The year 2019

Operating environment, order intake, and order book

Demand for Wärtsilä’s services and solutions during the period January-December 2019 was below that of the previous year. In the marine markets, equipment order intake was affected by fewer orders received for scrubber solutions and by the weak contracting environment in certain vessel segments. Delayed investment decisions burdened activity in the energy market throughout the year. The demand for services was, however, sound in both end-markets.

Wärtsilä’s order intake for 2019 decreased by 16% to EUR 5,327 million (6,307) from the previous year, due to fewer equipment orders in both businesses. The book-to-bill ratio was 1.03 (1.22). Wärtsilä Marine accounted for 66% of the order intake and Wärtsilä Energy for 34%. Services related order intake increased by 3% to EUR 2,676 million (2,596).

The total order book at the end of December decreased by 5% to EUR 5,878 million (6,166). Wärtsilä Marine accounted for 65% of the order book and Wärtsilä Energy for 35%.

Net sales and operating result

Wärtsilä’s net sales for 2019 were stable compared to the previous year, amounting to EUR 5,170 million (5,174). Increased marine equipment deliveries and growth in service volumes served to offset the decline in energy equipment deliveries. Wärtsilä Marine accounted for 64% of net sales and Wärtsilä Energy for 36%. Services related net sales increased by 3% to EUR 2,502 million (2,419). Adjusting for the effects of currency translation, services related net sales increased by 2%. Of Wärtsilä’s net sales, approximately 67% was EUR denominated, 20% USD denominated, with the remainder being split between several currencies.

The operating result amounted to EUR 362 million (543) in the financial period, which represents 7.0% of net sales (10.5). The comparable operating result was EUR 457 million (577), or 8.8% of net sales (11.2). Items affecting comparability included costs of EUR 95 million (35). These consisted primarily of restructuring costs and additional costs related to the closure of the Wärtsilä Hyundai Engine Company (WHEC) joint venture in South Korea. The comparable operating result for Wärtsilä Marine amounted to EUR 305 million (380), or 9.1% of net sales (13.5), while the comparable operating result for Wärtsilä Energy amounted to EUR 152 million (197), or 8.3% of net sales (8.4). The comparable adjusted EBITA was EUR 498 million (621), or 9.6% of net sales (12.0). Purchase price allocation amortisation amounted to EUR 41 million (43). The result figures include charges of EUR 152 million related to cost overruns in certain large and complex project deliveries in the Marine and Energy businesses. Of the total amount, EUR 51 million was recognised in Wärtsilä Marine and EUR 101 million in Wärtsilä Energy. Corrective actions taken to prevent similar issues from occurring in the future include introducing tighter controls on technical assessments and the supplier approval process, as well as strengthening the project management organisation.

Financial items amounted to EUR -47 million (-40) during the period January-December. Net interest totalled EUR -12 million (-7). Profit before taxes amounted to EUR 315 million (502). The effective tax rate was burdened by tax charges related to previous financial periods. Taxes amounted to EUR 97 million (116), implying an effective tax rate of 30.7% (23.1). Profit for the financial period amounted to EUR 218 million (386). Earnings per share were 0.37 euro (0.65), while the equity per share was 4.05 euro (4.09). Return on investment (ROI) was 11.5% (18.1), while return on equity (ROE) was 9.0% (16.1).
Wärtsilä’s cash flow from operating activities totalled EUR 232 million (470) in 2019. Cash flow weakened due to the decrease in operating result and the increase in working capital. The latter was largely related to the build-up of inventories for upcoming scrubber deliveries. Working capital totalled EUR 732 million (581) at the end of the financial period, a decrease of EUR 138 million from the end of September. Advances received at the end of the period totalled EUR 452 million (584). At the end of September, advances totalled EUR 609 million. Cash and cash equivalents at the end of the period amounted to EUR 369 million (487) and unutilised Committed Credit Facilities totalled EUR 640 million (640).

Wärtsilä had interest-bearing debt totalling EUR 1,096 million (823) at the end of December. The increase in interest-bearing debt is largely related to the inclusion of lease liabilities amounting to EUR 188 million on the balance sheet, as a result of the new IFRS 16 standard. The total amount of short-term debt maturing within the next 12 months was EUR 99 million. Long-term loans amounted to EUR 997 million. Net interest-bearing debt increased to EUR 726 million (333), due to weak cash flow and the implementation of IFRS 16. Gearing was 0.30 (0.14) and the solvency ratio was 40.8% (44.4). Excluding the impact of lease liabilities, gearing amounted to 0.22.
Capital expenditure
Capital expenditure related to intangible assets and property, plant, and equipment amounted to EUR 116 million (110) during 2019. Capital expenditure related to acquisitions totalled EUR 6 million (196). The comparison figure includes the acquisition of Transas, which was completed in May 2018. Depreciation, amortisation, and impairment for the period amounted to EUR 180 million (130). The increase is related to the implementation of the new IFRS 16 Leases standard.

In 2020, capital expenditure related to intangible assets and property, plant, and equipment is expected to be below depreciation, amortisation, and impairment.

Gross capital expenditure

Acquisitions and divestments
In May, Wärtsilä announced the acquisition of Ships Electronic Services Ltd (SES), a UK based company specialising in navigation and communication electronics, as well as installation, maintenance, and repair services, mainly for commercial and leisure vessels. SES, established in 1974, has its headquarters in Rochester and operates also out of nine other offices in the UK.

In December, Wärtsilä announced the divestment of Wärtsilä ELAC Nautik GmbH (ELAC Nautik) to Cohort plc, a UK listed company specialising in defence, security, and related market sectors. ELAC Nautik became part of Wärtsilä as a result of the acquisition of L-3 Communications MSI in 2015. Its main market focus is on hydroacoustic products, including sonars, underwater communication systems, and echo systems for small and medium sized military submarines. ELAC Nautik employs approximately 120 people and generates annual revenues of approximately EUR 21 million. Subject to approvals, completion of the transaction is expected in the early part of 2020.

Strategic projects and partnerships
In April, Wärtsilä agreed to provide seed funding to Soletair Power Oy, a Finland-based start-up company operating in the field of Power-to-X. Soletair Power Oy has developed a concept to improve air quality in buildings by capturing carbon dioxide and converting it to synthetic renewable fuel. This was followed in May by the announcement of a research collaboration with Lappeenranta-Lahti University of Technology on strategic power system modelling, with the aim of understanding and developing paths towards energy systems operating 100% on renewable energy sources.
In June, Wärtsilä entered into a cooperation agreement with Aggreko, a global power equipment supplier, to introduce a new concept for power markets built around the Wärtsilä Modular Block solution. The cooperation will also enable new business and financing models, such as power as a service or rentals.

In September, Wärtsilä and Q Power Oy, a Finnish bio-methanisation company, signed a cooperation agreement to accelerate the development and commercialisation of renewable fuels. The companies will work together to develop the market and find new business opportunities for bio-methanisation and synthetic fuels globally.

In October, Wärtsilä co-founded a new global cyber security alliance for operational technology, which aims to bridge dangerous gaps in security for operational technology and industrial control systems. Operational technology encompasses the hardware and software used to control physical systems, such as machinery in factories, power stations, ships, or ports. The Internet of Things and inter-connectedness of production systems in smart factories means that there is a significantly and rapidly growing risk of serious security breaches in these environments.

In November, Wärtsilä and Singapore-based PSA Marine announced their collaboration in the co-creation of smart technologies for the marine sector. Specific collaboration areas include the use of electric or hybrid technologies that enhance the utilisation of low-emission energy and propulsion systems, the incorporation of next-generation smart vessel technologies, the adoption of secured connectivity to facilitate ship-to-shore data exchange, as well as marketing and branding activities that generate awareness.

In December, Wärtsilä signed a strategic development agreement with the Chinese state-owned shipbuilder CSSC Huangpu Wenchong Shipbuilding Company Limited. The purpose of the five-year agreement is to build a cooperation framework and working mechanism for the research and development of hybrid power systems. Wärtsilä will support Huangpu Wenchong during the design and construction phases with technology innovations, system selection, performance calculations, and long-term services.

**Innovations, research and development**

Research and development expenditure totalled EUR 164 million (165) in 2019, which represents 3.2% of net sales (3.2). The key focus areas included digitalisation, efficiency improvement, fuel flexibility, and the reduction of environmental impact.

The Wärtsilä 31 engine application range was expanded during the year, with the Wärtsilä 31SG pure gas engine being made available to the marine sector, and applications for the Wärtsilä 31DF multi-fuel engine being extended to include power generation markets. The Wärtsilä 31SG engine further reduces the total cost of ownership and the environmental footprint for vessels operating in regions where there is a developed gas supply infrastructure. The gas-only focus and lean-burn spark ignition technology allows for further optimisation of the engine’s thermal efficiency, while also lowering greenhouse gas emissions and facilitating adaptations for alternative heavier gas fuels, such as LPG. The Wärtsilä 31SG engine is ideally suited for hybrid applications, since it provides outstanding thermal efficiency. It also enables investment cost reductions that help offset the additional cost of energy storage.

The Wärtsilä 31DF engine, in turn, offers unequalled open-cycle efficiency, fuel flexibility, and unparalleled dynamic operational features for markets where a gas supply is anticipated but not yet available, or where there are concerns about the availability or price of gaseous fuels.

For the energy markets, Wärtsilä launched Engine+ Hybrid Energy, a solution that pairs engines with energy storage to form a fully integrated, automated system providing reliable and environmentally sound power generation with improved efficiency for the operators and power producers of islanded grids. The solution serves load requirements instantly, addresses step changes and intermittencies, and provides spinning reserves. GEMS, the control platform, automatically dispatches available assets and takes into account any operational constraints to ensure optimal operation. Wärtsilä also introduced its Modular Block power plant solution. This pre-fabricated, modularly configured, and expandable enclosure for Wärtsilä medium-speed 34SG gas engine generators enables the reduction of on-site installation time from several months to a few weeks. The solution makes Wärtsilä’s advanced medium-speed engine technology available for applications where it would not be viable with a conventional custom-designed permanent building.
Digital developments included the launch of Wärtsilä Online, a new web-based customer platform aimed at providing a state-of-the-art support service that allows customers to better manage their installed assets. Wärtsilä Online enables mobile usage, new features for smart maintenance management, and real-time collaboration. Wärtsilä also introduced a digital version of Operim – Operational Performance Improvement & Monitoring, the new Navi-Planner voyage planning and optimisation solution, as well as the Expert Insight predictive maintenance product. By digitally augmenting physical products through the addition of data collection capabilities and cloud-based analytics, Operim enables improvements in operational performance through the continuous monitoring of and reporting on the key performance indicators, along with virtual instrumentation. The collected data are delivered to the system’s user in real-time, thereby allowing appropriate and timely manual or autonomous decision-making in a predictive or adaptive manner. Developed by Transas, a Wärtsilä company, Navi-Planner makes use of the connected Electronic Chart Display and Information System (ECDIS) to significantly shorten voyage planning and to provide a minimum navigational safety standard for a less experienced crew. Expert Insight enables customer support to be delivered proactively by Wärtsilä Expertise Centres to ensure long-term accurate insight for their predictive maintenance strategies. The solution leverages artificial intelligence and advanced diagnostics to monitor equipment and systems in real-time, enabling enhanced safety, reliability, and efficiency.

Research and development expenditure

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2015 2016 2017 2018 2019

- RAD expenditure
- Percentage of net sales

Restructuring programmes

In January 2019, Wärtsilä announced a group-wide programme to realign its operations and resources in order to secure future profitability and competitiveness. When finalised, the program is expected to lead to a reduction of approximately 1,200 employees globally and to generate savings of EUR 100 million. The related costs are estimated be EUR 75 million.

The majority of the planned actions were taken during the year. Approximately EUR 50 million of savings materialised by the end of 2019, of which a significant portion was volume related. Costs related to the restructuring measures amounted to approximately EUR 70 million. The remaining savings and costs will be recognised during 2020.

Personnel

Wärtsilä had 18,795 (19,294) employees at the end of December. On average, the number of personnel totalled 19,110 (18,899) during the period January-December. Wärtsilä Marine employed 13,460 (13,582) people at the end of the period and Wärtsilä Energy 5,335 (5,712).
Of Wärtsilä’s total number of employees, 20% (20) were located in Finland and 42% (40) elsewhere in Europe. Personnel employed in Asia represented 23% (24) of the total, personnel in the Americas 11% (11), and personnel in other countries 4% (4).

**Personnel**

![Graph showing personnel at the end of the financial period](image)

**Changes in management**

Ms Alid Dettke (38), double-degree BA (Hons) European Business, was appointed Executive Vice President Human Resources and member of the Board of Management, as of 24 October 2019. Ms Dettke joined Wärtsilä in November 2017 and had most recently held the position of Vice President for Open Innovation.

Ms Päivi Castrén acted as Executive Vice President, Human Resources until 24 October 2019.

Mr Marco Ryan acted as Executive Vice President and Chief Digital Officer until 17 July 2019. Following his departure, Wärtsilä’s digital activities were embedded into the Marine and Energy businesses.

**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 2019, 17,727 employees, covering 94% 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 2019, R&D investments totalled EUR 164 million, which represents 3.2% of net sales. The majority of these investments targeted improved environmental performance. Significant achievements related to sustainable innovation included the extension of the Wärtsilä 31 engine application range, with the Wärtsilä 31SG pure gas engine being made available to the marine sector, and applications for the Wärtsilä 31DF multi-fuel engine being extended to include power generation markets. The development of these engines is a direct result of Wärtsilä’s on-going commitment to reduce greenhouse gas emissions from its gas engines by 15% by 2020 from 2015 levels. For the marine markets, Wärtsilä launched several solutions in support of its Smart Marine Ecosystem vision, including new navigation solutions, hybrid solutions, and offerings aimed at smarter performance and greater profitability. In the energy markets, Wärtsilä introduced a hybrid energy solution for isolated and remote grids, as well as a Modular Block power plant solution enabling the reduction of on-site installation time from several months to a few weeks.

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 2.07 per employee in 2019.

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 2019, the corporate lost-time injury frequency rate was 2.25 (2.50).
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 2019, 86% 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.

Reporting segments

Wärtsilä Marine

Operating environment

During 2019, 1,153 contracts for new vessels were registered (1,237 in 2018, excluding late contracting). Economic uncertainty, trade tensions, and regulatory considerations resulted in subdued contracting activity particularly in the merchant marine market. A wave of shipyard consolidations was announced during the year, as yards moved towards improving their competitiveness and better managing the prevailing overcapacity.

Activity remained solid in the gas carrier segment, driven by the growth in demand for liquefied natural gas (LNG), the increasing role of gas in the global energy mix, and firm spot rates. In the cruise segment, contracting activity favoured small and medium-sized vessels, due to the growing interest in luxury and expedition cruises, as well as capacity constraints in building larger ships. Investments in the ferry segment continued to be driven mainly by the replacement of older vessels, while the ferry market remained balanced in terms of supply and demand. In the offshore sector, contracting was burdened by reactivation and upgrades of stacked vessels, as well as by the slow rate of growth in vessel utilisation and day rates.

The focus on environmental issues and related regulations are driving increased efforts to minimise the environmental footprint of the shipping industry. This is resulting in a growing interest in LNG as a fuel and hybrid battery packs across vessel segments. While fuel price spreads are supportive of investments in scrubber technology, uncertainty around future developments and fuel availability has delayed decision-making among customers.

The demand for marine services was solid, with the most positive development seen in the merchant and cruise and ferry segments. In the cruise segment, activity favoured the servicing of automation and navigation solutions. For merchant vessels, demand increased particularly in the gas carrier segment, driven by continued growth in LNG trade and LNG carriers reaching their maintenance window for larger overhauls. Economic and trade related uncertainties resulted in slower service activity in the container vessel segment. Activity improved from a low level in the offshore support vessel segment, thanks to fleet reactivation and improving vessel utilisation.
Financial development

Order intake in 2019 amounted to EUR 3,517 million (3,945), a decrease of 11% compared to the previous year. Book-to-bill was 1.06 (1.40). Services orders decreased by 2% to EUR 1,715 million (1,747), while equipment orders decreased by 18% to EUR 1,802 million (2,198). The order book at the end of December amounted to EUR 3,799 million (3,651), which is 4% higher than last year.

Demand was highest in the merchant segment, which, including both traditional merchant vessels and gas carriers, represented 40% and 35% of the order intake of equipment and services, respectively. Orders received from this segment included the strategically important contract to supply fleet operations solution to Anglo-Eastern’s global fleet of more than 600 vessels, as well as multiple orders for gas solutions, power supply solutions, and service agreements for gas carriers. Activity was strong also in the cruise and ferry segment, where, in addition to several equipment orders for cruise ships, Wärtsilä was awarded a contract to supply an integrated package of products, systems, and solutions to Wason’s new, efficient, and environmentally sustainable RoPax ferry.

Net sales increased by 18% to EUR 3,330 million (2,815) compared to the previous year. Services net sales increased by 4% to EUR 1,639 million (1,577), while equipment net sales increased by 37% to EUR 1,691 million (1,238) largely due to a significant increase in scrubber deliveries. The comparable operating result amounted to EUR 305 million (380), which represents 9.1% of net sales (13.5). The decline is largely due to charges of EUR 51 million related to cost overruns in certain gas solution project deliveries and a lower share of result from joint ventures. The comparison figure was elevated by a capital gain amounting to EUR 27 million from the divestment of the pumps business. Profitability was also affected by the higher proportional share of equipment deliveries in the net sales mix of 2019.

Wärtsilä Energy

Operating environment

Activity in the liquid and gas fuelled power plant markets was well below that of the previous year. Energy policies are being developed to drive ambitious decarbonisation targets, and utilities continue to update their investment strategies accordingly. This, combined with macroeconomic uncertainty, has slowed decision-making globally. The low number of new power plant projects resulted in a tough competitive environment. In contrast to the challenges in the equipment business, the demand for services was solid, as customers continued to see the benefit of enhancing installation reliability with long-term service agreements.

Wärtsilä’s market share in the up to 500 MW market segment increased to 17% (14), while global orders for natural gas and liquid power plants decreased by 44% to 11.6 GW during the twelve-month period ending in September 2019 (15.1 GW at the end of June). Global orders include gas turbines and Wärtsilä orders with prime movers over 5 MW in size. The data is gathered from the McCoy Power Report.

Financial development

Order intake in 2019 totalled EUR 1,810 million (2,362), a decrease of 23% compared to the previous year. Book-to-bill was 0.98 (1.00). Services order intake increased by 13% to EUR 961 million (851), largely thanks to the all-time high order intake in long-term service agreements, which grew by 50% compared to the previous year. Equipment order intake decreased by 44% to EUR 849 million (1,511). The order book at the end of December declined by 17% to EUR 2,079 million (2,515).

Demand for new equipment and services was highest in Asia and the Americas. New equipment orders received during the year included a 132 MW dual-fuel power plant to improve system reliability in the Bahamas, a 200 MW dual-fuel power plant to be delivered to Cambodia to provide grid stability and to enable increasing levels of renewable energy integration into the system, as well as the first Modular Block Solution of 40 MW in Mali. Wärtsilä also received several orders for energy storage and optimisation solutions during the year, including a 100 MW/100 MWh total capacity energy storage project in South East Asia. Signed service agreements included Wärtsilä’s largest ever long-term operation and maintenance agreement awarded by Energia del Pacifico for a power plant under construction in El Salvador, for which order intake will be recognised once the plant is in operation. Other important service orders consisted of an agreement to maintain Summit’s 464 MW power plants in Bangladesh and a 5-year operation and maintenance agreement for a newly installed 145 MW power plant in Myanmar.
Net sales decreased by 22% to EUR 1,840 million (2,359) compared to the previous year. Services net sales increased by 2% to EUR 863 million (842), while equipment net sales decreased by 36% to EUR 977 million (1,517). The comparable operating result was EUR 152 million (197), which represents 8.3% of net sales (8.4). The comparable operating result for 2019 includes charges of EUR 101 million related to cost overruns in certain projects in the equipment business, while the comparison figure includes a charge of approximately EUR 70 million covering cost overruns and project delays in two nuclear power plant back-up genset projects.

**Risks and business uncertainties**

Trade tensions, geopolitical uncertainty, and a possible slowdown in the global economy are affecting investment decisions in the shipping industry, especially in the bulk carrier and container sectors. While slow economic growth is also a risk to demand development in the service markets, the capital-intensive newbuilding market is more sensitive to changes in the economic outlook. Changes in the financial landscape have resulted in challenges to securing financing for newbuilds. The continued oversupply in the market, together with low contracting volumes, has led to further price pressure. Shipyard consolidation among the major yards is a potential risk that might result in lower capture rates in equipment sales due to changed relationships with the shipyards. The shortage of available shipyard capacity to install and commission scrubber retrofits has resulted in delays in project deliveries. While concerns related to climate change require increasing efforts to reduce emissions within the shipping industry, uncertainties concerning developments in the regulatory environment may slow newbuild activity.

In the power generation markets, fragile economic growth, and slow decision-making related to the ongoing energy transition continue to be the primary risks for demand development. Geopolitical tensions and the implications of trade barriers are also notable challenges to the demand environment. Significant currency fluctuations can result in investment decisions being postponed in certain countries. Price pressure resulting from the prevailing competitive environment remains a risk.

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. This is also the case with the increasing importance of energy management systems as renewable energy penetration grows. Wärtsilä emphasises a holistic approach to the management of cyber and physical security risks in its internal operations and customer offerings. In its operational and governance activities, the company’s cyber security team has continued to move towards compliance with the IEC62443 and ISO 27000 protocols. Such activities include cyber assurance, risk management and detection, a secure software development lifecycle, training, endpoint protection, network security, and cyber advisory services.

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.
Shares and shareholders

During January-December, the volume of trades on Nasdaq Helsinki was 333,483,579 shares, equivalent to a turnover of EUR 3,947 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 229,045,024 shares.

Wärtsilä shares on Nasdaq Helsinki

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¹ Trade-weighted average price

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Flagging notifications

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<tr>
<th>Transaction date</th>
<th>Shareholder</th>
<th>Threshold</th>
<th>Direct holding, %</th>
<th>Total holding, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.2.2019</td>
<td>BlackRock, Inc.</td>
<td>Below 5%</td>
<td>4.94</td>
<td>5.35</td>
</tr>
<tr>
<td>26.2.2019</td>
<td>BlackRock, Inc.</td>
<td>Above 5%</td>
<td>5.07</td>
<td>5.42</td>
</tr>
<tr>
<td>22.3.2019</td>
<td>BlackRock, Inc.</td>
<td>Below 5%</td>
<td>4.82</td>
<td>5.38</td>
</tr>
<tr>
<td>26.4.2019</td>
<td>BlackRock, Inc.</td>
<td>Above 5%</td>
<td>5.02</td>
<td>5.18</td>
</tr>
<tr>
<td>3.5.2019</td>
<td>BlackRock, Inc.</td>
<td>Below 5%</td>
<td>4.95</td>
<td>5.18</td>
</tr>
<tr>
<td>7.5.2019</td>
<td>BlackRock, Inc.</td>
<td>Above 5%</td>
<td>5.00</td>
<td>5.23</td>
</tr>
<tr>
<td>10.5.2019</td>
<td>BlackRock, Inc.</td>
<td>Below 5%</td>
<td>4.98</td>
<td>5.23</td>
</tr>
<tr>
<td>21.5.2019</td>
<td>BlackRock, Inc.</td>
<td>Above 5%</td>
<td>5.02</td>
<td>5.16</td>
</tr>
<tr>
<td>24.5.2019</td>
<td>BlackRock, Inc.</td>
<td>Below 5%</td>
<td>4.97</td>
<td>5.16</td>
</tr>
<tr>
<td>31.5.2019</td>
<td>BlackRock, Inc.</td>
<td>Below 5%</td>
<td>Below 5%</td>
<td>Below 5%</td>
</tr>
<tr>
<td>11.6.2019</td>
<td>Fiskars Corporation</td>
<td>Below 5%</td>
<td>Below 5%</td>
<td>Below 5%</td>
</tr>
</tbody>
</table>

Decisions taken by the Annual General Meeting

Wärtsilä’s Annual General Meeting, held on 7 March 2019, 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 2018.

The Annual General Meeting decided that the Board of Directors shall have eight members. The following were elected to the Board: Maart 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 2019.
Dividend distribution
The Annual General Meeting approved the Board of Directors’ proposal to distribute a dividend of EUR 0.48 per share in two instalments. The first instalment of EUR 0.24 per share was distributed on 18 March 2019. The second instalment of EUR 0.24 per share was distributed on 27 September 2019.

Authorisation to repurchase 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.

Authorisation to issue shares
The Board of Directors was authorised to resolve to issue new shares or transfer shares held by the Company. The maximum number of shares to be so issued shall not exceed 57,000,000. The shares can be issued for consideration or without consideration. They can also be issued in deviation from the shareholders’ pre-emptive rights by way of a directed issue if there is a weighty financial reason for the Company to do so. The authorisation for the Board of Directors to issue 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 8 March 2018 to distribute the Company’s own shares.

Organisation of the Board of Directors
Convening after the Annual General Meeting the Board of Directors elected Mikael Lilus 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 Lilus, Kaj-Gustaf Bergh, Johan Forssell, Risto Murto  
**Remuneration Committee:** Chairman Mikael Lilus, Maarit Aarni-Sirviö, Tom Johnstone