuring effective internal control within the company. Controls in the business processes help ensure the achievement of all the objectives of internal control within Wärtsilä, especially those related to the efficiency of operations and the safeguarding of the company's profitability and reputation. Business management is responsible for ensuring that within its area of responsibility, the defined Group level processes and controls are implemented and complied with. Where no Group level processes and controls exist, Business management is responsible for ensuring that efficient Business level processes with adequate controls have been described and implemented.

## Guidelines and communication

### Guidelines and manuals

The components of Wärtsilä's internal control system, including for example, corporate governance, the management system, the performance management process, as well as the business and other processes, are described in various guidelines and manuals. The essential Group level policies and guidelines are compiled in Wärtsilä's Corporate Manual. Wärtsilä's Group level Accounting Manual contains instructions and guidance on accounting and financial reporting to be applied in all Wärtsilä Group companies. The manual supports the achievement of the objectives regarding the reliability of Wärtsilä's financial reporting. Wärtsilä's Group level policies, and any changes to them, shall be approved by a member of the Board of Management. In addition to the Group level guidelines and manuals, the Businesses have issued related guidelines and instructions for their own, specific purposes. The Business level guidelines and manuals are aligned with, and do not contradict, the Group level guidelines and manuals.

### Information and communication

An effective internal control system needs sufficient, timely and reliable information to enable the management to assess the achievement of the company's objectives. Both financial and non-financial information is needed, relating to both internal and external events and activities. Employees can provide feedback to management and communicate suspected misconduct via a whistle blower channel that secures anonymous reporting or directly to the Compliance, Legal Affairs or Internal Audit function. All external communications are carried out in accordance with the Group Communications Policy.

## Monitoring

Monitoring is a process that assesses the quality of Wärtsilä's system of internal control and its performance over time. Monitoring within Wärtsilä is performed both on an ongoing basis, and through separate evaluations that include internal, external and quality audits.

Business management is responsible for ensuring that all relevant laws and regulations are complied with in their respective responsibility areas. Wärtsilä's management in turn performs monitoring as part of its regular supervisory activities. The Audit Committee of the Board of Directors assesses and assures the adequacy and effectiveness of Wärtsilä's internal controls and risk management.

The Internal Audit function assists the Audit Committee in assessing and assuring the adequacy and effectiveness of Wärtsilä's internal controls and risk management by performing regular audits of Group legal entities and support functions according to its annual plan. Wärtsilä's external auditor and other assurance providers, such as quality auditors, conduct evaluations of Wärtsilä's internal controls. The Group Finance & Control function oversees the financial reporting processes and controls to ensure that they are being followed. It also monitors the correctness of all external and internal financial reporting. The Legal and Compliance function monitors adherence to the compliance policies of the Group. The external auditors verify the correctness of the external annual financial reports.

## Audit

### Internal

The Group's internal audit is handled by its Internal Audit unit, which reports to the Audit Committee and to the President & CEO. The purpose of the Internal Audit is to analyse the company's operations and processes, as well as the effectiveness and quality of its supervision mechanisms. The internal auditor also participates, if necessary, in audits undertaken in conjunction with acquisitions and carries out special tasks when needed. The Internal Audit function covers all of the company's organisational levels and subsidiaries. An internal audit is undertaken in the subsidiaries and network companies at regular intervals, ranging from one to four years, based on a systematic evaluation.

The Internal Audit function prepares an annual plan under which they independently audit different parts of the company, but it is also empowered to carry out special audits. The annual plan is approved by the Audit Committee, to which the Internal Audit function reports at regular intervals. If required, the auditors also have the possibility to take direct contact with the Audit Committee or members of the Board of Directors.

### External

The company has one auditor, which shall be an audit firm. The auditor is elected by the Annual General Meeting to audit the accounts for the ongoing financial year, and its duties cease at the close of the subsequent Annual General Meeting. The auditor is responsible for auditing the consolidated and parent company financial statements and accounting records, and the administration of the parent company.

Following the closing of the annual accounts, the external auditor submits the statutory auditor's report to the company's shareholders and reports regularly also its findings to the Board of Directors' Audit Committee. The auditor, in addition to fulfilling general competency requirements, must also comply with certain legal independence requirements guaranteeing the execution of an independent and reliable audit.

### Auditor in 2018

The Annual General Meeting appointed the audit firm PricewaterhouseCoopers Oy (PwC) as Wärtsilä Corporation's auditor for the year 2018. The auditor-in-charge was Ms Merja Lindh. Auditing fees paid to PwC amounted to EUR



3.7 million in 2018. Consultancy fees unrelated to auditing duties totalled EUR 0.3 million. These latter fees mainly concerned consultation on taxation matters.

## Related party transactions

Wärtsilä's related parties comprise the Board of Directors, the President & CEO, the Board of Management, as well as the associated companies and joint ventures. The Group Finance and Control function evaluates and monitors transactions concluded between the company and its related parties to ensure that any conflicts of interest are taken into account appropriately in Wärtsilä's decision-making process.

## Insider management

Wärtsilä manages inside information and insiders in accordance with all applicable laws and regulations regarding insiders and insider trading.

The most important statutory provisions are contained in the Market Abuse Regulation (EU) 596/2014 ("MAR"). Wärtsilä also follows the Insider Guidelines of Nasdaq Helsinki Ltd., and Wärtsilä's Insider Policy.

The company draws up insider lists for projects containing inside information. Insiders are given written notification of their status as insiders and instructions on the obligations that apply to insiders.

Members of Wärtsilä's Board of Directors and Board of Management and certain other Wärtsilä personnel are prohibited from trading of the Wärtsilä financial instruments during the 30 days prior to publication of the financial statements bulletin or interim report.

Wärtsilä publishes notifications on transactions conducted by persons discharging managerial responsibilities, and persons closely associated with them in accordance with the provisions of the MAR. The term 'persons discharging managerial responsibilities' refers exclusively to the members of the Board of Directors and the Board of Management of Wärtsilä. These notifications are available on Wärtsilä's webpages.

# Remuneration report 2018

## Dear Shareholders

This report sets out the Wärtsilä remuneration policy and report for the Board of Directors and Board of Management for 2018, and enumerates the same for the two previous years. With this policy and report, we aim to increase transparency regarding Wärtsilä's remuneration practices, and how they contribute to the business strategy and long-term interests.

Wärtsilä strives for high performance, and strong achievements are recognised and rewarded. Remuneration at Wärtsilä is guided by our 'Pay for Performance' principles. These principles are used to structure the reward approach throughout the organisation, and are designed to align employee rewards with the interests of the company and its shareholders. The remuneration policy for the President & CEO and other members of the Board of Management has been developed taking these principles into account.



We believe in a consistent approach to performance rewarding at Wärtsilä. The remuneration arrangements for the Board of Management, which also cascade down to other members of the senior management team, have operated broadly unchanged for some years.

The short-term incentive awards for the Board of Management have been consistently based on profitability (EBIT%) and cash flow targets over the past years. The expected performance criteria for profitability were set at highly ambitious levels for 2018, and increased from the previous year, while the criteria for the cash flow target was lowered. Wärtsilä's financial performance in 2018 resulted in neither the profitability nor the cash flow target thresholds being met. Therefore, no short-term incentives were awarded for the year.

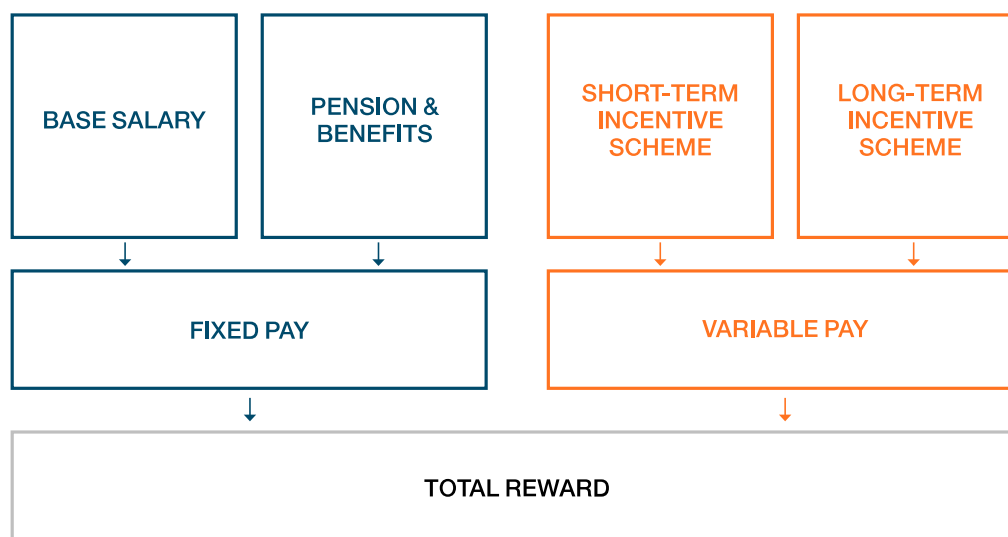
Wärtsilä's long-term incentive scheme is based on share price development, and its realisation is paid as a cash award. The 2015 scheme came to a close at the end of 2018. Due to share price performance during the performance period, there will be no pay-out for the 2015 scheme. As of 2019, the structure of the program is renewed, so that realisation is paid out in shares. With this change, our aim is to promote shareholder value creation by strengthening the alignment of senior management interests with those of Wärtsilä's shareholders.

**Mikael Lilius**  
Chairman of the Remuneration Committee

## Remuneration principles and policy for the Board of Management

Wärtsilä's rewarding principles are designed to attract, retain and motivate executives by providing compensation solutions that reward them for their performance in delivering business results.

The remuneration mix for the Board of Management consists of fixed and variable, performance related, pay. The objective is to have a good balance of rewarding elements. These comprise a fixed pay level guaranteed to be market competitive, supported by short- and long-term incentive schemes to drive company performance and to reward accordingly.



### Fixed pay

The fixed remuneration paid to the President & CEO and to the other members of the Board of Management consists of a monthly base salary and fringe benefits. Base salaries are reviewed annually taking into account the company's and the individual's performance, and the market conditions.

The members of the Board of Management are provided private medical insurance and life insurance. They are also offered a company car benefit. Taking into consideration Wärtsilä's emphasis on environmental responsibility, hybrid or low emission cars are recommended.

The President & CEO and members of the Board of Management participate in company specific pension schemes, in addition to any statutory requirements. The nature of the supplementary pension schemes and retirement ages vary. They are generally based on the retirement scheme of the national social security system to which the person in question belongs, and are either defined benefit or defined contribution based.

### Variable pay

#### Short-term incentive schemes

The Group operates a bonus scheme, which is implemented globally and is designed to provide incentives for achievement of and reward for delivery of the short-term business plan. The bonus is based on the Group's financial targets, business specific targets, as well as agreed team and personal targets. Around 3,000 directors and managers are covered by this scheme.

For the President & CEO and the Board of Management, the payment is based on the achievement of the company's profitability and other financial targets for the financial year, as set by the Board of Directors. The short-term incentive opportunity is capped at 100% of the annual base salary for the President & CEO, and 65% of the

annual base salary for the other members of the Board of Management. Bonuses are paid in cash shortly following the year-end.

Wärtsilä's employees also participate in bonus or profit-based incentive schemes. These are applied in the majority of countries where Wärtsilä operates according to each country's legislation. Alternatively, they take the form of local bonus or profit-sharing schemes. All in all, 80% of the company's employees are covered by the Group's bonus schemes and various other performance-related incentive schemes.

#### Long-term incentive scheme

Around 100 senior managers, including the President & CEO and the Board of Management, participate in Wärtsilä's long-term incentive scheme.

The objective of the long-term incentive scheme is to align the interests of senior management with those of Wärtsilä's shareholders by creating a long-term equity-related interest for the participants. In so doing, this promotes shareholder value creation and drives a long-term performance culture within Wärtsilä.

The long-term incentive scheme has a three year performance period. Under the scheme, participants are awarded incentive rights. The value of an incentive right at the end of the performance period is based on the growth in value of the share price between the three month period immediately preceding the performance period and the last three months of the performance period. The end share price may include a value for part or all of the normal and extraordinary dividends paid by Wärtsilä Corporation during the performance period.

Valuation of the incentive rights:

$$\left( \text{COMPARISON SHARE PRICE} - \text{STARTING SHARE PRICE} \right) \times \text{NUMBER OF INCENTIVE RIGHTS} = \text{VALUE OF LONG-TERM INCENTIVE}$$

To ensure an appropriate level of reward, an upper limit is set for each award cycle, capping the maximum value for each incentive right. The incentive rights are paid-out in cash, but the President & CEO and the Board of Management members are expected to acquire Wärtsilä shares with 50% of the net value received until they have achieved their required share ownership level. The schemes launched as of 2019 will be paid out in shares to promote shareholder value creation by strengthening the alignment of senior management interests with those of Wärtsilä's shareholders.

#### Share ownership policy

Each Board of Management member is expected to accumulate and, once achieved, maintain a share ownership in Wärtsilä that at least corresponds to the individual's annual gross base salary.

#### Governance

The Board of Directors determines the levels and underlying principles of the fixed pay, as well as the incentive schemes for the President & CEO and other Board of Management members. The Board of Directors also decides on other possible long-term incentive schemes for senior management, unless they are by law determined by the Annual General Meeting. The Board of Management decides on bonus schemes for other directors and managers.

## Remuneration of the Board of Management

### Contractual terms for the President & CEO

The base salary of the President & CEO is EUR 862,200 p.a. He is entitled to participate in the short- and long-term incentives schemes according to the terms and conditions described above. The President & CEO is eligible to take retirement upon reaching the age of sixty-three (63). His pension scheme is determined according to a defined contribution based system. The retirement pension contribution is equivalent to 20% of the annual salary.

Remuneration paid to the President & CEO if dismissed by the company corresponds to 18 months' salary plus a six months' period of notice salary.

### Board of Management's total remuneration in 2018

TEUR

Board of Management	Salary and short-term benefits	Supplementary pension contributions	Short-term incentives <sup>1</sup>	Long-term incentives <sup>2</sup>	Total
Jaakko Eskola, President & CEO	862 (785)	170 (156)	239 (295)	1 696 (410)	2 967 (1 645)
Pierpaolo Barbone, President, Services and Deputy to the CEO	384 (425)	107 (88)	56 (105)	848 (410)	1 396 (1 028)
Other members of the Board of Management	2 263 (2 162)	368 (493)	480 (441)	4 452 (1 587)	7 563 (4 863)

<sup>1</sup> Relates to the annual bonus for 2017 performance, which was paid in 2018.

<sup>2</sup> Relates to the 2015-2017 long-term incentive cycle, which was paid in 2018.

### Short-term incentive schemes

The Board of Management's performance target structure for the short-term incentives is described in the table below. A sliding scale of targets was set for each measure.

<b>PRESIDENT &amp; CEO</b>	Group EBIT % (2/3)	Group Cash Flow from operating activities (1/3)	
<b>BUSINESS ROLES</b>	Group EBIT % (1/3)	Respective business targets (1/3)	Group Cash Flow from operating activities (1/3)
<b>OTHER CORPORATE ROLES</b>	Group EBIT % (2/3)	Group Cash Flow from operating activities (1/3)	

### Short-term incentive for 2018 performance

The above performance measures and weightings apply to the annual bonus for 2018 performance.

Performance against the group targets was as follows:

MEASURE	PERFORMANCE OUTCOME
Group EBIT %	Below threshold
Group Cash Flow from operating activities	Below threshold

As the performance outcomes were below the target thresholds, no bonuses were paid out.

#### Short-term incentive for 2019 performance

There are no proposed changes to the operation of the short-term incentive plan for 2019. The performance measures, weightings, and maximum limits will be the same as those applying in 2018.

#### Historical development of performance outcome

The performance measures and weightings have remained consistent during the past years. Actual performance against the group targets during 2016-2017 is shown below.

MEASURE	PERFORMANCE OUTCOME	
	2016	2017
Group EBIT %	Between threshold and target	Between threshold and target
Group Cash Flow from operating activities	Between target and maximum	Between target and maximum
The bonus paid out on average (of the maximum)	President & CEO: 50% Board of Management: 50%	President & CEO: 31% Board of Management: 35%

#### Long-term incentive schemes

The table below sets out details of the realised and outstanding awards under Wärtsilä's long-term incentive scheme. The scheme applies to Wärtsilä's senior management, consisting of approximately 100 directors, including the Board of Management. The value delivered is based on the share price development during the three-year performance period. The values reflect the share split effective March 2018.

Performance period	2016-2018	2017-2019	2018-2020
Number of incentive rights granted (on 31.12.2018)	4 857 000	5 490 000	4 845 000
Starting share price, EUR	15.82	16.19	22.58
Measurement period for comparison share price	Q4 2018 + 100% of dividends paid	Q4 2019 + 100% of dividends paid	Q4 2020 + 100% of dividends paid
Maximum value per incentive right, EUR	4.61	6.07	8.47
Final comparison share price, EUR	15.79	-	-
Final value per incentive right, EUR	0.00	-	-
Scheme payment date	February 2019	February 2020	February 2021

\* The share issue without payment (share split) approved by Wärtsilä Corporation's Annual General Meeting on 8 March 2018 increased the total number of Wärtsilä shares to 591 723 390. The figures in the above table have been restated accordingly.

The incentive rights are paid-out in cash, but the President & CEO and the Board of Management members are expected to acquire Wärtsilä shares with 50% of the net value received until they have achieved their required share ownership level.

In January 2019, the Board of Directors decided on the long-term incentive plan for 2019-2021. The structure was renewed so that reward will be paid out in shares, in order to better promote shareholder value creation by strengthening the alignment of senior management interests with those of Wärtsilä's shareholders. The incentive scheme 2019 comprises 6,542,000 incentive rights. It is based on the share price development during a three-year period, with a starting share price of EUR 16.76. The reward cannot exceed EUR 6.56 per incentive right and it takes into account 100% of dividends paid out during the performance period and reinvested in the Company's shares. The 2019 scheme will be due for payment in February 2022.

## Share ownership

### Board of Management's share ownership in Wärtsilä on 31 December 2018

Board of Management	No. of shares
Jaakko Eskola	41 739
Change in 2018	33 258
Pierpaolo Barbone	21 831
Change in 2018	14 554
Arjen Berends	0
Change in 2018	0
Päivi Castrén	14 799
Change in 2018	9 866
Kari Hietanen	15 633
Change in 2018	10 422
Roger Holm	11 796
Change in 2018	11 796
Atte Palomäki	14 493
Change in 2018	9 662
Marco Ryan	0
Change in 2018	0
Marco Wirén	20 184
Change in 2018	15 279

\* The changes in holdings reflect the increased number of shares resulting from the share issue without payment (share split), which was approved by the Annual General Meeting on 8 March 2018.



## Evaluation

The Board of Directors monitors the Group's short- and long-term incentive schemes and evaluates the achievement of the targets on which they are based. The incentive schemes for 2018 were found to be well balanced and in accordance with market practices. The Board of Directors was satisfied that the payout outcome was appropriate given the company's performance.

## Remuneration of the Board of Directors

The Annual General Meeting decides annually on the fees to be paid to the members of the Board of Directors for one term of office at a time.

The Annual General Meeting approved the following fees to the members of the Board of Directors for 2018:

- to the ordinary members EUR 70,000/year
- to the deputy chairman EUR 105,000/year
- to the chairman EUR 140,000/year

Approximately 40% of the annual fee is paid in Wärtsilä shares. In addition, each member will be paid EUR 750 per board meeting attended, the chairman's meeting fee being double this amount. Further, the Chairman of the Audit Committee will receive a fixed fee of EUR 20,000 and each member of the Committee a fixed fee of EUR 10,000 for the term; the Chairman of the Remuneration Committee will receive a fixed fee of EUR 10,000 and each member of the Committee a fixed fee of EUR 5,000 for the term; and the Chairman of the Nomination Committee will receive a fixed fee of EUR 8,000 and each member of the Committee a fixed fee of EUR 4,000 for the term. The members of Wärtsilä's Board of Directors were paid altogether EUR 718 thousand for the financial period that ended on 31 December 2018. The Board's members were not covered by the company's incentive schemes.

### Fees paid to the Board of Directors

TEUR	Attendance fees		Yearly fees		Total	
	2018	2017	2018	2017	2018	2017
Board of Directors						
Mikael Lilius, Chairman	35	21	140	132	175	153
Tom Johnstone, Deputy Chairman	14	9	105	99	119	108
Maarit Aarni-Sirviö	26	12	70	66	96	78
Kaj-Gustaf Bergh	12	8	70	66	82	74
Karin Falk	8	5	70	66	78	71
Johan Forssell	12	6	70	66	82	72
Risto Murto	24	13	70	66	94	79
Markus Rauramo	33	15	70	66	103	81

### Fees paid in Wärtsilä shares in 2018

	No. of shares
Board of Directors	
Mikael Lilius, Chairman	3 183
Tom Johnstone, Deputy Chairman	2 387
Maarit Aarni-Sirviö	1 591
Kaj-Gustaf Bergh	1 591
Karin Falk	1 591
Johan Forssell	1 591
Risto Murto	1 591
Markus Rauramo	1 591

## Board of Directors' share ownership in Wärtsilä on 31 December 2018

Board of Directors	No. of shares
Mikael Lilius, Chairman	61 260
Change in 2018	41 901
Tom Johnstone, Deputy Chairman	8 594
Change in 2018	6 525
Maarit Aarni-Sirviö	32 437
Change in 2018	22 155
Kaj-Gustaf Bergh	30 103
Change in 2018	20 599
Karin Falk	3 007
Change in 2018	2 535
Johan Forssell	3 007
Change in 2018	2 535
Risto Murto	8 947
Change in 2018	6 495
Markus Rauramo	16 609
Change in 2018	11 603

\* The changes in holdings reflect the increased number of shares resulting from the share issue without payment (share split), which was approved by the Annual General Meeting on 8 March 2018.

# Risks and risk management

## The aim and principles of risk management

Wärtsilä, like any other company, is exposed to various risks through the normal course of its activities. No business can be conducted without accepting a certain level of risk, and any expected gains from business activities are to be assessed against the involved risks.

The purpose of risk management is to ensure that Wärtsilä is able to effectively execute its strategies and to reach its targets, in the short term as well as over the long run. The key is to identify those risks that have the potential to restrain the company from reaching its goals, and to determine whether such risks are at an acceptable level.

By definition, risk is the effect of uncertainty on objectives. An effect is a deviation from the expected — positive or negative; in other words, either a threat or an opportunity. Actions need to be taken to avoid, mitigate, transfer, or monitor identified risks, or to capture and utilise the opportunities. Wärtsilä's structured risk management process offers a set of reactive, proactive, protective, and preventive tools that are used not only to protect it against threats, but also to turn some of the risks into opportunities.

Risks can only be managed if they are identified and understood in advance, if risk treatment plans for managing them are made, and if a process of continuous follow-up is in place for the related controls. Therefore, risk management is a central part of Wärtsilä's strategic and operational management.

Risk management at Wärtsilä is a continuous process of analysing and managing all the opportunities and threats faced by the company in its efforts to achieve its goals, and to ensure the continuity of the business.

The basis for risk management is the lifecycle quality of Wärtsilä's operations and products, and the continuous, systematic loss prevention efforts at all levels of the Group, not only as an integrated part of management systems, but as part of every employee's daily work. In the long-term, this is the only means for reducing the overall risk related costs.

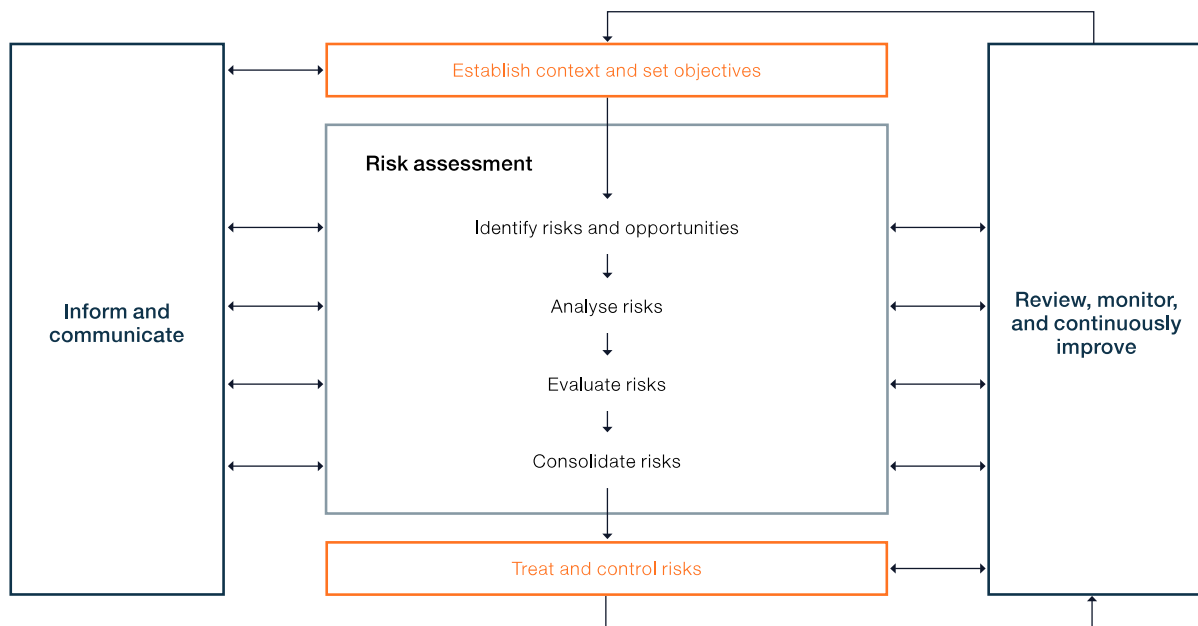
## The risk management policy and process

Wärtsilä has a corporate level risk management policy which defines and formalises the Businesses' risk management and reporting procedures. The document acts as a risk management guideline generating a common understanding over risk related concepts. It harmonises and structures the way of working with respect to risk management within the group in order to achieve a process whereby the risks identified are measurable and possible to consolidate. The policy brings consistency to risk management practice, and provides a structure for the organisation and Businesses to handle day-to-day risk management tasks in accordance with the agreed processes. It also provides a unified vocabulary to provide further guidance with respect to generic terms and definitions relating to risk management.

The Businesses are responsible for the risks and rewards, and thus managing risks is in the responsibility of Business Management teams and individual managers. The risk management process controls exposures to risk by using systematic mapping, assessment, treatment, reporting, monitoring and control of risks, including the reporting of residual risks. Wärtsilä's risk management process is based upon the ISO 31000 Risk Management Guidelines and Principles, and the vocabulary of ISO 31000 has been adopted in order to streamline risk related communication within the Group.

The risk management process at Wärtsilä is embedded in Wärtsilä's culture and practices, and has been tailored to fit the business functions and processes of the organisation. The process can be seen as a continuous loop consisting of the repetitive steps of context establishment, risk assessment, risk treatment, communication and consultation, and finally monitoring and review.

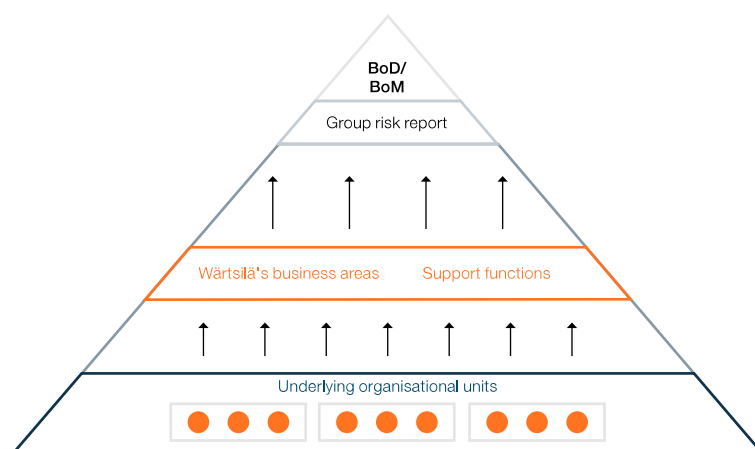
### Risk management guidelines and principles



### Implementation

The Board of Directors and the Board of Management decide and set the guidelines on strategic matters. The Businesses are responsible for achieving their set strategic goals, and for mitigating and managing their risks. The Corporate Risk Management function is part of Group Treasury, which reports to the Chief Financial Officer. The function is responsible for the risk reporting process, and for conducting risk assessments with the Businesses and their underlying organisations. It co-ordinates all risk management activities within the Group, reviews the business risk profile, and cooperates with the Businesses in the implementation of risk mitigation work. It is also responsible for maintaining the Group risk management policy, and for describing the current way of working in relation to risk reporting. Furthermore, the Risk Management function develops and manages global and local insurance schemes for insurable risks. The Audit Committee reviews and assesses the adequacy of risk management, while the Internal Audit function is responsible for reviewing the risk management process on an annual basis.

### Risk reporting



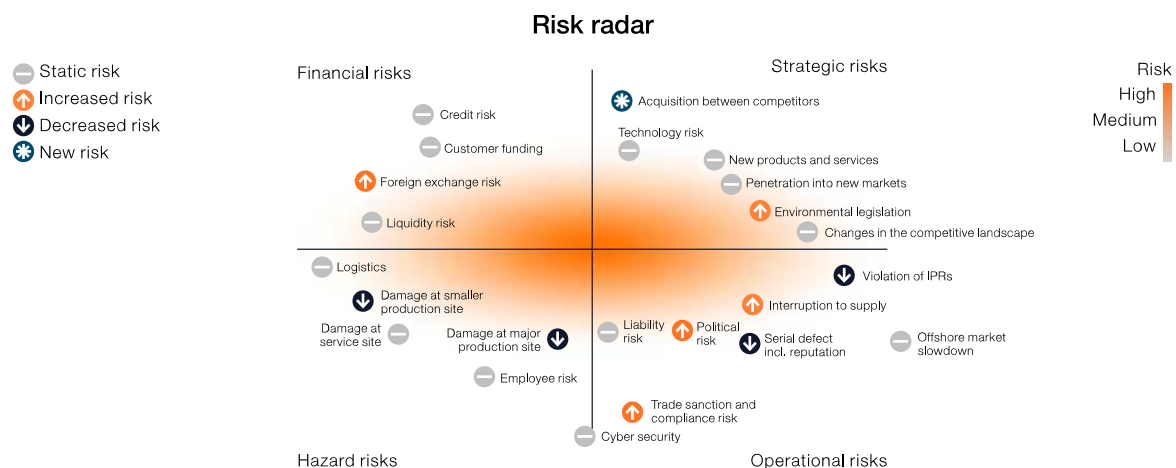
Risk mitigation actions are decided in the normal course of business. At its meetings, the Board of Management conducts annual management reviews for each Business and certain main support functions, addressing also their risks and risk mitigation. The identified risks are labelled as either internal or external; they are quantified in euro, and their probabilities are estimated. The Group risk report is then prepared and presented to the Board of Directors.

Risk management is part of the Businesses' management process and has been integrated into the Business Management teams' agenda. The Businesses are accountable for organising and reporting on risk management from their underlying geographical business areas, business lines, organisations, and product centres. All follow-up actions are also the Businesses' responsibility.

### Risk categories

The relevant risks for Wärtsilä have been classified under four categories; strategic, operational, hazard, and financial risks. The potential loss expectancy is highest with strategic and operational risks and lowest with hazard and financial risks. The risks in most of the categories can have both upside and downside impacts. In this regard, hazard risks are an exception, since for them only a negative effect is possible.

Risk radars are used to map the main risks within the risk categories in the annual risk assessment workshops between the Businesses and the Corporate Risk Management function. During recent years, a similar risk mapping process has also been adopted by certain main support functions, such as HR and the Group Treasury. Business or function specific risk radars are generated for the use and evaluation of the Business Management teams, and are reviewed and updated by them on a regular basis. The Business specific radars are consolidated into a single Group Risk Radar, which is presented to the Board of Directors and the Audit Committee once a year. The purpose is to facilitate the discussion on risk and to give a quick overview of where priorities should lie in terms of risk management.



### Strategic risks

Strategic risk assessment is part of the strategic planning process within the Group. At Wärtsilä, a risk is defined as strategic if it has the potential for imposing a long-term impact on the business.

### Business environment risks

Business cycles in the global economy, and in customer industries, influence the demand for Wärtsilä's products, as well as its financial condition and operating result. The flexible manufacturing model based on capacity outsourcing, together with a stable business mix and a large share of sales deriving from service activities, provides Wärtsilä with a certain level of stability in a cyclical market. Important economic matters that indirectly affect Wärtsilä, its clients, and suppliers include inter alia, the liquidity and solvency of financial institutions, and thus not only their capability but also their willingness to extend credit, the counter cyclical stimulus programmes adopted by governments – especially in the power and infrastructure sectors, the enhanced activities of multilateral institutions,

such as the International Finance Corporation, the availability of export credit schemes and guarantees, and other such factors. Wärtsilä's relatively large order book gives the company time to adapt to changes in market conditions.

The implementation of more stringent environmental regulations is important for Wärtsilä's future growth potential, since the company's comprehensive portfolio of products and services allows customers to meet such stricter requirements. A delay in legislation implementation may present a risk to Wärtsilä, and possible changes in the legislation timeline and scope are, therefore, actively monitored.

Energy storage is emerging as a disruptive technology that changes the paradigm of power systems, and Wärtsilä is strongly participating in these new market developments. Rapid deployment of new technologies can create new risks related to managing complex hybrid installations in an optimal way. Wärtsilä's Greensmith Energy Management System (GEMS) is proven to be an efficient and stable software to control and operate complex systems, which gives Wärtsilä a competitive advantage in managing the related risks.

## Market and customer risks

Wärtsilä's mid- and long-term service activities are expected to grow in line with the development of the existing installed base and general global economic developments. Therefore, a slowdown in global growth represents the primary risk for the development of service demand. Wärtsilä has more than 12,000 individual customers engaging in service and spare part sales annually, and the current active base of installed Wärtsilä engines has a combined output of approximately 180,000 MW. Thus, dependency on any single customer or customer segment is limited.

In the energy markets, there is a global shift towards more sustainable energy sources. The rapidly changing market environment has impacted the speed of customers' decision-making, as the changes require the updating of their future portfolio strategies. Electricity demand is increasing in emerging markets, while fragile economic growth in developed countries represents a risk for demand development. Geopolitical tensions and significant currency fluctuations can result in investment decisions being postponed in certain countries. Low oil prices have a similar impact in the oil and gas producing countries. Price pressure resulting from the challenging competitive environment remains a risk. Orders have been received from all geographic regions, thus limiting the risk of dependence on one particular market. Wärtsilä's three customer segments, namely industrial customers, IPPs (independent power producers) and utilities, were also all represented in the order intake.

Wärtsilä is well represented in all the major shipbuilding markets, and is active in all the main vessel segments. This, along with the large product portfolio, mitigates both geographical and single customer risks. Conditions in the marine markets improved in 2018. However, challenges resulting from the uncertainty in the shipping and shipbuilding business environment continued to affect markets. Consolidation in the market continued during the year, leading to a decreasing number of major shipbuilding customers. The shipbuilding market continued to be dominated by Asian yards, notably China and South Korea, but activity in Europe was also healthy thanks to developments in the cruise and special vessel segments.

Order book levels improved Wärtsilä's marine business during 2018, supported by the extensive product mix and broad segment exposure which compensated for the slow pace of recovery in worldwide marine order activity. The importance of fuel efficiency and environmental regulations are clearly visible, driving interest in environmental solutions, gas as a marine fuel, as well as electric/hybrid solutions. Contracting activities for exhaust gas cleaning solutions offered by Wärtsilä increased significantly during the year. This created both an opportunity for a steep increase in the volume of delivered exhaust gas cleaning systems, and a recognised risk to manage and deliver the demanded orders on time and with the required quality.

Digitalisation has become increasingly important for the shipping industry's business and operating models. Wärtsilä, with its Smart Marine strategy, took further steps to become an important and leading player in the digital transformation of future shipping markets with internal digital development programmes, and with the acquisition of Transas.

## Competitive situation and price risks

In services, Wärtsilä has no direct competitors capable of offering a similar portfolio of services from a single source. Excluding the networks of other engine manufacturers, there are few global players in the service market. The continued focus of customers on optimising operating expenditures can lead to an increase in competition for services where price is more important than quality. The main action for mitigating this risk is to promote the value-based offering.

In larger gas-fired projects, Wärtsilä faces competition from gas turbine manufacturers, such as GE and Siemens. In smaller gas power plant projects, and in the liquid fuel power plant market, the competitors are mainly other combustion engine suppliers, such as MAN Energy Solutions, INNIO (previously GE Jenbacher), Caterpillar (MAK), and Rolls-Royce. Price pressure resulting from the prevailing competitive environment remains a risk. In Wärtsilä's addressable market, i.e. the market for installations of up to 500 MW, orders for natural gas and liquid fuel power plants totalled 20.8 GW during the twelve months ending in September. Wärtsilä's market share was 13%. Wärtsilä's success in the market can be attributed to its flexible power generation solution, which can be used in a wide range of different applications and power plant sizes.

In the marine equipment markets the competitive landscape remained largely unchanged in 2018. The most significant competitors in the main engine markets are MAN Energy Solutions and Caterpillar (MAK). Wärtsilä has a strong position in medium-speed main engines with a 48% market share in 2018. In auxiliary engines, Wärtsilä's market share was 14%. In propulsion equipment, the competition is more fragmented and varies by product category. One of the main competitors for these products is Rolls-Royce. In environmental solutions, as well as in gas products, the markets are very fragmented. Alfa Laval and Evac are two of the main competitors in environmental solutions, while in the Electrical and Automation segment Wärtsilä faces competition from companies such as Kongsberg, GE and Siemens. Price competition has continued to be intense in the marine markets. The strategic move of becoming a systems integrator with automation and ship design capability has proven to be an important factor in the competition for new projects with larger and more value-added scopes. The concept of selling packaged solutions reduces price volatility.

## Political and legislative risks

Wärtsilä is present in over 200 locations in more than 80 countries and has delivered power plants to 177 countries. Political developments and changes in legislation can have a significant impact on Wärtsilä's business. Wärtsilä actively monitors political and legal developments in its markets, and engages in dialogue with various official bodies on projects of importance to its operations and intellectual property rights. Much of this engagement takes place through interest groups and trade organisations. The company monitors political and legislative changes at both the corporate and subsidiary levels. Trade related tensions seen during 2018 have not had a significant impact on Wärtsilä.

In recent years, there has been increased regulatory activity by different governments worldwide, which has led to the need for emphasising due internal processes to ensure compliance. As an example, the continuing and changing trade sanctions were complied with and closely monitored during 2018. This has required increased internal efforts to ensure that adequate procedures are in place.

## Climate change and sustainability risks

Wärtsilä has assessed its sustainability risks, including climate change risks, in both its strategic and operative risk assessments. However, the risks were not found to be significant. The potential business risks related to sustainability, climate change, and Wärtsilä's products are in the areas of regulatory emission restrictions and changes in customer attitudes to using combustion engines and fossil fuels. The risks in environmental legislation changes are related to the complexity of the overall field of different emissions, the balance between commercially available fuels and their resulting emissions, available abatement technologies, the impact on overall energy efficiency, and the resulting financial feasibility of the various alternative ways to meet regulatory demands.

Being at the forefront of technological developments mitigates sustainability risks and gives Wärtsilä many opportunities arising from tightening environmental regulations. Over the years, Wärtsilä has worked continuously to improve the efficiency of its products, while at the same time seeking ways to reduce emissions. The fuel flexibility of Wärtsilä's products enables the utilisation of various fuels, including gas and those from renewable sources, while



their operational flexibility enables the installation of large capacity based wind and solar energy systems without hampering the reliability of the electricity grid. Wärtsilä has entered both the hybrid energy and energy storage businesses, representing a further step in providing customers with sustainable innovations that reduce carbon emissions. Wärtsilä’s technology also enables energy to be generated with a minimum use of water. The lack of fresh water is expected to be one of the major challenges facing the world in the future. In shipping, Wärtsilä can reduce the carbon footprint of vessels through optimised ship design, and with optimal propulsion solutions. Environmental solutions offer, among others, alternative technologies to reduce sulphur oxide (SO<sub>x</sub>) emissions and to treat waste and ballast water. In the energy markets, Wärtsilä’s Smart Power Generation concept supports the increase in low carbon power generation, including wind, solar, and natural gas fired plants. Wärtsilä offers several retrofit solutions for the after-sales market to reduce emissions and to increase fuel efficiency.

For more information, please see the [Sustainability section](#) in this annual report.

### Technology risks

Wärtsilä aims to increase the competitiveness of its solutions and manage technology risks and opportunities through solid R&D efforts and innovation. The development of new products is based on the strategic view of optimising lifecycle value for customers, and on reducing the lifecycle impact of developed technologies and products on the environment. This is achieved with modern and sustainable power solutions through, for example, gas solutions, environmental technologies, ship design, and electrical & automation solutions. As a technology leader, Wärtsilä places strong emphasis on emissions control, enhancing efficiency, and maintaining the cost competitiveness of its products. Connectivity and the utilisation of data to further optimise efficiency and unlock new customer values is becoming an increasingly important element of Wärtsilä’s development roadmap.



### Operational risks

Operational risk management is part of the daily work of the Businesses. Opportunities and risks are identified, assessed, and managed on a daily basis and reported to, and managed by, the appropriate management level. The status of these opportunities and threats are reviewed on a periodic basis and appropriate further actions are taken.

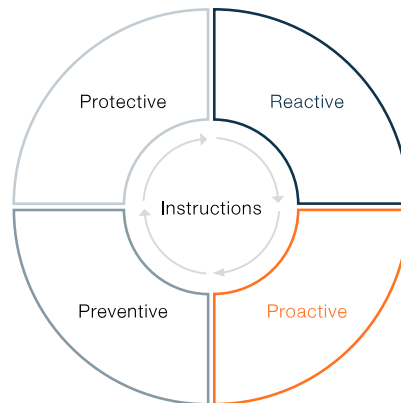
### Risk management process

**Protective**

- Financial reporting systems
- Risk based environmental management ISO 14001: 2015
- Internal control systems
- Occupational health and safety management, OHSAS 18001
- Supplier assessment system
- Sustainability reporting system
- Risk based quality management ISO 9001: 2015
- Other management systems

**Preventive**

- Quality systems
- Contract policies & payment terms
- Credit control
- Insurance risk surveys
- R&D risk elimination process
- Supplier audits
- WeCare near misses reporting system with corrective measures
- Risk management evaluation



**Reactive**

- Business continuity planning
- Global and local insurance schemes
- Risk reporting following the ISO 31000
- Crisis management
- Business Agility

**Proactive**

- Risk map
- Business risk assessments
- Code of conduct
- Policies & guidelines
- Safety instructions
- Sales Contract Policy
- Supplier information monitoring

### Manufacturing risk

Wärtsilä constantly analyses its manufacturing footprint and capacity costs, including costs related to the supply chain. Risk assessments have been made for all the main delivery centres, and significant safety, environmental impact, and risk mitigation investments have been completed. Risk identification, assessment, and mitigation actions are executed on a regular basis as part of operational management. Management systems for quality, environmental, occupational health and safety, and other systems are utilised to improve productivity, while safety and business continuity plans have been implemented for the key delivery centres.

### Supplier and sub-contractor risk

Wärtsilä's supply management is integrated within the business lines. The aim is to work in partnership with the supplier base to create value for Wärtsilä's customers by ensuring quality, on-time delivery, and the lowest total cost. In order to ensure coordinated interfaces and synergies for the cross-divisional supplier base, a category management structure has been in place since 2007. Indirect Purchasing remains a centralised function responsible for managing strategic sourcing activities for indirect materials and services in all businesses and support functions.

The supply management units have a unified process for managing and controlling Wärtsilä's supplier network, and for verifying that the suppliers' performance meets Wärtsilä's expectations. Supplier performance is, therefore, continuously measured. A key activity in managing business continuity planning is the regular assessment of business interruption risks, which is carried out in cooperation with the company's suppliers. Several supplier risk audits have been completed jointly with the insurer as one means of mitigating risk. These audits are now one of the regular tasks for the supply category managers and the Risk Management function.

Wärtsilä has developed its supply related activities by creating close collaboration and long-term relationships with its main suppliers. This co-operation creates a common view towards values and goals, which in turn supports the management of Wärtsilä's strategic risks. To further mitigate supplier and sub-contractor risks, a comprehensive follow-up of suppliers' credit worthiness has been established. Supplier related risks for key components are mitigated by establishing dual- or multi-sourcing.

During 2018, Wärtsilä first piloted and then took into use an online solution for supply chain risk identification, assessment and monitoring. More than 2,000 suppliers have been, and continue to be, followed through the system since mid-2018. The solution includes a selection of Wärtsilä defined key criteria against which the situation of each supplier is continuously measured. Any discrepancies are automatically reported to the responsible category manager who is responsible for ensuring that the necessary steps, if any, are taken to mitigate the risk. Also the first steps in supply chain cyber security assessment were taken during 2018.

## Lifecycle quality of products and product liability risk

The launching of new products always involves risks. In the R&D process, several risk management techniques are applied, including the risk elimination tool FMEA (Failure Modes and Effects Analysis) and in-house validation testing. Wärtsilä seeks to control quality risks by monitoring the incoming quality of the supply chain, and by designing and manufacturing its products with all due care. A non-destructive robotic ultrasonic data analysis procedure, which replaces manual scanning of critical components, enhances the probability of detecting imperfections in components with a complex geometry.

Wärtsilä applies a GATE model in order to control the product development process. Initially, only a limited release of new products is allowed, and via the gate approach, full release authority is given to the sales organisations only after testing and further validation has been completed.

As part of the on-going digital transformation, a so-called 'agile' way of working has been adopted in the Digital organisation, which allows Wärtsilä to test new ideas and business models quickly in order to promptly adapt to changing market needs. This approach is used for conceptualisation to avoid the risk of losing business opportunities, while products continue to go through the established GATE procedure. Thus, the two models complement each other and are used in different contexts within the organisation.

Wärtsilä seeks to control its manufacturing quality risks by applying several assurance and quality control principles. The level of quality assurance and control requirements are determined based on component criticality, and they are applied throughout the delivery chain.

Requirement management is used to assess components systematically, enabling the allocation of resources and efforts according to the component criticality. The ranking criteria indicates the consequence if a component fails. The objective is to improve quality proactively within product development, supply management, and the entire delivery process from order intake to commissioning.

Nonconformity management at Wärtsilä focuses on developing and improving operations by registering and handling detected nonconformities. This ensures that customers receive products and services according to the agreed scope and specifications. Efficient handling, monitoring, and review of nonconformities is crucial for proper risk management and mitigation.

Product improvement management (issue resolution) projects are prioritised based on risk and importance. This happens when Wärtsilä identifies a technical issue according to claim statistics, customer feedback, or internal analysis and the case fulfils the risk categorisation for a non-isolated case.

The business lines are responsible for supporting customers in all warranty issues. This offers a feedback loop from the field to production and R&D, while taking care of the customers' installations throughout their lifecycle. The company makes warranty provisions to cover any costs that may arise after product delivery. The company's product liability insurance covers unexpected damages.

Wärtsilä seeks to continuously improve the quality of its products and services through the adoption of best industry practices and good governance. Management at all levels is responsible for the quality of output from their organisations, and is accountable for ensuring that appropriate review and feedback mechanisms are in place. The centralised Wärtsilä Quality function is responsible for coordinating quality activities across the businesses, and for ensuring that senior governance mechanisms are in place and effective. Wärtsilä's Business level management systems are certified according to 2015 standard revisions (ISO 9001:2015 and ISO 14001:2015) with an emphasis on a risk based approach and proactive risk and opportunity management.

## Contractual risks

Wärtsilä's non-service sales include projects and equipment supply deliveries of various sizes. The most substantial orders concern power plants delivered on a complete EPC (engineering, procurement, and construction) basis. However, in relation to the total volume of business, the risks from individual projects do not reach significant levels. The risk of product liability claims is reduced through the lifecycle quality of the products and work, starting from the

initial design, through all stages of the production process, to the eventual field service activities, and the use of standard sales contracts, including the establishment of a contract review process.

In service activities, contractual risk is related mainly to long-term agreements and service projects, such as engine upgrades, retrofits or modifications. These offerings represent approximately 25% of all service activities, but the risks connected to individual contracts do not reach significant levels since the business between the various customers and countries is broadly spread. In addition, both offerings follow a well-defined sales process, thereby bringing multiple control points to observe embedded risks and to plan their control, both in contractual measures as well as in execution.

## Risk of non-compliance, corruption and fraud

Wärtsilä complies with the law and its own internal policies and procedures everywhere the company does business. Wärtsilä's Code of Conduct is the key guideline for all employees globally. Wärtsilä is committed to high ethical standards and integrity, and to preventing corruption and violations of the principles set forth in the Code of Conduct, as well as in Wärtsilä's Anti-Corruption and Compliance Reporting policies. Compliance processes are embedded in all of the Businesses, and the responsibility for compliance and awareness of ethics and integrity is that of all Wärtsilä employees. Wärtsilä is fully committed to compliance with anti-corruption laws and statutes. Wärtsilä's Anti-Corruption Policy absolutely forbids any kind of corruption and bribery, and the top management of the company has a zero-tolerance policy regarding corruption and fraud.

The Compliance function promotes Group wide compliance and continuously strives to raise awareness of the risk of corruption and bribery and other misconduct. It is primarily responsible for creating and enforcing Group level policies and procedures, training programmes, internal compliance investigations, managing the consequences of misconduct, and reporting. The continuous development of Wärtsilä's compliance programme and nurturing the company's commendable ethical culture are pivotal tasks for the Compliance function. Moreover, Compliance supports and co-operates with the Businesses and other corporate functions in their risk management efforts. Wärtsilä has a Group-wide programme for strengthening its Code of Conduct which aims to increase employees' understanding on how the Code of Conduct impacts the everyday work at all Wärtsilä locations, wherever Wärtsilä operates. In 2018, Wärtsilä took into use an externally hosted new channel for reporting potential misconducts.

While Wärtsilä is aware of the risk of being subject to fraud by external business parties, and that the risk of corruption and fraud is heightened in many markets where the company operates, Wärtsilä maintains its highly ethical practices at all times. Full compliance with its stringent anti-corruption regime, including policies to prevent the corruption and bribery risk of third parties, is demanded by Wärtsilä.

## Cyber & information security related risks

Wärtsilä has an experienced and professional internal organisation dedicated to the effective management of cyber security risks across Wärtsilä's portfolio. This organisation, in co-operation with Wärtsilä's Business Management teams, delivers cyber security operational support. It also provides the associated governance, risk management, and assurance required to support and enable both safe and secure internal operations, while securing that customer offerings by the Businesses are compliant with the relevant regulations and applicable standards, both now and in the future.

The Wärtsilä cyber security governance model aligns closely with wider business risk management and supports the Businesses in identifying and prioritising their respective cyber security risks. The cyber security team works seamlessly with physical security colleagues across Wärtsilä to ensure the effective and coordinated delivery of holistic security solutions for both the cyber and physical domains.

Information security risks related to Wärtsilä's internal operations are continually identified, analysed and evaluated. The attendant mitigation activities are executed across Wärtsilä's networks, endpoints, systems and services. The 24/7 Wärtsilä Security Operations Centre continually monitors the perimeter to internal systems and closely observes the external threat exposure level, whilst providing a coordinated response to identified information security incidents, as and when they may occur.

The effective mitigation of the risks associated with cyber security hygiene throughout Wärtsilä are continually and progressively being reinforced through coordinated and complementary cyber security training, awareness initiatives and extensive communications. This involves all Wärtsilä corporate functions and the Businesses.

Recognising the ever-present and increasing cyber security risks to our customers in the maritime industry, Wärtsilä has developed, in close partnership with a leading cyber security provider, a world-leading maritime cyber emergency response capability based in Singapore. This service puts thought leadership into tangible action, and places Wärtsilä at the forefront in mitigating the cyber security risks to its customers.

## Commodity price risk

### Oil

The direct effect of oil price changes on Wärtsilä's production is limited, with their impact being mainly demand related. Higher oil prices represent a risk for global economic growth and increase operating costs, especially in the shipping markets. However, they also stimulate investments in exploration and production for oil and gas, both on land and offshore. Furthermore, high oil prices increase investments in gas carriers, gas-based power plants and, increasingly, also in gas-fuelled vessels. Low oil prices can delay investment decisions in oil producing countries and regions, as well as in the offshore industry. Wärtsilä is a global company involved in different shipping and power plant segments where oil price changes can have an opposing impact on demand drivers. This position is further diversified by the increasing importance of natural gas in Wärtsilä's business.

### Metals

Metal prices have an indirect effect on the component costs of Wärtsilä's products. Furthermore, some key components are sourced with long-term contracts, and thus raw material price volatility is limited.

### Electricity

Electricity prices have no substantial impact on Wärtsilä's production costs. In the energy markets, high electricity prices support investments in new capacity by utility customers. Lower grid electricity prices do not favour investments in their own generating capacity by industrial customers.

## Hazard risks

Occupational health and safety systems, travel safety instructions, and crisis management guidelines are aimed at protecting Wärtsilä employees. Appropriate insurances are in place for the personnel, and to emphasise the importance of employee safety, the Board of Management has decided on a corporate level target of zero lost-time injuries. A specific Zero Injury project exists for this purpose, and the target is included in the company's sustainability programme. During 2018, the near-miss reporting system, WeCare, was actively used worldwide in order to manage information related to incidents that can threaten the safety, health and security of the company's employees and operations, as well as the environment. This IT solution provides a guide for identifying the causes of incidents, and for taking all appropriate actions in a systematic way.

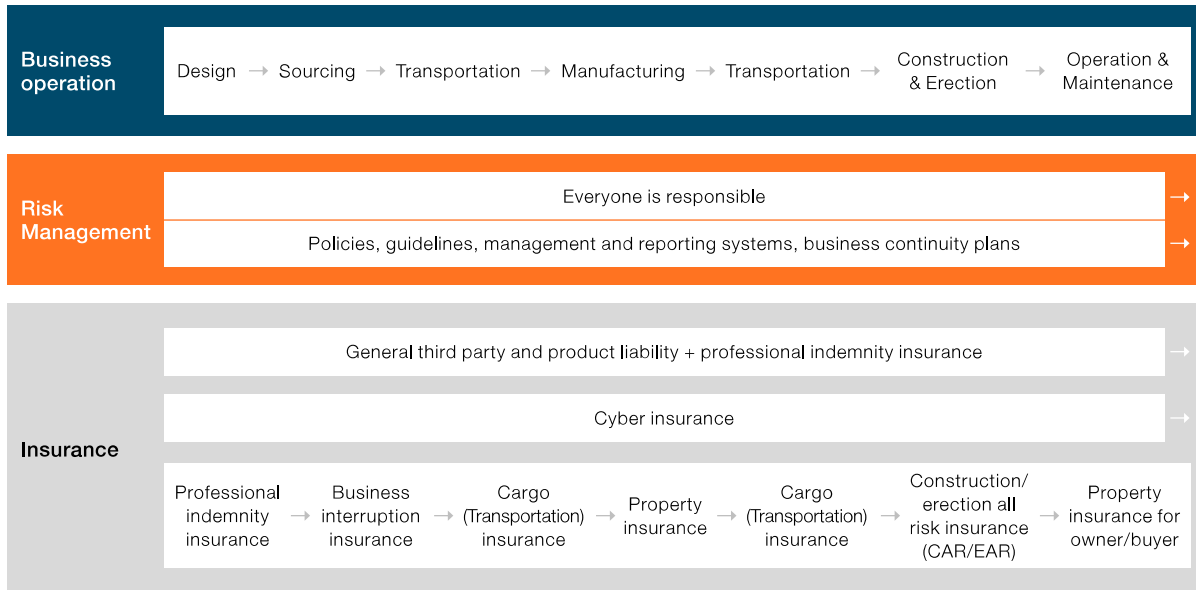
Environmental management systems are in place to mitigate environmental hazard risks. Wärtsilä maintains a register of all properties used and gives guidelines for the purchase, sale, rental and security of premises, and uses external advisors for environmental audits.

None of Wärtsilä's major facilities are located in natural disaster areas. Catastrophic peril related scenarios are identified and, where necessary, exposures are mitigated by, for example, elevating sites above the flood risk level or by constructing flood dikes. For Wärtsilä's main sites, business impact analyses have been conducted and continuity plans created to cover both property and business interruption risks.

The risks that Wärtsilä is unable to influence through its own efforts are transferred whenever possible to insurance companies. Wärtsilä uses appropriate insurance policies to cover indemnity risks related to its personnel, assets, and business interruptions; including supplier triggered interruptions, as well as third-party and product liability. Wärtsilä has established its own captive insurance company, Vulcan Insurance PCC Ltd. This risk management tool only insures Wärtsilä's own risks. For insurance technical reasons the company is located on the island of Guernsey.

Vulcan Insurance PCC Ltd's results are consolidated into the corporation's books and are subject to normal taxation in Finland.

### Which insurances cover our business?






Both risk management work and casualty insurance cover Wärtsilä's products over their entire lifecycle.

### Financial risks

Wärtsilä's financial risks are presented in the notes to the financial statements, [Note 31](#).

## Risk profiles and responsibilities

Low  High

Risks	Risk profile	Policy or other guideline	Responsible body
<b>Strategic risks</b>		Wärtsilä's strategy and business plans	Wärtsilä's Board of Directors (BoD), Board of Management (BoM) and Businesses
Business environment risk		Wärtsilä's strategy and business plans	BoM and Businesses
Market and customer risk		Wärtsilä's strategy and business plans	BoM and Businesses
Competitive situation and price risk		Wärtsilä's strategy and business plans	BoM and Businesses
Political and legislative risk		Various guidelines and risk management policy	Businesses, R&D, Risk management (RM) and Legal functions
Climate change and sustainability risk		QHSE policy, Code of Conduct, management systems (ISO 14001 & OHSAS 18001)	Businesses, R&D and Sustainability function
Technology risk		Patents and industrial rights, product guarantees	Businesses and R&D
<b>Operational risks</b>		Wärtsilä's strategy and business plans	BoM and Businesses
Manufacturing risk		Production systems, Business Continuity Plan	Manufacturing and Businesses
Supplier and subcontractor risk		Supplier requirement and supplier management system, Business Continuity Plan	Businesses and Supply Management
Lifecycle quality of products and product liability risk		Management systems (ISO 9001), safety instruction and manuals, risk management policy, R&D risk elimination instructions	Manufacturing, R&D, Businesses, RM, Quality and Legal functions
Contractual risks		Standard contracts, Corporate Sales Contracting Policy	Legal function and Businesses



Commodity price risk	■	Production cost control	Businesses and Treasury function
Data security risk	■	Data security principles and Cyber Security Strategy	Businesses and IM function
Non-compliance risk	■ ■	Code of Conduct, Anti-corruption policy, Compliance policy, Whistle-blowing channel	Businesses and Compliance function
<b>Hazard risks</b>		Risk management policy and guidelines	Businesses and RM function
Personnel risk	■	Management system (OHSAS 18001), travel safety instructions, crisis management guidelines, near misses reporting and premises safety plans	Businesses, Human Resources, RM, EHS and security functions
Natural catastrophes	■	Crisis management guidelines, Business Continuity Plan	Businesses and RM function
Fire, cargo and other accidents	■ ■ ■	Management systems (ISO 14001 & OHSAS 18001), premises safety plan	Businesses, RM and Real Estate functions
<b>Financial risks</b>		Wärtsilä's strategy and business plans	Businesses and Treasury function
Foreign exchange risk	■ ■	Treasury policy	Businesses and Treasury function
Interest rate risk	■ ■	Treasury policy	Businesses and Treasury function
Liquidity and refinancing risk	■ ■	Treasury policy	Businesses and Treasury function
Credit risk	■ ■ ■	Credit and Treasury policy	Businesses and Treasury function

Low ■■■■■ High





Investors



# Investors

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## Shares

Wärtsilä Corporation's shares are listed on the Nasdaq Helsinki Large Cap list under the trading code WRT1V. Wärtsilä's Annual General Meeting, held on 8 March 2018, approved the Board of Directors' proposal to issue new shares to the shareholders without payment in proportion to their holdings so that two new shares are issued for each share. Thereby, a total of 394,482,260 new shares were registered in the trade register on 12 March 2018, bringing Wärtsilä's total number of shares to 591,723,390. The share capital entered in the trade register was EUR 336,002,138.50 at the end of the financial period 2018. Wärtsilä has one share series, with each share entitling its holder to one vote at the General Meeting and to an equal dividend.

### Key figures for the Wärtsilä share

		2018	2017	2016	2015	2014
Earnings per share (EPS)*	EUR	0.65	0.63	0.60	0.75	0.59
Book-value of equity per share*	EUR	4.09	3.97	3.87	3.72	3.31
Dividend per share*	EUR	0.48 <sup>1</sup>	0.46	0.43	0.40	0.38
Dividend per earnings	%	73.7 <sup>1</sup>	70.8	72.8	53.3	65.4
Dividend yield	%	3.5 <sup>1</sup>	2.6	3.0	2.8	3.1
Price per earnings (P/E)		21.4	27.0	23.8	18.8	21.1
Price to book-value (P/BV)		3.4	4.4	3.7	3.8	3.7
Adjusted number of shares*	x 1 000					
End of financial year		591 723	591 723	591 723	591 723	591 723
On average		591 723	591 723	591 723	591 723	591 723

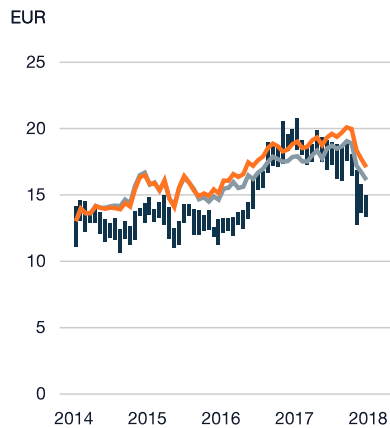
<sup>1</sup> Proposal of the Board of Directors.

\* The figures in the comparison periods have been restated to reflect the increased number of shares.

### Wärtsilä's shares on Nasdaq Helsinki

Wärtsilä's share price decreased by 20.8% during 2018, while the OMX Helsinki Industrials and the OMX Helsinki Cap index decreased by 17.6% and 7.7% respectively. The highest quoted price for Wärtsilä's share during the financial period was EUR 19.88 and the lowest EUR 12.75. The closing price on 31 December 2018 was EUR 13.90 and the volume weighted average price for the year was EUR 17.04. At year-end, Wärtsilä's market capitalisation was EUR 8,222 million. The volume of trades on Nasdaq Helsinki was 278,938,159 shares, equivalent to a turnover of EUR 4,754 million. Wärtsilä's shares are also traded on alternative exchanges, including Turquoise, BATS CXE and BATS BXE. The total trading volume on these alternative exchanges amounted to 226,474,065 shares. Further information on the company's share price development can be found on Wärtsilä's IR pages at [www.wartsila.com/investors](http://www.wartsila.com/investors).

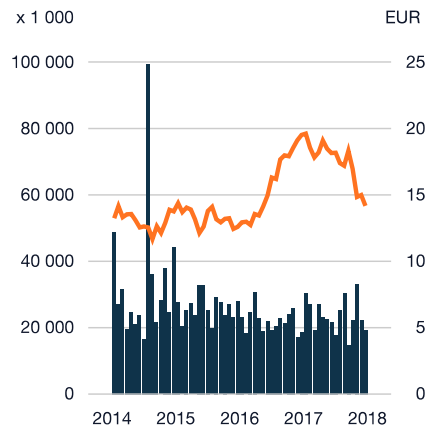
### Share price development



■ WRT1V high/low  
 — OMX Helsinki  
 — OMXHCAP

Figures have been restated to reflect the increased number of shares.

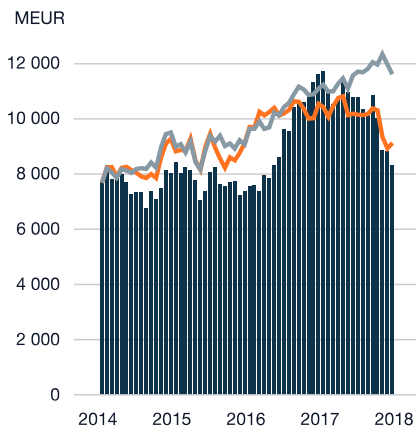
### Traded shares/month



■ WRT1V  
 — Average share price, WRT1V

Figures have been restated to reflect the increased number of shares.

### Market capitalisation



■ Monthly average, WRT1V  
 — OMX Helsinki  
 — OMXHCAP

## Wärtsilä shares on Nasdaq Helsinki

		2018	2017	2016	2015	2014
Trading volume	MEUR	4 754	4 800	3 826	4 529	5 114
Number of traded shares*	x 1 000	278 938	268 222	296 611	341 211	397 575
Stock turnover	%	47.1	45.3	50.1	80.0	67.2
Share price, high*	EUR	19.88	20.77	14.48	14.99	14.61
Share price, low*	EUR	12.75	13.97	11.30	11.07	10.62
Average share price*	EUR	17.04	17.90	12.89	13.28	12.70
Share price at year-end*	EUR	13.90	17.53	14.23	14.05	12.36
Year-end market capitalisation	MEUR	8 222	10 375	8 418	8 314	7 315

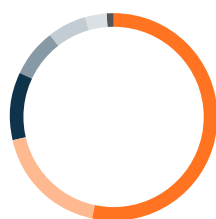
\* The figures in the comparison periods have been restated to reflect the increased number of shares.

## Shareholders

Wärtsilä had 49,382 shareholders at the end of the financial period 2018. Foreign shareholding, including nominee registered shares, represented 54.5% (55.9) at the end of the period, and Finnish retail investors held 17.9% of the share capital (17.7). Further information concerning the company's shareholder base development can be found on Wärtsilä's IR pages at [www.wartsila.com/investors](http://www.wartsila.com/investors).

## Ownership structure on 31 December 2018

Group	Number of shareholders	%	Number of shares	%
Private corporations	1 902	3.9	45 119 958	7.6
Banks and insurance companies	113	0.2	19 114 087	3.2
Public sector entities	50	0.1	63 271 820	10.7
Non-profit organisations	923	1.9	35 947 203	6.1
Households	46 003	93.2	105 685 525	17.9
Outside Finland	391	0.8	5 911 228	1.0
Nominee registered			316 673 569	53.5
<b>Total</b>	<b>49 382</b>	<b>100.0</b>	<b>591 723 390</b>	<b>100.0</b>

Ownership structure  
31 December 2018

<span style="color: orange;">■</span>	Nominee registered, 53.5% (37.2)
<span style="color: lightorange;">■</span>	Households, 17.9% (17.7)
<span style="color: darkblue;">■</span>	Public sector entities, 10.7% (10.2)
<span style="color: grey;">■</span>	Private corporations, 7.6% (7.7)
<span style="color: lightgrey;">■</span>	Non-profit organisations, 6.1% (6.3)
<span style="color: lightgrey;">■</span>	Banks and insurance companies 3.2% (2.2)
<span style="color: black;">■</span>	Outside Finland, 1.0% (18.7)

## Division of shares on 31 December 2018

Number of shares	Number of shareholders	%	Number of shares	%
1-100	10 133	20.5	496 145	0.1
101-1 000	22 281	45.1	9 385 351	1.6
1 001-10 000	14 625	29.6	45 286 471	7.7
10 001-100 000	2 153	4.4	52 897 482	8.9
100 001-1 000 000	170	0.3	44 896 460	7.6
1 000 001-10 000 000	17	0.03	46 685 304	7.9
10 000 001-	3	0.006	75 402 608	12.7
Nominee registered			316 673 569	53.5
<b>Total</b>	<b>49 382</b>	<b>100.0</b>	<b>591 723 390</b>	<b>100.0</b>

## Wärtsilä's 50 major shareholders on 31 December 2018, excluding nominee registered

The largest shareholder was Investor AB with 104,599,632 shares or 17.7% of the share capital at year-end. Investor AB's shares are included in the nominee register and therefore not visible in the below table.

Owner	Shares	%
1 Fiskars Corporation	32 645 343	5.52
2 Varma Mutual Pension Insurance Company	30 780 522	5.20
3 Ilmarinen Mutual Pension Insurance Company	11 976 743	2.02
4 The Social Insurance Institution of Finland	5 807 730	0.98
5 Elo Mutual Pension Insurance Company	5 150 000	0.87
6 Svenska Litteratur-sällskapet i Finland rf	4 554 777	0.77
7 State Pension Fund	3 920 000	0.66
8 Keva	3 831 981	0.65
9 Op-Suomi -Sijoitusrahasto	3 115 798	0.53
10 The Finnish Cultural Foundation	2 920 440	0.49
11 Jenny and Antti Wihuri Foundation	2 700 000	0.46
12 Sigrid Jusélius Foundation	2 359 505	0.40
13 Schweizerische Nationalbank	2 007 488	0.34
14 Oy Ingman Finance Ab	1 650 000	0.28
15 Savox Investments S.a.	1 643 000	0.28
16 Rantanen Tuula Anneli	1 515 198	0.26
17 Mandatum Henkivakuutusosakeyhtiö	1 491 123	0.25
18 The Signe and Ane Gyllenberg foundation	1 463 664	0.25
19 Samfundet Folkhälsan i Svenska Finland rf	1 434 600	0.24
20 Holding Manutas Oy	1 120 000	0.19
21 Blåberg Olli Edvard	1 000 000	0.17
22 Louise och Göran Ehrnrooth Stiftelse sr	982 890	0.17
23 Livräntestalten Hereditas Ab	950 270	0.16
24 Sijoitusrahasto Nordea Suomi Passiivinen	866 787	0.15
25 Fromond Elsa Margaretha Louise	860 800	0.15
26 Folkhälsan i Svenska Finland rf Inez och Julius Polins Fond	838 800	0.14
27 Stockmann Marita	813 678	0.14
28 Sijoitusrahasto Aktia Capital	800 000	0.14
29 William Thuring's Stiftelse sr	770 750	0.13
30 Sijoitusrahasto Nordea Pro Suomi	712 485	0.12
31 Sr Danske Invest Suomi Yhteisöosake	710 000	0.12
32 Von Fieandt Berndt Johan	706 146	0.12



33	Åbo Akademi Foundation	688 880	0.12
34	Holdix Oy Ab	613 500	0.10
35	Sijoitusrahasto Seligson & Co	536 756	0.09
36	Seb Finlandia Sijoitusrahasto	519 408	0.09
37	Markkola Leena	519 370	0.09
38	Folkhälsans Forskningsstiftelse - Kansanterveyden tutkimussäätiö	516 204	0.09
39	Brita Maria Renlund Foundation	511 400	0.09
40	Säästöpankki Kotimaa -Sijoitusrahasto	500 075	0.08
41	Sijoitusrahasto Evli Suomi Select	500 000	0.08
42	Barry Staines Linoleum Oy	499 710	0.08
43	Perceval Ann-Marie Caussin De	498 840	0.08
44	Karlsson Anne Christine	480 000	0.08
45	Keskinäinen Vakuutusyhtio Kaleva	471 106	0.08
46	Brotherus Pia Monica	453 006	0.08
47	Ella and Georg Ehrnrooth Foundation	424 500	0.07
48	Tallberg Carl Johan	421 746	0.07
49	Odin Finland	409 896	0.07
50	Seligson & Co Suomi Indeksirahasto	389 413	0.07
<b>Total</b>		<b>141 054 328</b>	<b>23.84</b>

## Changes in ownership – flagging notifications

Under the provisions of the Finnish Securities Markets Act, shareholders of listed companies have an obligation to notify both the Finnish Financial Supervision Authority and the listed company of changes in their holdings when crossing predefined thresholds. The table below summarises the flagging notifications received by Wärtsilä during 2018. Further information can be found on Wärtsilä's website.

Release date	Transaction date	Shareholder	Threshold	Direct holding, %	Total holding, %
26.2.2018	23.2.2018	BlackRock, Inc.	Above 10%	9.88	10.04
28.2.2018	27.2.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.85	6.10
2.3.2018	1.3.2018	BlackRock, Inc.	Below 10%	7.13	9.98
8.3.2018	6.3.2018	BlackRock, Inc.	Above 10%	6.64	10.01
9.3.2018	8.3.2018	BlackRock, Inc.	Below 10%	6.60	9.97
14.3.2018	13.3.2018	BlackRock, Inc.	Above 10%	6.69	10.04
19.3.2018	16.3.2018	BlackRock, Inc.	Below 10%	8.22	9.66
22.3.2018	21.3.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.07	6.03
6.9.2018	5.9.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.75	5.78
28.9.2018	27.9.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.03	5.14
2.10.2018	1.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.9999	5.11
3.10.2018	2.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.04	5.16
5.10.2018	4.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.99	5.11
8.10.2018	5.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.04	5.11
16.10.2018	12.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.98	5.04
18.10.2018	16.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	-	-

23.10.2018	19.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	4.98	5.01
24.10.2018	22.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.005	5.029
25.10.2018	23.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	-	-

## Management holdings

The members of the Board of Directors, the President & CEO, the CEO's deputy, and the corporations under their control, owned altogether 205,703 shares in Wärtsilä Corporation at the end of 2018, which represents 0.03% of the stock and voting rights. Further details on the Board of Directors' and Board of Management's ownership of Wärtsilä's shares can be found in the [Corporate Governance](#) section.

## Authorisations granted to the Board of Directors

The Annual General Meeting, held on 8 March 2018, authorised the Board of Directors to resolve to repurchase a maximum of 57,000,000 of the Company's own shares. The authorisation to repurchase the Company's own shares shall be valid until the close of the next Annual General Meeting, however no longer than 18 months from the authorisation of the shareholders' meeting.

The Board of Directors was authorised to resolve to distribute a maximum of 57,000,000 of the Company's own shares. The authorisation for the Board of Directors to distribute the Company's own shares shall be valid for three years from the authorisation of the shareholders' meeting and it cancels the authorisation given by the General Meeting on 2 March 2017. The Board of Directors was authorised to resolve to whom and in which order the Company's own shares will be distributed. The Board of Directors was authorised to decide on the distribution of the Company's own shares other than in proportion to the existing pre-emptive right of the shareholders to purchase the Company's own shares.

## The Board of Directors' dividend proposal

The Board of Directors proposes that a dividend of 0.48 euro per share be paid for the financial year 2018. The dividend will be paid in two equal instalments.

## Wärtsilä on the capital markets

Wärtsilä's Investor Relations (IR) team, consisting of the CEO, CFO, IR Director, and IR Officer, participated in approximately 280 investor meetings during 2018. The team also maintained regular contact with equity research analysts throughout the year.

Meetings with institutional investors were conducted in North America, the United Kingdom, continental Europe, and in the Nordic countries. During the year, Wärtsilä's IR team held roadshows on 21 days and attended eight investor conferences. During the year, Wärtsilä's foreign ownership represented 54.5% (55.9) of the total shareholder base. Investors in Sweden, the United Kingdom and the United States held the largest percentage of foreign shares.

Wärtsilä's Capital Markets Day was held in May in Helsinki. Presentation topics covered the company's strategic focus areas for the energy and marine businesses, and growth opportunities for the coming years. The event was well-appreciated by nearly 70 institutional investors, equity analysts, and bankers in attendance. A further 67 persons participated via webcast.

During the year, Wärtsilä gave presentations at events aimed at domestic private investors. Such events included two hosted by Inderes and Nordea. In 2018, retail investors accounted for approximately 17.9% (17.7) of Wärtsilä's shareholder base.

## Wärtsilä's Investor Relations policy

The ultimate objective of Wärtsilä's Investor Relations is to produce accurate, sufficient, and up-to-date information regarding the development of Wärtsilä's business operations, strategy, markets, and financial position. This is to ensure that the capital markets have the relevant information concerning Wärtsilä in order to determine the fair value of the Company's shares. To achieve this objective, Wärtsilä publishes annually two interim reports, a half-year financial report, a financial statements bulletin, an annual report, and stock exchange releases. Furthermore, Wärtsilä's management conducts regular discussions with analysts and investors, both in Finland and abroad. Wärtsilä's web pages serve as an archive for all current and historical data on factors affecting the value of its shares.

## Prospects

Guidance on Wärtsilä's prospects is published in the financial statements bulletin, in the half-year financial report, and in the interim reports. The most recently published prospects statement is repeated in the annual report. The published prospect statement consists of expectations regarding demand development in Wärtsilä's markets, and it is approved by the Board of Directors. Wärtsilä does not publish quarterly result forecasts. Should there be a change in business circumstances that could affect the prospects, Wärtsilä will publish changes to the prospects in accordance with prevailing regulations.

## Analyst reports

Wärtsilä will review, upon request by an analyst, his or her earnings model or report only for factual accuracy, or information that is in the public domain. Wärtsilä does not comment on, or take any responsibility for, estimates or forecasts published by capital market representatives.

## Silent period

Wärtsilä observes a three-week silent period preceding the publication of its results to prevent the revealing of unpublished financial information. During this period, the Company's representatives do not meet with investors or analysts or comment on its financial position.

## Disclosure policy and financial communications

Wärtsilä discloses information on its goals, financial position, and business operations in an open, timely, truthful, and systematic manner so as to enable stakeholders to form a true and fair view of the Company. Wärtsilä publishes stock exchange releases, press releases, and trade press releases. Wärtsilä's subsidiaries publish press releases with local relevance.

Matters that contain inside information and may have a material impact on the value of the Company's financial instruments are published as stock exchange releases. Press releases contain information on events relating to Wärtsilä's normal business operations, which are assessed to be of general interest for investors and media. Releases to the trade press provide more detailed information on Wärtsilä's products and technologies. All stock exchange releases are published in Finnish, Swedish, and English. Press releases are published in English and can also be published in Finnish and Swedish. Trade press releases are published in English, and local releases in the local language. All releases are available on Wärtsilä's website immediately following publication.

## Contacts

Relations with the Company's investors and analysts are handled by IR Director Natalia Valtasaari, together with the IR team. General enquiries can be sent to [investor.relations@wartsila.com](mailto:investor.relations@wartsila.com).

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Wärtsilä's corporate communications are the responsibility of Atte Palomäki, Executive Vice President, Communications & Branding.

**Atte Palomäki**

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## Analysts

To the best of Wärtsilä's knowledge, the below listed brokers and financial analysts, follow the Company's development on their own initiative. They have analysed Wärtsilä's performance and drawn up reports and comments. As a result, they are able to evaluate the Company as an investment target. Wärtsilä takes no responsibility for the opinions expressed.

Company	Analyst	Contact
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Pareto Öhman	Anders Roslund	anders.roslund@paretosec.com +46 8 402 5288
OP Financial Group	Henri Parkkinen	henri.parkkinen@op.fi +358 10 252 4409
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## Information for shareholders

### Annual General Meeting

The Annual General Meeting of Wärtsilä Corporation will take place on Thursday, 7 March 2019, beginning at 3 p.m., at the Wing of the Helsinki Fair Center, address: Messuaukio 1, 00520 Helsinki, Finland.

### Right to attend

Shareholders registered no later than 25 February 2019 in the Company's list of shareholders maintained by Euroclear Finland Ltd have the right to attend the Annual General Meeting.

### Notification of attendees

Shareholders wishing to attend the Annual General Meeting are required to inform the Company thereof no later than 4 p.m. on 4 March 2019 either by e-mail, on the Company's website [www.wartsila.com/agm\\_register](http://www.wartsila.com/agm_register), by telephone, or by regular mail. Letters and e-mails informing of participation must reach the Company before the notification period expires at 4 p.m. on 4 March 2019. Letters authorising a proxy to exercise a shareholder's voting right at the Annual General Meeting should also reach the Company before the notification period expires.

## Registration:

Wärtsilä Corporation

Share Register

P.O. Box 1834

FI-00080 WÄRTSILÄ

Finland

Telephone: +358 10 709 5282, between 9 a.m. and 12 p.m. (noon) on weekdays

E-mail: [yk@wartsila.com](mailto:yk@wartsila.com)

Internet: [www.wartsila.com/agm\\_register](http://www.wartsila.com/agm_register)

## Payment of dividend

The Board of Directors proposes that a dividend of 0.48 euro per share be paid for the financial year 2018. The dividend will be paid in two instalments.

The first instalment of 0.24 euro per share will be paid to shareholders who are registered in the list of shareholders maintained by Euroclear Finland Ltd on the record date 11 March 2019. The payment date proposed by the Board for this instalment is 18 March 2019.

The second instalment of 0.24 euro per share will be paid to shareholders who are registered in the list of shareholders maintained by Euroclear Finland Ltd on the dividend record date, which, together with the payment date, shall be decided by the Board of Directors in its meeting scheduled for 18 September 2019. The dividend record date for the second instalment as per the current rules of the Finnish book-entry system would be 20 September 2019 and the dividend payment date 27 September 2019.

## Stock exchange releases

Wärtsilä's stock exchange releases are available in English, Finnish, and Swedish on Wärtsilä's website.

## Financial calendar 2019

Annual Report 2018 on Tuesday, 12 February 2019

Interim Report January-March 2019 on Thursday, 25 April 2019

Half-year Financial Report January-June 2019 on Thursday, 18 July 2019

Interim Report January-September 2019 on Friday, 25 October 2019

Financial Statements Bulletin January-December 2019 on Thursday, 30 January 2020

Annual reports, interim reports, half-year reports and financial statements bulletins are available in English, Finnish, and Swedish on [www.wartsilareports.com](http://www.wartsilareports.com), as well as on Wärtsilä's website, [www.wartsila.com](http://www.wartsila.com). Wärtsilä's financial calendar can be found on the company's investor pages on [www.wartsila.com/investors](http://www.wartsila.com/investors).





Financial  
review



# Financial review

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# Board of Directors' report

## Business model

Wärtsilä provides the marine and energy markets with smart technologies and optimised lifecycle services. In the energy industry, Wärtsilä is a global systems integrator offering engine, solar, and storage technologies, as well as software solutions, on an equipment only or turnkey delivery basis. The marine offering consists of power, voyage, and processing solutions. Wärtsilä has the capabilities needed to combine its marine products into larger integrated systems and solutions. Wärtsilä's portfolio of services ranges from spare parts and technical expertise, to ensuring a maximised installation lifetime, increased efficiency, and guaranteed performance. The company aims at maximising environmental and economic performance by emphasising sustainable, data-driven innovation and total efficiency.

To support its geographically dispersed customer base, Wärtsilä's sales and service network covers more than 200 locations in more than 80 countries around the world. Wärtsilä operates primarily through its subsidiaries and strategic joint ventures. The company's manufacturing model is assembly based, emphasising the importance of developing long-term relationships with its global network of suppliers, which consists of approximately 1,120 key direct suppliers. Wärtsilä's personnel is made up of approximately 19,000 employees with over 130 nationalities. By recruiting and retaining the best talent, Wärtsilä is able to be the most valued business partner to its customers, and the employer of choice for current and future employees. Wärtsilä is committed to conducting its business in a responsible manner, and promotes responsible practices throughout its value chain.

## Strategy

Wärtsilä's purpose is to enable sustainable societies with smart technology. The demand for clean and flexible energy, and the need for efficient and safe transportation are increasingly affecting the way that customers operate. This forms the basis for Wärtsilä's Smart Marine and Smart Energy visions. With an integrated portfolio of services, systems and products that covers customer needs across the full lifecycle, Wärtsilä is well positioned to respond to the demand for energy efficient and innovative solutions. Strong emphasis is given to optimising installation performance, using data analytics and artificial intelligence to support customer business decisions. Wärtsilä's digital transformation will provide enhanced customer value through an increased focus on collaboration and knowledge sharing. A strong presence in key markets and a superior global service network support the company's profitable growth ambitions.

With its flexible production and supply chain management, Wärtsilä constantly seeks new ways to maintain high quality and cost efficiency - often in co-operation with customers and leading industrial partners. The investments in R&D and the focus on digitalisation create a strong foundation for securing and strengthening the company's position at the forefront of market innovation. This innovative culture, together with a constant emphasis on safety, diversity, and high ethical standards, attracts skilled and committed people and creates the basis for a high performing organisation. The implementation of operational excellence ensures that Wärtsilä is easy to do business with, and drives increased productivity and efficiencies for its customers.

### Strategy implementation in 2018

Wärtsilä introduced several new concepts and solutions during 2018 to support the realisation of its strategy. The launch of the Smart Energy vision, which emphasises leading the industry's transformation towards a future that utilises 100% renewable energy with flexible capacity as the enabler, was followed up by the introduction of new solutions for the integration of renewables and storage. The expansion of renewable energy was evidenced with major contracts awarded to Wärtsilä from Australia and the USA. In the marine industry, the acquisition of Transas was a key step in further strengthening Wärtsilä's offering of smart solutions. Significant advances made in intelligent shipping included the successful testing of an automated dock-to-dock concept, and a project launched for developing a harbour tug with autonomous navigation.

Collaboration and knowledge sharing, both within the Group and externally with partners, suppliers and customers, is central for developing the smart technologies needed to meet the changing market requirements. In this context, the decision to build a new centre for research, development and production in Vaasa, Finland was a key milestone of the year.

The focus on digitalising Wärtsilä's operations and customer offering continued. During the year, Wärtsilä opened an Acceleration Centre in Singapore with the aim of promoting innovation and collaboration with industry, academia, and local partners to strengthen and develop Singapore's maritime ecosystem. Wärtsilä also announced a partnership with the cyber security company Templar Executives to establish a cyber academy offering courses designed to support and enhance the collective cyber maturity of the wider shipping community. The partnership introduced MCERT, an international cyber intelligence and incident support platform that enhances cyber resilience for the maritime ecosystem.

To promote a high performance culture, Wärtsilä has continued its leadership development programmes in many areas. Since the launch of the Operational Excellence Academy in 2016, nearly 2,000 managers and employees have participated in operational excellence learning modules. The academy was established to ensure that continuous improvement becomes an integrated part of the company culture and way of working. During the year Wärtsilä launched the company culture initiative Leap and the WeLeap app to accelerate the developments of digital competencies throughout the company. Since its introduction in June, the online learning portal has had over 3,300 users. Furthermore, with particular attention to the ongoing digital transformation, a new recruitment system was taken into use with the aim of attracting new talent, improving the candidates' experience, and promoting Wärtsilä's employer brand. MyVoice, Wärtsilä's employee engagement survey, was also updated to better meet the company's needs. The renewed survey emphasises engagement and motivation, and is completely online and available on mobile devices.

The health and safety of personnel is a priority for Wärtsilä, and zero lost-time injuries continues to be the company's global target. After successive years of improvement in this area, the lost-time injury frequency for the year 2018 increased slightly to 2.50 (2.48). Further strengthening safety leadership within the company has been an area of focus, and by the end of the year 3,200 Wärtsilä leaders had completed a full day safety leadership workshop. The fourth global Safety Day was arranged under the theme 'On the Road', with the aim of raising awareness of risks and supporting employees in making safer choices when travelling.

## Financial targets

Wärtsilä's long-term financial target is to grow faster than global GDP, and to maintain its operating profit margin between 14% at the peak of the cycle and 10% at the trough. Furthermore, the target is to maintain gearing below 0.50, and to pay a dividend of at least 50% of earnings per share over the cycle.

Wärtsilä's performance in 2018 was in line with its long-term targets. Net sales increased by 5%, bringing Wärtsilä's 5-year compound annual growth rate to 2.4%. The global real GDP is estimated to have increased by 3.7% in 2018, giving a 5-year compound annual growth rate of 2.0%. The comparable operating result was 11.2% of net sales. Gearing was 0.14 and the Board of Directors' proposed dividend of EUR 0.48 per share represents 73.7% of operational earnings.

Target	Development in 2018	Development in 2017, restated
Net sales growth faster than global GDP	5% increase	3% increase
Comparable operating result margin between 10% and 14%	11.2%	11.7%
Gearing below 0.50	0.14	0.10
Dividend payment at least 50% of earnings per share over the cycle	73.7% <sup>1</sup>	70.8%

<sup>1</sup> Proposal of the Board of Directors.

Figures in the comparison period 2017 have been restated due to the adoption of IFRS 15.

# The year 2018

## Market development

### Steady development in the service markets

Service market activity improved somewhat during 2018, supported by a seasonal pick-up in demand towards the end of the year. In the marine markets, the cruise and ferry segment developed positively and the high level of interest in environmental retrofit projects, combined with improved service volume in the gas carrier segment, supported activity in the merchant segment. The demand for services in the oil and gas industry improved, while conditions in the offshore markets remained challenging. Power plant related service activities were steady across all geographical areas.

### Power generation markets stable with continued interest in flexible capacity

The interest in flexible power capacity in the form of generation and storage solutions is growing. Costs of solar and wind energy continue to decrease, and it has become more economical to replace traditional baseload capacity with renewables and flexibility. Utilities are assessing how to integrate such energy sources into their generation portfolios, and are updating their long-term investment plans accordingly. Currency volatility in the emerging markets, which has resulted in slower decision-making in certain countries, eased towards the end of the year. At the same time, the continued need for reliable capacity to support economic growth and alleviate power shortages supported power plant investments.

For the twelve months period ending in September, Wärtsilä's market share in the <500 MW market segment decreased to 13% (17). Global orders for natural gas and liquid fuel power plants remained stable at 20.8 GW (20.7). Global orders include all gas turbine and Wärtsilä orders with prime movers over 5 MW in size. The data is gathered from the McCoy Power Report.

### Gradual recovery in marine markets with strong demand for environmental solutions

During the year 2018, 1,237 contracts for new vessels were registered (1,037 excluding late contracting). Market conditions in the LNG carrier segment improved, with vessel contracting being driven by increasing spot rates and the trend towards more environmentally friendly fuels. Investments in containerships and bulkers were partly limited by high fuel costs and global tariff concerns. Contracting activity was solid in the cruise segment, being supported by the need for modern capacity to match the expected growth in cruise passenger numbers. Investments in the ferry segment were mainly related to fleet replacements. Fluctuating oil prices created uncertainty in the offshore industry, and overcapacity continued to limit newbuild investments. Environmental compliance emerged as a key theme in shipping during the year, and the IMO 2020 sulphur regulations led to an uptake in orders for exhaust gas cleaning systems.

In terms of compensated gross tonnage, South Korea and China remained the largest shipbuilding nations with 43% and 32% of all confirmed contracts respectively. Japan and Italy accounted for 13% and 3% of the global total.

## Order intake

Wärtsilä's order intake for 2018 increased by 12% to EUR 6,307 million (5,644). The book-to-bill ratio was 1.22 (1.15).

Services' order intake increased by 16% to EUR 3,086 million (2,670), thanks to the strong demand for exhaust gas cleaning retrofit projects and continued demand for long-term service agreements. In the marine markets, highlights of the year included a EUR 170 million order for hybrid scrubber systems and retrofit services from a major European container shipping company, as well as the extension of Wärtsilä's service agreement with Royal Caribbean to the year 2028. Important agreements signed in the energy markets included a 10-year asset management agreement for a power station in Papua New Guinea, as well as a three-year operation and maintenance agreement for a 130 MW power plant delivered to Mexico.

Energy Solutions' order amounted to EUR 1,511 million (1,685), which represents a 10% decrease from the previous year. Asia was the most active region in terms of ordering activity, followed by the Americas. Demand was good in Bangladesh, where the government continues its efforts to increase the number of households with access to electricity, as well as in growing economies such as Indonesia. In the developed markets, Wärtsilä received major contracts in Australia and the USA to support the expansion of renewable energy. Wärtsilä also received several energy storage and grid management software orders during the year.

Marine Solutions' order intake increased by 33% to EUR 1,710 million (1,288). Several orders were received from major cruise companies, contributing to strong order activity in the cruise and ferry segment, which represented 30% of the order intake. The demand for environmental solutions continued throughout the year, largely as a result of the approaching IMO 2020 regulations. A considerable number of scrubber systems were ordered for newbuild vessels, particularly in the merchant segment, which amounted to 28% of the order intake. Other significant orders received in this segment included the supply of volatile organic compounds (VOC) recovery technology, LNG fuel gas handling systems, and the auxiliary engines for two new shuttle tankers being built for Singapore based AET Tankers, as well as solutions for shuttle tankers being built for TEEKAY. The gas carrier's share of the order intake was 14%, while special vessels represented 8%, navy 8%, and offshore 7% of the total. Other orders accounted for 5%.

#### Order intake in joint ventures

Order intake in the Wärtsilä Hyundai Engine Company Ltd joint venture company in South Korea, and in the Wärtsilä Qiyao Diesel Company Ltd, CSSC Wärtsilä Engine Company Ltd. and CSSC Wärtsilä Electrical & Automation Company Ltd. joint venture companies in China totalled EUR 156 million (70). The results of these companies are reported as a share of the result of associates and joint ventures.

#### Order book

The total order book at the end of the financial period amounted to EUR 6,166 million (5,100), an increase of 21%. The Services order book totalled EUR 1,878 million (1,220), which is 54% higher than at the same time last year thanks to the increased demand for exhaust gas cleaning retrofit projects and continued interest in long-term service agreements. For service agreements, only the expected net sales for the next 24 months are included in the Services order book. The Energy Solutions order book was stable at EUR 1,871 million (1,871), while the Marine Solutions order book increased by 20% to EUR 2,417 million (2,009).

#### Net sales

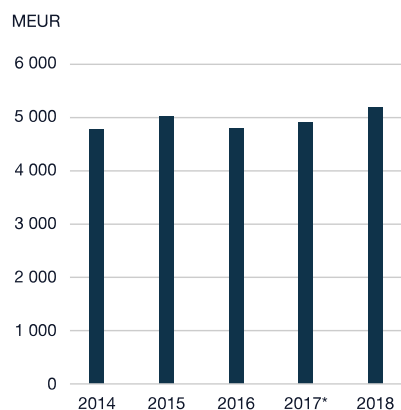
Wärtsilä's net sales for 2018 amounted to EUR 5,174 million (4,911), an increase of 5% over the corresponding period last year thanks largely to higher delivery volumes in the equipment businesses.

Net sales from the Services business was solid at EUR 2,426 million (2,407). Adjusting for the effects of currency translation, Services' net sales increased by 4%. Net sales for Energy Solutions totalled EUR 1,517 million (1,401), an increase of 8%. Marine Solutions' net sales increased by 12% to EUR 1,232 million (1,104). Of the total net sales, Services accounted for 47%, Energy Solutions for 29%, and Marine Solutions for 24%.

Of Wärtsilä's net sales, approximately 67% was EUR denominated, 21% USD denominated, with the remainder being split between several currencies.



## Group net sales development



\* Restated due to IFRS 15.

## Megawatts delivered

	2018	2017	Change %
Energy Solutions engines	3 706	3 119	19%
Marine Solutions engines	1 087	1 203	-10%
Wärtsilä total	4 793	4 322	11%
By joint ventures	756	601	26%
Engine deliveries total	5 549	4 923	13%

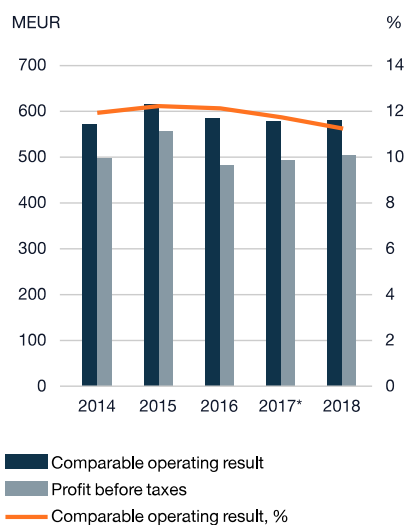
## Operating result and profitability

The operating result for 2018 was EUR 543 million (538), which represents 10.5% of net sales (11.0). The group sales mix favoured equipment deliveries, which, together with increased costs related to research, development and digitalisation, burdened profitability. The comparable operating result was EUR 577 million (576), or 11.2% of net sales (11.7). Items affecting comparability amounted to EUR 35 million (37), of which EUR 29 million (36) was related to restructuring programmes and EUR 6 million (2) to acquisitions and other costs. The comparable adjusted EBITA was EUR 621 million (612), or 12.0% of net sales (12.5). Purchase price allocation amortisation amounted to EUR 43 million (36).

The profit figures include a provision amounting to approximately EUR 70 million to cover cost overruns and project delays in two nuclear power plant back-up genset projects. The need for additional provisions was identified during a detailed review of the company's nuclear power plant projects, following Wärtsilä's decision to cease providing new equipment to this segment. The negative impact to the result was partially offset by a capital gain of EUR 27 million from the divestment of the pumps business and the release of a EUR 21 million provision related to ongoing long-term incentive schemes. Wärtsilä's three-year long-term incentive schemes are tied to the development of the company's share price, and they apply to approximately 100 company executives.

Financial items amounted to EUR -40 million (-47). Net interest totalled EUR -7 million (-8). Profit before taxes amounted to EUR 502 million (491). Taxes amounted to EUR 116 million (117), implying an effective tax rate of 23.1% (23.7). The profit for the financial period amounted to EUR 386 million (375). Earnings per share were EUR 0.65 (0.63) and the equity per share was EUR 4.09 (3.97). The return on investments (ROI) was 18.1% (18.5), while return on equity (ROE) was 16.1% (16.0).

### Result



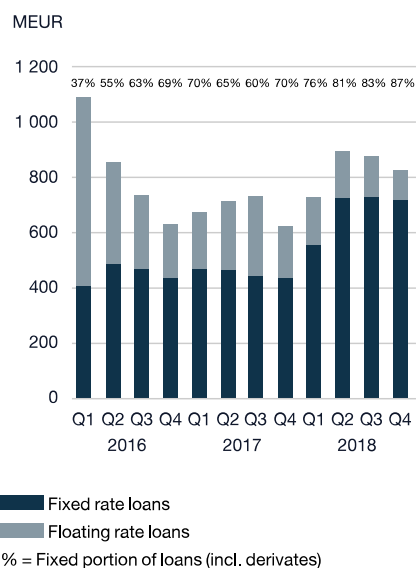
\* Restated due to IFRS 15.

### Balance sheet, financing and cash flow

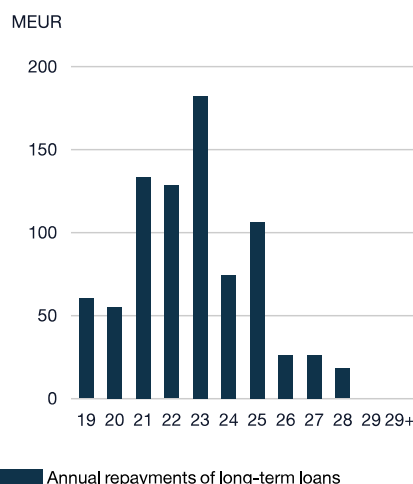
Wärtsilä's operating cash flow totalled EUR 470 million (430) in 2018. At the end of the financial period, working capital totalled EUR 581 million (563), a decrease of EUR 201 million from the end of September 2018. Advances received at the end of the period totalled EUR 584 million (522). At the end of September, advances totalled EUR 557 million. Cash and cash equivalents at the end of the period amounted to EUR 487 million (379). Unutilised Committed Credit Facilities totalled EUR 640 million (765).

Wärtsilä had interest-bearing debt totalling EUR 823 million (619) at the end of December 2018. The total amount of short-term debt maturing within the next 12 months was EUR 74 million. Long-term loans amounted to EUR 748 million. Net interest-bearing debt totalled EUR 333 million (234) and gearing was 0.14 (0.10).

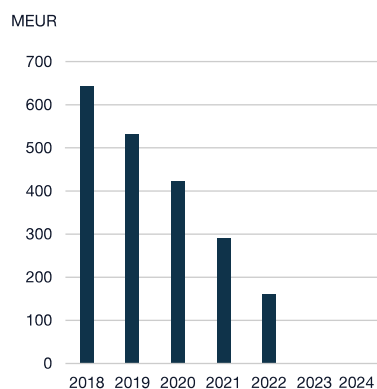
### Loans



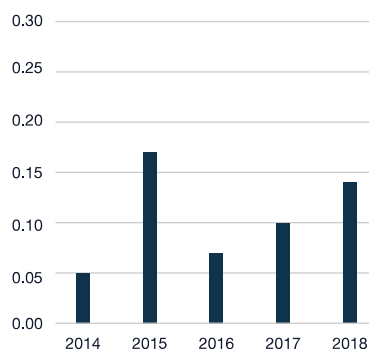
### Maturity profiles of long-term loans



### Committed revolving credit facilities (end of period)



### Gearing

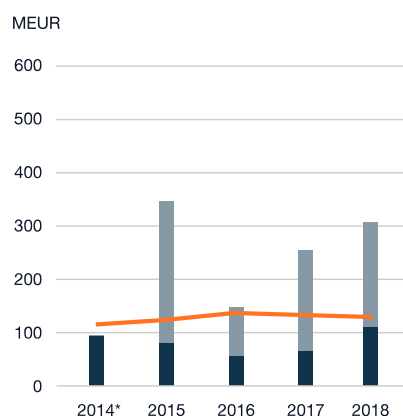


## Capital expenditure

Capital expenditure related to intangible assets and property, plant, and equipment amounted to EUR 110 million (64) in 2018. Capital expenditure related to acquisitions and investments in joint ventures totalled EUR 196 million (191). Depreciation, amortisation, and impairment for the financial period amounted to EUR 130 million (134).

In 2019, capital expenditure related to intangible assets and property, plant, and equipment is expected to be below depreciation and amortisation.

### Gross capital expenditure



- Other capital expenditure
- In acquisitions and joint ventures
- Depreciation, amortisation and impairment

\* Restated, figures include continuing operations.

## Acquisitions and divestments

In February, Wärtsilä announced the expansion of its QuantiServ service offering with the acquisition of Lock-n-Stitch Inc., an American engineering company specialised in cast iron repairs. The acquisition strengthens Wärtsilä's service portfolio for customers operating multiple brands. Wärtsilä also completed the acquisition of Trident BV, a Netherlands based company specialised in underwater ship maintenance, inspection, and repair services. This acquisition enables Wärtsilä to become a leading global operator in the underwater services market. Further

supporting the growth of Wärtsilä's underwater services was the acquisition in October of Burriel Navarro, S.L, a company operating in underwater services in the main ports of Spain.

In March, Wärtsilä announced the acquisition of Transas, a global market leader in marine navigation solutions, professional training and simulation services, ship traffic control, as well as in monitoring and support. The acquisition represents a considerable step forward towards the realisation of Wärtsilä's Smart Marine vision, whereby smart vessels connect with smart ports and beyond to deliver three fundamental industry benefits: maximising the use of resources and operational efficiency, minimising environmental impact and risk, and achieving the highest levels of safety and security. Valued at EUR 210 million (enterprise value), the transaction closed in May 2018.

In October, Wärtsilä divested its pumps business to Solix Group, a Scandinavian investment company with offices in Copenhagen, Denmark, and Malmö, Sweden. Wärtsilä Pumps has belonged to the Wärtsilä Marine Solutions organisation and became part of the company along with the acquisition of Hamworthy in 2012. The divestment enables Wärtsilä to devote greater focus to its Smart Marine vision.

## Strategic projects, partnerships, and joint ventures

In January, Wärtsilä and Schneider Electric signed an agreement to collaborate on data centre projects. The objective of the agreement is to work together to open markets for innovative data centre energy optimisation solutions, focusing on hyperscale projects having an electrical load of at least 10 MW. Wärtsilä will provide the power generation plants, whereas Schneider Electric will focus on energy distribution optimisation.

In April, Wärtsilä announced a partnership with the cyber security company Templar Executives to establish a world-class cyber academy in Singapore. The academy will offer courses designed to support and enhance the collective cyber maturity of the wider shipping community, notably operators and owners. Wärtsilä has also partnered with the Maritime and Port Authority of Singapore to promote maritime innovation and R&D. The partnership covers four different streams: digital acceleration, cyber-physical security, intelligent vessels, and port operations.

In June, Wärtsilä and Hyundai Motor Group signed a technology and commercial partnership contract designed to utilise second-life electric vehicle (EV) batteries for the growing energy storage market. The partnership will target advanced energy storage products and platforms that maximise Hyundai's second-life EV batteries to be commercialised via Wärtsilä's existing customer and channel networks throughout 178 countries globally.

In August, Wärtsilä announced that it will build a new centre of research, product development and production, the Smart Technology Hub, in Vaasa, Finland. The hub will be unique in its field, enabling more agile, more efficient testing and product development of solutions for the maritime, oil and gas industries, as well as new energy systems. As a part of the project, Wärtsilä will invest EUR 83 million in modern testing and production technology for the hub. The majority of these costs will materialise in 2020. The total investment in the Smart Technology Hub will be in the region of EUR 200 million, consisting of office and factory buildings, logistics and infrastructure.

In November, Wärtsilä, Finland's Lappeenranta University of Technology (LUT), and Nebraska Public Power District (NPPD), the largest electricity utility in the state of Nebraska, signed a Memorandum of Understanding (MoU) for the study of the development of a business case for the use of alternative fuels with Wärtsilä generating sets. The aim of the business case is to achieve a technically and commercially viable solution, allowing to proceed with an industrial scale pilot project.

In December, Wärtsilä introduced its Innovation Community Initiative together with Tieto, St1, Fortum, and Demos Helsinki, with the aim of accelerating the global energy sector's transition towards more sustainable energy generation. The community will provide an arena to study, improve, experiment, validate and bring to market new innovations that challenge current energy system paradigms.

## Research and development, product launches

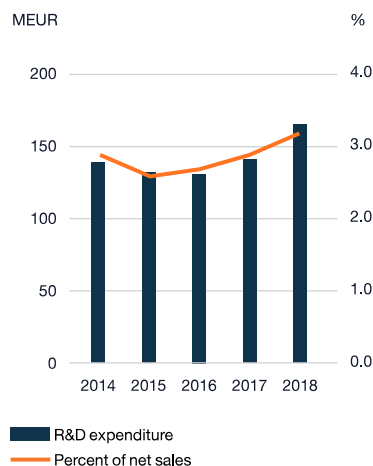
Research and development expenses totalled EUR 165 million (141) in 2018, which represents 3.2% of net sales (2.9). The key focus areas included digitalisation, efficiency improvement, fuel flexibility, and the reduction of environmental impact.

In the marine markets, Wärtsilä completed a series of test procedures related to its automated dock-to-dock solution during the year. The auto-docking tests culminated in autonomous operation being utilised uninterrupted for the entire route of the Norwegian operator Norled's 83-metre long ferry 'Folgefonn'. Developments in the area of environmental solutions included type approval being received for the Aquarius EC ballast water management system by the United States Coastguard (USCG), as well as the completion of all testing processes required for USCG approval for the Aquarius UV ballast water management system. In October, Wärtsilä inaugurated its new Hybrid Centre. The facility represents an innovative concept that will enable further development and deployment of the Wärtsilä HY hybrid power module, while at the same time providing customers with the possibility to experience the benefits of the Wärtsilä HY. It will also be used to train crews and provide hands-on experience for technicians. Products launched during the year included the new Nacos Platinum solid state S-Band radar system, as well as the first Wärtsilä-branded high-speed engine. The Wärtsilä 14 is a compact engine designed to fit requirements for limited space and weight, lower capital expense, compliance with current and future global emission regulations, and to provide customers with improved efficiency, safety, and environmental sustainability.

In the energy markets, June saw the launch of Wärtsilä's new solar PV and storage hybrid solution. The Wärtsilä Hybrid Solar integrates engines, solar PV generation, and storage to deliver a solution that is climate-friendly, with increased resilience and efficiencies, and that can be supported by a power producer's existing grid infrastructure. A critical component in maximising the value of this hybrid solution is the GEMS software and controls platform developed by Greensmith Energy, a Wärtsilä company. In September, GridSolv, an advanced, modularised storage solution designed to offer maximum flexibility and speed of deployment, was introduced. The solution architecture supports both standalone deployments, as well as hybrid solutions with thermal or renewable generation assets. The latest generation of Wärtsilä's advanced energy management software platform, the GEMS 6, was released in December. GEMS is deployed across more than 70 grid-scale systems in nine countries, and is integrated with a multitude of thermal and renewable generation assets, as well as load and weather forecasting data.

During the year, Wärtsilä, together with Templar Executives, introduced MCERT, an international cyber intelligence and incident support platform enhancing cyber resilience for the entire maritime ecosystem. It provides international intelligence feeds, advice and support, including real-time assistance to members on cyber attacks and incidents, and a cyber security reporting portal for its members. The MCERT operates from the Wärtsilä Acceleration Centre facilities in Singapore, which was launched during the year.

### Research and development expenditure

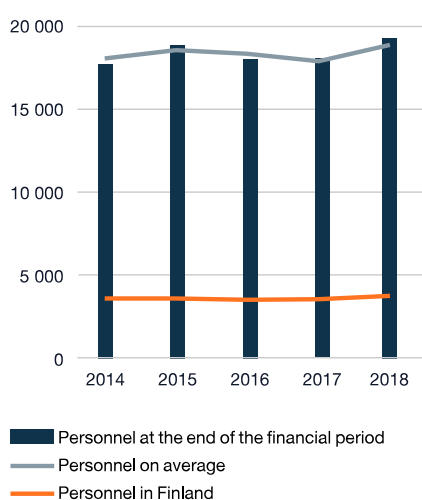


## Personnel

Wärtsilä had 19,294 (18,065) employees at the end of December 2018. On average, the number of personnel for January-December 2018 totalled 18,899 (17,866). The increase in the number of employees relates mainly to the acquisition of Transas. Services employed 11,322 (11,234) people, Energy Solutions 1,171 (1,038), and Marine Solutions 5,995 (5,235).

Of Wärtsilä's total number of employees, 20% (20) were located in Finland and 40% (38) elsewhere in Europe. Personnel employed in Asia represented 24% (27) of the total, personnel in the Americas 11% (11), and personnel in other countries 4% (4).

## Personnel



## Changes in management

The following appointments were made to the Board of Management of Wärtsilä Corporation in 2018:

Mr Marco Wirén (52), M.Sc. (Econ.), was appointed President of Energy Solutions, Executive Vice President, and a member of the Board of Management of Wärtsilä Corporation, effective from 1 October 2018. In this position, he is responsible for Wärtsilä's Energy Solutions business globally, and will report to President & CEO Jaakko Eskola. He succeeds Mr Javier Cavada Camino, who left Wärtsilä to become President & CEO of the London-based energy storage company, Highview Power.

Mr Arjen Berends (50), MBA, was appointed Chief Financial Officer, Executive Vice President and a member of the Board of Management of Wärtsilä Corporation, effective from 1 October 2018. He reports to President & CEO Jaakko Eskola.

Wärtsilä's new organisational structure, formed around two business areas that incorporate both newbuild activities and services, became operational on 1 January 2019. Roger Holm, previously President of Marine Solutions, was appointed to lead Wärtsilä Marine Business and President of Energy Solutions. Marco Wirén was appointed to lead Wärtsilä Energy Business. Mr Pierpaolo Barbone (61), President of Services, EVP and Deputy to the CEO, left Wärtsilä at the end of 2018 to pursue opportunities outside the company.

## Non-financial report

Increasing environmental awareness is resulting in fundamental changes in both the marine and energy industries. Thanks to its various technologies and specialised services, Wärtsilä is well positioned to reduce exhaust emissions and the use of natural resources, and to support its customers in preparing for new regulatory requirements. R&D efforts continue to focus on the development of advanced environmental technologies and solutions. Wärtsilä

emphasises responsible business conduct, and is committed to supporting the UN Global Compact and its principles with respect to human rights, labour, the environment and anti-corruption.

### Responsible business conduct

The Wärtsilä Code of Conduct defines common rules for all employees, and provides guidance on Wärtsilä's approach to responsible business practices. The Code of Conduct is complemented by group-wide policies, including the Quality, Environmental, Health and Safety Policy, the corporate policy on equal opportunities and fair employment practices, as well as policies related to anti-corruption, compliance reporting, and sourcing and purchasing.

Wärtsilä takes an active approach to the application of the Code of Conduct and promotes its implementation through the effective communication of its contents to its employees. Wärtsilä monitors the application of the Code internally to ensure understanding and commitment throughout the organisation. At the end of 2018, 17,255 employees, covering 90% of the total number of employees, had participated in the Code of Conduct training programme.

Suppliers and business partners are an integral part of the total value chain of the products and services of Wärtsilä. They are expected to conduct their businesses in compliance with the same high legal and ethical standards and business practices as Wärtsilä. Information on Wärtsilä's requirements is included in supplier agreement templates.

### Environmental performance

Wärtsilä's main contribution to improved environmental performance lies in providing its customers with reliable and safe technologies and services, which, in addition to enabling environmental compliance, support the sustainable development of the marine and energy industries. Wärtsilä's products and solutions are designed to operate for up to 30 years. Therefore, focusing R&D efforts on improving the product or system level performance is crucial, as is adopting a lifecycle approach to performance optimisation. In addition to improving the environmental performance of its product and solutions, Wärtsilä also continuously monitors the impact caused by its own activities and targets reduced energy consumption in its facilities.

Wärtsilä's Quality, Environmental, Health and Safety Policy sets principles for managing the environmental impacts of Wärtsilä's products and services. The potential risks related to environmental matters and climate change are in the areas of regulatory emission restrictions and changes in customer attitudes to using combustion engines and fossil fuels. Risks are managed by focusing on product efficiency improvement and emission reduction in R&D activities, as well as by developing a wide product offering, including technologies related to waste reduction, noise abatement, and effluent and ballast water treatment. During 2018, R&D investments totalled EUR 165 million, which represents 3.2% of net sales. The majority of these investments targeted improved environmental performance. Significant achievements related to sustainable innovation included advances made in the field of intelligent shipping with the successful testing of Wärtsilä's automated dock-to-dock solution. In the energy markets, Wärtsilä introduced the Wärtsilä Hybrid Solar, an integrated solar PV generation and storage solution, as well as GridSolv, an advanced energy storage solution.

### Social and employee matters

Wärtsilä is a responsible employer, offering employees a workplace where openness, respect, trust, equal opportunities, and scope for personal development prevail. Wärtsilä is a signatory of the UN Global Compact initiative and supports the work-related rights defined by the International Labour Organization (ILO). Wärtsilä's corporate policy on equal opportunities and fair employment practices creates a common framework for employee practices in all Wärtsilä companies. People management processes, tools, and ways of working are developed to ensure consistency across national and organisational boundaries. Wärtsilä has a global job grading system and rewarding principles to ensure transparency and fairness for all employees, which are followed by all the entities in Wärtsilä globally.

The objective of Wärtsilä's people management strategy is to ensure that the businesses have the required resources, and skilled and motivated people at their disposal. In order to develop their competences, employees are offered a wide variety of internal training courses, including topics like technology, health and safety, language and



culture, project management, environment, security, and leadership. The average number of learning days was 2.16 per employee in 2018.

Wärtsilä aims at offering employees and contractors a hazard-free working environment, and at minimising the health and safety risks associated with the use of its products and services. The company's occupational health and safety principles are defined in the Code of Conduct, the quality, environmental, health and safety (QEHS) policy, and in the directive on environment, health, and safety (EHS). Wärtsilä's units are required to have a management system in place that conforms to the QEHS Policy and the EHS directive. In addition to the management system, Wärtsilä companies apply occupational health and safety programmes as required by local legislation. Wärtsilä's aim is to reach a long-term goal of zero injuries. In 2018, the corporate lost-time injury frequency rate was 2.50 (2.48).

### Respect for human rights

Wärtsilä supports and respects basic human values as outlined in the UN's Universal Declaration of Human Rights. Wärtsilä is also a signatory of the UN Global Compact and is thereby committed to its principles with respect to human rights, labour, the environment and anti-corruption. No employee is allowed to take any action that violates these human rights principles, either directly or indirectly. Wärtsilä does not accept the use of forced labour or child labour in any form. Human and Labour rights are a part of the Code of Conduct training material, and are included in Wärtsilä's policy on equal opportunities and fair employment practices as well as in the company's supplier handbook.

### Anti-corruption and bribery matters

Wärtsilä's Code of Conduct, Anti-Corruption Policy, and Broker Directive expressly prohibit the company and its employees from offering or accepting any kind of benefit considered a bribe and from taking actions that could give rise to a conflict of interest or breach of loyalty. The instructions make it compulsory to comply with anti-corruption laws of all the countries in which Wärtsilä does or intends to do business and urge the reporting of any cases of corruption and bribery.

Wärtsilä is aware of the risk of being subject to fraud by external business parties, and that the risk of corruption and fraud is heightened in many markets where the company operates. Therefore, full compliance with a stringent anti-corruption regime is required of all employees. An extensive training programme is in place for personnel on anti-corruption principles and applicable legislation as well as the relevant company policies and procedures. By the end of 2018, 90% of Wärtsilä's employees had participated in anti-corruption trainings. Employees are encouraged to provide feedback and communicate suspected misconduct to line management or directly to the Compliance, Legal Affairs or Internal Audit function. Wärtsilä also has a dedicated tool through which employees can report infringements.

### Shares and shareholders

During January-December 2018, the volume of trades on Nasdaq Helsinki was 278,938,159 shares, equivalent to a turnover of EUR 4,754 million. Wärtsilä's shares are also traded on alternative exchanges, such as Turquoise, BATS CXE, and BATS BXE. The total trading volume on these alternative exchanges was 226,474,065 shares.

## Wärtsilä shares on Nasdaq Helsinki

31.12.2018		Number of shares and votes	Number of shares traded 1-12/2018		
WRT1V		591 723 390	278 938 159		
<hr/>					
1.1. - 31.12.2018		High	Low	Average <sup>1</sup>	Close
Share price		19.88	12.75	17.04	13.90
<hr/>					
<sup>1</sup> Trade-weighted average price					
<hr/>					
Market capitalisation		31.12.2018	31.12.2017		
MEUR		8 222	10 375		
<hr/>					
Foreign shareholders		31.12.2018	31.12.2017		
%		54.5	55.9		

## Flagging notifications

During 2018, Wärtsilä was informed of the following changes in ownership.

Release date	Transaction date	Shareholder	Threshold	Direct holding, %	Total holding, %
26.2.2018	23.2.2018	BlackRock, Inc.	Above 10%	9.88	10.04
28.2.2018	27.2.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.85	6.10
2.3.2018	1.3.2018	BlackRock, Inc.	Below 10%	7.13	9.98
8.3.2018	6.3.2018	BlackRock, Inc.	Above 10%	6.64	10.01
9.3.2018	8.3.2018	BlackRock, Inc.	Below 10%	6.60	9.97
14.3.2018	13.3.2018	BlackRock, Inc.	Above 10%	6.69	10.04
19.3.2018	16.3.2018	BlackRock, Inc.	Below 10%	8.22	9.66
22.3.2018	21.3.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.07	6.03
6.9.2018	5.9.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.75	5.78
28.9.2018	27.9.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.03	5.14
2.10.2018	1.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.9999	5.11
3.10.2018	2.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.04	5.16
5.10.2018	4.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.99	5.11
8.10.2018	5.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.04	5.11
16.10.2018	12.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	4.98	5.04
18.10.2018	16.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	-	-
23.10.2018	19.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	4.98	5.01
24.10.2018	22.10.2018	BlackRock Investment Management (UK) Limited	Above 5%	5.005	5.029
25.10.2018	23.10.2018	BlackRock Investment Management (UK) Limited	Below 5%	-	-

## Decisions taken by the Annual General Meeting

Wärtsilä Corporation's Annual General Meeting, held on 8 March 2018, approved the financial statements and discharged the members of the Board of Directors and the company's President & CEO from liability for the financial year 2017.

The Annual General Meeting decided that the Board of Directors shall have eight members. The following were elected to the Board: Maarit Aarni-Sirviö, Kaj-Gustaf Bergh, Karin Falk, Johan Forssell, Tom Johnstone, Mikael Lilius, Risto Murto and Markus Rauramo.

The audit firm PricewaterhouseCoopers Oy was elected as the company's auditor for the year 2018.

### Dividend distribution

The Annual General Meeting approved the Board of Directors' proposal to pay a dividend of EUR 1.38 per share in two instalments. The first instalment of EUR 0.69 per share was paid on 19 March 2018. In accordance with the approved share issue without payment (share split), the second instalment was divided between one old and two new shares so that EUR 0.23 was paid on each share. The second instalment was paid on 27 September 2018. Adjusted to reflect the increased number of shares resulting from the share issue, the dividend amounted to EUR 0.46 per share.

### Share issue without payment (Share split)

The Annual General Meeting approved the Board of Directors' proposal to issue new shares to the shareholders without payment in proportion to their holdings so that two new shares are issued for each share. Thereby, a total of 394,482,260 new shares were issued. The new shares were registered in the trade register on 12 March 2018.

### Authorisation to repurchase and distribute the Company's own shares

The Board of Directors was authorised to resolve to repurchase a maximum of 57,000,000 of the Company's own shares. The authorisation to repurchase the Company's own shares shall be valid until the close of the next Annual General Meeting, however no longer than for 18 months from the authorisation of the shareholders' meeting.

The Board of Directors was authorised to resolve to distribute a maximum of 57,000,000 of the Company's own shares. The authorisation for the Board of Directors to distribute the Company's own shares shall be valid for three years from the authorisation of the shareholders' meeting and it cancels the authorisation given by the General Meeting on 2 March 2017. The Board of Directors was authorised to resolve to whom and in which order the shares will be distributed. The Board of Directors was authorised to decide on the repurchase or distribution of the Company's own shares otherwise than in proportion to the existing pre-emptive right of the shareholders to purchase the Company's own shares.

### Organisation of the Board of Directors

The Board of Directors of Wärtsilä elected Mikael Lilius as its chairman and Tom Johnstone as the deputy chairman. The Board decided to establish an Audit Committee, a Nomination Committee and a Remuneration Committee. The Board appointed from among its members the following members to the Committees:

**Audit Committee:** Chairman Markus Rauramo, Maarit Aarni-Sirviö, Risto Murto.

**Nomination Committee:** Chairman Mikael Lilius, Kaj-Gustaf Bergh, Johan Forssell, Risto Murto.

**Remuneration Committee:** Chairman Mikael Lilius, Maarit Aarni-Sirviö, Tom Johnstone.

## Risks and business uncertainties

In the Services business, slow economic growth and political instability in specific regions are the main risks for demand development. Weakening currencies in certain countries may affect customers' purchasing power. The challenging conditions in the traditional merchant and offshore markets continue to create uncertainty.

In the power generation markets, fragile economic growth and slow decision-making continue to be the primary risks for demand development. Geopolitical tensions and trade barriers implications, as well as significant currency

fluctuations, can result in investment decisions being postponed in certain countries. Price pressure resulting from the prevailing competitive environment remains a risk.

Global trade tensions and macro-economic uncertainty continues to be a concern in the marine industry. The offshore segment remains challenging due to overcapacity and volatile oil price development. Climate change requires increasing efforts to reduce emissions within the shipping industry. However, the enforcement of environmental regulations and potential new regulations are a source of uncertainty. Effective cyber risk management is increasingly important as cyber security has become vital to the operation and management of many safety, security, and protection systems in the shipping environment.

Wärtsilä emphasises a holistic approach to the management of cyber and physical security risks in its internal operations and customer offerings. The company's cyber security team carries out its operational, governance and compliance activities in line with the IEC62443 and ISO 27k protocols. Such activities include cyber assurance, risk management, detection, a secure software development lifecycle, training, endpoint protection, network security, and cyber advisory services. Wärtsilä has implemented new procedures for storing, processing, and using data in the company's systems so as to comply with the General Data Protection Regulation. Cyber security was taken into consideration in this implementation.

The Group is a defendant in a number of legal cases that have arisen out of, or are incidental to, the ordinary course of its business. These lawsuits mainly concern issues such as contractual and other liability, labour relations, property damage, and regulatory matters. The Group receives from time to time claims of different amounts and with varying degrees of substantiation. There is currently one unusually sizeable claim. It is the Group's policy to provide for amounts related to the claims, as well as for litigation and arbitration matters, when an unfavourable outcome is probable, and the amount of the loss can be reasonably estimated.

The [Risks and risk management](#) section of this Annual Report contains a more detailed description of Wärtsilä's risks and business uncertainties.

## Events after the reporting period

On 30 January 2019, Wärtsilä announced plans to realign its operations and resources to secure future profitability and competitiveness. The Group-wide programme emphasises sustainable savings and actions that increase customer value. The planned actions include an increased focus on targeted sales activities, developing the agreements-based and "as-a-service" business, reviewing the cost structure, as well as optimising the business portfolio and organisation. The program is expected to lead to a reduction of approximately 1,200 employees globally. The reductions will impact all businesses and support functions. With these actions Wärtsilä seeks annual savings of EUR 100 million. Savings are expected to materialise gradually during the second half of 2019, with full effect by the end of 2020. The non-recurring costs related to the restructuring measures are expected to be EUR 75 million.

## Wärtsilä's prospects

The demand for Wärtsilä's services and solutions in 2019 is expected to be in line with the previous year. Demand by business area is anticipated to be as follows:

- Solid in Wärtsilä Energy Business. The global shift towards renewable energy sources and increasing electricity demand in the emerging markets create a need for distributed and flexible power capacity.
- Solid in Wärtsilä Marine Business. Wärtsilä's demand outlook is supported by its extensive product and service offering and broad segment exposure, which compensates for the slow pace of recovery in overall vessel contracting.

Wärtsilä's current order book for 2019 deliveries is EUR 3,696 million (3,207). Deliveries are expected to be concentrated to the latter part of the year.

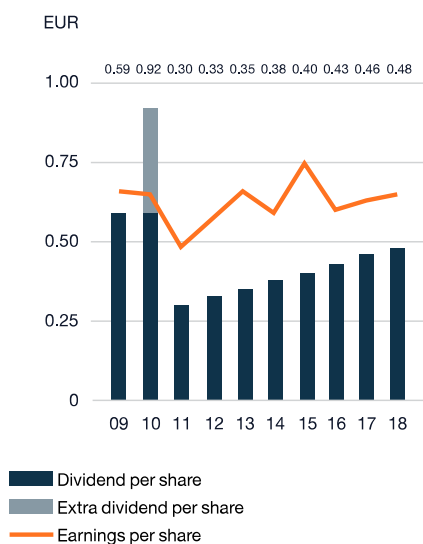
## Board of Directors' dividend proposal

The Board of Directors proposes that a dividend of 0.48 euro per share be paid for the financial year 2018. The parent company's distributable funds total 1,037,972,039.58 euro, which includes 308,072,530.42 euro in net profit for the year. There are 591,723,390 shares with dividend rights. The dividend will be paid in two instalments.

The first instalment of 0.24 euro per share will be paid to shareholders who are registered in the list of shareholders maintained by Euroclear Finland Ltd on the record date 11 March 2019. The payment date proposed by the Board for this instalment is 18 March 2019.

The second instalment of 0.24 euro per share will be paid to shareholders who are registered in the list of shareholders maintained by Euroclear Finland Ltd on the dividend record date, which, together with the payment date, shall be decided by the Board of Directors in its meeting scheduled for 18 September 2019. The dividend record date for the second instalment as per the current rules of the Finnish book-entry system would be 20 September 2019 and the dividend payment date 27 September 2019.

### Dividend



The free share issue approved by Wärtsilä Corporation's Annual General Meeting on 8 March 2018 increased the total number of Wärtsilä shares to 591,723,390. Figures in comparison periods 2009–2017 have been adjusted to reflect the increased number of shares.

### Five years in figures

MEUR	Restated				
	2018	2017*	2016	2015	2014
Net sales	5 174	4 911	4 801	5 029	4 779
of which outside Finland	% 98.9	97.7	97.5	97.8	98.9
Exports from Finland	2 145	1 953	1 804	1 936	2 280
Personnel on average	18 899	17 866	18 332	18 565	18 042
of which in Finland	3 766	3 521	3 482	3 580	3 582
Order book	6 166	5 100	4 696	4 882	4 530

<b>From the consolidated statement of income</b>						
Depreciation, amortisation and impairment		130	134	138	124	115
Share of result of associates and joint ventures		13	13	14	17	26
Comparable operating result		577	576	583	612	569
as a percentage of net sales	%	11.2	11.7	12.1	12.2	11.9
Operating result		543	538	532	587	522
as a percentage of net sales	%	10.5	11.0	11.1	11.7	10.9
Comparable adjusted EBITA		621	612	618	643	594
as a percentage of net sales	%	12.0	12.5	12.9	12.8	12.4
Financial income and expenses		-40	-47	-53	-34	-28
Profit before taxes		502	491	479	553	494
as a percentage of net sales	%	9.7	10.0	10.0	11.0	10.3
Profit for the financial period from the continuing operations		386	375	357	429	389
Profit/loss for the financial period from the discontinued operations		-	-	-	22	-37
Net profit for the financial period		386	375	357	451	351
as a percentage of net sales	%	7.5	7.6	7.4	9.0	7.4
<b>From the consolidated statement of financial position</b>						
Non-current assets		2 369	2 285	2 116	2 215	1 884
Current assets		3 690	3 363	3 275	3 374	3 294
Assets held for sale		-	-	-	-	102
Total equity attributable to equity holders of the parent company		2 418	2 352	2 288	2 201	1 960
Non-controlling interests		14	24	34	41	45
Interest-bearing debt		823	619	629	724	666
Non-interest-bearing liabilities		2 804	2 653	2 441	2 623	2 554
Liabilities directly attributable to assets held for sale		-	-	-	-	55
Total equity and liabilities		6 059	5 648	5 391	5 589	5 280
<b>From the consolidated statement of cash flows</b>						
Cash flow from operating activities		470	430	613	255	452
Cash flow from investing activities		-240	-235	-126	-288	-71
Cash flow from financing activities		-118	-278	-339	-210	-210
Gross capital expenditure		306	255	146	346	101
as a percentage of net sales	%	5.9	5.2	3.0	6.9	2.1
Research and development expenditure		165	141	131	132	139
as a percentage of net sales	%	3.2	2.9	2.7	2.6	2.9
Dividends paid		284**	272	256	237	227
<b>Financial ratios</b>						
Earnings per share (EPS), basic and diluted***	EUR	0.65	0.63	0.60	0.75	0.59
Dividend per share***	EUR	0.48**	0.46	0.43	0.40	0.38
Dividend per earnings	%	73.7**	70.8	72.8	53.3	65.4
Interest coverage		10.8	11.8	18.6	15.9	15.9
Return on investment (ROI)	%	-	-	-	-	18.7
Return on investment (ROI), continuing operations	%	18.1	18.5	17.1	21.0	20.3
Return on equity (ROE)	%	-	-	-	-	18.0
Return on equity (ROE), continuing operations	%	16.1	16.0	15.6	20.2	20.0
Solvency ratio	%	44.4	46.3	47.6	44.6	43.5
Gearing		0.14	0.10	0.07	0.17	0.05
Equity per share***	EUR	4.09	3.97	3.87	3.72	3.31
Working capital (WCAP)	EUR	581	563	490	543	251

\* Figures in the comparison period 2017 have been restated due to the adoption of IFRS 15.

\*\* Proposal of the Board of Directors.

\*\*\* Share issue without payment (share split) approved by Wärtsilä Corporation's Annual General Meeting on 8 March 2018 increased the total number of Wärtsilä shares to 591,723,390. Figures in the comparison periods have been restated accordingly.

## Quarterly figures

MEUR	Restated							
	10-12/ 2018	7-9/ 2018	4-6/ 2018	1-3/ 2018	10-12/ 2017	7-9/ 2017	4-6/ 2017	1-3/ 2017
<b>Order intake</b>								
Services	865	699	785	737	696	598	641	735
Energy Solutions	589	148	360	414	501	418	361	405
Marine Solutions	419	525	409	357	316	339	361	273
<b>Total</b>	<b>1 874</b>	<b>1 372</b>	<b>1 553</b>	<b>1 507</b>	<b>1 514</b>	<b>1 354</b>	<b>1 363</b>	<b>1 413</b>
<b>Order book at the end of the financial period</b>								
Services	1 878	1 742	1 622	1 401	1 220	1 249	1 239	1 234
Energy Solutions	1 871	1 725	2 013	2 012	1 871	1 839	1 764	1 847
Marine Solutions	2 417	2 451	2 269	2 077	2 009	2 018	2 087	2 033
<b>Total</b>	<b>6 166</b>	<b>5 918</b>	<b>5 904</b>	<b>5 490</b>	<b>5 100</b>	<b>5 107</b>	<b>5 089</b>	<b>5 114</b>
<b>Net sales</b>								
Services	737	572	582	535	710	569	594	534
Energy Solutions	431	451	368	267	425	324	412	239
Marine Solutions	364	307	296	264	305	282	284	233
<b>Total</b>	<b>1 532</b>	<b>1 330</b>	<b>1 246</b>	<b>1 066</b>	<b>1 441</b>	<b>1 175</b>	<b>1 290</b>	<b>1 005</b>
Share of result of associates and joint ventures	3	3	4	3	6	3	3	1
Comparable adjusted EBITA	237	152	134	98	250	141	130	90
as a percentage of net sales	15.4	11.5	10.7	9.2	17.4	12.0	10.1	9.0
Depreciation, amortisation and impairment	-37	-31	-31	-30	-42	-30	-30	-33
Purchase price allocation amortisation	-11	-11	-11	-10	-10	-9	-9	-9
Comparable operating result	226	141	123	88	241	131	122	82
as a percentage of net sales	14.7	10.6	9.8	8.3	16.7	11.2	9.5	8.1
Items affecting comparability, total	-20		-12	-3	-19	-4	-8	-6
Operating result	206	141	111	85	222	127	114	76
as a percentage of net sales	13.4	10.6	8.9	8.0	15.4	10.8	8.8	7.5
Financial income and expenses	-12	-11	-8	-9	-10	-17	-14	-5
Profit before taxes	194	130	102	76	211	110	99	70



Income taxes	-41	-29	-28	-19	-47	-28	-26	-16
Profit for the financial period	153	101	75	57	165	82	73	54
Earnings per share (EPS), basic and diluted, EUR	0.25	0.17	0.13	0.10	0.28	0.14	0.12	0.09
Gross capital expenditure	48	26	194	37	79	156	11	9
Investments in securities and acquisitions	-1		177	20	45	145		1
Cash flow from operating activities	349	122	41	-42	276	150	2	2
Working capital (WCAP) at the end of the financial period	581	782	790	726	563	632	658	561
<b>Personnel at the end of the financial period</b>								
Services	11 322	11 426	11 345	11 328	11 234	11 135	11 059	11 067
Energy Solutions	1 171	1 165	1 135	1 084	1 038	1 017	928	913
Marine Solutions	5 995	6 195	6 151	5 197	5 235	5 167	5 257	5 317
Other	805	634	601	573	559	540	539	533
<b>Total</b>	<b>19 294</b>	<b>19 420</b>	<b>19 231</b>	<b>18 182</b>	<b>18 065</b>	<b>17 859</b>	<b>17 783</b>	<b>17 832</b>

Earnings per share for comparison periods have been restated to reflect the increased number of shares.

Comparison periods for 2017 have been restated due to the internal transfer of service activities.

## Calculations of financial ratios

### Return on investment (ROI)

$$\frac{\text{Profit before taxes + interest and other financial expenses}}{\text{Total equity and liabilities – non-interest-bearing liabilities – provisions, average over the financial period}} \times 100$$

### Return on equity (ROE)

$$\frac{\text{Profit for the financial period}}{\text{Equity, average over the financial period}} \times 100$$

### Interest coverage

$$\frac{\text{Profit before taxes + depreciation, amortisation and impairment + interest and other financial expenses}}{\text{Interest and other financial expenses}}$$

### Solvency ratio

$$\frac{\text{Equity}}{\text{Total equity and liabilities – advances received}} \times 100$$

### Gearing

$$\frac{\text{Interest-bearing liabilities – cash and cash equivalents}}{\text{Equity}}$$

**Earnings per share (EPS), basic and diluted**

Profit for the financial period attributable to equity holders of the parent company

Adjusted number of shares, average over the financial period

**Equity per share**

Equity attributable to equity holders of the parent company

Adjusted number of shares at the end of the financial period

**Dividend per share**

Dividends paid for the financial period

Adjusted number of shares at the end of the financial period

**Dividend per earnings**

Dividend per share

Earnings per share (EPS), basic and diluted

x 100

**Effective dividend yield**

Dividend per share

Adjusted share price at the end of the financial period

x 100

**Price/earnings (P/E)**

Adjusted share price at the end of the financial period

Earnings per share (EPS), basic and diluted

**Price/carrying amount per share (P/BV)**

Adjusted share price at the end of the financial period

Equity per share

**Working capital (WCAP)**

(Inventories + trade receivables + current tax receivables + other non-interest-bearing receivables)

– (trade payables + advances received + pension obligations + provisions + current tax liabilities + other non-interest-bearing liabilities – dividend payable)

**Comparable adjusted EBITA**

Operating result – items affecting comparability – purchase price allocation amortisation

**Comparable operating result**

Operating result – items affecting comparability

**Items affecting comparability**

Items affecting comparability are related to restructuring measures and one-time charges for events or activities, which are not part of the normal business operations

# Financial statements

## Consolidated financial statements

### Consolidated statement of income

MEUR	Restated			
	2018	2017	Note	
Net sales	5 174	4 911	<u>1</u>	<u>4</u>
Change in inventories of finished goods & work in progress	64	28		
Work performed by the Group and capitalised	14	12		
Other operating income	80	60		<u>5</u>
Material and services	-2 852	-2 561		<u>6</u>
Employee benefit expenses	-1 175	-1 214		<u>7</u>
Depreciation, amortisation and impairment	-130	-134		<u>8</u>
Other operating expenses	-648	-577		<u>9</u>
Share of result of associates and joint ventures	13	13		<u>15</u>
<b>Operating result</b>	<b>543</b>	<b>538</b>		
as a percentage of net sales	10.5	11.0		
Financial income	24	12		<u>10</u>
Financial expenses	-65	-59		<u>10</u>
<b>Profit before taxes</b>	<b>502</b>	<b>491</b>		
Income taxes	-116	-117		<u>11</u>
<b>Profit for the financial period</b>	<b>386</b>	<b>375</b>		
Attributable to:				
equity holders of the parent company	386	375		<u>12</u>
non-controlling interests	1	-1		
	<b>386</b>	<b>375</b>		
Earnings per share attributable to equity holders of the parent company (basic and diluted):				
Earnings per share (EPS), basic and diluted, EUR	0.65	0.63		<u>12</u>

Earnings per share for the comparison period has been restated to reflect the increased number of shares.

The notes are an integral part of these consolidated financial statements.

## Consolidated statement of comprehensive income

MEUR	Restated		Note
	2018	2017	
Profit for the financial period	386	375	
<b>Other comprehensive income, net of taxes:</b>			
<b>Items that will not be reclassified to the statement of income</b>			
Remeasurements of defined benefit liabilities	-3	7	
<b>Total items that will not be reclassified to the statement of income</b>	<b>-4</b>	<b>7</b>	
<b>Items that may be reclassified subsequently to the statement of income</b>			
Exchange rate differences on translating foreign operations			
for equity holders of the parent company	-23	-73	
for non-controlling interests	-1	-2	
Associates and joint ventures, share of other comprehensive income	-1	-1	
Cash flow hedges			
measured at fair value	-17	1	24
transferred to the statement of income	-8	36	
<b>Tax on items that may be reclassified to the statement of income</b>			
Cash flow hedges			
measured at fair value	3	-1	
transferred to the statement of income	2	-8	
<b>Total items that may be reclassified to the statement of income</b>	<b>-45</b>	<b>-48</b>	
<b>Other comprehensive income for the financial period, net of taxes</b>	<b>-48</b>	<b>-41</b>	
<b>Total comprehensive income for the financial period</b>	<b>338</b>	<b>334</b>	
<b>Total comprehensive income attributable to:</b>			
equity holders of the parent company	338	337	
non-controlling interests		-3	
	<b>338</b>	<b>334</b>	

The notes are an integral part of these consolidated financial statements.

## Consolidated statement of financial position

MEUR	Restated		Note
	31.12.2018	31.12.2017	
<b>Assets</b>			
<b>Non-current assets</b>			
Goodwill	1 355	1 237	<u>13</u>
Intangible assets	392	339	<u>13</u>
Property, plant and equipment	324	349	<u>14</u>
Investments in associates and joint ventures	66	83	<u>15</u>
Other investments	16	13	<u>16</u>
Interest-bearing investments	3	5	<u>16</u>
Deferred tax assets	129	131	<u>22</u>
Trade receivables	49	109	<u>16</u> <u>18</u>
Other receivables	34	18	<u>19</u>
<b>Total non-current assets</b>	<b>2 369</b>	<b>2 285</b>	
<b>Current assets</b>			
Inventories	1 165	1 051	<u>17</u>
Trade receivables	1 222	1 307	<u>16</u> <u>18</u>
Current tax receivables	31	53	
Contract assets	557	351	<u>18</u>
Other receivables	228	221	<u>19</u>
Cash and cash equivalents	487	379	<u>20</u> <u>21</u>
<b>Total current assets</b>	<b>3 690</b>	<b>3 363</b>	
<b>Total assets</b>	<b>6 059</b>	<b>5 648</b>	
<b>Equity and liabilities</b>			
<b>Equity</b>			
Share capital	336	336	<u>24</u>
Share premium	61	61	<u>24</u>
Translation differences	-155	-132	<u>24</u>
Fair value reserve	-31	-10	<u>24</u>
Remeasurements of defined benefit liabilities	-39	-38	<u>23</u>
Retained earnings	2 245	2 135	
<b>Total equity attributable to equity holders of the parent company</b>	<b>2 418</b>	<b>2 352</b>	
Non-controlling interests	14	24	
<b>Total equity</b>	<b>2 432</b>	<b>2 376</b>	
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
Interest-bearing debt	748	517	<u>16</u> <u>21</u> <u>26</u>

Deferred tax liabilities	99	102	<u>22</u>
Pension obligations	149	154	<u>23</u>
Provisions	54	52	<u>25</u>
Contract liabilities	41	64	<u>18</u>
Other liabilities	1	1	<u>27</u>
<b>Total non-current liabilities</b>	<b>1 092</b>	<b>889</b>	
<b>Current liabilities</b>			
Interest-bearing debt	74	102	<u>16</u> <u>21</u> <u>26</u>
Provisions	251	209	<u>25</u>
Trade payables	596	539	<u>16</u> <u>26</u>
Current tax liabilities	81	83	
Contract liabilities	888	724	<u>18</u>
Other liabilities	645	726	<u>27</u>
<b>Total current liabilities</b>	<b>2 535</b>	<b>2 383</b>	
<b>Total liabilities</b>	<b>3 627</b>	<b>3 272</b>	
<b>Total equity and liabilities</b>	<b>6 059</b>	<b>5 648</b>	

The notes are an integral part of these consolidated financial statements.

## Consolidated statement of cash flows

MEUR	2018	2017	Note
<b>Cash flow from operating activities:</b>			
Profit for the financial period	386	375	
Adjustments for:			
Depreciation, amortisation and impairment	130	134	<u>8</u>
Financial income and expenses	39	47	<u>10</u>
Gains and losses on sale of intangible assets and property, plant and equipment and other changes	-26	-17	
Share of result of associates and joint ventures	-13	-13	<u>15</u>
Income taxes	116	117	<u>11</u>
Other non-cash flow adjustments	-7		
Cash flow before changes in working capital	625	643	
<b>Changes in working capital:</b>			
Receivables, non-interest-bearing, increase (-) / decrease (+)	-22	-284	
Inventories, increase (-) / decrease (+)	-130	-27	<u>17</u>
Liabilities, non-interest-bearing, increase (+) / decrease (-)	117	223	
Changes in working capital	-35	-87	
<b>Cash flow from operating activities before financial items and taxes</b>	<b>589</b>	<b>555</b>	
<b>Financial items and taxes:</b>			
Interest income	6	1	
Interest expenses	-14	-6	

Other financial income and expenses	-7	-2	
Income taxes paid	-104	-119	
Financial items and taxes	-119	-126	
<b>Cash flow from operating activities</b>	<b>470</b>	<b>430</b>	
<b>Cash flow from investing activities:</b>			
Acquisitions	-191	-191	<u>2</u>
Investments in associates and joint ventures	-1		<u>15</u>
Other investments	-3		<u>16</u>
Investments in property, plant and equipment and intangible assets	-110	-64	<u>13</u> <u>14</u>
Reduction of share capital in associates and joint ventures	13		
Proceeds from sale of property, plant and equipment and intangible assets	11	17	<u>15</u>
Proceeds from sale of shares in subsidiaries	41		<u>3</u>
Proceeds from sale of other investments		2	<u>16</u>
Loan receivables, increase (-) / decrease (+), and other changes	1	1	
<b>Cash flow from investing activities</b>	<b>-240</b>	<b>-235</b>	
<b>Cash flow after investing activities</b>	<b>230</b>	<b>195</b>	
<b>Cash flow from financing activities:</b>			
Proceeds from non-current debt	279	90	
Repayments and other changes in non-current debt	-84	-101	<u>26</u>
Loan receivables, increase (-) / decrease (+)	-4	2	
Current loans, increase (+) / decrease (-)	-35	-5	
Dividends paid	-274	-264	
<b>Cash flow from financing activities</b>	<b>-118</b>	<b>-278</b>	
<b>Change in cash and cash equivalents, increase (+) / decrease (-)</b>	<b>112</b>	<b>-83</b>	
Cash and cash equivalents at the beginning of the financial period	379	472	
Exchange rate changes	-5	-10	
Cash and cash equivalents at the end of the financial period	487	379	

The notes are an integral part of these consolidated financial statements.



## Consolidated statement of changes in equity

MEUR	Total equity attributable to equity holders of the parent company							Non-controlling interests	Total equity
	Share capital	Share premium	Translation difference	Fair value reserve	Remeasurements of defined benefit liabilities	Retained earnings	Total		
Equity on 31 December 2016	336	61	-57	-39	-45	2 032	2 288	34	2 321
Restatement due to IFRS 9						-3	-3		-3
Restatement due to IFRS 15						-13	-13		-13
Equity on 1 January 2017	336	61	-57	-39	-45	2 016	2 272	34	2 305
Translation differences			-74				-74	-2	-76
Cash flow hedges									
transferred to the statement of income, net of taxes				28			28		28
Defined benefit plans					7		7		7
Other comprehensive income			-74	28	7		-39	-2	-41
Profit for the financial period						375	375	-1	374
Total restated comprehensive income for the financial period			-74	28	7	376	336	-3	333
Total transactions with the owners of the company									
dividends paid						-256	-256	-6	-263
Equity on 31 December 2017	336	61	-132	-10	-38	2 135	2 352	24	2 376

MEUR	Total equity attributable to equity holders of the parent company							Non-controlling interests	Total equity
	Share capital	Share premium	Translation difference	Fair value reserve	Remeasurements of defined benefit liabilities	Retained earnings	Total		
Equity on 1 January 2018	336	61	-132	-10	-38	2 135	2 352	24	2 376
Translation differences			-24				-24	-1	-25
Cash flow hedges									
net change in fair value, net of taxes				-14			-14		-14
transferred to the statement of income, net of taxes				-6			-6		-6
Defined benefit plans					-3		-3		-3
Other changes					3	-3			
Other comprehensive income			-24	-20	-1	-3	-47	-1	-48
Profit for the financial period						386	386	1	386
Total comprehensive income for the financial period			-24	-20	-1	383	338		338
Total transactions with the owners of the company									
dividends paid						-272	-272	-3	-275
non-controlling interests in disposed subsidiaries								-7	-7
Equity on 31 December 2018	336	61	-155	-31	-39	2 245	2 418	14	2 432

Additional information on share capital, share premium, translation difference and fair value reserve is presented in Note 24. Equity.

# Accounting principles for the consolidated financial statements

## Basic information

Wärtsilä Corporation is a Finnish listed company organised under the laws of Finland and domiciled in Helsinki. The address of its registered office is Hiililaiturinkuja 2, 00180 Helsinki. Wärtsilä Corporation is the ultimate parent company in the Wärtsilä Group.

Wärtsilä is a global leader in smart technologies and complete lifecycle solutions for the marine and energy markets. By emphasising sustainable innovation, total efficiency, and data analytics, Wärtsilä maximises the environmental and economic performance of the vessels and power plants of its customers.

In 2018, Wärtsilä's net sales totalled EUR 5.2 billion with approximately 19,000 employees. The company has operations in over 200 locations in more than 80 countries around the world. Wärtsilä is listed on Nasdaq Helsinki.

These consolidated financial statements were authorised for release by the Board of Directors of Wärtsilä Corporation on 30 January 2019, after which, in accordance with the Finnish Corporate Act, the shareholders have a right to approve or reject the financial statements in the Annual General Meeting. The Annual General Meeting also has a possibility to decide upon changes in the financial statements.

## Basis of preparation

The consolidated financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS) by applying IAS and IFRS standards and their SIC and IFRIC interpretations, which were in force on 31 December 2018. International Financial Reporting Standards refer to the standards, and their interpretations, approved for application in the EU in accordance with the procedures stipulated in the EU's regulation (EC) No. 1606/2002 and embodied in Finnish accounting legislation and the statutes enacted under it. The notes to the consolidated financial statements also comply with the Finnish accounting and corporate legislation.

Reporting is based on the historical cost convention. Exceptions are the financial assets and liabilities at fair value through the statement of income, hedged items under fair value hedging, and the cash-settled share-based payment transactions which are measured at fair value. The figures are in millions of euros except notes 30. Related party disclosures and 32. Auditors' fees and services, which are presented in thousands of euros.

## IFRS amendments

In 2018, the Group adopted the following new and amended standards issued by the IASB.

**IFRS 15 Revenue from Contracts with Customers** and related amendments to the standard. The standard establishes a new five-step model that will apply to revenue arising from contracts with customers. IFRS 15 is based on the principle that revenue is recognised when control of a good or service transfers to a customer. In accordance with the standard, revenue is recognised as control is passed either over time or at a point in time. The Group has adopted the new standard on the required effective date using the full retrospective method. The disclosures related to revenue are presented according to the new standard.

Adoption of IFRS 15 led to changes in revenue recognition, long-term service and maintenance agreements, and oil and gas business related construction contracts. In long-term service and maintenance agreements, the revenue changed from an output method (percentage of completion based on the proportion of the contracted services performed) to input method (percentage of completion based on cost incurred). In construction contracts related to gas solutions, the revenue recognition method changed from an output method (percentage of completion based on the progress measured by surveys of work performed) to an input method (percentage of completion based on cost incurred). The combined restatement impact in equity was EUR -13 million. The restatement impact on 2017 earnings per share was -0.04 EUR.

As IFRS 15 was adopted using the full retrospective method, the impact of the restatement is presented in the below table also for the opening balance of the financial period 2017:

## Condensed statement of financial position

	Restated 1.1.2017	Restated 31.12.2017	31.12.2018
MEUR			
<b>Non-current assets</b>			
Intangible assets	1 434	1 577	1 747
Property, plant and equipment	405	349	324
Investments in associates and joint ventures	84	83	66
Other investments	15	13	16
Deferred tax assets	144	131	129
Other receivables	38	132	86
<b>Total non-current assets</b>	<b>2 119</b>	<b>2 285</b>	<b>2 369</b>
<b>Current assets</b>			
Inventories	1 042	1 051	1 165
Other receivables	1 775	1 933	2 038
Cash and cash equivalents	472	379	487
<b>Total current assets</b>	<b>3 289</b>	<b>3 363</b>	<b>3 690</b>
<b>Total assets</b>	<b>5 408</b>	<b>5 648</b>	<b>6 059</b>
<b>Equity</b>			
Share capital	336	336	336
Other equity	1 936	2 016	2 082
<b>Total equity attributable to equity holders of the parent company</b>	<b>2 272</b>	<b>2 352</b>	<b>2 418</b>
Non-controlling interests	34	24	14
<b>Total equity</b>	<b>2 305</b>	<b>2 376</b>	<b>2 432</b>
<b>Non-current liabilities</b>			
Interest-bearing debt	520	517	748
Deferred tax liabilities	93	102	99
Other liabilities	270	270	245
<b>Total non-current liabilities</b>	<b>884</b>	<b>889</b>	<b>1 092</b>
<b>Current liabilities</b>			
Interest-bearing debt	108	102	74
Other liabilities	2 111	2 281	2 461
<b>Total current liabilities</b>	<b>2 219</b>	<b>2 383</b>	<b>2 535</b>
<b>Total liabilities</b>	<b>3 103</b>	<b>3 272</b>	<b>3 627</b>
<b>Total equity and liabilities</b>	<b>5 408</b>	<b>5 648</b>	<b>6 059</b>

Amendments to **IFRS 2 Share-based Payment** - Clarification and Measurement of Share-based Payment Transactions (effective for financial periods beginning on or after 1 January 2018). These amendments are intended to eliminate the diversity in the classification and measurement of particular share-based payment transactions (accounting for cash-settled share-based payment transactions that include a performance condition, share-based payments in which the manner of settlement is contingent on future events, share-based payments settled net of tax withholdings, and modification of share-based payment transactions from cash-settled to equity-settled). The amendments had no impact on the consolidated financial statements.

Amendments to **IFRS 4 Insurance Contracts** - Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts (effective for financial periods beginning on or after 1 January 2018); Applying IFRS 9 Financial Instruments with IFRS 4. The amendments bring certainty to insurers on whether, and how, they should apply IFRS 9 before they apply the forthcoming insurance contracts standard. The amendments had no impact on the consolidated financial statements.

**IFRIC 22 Foreign Currency Transactions and Advance Consideration** (effective for financial periods beginning on or after 1 January 2018). This interpretation considers how to determine the date of the transaction when applying the standard on foreign currency transactions IAS 21. The guidance aims to reduce diversity in practice. The interpretation had no impact on the consolidated financial statements.

## Management judgement and use of estimates

The preparation of the financial statements in accordance with the IFRS requires management to make judgements, estimates and assumptions that affect the valuation of the reported assets and liabilities and other information, such as contingent assets and liabilities and the recognition of income and expenses in the statement of income. Although these estimates and assumptions are based on management's best knowledge of current events and actions, actual results may differ from the estimates.

For Wärtsilä, the most significant judgements, estimates, and assumptions made by the management relate to revenue recognition, especially to project estimates for long-term projects and agreements, assumptions used in impairment testing, the valuation of accounts receivables and inventories, estimates and assumptions used in defined pension benefit obligations, recognition of warranty provisions and provisions for legal cases, and uncertain tax positions.

Assessing whether or not it is probable that the consideration from contracts with customers will be collected requires judgement, and might impact the timing and amount of revenue recognition.

Revenue from certain projects and long-term agreements is recognised over time according to the input method, based on their percentage of completion when the profit on the project or agreement can be reliably determined. The percentage of completion and the profit are based on management's estimates, which require significant judgement concerning the stage of completion, cost to complete, and time of completion. These estimates are reviewed regularly. Recognised revenue and costs recorded are adjusted during the project when assumptions concerning the outcome of the entire project are updated. Changes in assumptions relate to changes in the project's or agreement's schedule, scope of supply, technology, costs, and any other relevant factors.

Establishing whether distinct goods or services are considered as being separate performance obligations requires judgement, and might impact the timing and amount of revenue recognition.

Project business contracts usually involve elements of variable consideration. At each reporting date, management reassesses the transaction price, which requires significant judgement as it affects the timing of the revenue recognition. The valuation of accounts receivables also includes estimates mainly concerning the recoverability of receivables.

Determining whether different contracts with the same client are accounted for as one agreement involves the use of judgement, as it requires us to assess whether the contracts are negotiated together or linked in any other way. The timing and amount of revenue recognition can vary depending on whether two contracts are accounted for separately, or as one single arrangement.

Warranty provisions are recorded on the recognition of revenue. The provision is based on the accumulated experience of the level of warranty needed to manage future and current cost claims. Products can contain new and complex technology that can affect warranty estimates with the result that earlier recognised provisions are not always sufficient.

Accounting for the business combinations may require estimates of the fair value of acquired assets and the expected amount of realised contingent consideration. In addition, the recoverable amounts of goodwill are determined for all cash-generating units annually, or more often if there is an indication of an impairment, where its value in use is determined. The value in use is determined using estimates of future market development, such as growth and profitability, as well as other significant factors. The most important factors underlying such estimates are the net sales growth in the market area, the operating margin, the useful life of the assets, future investment needs, and the discount rate. Changes in these assumptions can significantly affect the expected future cash flows.

The Group is a defendant in several legal cases arising from its business operations. A provision for a court case is recorded when an unfavourable result is probable, and the loss can be determined with reasonable certainty. The final result can differ from these estimates.

Estimates of tax liabilities and receivables relate mainly to the expected result of ongoing tax audits, and recognition of deferred tax receivables from tax losses.

Estimates of pension obligations regarding defined benefit plans are based on actuarial estimates of factors including future salary increases, discount rates, and return on plan assets. Changes in these assumptions can significantly affect the Group's pension obligations and pension costs.

## Principles of consolidation

### Subsidiaries

The consolidated financial statements include the parent company Wärtsilä Corporation and all subsidiaries over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity.

Acquired and established companies are accounted for using the acquisition method. Accordingly, the purchase price and the acquired company's identifiable assets, liabilities and contingent liabilities are measured at fair value on the date of acquisition. In the acquisition of additional interest, where the Group already has control, the non-controlling interest is measured either at fair value or at the non-controlling interests' proportionate share of the identifiable net assets. The difference between the purchase price, possible equity belonging to the non-controlling interests and the acquired company's net identifiable assets, liabilities and contingent liabilities measured at fair value is goodwill. Goodwill is tested for impairment at least annually. The purchase price includes the consideration paid, measured at fair value. The consideration does not include transaction costs, which are recognised in the statement of income. The transaction costs are expensed in the same financial period in which they occur, except the costs resulting from issued debt or equity instruments.

Any contingent consideration (additional purchase price) related to the combination of businesses is measured at fair value on the date of acquisition. It is classified either as a liability or equity. Contingent consideration classified as a liability is measured at fair value on the last day of each financial period, and the resulting loss or gain is recognised through the statement of income. Contingent consideration classified as equity is not remeasured.

For acquisitions which occurred before 1 January 2010, the accounting principles valid at the time of the acquisition have been applied.

The acquired subsidiaries are included in the consolidated financial statements from the day the Group has control, and disposed subsidiaries until the control ends. All intragroup transactions, dividend distributions, receivables and liabilities, as well as unrealised margins, are eliminated in the consolidated financial statements. In the consolidated statements of income and comprehensive income, non-controlling interests have been separated from the profit

and the total comprehensive income for the financial period. In the consolidated statement of financial position, non-controlling interests are shown as a separate item under equity.

## Associated companies and joint ventures

Associates are all entities over which the Group has significant influence but not control or joint control. This is generally the case where the Group holds between 20% and 50% of the voting rights.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net asset of the joint venture. Joint control is established by contractual agreement.

Associated companies and joint ventures are included in the consolidated financial statements using the equity method from the date the Group's significant influence or joint control commences until the date it ceases. Investments in associates are initially recorded at cost, and the carrying amount is increased or decreased according to the Group's share of changes in the net assets of the associate after the date of the acquisition. The Group's share of the associated company's or joint venture's profit for the financial period are shown as a separate item before the Group's operating result, on the line Share of result of associates and joint ventures. The Group's share of the associated company's or joint venture's changes recorded in other comprehensive income is recorded in the Group's other comprehensive income. Wärtsilä's proportion of the associated company's or joint venture's post-acquisition accumulated equity is included in the Group's equity. If the Group's share of the associated company's or joint venture's losses exceeds its interest in the company, the carrying amount is written down to zero. After this, losses are only recognised if the Group has incurred obligations from the associated company or joint venture.

The accumulated exchange rate differences arising from the consolidation of associated companies and joint ventures, which are recorded in equity, are recognised in the statement of income as part of the gain or loss when change in ownership occurs.

## Non-current assets held for sale and discontinued operations

Non-current assets and assets and liabilities related to discontinued operations are classified as held for sale if their carrying amounts are expected to be recovered primarily through sale rather than through continuing use. Classification as held for sale requires that the following criteria are met; the sale is highly probable, the asset is available for immediate sale in its present condition subject to usual and customary terms, the management is committed to the sale, and the sale is expected to be completed within one year from the date of classification.

Prior to classification as held for sale, the assets or assets and liabilities related to a disposal group in question are measured according to the respective IFRS standards. From the date of classification, non-current assets held for sale are measured at the lower of the carrying amount and the fair value less costs to sell, and the recognition of depreciation and amortization is discontinued. A discontinued operation is a component of an entity that either has been disposed of, or is classified as held for sale, and represents a separate major line of business or geographical area of operations, is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations, or is a subsidiary acquired exclusively with a view to resale.

The result from the discontinued operations is shown separately in the consolidated statement of income and the comparison figures are restated accordingly. Non-current assets held for sale are presented in the statement of financial position separately from other items. The comparison figures for the statement of financial position are not restated.

## Translating the transactions in foreign currencies

The items included in the financial statements are initially recognised in the functional currency, which is defined for each group company based on its primary economic environment. The presentation currency of the consolidated financial statements is the euro, which is also the functional and presentation currency of Wärtsilä Corporation.

### Foreign subsidiaries

The income and expenses for statements of income and statements of comprehensive income of foreign subsidiaries are translated into euros at the quarterly average exchange rates. Statements of financial position are

translated into euros at the exchange rates prevailing at the end of the financial period. The translation of the profit for the financial period and other comprehensive income using different exchange rates in the statement of comprehensive income and the statement of financial position causes translation differences, which are recognised in equity and in other comprehensive income as change. Translation differences of foreign subsidiaries' acquisition cost eliminations and post-acquisition profits and losses are recognised in other comprehensive income and are presented as a separate item in equity. The goodwill generated in the acquisition of foreign entities and their fair value adjustments of assets and liabilities are considered as assets and liabilities of foreign entities, which are translated into euros using the exchange rates prevailing at the end of the financial period. When a foreign subsidiary is sold, the accumulated exchange rate differences recorded in the equity related to the subsidiary are recognised in the statement of income as a part of the gain or loss on sale.

#### Transactions and balances in foreign currencies

Transactions denominated in a foreign currency are translated into the functional currency using the exchange rate prevailing at the dates of the transactions. Receivables and liabilities are translated at the exchange rate prevailing at the end of the financial period. Exchange rate gains and losses related to trade receivables and liabilities are reported on the applicable line in the statement of income and are included in the operating result. Exchange rate differences related to financial assets and financial liabilities are reported as financial items in the statement of income, except exchange rate differences related to non-current debt that is part of the Group's net investment in a subsidiary. Those are recognised in other comprehensive income and reported as translation differences in equity.

#### Net sales and revenue recognition

Revenue is presented net of indirect sales taxes, penalties and discounts. Revenue is recognised when control of the goods or services is transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods and services. The transaction price may include variable considerations, such as penalties, liquidated damages, and performance bonuses. Revenue recognised by the reporting date corresponds to the benefit of the service provided by Wärtsilä to the customer.

Revenue from contracts with customers is derived from four main revenue types.

Product sales consist of sales of spare parts and standard equipment for which the revenue is recognised at a point in time when the control of the products has transferred to the customer, in general upon delivery of the goods. Product sale contracts generally include one performance obligation.

Goods and services -types of revenue involve short-term field service jobs, which include the delivery of a combination of service and equipment. The revenue is recognised at a point in time when the service is rendered. Goods and service -type contracts generally include one performance obligation.

Projects contain short- and long-term projects. Depending on the contract terms and the duration of the project, the revenue is recognised at a point in time or over time. Revenue related to long-term projects, such as gas solutions construction contracts, integrated solutions projects, ship design, and energy solutions turnkey contracts, is recognised over time. Revenue for tailor-made equipment delivery projects is recognised at a point in time. Project contracts generally represent one performance obligation, but can under certain circumstances contain multiple performance obligations in the Marine business when a contract contains multiple units of delivery.

Long-term agreements contain long-term operating and maintenance agreements for which the revenue is recognised over time. The contract included in this revenue type generally contain one performance obligation per installation.

Contracts with customers often include warranties in line with Wärtsilä's General terms and conditions, which are regarded as part of the promise to the customer. Extended warranties or warranties purchased as an option are identified as separate performance obligations.

Revenue recognised over time is measured in accordance with the input method (percentage of completion method based on costs incurred) when the outcome of the contract can be estimated reliably. When the outcome cannot be reliably determined, the costs arising are expensed in the same financial period in which they occur, but the



revenue is recorded only to the extent that the company will receive an amount corresponding to actual costs. Any losses are expensed immediately. If revenue for goods and services is recognised at a point in time, it is when control is transferred to the customer. The transfer of control is based mainly on transferring risks and rewards according to the delivery terms.

In case there are multiple contracts entered into with a same client at near the same time, the combination of the contracts is evaluated. Typically, Wärtsilä does not have combined contracts.

The Group applies the practical expedient according to IFRS 15.63 concerning significant financing components arising from contracts with customers. In case the lead time between the payments specified in the contract and the corresponding transferral of the promised good or service to the customer is one year or less, no adjustment is made for the effect of a possible significant financing component. Wärtsilä has no customer contracts that would include significant financing components not covered by the practical expedient.

The Group also applies the practical expedient stated in IFRS 15.94 according to which an entity can recognise the incremental costs of obtaining a contract as an expense when incurred if the amortisation period of the asset that the entity would have recognised is one year or less. Wärtsilä has not incurred any costs of obtaining a contract to be recognised as an asset.

## Employee benefits

### Pension and other long-term employee benefits

#### Pension plans

Group companies in different countries have various pension plans in accordance with local conditions and practices. These pension plans are classified either as defined contribution or defined benefit plans. The fixed contributions to the defined contribution plans are expensed in the year to which they relate. The Group has no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay employee benefits. All other plans are defined benefit plans.

Defined benefit plans are funded through contributions to pension funds or pension insurance companies. Defined benefit plans may be unfunded or wholly or partly funded. The present value of the obligation arising from the defined benefit plans is determined per each plan using actuarial techniques, the projected unit credit method. The Group recognises the defined benefit obligation net of fair value of the plan assets at the end of the financial period.

Actuarial gains and losses and other remeasurements of the net defined benefit obligation are recognised immediately in the statement of other comprehensive income. Current service cost is the present value of the post employment benefit, which is earned by the employees during the year. The Group determines the net interest expense on the net defined benefit plan by applying the discount rate used to measure the defined benefit obligation. Service cost is recognised in employee benefit expenses and the net interest in financial expenses. The defined benefit plans are calculated by qualified actuaries.

#### Other long-term employee benefits

In addition to defined benefit plans, Wärtsilä has other long-term employee benefits. They are presented separately from the defined benefit plans. Similarly to the accounting for a defined benefit plan, for any other long-term benefit the Group recognises a liability for the obligation net of the fair value of plan assets, if any. Changes in other long-term employee benefits are recognised in the consolidated statement of income.

### Share-based payments

The company's bonus scheme, which is tied to the price development of the company's share during a pre-determined timeframe, is measured at the fair value of the share on the reporting date and reported in the statement of income for the term-to-maturity of the bonus scheme. An upper limit is set for the bonus. When a bonus scheme ends and the employment requirement is fulfilled, the bonus is settled in cash.

## Goodwill and other intangible assets

### Goodwill

Goodwill is the difference between the aggregate of the acquisition-date fair value of the consideration transferred and the acquirer's share of the company's net identifiable assets and liabilities measured at fair value on the acquisition date. The consideration transferred is measured at fair value, including also the acquirer's previously held equity interest.

### Research and development costs

Research costs are expensed in the financial period during which they occur. Development costs are capitalised when it is probable that the development project will generate future economic benefits for the Group and when the related criteria, including commercial and technological feasibility, have been met. These projects involve the development of new or significantly improved products or production processes. Earlier expensed development costs are not capitalised.

Capitalised development costs are measured at cost less accumulated amortisations and impairment. Capitalised development costs are amortised and the cost of buildings, machinery and facilities for development depreciated on a straight-line basis over their expected useful lives, 5-10 years. Amortisations are started when the asset is finished and can be taken into use. Before that, the asset is tested for impairment annually. Grants received for research and development are reported as other operating income. Grants related to capitalised development costs are netted with the costs occurred before the capitalisation.

### Other intangible assets

Other intangible assets are recorded at cost if the cost is reliably measurable and the future economic benefits for the Group are probable. Wärtsilä's other intangible assets include patents, licenses, software, customer relations, and other intellectual property rights that can be transferred to a third party. These are measured at cost, except for intangible assets identified in connection with acquisitions, which are measured at the fair value at the acquisition date. The cost of intangible assets comprises the purchase price and all costs that can be directly attributed to preparing an asset for its intended use.

Other intangible assets are amortised on a straight-line basis over their estimated useful lives. Intangible assets, for which the time limit for the right of use is agreed, are amortised over the life of the contract. Intangible assets identified in connection with acquisitions are amortised over their delivery times or estimated useful lives.

The general guidelines for scheduled amortisation are:

- Software 3-7 years
- Development expenses 5-10 years
- Other intangible assets 5-20 years

The estimated useful lives and the residual values are reviewed at least at the end of each financial period, and if they differ significantly from previous estimates, amortisation periods are adjusted accordingly. Amortisation of intangible assets is stopped when an item is classified as held for sale.

A gain or loss arising from the sale of intangible assets is recognised in other operating income or other operating expenses in the statement of income.

## Property, plant and equipment

Property, plant and equipment acquired by the Group are measured in the statement of financial position at cost less accumulated depreciation and impairment losses. The cost of an asset includes costs directly attributed to preparing an asset for its intended use. Grants received are reported as a reduction in costs. The property, plant and equipment of acquired subsidiaries are measured at their fair value at the acquisition date. The borrowing costs that are directly attributable to the asset acquisition, construction or production and to completion of the asset for its intended use or sale requiring necessarily a considerable length of time will be capitalised in the statement of

financial position as part of the cost of the asset. Other than directly attributable borrowing costs are expensed in the period in which they are incurred.

Subsequent expenditure is included in the cost of an asset only if the future economic benefits for the Group are probable and the costs are reliably measurable. Expenditure related to regular, extensive inspections and maintenance is treated as an investment, capitalised and depreciated during the useful life. All other expenditure such as ordinary maintenance and repairs is recognised in the statement of income as an expense as incurred.

Depreciation is based on the following estimated useful lives:

- Buildings 10-40 years
- Machinery and equipment 5-20 years
- Other tangible assets 3-10 years

Depreciation is expensed on a straight-line basis over the estimated useful lives of the assets. Land is not depreciated, as its useful life is considered as infinite. The estimated useful lives and the residual values are reviewed at least at the end of each financial period, and if they differ significantly from previous estimates, depreciation periods are adjusted accordingly. Depreciation of property, plant and equipment is stopped when an item is classified as held for sale.

A gain or loss arising from the sale of property, plant and equipment is recognised in other operating income or other operating expenses in the statement of income.

## Impairment of intangible assets and property, plant and equipment

The carrying amounts of assets are reviewed regularly for signs of possible impairment. If any such indication exists, the recoverable amount of the asset is estimated. The recoverable amount is estimated annually also for the goodwill whether or not there are signs of impairment. In order to define a possible impairment, the Group's assets are divided up into the smallest possible cash-generating units which are mainly independent of other units and the cash flows of which are separately identifiable and to a large extent independent of the cash flows of other similar units.

An impairment loss is recorded when the carrying amount of an asset is greater than its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. The value in use is based on the expected discounted future net cash flows resulting from the asset or cash-generating unit. A pre-tax rate which reflects the markets' position on the time value of money and asset-specific risks is used as the discount rate.

An impairment loss is recognised immediately in other operating expenses in the statement of income. In connection with the recognition of the impairment loss, the useful life of the amortisable/depreciable asset is reassessed. An earlier impairment loss recognised for an asset other than goodwill is reversed if the estimates used to determine the recoverable amount change. However, reversal of impairment shall not exceed the asset's carrying amount less impairment loss. An impairment loss recognised for goodwill is not reversed under any circumstances.

## Determination of the fair value of assets acquired through business combinations

In significant business combinations, the Group has used external advisors when estimating the fair values of property, plant and equipment, and intangible assets. For property, plant and equipment, comparisons have been made of the market prices of similar assets, and the depreciation of the acquired assets due to aging, wear and other similar factors has been estimated. The fair value measurement of intangible assets is based on estimates of the future cash flows associated with the assets. The acquired identifiable intangible assets include typically technology, customer relationships, and trademarks.

## Investment properties

Properties that are not used in the Group's operating activities or that are held to earn rental income or for capital appreciation, or both, are classified as investment properties. Investment properties are presented in the statement of financial position on a separate line in non-current assets and measured at cost less accumulated depreciations and impairment. A gain or loss arising from the sale of investment properties is recognised in other operating income or other operating expenses in the statement of income.

## Leases

Leases related to property, plant and equipment in which all material rewards and risks of ownership have been transferred to the Group are classified as finance leases. Assets acquired under a finance lease are recognised as property, plant and equipment at the lower of the fair value of the leased asset and the estimated present value of the underlying lease payments. The corresponding rental obligation, net of finance charge, is included in interest-bearing debt with the interest element of the finance charge being recognised in the statement of income over the lease period. Assets acquired under a finance lease are depreciated over their estimated useful lives in accordance with the same principles that apply to the Group's other similar property, plant and equipment. The shorter alternative of the following is selected: either the useful life of the leased asset or the lease term.

Leases in which the rewards and risks of ownership have not been transferred to the Group are classified as operating leases. Rental payments under operating leases are expensed on a straight-line basis over the lease term.

## Inventories

Inventories are carried at the lower of cost and net realisable value. Costs include allocated purchasing and manufacturing overhead costs in addition to direct manufacturing costs. Inventory valuation is primarily based on the weighted average cost.

## Financial assets and liabilities

### Financial assets

Financial assets are classified, at initial recognition, as subsequently measured according to the following categories: financial assets measured at amortised cost, financial assets at fair value through the statement of income and financial assets at fair value through other comprehensive income. Financial assets are classified according to their cash flow characteristics and the business model they are managed in and accounted for at settlement date.

#### Financial assets at amortised cost

The Group's financial assets at amortised cost includes trade receivables, other receivables and investments in commercial papers that are recognised at their anticipated realisable value, which is the original invoiced amount less an estimated valuation allowance for impairment. The Group assesses possible increase in the credit risk for financial assets measured at amortised cost at the end of each reporting period individually. The methodology applied depends on whether there has been a significant increase in credit risk. The loss allowance is estimated at an amount equal to 12-month expected credit losses at the current reporting date, if there has not been significant increase in credit risk.

For trade receivables and receivables from revenue recognition in accordance with percentage of completion method, simplified approach is used and the loss allowance is measured at the estimate of the lifetime expected credit losses. Receivables from revenue recognition in accordance with percentage of completion method should be covered with advance payments collected from customers so recognising credit losses based on the lifetime expected loss amounts mainly concerns trade receivables. Examples of events giving rise to impairment include a debtor's serious financial problems, a debtor's probable bankruptcy or other financial arrangement.

The Group may sell undivided interests in trade receivables on an ongoing and one-time basis to other lending institutions. Financial assets sold under these arrangements are excluded from trade receivables in the Group's consolidated statement of financial position at the time of payment from acquirer, considering that substantially all risks and rewards have been transferred. If acquirer has not settled the payment to the extent that the ownership,

risk and control over the receivable have been substantially transferred then such financial assets sold are re-recognised in the consolidated statement of financial position at the end of the reporting period.

Cash and cash equivalents comprise cash in hand, deposits held at call with banks, and other short-term cash investments. Cash in hand and deposits held at call are presented at amortised cost. Other short-term cash investments are mainly measured at fair value, except for commercial paper investments that are presented at amortised cost. Credit accounts related to Group cash pool accounts are included in current financial liabilities.

#### Financial assets at fair value through the statement of income

Financial assets at fair value through profit or loss include interest-bearing investments, derivatives not included in hedge accounting, other financial investments and cash.

Interest-bearing investments are measured at fair value through the statement of income and they include loans and receivables, which are non-derivative financial assets that have fixed or determinable payments and that are not quoted on active markets. They arise when the Group provides a loan or delivers products and services directly to a debtor. They are included in non-current receivables, unless they have a maturity of less than 12 months from the reporting date. Such items are classified as current receivables.

Other financial investments include Wärtsilä's investments in other companies (both listed and unlisted shares) and they are classified as financial assets at fair value through the statement of income. The fair value for listed shares is based on their market value. Gains and losses from fair valuation and disposal and impairments of shares that are attributable to operating activities are included in operating income, while gains and losses from fair valuation and disposal and impairments of other shares are included in financial income and expenses.

The category includes also derivatives that do not qualify for hedge accounting and are not financial guarantee agreements, non-derivative financial assets, cash and cash equivalents as well as other financial assets recognised at fair value through the statement of income, which are financial assets held for trading.

Derivatives are initially recognised at cost in the statement of financial position and are thereafter measured at their fair value at the end of each reporting period. Realised and unrealised gains and losses from changes in fair values are recognised in the statement of income in the period in which they have arisen. Derivatives held for trading, as well as financial assets maturing within 12 months after the end of financial period, are included in current assets. Non-derivative financial assets are included in non-current assets unless the Group intends to dispose of the investment within 12 months from the reporting date.

Cash comprise cash in hand, deposits held at call with banks and similar investments. Cash equivalents comprise short-term highly liquid investments that are subject to only minor fluctuations in value. Cash equivalents have a maturity of up to three months on the date of acquisition. Credit accounts related to Group cash pool accounts are included in current financial liabilities.

Except for commercial paper investments that are presented at amortised cost, other short-term cash investments are recognised at fair value. These are short-term highly liquid investments that are subject to only minor fluctuations in value. Other short-term cash investments have a maturity of up to three months on the date of acquisition.

#### Financial assets at fair value through other comprehensive income

Financial assets recognised at fair value through other comprehensive income include derivatives eligible for hedge accounting.

Derivatives are measured at fair value and gains and losses from fair value measurement are treated as determined by the purpose of the derivatives. The effects on results of changes in the value of derivatives that are eligible for hedge accounting and that are effective hedging instruments are presented consistent with the hedged item.

Derivatives eligible for hedge accounting are classified as financial assets at fair value through other comprehensive income. For derivatives included in hedge accounting, the Group documents the relationship between each hedging instrument and the hedged asset upon entering into a hedging arrangement, along with the risk management objective and the strategy applied. Through this process, the hedging instrument is linked to the relevant assets and

liabilities, projected business transactions or binding contracts. The Group also documents its ongoing assessment of the effectiveness of the hedge as regards the relationship between a change in the derivative's fair value and a change in the value of the hedged cash flows or transactions.

## Financial liabilities

The Group's financial liabilities are initially recognised and subsequently classified either into financial liabilities recognised at amortised cost or financial liabilities recognised at fair value through the statement of income. Financial liabilities are classified as current unless the Group has the unconditional right to defer the payment of the debt to at least 12 months from the end of the financial period. Financial liabilities (or parts thereof) are only derecognised once the debt has extinguished, i.e. once the contractually specified obligation is discharged, cancelled or expires.

### Financial liabilities recognised at amortised cost

Financial liabilities recognised at amortised cost include trade and other payables, loans and borrowings.

The loans raised by the Group are included in financial liabilities recognised at amortised cost. They are measured at their initial recognition at fair value using the effective interest rate method. After the initial recognition, loans are measured at amortised cost. Interests on loans are expensed through the statement of income over the maturity of the debt using the effective interest rate method.

### Financial liabilities recognised at fair value through the statement of income

In the Wärtsilä Group, financial liabilities recognised at fair value through the statement of income include derivatives that are not eligible for hedge accounting. Realised and unrealised gains and losses from changes in fair values of derivatives are recognised in the statement of income in the period in which they have arisen.

### Derivatives and hedge accounting

Derivatives are measured at fair value. Gains and losses from fair value measurement are treated as determined by the purpose of the derivatives. The effects on results of changes in the value of derivatives that are eligible for hedge accounting and that are effective hedging instruments are presented consistently with the hedged item. The effective portion of the change in the fair value is deferred into the cash flow reserve through OCI and will be recognised in profit or loss when the hedged item affects profit or loss. Impact from ineffective hedging instruments is recognised in financial income and expenses immediately.

For derivatives eligible for hedge accounting, the Group documents the relationship between each hedging instrument and the hedged asset upon entering into a hedging arrangement, along with the risk management objective and the strategy applied. Through this process, the hedging instrument is linked to the relevant assets and liabilities, projected business transactions or binding contracts. The Group also documents its ongoing assessment of the effectiveness of the hedge regarding the relationship between a change in the derivative's fair value and a change in the value of the hedged cash flows or transactions.

### Hedging of sales and purchases

Wärtsilä hedges its sales and purchases in foreign currencies with foreign exchange derivatives or currency options. Certain foreign exchange derivatives are eligible for hedge accounting. Changes in the fair value of derivative contracts designated to hedge future cash flows are recognised in other comprehensive income and presented in the fair value reserve in equity, provided that the hedging is effective. The ineffective portion is immediately recognised in the financial items in the statement of income for the financial period. Changes in fair value due to interest rate differences are recognised in the statement of income. Any gain or loss in the fair value reserve accumulated through other comprehensive income is reported as an adjustment to net sales or material and services in the same period as any transactions relating to the hedged obligations or estimates. Currency forwards are measured at forward rates at the end of the financial period and currency options at their market value at the end of the financial period.



### Derivatives not included in hedge accounting

For derivatives not included in hedge accounting, changes in fair value are immediately recognised in financial income or expenses in the statement of income. For example, interest rate swap hedges belong to this group. The fair value of interest rate swaps is calculated by discounting the future cash flows.

### Fair value hierarchy

Financial instruments measured at fair value are classified according to the following fair value hierarchy: instruments measured using quoted prices in active markets (level 1), instruments measured using inputs other than quoted prices included in level 1 observable either directly or indirectly (level 2), and instruments measured using inputs that are not based on observable market data (level 3). Financial instruments measured at fair value include financial assets and liabilities at fair value through the statement of income.

## Contract balances

Contract balances consist of customer-related assets and liabilities.

When control over goods or services is transferred to a customer before the customer pays the consideration, the receivable is recognised as a contract asset. The contract asset represents the right to future consideration.

When the customer pays consideration in advance, or the consideration is due before transferring the contractual performance obligation, the amount received in advance is presented as a contract liability. Contract liabilities are recognised as revenue when the Group performs under the contract.

## Provisions and contingent liabilities

Provisions are recognised in the statement of financial position when the Group has a present legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Provisions can arise, for example, from warranties, environmental risks, litigation, foreseeable losses on projects and restructuring costs. The amount to be recognised as provisions corresponds to the management's best estimate of the expenses that will be necessary to meet the existing obligation at the end of the financial period.

Estimated future warranty costs relating to products delivered are recorded as provisions. The amount of future warranty costs is based on accumulated experience.

Provisions for restructuring costs are made once the restructuring plan has been approved and the implementation started or the personnel concerned have been informed of the terms. The plan must indicate which activities and personnel will be affected and the timing and cost of implementation.

Contingent liabilities are possible obligations resulting from previous events, the existence of which will only be ascertained once the uncertain event that is beyond the Group's control materialises. Existing obligations that are not likely to require the fulfilment of a payment obligation or the amount of which cannot be reliably determined are also considered contingent liabilities. Contingent liabilities are presented in the notes.

## Income taxes

The statement of income includes taxes on the Group's consolidated taxable income for the financial period in accordance with local tax regulations, tax adjustments for previous financial periods and changes in deferred taxes. Tax effects related to transactions recognised through the statement of income and other events are recognised in the statement of income. Tax effects related to transactions or other events to be presented as components of other comprehensive income or directly in equity are also recognised, respectively, in other comprehensive income or directly in equity.

Deferred tax liabilities and assets are calculated on temporary differences arising from the difference between the tax basis of assets and liabilities and the carrying values using the enacted tax rates at the end of the financial period. The statement of financial position includes deferred tax liabilities in their entirety and deferred tax assets at their estimated probable amount.



Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities, and when the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend to settle the balances on a net basis.

## Dividends

The dividend proposed by the Board of Directors is deducted from distributable equity when approved by the company's Annual General Meeting.

## Adoption of new and updated IFRS standards

In 2019, the Group will adopt the following new and amended standards and interpretations issued by the IASB.

New **IFRS 16 Leases** (effective for financial periods beginning on or after 1 January 2019): IFRS 16 addresses the definition, recognition and measurement of lease agreements and notes related to leases. The standard replaces IAS 17 Leases.

IFRS 16 changes the accounting for operating leases by requiring companies to recognise lease assets and lease liabilities in the balance sheet, initially measured at the present value of unavoidable future lease payments, and to depreciate those assets and interest on lease liabilities in the statement of income over the lease term. Whether a contract contains a lease is determined on the basis of whether the customer has the right to control the use of an identified asset for a period of time.

When adapting IFRS 16, the portion of the lease payments currently included in other operating expenses in the consolidated statement of income will be transferred to depreciations and amortisations and the interest portion to financial expenses. The standard will affect primarily the accounting for the Group's operating leases increasing the balance sheet totals and some changes in key figures. At the reporting date, the Group has operating lease commitments of EUR 266 million, see note 29. Collateral, contingent liabilities and other commitments. Based on the Group's estimation the net present value of the capitalised lease liability amounts to EUR 212 million according to the following bridge calculation:

MEUR	
Nominal amount of rents according to leasing contracts on 31 December 2018	284
Variable lease payments	-23
Residual value	-3
Expenses relating to short-term leases and leases of low-value assets	-15
Leases not yet commenced to which Wärtsilä is committed	-3
<b>Nominal amount of lease liability on 1 January 2019</b>	<b>240</b>
Present value	212

The Group will apply the two available exceptions, which relate to either short-term contracts in which the lease term is less than 12 months or less, or low value assets, which are expensed to other operating expenses. The Group will apply the modified approach in transition.

Amendments to **IAS 28 Long-term Interests in Associates and Joint Ventures\*** (effective for financial periods beginning on or after 1 January 2019). The amendments clarify that IFRS 9 Financial Instruments is applied to the accounting for long-term interest in an associate or joint venture to which the equity method is not applied. The amendments will have no impact on the consolidated financial statements.

Amendment to **IAS 19 Plan Amendment, Curtailment or Settlement\*** (effective for financial periods beginning on or after 1 January 2019). This amendment clarifies the accounting when a plan amendment, curtailment or settlement occurs during a reporting period. The amendment specifies that when a plan amendment, curtailment or settlement occurs during the annual reporting period, an entity is required to use updated assumptions to determine

the current service cost and net interest. The interpretation would have an impact on the consolidated financial statements in the case of curtailments or settlements.

Amendments to **IFRS 9 Prepayment Features with Negative Compensation** (effective for financial periods beginning on or after 1 January 2019). Prepayment Features with Negative Compensation amends the existing requirements in IFRS 9 regarding termination rights in order to allow measurement at amortised cost (or, depending on the business model, at fair value through other comprehensive income) even in the case of negative compensation payments. Without the amendment these financial assets would have had to be measured at FVPL. The amendments will have no impact on the consolidated financial statements.

**IFRIC 23 Uncertainty over income tax treatment** (effective for financial periods beginning on or after 1 January 2019). This interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of IAS 12. The key matter is whether the tax authority will accept the chosen tax treatment. When considering this, the assumption is that tax authorities will have full knowledge of all relevant information in assessing the proposed tax treatment. The interpretation will not have any significant impact on the consolidated financial statements.

**Annual improvements to IFRSs 2015-2017 cycle\***: Annual improvements include smaller amendments to four standards. The improvements are not expected to have an impact on the consolidated financial statement.

The Group expects to adopt later than 2019 the following new standards and amendments to the existing standards already issued by the IASB.

**IFRS 17 Insurance contracts\*** (effective from financial periods beginning on or after 1 January 2021). IFRS 17 applies to all types of insurance contracts (direct insurance and re-insurance) regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features. The overall objective is to provide a consistent accounting model for insurance contracts. The impact is under review within the Group.

\* Not yet endorsed for use by the European Union as of 31 December 2018.

## Internal transfer of service activities

Wärtsilä has decided to transfer certain service activities from Marine Solutions to Services as of 1 January 2018. The aim is to strengthen the focus on the development of these activities. The comparison periods for 2017 have been restated, resulting in EUR 177 million in net sales, EUR 190 million in order intake, and EUR 49 million in the order book being transferred from Marine Solutions to Services for the financial period 2017. This transfer has no impact on Group totals.

# Notes to the consolidated financial statements

## 1. Segment information

Wärtsilä's highest operative decision maker (CODM, Chief Operating Decision Maker) is the President and CEO with the support of the Board of Management and in some cases the Board of Directors. The President and CEO assesses the Group's profitability, financial position and development as a whole. Consequently to the management approach by the Chief Operating Decision Maker, Wärtsilä is one operating segment.

The operating segment is subdivided into two mutually supportive market areas, Marine Solutions and Energy Solutions, which are supported by Services. Wärtsilä provides advanced technologies and lifecycle solutions to its marine and energy market customers. These technologies and solutions are sold and delivered globally by the same Wärtsilä companies. Manufacturing supplies products to both Energy Solutions and Marine Solutions from the same assembly lines, allowing for synergies in the production process and in research and development. Also sourcing function supports both market areas and Services. Due to the business model, integrated operations, and governance structure, the Group is reported as one segment. However, to enable better understanding of the different market areas' development and the business cycles, Wärtsilä discloses the net sales by market areas and Services.

### Net sales by market areas and Services

MEUR	Restated	
	2018	2017
Energy Solutions	1 517	1 401
Marine Solutions	1 232	1 104
Services	2 426	2 407
<b>Total</b>	<b>5 174</b>	<b>4 911</b>

As geographical information, Wärtsilä reports the geographical areas Finland, other European countries, Asia, the Americas, and other continents. In the geographical information net sales are split by customer's destination and non-current assets by origin.

During the financial period 1 January - 31 December 2018 and 1 January - 31 December 2017 Wärtsilä did not have any individual significant customers or countries. The sales to the USA represented 14% (12) of the total net sales.

### Geographical information

MEUR	2018		Restated 2017	
	Net sales	Non-current assets*	Net sales	Non-current assets*
Finland	56	242	115	249
Other European countries	1 429	1 534	1 411	1 378
Asia	1 867	90	1 933	112
The Americas	1 245	266	1 132	265
Other	577	5	321	5
<b>Total</b>	<b>5 174</b>	<b>2 137</b>	<b>4 911</b>	<b>2 009</b>

\* Non-current assets consist of goodwill, intangible assets, property, plant and equipment, and investments in associates and joint ventures.

## 2. Acquisitions

### Acquisitions 2018

#### Transas Group

In May, Wärtsilä acquired 100% of Transas, a global company headquartered in the UK.

Transas is a global market leader in marine navigation solutions that include complete bridge systems, digital products and electronic charts. The company is also a leader in professional training and simulation services, ship traffic control, as well as monitoring and support.

The following tables summarise the preliminary amounts for the consideration paid for Transas, the cash flow from the acquisition, and the amounts of the assets acquired and liabilities assumed recognised at the acquisition date.

	MEUR
Preliminary consideration	
Consideration transferred	183
<b>Total consideration transferred</b>	<b>183</b>

	MEUR
Preliminary cash flow from the acquisition	
Consideration paid in cash	183
Cash and cash equivalents of the acquired company	-12
<b>Total cash flow from the acquisition</b>	<b>171</b>

	MEUR
Provisional values of the assets and liabilities arising from the acquisition	
Intangible assets	66
Property, plant and equipment	2
Inventories	8
Trade and other receivables	50
Deferred tax assets	2
Cash and cash equivalents	12
<b>Total assets</b>	<b>140</b>

Provisions	3
Interest-bearing debt	29
Trade payables and other liabilities	39
Deferred tax liabilities	13
<b>Total liabilities</b>	<b>83</b>

<b>Total net assets</b>	<b>57</b>
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<b>Preliminary goodwill</b>	<b>113</b>
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The preliminary fair values of the acquired identifiable intangible assets at the date of the acquisition (including technology, customer relations, and trade marks) amounted to EUR 55 million. The fair value of the current trade receivables and other receivables is approximately EUR 50 million. The fair value of the trade receivables does not include any significant risk.

The preliminary goodwill of EUR 113 million reflects the value of know-how and expertise in digital marine solutions and services. The acquisition takes Wärtsilä a significant step closer to achieving its mission of enabling sustainable societies with smart technologies. It will also speed delivery on the company's promise to disrupt the industry by establishing an ecosystem that is digitally connected across the entire supply chain, through applications that are secure, smart and cloud-based.

During 2018 the Group incurred acquisition-related costs of EUR 3 million related to external legal fees and due diligence costs. The costs have been included in the other operating expenses in the consolidated statement of income.

#### Pro forma

If the acquisition had occurred on 1 January 2018, management estimates that the consolidated net sales would have been EUR 5,213 million. The impact in the consolidated operating result would not have been significant. In determining these amounts, management has assumed that the fair value adjustments which arose on the date of the acquisition would have been the same if the acquisition had occurred on 1 January 2018.

#### Other acquisitions

In February, Wärtsilä acquired 100% of Trident B.V. and LOCK-N-STITCH Inc. In October, Wärtsilä acquired 100% of Burriel Navarro, S.L.

Trident B.V. is a Netherland based company specialised in underwater ship maintenance, inspection, and repair services. With this acquisition, Wärtsilä builds in-house competence, captures the full potential of services' product synergies, and strengthens its position in the market.

LOCK-N-STITCH Inc. is an American engineering company serving customers within the marine and energy sectors as well as other industries. It specialises in cast iron repairs. The acquisition strengthens Wärtsilä's service portfolio for customers operating multiple brands.

Burriel Navarro, S.L. is a company operating in underwater services in the main ports of Spain. The acquisition supports the growth of Wärtsilä's underwater services and expands the company's local presence in the European market.

The following tables summarise the preliminary amounts for the consideration paid, the cash flow from the acquisitions, and the amounts of the assets acquired and liabilities assumed recognised at the acquisition dates.

	MEUR
Preliminary consideration	
Consideration transferred	27
<b>Total consideration transferred</b>	<b>27</b>

	MEUR
Preliminary cash flow from the acquisitions	
Consideration paid in cash	23
Contingent consideration	4
Cash and cash equivalents of the acquired companies	-1
<b>Total cash flow from the acquisitions</b>	<b>26</b>

	MEUR
Provisional values of the assets and liabilities arising from the acquisitions	
Intangible assets	10
Property, plant and equipment	2
Inventories	1
Trade and other receivables	6
Cash and cash equivalents	1
<b>Total assets</b>	<b>19</b>

Trade payables and other liabilities	4
Deferred tax liabilities	3
<b>Total liabilities</b>	<b>6</b>
<b>Total net assets</b>	<b>13</b>
<b>Preliminary goodwill</b>	<b>13</b>

The preliminary fair values of acquired identifiable intangible assets at the dates of the acquisitions (including technology, customer relations, and trade marks) amounted to EUR 10 million. The fair value of current trade receivables and other receivables is approximately EUR 6 million. The fair value of the trade receivables does not include any significant risk.

The preliminary goodwill of EUR 13 million reflects the value of know-how and expertise in advanced underwater services.

During 2018, the acquisition-related costs the Group incurred related to external legal fees and due diligence costs were insignificant. The costs have been included in the other operating expenses in the consolidated statement of income.

#### Pro forma

If the acquisitions had occurred on 1 January 2018, management estimates that the consolidated net sales would have been EUR 5,176 million. The impact in the consolidated operating result would not have been significant. In determining these amounts, management has assumed that the fair value adjustments which arose on the dates of the acquisitions would have been the same if the acquisitions had occurred on 1 January 2018.

#### Acquisitions 2017

##### Greensmith Energy Management Systems Inc.

On 3 July 2017, Wärtsilä acquired 100% of Greensmith Energy Management Systems Inc.

Greensmith Energy Management Systems Inc. is a market leader in grid-scale energy storage software and integrated solutions. The acquisition of Greensmith enables Wärtsilä to rapidly expand its footprint in the energy storage market globally and position as a premier energy system integrator.

The following tables summarise the amounts for the consideration paid for Greensmith, the cash flow from the acquisition, and the amounts of the assets acquired and liabilities assumed recognised at the acquisition date.

Total consideration	MEUR
Consideration transferred	144
<b>Total consideration transferred</b>	<b>144</b>

Cash flow from the acquisition	MEUR
Consideration paid in cash	144
<b>Total cash flow from the acquisition</b>	<b>144</b>

The assets and liabilities arising from the acquisition	MEUR
Intangible assets	42
Trade and other receivables	5

Deferred tax assets	4
<b>Total assets</b>	<b>51</b>
Provisions	5
Trade payables and other liabilities	5
Deferred tax liabilities	17
<b>Total liabilities</b>	<b>27</b>
<b>Total net assets</b>	<b>24</b>
<b>Goodwill</b>	<b>120</b>

The fair values of the acquired identifiable intangible assets at the date of the acquisition (including trademark and technology related IP) amounted to EUR 42 million. The fair value of the current trade receivables and other receivables is approximately EUR 5 million. The fair value of the trade receivables does not include any significant risk.

The goodwill of EUR 120 million reflects the value of know-how and expertise in grid-scale energy storage and integrated solutions. Wärtsilä foresees that the acquisition will strengthen its position as an energy system integrator as well as support its growth strategy by improving Wärtsilä's offering and services towards customers.

During 2017 the Group incurred acquisition-related costs of EUR 1 million related to external legal fees and due diligence costs. The costs have been included in the other operating expenses in the consolidated statement of income.

#### Pro Forma

If the Greensmith acquisition had occurred on 1 January 2017, management estimates that the consolidated net sales would have been EUR 4,928 million. The impact in the consolidated operating result would not have been significant. In determining these amounts, management has assumed that the fair value adjustments which arose on the date of the acquisition would have been the same if the acquisition had occurred on 1 January 2017.

#### Other acquisitions

In October, Wärtsilä acquired 100% of Puregas Solutions Ab and Guidance Navigation Holdings Limited.

Puregas Solutions is a Sweden based leader in turnkey biogas upgrading solutions. The acquisition complements Wärtsilä's existing position in the biogas liquefaction market.

Guidance Navigation Holdings Limited is a UK based privately owned company. The company is a technology leader in the marine industry for sensor solutions relating to dynamic positioning and other vessel control systems. The acquisition enhances Wärtsilä's capabilities in the areas of situational awareness and near-field measurement, both essential for more intelligent vessel navigation.

The following tables summarise the amounts for the consideration paid, the cash flow from the acquisitions, and the amounts of the assets acquired and liabilities assumed recognised at the acquisition dates.

Total consideration	MEUR
Consideration transferred	63
<b>Total consideration transferred</b>	<b>63</b>

Cash flow from the acquisitions	MEUR
Consideration paid in cash	53
Contingent consideration	9



Cash and cash equivalents of the acquired companies	-10
<b>Total cash flow from the acquisitions</b>	<b>52</b>

The assets and liabilities arising from the acquisitions	MEUR
Intangible assets	17
Inventories	1
Trade and other receivables	14
Cash and cash equivalents	10
<b>Total assets</b>	<b>43</b>
Provisions	1
Trade payables and other liabilities	9
Advances received	4
Deferred tax liabilities	4
<b>Total liabilities</b>	<b>17</b>
<b>Total net assets</b>	<b>26</b>
<b>Goodwill</b>	<b>37</b>

The fair values of the acquired identifiable intangible assets at the dates of acquisitions (including customer relations, technology and trade marks) amounted to EUR 17 million. The fair value of the current trade receivables and other receivables is approximately EUR 14 million. The fair value of the trade receivables does not include any significant risk.

The goodwill of EUR 37 million reflects the value of know-how and expertise in turnkey biogas upgrading solutions and more intelligent vessel navigation. Wärtsilä foresees that the acquisition of Puregas Solutions Ab will strengthen and complement its position in the biogas liquefaction market as well as improve Wärtsilä's offering and reach in the gas value chain. The acquisition of Guidance Navigation Holdings Limited enhances Wärtsilä's capabilities in the areas of situational awareness and near-field measurement, both essential for more intelligent vessel navigation.

During 2017, the Group incurred acquisition-related costs of EUR 1 million related to external legal fees and due diligence costs. The costs have been included in the other operating expenses in the consolidated statement of income.

#### Pro forma

If the other acquisitions had occurred on 1 January 2017, management estimates that the consolidated net sales would have been EUR 4,940 million. The impact in the consolidated operating result would not have been significant. In determining these amounts, management has assumed that the fair value adjustments which arose on the dates of the acquisitions would have been the same if the acquisitions had occurred on 1 January 2017.

### 3. Disposals

#### Disposals 2018

##### Disposal of pumps business

On 31 October 2018, Wärtsilä divested its pumps business to Solix Group, a Scandinavian investment company. Wärtsilä Pumps has belonged to the Wärtsilä Marine Solutions organisation and became part of the Group along with the acquisition of Hamworthy in 2012. The Wärtsilä Pumps business recorded sales of approximately EUR 50 million in 2017. The cash consideration of the transaction was EUR 45 million, and in addition EUR 20 million of the transaction price is reported as a receivable in the non-current other receivables in the consolidated statement of financial

position. Wärtsilä reported a gain of EUR 27 million in other operating income from the transaction according to the preliminary sales profit calculation.

#### Other disposals

On 20 October 2018, Wärtsilä sold its majority interest in Wärtsilä Yuchai Engine Co. Ltd. The consideration received and the impact on profit for the financial period were not significant.

#### Disposals 2017

In 2017, there were no disposals.

## 4. Disaggregation of revenue

Revenue from the contracts with customers is derived over time and at a point in time in the following revenue types.

#### Net sales by revenue type

MEUR	2018	2017
Products	1 145	1 149
Goods and services	557	567
Projects	2 992	2 785
Long-term agreements	480	410
<b>Total</b>	<b>5 174</b>	<b>4 911</b>

#### Timing of satisfying performance obligations

MEUR	2018	2017
At a point in time	3 740	3 555
Over time	1 434	1 356
<b>Total</b>	<b>5 174</b>	<b>4 911</b>

Product sales consist of sales of spare parts and standard equipment for which the revenue is recognised at a point in time when the control of the products has transferred to customer, in general at the delivery of the goods.

Goods and services -type of revenue involves short-term field service jobs, which includes the delivery of a combination of service and equipment. The revenue is recognised at a point in time when service is rendered.

Projects contain short-term and long-term projects. Depending on the contract terms and the duration of the project, the revenue is recognised at a point in time or over time. Revenue related to long-term projects, such as construction contracts, integrated solutions projects, ship design, and energy solutions contracts, is recognised over time. Revenue for tailor-made equipment delivery projects is recognised at a point in time.

Long-term agreements contain long-term operating and maintenance agreements for which the revenue is recognised over time.

## 5. Other operating income

MEUR	2018	2017
Capital gains	32	18
Government grants	7	10
Sale of scrapped material	3	3
Sale of by-products	2	1
Income related to cancelled orders*	10	6
Insurance indemnities	4	4
Other	24	19
<b>Total</b>	<b>80</b>	<b>60</b>

\* Expenses related to cancelled orders are recorded on respective expense accounts.

## 6. Material and services

MEUR	2018	2017
Purchases during the financial period	-1 598	-1 418
Change in inventories	40	1
External services	-1 294	-1 144
<b>Total</b>	<b>-2 852</b>	<b>-2 561</b>

## 7. Employee benefit expenses

MEUR	2018	2017
Wages and salaries	954	1 000
Pension costs		
Defined benefit plans	7	9
Defined contribution plans	71	66
Other compulsory personnel costs	142	139
<b>Total</b>	<b>1 175</b>	<b>1 214</b>

Management remuneration is specified in Note 30. Related party disclosures.

### Long-term incentive schemes

Wages and salaries include a release of provision for expenses arising from bonus schemes 2016-2018 and 2017-2019 totalling EUR 21 million (previous year increase 40). The provision is recognised at fair value. The bonus schemes are tied to the price development of the company's share during a pre-determined timeframe, and an upper limit is set for the bonus. When a bonus scheme ends and the employment requirement is fulfilled, the bonus is settled in cash. Board of Management members shall acquire Wärtsilä shares with 50% of the net bonuses received, until the share ownership corresponding to the individuals' annual gross base salary level has been achieved.

The bonus payment for bonus schemes is based on the share price development during a three-year period. The decision about the share issue without payment has been reflected to the amount and criteria of long-term incentive schemes. The 2016-2018 bonus scheme comprises 4,857,000 incentive rights, the 2017-2019 bonus scheme 5,490,000 incentive rights and the 2018-2020 bonus scheme 4,845,000 incentive

rights. For the bonus scheme 2016-2018 the basis of a share price is EUR 15.82, for the bonus scheme 2017-2019 EUR 16.19, and for the bonus scheme 2018-2020 EUR 22.58. The bonus schemes take into account 100% of dividends paid, and the paid bonus cannot exceed EUR 4.61 per incentive right in the 2016-2018 bonus scheme, EUR 6.07 in the 2017-2019 bonus scheme, or EUR 8.47 in the 2018-2020 bonus scheme.

	2018	2017
Personnel on average	18 899	17 866
Personnel at the end of the financial period	19 294	18 065

## 8. Depreciation, amortisation and impairment

MEUR	2018	2017
Development expenses	11	12
Purchase price allocation amortisation	43	36
Other intangible assets	12	12
Buildings and structures	16	15
Machinery and equipment	43	45
Other tangible assets	1	1
Impairments	3	14
<b>Total</b>	<b>130</b>	<b>134</b>

## 9. Other operating expenses

MEUR	2018	2017
Travel costs	145	138
Rental costs	90	90
Legal and consultancy costs	89	71
Information technology costs	61	55
Other personnel related costs	58	51
Other	204	173
<b>Total</b>	<b>648</b>	<b>577</b>

## 10. Financial income and expenses

MEUR	2018	2017
Interest income on loans and receivables	2	2
Interest income on financial assets at fair value through the statement of income	20	9
Interest income on investments at amortised cost	1	
Other financial income	1	2
<b>Total financial income</b>	<b>24</b>	<b>12</b>
Interest expenses on financial liabilities recognised at amortised cost	-11	-10
Interest expenses on financial liabilities at fair value through the statement of income	-34	-14
Net interest from defined benefit plans	-3	-3
Changes in fair values of financial assets/liabilities at fair value through the statement of income	-4	1

Write-down of financial receivables	-1	
Exchange rate differences*	-6	-27
Fee expenses	-2	-1
Other financial expenses	-4	-4
<b>Total financial expenses</b>	<b>-65</b>	<b>-59</b>
<b>Total</b>	<b>-40</b>	<b>-47</b>

\* In 2018, the result from the ineffective portion of cash flow hedges related to cancelled orders, EUR -2 million (-15), and exchange rate differences from unhedged internal loans, EUR -5 million (-7) were included in exchange rate differences in the consolidated statement of income.

## 11. Income taxes

		Restated
MEUR	2018	2017
<b>Income taxes</b>		
for the financial period	-126	-121
for prior financial periods	1	-2
<b>Change in deferred tax</b>		
origination and reversal of temporary differences	10	2
changes in tax rates	1	4
<b>Total</b>	<b>-116</b>	<b>-117</b>
<b>Reconciliation of effective tax rate:</b>		
Profit before taxes	502	491
Tax calculated at the domestic corporate tax rate 20.0%	-100	-98
Effect of changed tax rates	1	4
Effect of different tax rates in foreign subsidiaries	6	4
Effect of income not subject to tax and non-deductible expenses	2	-3
Effect of share of result of associates and joint ventures	3	3
Utilisation of previously unrecognised tax losses carried forward		4
Unrecognised taxes on losses carried forward	-17	-14
Other taxes*	-10	-14
Other temporary differences	-1	-1
Income taxes for prior financial periods	1	-2
<b>Tax charge in the consolidated statement of income</b>	<b>-116</b>	<b>-117</b>
<b>Effective tax rate (%)</b>	<b>23.1</b>	<b>23.7</b>

\* Other taxes consist mainly of withholding taxes not utilised and taxes not directly based on taxable income.

Income taxes related to other comprehensive income are presented in Consolidated statement of comprehensive income. Changes in deferred tax assets and liabilities are presented in Note 22. Deferred taxes.

Wärtsilä is subject to tax audits in some countries, which can result in tax reassessment decisions and obligations to pay additional taxes and related payments.

## 12. Earnings per share

Earnings per share is calculated by dividing the profit for the financial period attributable to equity holders of the parent company by the weighted average number of shares outstanding. During the financial periods there were no programmes with dilutive effect.

MEUR	Restated	
	2018	2017
Profit for the financial period attributable to equity holders of the parent company	386	375
Thousands of shares		
weighted average number of shares outstanding*	591 723	591 723
Earnings per share attributable to equity holders of the parent company (basic and diluted):		
Earnings per share (EPS), basic and diluted, EUR	0.65	0.63

\* Additional information on the number of shares is presented in Note 24. Equity.

Earnings per share for the comparison period has been restated to reflect the increased number of shares.

## 13. Intangible assets

### Goodwill

#### Goodwill allocation

Goodwill arising from business acquisitions is allocated to the Group cash-generating unit (CGU) that is the Group's operating segment. The operating segment represents the lowest level within the Group at which the goodwill is monitored. The companies acquired during the financial period are integrated to the Group CGU at the acquisition date. Previously separately presented CGU's have also been integrated to the Group CGU during the financial period. The goodwill is presented in the table below:

#### Goodwill/Cash Generating Unit

MEUR	2018	2017
Wärtsilä on 1 January	1 237	1 112
Acquisitions and disposals	113	157
Other changes		1
Changes in exchange rates	4	-33
<b>Total</b>	<b>1 355</b>	<b>1 237</b>

#### Impairment testing of goodwill

The Group performs its annual impairment testing of goodwill on 30 September. Impairment of goodwill is also carried out when changes in circumstances indicate that the carrying amount may not be recoverable.

The recoverable amount from the CGU is determined based on value-in-use calculation. The calculation is made on a discounted cash flow method basis, derived from the order book and five-year cash flow projections from management approved strategic plans. The estimated cash flow of CGU is based on utilisation of the existing property, plant and equipment in their current condition with normal maintenance capital

expenditure, excluding any potential future acquisitions. Cash flow beyond the five-year period is calculated using the terminal value method. The terminal growth rate used in projections is based on management's assessment on conservative long-term growth. The terminal growth rate used is 2%.

The key driver for the valuation is the growth in the global economy and in particular the development of the global power market, the global shipbuilding industry, and the demand for related services. The projected development of total costs in the market affects the profitability, whereas no single cost item is considered to have a material impact. The valuation driver for the new equipment sales is the growth in the global economy, whereas for after sales the drivers are also the demand for related services and the projected development in labour cost.

The applied discount rate is the weighted average pre-tax cost of capital (WACC) as defined by Wärtsilä. The components of the WACC are risk-free rate, market risk premium, industry specific beta, cost of debt and debt equity ratio. When defining the WACC for 2018, it has been considered that the general interest rate is currently on a lower level. Wärtsilä has used a WACC of 8.9% (9.4) in the calculations.

As a result of the impairment test, no impairment loss for the CGU was recognised for the financial periods ended 31 December 2018 and 2017 respectively. The recoverable amount from the CGU exceeded its carrying value remarkably.

#### Sensitivity analysis

The management has assessed that no reasonable possible changes in the key assumptions would cause the CGU's carrying amount to exceed its recoverable amount. Sensitivity analyses have been carried out for the valuation of the recoverable amount for the CGU by changing the assumptions used in the calculation. A change in an assumption that would cause the recoverable amount to equal the carrying amount is presented in the table below.

	Change
Pre-tax discount rate	increase more than 20 percentage points
Terminal growth rate	decrease more than 68 percentage points
Profitability	decrease more than 82 percentage

In management's opinion, the changes in the basic assumptions shall not be seen as an indication that these factors are likely to materialise. The sensitivity analyses are hypothetical and should therefore be treated with caution.

#### 2018

MEUR	Develop- ment expenses	Construc- tion in progress and advances paid	Other intangible assets	Goodwill	Total
Cost on 1 January 2018	142	21	783	1 243	2 189
Changes in exchange rates			-2	4	2
Acquisitions and disposals	-2	10	66	113	187
Additions	2	35	8	1	45
Decreases and other changes			-12	-1	-13
Reclassifications		-13	13		
<b>Cost on 31 December 2018</b>	<b>141</b>	<b>53</b>	<b>857</b>	<b>1 361</b>	<b>2 411</b>
Accumulated amortisation and impairment on 1 January 2018	-85		-521	-6	-612
Changes in exchange rates			1		1
Accumulated amortisation on decreases and other changes	2		12	1	15
Amortisation during the financial period	-11		-55		-66
Impairments			-1	-1	-2
<b>Accumulated amortisation and impairment on 31 December 2018</b>	<b>-94</b>		<b>-565</b>	<b>-6</b>	<b>-665</b>



Carrying amount on 31 December 2018	47	53	292	1 355	1 747
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Development costs for internally generated assets capitalised during the financial period amounted to EUR 30 million (16). The carrying amount was EUR 91 million (73).

Purchase price allocation amortisation amounted to EUR 43 million (36) and the carrying amount was EUR 248 million (227).

## 2017

MEUR	Develop- ment expenses	Construc- tion in progress and advances paid	Other intangible assets	Goodwill	Total
Cost on 1 January 2017	107	41	743	1 118	2 008
Changes in exchange rates			-15	-33	-49
Acquisitions			61	157	217
Additions	1	19	5		25
Decreases and other changes			-12	1	-12
Reclassifications	34	-39	5		
<b>Cost on 31 December 2017</b>	<b>142</b>	<b>21</b>	<b>783</b>	<b>1 243</b>	<b>2 189</b>
Accumulated amortisation and impairment on 1 January 2017	-73		-495	-5	-574
Changes in exchange rates			9		10
Accumulated amortisation on decreases and other changes			12		12
Amortisation during the financial period	-12		-48		-60
Impairments			-1		-1
<b>Accumulated amortisation and impairment on 31 December 2017</b>	<b>-85</b>		<b>-521</b>	<b>-6</b>	<b>-612</b>
<b>Carrying amount on 31 December 2017</b>	<b>57</b>	<b>21</b>	<b>262</b>	<b>1 237</b>	<b>1 577</b>

## 14. Property, plant & equipment

### 2018

MEUR	Land and water	Build- ings and struc- tures	Machin- ery and equip- ment	Construc- tion in progress and advances paid	Other tangible assets	Total
Cost on 1 January 2018	43	313	787	18	23	1 185
Changes in exchange rates		-1	-1			-3
Acquisitions and disposals	-9	-22	-19			-50
Additions	1	5	23	35		64
Decreases	-4	-4	-22			-30
Reclassifications		7	12	-14		5
<b>Cost on 31 December 2018</b>	<b>31</b>	<b>297</b>	<b>780</b>	<b>40</b>	<b>24</b>	<b>1 171</b>
Accumulated depreciation and impairment on 1 January 2018	-2	-172	-642		-20	-835
Changes in exchange rates		1	1			1
Accumulated depreciation on decreases and disposals	1	11	41			53
Depreciation during the financial period		-16	-43		-1	-60

Impairments				-2		-2
Reclassifications			-1	-4		-5
<b>Accumulated depreciation and impairment on 31 December 2018</b>	<b>-1</b>	<b>-177</b>	<b>-648</b>	<b>-21</b>		<b>-847</b>
<b>Carrying amount on 31 December 2018</b>	<b>30</b>	<b>120</b>	<b>132</b>	<b>39</b>	<b>3</b>	<b>324</b>
Value of finance-leased assets included in carrying amount		1	1			3

## 2017

MEUR	Land and water	Buildings and structures	Machinery and equipment	Construction in progress and advances paid	Other tangible assets	Total
Cost on 1 January 2017	46	349	834	12	25	1 266
Changes in exchange rates	-1	-10	-18			-30
Additions		2	20	17		39
Decreases	-2	-22	-45			-69
Reclassifications		-6	-5	-11	-1	-22
<b>Cost on 31 December 2017</b>	<b>43</b>	<b>313</b>	<b>787</b>	<b>18</b>	<b>23</b>	<b>1 185</b>
Accumulated depreciation and impairment on 1 January 2017	-1	-179	-660		-21	-861
Changes in exchange rates		4	13			18
Accumulated depreciation on decreases		15	44			59
Depreciation during the financial period		-15	-45		-1	-61
Impairments		-6	-7			-13
Reclassifications		9	13		1	22
<b>Accumulated depreciation and impairment on 31 December 2017</b>	<b>-2</b>	<b>-172</b>	<b>-642</b>		<b>-20</b>	<b>-835</b>
<b>Carrying amount on 31 December 2017</b>	<b>41</b>	<b>142</b>	<b>146</b>	<b>18</b>	<b>3</b>	<b>349</b>
Value of finance-leased assets included in carrying amount						1

## 15. Investments in associates and joint ventures

MEUR	2018	2017
Carrying amount on 1 January	83	84
Investments	1	
Share of result	13	13
Dividends	-17	-12
Translation differences	-1	-1
Reduction of share capital in associates and joint ventures	-13	
<b>Carrying amount on 31 December</b>	<b>66</b>	<b>83</b>

In 2018, Wärtsilä invested EUR 1 million in the joint venture CSSC Wärtsilä Electrical & Automation Co., Ltd., and received EUR 13 million as return of capital from Wärtsilä Hyundai Engine Co Ltd.

## Summary of financial information (100%):

2018

MEUR		Holding %	Assets	Equity	Liabilities	Net sales	Profit for the financial period
<b>Joint ventures</b>							
	Wärtsilä Qiyao Diesel Company Ltd.	China	50.0	26	19	8	17
	Wärtsilä Hyundai Engine Co Ltd.	South Korea	50.0	111	91	20	164
	CSSC Wärtsilä Electrical & Automation Co., Ltd.	China	49.0	2	2	1	-1
	CSSC Wärtsilä Engine (Shanghai) Co., Ltd.	China	49.0	70	19	51	49
	Repropel Sociedad de reparacao de helices	Portugal	50.0	1	1	1	1
<b>Associated companies</b>							
	Wärtsilä Land & Sea Academy, Inc.	Philippines	40.0		-2	2	
	Neptun Maritime AS	Norway	40.0	1	1		1

CSSC Wärtsilä Engine (Shanghai) Co., Ltd. factory is manufacturing medium and large bore medium speed diesel and dual-fuel engines at Lingang, Shanghai. Wärtsilä Hyundai Engine Co Ltd. manufactures Wärtsilä 50DF dual-fuel engines for LNG carriers and other marine application in Mokpo, South Korea. Wärtsilä Qiyao Diesel Company Ltd. manufactures marine auxiliary engines in Shanghai, China. CSSC Wärtsilä Electrical & Automation Co., Ltd. manufactures advanced electrical and automation solutions for the cruise industry.

2017

MEUR		Holding %	Assets	Equity	Liabilities	Net sales	Profit for the financial period
<b>Joint ventures</b>							
	Wärtsilä Qiyao Diesel Company Ltd.	China	50.0	25	19	7	13
	Wärtsilä Hyundai Engine Co Ltd.	South Korea	50.0	192	122	70	176
	CSSC Wärtsilä Engine (Shanghai) Co., Ltd.	China	49.0	62	22	40	26
	Repropel Sociedad de reparacao de helices	Portugal	50.0	1	1	1	1
<b>Associated companies</b>							
	Wärtsilä Land & Sea Academy, Inc.	Philippines	40.0		-2	2	
	Neptun Maritime AS	Norway	40.0	1	1		1

## 16. Financial assets and liabilities by measurement category

2018

MEUR	Measured at amortised cost	At fair value through the statement of income	At fair value through other comprehensive income	Carrying amounts of the statement of financial position items	Fair value
<b>Non-current financial assets</b>					
		3		3	3
	49			49	49
		3		3	3
		16		16	16

Other receivables	20			20	20
<b>Current financial assets</b>					
Trade receivables	1 219			1 219	1 219
Trade receivables for sale		3		3	3
Derivatives		5	3	8	8
Other financial receivables	3			3	3
Cash and cash equivalents	466	21		487	487
<b>Carrying amount by measurement category</b>	<b>1 758</b>	<b>52</b>	<b>3</b>	<b>1 813</b>	<b>1 813</b>
<b>Non-current financial liabilities</b>					
Interest-bearing debt	748			748	754
Derivatives		16		16	16
<b>Current financial liabilities</b>					
Interest-bearing debt	74			74	74
Trade payables	596			596	596
Derivatives		27	36	63	63
Other financial liabilities	9			9	9
<b>Carrying amount by measurement category</b>	<b>1 428</b>	<b>43</b>	<b>36</b>	<b>1 507</b>	<b>1 513</b>

2017

MEUR	Measured at amortised cost	At fair value through the statement of income	At fair value through other comprehensive income	Carrying amounts of the statement of financial position items	Fair value
<b>Non-current financial assets</b>					
Interest-bearing investments		5		5	5
Trade receivables	109			109	109
Other investments		13		13	13
Other receivables	3			3	3
<b>Current financial assets</b>					
Trade receivables	1 306			1 306	1 306
Trade receivables for sale		1		1	1
Derivatives		15	14	28	28
Other financial receivables	4			4	4
Cash and cash equivalents	360	19		379	379
<b>Carrying amount by measurement category</b>	<b>1 782</b>	<b>53</b>	<b>14</b>	<b>1 848</b>	<b>1 848</b>
<b>Non-current financial liabilities</b>					
Interest-bearing debt	517			517	524
Derivatives		19		19	19
<b>Current financial liabilities</b>					
Interest-bearing debt	102			102	102
Trade payables	539			539	539
Derivatives		12	10	22	22
Other financial liabilities	11			11	11
<b>Carrying amount by measurement category</b>	<b>1 169</b>	<b>31</b>	<b>10</b>	<b>1 211</b>	<b>1 218</b>

### Fair value hierarchy

Financial instruments measured at fair value are classified according to the following fair value hierarchy: instruments measured using quoted prices in active markets (level 1), instruments measured using inputs other than quoted prices included in level 1 observable either directly or indirectly (level 2), and instruments measured using inputs that are not based on observable market data (level 3). Financial instruments measured at fair value include financial assets and liabilities at fair value through the statement of income. Due to the short nature of the current receivables, their carrying amount is considered to be same as their fair value.

Specific valuation techniques used to value financial instruments include:

- the fair value of forward foreign exchange contracts is determined by using forward rates at the closing date
- the fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves
- the use of quoted market prices or dealer quotes for similar instruments

MEUR	2018		2017	
	Level 2	Level 3	Level 2	Level 3
<b>Financial assets</b>				
Other investments		16		13
Interest-bearing investments, non-current	3		5	
Other receivables, non-current	3		3	
Derivatives	12		28	
<b>Financial liabilities</b>				
Interest-bearing debt, non-current*	754		524	
Derivatives	79		41	

\* Measured at amortised cost in the consolidated statement of financial position.

Additional information on financial liabilities is presented in Note 26. Financial liabilities.

### Other investments

Other investments include unlisted shares carried at fair value. These investments are valued using certain DCF models where critical assumptions relate to WACC level and expected cash flows from future dividends. However, the results from different scenarios vary a lot. Thus, the management considers that the valuation at amortised cost is the best estimate of fair value.

MEUR	2018	2017
Carrying amount on 1 January	13	15
Acquired shares	3	
Disposal of shares		-1
Impairment		-1
Carrying amount on 31 December	16	13

In 2018, the cost for other unlisted shares (level 3) was EUR 16 million (13), and the market value of them was EUR 16 million (13).

## 17. Inventories

MEUR	2018	2017
Materials and consumables	471	432
Work in progress	615	557
Finished products	35	27

Advances paid	43	36
<b>Total</b>	<b>1 165</b>	<b>1 051</b>

In 2018, EUR 1 million (4) impairment for obsolete inventories has been recognised in the consolidated statement of income. Acquisition-related increase in inventories is EUR 8 million (1).

## 18. Contract balances

MEUR	2018	2017
Trade receivables	1 271	1 416
Contract assets	557	351
Contract liabilities		
Advances received	584	523
Deferred income	345	265
<b>Trade receivables and contract assets</b>		
Non-current	49	109
Current	1 779	1 658
<b>Contract liabilities</b>		
Non-current	41	64
Current	888	724
Revenue recognised in the financial period that was included in the contract liability on 1 January	724	615
Remaining performance obligations from projects and contracts under execution*	3 794	

\* As permitted under the transitional provision in IFRS 15, the transaction price allocated to unsatisfied performance obligations as of 31 December 2017 is not disclosed.

Trade receivables related to contracts with customers are non-interest-bearing receivables. Trade receivables have decreased during 2018 through collection of some sizable overdue receivables.

Contract assets primarily relate to the Group's right to consideration for transferred goods or services, but which is not yet billed at the reporting date. The contract assets are transferred to receivables when the rights become unconditional.

The contract liabilities mainly relate to the advance consideration received from customers for contracts, but for which the corresponding good or service has not yet been transferred.

The contract assets and liabilities arise from long-term service agreements and projects recognised over time such as gas solutions construction contracts, integrated solutions projects, ship design, and energy solutions turn key contracts. The increase in contract assets in 2018 is the result of usual business-related variation mainly in Energy Solutions projects, as well as the impact of new acquisitions amounting to EUR 15 million. In addition, the accrued revenue has increased in some larger long-term service agreements. The increase in contract liabilities in 2018 arises mainly from the usual business-related variation in Energy Solutions projects as well as the acquisition impact of EUR 1 million.

## 19. Other receivables

MEUR	2018	2017
Derivatives	12	28
Interest and other financial items	3	4

Insurance receivables	5	3
Rental accruals	3	4
Prepaid expenses	6	
Other accruals	42	46
Loan receivables	3	3
Defined benefit plans		1
VAT receivables	104	97
Other*	83	52
<b>Total</b>	<b>262</b>	<b>238</b>
<b>Non-current</b>	<b>34</b>	<b>18</b>
<b>Current</b>	<b>228</b>	<b>221</b>

\* Includes payroll related tax receivables of EUR 9 million (10) in Brazil, which cannot be utilised within a year.

## 20. Cash and cash equivalents

MEUR	2018	2017
Cash and bank balances*	461	359
Cash equivalents	26	20
<b>Total</b>	<b>487</b>	<b>379</b>

\* EUR 128 million (122) of cash and bank balances relate to cash in countries where repatriation is limited due to local regulation and consequently the cash is not immediately available to the parent company.

## 21. Net debt reconciliation

### Net interest-bearing debt

MEUR	2018	2017
Interest-bearing debt, non-current	748	517
Interest-bearing debt, current	74	102
<b>Total interest-bearing liabilities</b>	<b>823</b>	<b>619</b>
Interest-bearing receivables	-3	-5
Cash and cash equivalents	-487	-379
<b>Total interest-bearing assets</b>	<b>-490</b>	<b>-385</b>
<b>Total net interest-bearing debt</b>	<b>333</b>	<b>234</b>



## Net debt reconciliation

MEUR	Carrying amount on 1 January 2018	Cash flows	Changes in exchange rates	Acquisitions and disposals	Carrying amount on 31 December 2018
Interest-bearing debt, non-current	517	231	-1		748
Interest-bearing debt, current	102	-40	-6	18	74
Interest-bearing receivables	-5	-2		6	-3
Cash and cash equivalents	-379	-101	4	-11	-487
<b>Net debt as at 31 December 2018</b>	<b>234</b>	<b>87</b>	<b>-2</b>	<b>13</b>	<b>333</b>

MEUR	Carrying amount on 1 January 2017	Cash flows	Changes in exchange rates	Acquisitions	Carrying amount on 31 December 2017
Interest-bearing debt, non-current	520	-12	9		517
Interest-bearing debt, current	108	10	-14		102
Interest-bearing receivables	-7	1	2		-5
Cash and cash equivalents	-472	94	9	-10	-379
<b>Net debt as at 31 December 2017</b>	<b>150</b>	<b>92</b>	<b>6</b>	<b>-10</b>	<b>234</b>

## 22. Deferred taxes

## Changes in deferred taxes during 2018

MEUR	1 January 2018	Recognised in the consolidated statement of income	Other comprehensive income	Translation differences	Acquisitions and disposals	31 December 2018
<b>Deferred tax assets</b>						
Tax loss carry-forwards	18				2	18
Pension obligations	23	-2				21
Provisions	30	-2				28
Elimination of intragroup margin in inventories	5					5
Fair value reserve	6		3			9
Other temporary differences	49	6		1	-7	49
<b>Total</b>	<b>131</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>-6</b>	<b>129</b>
<b>Deferred tax liabilities</b>						
Intangible assets and property, plant and equipment	57	-6			14	66
Fair value reserve	2		-2			
Other temporary differences	42	-2			-7	32
<b>Total</b>	<b>102</b>	<b>-8</b>	<b>-2</b>		<b>7</b>	<b>99</b>
<b>Net deferred tax assets/liabilities</b>	<b>29</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>-13</b>	<b>30</b>

On 31 December 2018, the Group had temporary differences on which no deferred tax assets were booked totalling EUR 63 million (47), as it is uncertain if they will be realised. Most of the unrecognised deferred tax assets are related to cumulative tax losses. Of these, EUR 18 million (8) will expire within the next five years and the rest will expire later or never. Most of the cumulative tax losses on which deferred tax assets have been booked will never expire.

#### Changes in deferred taxes during 2017

	Restated					
MEUR	1 January 2017	Recognised in the consolidated statement of income	Other comprehensive income	Translation differences	Acquisitions and disposals	31 December 2017
<b>Deferred tax assets</b>						
Tax loss carry-forwards	19	-1		-1	2	18
Pension obligations	25	-2		-1		23
Provisions	32	-2		-2	2	30
Elimination of intragroup margin in inventories	9	-3				5
Fair value reserve	12		-6	-1		6
Other temporary differences	44	5		-3		49
<b>Total</b>	<b>141</b>	<b>-3</b>	<b>-6</b>	<b>-7</b>	<b>4</b>	<b>131</b>
<b>Deferred tax liabilities</b>						
Intangible assets and property, plant and equipment	59	-19		-1	21	57
Fair value reserve	1		2			2
Other temporary differences	35	8		-3		42
<b>Total</b>	<b>93</b>	<b>-10</b>	<b>2</b>	<b>-3</b>	<b>21</b>	<b>102</b>
<b>Net deferred tax assets/liabilities</b>	<b>48</b>	<b>7</b>	<b>-8</b>	<b>-4</b>	<b>-17</b>	<b>29</b>

## 23. Pension obligations

MEUR	2018	2017
Net defined benefit liabilities on 31 December	149	154
Liability for other long term employee benefits on 31 December	13	11

Wärtsilä has defined benefit plans for its employees mainly in Europe and Asia. The major plans are located in Switzerland, Germany, Great Britain and Sweden. The Swiss defined benefit plan accounts for 31% of the Group's total defined benefit obligations and 57% of the plans' assets. Most of the plans provide a lifetime pension to the members at the normal retirement age but there are also plans, which provide a lump sum payment at the retirement date. Most of these defined benefit pension plans are managed by pension funds. Their assets are not included in the Group's assets. The plans' assets are typically invested according to the investment strategies approved by the funds' Board of Trustees, or in some cases they are completely administered by insurance companies. Wärtsilä's subsidiaries make their payments to pension funds in accordance with the local legislation and practice. Authorised actuaries in each country have performed the actuarial calculations required for the defined benefit plans.

#### The Swiss Plan

Wärtsilä operates a defined benefit plan in Switzerland in accordance with the local pension laws and regulations. The plan provides benefits to the members in the form of a pension payable after retirement. The level of benefits provided depends on the accrued retirement savings capital, which is a result of contributions paid up to retirement plus respective interest. The plan is run as a pension fund by the Board of Trustees separately from the company.

Contributions to the plan are paid both by the employees as well as by the employers based on a percentage of the insured salary as defined in the

pension fund regulations. Contributions by the employers vary depending on the age of the employee and cover on average two thirds of the total contributions.

The investment strategy for a pension fund's asset is the responsibility of the Board of Trustees. Assets are invested in accordance with the strategy and the corridors for different investment categories as defined by local laws. Other risks of the plan are longevity of plan members as well as death or disability of employees before their retirement. The pension plan is reinsured for the risk of death and disability until 31 December 2018. Inflationary increases for pensions in payment are at the discretion of the Board of Trustees as benefits paid by the plan are exceeding the minimum level required by law.

#### The German Plans

Wärtsilä operates defined benefit plans in Germany in accordance with the local pension laws and regulations. The plans provide benefits to the members in the form of a pension payable after retirement. The level of benefits provided depends on the accrued retirement savings capital, which is a result of contributions paid up to retirement plus respective interest. The plans vary from unfunded plans to a plan run as a pension fund.

In some of the plans, contributions are paid to the plan both by the employees and the employers based on a percentage of the insured salary as defined in the pension fund regulations. However, in some plans only the employer is obliged to make the payments. Contributions by the employers vary depending on the age of the employee, the duration of the employment, and also on the position of the employee.

The main risks of the plans are longevity of plan members and death or disability of employees before their retirement. In a funded plan, also the investment strategy chosen includes certain risk. Inflationary increases for pensions in payment are valued on a yearly basis.

MEUR	2018	2017
Present value of unfunded defined benefit obligations	108	111
Present value of funded defined benefit obligations	177	197
Fair value of plan assets	-135	-154
<b>Net liability in the statement of financial position</b>	<b>149</b>	<b>154</b>

%	Present value of defined benefit obligations	Fair value of plan assets
Switzerland	31	57
Germany	24	5
Other Europe	35	25
Asia	10	13
<b>Total</b>	<b>100</b>	<b>100</b>

MEUR	Present value of defined benefit obligation	Fair value of plan assets	Net defined benefit liability
<b>Balance on 1 January 2017</b>	323	-156	168
Changes in exchange rates	-14	10	-4
Acquisitions	4		4
<b>Recognised in the statement of income:</b>			
Current service cost	8		9
Interest cost (+) / interest income (-)	5	-2	3
<b>Remeasurements recognised in other comprehensive income:</b>			
Return on plan assets, excluding interest income		-3	-3
Experience adjustments	8		8
Changes in demographic assumptions	-1		-1
Changes in financial assumptions	-10		-10

Contribution paid by the plan members	1	-1	
Contribution paid by the employer		-10	-10
Benefits paid	-19	10	-9
<b>Balance on 31 December 2017</b>	<b>307</b>	<b>-154</b>	<b>154</b>

<b>Balance on 1 January 2018</b>	<b>307</b>	<b>-154</b>	<b>154</b>
Changes in exchange rates	2	-2	-1
<b>Recognised in the statement of income:</b>			
Current service cost	10		10
Past service cost (- credit)	-1		-1
Gains (-) / losses (+) on curtailments and settlements	-21	20	-2
Interest cost (+) / interest income (-)	5	-3	3
<b>Remeasurements recognised in other comprehensive income:</b>			
Return on plan assets, excluding interest income		11	11
Experience adjustments	-6		-6
Changes in financial assumptions	-2		-2
Contribution paid by the plan members	1	-1	
Contribution paid by the employer		-11	-11
Benefits paid	-13	5	-8
<b>Balance on 31 December 2018</b>	<b>282</b>	<b>-134</b>	<b>149</b>

Plan assets invested in:

%	2018	2017
Shares and other equity instruments	17	26
Bonds and other debt instruments	33	35
Property	17	16
Other assets	33	23

The main actuarial assumptions at the end of the financial period are (expressed as weighted averages):

%	2018	2017
Discount rate	1.78	1.65
Future salary growth	2.16	2.15
Future pension growth	1.18	1.14

On 31 December 2018, the weighted average duration of the defined benefit obligation was 12 years. The Group expects to contribute EUR 5 million to the plans during the next financial period.

Assumptions regarding future mortality are set based on actuarial advice in accordance with the published statistics and experience in each country. These assumptions translate into a weighted average life expectancy in years for a pensioner at the retirement age as follows:

	2018	2017
<b>Plan participants retiring at the end of the financial period:</b>		
Male	17.0	17.7
Female	17.1	19.6
<b>Plan participants retiring 20 years after the end of the financial period:</b>		
Male	16.1	19.5
Female	18.1	21.9

The following table presents a sensitivity analysis for each significant actuarial assumption showing how the defined benefit obligation would have been affected by changes in the relevant actuarial assumption that were reasonably possible at the end of the financial period. This sensitivity analysis applies to the defined benefit obligation only and not to the net defined benefit pension liability in its entirety.

#### Sensitivity analysis

	Change in assumption	Effect to defined benefit obligation, MEUR	
		2018	2017
Discount rate	increase 1%	-33	-36
Discount rate	decrease 1%	41	44
Future salary growth	increase 1%	9	13
Future salary growth	decrease 1%	-8	-10
Future pension growth	increase 1%	25	28
Future pension growth	decrease 1%	-15	-15

## 24. Equity

Equity consists of share capital, share premium, translation differences, fair value reserve, remeasurements of defined benefit liabilities and retained earnings.

#### Share capital and number of shares

MEUR				
	Number of shares and votes	Share capital	Share premium	Total
1 January 2017	197 241 130	336	61	397
31 December 2017	197 241 130	336	61	397
Share issue without payment on 12 March 2018	394 482 260			
31 December 2018	591 723 390	336	61	397

Wärtsilä's share does not have a nominal value. Wärtsilä has one series of shares. Each share is assigned one vote in the Annual General Meeting and has equal right to dividend.

#### Share Capital

The subscription price of a share received by the company in connection with share issues is credited to the share capital, unless it is provided in the share issue decision that a part of the subscription price is to be recorded in the fund for invested non-restricted equity.

#### Share Premium

Share premium is restricted equity. It may be reduced in accordance with the rules applying to decreasing share capital in accordance with the Finnish Limited Liability Companies Act. It can also be used to increase the share capital.

#### Translation differences

Translating foreign subsidiaries' financial statements by using different exchange rates in the statement of comprehensive income and in the statement of financial position causes translation differences, which are recognised in equity. Translation differences of foreign subsidiaries' acquisition cost eliminations and post acquisition gains and losses are also presented in equity. Also translation differences arising from subsidiary

net investment and non-current subsidiary loan without agreed settlement dates are presented in equity. The change in translation differences is recognised in other comprehensive income.

#### Fair value reserve

Fair value reserve includes the changes in fair value of derivative financial instruments, if the hedging is effective and eligible for hedge accounting. The changes in items included in fair value reserve are recognised in other comprehensive income.

MEUR	Cash flow hedges
Difference between fair value and carrying amount on 1 January 2017	-50
Taxes related to fair value adjustments	12
<b>Fair value reserve on 1 January 2017</b>	<b>-39</b>
Transferred to the statement of income, net of taxes	28
Fair value adjustments	1
Taxes related to fair value adjustments	-1
<b>Fair value reserve on 31 December 2017</b>	<b>-10</b>
Transferred to the statement of income, net of taxes	-6
Fair value adjustments	-17
Taxes related to fair value adjustments	3
<b>Fair value reserve on 31 December 2018</b>	<b>-31</b>

#### Parent company's distributable funds

After the balance sheet date, the Board of Directors proposed that a dividend of EUR 0.48 per share be paid for the financial period 2018, the total dividend payable being EUR 284 million. The remaining part of the retained profits will be carried further in the unrestricted equity. For the profit for the financial period 2017, a dividend of EUR 0.46 per share was distributed, totalling EUR 272 million, and the rest of the retained profits were carried further in the unrestricted equity. The dividend per share for the comparison period has been restated to reflect the increased number of shares.

Additional information on equity is presented in Notes to the parent company financial statements, in Note 10. Shareholders' equity.

## 25. Provisions

2018

MEUR	Litigation	Warranties	Onerous contracts	Restructuring	Other provisions	Total
Provisions on 1 January 2018	19	173	27	6	35	261
Acquisitions		1	1	1		3
Additions	12	60	107	9	11	198
Used provisions	-2	-62	-64	-6	-5	-138
Released provisions	-9		-5	-4	-4	-21
<b>Provisions on 31 December 2018</b>	<b>21</b>	<b>172</b>	<b>67</b>	<b>7</b>	<b>38</b>	<b>305</b>
<b>Non-current</b>						<b>54</b>
<b>Current</b>						<b>251</b>

2017

MEUR	Litigation	Warranties	Onerous contracts	Restructuring	Other provisions	Restated
						Total
Provisions on 1 January 2017	17	170	17	18	29	250
Changes in exchange rates		-2	-1		-1	-4
Acquisitions		1	5			6
Additions	10	57	20	6	11	104
Used provisions	-2	-52	-10	-17	-3	-84
Released provisions	-6		-3		-1	-10
<b>Provisions on 31 December 2017</b>	<b>19</b>	<b>173</b>	<b>27</b>	<b>6</b>	<b>35</b>	<b>261</b>
<b>Non-current</b>						<b>52</b>
<b>Current</b>						<b>209</b>

Warranty provisions include estimated future warranty costs relating to products delivered. The amount of future warranty costs is based on accumulated historical experience. The standard warranty period is one year from the delivery onwards.

The Group is a defendant in a number of legal cases which arise out of, or are incidental to, the ordinary course of its business. These lawsuits concern mainly issues such as contractual and other liability, labour relations, property damage, and regulatory matters. The Group receives from time to time claims of different amounts and with varying degrees of substantiation. There is currently one unusually sizeable claim, but it is highly unlikely that the outcome of it would be unfavourable. The claim is treated as a contingent liability as it is the Group's policy to provide for amounts related to the claims as well as for the litigation and arbitration matters when an unfavourable outcome is probable and the amount of loss can be reasonably estimated.

## 26. Financial liabilities

2018

MEUR	Current Non-current				Total
	< 1 year	1-3 years	3-5 years	> 5 years	
Loans from other financial institutions*	63	186	311	250	809
Finance lease liabilities*	1	2			2
Other interest-bearing debt*	11				11
Trade payables	596				596
Derivatives**	63	12	3		79
Other liabilities	9				9
<b>Total</b>	<b>744</b>	<b>199</b>	<b>314</b>	<b>250</b>	<b>1 507</b>
* Estimated interest expenses, total	8	13	11	7	39
Estimated contractual cash flows	752	212	326	257	1 546

2017

MEUR	Current Non-current				Total
	< 1 year	1-3 years	3-5 years	> 5 years	
Loans from pension insurance companies*	8				8
Loans from other financial institutions*	90	112	237	166	605
Finance lease liabilities*	1				1
Other interest-bearing debt*	4				4
Trade payables	539				539



Derivatives**	23	1	17		41
Other liabilities	11				11
<b>Total</b>	<b>676</b>	<b>114</b>	<b>255</b>	<b>166</b>	<b>1 211</b>
* Estimated interest expenses, total	7	12	10	5	34
Estimated contractual cash flows	683	126	265	171	1 245

\*\* Valuation for derivatives with negative market value by maturity date. Nominal contractual amounts are presented in Note 28. Derivative financial instruments.

Interest expenses for long-term loans are calculated by using the average interest rate prevailing on 31 December 2018. Fair values of financial liabilities are presented in Note 16. Financial assets and liabilities by measurement category.

## 27. Other liabilities

MEUR	Restated	
	2018	2017
Accrued expenses	295	335
Personnel costs	124	191
Derivatives	79	41
Interest and other financial items	9	11
Other accruals	45	52
VAT liabilities	26	26
Other	67	70
<b>Total</b>	<b>645</b>	<b>726</b>
<b>Non-current</b>	<b>1</b>	<b>1</b>
<b>Current</b>	<b>645</b>	<b>726</b>

## 28. Derivative financial instruments

The Group applies hedge accounting to significant foreign currency forward contracts. Detailed financial information is presented in Note 31. Financial risks.

MEUR	2018	of which closed	2017	of which closed
<b>Nominal values of derivative financial instruments (level 2)</b>				
Interest rate swaps	270		165	
Cross currency swaps	238		74	
Currency forwards, included in hedge accounting	1 227	314	814	312
Currency forwards, no hedge accounting	1 600	721	1 134	435
<b>Total</b>	<b>3 335</b>	<b>1 035</b>	<b>2 187</b>	<b>746</b>
<b>Fair values of derivative financial instruments (level 2)</b>				
Interest rate swaps	-4		-2	
Cross currency swaps	-8		-17	
Currency forwards, included in hedge accounting	-22		2	

Currency forwards, no hedge accounting	-33	3
<b>Total</b>	<b>-67</b>	<b>-13</b>

In addition, the Group had copper futures and swaps amounting to 264 tons (254) valued at EUR 1 million (2).

Foreign currency forward contracts are against transactional risks and fall due during the following 12 months (12). A currency forward is considered closed when there are offsetting cash flows in the same currency with the same value date. Interest rate swaps are denominated in euros and their average maturity is 48 months (18). The average maturity for cross currency swaps is 54 months (40).

Normally all of the Groups' derivatives are done under International Swaps and Derivatives Association's Master Agreements (ISDA). In case of an event of default under these agreements the non-defaulting party may request early termination and set-off of all outstanding transactions. These agreements do not meet the criteria for offsetting in the statement of financial position. The following table sets out the carrying amounts of recognised financial instruments that are subject to the above agreements.

MEUR	2018	2017
<b>Gross fair values of derivative financial instruments subject to ISDAs</b>		
<b>Assets</b>		
Cross currency swaps	3	
Currency forwards	8	28
<b>Total</b>	<b>12</b>	<b>28</b>
<b>Liabilities</b>		
Interest rate swaps	-4	-19
Cross currency swaps	-11	
Currency forwards	-63	-22
<b>Total</b>	<b>-79</b>	<b>-41</b>
<b>Net fair values of derivative financial instruments subject to ISDAs</b>		
Assets		12
Liabilities	-67	-27
<b>Total</b>	<b>-67</b>	<b>-16</b>

## 29. Collateral, contingent liabilities and other commitments

MEUR	2018		2017	
	Debt in the statement of financial position	Collateral	Debt in the statement of financial position	Collateral
<b>Mortgages given as collateral for liabilities and commitments</b>				
Other commitments	15	10	16	10
<b>Total</b>	<b>15</b>	<b>10</b>	<b>16</b>	<b>10</b>
<b>Chattel mortgages and other pledges and securities given as collateral for liabilities and commitments</b>				
Loans from credit institutions	8	2	11	4
Other commitments		17		16
<b>Total</b>	<b>8</b>	<b>19</b>	<b>11</b>	<b>19</b>

MEUR	2018	2017
<b>Guarantees and contingent liabilities</b>		
on behalf of Group companies	775	737
<b>Total</b>	<b>775</b>	<b>737</b>
<b>Nominal amounts of rents according to leasing contracts</b>		
Payable within one year	53	35
Payable between one and five years	148	101
Payable later	83	48
<b>Total</b>	<b>284</b>	<b>185</b>

### 30. Related party disclosures

Related parties comprise the Board of Directors, the President and CEO, the Board of Management, the associated companies, and joint ventures.

#### Management remuneration

TEUR	Benefits recognised in the statement of income	
	2018	2017
<b>President and CEO</b>		
Salaries and other short-term benefits	862	785
Bonuses		234
Share based bonuses*	-1 742	3 438
Statutory pension costs	119	145
Voluntary pension costs	170	156
<b>Deputy of President and CEO</b>		
Salaries and other short-term benefits	384	425
Bonuses		80
Share based bonuses*	-871	1 719
Statutory pension costs	115	
Voluntary pension costs	107	88
<b>Other members of the Board of Management</b>		
Salaries and other short-term benefits	2 263	2 153
Bonuses		456
Share based bonuses*	-5 716	9 896
Statutory pension costs	315	322
Voluntary pension costs	368	493
<b>Total</b>	<b>-3 627</b>	<b>20 389</b>
<b>Board of Directors on 31 December 2018</b>		
Mikael Lilius, Chairman	175	153
Tom Johnstone, Deputy Chairman	119	108
Maarit Aarni-Sirviö, member	96	78
Kaj-Gustaf Bergh, member	82	74
Karin Falk, member	78	71
Johan Forssell, member	82	72

Risto Murto, member	94	79
Markus Rauramo, member	103	81
Board of Directors, until 2 March 2017		
Sune Carlsson, Deputy Chairman		1
Gunilla Nordström, member		1
<b>Total</b>	<b>829</b>	<b>718</b>
<b>Management remuneration, total</b>	<b>-2 798</b>	<b>21 107</b>

\* Share based bonuses are measured at fair value at the reporting date. Due to the development of Wärtsilä share price during 2018, impact to the result for the financial period is positive.

The holdings of Wärtsilä shares of the President and CEO, and the members of the Board of Directors and Board of Management at the year end were 304,439 shares (97,605).

The President and CEO is entitled to retire on reaching 63 years of age. The members of the Board of Management are entitled to retire on reaching the statutory retirement age. One member of the Board of Management is entitled to retire earlier, on reaching 60 years of age. The Group has no loan receivables from the executive management or the Board of Directors. No pledges or other commitments have been given on behalf of management or shareholders.

#### Business transactions with the associated companies and joint ventures

MEUR	2018	2017
Sales to the associates and joint ventures	40	49
Purchases from the associates and joint ventures	27	53
Receivables from the associates and joint ventures	10	14
Advances paid to the associates and joint ventures		11
Payables to the associates and joint ventures	7	8

Detailed financial information on the associated companies and joint ventures is presented in Note 15. Investments in associates and joint ventures.

## 31. Financial risks

### General

Wärtsilä has a centralised Group Treasury with two main objectives: 1) to arrange adequate funding for the Group's underlying operations on competitive terms and 2) to identify and evaluate the financial risks within the Group and implement the hedges for the Group companies.

The objective is to hedge against unfavorable changes in the financial markets and to minimise the impact of foreign exchange, interest rate, credit and liquidity risks on the Group's cash reserves, profits, and shareholders' equity.

The Financial Risk Policy is approved by the Board of Directors. The Treasury employs only such instruments whose market value and risk profile can be reliably monitored.

### Foreign exchange risk

Foreign exchange exposures are monitored at the Business level and then netted and hedged at Group level. All material fixed sales and purchase contracts are hedged. The estimated future commercial exposures are evaluated by the Businesses, and the level of hedging is decided by the Board of Management. Hedge accounting in accordance with IFRS 9 is applied to most of the hedges of these exposures. The hedges cover such time periods that both the prices and costs can be adjusted to new exchange rates. These periods vary among Group companies from one month

to two years. The Group also hedges its position of the statement of financial position, which includes receivables and payables denominated in foreign currencies. Cancellation of orders could lead to ineffective currency hedges.

As field service work is invoiced in local currencies, there is some foreign exchange changes related volatility in the Group's turnover. However the effect to the profitability is limited, as the related costs are in the same currency. Spare part sales are based on euro price list and related purchases in non-euro currencies are hedged, so effect from foreign currency rate changes to spare part sales is minimal. As both Marine and Energy Solutions' project/hardware sales/purchases as well as estimated currency exposures from long-term services contracts are hedged, the Group does not expect significant gains/losses from foreign exchange rate changes in 2019.

Approximately 67% (69) of sales and 65% (63) of operating costs in 2018 were denominated in euros, and approximately 21% (18) of sales and 8% (7) of operating costs were denominated in US dollars. The remainder were split between several currencies. The Group's profits and competitiveness are also indirectly affected by the home currencies of its main competitors: USD, GBP, JPY and KRW.

Usually fixed sales and purchase contracts are hedged by using foreign exchange forwards to offset currency spot rate related changes to the value of the underlying cash flows. As the aim is to hedge and apply hedge accounting (cash flow hedging) only to the foreign exchange spot risk, all interest rate/hedge timing related gains/losses are booked directly into the financial items. As the underlying cash flows can have long maturities, the related hedges can be done with shorter maturities and they can be rolled over when needed, so that at the maturity the total currency rate related gains/losses from these hedges are expected to fully offset the related gains/losses from the underlying cash flows. A cancellation or reduction of sales/purchase value of an order can cause the related hedge to be (partially) ineffective. Any ineffectiveness will be immediately recognised and booked into the financial items.

As hedges are typically done on short maturities (up to 1 year) and only high credit quality (A- minimum rating requirement) counterparties are utilised, counterparty credit risk is expected to have minimal effect on hedge valuations. Due to some underlying hedged cash flows having longer maturities than related hedges, the change in present value of the hedge and underlying cash flow does not always fully offset each other during the lifetime of a hedge. This ineffectiveness is calculated on a quarterly basis and will be booked on Group level in financial items.

The instruments, and their nominal values, used to hedge the Group's foreign exchange exposures are listed in Note 28. Derivative financial instruments.

Some Group companies in countries whose currencies are not fully convertible like Argentina, Brazil, and Indonesia have unhedged, intercompany loans nominated either in EUR or USD. The total amount of the loans is EUR 178 million (132).

Since Wärtsilä has subsidiaries and joint ventures outside the euro zone, the Group's equity, goodwill and purchase price allocations are sensitive to exchange rate fluctuations. At the end of 2018, the net assets of Wärtsilä's foreign subsidiaries and joint ventures outside the euro zone totalled EUR 979 million (1,011). In addition, goodwill and purchase price allocations from acquisitions nominated in foreign currencies amounted to EUR 932 million (825). In 2018, the translation differences recognised in OCI mainly came from changes in USD, NOK, GBP, and BRL exchange rates.

In 2018, EUR -14 million (1) fair value adjustments related to cash flow hedges were recognised in equity. EUR -8 million (-36) of the fair value adjustments were transferred from equity to the statement of income as net sales or operating expenses during 2018. In 2018, the result from the ineffective portion of the cash flow hedges was EUR -2 million (-15), which was booked in financial items and specified in Note 10. Financial income and expenses.

#### Currency forwards

MEUR	Fixed sales and purchase contracts	Net loans
Currency forwards		
USD	877	335
NOK	971	13
CHF	29	310
CNY	171	
JPY	16	
SGD	1	35
DKK	6	
GBP	7	43

SEK	11	
Other*	148	36
<b>Total</b>	<b>2 236</b>	<b>772</b>

\* Other does not include any material single currencies.

Net loans include non-euro intragroup loans and deposits given by the parent company.

IFRS hedge accounting has been applied to EUR 2,355 million (1,962) currency forwards. A 5% change in the exchange rates would cause from these currency forwards an approximately EUR 60 million (38) impact on the equity. As all material fixed sales and purchase contracts are hedged, the profit and loss sensitivity of foreign exchange is considered immaterial.

MEUR	Gross amount	Net amount	Equity impact
Currency forwards under hedge accounting*			
USD	678	529	26
NOK	1 276	399	20
CNY	124	122	6
MXP	124	49	2
GBP	32	26	1
CHF	26	17	1
Other	94	61	3
<b>Total</b>	<b>2 355</b>	<b>1 203</b>	<b>60</b>

\* Intragroup transactions, on which the actual hedge accounting bookings are based.

MEUR	
Currency forwards, under hedge accounting	
31 December 2018	2 355
Hedged highly probable forecasted cash flows by year	
2019	1 540
2020	582
2021	73
2022	19
2023-	142

#### Interest rate risk

Wärtsilä is exposed to interest rate risk primarily through market value changes to the net debt portfolio (price risk) and also through changes in interest rates (re-fixing on rollovers). Wärtsilä hedges interest rate exposure by using derivative instruments such as interest rate swaps, futures and options. Changes in the market value of these derivatives are recognised directly in the statement of income. Interest rate risk is managed by constantly monitoring the market value of the financial instruments and by using sensitivity analysis.

Interest-bearing loan capital at the end of 2018 totalled EUR 823 million (619). The average interest rate was 1.0% (1.3) and the average re-fixing time 27 months (23). At the end of 2018, a one percentage point parallel decrease/increase of the yield curve would have resulted in a EUR 24 million (13) increase/decrease in the value of the net debt portfolio, including derivatives.

#### Loans

Wärtsilä spreads its interest rate risk exposure by taking both fixed and floating rate loans. The share of fixed rate loans as a proportion of the total debt can vary between 30–70%. The Board of Directors has given authorisation to temporarily increase the share of fixed loans up to 100%, and the authorisation is valid until the end of 2019.

MEUR	2018	2017
Fixed rate loans	292	330
Floating rate loans	531	289
Derivatives	426	105
Share of fixed rate loans of total loans (including derivatives), %	87	70

A one percentage point change in the interest level would cause a EUR 1 million (2) change in the following year's interest expenses of the debt portfolio, including derivatives.

Additional information related to loans can be found in Note 16. Financial assets and liabilities by measurement category and Note 26. Financial liabilities.

#### Liquidity and refinancing risk

Wärtsilä ensures sufficient liquidity at all times by efficient cash management and by maintaining sufficient committed and uncommitted credit lines available. Refinancing risk is managed by having a balanced and sufficiently long loan portfolio.

The existing funding programmes include:

- Committed Revolving Credit Facilities totalling EUR 640 million (640).
- Finnish Commercial Paper programmes totalling EUR 800 million (800).

The average maturity of the non-current debt is 49 months (44) and the average maturity of the confirmed credit lines is 31 months (28). Additional information in Note 26. Financial liabilities.

At the year end, the Group had cash and cash equivalents totalling EUR 487 million (379) as well as EUR 640 million (640) non-utilised committed credit facilities. Commercial Paper Programmes were not utilised on 31 December 2018 nor on 31 December 2017.

Committed Revolving Credit Facilities as well as the Parent Company's long-term loans include a financial covenant (solvency ratio). Solvency ratio is expected to remain clearly over the covenant level for the foreseeable future.

#### Revolving credit facilities

MEUR		
Year	Maturing	Available (end of period)
2018		640
2019	110	530
2020	110	420
2021	130	290
2022	130	160
2023	160	

#### Credit risk

The responsibility for managing the credit risks associated with ordinary commercial activities lies with the Businesses and the Group companies. Major trade and project finance credit risks are minimised by transferring risks to banks, insurance companies, and export credit organisations.

The credit risks related to the placement of liquid funds and to trading in financial instruments are minimised by setting explicit limits for the counterparties and by making agreements only with the most reputable domestic and international banks and financial institutions.



The Group companies deposit the maximum amount of their liquid financial assets with the centralised treasury when local laws and central bank regulations allow it. The Group's funds are placed in instruments with sufficient liquidity (current bank deposits or Finnish Commercial Papers) and rating (at least single-A rated instruments or other instruments approved by the Group's CFO). These placements are constantly monitored by the Group Treasury, and Wärtsilä does not expect any future defaults from the placements.

The expected credit losses associated with investments carried at amortised cost are assessed on a forward looking basis based on investment maturity dates and counterparty credit risk on quarterly basis. As of 31 December 2018 the expected credit loss was not material.

#### Aging of trade receivables

For trade receivables and receivables from revenue recognition in accordance with the percentage of completion method, a simplified approach is used and the loss allowance is measured at the estimate of the lifetime expected credit losses. Receivables from revenue recognition in accordance with the percentage of completion method are usually covered with advance payments collected from customers. Thus, recognising credit losses based on the lifetime expected loss amounts mainly concerns trade receivables. For trade receivables not due or maximum 359 days overdue, an impairment of 0.1%–2.0% is made, depending on the aging category and the origin of the receivable. In calculating the expected credit loss rates, the company considers historical loss rates for each category, and adjusts for forward looking macroeconomic data. In addition to that, trade receivables more than 360 days old are assessed for impairment individually.

MEUR	2018		2017	
	Trade receivables	of which impaired	Trade receivables	of which impaired
Not past due	862	1	951	1
Past due 1-30 days	129		122	
Past due 31-180 days	163	1	189	6
Past due 181-360 days	79	1	33	2
Past due 1 year	100	59	184	53
<b>Total</b>	<b>1 333</b>	<b>62</b>	<b>1 478</b>	<b>62</b>

In 2018, the result impact of write-offs was EUR 1 million (-9).

#### Impairments

MEUR	2018	2017
Impairment, beginning of period	62	58
Other movements	-3	-4
Impairment during the period	3	9
<b>Impairment, end of period</b>	<b>62</b>	<b>62</b>

The Group sells trade receivables in an amount that is currently not significant compared to the trade receivables as a whole. Sold receivables have been de-recognised in the consolidated statement of financial position.

#### Equity price risk

Wärtsilä has equity investments totalling EUR 13 million (10) in power plant companies, most of which are located in developing countries and performing well according to expectations. Additional information in Note 16. Financial assets and liabilities by measurement category.

#### Capital risk management

Wärtsilä's policy is to secure a strong capital base to keep the confidence of investors and creditors and for the future development of the business. The capital is defined as total equity including non-controlling interests and net interest-bearing debt. The target for Wärtsilä is to maintain gearing below 0.50 and to pay a dividend of at least 50% of earnings over the cycle.

MEUR	31.12.2018	31.12.2017
Interest-bearing liabilities, non-current	748	517
Interest-bearing liabilities, current	74	102
Cash and cash equivalents	-487	-379
	336	239
Loan receivables	-3	-5
<b>Net interest-bearing debt</b>	<b>333</b>	<b>234</b>
Total equity	2 432	2 376
Gearing	0.14	0.10
In the capital management Wärtsilä also follows the solvency ratio development:		
Equity and liabilities	6 059	5 648
Advances received	-584	-522
	5 475	5 126
Solvency ratio, %	44.4	46.3

### 32. Auditors' fees and services

The following remuneration was paid to auditors and accounting firms for audit based on applicable legislation and for other services.

In 2018, the AGM appointed the audit firm PricewaterhouseCoopers Oy as Wärtsilä Corporation's auditor. PricewaterhouseCoopers Oy has provided non-audit services to entities of Wärtsilä Group in total 288 thousand EUR. These services included tax services (180 thousand EUR) and other services (108 thousand EUR).

MEUR	2018		2017	
	PwC	Others	PwC	Others
Audit	3.7	0.4	3.0	0.7
Tax advisory	0.2	0.4	0.1	0.3
Other services	0.1	0.1	0.1	0.1
<b>Total</b>	<b>4.0</b>	<b>0.9</b>	<b>3.2</b>	<b>1.1</b>

### 33. Exchange rates

In the consolidated financial statements there are approximately 60 currencies consolidated. The most significant currencies are presented here.

		Closing rates		Average rates	
		31 December 2018	31 December 2017	2018	2017
AED	United Arab Emirates Dirham	4.20536	4.40503	4.33922	4.14735
BRL	Brazil Real	4.44400	3.97290	4.30873	3.60410
CHF	Switzerland Franc	1.12690	1.17020	1.15488	1.11155
CNY	China Yuan Renminbi	7.87510	7.80440	7.80736	7.62644
DKK	Danish Krone	7.46730	7.44490	7.45318	7.43865

GBP	United Kingdom Pound	0.89453	0.88723	0.88475	0.87615
INR	India Rupee	79.72980	76.60550	80.72774	73.49802
JPY	Japan Yen	125.85000	135.01000	130.40956	126.65457
NOK	Norway Krone	9.94830	9.84030	9.60063	9.32861
RUB	Russian Rouble	79.71530	69.39200	74.05507	65.88766
SAR	Saudi Arabian Riyal	4.29501	4.49738	4.43113	4.23474
SEK	Sweden Krona	10.25480	9.84380	10.25674	9.63687
SGD	Singapore Dollar	1.55910	1.60240	1.59286	1.55822
USD	United States Dollar	1.14500	1.19930	1.18149	1.12928

### 34. Subsidiaries

Geographical area	Company name	Location	Activities	Share %
Europe	Wärtsilä Cyprus Limited	Cyprus	Sales and services	100.0
	Wärtsilä Danmark A/S	Denmark	Sales and services	100.0
	Wärtsilä Lyngsø Marine A/S	Denmark	Sales and services	100.0
	Wärtsilä Puregas Solutions A/S	Denmark	Sales and services	100.0
	Wärtsilä BLRT Estonia Oü	Estonia	Sales and services	51.7
	Eniram Oy	Finland	Sales and services	100.0
	Wärtsilä Finland Oy	Finland	Production, sales and services	100.0
	Wärtsilä Projects Oy	Finland	Sales and services	100.0
	Wärtsilä Solutions Oy	Finland	Sales and services	100.0
	Wärtsilä Technology Oy Ab	Finland	Holding	100.0
	Wärtsilä France S.A.S.	France	Sales and services	100.0
	Transas Mediterranean SAS	France	Sales and services	100.0
	Wärtsilä Puregas Solutions GmbH	Germany	Sales and services	100.0
	Wärtsilä Deutschland GmbH	Germany	Sales and services	100.0
	Wärtsilä ELAC Nautik GmbH	Germany	Sales and services	100.0
	Wärtsilä Funa International GmbH	Germany	Sales and services	100.0
	Wärtsilä JOVYATLAS EUROATLAS GmbH	Germany	Sales and services	100.0
	Wärtsilä SAM Electronics GmbH	Germany	Sales and services	100.0
	Transas Marine GmbH	Germany	Sales and services	100.0
	Guidance Marine Ltd	Great Britain	Sales and services	100.0
	Wärtsilä Puregas Solutions Ltd	Great Britain	Sales and services	100.0
	Wärtsilä UK Ltd	Great Britain	Production, sales and services	100.0
	Wärtsilä Valves Ltd	Great Britain	Production, sales and services	100.0
	Wärtsilä Water Systems Ltd	Great Britain	Production, sales and services	100.0
	Wärtsilä Voyage UK Limited	Great Britain	Sales and services	100.0
	Wärtsilä Greece S.A.	Greece	Sales and services	100.0
	Wärtsilä Hungary Kft	Hungary	Sales and services	100.0
	Transas Investments Unlimited	Ireland	Sales and services	100.0
	Transas Newbuilding Limited	Ireland	Sales and services	100.0
	Wärtsilä Voyage Limited	Ireland	Sales and services	100.0
	Wärtsilä APSS Srl	Italy	Sales and services	100.0
	Wärtsilä Italia S.p.A.	Italy	Production, sales and services	100.0
	Trident Italia Srl	Italy	Sales and services	100.0
	Wärtsilä Moss AS	Norway	Production, sales and services	100.0
Wärtsilä Norway AS	Norway	Production, sales and services	100.0	

	Wärtsilä Oil & Gas Systems AS	Norway	Sales and services	100.0
	Wärtsilä Ship Design Norway AS	Norway	Sales and services	100.0
	Wärtsilä Valmarine AS	Norway	Sales and services	100.0
	Wärtsilä Baltic Design Centre Sp.z.o.o.	Poland	Sales and services	100.0
	Wärtsilä Polska Sp.z.o.o.	Poland	Sales and services	100.0
	Wärtsilä Ship Design Poland Sp.z.o.o.	Poland	Sales and services	100.0
	Transas Marine Poland sp. z.o.o.	Poland	Sales and services	100.0
	Wärtsilä Portugal Lda.	Portugal	Sales and services	100.0
	Wärtsilä Vostok, LLC	Russia	Sales and services	100.0
	Transas Navigator Ltd.	Russia	Sales and services	100.0
	Wärtsilä Digital Technologies, JSC	Russia	Sales and services	100.0
	Wärtsilä Ibérica S.A.	Spain	Production, sales and services	100.0
	Burriel Navarro S.L.	Spain	Sales and services	100.0
	Trident Las Palmas S.L.	Spain	Sales and services	100.0
	Wärtsilä Puregas Solutions AB	Sweden	Sales and services	100.0
	Wärtsilä Sweden AB	Sweden	Production, sales and services	100.0
	Transas Marine International (TMI) AB	Sweden	Sales and services	100.0
	Wärtsilä Services Switzerland AG	Switzerland	Sales and services	100.0
	Quantiparts B.V.	The Netherlands	Sales and services	100.0
	Wärtsilä Netherlands B.V.	The Netherlands	Production, sales and services	100.0
	Trident B.V.	The Netherlands	Sales and services	100.0
	Transas Benelux B.V.	The Netherlands	Sales and services	100.0
The Americas	Wärtsilä Argentina S.A.	Argentina	Sales and services	100.0
	Wärtsilä Brasil Ltda.	Brazil	Production, sales and services	100.0
	Wärtsilä Canada Inc.	Canada	Sales and services	100.0
	Wärtsilä Chile Ltda.	Chile	Sales and services	100.0
	Wärtsilä Colombia S.A.	Colombia	Sales and services	100.0
	Wärtsilä Dominicana Inc.	Dominican Republic	Sales and services	100.0
	Wärtsilä Ecuador S.A.	Ecuador	Sales and services	100.0
	Wärtsilä Guatemala S.A.	Guatemala	Sales and services	100.0
	Wärtsilä Operations Guyana Inc.	Guyana	Sales and services	100.0
	Wärtsilä de Mexico SA	Mexico	Sales and services	100.0
	Wärtsilä Panama Services S.A.	Panama	Sales and services	100.0
	Wärtsilä Peru S.A.C.	Peru	Sales and services	100.0
	Wärtsilä Caribbean, Inc.	Puerto Rico	Sales and services	100.0
	Wärtsilä Uruguay S.A.	Uruguay	Sales and services	100.0
	American Hydro Corporation	USA	Sales and services	100.0
	Greensmith Energy Management Systems Inc.	USA	Sales and services	100.0
	Guidance Marine LLC	USA	Sales and services	100.0
	Wärtsilä Defence Inc.	USA	Sales and services	100.0
	Wärtsilä Dynamic Positioning Inc.	USA	Sales and services	100.0
	Wärtsilä North America, Inc.	USA	Sales and services	100.0
	LOCK-N-STITCH Inc.	USA	Sales and services	100.0
	Transas Americas Inc.	USA	Sales and services	100.0
Asia	PT. Wärtsilä Indonesia	Indonesia	Sales and services	100.0
	Wärtsilä Azerbaijan LLC	Azerbaijan	Sales and services	100.0
	Wärtsilä Bangladesh Ltd.	Bangladesh	Sales and services	100.0
	SAM Taihang Electronics Ltd.	China	Sales and services	100.0
	Wärtsilä Propulsion (Wuxi) Co. Ltd.	China	Production, sales and services	100.0
	Wärtsilä Services (Shanghai) Co. Ltd.	China	Sales and services	100.0

	Wärtsilä Ship Design (Shanghai) Co., Ltd	China	Sales and services	95.0
	Wärtsilä Suzhou Ltd.	China	Production, sales and services	100.0
	Wärtsilä-CME Zhenjiang Propeller Co. Ltd.	China	Production, sales and services	55.0
	Transas Marine (Shanghai) Co., Ltd.	Hong Kong	Sales and services	100.0
	Wärtsilä China Ltd.	Hong Kong	Sales and services	100.0
	Wärtsilä India Ltd.	India	Production, sales and services	100.0
	Wärtsilä Japan Ltd.	Japan	Production, sales and services	99.7
	Wärtsilä (Malaysia) Sdn Bhd	Malaysia	Sales and services	100.0
	Wärtsilä Pakistan (Pvt.) Ltd.	Pakistan	Sales and services	100.0
	Wärtsilä Philippines Inc.	Philippines	Sales and services	100.0
	Wärtsilä Doha WLL	Qatar	Sales and services	100.0
	Wärtsilä Power Contracting Saudi Arabia Ltd.	Saudi Arabia	Sales and services	60.0
	Guidance Marine Pte Ltd	Singapore	Sales and services	100.0
	Wärtsilä Ship Design Singapore Pte Ltd	Singapore	Sales and services	100.0
	Wärtsilä Singapore Pte Ltd	Singapore	Sales and services	100.0
	Wärtsilä Voyage Pacific Pte Ltd	Singapore	Sales and services	100.0
	Wärtsilä Korea Ltd.	South Korea	Sales and services	100.0
	Wärtsilä Lanka Ltd.	Sri Lanka	Sales and services	100.0
	Wärtsilä Taiwan Ltd.	Taiwan	Sales and services	100.0
	Wärtsilä-Enpa A.S.	Turkey	Sales and services	51.0
	Wärtsilä Gulf FZE	United Arab Emirates	Sales and services	100.0
	Wärtsilä Hamworthy Middle East (FZE)	United Arab Emirates	Sales and services	100.0
	Wärtsilä LLC	United Arab Emirates	Sales and services	100.0
	Wärtsilä Ships Repairing & Maintenance LLC	United Arab Emirates	Sales and services	100.0
	Transas Middle East DMCEST	United Arab Emirates	Sales and services	100.0
Other	Wärtsilä Australia Pty Ltd.	Australia	Sales and services	100.0
	Wärtsilä Burkina Faso	Burkina Faso	Sales and services	100.0
	Wärtsilä Central Africa Ltd.	Cameroon	Sales and services	100.0
	Wärtsilä Egypt Power S.A.E	Egypt	Sales and services	100.0
	Wärtsilä Energy Mauritania SAU	Mauritania	Sales and services	100.0
	Wärtsilä Central Africa Gabon	Gabon	Sales and services	100.0
	Wärtsilä West Africa Guinea	Guinea	Sales and services	100.0
	Wärtsilä Eastern Africa S.A.	Kenya	Sales and services	100.0
	Wärtsilä Mauritania SA	Mauritania	Sales and services	100.0
	Wärtsilä Mocambique LDA	Mozambique	Sales and services	100.0
	Wärtsilä Muscat LLC	Oman	Sales and services	100.0
	Wärtsilä New Zealand Ltd	New Zealand	Sales and services	100.0
	Wärtsilä Marine & Power Services Nigeria Limited	Nigeria	Sales and services	100.0
	Wärtsilä PNG Ltd	Papua New Guinea	Sales and services	100.0
	Wärtsilä West Africa S.A.	Senegal	Sales and services	100.0
	Wärtsilä South Africa (Pty) Ltd.	South Africa	Sales and services	100.0
	Wärtsilä Tanzania Ltd	Tanzania	Sales and services	100.0
	Wärtsilä Uganda Ltd.	Uganda	Sales and services	100.0

Non-controlling interests are not significant in the Group's activities and cash flows in individual subsidiaries.

The list excludes subsidiaries, which do not have an impact on the profit or assets of the Group. A complete list of shares and securities in accordance with the Finnish Accounting Ordinance is included in the official financial statements of the parent company prepared with the Finnish Accounting Standards (FAS).

### 35. Events after the balance sheet date

On 30 January 2019, Wärtsilä announced plans to realign its operations and resources to secure future profitability and competitiveness. The Group-wide programme emphasises sustainable savings and actions that increase customer value. The planned actions include an increased focus on targeted sales activities, developing the agreements-based and “as-a-service” business, reviewing the cost structure, as well as optimising the business portfolio and organisation. The programme is expected to lead to a reduction of approximately 1,200 employees globally. The reductions will impact all businesses and support functions. With these actions Wärtsilä seeks annual savings of EUR 100 million. Savings are expected to materialise gradually during the second half of 2019, with full effect by the end of 2020. The costs related to the restructuring measures are expected to be EUR 75 million.

## Parent company financial statements

### Parent company income statement (FAS)

MEUR	2018	2017	Note
Other operating income	80	72	1
Personnel expenses	-26	-63	2
Depreciation, amortisation and impairments	-4	-4	3
Other operating expenses	-104	-91	
<b>Operating result</b>	<b>-55</b>	<b>-87</b>	
Financial income and expenses			4
Income from financial assets	300	146	
Interest income and other financial income	74	41	
Exchange gains and losses	-1	1	
Interest expenses and other financial expenses	-77	-38	
	296	151	
<b>Result before appropriations and taxes</b>	<b>241</b>	<b>64</b>	
Change in depreciation difference	1	1	
Group contribution	76	99	
<b>Result before taxes</b>	<b>318</b>	<b>164</b>	
<b>Income taxes</b>	<b>-10</b>	<b>-3</b>	5
<b>Result for the financial period</b>	<b>308</b>	<b>161</b>	



## Parent company balance sheet (FAS)

MEUR	2018	2017	Note
<b>ASSETS</b>			
<b>Fixed assets</b>			<u>6</u>
<b>Intangible assets</b>			
Other long-term expenditure	3	6	
Construction in progress	8	2	
	12	8	
<b>Tangible assets</b>			
Land and water	7	7	
Buildings and structures		1	
Machinery, equipment and other tangible assets	1	2	
Construction in progress	6		
	14	9	
<b>Financial assets</b>			
Shares in Group companies	950	950	
Other shares and securities	1	1	
	951	951	
<b>Total fixed assets</b>	<b>976</b>	<b>968</b>	
<b>Non-current receivables</b>			
Receivables from Group companies	100	104	<u>7</u>
Loan receivables	1	1	
	101	105	
<b>Current receivables</b>			
Receivables from Group companies	2 308	1 786	<u>8</u>
Other receivables	2	2	
Prepaid expenses and accrued income	16	35	<u>9</u>
	2 327	1 823	
<b>Cash and bank balances</b>	<b>291</b>	<b>195</b>	
<b>Total current assets</b>	<b>2 719</b>	<b>2 123</b>	
<b>Assets</b>	<b>3 696</b>	<b>3 090</b>	

MEUR	2018	2017	Note
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			<b>10</b>
Share capital	336	336	
Share premium reserve	61	61	
Retained earnings	730	841	
Result for the financial period	308	161	
<b>Total equity</b>	<b>1 435</b>	<b>1 399</b>	
<b>Accumulated appropriations</b>			
Depreciation difference	1	2	
Provisions	15	16	
<b>Liabilities</b>			<b>11</b>
<b>Non-current</b>			
Loans from credit institutions	741	508	
	741	508	
<b>Current</b>			
Loans from credit institutions	56	75	
Loans from pension insurance companies		8	
Trade payables	18	10	
Liabilities to Group companies	1 327	985	13
Other current liabilities	2	1	
Accrued expenses and deferred income	102	85	12
	1 504	1 165	
<b>Total liabilities</b>	<b>2 245</b>	<b>1 673</b>	
<b>Equity and liabilities</b>	<b>3 696</b>	<b>3 090</b>	

## Parent company cash flow statement (FAS)

MEUR	2018	2017
Cash flow from operating activities:		
Result before appropriations and taxes	241	64
Adjustments for:		
Depreciation and amortisation	4	4
Financial income and expenses	-296	-151
Cash flow before changes in working capital	-51	-82
Changes in working capital:		
Assets, non-interest-bearing, increase (-) / decrease (+)	-28	-9
Liabilities, non-interest-bearing, increase (+) / decrease (-)	23	39
	-5	30
Cash flow from operating activities before financial items and taxes	-56	-52
Interest and other financial expenses	-78	-37
Dividends received from operating activities	300	146
Interest and other financial income from operating activities	74	41
Income taxes paid	-5	-3
	291	148
Cash flow from operating activities	235	96
Cash flow from investing activities:		
Investments in tangible and intangible assets	-13	-3
Proceeds from sale of other investments		1
Cash flow from investing activities	-13	-2
Cash flow after investing activities	223	93

Cash flow from financing activities:		
Loans receivables, increase (-) / decrease (+)	-492	270
Current loans, increase (+) / decrease (-)	344	-242
Proceeds from non-current borrowing	280	90
Repayments and other changes of non-current loans	-84	-99
Group contributions	99	34
Dividends paid	-272	-256
Cash flow from financing activities	-126	-203
Change in cash and bank balances, increase (+) / decrease (-)	96	-110
Cash and bank at beginning of period	195	304
Cash and bank at end of period	291	195

## Accounting principles for the parent company

The financial statements of the parent company, Wärtsilä Corporation, have been prepared in accordance with the provisions of the Finnish Accounting Standards (FAS).

The preparation of the financial statements requires management, in compliance with the regulations in force and good accounting practice, to make estimates and assumptions that affect the measurement and timing of the reported information. Actual results may differ from these estimates.

### Transactions denominated in foreign currencies and derivatives

Business transactions in foreign currencies are recorded at the rates of exchange prevailing on the transaction date. Receivables and payables on the balance sheet date are valued at the exchange rates prevailing on that date. Exchange gains and losses related to business operations are treated as adjustments to other operating income and operating expenses. Exchange gains and losses related to financing operations are entered under financial income and expenses.

Derivatives are measured at fair value. Open currency derivatives, including interest components, are valued at the balance sheet date. The fair value of interest rate swaps is calculated by discounting the future cash flows. Derivative changes in fair value are immediately recognised in financial income or expenses in the statement of income.

### Research and development costs

Research and development costs are expensed in the financial period in which they occur.

### Receivables

Receivables are valued to acquisition cost or to a lower probable value.

### Fixed assets and depreciation and amortisation

Fixed assets are valued in the balance sheet at their direct acquisition cost less accumulated depreciation and amortisation. Certain land areas also include revaluations.

Depreciation and amortisation is based on the following useful lives:

Other long-term expenditure	3-10 years
Buildings	20-40 years
Machinery and equipment	5-20 years

### Leasing

Lease payments are treated as rentals.

### Provisions

Provisions in the balance sheet comprise those items which the company is committed to covering either through agreements or otherwise, but which are not yet realised. Changes to provisions are included in the income statement.

### Income taxes

Income taxes in the income statement include taxes calculated for the financial year based on Finnish tax provisions, as well as adjustments to taxes in prior years. Taxes allocated to extraordinary items are shown in the notes to the financial statements.

## Dividends

Dividends proposed by the Board of Directors are not recorded in the financial statements until they have been approved by the Annual General Meeting.

## Notes to the parent company financial statements

### 1. Other operating income

MEUR	2018	2017
Rental income	1	1
Services to Group companies	78	71
Other	1	1
<b>Total</b>	<b>80</b>	<b>72</b>

### 2. Personnel expenses

MEUR	2018	2017
Wages and salaries	-19	-57
Pension costs	-5	-5
Other compulsory personnel costs	-1	-1
<b>Total</b>	<b>26</b>	<b>-63</b>

#### Salaries and remunerations paid to senior management

The President and CEO and his deputy and members of the Board of Directors	-5	-3
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The President and CEO has the right to retire at the age of 63 years. The members of the Board of Management are entitled to retire on reaching the statutory retirement age. One member of the Board of Management is entitled to retire earlier, on reaching 60 years of age.

The company's Board of Directors decides the remunerations of the President and CEO and his immediate subordinates.

Additional information about Management remuneration can be found in Consolidated Financial Statements Note 30.

Personnel on average during the year	371	324
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### 3. Depreciation and amortisation

MEUR	2018	2017
Depreciation and amortisation according to plan		
Other long-term expenditure	-3	-4
Total depreciation according to plan	-3	-4
Impairment losses on non-current assets	-1	
Tax depreciations	-4	-4
Depreciation difference	1	1
<b>Depreciation difference</b>		
Depreciation difference on 1 January	2	2
Change in the depreciation difference	-1	-1
<b>Depreciation difference on 31 December</b>	<b>1</b>	<b>2</b>

#### 4. Financial income and expenses

MEUR	2018	2017
<b>Dividend income</b>		
From Group companies	300	146
<b>Total</b>	<b>300</b>	<b>146</b>
<b>Other interest income</b>		
From Group companies	28	22
From other companies	1	1
<b>Total</b>	<b>29</b>	<b>22</b>
<b>Other financial income</b>		
From Group companies	24	10
From other companies	20	9
<b>Total</b>	<b>45</b>	<b>19</b>
<b>Exchange gains and losses</b>	<b>-1</b>	<b>1</b>
<b>Interest expenses</b>		
To Group companies	-6	-5
To other companies	-9	-8
<b>Total</b>	<b>-14</b>	<b>-13</b>
<b>Other financial expenses</b>		
To Group companies	-21	-10
To other companies	-42	-15
<b>Total</b>	<b>-62</b>	<b>-25</b>
<b>Financial income and expenses, total</b>	<b>296</b>	<b>151</b>

#### 5. Income taxes

MEUR	2018	2017
<b>Income taxes</b>		
For the financial period	-4	-3
For prior financial periods	-6	
<b>Total</b>	<b>-10</b>	<b>-3</b>

## 6. Fixed assets

### Intangible assets

MEUR	Other long-term expenditures	Construction in progress	Total 2018	Total 2017
Acquisition cost at January 1	121	2	123	122
Additions	1	6	7	3
Disposals	-5		-5	-1
Acquisition cost at December 31	117	8	125	123
Accumulated amortisation at January 1	-115		-115	-113
Accumulated amortisation on disposals and other changes	5		5	1
Amortisation during the financial period	-3		3	-4
Accumulated amortisation at December 31	-113		-113	-115
Carrying amount at 31 December 2018	3	8	12	
Carrying amount at 31 December 2017	6	2		8

### Tangible assets

MEUR	Land and water	Buildings and structures	Machinery, equipment and other tangible assets	Construction in progress	Total 2018	Total 2017
Acquisition cost at January 1	7	2	4		13	13
Additions				6	6	1
Disposals			-2		-3	
Acquisition cost at December 31	7	2	2	6	17	13
Accumulated depreciation at January 1		-2	-3		-5	-4
Accumulated amortisation on disposals and other changes			2		3	
Impairment losses on non-current assets					-1	
Accumulated depreciation at December 31		-2	-1		-3	-5
Carrying amount at 31 December 2018	7		1	6	14	
Carrying amount at 31 December 2017	7	1	2			9

## Shares and securities

MEUR	Shares in Group companies	Shares in other companies	Total 2018	Total 2017
Acquisition cost at January 1	950	1	951	951
Disposals				-1
Acquisition cost at December 31	950	1	951	951
Carrying amount at 31 December 2018	950	1	951	
Carrying amount at 31 December 2017	950	1		951

## 7. Non-current receivables

MEUR	2018	2017
Receivables from Group companies		
Loan receivables	100	104
<b>Total</b>	<b>100</b>	<b>104</b>

## 8. Current receivables from Group companies

MEUR	2018	2017
Trade receivables	16	6
Loan receivables	2 153	1 657
Derivatives	54	19
Other receivables	76	99
Prepaid expenses and accrued income	10	4
<b>Total</b>	<b>2 308</b>	<b>1 786</b>

## 9. Prepaid expenses and accrued income

MEUR	2018	2017
Derivatives	12	32
Other financial items		1
Insurance receivables	1	
Other	4	3
<b>Total</b>	<b>16</b>	<b>35</b>

## 10. Shareholders' equity

MEUR	2018	2017
<b>Share capital</b>		
Share capital on January 1	336	336
Share capital on December 31	336	336
<b>Share premium reserve</b>		
Share premium reserve on January 1	61	61
Share premium reserve on December 31	61	61
<b>Retained earnings</b>		
Retained earnings on January 1	1 002	1 097
Dividends paid	-272	-256
Result for the financial period	308	161
Retained earnings on December 31	1 038	1 002
<b>Total shareholders' equity</b>	<b>1 435</b>	<b>1 399</b>
<b>Distributable equity</b>	<b>1 038</b>	<b>1 002</b>

Free share issue approved by Wärtsilä Corporation's Annual General Meeting on 8 March 2018 increased the total number of Wärtsilä shares to 591 723 390.

## 11. Liabilities

MEUR	2018	2017
<b>Non-current</b>		
Interest-bearing	741	508
<b>Total</b>	<b>741</b>	<b>508</b>
<b>Current</b>		
Non-interest-bearing	155	133
Interest-bearing	1 349	1 032
<b>Total</b>	<b>1 504</b>	<b>1 165</b>

## Debt with maturity profile

2018	Current	Long-term		
MEUR	<1 year	1-5 years	>5 years	Total
Loans from financial institutions	56	491	250	797
<b>Total</b>	<b>56</b>	<b>491</b>	<b>250</b>	<b>797</b>

2017	Current	Long-term		
MEUR	<1 year	1-5 years	>5 years	Total
Loans from financial institutions	75	342	166	583
Loans from pension institutions	8			8
<b>Total</b>	<b>83</b>	<b>342</b>	<b>166</b>	<b>591</b>

## 12. Accrued expenses and deferred income

MEUR	2018	2017
Income and other taxes	5	
Derivatives	79	45
Personnel costs	11	35
Interest and other financial items	3	3
Other	5	4
<b>Total</b>	<b>102</b>	<b>85</b>

## 13. Liabilities to Group companies

MEUR	2018	2017
Trade payables	9	3
Other current liabilities	1 293	950
Derivatives	24	29
Accrued expenses and deferred income	2	3
<b>Total</b>	<b>1 327</b>	<b>985</b>

## 14. Financial assets and liabilities by measurement category

2018

MEUR	Measured at amortised cost	At fair value through the statement of income	Carrying amounts of the statement of financial position items	Fair value
<b>Non-current financial assets</b>				
Interest-bearing receivables from Group companies	100		100	100
Other receivables	1		1	1
<b>Current financial assets</b>				
Interest-bearing receivables from Group companies	2 153		2 153	2 153
Trade receivables from Group companies	16		16	16
Derivatives		12	12	12
Derivatives from Group companies		54	54	54
Other receivables from Group companies	8		8	8
Cash equivalents	5		5	5
Cash and bank	286		286	286
<b>Carrying amount by category</b>	<b>2 569</b>	<b>65</b>	<b>2 635</b>	<b>2 635</b>
<b>Non-current financial liabilities</b>				
Interest-bearing debt	741		741	747
<b>Current financial liabilities</b>				
Interest-bearing debt	56		56	56
Interest-bearing debt to Group companies	1 293		1 293	1 293
Trade payables	18		18	18
Trade payables to Group companies	9		9	9
Derivatives		79	79	79
Derivatives to Group companies		24	24	24
Other liabilities	3		3	3
<b>Carrying amount by category</b>	<b>2 120</b>	<b>103</b>	<b>2 223</b>	<b>2 229</b>

Information about the fair value hierarchy and valuation principle can be found in Consolidated Financial Statements Note 16.

2017

MEUR	Measured at amortised cost	At fair value through the statement of income	Carrying amounts of the statement of financial position items	Fair value
<b>Non-current financial assets</b>				
Interest-bearing receivables from Group companies	103		103	103
Other receivables	1		1	1
<b>Current financial assets</b>				
Interest-bearing receivables from Group companies	1 657		1 657	1 657
Trade receivables from Group companies	6		6	6
Derivatives		32	32	32
Derivatives from Group companies		19	19	19
Other receivables	2		2	2
Other receivables from Group companies	3		3	3
Cash equivalents	16		16	16
Cash and bank	179		179	179
<b>Carrying amount by category</b>	<b>1 969</b>	<b>51</b>	<b>2 019</b>	<b>2 019</b>
<b>Non-current financial liabilities</b>				
Interest-bearing debt	508		508	515
<b>Current financial liabilities</b>				
Interest-bearing debt	83		83	83
Interest-bearing debt to Group companies	950		950	950
Trade payables	10		10	10
Trade payables to Group companies	3		3	3
Derivatives		45	45	45
Derivatives to Group companies		29	29	29
Other liabilities	3		3	3
Other liabilities from Group companies	1		1	1
<b>Carrying amount by category</b>	<b>1 557</b>	<b>74</b>	<b>1 631</b>	<b>1 639</b>

Information about the fair value hierarchy and valuation principle can be found in Consolidated Financial Statements Note 16.



## 15. Derivative financial instruments

MEUR	With external financial institutions	With Group companies	Total 2018
<b>Nominal values of derivative financial instruments</b>			
Currency forwards, transaction risk	2 821	2 799	5 620
Interest rate swaps	270		270
Cross currency swaps	238		238
			6 128
<b>Fair values of derivative financial instruments (level 2)</b>			
Currency forwards, transaction risk	-55	30	-25
Interest rate swaps	-4		-4
Cross currency swaps	-8		-8
<b>Total</b>			<b>-37</b>

MEUR	With external financial institutions	With Group companies	Total 2017
<b>Nominal values of derivative financial instruments</b>			
Currency forwards, transaction risk	1 927	1 707	3 635
Interest rate swaps	165		165
Cross currency swaps	74		74
			3 874
<b>Fair values of derivative financial instruments (level 2)</b>			
Currency forwards, transaction risk	6	-10	-4
Interest rate swaps	-2		-2
Cross currency swaps	-17		-17
<b>Total</b>			<b>-23</b>

Foreign currency forward contracts are against transactional risks and are matched against the hedged cashflows. Interest rate swaps are denominated in euros and their average interest-bearing period is 48 (18) months. The average maturity for cross currency swaps is 29 (40) months.

## 16. Financial risks

### General

Wärtsilä has a centralised Group Treasury with two main objectives: 1) to arrange adequate funding for the Group's underlying operations on competitive terms and 2) to identify and evaluate the financial risks within the Group and implement the hedges for the Group companies. The Group Treasury is organisationally within the Parent Company.

The details about the management of the Group's financial risks are in Note 31 of the Consolidated Financial statements. As the Group's liquidity and interest rate risks are managed at the parent company level the group reporting applies fully to the Parent Company.

### Foreign exchange risk

Operative foreign currency risks are followed and hedged at the subsidiary level. The Group Treasury acts as a counterparty to these hedges, if that is allowed by local regulations. To enable netting of intragroup currency flows and to reduce the amount of external transactions the Group Treasury

is allowed to have minor unhedged exposures in different currencies. Any gains/losses from the Group Treasury's operations are booked directly into the financial items and we do not expect any material foreign exchange gains/losses from the Group Treasury's operations.

## 17. Collateral, contingent liabilities and other commitments

MEUR	2018	2017
<b>Guarantees and contingent liabilities</b>		
On behalf of Group companies	3 215	2 902
<b>Total</b>	<b>3 215</b>	<b>2 902</b>
<b>Future nominal lease payments</b>		
Payable within one year	4	3
Payable after one year	32	36
<b>Total</b>	<b>36</b>	<b>39</b>

## 18. Related party loans and other commitments

There are no loans receivables from senior management and the members of the Board of Directors. No pledges or other commitments were given on behalf of senior management or shareholders. In Note 30 in Consolidated Financial Statements, related party disclosures are specified. Related parties comprise the Board of Directors, the President and CEO, the Board of Management as well as the associated companies and joint ventures. In Notes 8 and 13 in Parent Company financial statement, receivables and liabilities from Group companies are specified.

## 19. Auditors' fees and services

The following fees were paid to auditors and accounting firms for audits and other services.

In 2018, the AGM appointed the audit firm PricewaterhouseCoopers Oy as Wärtsilä Corporation's auditor.

### Auditors' fees

TEUR	2018	2017
Audit	524	399
Other services	6	85
<b>Total</b>	<b>528</b>	<b>484</b>

## Proposal of the Board

The parent company's distributable funds total EUR 1,037,972,039.58, which includes EUR 308,072,530.42 in net profit for the year. There are 591,723,390 shares with dividend rights.

The Board of Directors proposes to the Annual General Meeting that the company's distributable earnings be disposed of in the following way:

EUR	
A dividend of EUR 0.48 per share be paid, making a total of	284 027 227.20
That the following sum be retained in shareholders' equity	753 944 812.38
Totalling	1 037 972 039.58

The dividend shall be paid in two instalments. The first instalment of EUR 0.24 per share shall be paid to the shareholders who are registered in the list of shareholders maintained by Euroclear Finland Ltd on the dividend record date of 11 March 2019. The payment day proposed by the Board for this instalment is 18 March 2019.

The second instalment of EUR 0.24 per share shall be paid in September 2019. The second instalment of the dividend shall be paid to shareholders who are registered in the list of shareholders maintained by Euroclear Finland Ltd on the dividend record day, which, together with the payment day, shall be decided by the Board of Directors in its meeting scheduled for 18 September 2019. The dividend record day for the second instalment as per the current rules of the Finnish book-entry system would be 20 September 2019 and the dividend payment day 27 September 2019.

No significant changes have taken place in the company's financial position since the end of the financial year. The company's liquidity is good and in the opinion of the Board of Directors the proposed dividend will not put the company's solvency at risk.

Helsinki, Finland, 29 January 2019

Mikael Lilius

Tom Johnstone

Maarit Aarni-Sirviö

Kaj-Gustaf Bergh

Karin Falk

Johan Forssell

Risto Murto

Markus Rauramo

Jaakko Eskola, President and CEO

To the Annual General Meeting of Wärtsilä Corporation

# Auditor's Report (Translation of the Finnish Original)

## Report on the Audit of the Financial Statements

### Opinion

#### In our opinion

- the consolidated financial statements give a true and fair view of the group's financial position and financial performance and cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of the financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report to the Audit Committee.

#### What we have audited

We have audited the financial statements of Wärtsilä Corporation (business identity code 0128631-1) for the year ended 31 December 2018. The financial statements comprise:

- the consolidated balance sheet, income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies
- the parent company's balance sheet, income statement, statement of cash flows and notes.

#### Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report.

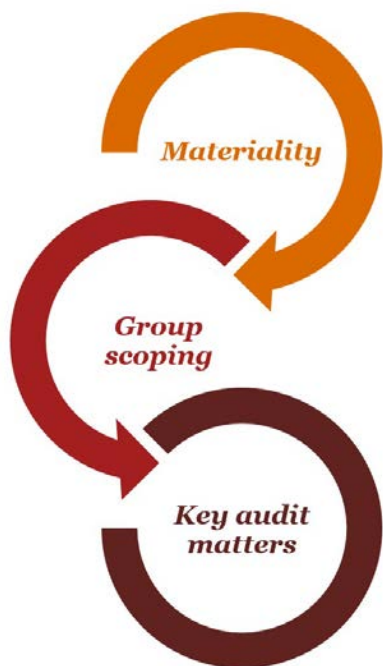
We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Independence

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, the non-audit services that we have provided to the parent company and to the group companies are in accordance with the applicable law and regulations in Finland and we have not provided non-audit services that are prohibited under Article 5(1) of Regulation (EU) No 537/2014. The non-audit services that we have provided are disclosed in note 32 to the Financial Statements.

## Our Audit Approach Overview



- We have applied an overall group materiality of € 25 million.
- The group audit scope included Wärtsilä Corporation parent company and all significant operating companies, as well as a large number of smaller companies, covering the vast majority of revenues, assets and liabilities.
- Revenue recognition of long-term contracts
- Valuation of goodwill
- Business combinations
- Valuation of trade receivables

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we considered where management made subjective judgements; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

### Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall group materiality for the consolidated financial statements as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements on the financial statements as a whole.

Overall group materiality	€ 25 million
How we determined it	5 % of profit before tax
Rationale for the materiality benchmark applied	We chose profit before tax as the benchmark because, in our view, the performance of the Group is most commonly measured by using this criteria, and it is a generally accepted benchmark.

### How we tailored our group audit scope

The group audit scope was tailored to take into account the structure of the Group and the size, complexity and risk of individual subsidiaries. Using this criteria we selected companies and accounts into our audit scope and at the same time ensured that we get sufficient coverage to our audit, in order to issue an audit opinion for the Group.

### Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Key audit matter in the audit of the group	How our audit addressed the key audit matter
<p>Revenue recognition of long-term contracts</p> <hr/> <p>Refer to accounting policies for the consolidated financial statements and notes 1 and 4.</p> <p>The group has significant revenue from construction contracts and long-term operating and maintenance agreements. These long-term contracts are often complex customised solutions and meet the definition for revenue recognition over time in accordance with IFRS 15.</p> <p>Revenue related to these construction contracts and long-term operating and maintenance agreements is recognised using the percentage of completion method, where progress is determined by comparing actual costs incurred to date, with the total estimated costs of the project. Revenue recognition for long-term contracts includes management judgment in a form of estimates, which are subject to management experience and expectations of future events. The most important judgment relates to the estimated total costs of the project.</p> <p>Revenue recognition of long-term contracts is a key audit matter in the audit due to the high level of management judgement involved in the project estimates.</p>	<p>Our revenue testing included both testing of the company's controls, as well as substantive audit procedures targeted at selected major long-term projects. Our substantive testing focused on estimates applied by management in the accounting.</p> <p>Our procedures included, among others things, the following:</p> <ul style="list-style-type: none"> <li>• Ensured that the revenue recognition method applied was appropriate based on the terms of the arrangement;</li> <li>• Agreed the total project revenue estimates to sales agreements, including amendments as appropriate;</li> <li>• We obtained an understanding of the processes and tested relevant controls, which impact the revenue recognition;</li> <li>• We assessed the reliability of management's estimates by comparing the actual results of delivered projects to previous estimates;</li> <li>• We challenged the management estimates and assumptions in projects, which were considered to include specific risk factors; and</li> <li>• Recalculated the revenue based on the stage of completion of the projects. Ensured that the stage of completion is correct by comparing actual costs per the company's accounting records to the estimated total costs of the projects.</li> </ul>
<p>Valuation of goodwill</p> <hr/> <p>Refer to accounting policies for the consolidated financial statements and note 13.</p>	<p>Our audit focused on assessing the reasonableness of the determination of cash generating units, which forms the basis for the goodwill impairment testing and assessing</p>

Goodwill is one of the most significant balance sheet items and amounts to € 1 355 million. The determination and whether an impairment charge is required involves significant management judgement, including identifying on which cash generating unit level the goodwill is tested and estimating the future performance of the business and the discount rate applied to these future cash flows. Valuation of goodwill is a key audit matter in the audit due to the size of the goodwill balance and the high level of management judgement involved.

the appropriateness of management's judgments and estimates used in the goodwill impairment analysis. Our procedures relating to the impairment analysis included the following:

- We tested the methodology applied in the goodwill impairment analysis as compared to the requirements of IAS 36, Impairment of Assets;
- We evaluated the process by which the future cash flow forecasts were drawn up, including comparing them to the latest Board approved targets and long term plans;
- We tested the key underlying assumptions for the cash flow forecasts, including sales and profitability forecasts, discount rate used and the implied growth rates beyond the forecasted period;
- We compared the current year actual results included in the prior year impairment model to consider whether forecasts included assumptions that, with hindsight, had been optimistic; and
- We considered whether the sensitivity analysis performed by the management around key assumptions of the cash flow forecast was appropriate by considering the likelihood of the movements of these key assumptions.

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#### Business combinations

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Refer to accounting policies for the consolidated financial statements and note 2. During 2018 Wärtsilä acquired Transas in the UK for a total consideration of € 183 million. The acquisition is accounted for as a business combination (IFRS 3) and includes a number of significant and complex judgments in the determination of the fair value of the assets and liabilities acquired.

The primary element of the valuation and purchase price allocation process was to assess the fair value of intangible assets (€ 55 million) in the form of technology, customer relationships and trademarks. Resulting goodwill amounted to € 113 million. The allocation also considered other assets and liabilities. The purchase price allocation is reported as preliminary in the consolidated financial statements.

Business combinations is a key audit matter in the audit due to the high level of management judgement used in determining the fair value for the net assets acquired.

For the intangible assets, we assessed the methodology adopted by management for calculating the fair value of technology, customer relationships and trademark related assets. We also audited the key assumptions in the valuation model, particularly in respect of the:

- cash flow forecasts used in the valuation process;
- royalty rates assumed for the acquired technology and trademark;
- assumed useful lives of the recognized intangible assets; and
- discount rate applied in the fair valuations.

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#### Valuation of trade receivables

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Refer to accounting policies for the consolidated financial statements and notes 16 and 31.

Net trade receivables amount to € 1 271 million, including an impairment provision of € 62 million. The trade receivables include € 49 million long-term trade receivables.

Trade receivables are recognised at their anticipated realisable value, which is the original invoiced amount less an estimated valuation allowance.

Valuation of trade receivables is a key audit matter in the audit due to the size of the trade receivable balance and the high level of management judgement used in determining the impairment provision.

For trade receivables and the management's estimations for trade receivables impairment provision, our key audit procedures included the following:

- We obtained trade receivables balance confirmations;
- We analysed the aging of trade receivables; and
- We obtained a list of long outstanding receivables and assessed the recoverability of these through inquiry with management and by obtaining sufficient corroborative evidence to support the conclusions.

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We have no key audit matters to report with respect to our audit of the parent company financial statements. There are no significant risks of material misstatement referred to in Article 10(2c) of Regulation (EU) No 537/2014 with respect to the consolidated financial statements or the parent company financial statements.

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## Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or to cease operations, or there is no realistic alternative but to do so.

## Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.



- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

## Other Reporting Requirements

### Appointment

We were first appointed as auditors by the annual general meeting on 2 March 2017. Our appointment represents a total period of uninterrupted engagement of two years.

### Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to the report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion

- the information in the report of the Board of Directors is consistent with the information in the financial statements
- the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed, we conclude that there is a material misstatement of the other information, we are required to report that fact. We have nothing to report in this regard.

## Other Statements

We support that the financial statements should be adopted. The proposal by the Board of Directors regarding the use of the distributable funds is in compliance with the Limited Liability Companies Act. We support that the Members of the Board of Directors and the President and CEO should be discharged from liability for the financial period audited by us.

Helsinki 29 January 2019

### **PricewaterhouseCoopers Oy**

Authorised Public Accountants

Merja Lindh

Authorised Public Accountant (KHT)