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ANNUAL REPORT 2010

  
WÄRTSILÄ

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# Message to the shareholders

## Dear Shareholders,

For Wärtsilä, 2010 was a year of recovery. At the same time it was a year of further consolidation and restructuring of activities.

We entered the year with a rapidly decreased order book, and it was hard to predict when a recovery could actually be expected. As a result of the severe financial crisis, world trade had deteriorated sharply in 2009 and there was a lot of surplus shipping capacity available. Although the power plants market did not suffer as such from overcapacity, financing conditions caused the postponement of projects that otherwise would have proceeded well.

It also became apparent that the post crisis industrial structure would be even more competitive than before. Asian shipyards now claim an even bigger share of the world's shipbuilding markets. Component and systems suppliers need to adapt to that. The boom years preceding the crisis had seen capacity additions that now may be redundant.

Adapting to these conditions, and maintaining competitiveness and profitability, is our top priority. We therefore decided in the beginning of 2010 to further align our engine and propulsor production. These decisions mean that production is moved closer to the markets in China, while our European production footprint is being consolidated. The Service business, with sales remaining at last year's levels, has undertaken restructuring measures to adapt capacity to market needs. Furthermore, our administration resources had to be reviewed, and towards the end of the year redundancy programmes were introduced in this sector.

Reducing capacity through temporary and permanent lay-off programmes is, of course, not an objective in itself. Nor is it even a desirable solution. However, I am pleased to note that Wärtsilä's personnel has fully understood the seriousness of the situation and the necessity of the measures taken. In a survey conducted at the end of 2010, the vast majority of Wärtsilä's employees expressed their commitment to Wärtsilä, and to the company's goals.

Group personnel decreased to 17,528 (18,541) by the end of the year.

The ordering of new ships started already in the spring of 2010, far earlier than expected. The total number of ships ordered has almost doubled compared to the year before. A number of bulk carriers were ordered in the spring and, towards the end of the year, shipping companies started again to order container vessels. Activity in the offshore sector has continued to be high. Wärtsilä's Ship Power order intake slowly started to recover in line with the turn in the market. Our concentration on ship design, total solutions, and operational support has proven to be a success. We are able to serve our customers, both ship owners and yards alike, in the continuous efforts towards more efficient and sustainable shipping.

The world's need for sustainable and reliable power did not vanish with the financial crisis, and activity in our Power Plants division has remained high. Power plant solutions based on our new, bigger gas engines are meeting with good customer demand. Customers appreciate the high efficiency - even at variable load - of



these engines, as well as their superior load management capabilities, and modularised design that allows for easy capacity additions as demand increases. More than 50 percent of the new power plant capacity installed by Wärtsilä in 2010 was accompanied by long-term operational agreements.

Long-term operations and management agreements, which earlier were virtually non-existent in the shipping industry, are today widely discussed. I am pleased to note that some of the world's undisputed leaders in shipping have signed such agreements with our Services division. This division, which accounted for 40 percent of group sales in 2010, has proven to be resilient to the financial crisis.

Of our net sales, 23 percent last year came from the so called BRIC countries. These will continue to be at the centre of our activities in the future. Brazil, with its large energy resources, is broadening its industrial capabilities, and Wärtsilä will be part of that. In Russia, we signed a joint venture agreement last year to produce Wärtsilä designed locomotive engines, and the first such engine began test runs in late 2010. India has been a focus of our activities since the early 1980's, and our footprint in China will continue to grow. Today, we operate three joint ventures and a sizable wholly owned operation in China, with approximately 1,800 employees. In terms of sales for Wärtsilä, China again ranked number one.

Wärtsilä is committed to developing its modern product and services portfolio. In 2010, our R&D expenditure equalled 3 percent of sales. In 2011 this will be at least at the same level. Our products and activities play a central role in ensuring the future for sustainable global shipping and electricity generation. High ethical standards in our operations are non-negotiable. In this context, we are committed to supporting the UN Global Compact and its ten principles with respect to human rights, labour, the environment, and anti-corruption.

Due to the fall in new contracting activity in 2009, our net sales in 2010 fell by 13 percent to 4.6 billion euro following a period of strong growth. In 2011 we will again see some growth in sales. We are also pleased to note that profitability remained at a good level, 10.7 percent, and is expected to improve again slightly in 2011. For the longer term, we believe that the new more lean structure, our good position in the markets, and our efficient services organisation should enable us to reach operating margins of up to 14 percent.

I would like to take this opportunity to thank our shareholders for your confidence in our company, our customers for your trust in our products and services, and last but not least, the entire staff of Wärtsilä for your commitment towards our common goals.



Ole Johansson

President & CEO

## **This is Wärtsilä**

Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets. By emphasising technological innovation and total efficiency, Wärtsilä maximises the environmental and economic performance of the vessels and power plants of its customers. In 2010, Wärtsilä's net sales totalled EUR 4.6 billion with approximately 17,500 employees. The company has operations in 160 locations in 70 countries around the world. Wärtsilä is listed on the NASDAQ OMX Helsinki, Finland.



## The year 2010 in brief - Solid performance at all levels

The year 2010 developed as expected. Group net sales, EUR 4,553 million, declined by 13% compared to the year 2009. Operating profit remained at a high level and amounted to EUR 487 million (638) and the operating margin stood at 10.7% (12.1). Cash flow from operating activities was record high at EUR 663 million (349).

### New vessel contracting activity stronger than expected

The number of vessels contracted in 2010 represented an increase of 75% compared to the previous year. This was a much faster and more significant recovery than expected. While the first half of the year was characterised by high contracting activity for bulk carriers, the second half saw a similar increase in contracting activity for container vessels and more specialised vessel types. The offshore segment continued strong throughout the year and demand was good especially for floating production units. As a consequence of this development Wärtsilä Ship Power's order intake for 2010 more than doubled and totalled EUR 657 million (317).

### Power Plant markets remained solid

The financial crisis which led to the postponement of investments for power generation in 2009, eased during 2010 and market activity was at a good level during the year. Industrial output is increasing in most emerging markets which, in combination with population growth and enhanced standards of living, is driving the need for more power generation. The installed base of wind power generation has also increased, which is creating a need for flexible power generation. For the review period January-December 2010, the Power Plants order intake totalled EUR 1,413 million (1,048), a 35% increase compared to last year.

### Marine service customers were affected by slow market

During 2010, the global economic downturn had its effect on the marine service market which focused strongly on cost savings. Marine customers, especially in the merchant segment continued to limit their maintenance and modernisation investments. A large number of ships were slow steaming which reduces maintenance and repair expenditures. At the end of the year, the amount of idled vessels had decreased to 6% from its peak of 10% at the beginning of 2010. The power plants service business was less affected by the downturn. Wärtsilä Services' order intake and net sales remained at last year's good level.

### Restructuring measures initiated to meet lower demand

In January 2010, Wärtsilä started the adaptation of manufacturing capacity to both the structural changes in the market and to a lower demand environment. Some of the manufacturing capacity has been moved to China and two factories in the Netherlands are in the process of being closed. New and more efficient ways to operate have been introduced, thus enabling the closure of smaller units and the consolidation of operations to larger entities in various countries, as well as the consolidation of manufacturing close to growing markets. Wärtsilä also initiated processes to reduce approximately 400 jobs globally in its support functions during the fourth quarter. Through all of these measures initiated in different phases, Wärtsilä is reducing the number of personnel by approximately 1,800 employees.

**Key ratios**

		Q4 /	Q3 /	Q2 /	Q1 /		
MEUR	2010	2010	2010	2010	2010	2009	2008
Net sales	4 553	1 462	1 039	1 131	922	5 260	4 612
Ship Power	1 201	371	277	276	278	1 767	1 531
Power Plants	1 525	577	321	390	237	1 645	1 261
Services	1 823	516	435	463	409	1 830	1 830
Depreciation and amortisations	-116	-29	-29	-28	-30	-165	-99
Operating result <sup>1</sup>	487	159	117	117	94	638	525
Operating result <sup>1</sup> , %	10.7	10.9	11.2	10.4	10.2	12.1	11.4
Profit before taxes	548	251	140	109	49	558	516
Earnings per share, EUR <sup>1</sup>	3.35	0.99	0.83	0.86	0.68	4.30	3.88 <sup>2</sup>
Balance sheet total	4 696	4 696	4 711	4 737	4 647	4 655	4 743
Interest-bearing liabilities, gross	628	628	688	678	682	664	664
Cash and cash equivalents	776	776	578	331	252	244	197
ROI, %	26.0	-	-	-	-	29.9	32.4
Gearing	-0.09	-0.09	0.07	0.24	0.31	0.28	0.39
Order book, end of period	3 795	3 795	4 243	4 315	4 330	4 491	6 883
Order intake	4 005	1 003	1 004	1 117	881	3 291	5 573
Personnel, end of period	17 528	17 528	17 704	17 905	18 410	18 541	18 812
Year-end market capitalisation	5 631	-	-	-	-	2 768	2 072

<sup>1</sup> 2009 and 2010 figures exclude nonrecurring restructuring items and selling profits.

<sup>2</sup> 3.96 euros before the effect of the combination of Wärtsilä's share series.

## Businesses in brief

### Ship Power

Wärtsilä enhances the business of its customers by providing integrated systems, solutions, and products that are efficient, economically sound, and environmentally sustainable for the marine industry. Being a technology leader in this field, and through the experience, know-how and dedication of our personnel, we are able to customise innovative, optimised lifecycle solutions to the benefit of our clients around the world.

### Power Plants

Wärtsilä is a leading supplier of flexible power plants for the power generation markets. We offer truly competitive and reliable solutions for base load power generation, grid stability & peaking, industrial self-generation, as well as for the oil and gas industry. We provide superior value to our customers with our distributed, flexible, efficient and environmentally advanced energy solutions, which enable a global transition to a more sustainable and modern energy infrastructure.

### Services

Wärtsilä supports its customers throughout the lifecycle of their installations by optimising efficiency and performance. We provide the most comprehensive portfolio of services and the broadest service network in the industry for both the power plant and marine markets. We are committed to providing high quality, expert support as well as availability of services wherever our customers are - in the most environmentally sound way.

## Operating environment

Wärtsilä serves two main industries; the marine and the power industry, for which we provide products, solutions and services to a large range of customer segments. In Ship Power, the scope of delivery varies from individual equipment components to full system integration, whereas in Power Plants the scope varies from engine supplies to turn-key project deliveries. The role of Services is significant in the main customer industries.

### The marine industry

The main vessel segments covered by Ship Power are Merchant, Offshore, Cruise&Ferry, Navy and Special vessels. Ship Power customers comprise both shipyards and ship owners.

#### General shipbuilding and shipping market drivers

Demand in the shipbuilding and shipping industries is basically driven by the development of the global economy and its impact on trade and needed transport capacity. The global economy also influences the level of fuel prices, which in turn has both a direct and an indirect impact on the shipping and offshore industries. Other factors, such as shipyard capacity, new build prices, decommissioning and scrapping, interest and freight rates, and environmental considerations, also affect these industries. The main market driver for our Ship Power business is the global demand for new vessels, in particular regarding ships built for seaborne cargo transportation, offshore oil exploration and support, cruise and ferry services, and for naval contracting.

#### Main drivers for Wärtsilä's Ship Power business



- Developments in the global economy
- Development of world trade and needed transport capacity
- Development of oil and gas prices

#### Competitors and market position

Wärtsilä Ship Power has continuously broadened its portfolio, which today ranges from engines and propulsion equipment to electrical equipment, automation and ship design. Our competitive advantage lies in having the broadest offering in the industry. This offering is backed by the capability to build environmentally sound solutions, and by the best service support throughout the lifecycle of the product.

## Equipment

Equipment offered by Wärtsilä	Main application*	Main competition**	Wärtsilä's market position
<b>4-stroke main engines</b>	Small tankers, small container vessels, LNG (Liquid Natural Gas) carriers, drillships, FPSO (Floating Production, Storage and Offloading), offshore support/ service vessels, cruise vessels, ferries, ro-pax vessels	MAN Diesel, MAK (CAT), Niigata, Rolls-Royce	Market leader: Wärtsilä's share 30-40% of the market (in KW)
<b>2-stroke engines (license built)</b>	Large merchant vessels: bulk carriers, tankers, container vessels	MAN Diesel, Mitsubishi Heavy Industries	Market challenger: Wärtsilä's share appr. 15% of the market (in KW)
<b>Auxiliary engines (4-stroke)</b>	Generating sets for all vessel types	Highly fragmented market, price sensitive and heavy competition. Main competitors: MAN Diesel and its license manufacturers, Yanmar, the HiMSEN engine designed and manufactured by Hyundai Heavy Industries. High-speed engines also compete in this market	Market challenger: Wärtsilä's share between 1% and 5% of the market
<b>Controllable Pitch Propellers (CPP)</b>	Small container vessels, offshore supply/service vessels, FPSO, cruise vessels, ferries, dredgers	Rolls-Royce, Schottel	Fragmented market with several players. Wärtsilä amongst top players
<b>Fixed pitch propellers (FPP)</b>	Large merchant ships (tankers, container vessels, bulk carriers), LNG carriers, drillships, cruise vessels, ferries, tugs, dredgers	Hyundai Heavy Industries, Mitsubishi Heavy Industries & Mecklenburger Metallguss	Fragmented market with several players. Wärtsilä amongst top players
<b>Tunnel thrusters</b>	All vessel types	Rolls-Royce	Market challenger

Equipment offered by Wäartsilä	Main application*	Main competition**	Wäartsilä's market position
<b>Steerable thrusters</b>	Drillships, FPSO, offshore support/ supply vessels, pipelayers, AHTS (Anchor Handling Tug Supply), tugs	Rolls-Royce, Schottel	Fragmented market with several players. Wäartsilä amongst top players
<b>Seals and bearings</b>	Merchant vessels: bulk carriers, tankers, container vessels	Michell (RR), Renk (MAN)	Market challenger

\* Only main applications of interest to Wäartsilä mentioned

\*\* Only main competitors mentioned

## Vessel segments

Segment	Vessel type	Main offering	Wärtsilä's value proposition and market trends	Competitive landscape
<b>Merchant</b>	Tankers	2-st engines, Auxiliary engines, FPP	Unique portfolio (including ship design) and service network. Environment and efficiency increasingly important, higher operative expenses boosting demand for efficient equipment and vessels	MAN clearly dominates the market for 2-stroke engines. The rest of the equipment: larger vessel sizes are typically standardised and equipment providers face intense and fragmented competition. On the other hand more specialised applications (chemical tankers, shuttle tankers, and smaller vessels in general terms) provide opportunities for focusing on complete lifecycle solutions and efficiency
	Containers	2-st engines, Auxiliary engines, FPP, CPP, Tunnel thrusters, Ship design, Gearboxes		
	LNG	4-st main Dual Fuel-engines, CPP, Gearboxes		
	Bulkers	2-st engines, Auxiliary engines, FPP, Tunnel thrusters, 4-st engines for smaller vessels		
	Other: cargo, roro, car carriers, LPG carriers	All of the above		
<b>Offshore</b>	Exploration (floating): drillships, semisubmersibles, etc	4-st engines, Steerable thrusters, Tunnel thrusters, FPP, Electrical propulsion, Automation, Gearboxes	The most extensive single source offering and network, including ship design, project management and engineering. Emphasis on safety, reliability, energy-, operational- and environmental efficiency	Few players with extensive offering (Rolls-Royce). Competition divided by application, ie. Automation (Kronsberg, Converteam, Siemens, ABB), Ship Design (Ulstein -RR) etc
	Floating production units: FPSO's, FSO, floating LNG, etc	4-st engines, Steerable thrusters, Tunnel thrusters, CPP, Electrical propulsion, Automation, Gearboxes		
	Service/Supply vessels: OSV's, PSV's, AHTS, AHS	4-st engines, Steerable thrusters, Tunnel thrusters, CPP, Electrical propulsion, Ship Design, Automation, Gearboxes		
	Other: crane vessels, pipelayers, accommodation vessels	All of the above		



Segment	Vessel type	Main offering	Wärtsilä's value proposition and market trends	Competitive landscape
<b>Cruise and Ferry</b>	Cruise vessels	4-st engines, CPP, FPP, Steerable thrusters, Tunnel thrusters, Automation	The most extensive offering and network in the market, customer care. Environmental performance and lifecycle approach important. High operating costs calling for greater efficiencies	Limited competition with only main players having access to the market (MAN, Caterpillar, Rolls-Royce, ABB, etc)
	Ferries	4-st engines, CPP, FPP, Steerable thrusters, Tunnel thrusters, Automation, Ship Design		
	Other: ro-pax, yachts	All of the above		
<b>Special vessels</b>	Tugs	4-st engines, FPP, Steerable thrusters, Tunnel thrusters, Automation, Ship Design	Extensive offering including ship design and holistic approach to efficiency in operations. Lifecycle service and environmental aspects on top of the agenda	Competitive landscape varies depending on vessel type, owner, etc. Competition highly fragmented with small and big players present
	Dredgers	4-st engines, CPP, FPP, Steerable thrusters, Tunnel thrusters, Automation, Ship Design		
	Other: fishing vessels, ice breakers, research vessels, work boats, inland water ways vessels	All of the above		
<b>Navy</b>	Frigates, corvettes, patrol vessels, aircraft carriers, destroyers, support vessels	Waterjets, seals and bearings, tunnel thrusters, 4-st engines	Focus on selected vessel types with selected components and lifecycle services. Strong engineering capabilities and focus on reliability	Limited competition with only main players having access to the market (MAN, Caterpillar, Rolls-Royce, ABB, etc). The segment is dominated by high speed engines

## The power industry

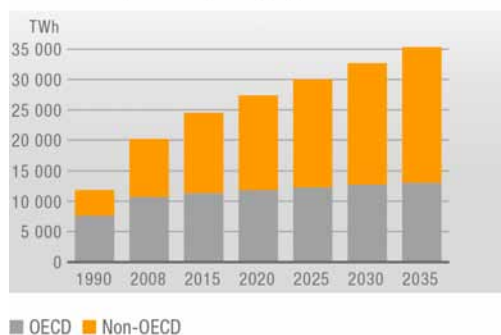
The main market segments covered by Power Plants are Flexible baseload, Grid stability and peaking, Industrial self-generation and the Oil & Gas industry. The main customer groups within these markets are utilities, Independent Power Producers (IPP's) and industrial manufacturers in industries such as the cement, mining and textile industries.

Wärtsilä's power plant projects are financed by the customer's own cash flow or through debt financing, typically from local financial markets. As a result, Wärtsilä power plants are funded in many geographical markets. Wärtsilä does not provide funding to its customers, but provides support in finding funding solutions for them.

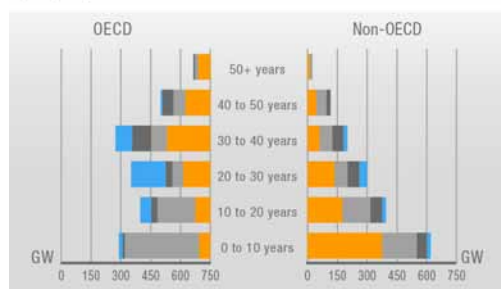
### General market drivers in Power Plants

Demand for power generation is driven primarily by economic development. As energy consumption grows, the demand for both new power generation equipment and replacement equipment for older capacity increases correspondingly. Looking ahead, growth is expected to be higher in non-OECD countries, due to increasing industrialisation and improving living standards. The majority of Wärtsilä's Power Plants business comes from the emerging markets. In emerging markets, as well as in remote areas, demand for flexible baseload power plants burning heavy fuel oil (HFO) is driven by growth in electricity consumption, and by developments in the price of oil. Demand for gas driven plants increases along with the introduction of gas networks to the emerging markets.

Final electricity consumption by region



Age profile of installed thermal and nuclear capacity by region, 2010

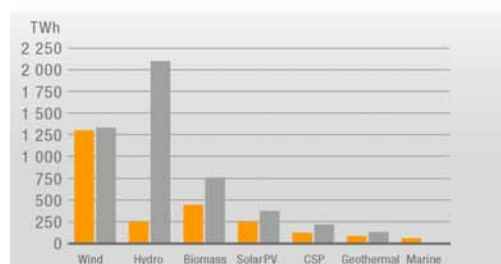


Source: platts World Electric Power Plants Database,

December 2009 version; IAEA (2010)

Climate change and stricter environmental regulations are spurring investments in renewable solutions. Renewable solutions, such as wind power, lead to unforeseen grid stability challenges, which require additional backup and balancing power. The large scale use of renewable power increases the need for flexible, reliable, and efficient power that Wärtsilä's solutions provide.

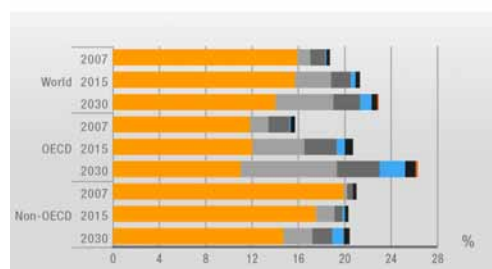
Incremental renewables-based electricity generation by region, 2008-2035\*



Legend:   
 ■ OECD incremental generation, 2008-2035 (TWh)   
 ■ Non-OECD incremental generation, 2008-2035 (TWh)

\* Based on the New Policies Scenario in Wärtsilä's Power Scenarios 2023

Share of renewables in electricity generation by region\*

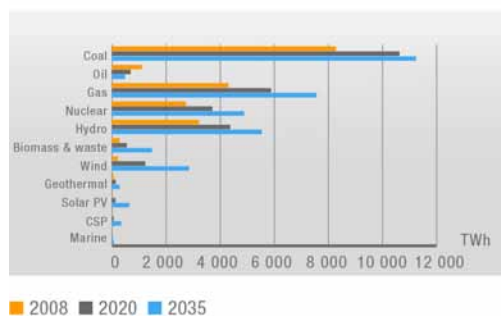


Legend:   
 ■ Hydro ■ Wind ■ Biomass ■ Solar   
 ■ Geothermal ■ Other

\* Based on the New Policies Scenario in Wärtsilä's Power Scenarios 2023

Demand for gas driven power plants is expected to grow by 2% per year, and 80% of this growth is expected to occur in non-OECD countries. Wärtsilä is well positioned in this market.

World electricity generation by type\*



\* Based on the New Policies Scenario in Wartsilä's Power Scenarios 2023

### Power Plants competition

The power plant market is highly fragmented, and this is reflected also in the competitive situation. In larger liquid fuel or gas-fired projects, Wärtsilä often competes against gas turbine technology and other manufacturers of reciprocating engines. In the heavy fuel oil based power plant market, Wärtsilä's competitors are mainly other engine suppliers. We hold a leading position in this market, and our competitive strength is the ability to provide complete turnkey power plants combined with fuel and operational flexibility. In the gas power plant market, our competitors are both gas engine and gas turbine suppliers. Our main strengths compared to gas turbine suppliers are higher efficiency in varying loads, and the capability to achieve fast starts without increased costs.

### Main drivers for Wärtsilä's Power Plants business



- Economic growth in emerging markets
- Growth in use of gas as fuel in power plants
- Environmental concerns
- Replacement of older equipment

## Our Services business serves both end markets

Our Services business serves both our marine and power plant customers. In terms of Services' revenues, approximately 60% derives from the marine industry.

### General market drivers for Services

The ultimate market driver in the marine service business is the activity levels of the vessel fleet. The amount of idled and anchored vessels has a direct impact on the Services business. The speed at which vessels are operated also has a certain impact on the business. The marine service business is strongly driven by the existing, as well as new, environmental regulations. Lifecycle efficiency, for which the availability, reliability and economic viability of the equipment are all very important, drives the Services business in both end markets. Other drivers that are highly emphasised are the need to lower operating costs, and the need for enhanced safety. Today an important driver for the power plants after market is the trend towards outsourcing the operations and management of power plants. In the future, we believe this will become a more important driver also for the marine markets. Wärtsilä offers efficiency and monitoring solutions for these needs.

### Competition and market position

There is no single competitor with the ability to supply such a broad offering, on a 24/7 basis, from one single source, globally. Each service product has, therefore, its own set of competitors and challenges. There are only a few global players to talk of, thus competition is mainly local. Wärtsilä has a strong market position in its service markets.

## Group strategy

Wärtsilä enhances the business of its customers by providing them with complete lifecycle power solutions. Creating better and environmentally compatible technologies, Wärtsilä focuses on the marine and energy markets with products, solutions and services.

Wärtsilä's strategic aim is to strengthen its leading position in its markets and to ensure continued growth by offering customers reliability and the best lifecycle efficiency available. This is made possible by an integrated equipment and solutions portfolio combined with a broad service offering that matches customers' needs worldwide. The foundation of Wärtsilä's competitive edge lies in its continuous focus on innovation and R&D and its aim is to be the technology leader in its industries. Wärtsilä's ability to focus on long-term business drivers, its strong financial base, and agility in adapting to changing market conditions puts the company in a strong position to pursue its strategy.

### VALUES

#### ENERGY

Capture opportunities and make things happen.

#### EXCELLENCE

Do things better than anyone else in our industry.

#### EXCITEMENT

Foster openness, respect and trust to create excitement.

### MISSION

We provide lifecycle power solutions to enhance the business of our customers, whilst creating better technologies that benefit both the customer and the environment.

### VISION

We will be the most valued business partner of all our customers.

# Business strategies

## Ship Power strategy

We will be recognised as the leading solution provider in the marine industry.

This will be done by:

- Maintaining our position as the leading system integrator in the shipbuilding industry
- Seeking further growth through offering lifecycle solutions for ship owners and operators in close co-operation with Services
- Providing the most competitive products in the market

Wärtsilä Ship Power's strategy is to be the leading ship power solutions provider including ship design, engines, generating sets, reduction gears, propulsion equipment, automation and power distribution systems, as well as sealing solutions for the marine industry. We combine the best products and engineering capabilities into unique solutions for the specific needs of our customers and provide an offering, which is the broadest in the industry. We are proud to offer environmentally sound and sustainable solutions. We continuously explore possibilities to extend our product and solutions portfolio and the related services we offer. Further growth will be sought by offering solutions for ship yards, ship owners and operators in close co-operation with Wärtsilä Services. We will seek growth organically, through acquisitions and partnerships, and we will continue to strengthen our geographic presence in our key markets, especially in the BRIC countries.

### Ship Power strengths

- Highly rated products and solutions including ship design, engines, generating sets, reduction gears, propulsion equipment, automation and power distribution systems, as well as sealing solutions
- Broadest product portfolio and global presence in all the major segments of the industry
- Understanding of customer needs and finding optimal solutions for these needs

## Power Plants strategy

- We will maintain our leading position in HFO power plants
- We will grow strongly in large utility gas power plants
- We will grow in power plants using renewables by enabling a wide fuel range
- We will grow in oil & gas and emergency power applications by introducing our value proposition to the industry globally

Our strategic aim is to be the market leader in our target segments: flexible baseload power, industrial self-generation, grid stability & peaking, and in power solutions for the oil and gas industry. Our products are based on tried and tested concepts and deliver competitive costs, high efficiency, operational flexibility, low environmental impact, and exceptional, continuously expanding fuel flexibility. Our strategic goal is to maintain our leading position in heavy fuel oil fired power plants. This will be done by further enhancing our value proposition through guaranteed performance, high efficiency and flexibility in both fuel and operating mode. We seek growth in the market for large utility gas power plants by influencing and actively developing



selected target markets. Our wide range of fuels makes it possible for us to further grow in the market for power plants using renewable fuels. We focus on products and projects that provide unquestionable environmental benefits and make economical sense. Whatever the fuel and wherever the market, Wärtsilä's solutions maximise the efficiency of the entire power plant. We will also seek growth in oil & gas and emergency power applications.

### **Power Plants strengths**

- Flexibility in operations and fuel
- Energy efficiency
- Emission compliance and competitive capital cost

## **Services strategy**

Our customers recognise Wärtsilä as their services partner: competitive, trusted and easy to deal with.

- We will maximise our market share with our present customer base and present portfolio
- We will extend our offering with new products in existing customer segments
- We will grow by providing service agreements with new Ship Power and Power Plants deliveries
- We will become the market leader in our industry in environmental upgrade and retrofit solutions

In Services, our objective is to maximise our current market share in the marine and power plant markets with our present offering. Together with our customers, we create and deliver solutions that improve operational efficiency and profitability. We offer our clients 24/7 support in the fields of logistics, technical support and field service. Being the only player in the market able to provide such a wide range of solutions from a single source noticeably strengthens our competitive position. We will extend our offering through acquisitions and offer new value-enhancing products to our existing customer segments. We combine service solutions with new equipment sales into lifecycle solutions meeting the specific needs of our customers. We work in close co-operation with Ship Power and Power Plants to deliver this.

Our broad portfolio of environmental services is focused on helping our customers deal with different environmental challenges, with special focus on optimising lifecycle efficiency, minimising environmental impact by reducing air and water emissions and minimising waste volumes for both land based power plants and ship installations. Our target is to become the industry leader in environmental upgrade and retrofit solutions by developing world-class competences and creating a new value-enhancing offering.

The size and scope of the Services business creates stability in a changing market environment and provides a platform for future growth.

### **Services strengths**

- Long-term relationships with customers and deep understanding of their needs
- Broadest services offering in the industry
- Integrated offering with Ship Power and Power Plants

## Wärtsilä Industrial Operations strategy

Wärtsilä Industrial Operations' strategic goal is to provide market leading products from a broad product portfolio. Our products are suitable for integration into larger solutions or can be used as 'stand-alone' products in order to serve a wide range of customer needs. Environmental solutions are an integrated part of the portfolio.


Wärtsilä's top priorities are to secure competitive product quality, delivery accuracy and total cost of ownership for our customers.

In our operations we put strong emphasis on the product development and product delivery processes in close cooperation with the customers. We focus on assembly, testing and optimised end-to-end value streams to obtain flexibility and competitiveness in our activities. WIO will establish a manufacturing and product engineering footprint close to the customers.

Through our people we strive to build a strong performance culture, which is the basis for our success.

### WIO strengths

- Innovation
- Broad portfolio
- Manufacturing and engineering close to the customer
- Continuous improvement of the product development and product delivery processes



Our competitive product portfolio consists of products related to medium-speed engines, low-speed engines, propulsion equipment, electrical & automation equipment, as well as emission abatement & energy efficiency products. They are reliable, lifecycle cost efficient, functional, environmentally compatible, leading in technology and can be integrated into solutions or delivered as stand-alone equipment.

# Sustainability

## Environmental targets

Wärtsilä's overriding promise is to supply power solutions that offer high efficiency with low environmental load. Our objective is to continuously improve the environmental performance of our products and services, as well as to maintain technological leadership by utilising new technologies and collaborating with our customers and other stakeholder groups. In doing this we help to enable the tightening of global environmental regulations and guidelines.

## Social responsibility targets

Wärtsilä acts as a good corporate citizen wherever we are active. 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 opportunity 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. Supply chain management and development are integral elements of our operations.

# Financial targets

Wärtsilä's Board of Directors redefined Wärtsilä's long-term financial targets in January 2011. The new targets are shown below the old targets.

Target	Development 2010	Graph
<b>Net sales</b>		
<p>The average growth target for our annual sales is 6-7% over the cycle. The growth target for Ship Power and Power Plants businesses is 4% and for the Services business 10-15%.</p> <p><b>New target:</b> Our target is to grow faster than global GDP.</p>	<p>In 2010, Wärtsilä's net sales decreased 13% to EUR 4,553 million. Wärtsilä's CAGR 1999-2010 was 8.3%.</p>	<p><b>Growth over the cycle</b></p> <p>Net sales, MEUR</p> <p>Net sales growth, %</p> <p>Legend: Net sales (orange bars), Cumulative New Acquisitions (grey bars), Growth, % (inc. acquisitions) (blue line)</p> <p>Note: World nominal GDP growth 1999-2010 averages 6.4% USD denominated (source: IMF)</p>
<b>Profitability</b>		
<p>Our operating profit target (EBIT%) is 8-10% of net sales over the cycle with a range of +/- 2%.</p> <p><b>New target:</b> Our operating profit margin (EBIT%) target is 14% at the peak of the cycle. At the trough of the cycle, our target is to keep the operating profit margin above 10%.</p>	<p>In 2010, our operating profit was EUR 487 million, 10.7% of net sales.</p>	<p><b>Profitability</b></p> <p>MEUR</p> <p>%</p> <p>Legend: Net sales (orange bars), Operating result, % (blue line)</p> <p>*Operating result before nonrecurring items</p>
<b>Capital structure</b>		
<p>Our solvency target is 35-40%.</p> <p><b>New target:</b> Our target is to maintain gearing below 50%.</p>	<p>In 2010, our solvency ratio was 40.8%.</p>	

Target	Development 2010	Graph																								
		<p>Solvency ratio</p> <table><thead><tr><th>Year</th><th>Solvency ratio (%)</th></tr></thead><tbody><tr><td>06</td><td>48.0</td></tr><tr><td>07</td><td>46.0</td></tr><tr><td>08</td><td>35.0</td></tr><tr><td>09</td><td>40.0</td></tr><tr><td>10</td><td>40.0</td></tr></tbody></table>	Year	Solvency ratio (%)	06	48.0	07	46.0	08	35.0	09	40.0	10	40.0												
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<p>Our target is to pay a dividend equivalent to 50% of operating earnings.</p> <p><b>New target:</b> our target is to pay a dividend equivalent to 50% of earnings.</p>	<p>The Board of Directors proposes that a dividend of 1.75 euro per share and an extra dividend of 1.00 euro per share, totalling 2.75 euro per share, be paid for the financial year 2010.</p>	<p>Earnings/share, dividend/share</p> <table><thead><tr><th>Year</th><th>Dividend (EUR)</th><th>Extra dividend (EUR)</th><th>Earnings/share (EUR)</th></tr></thead><tbody><tr><td>06<sup>2</sup></td><td>1.75</td><td>0.00</td><td>3.50</td></tr><tr><td>07</td><td>2.25</td><td>2.00</td><td>2.75</td></tr><tr><td>08</td><td>1.50</td><td>0.00</td><td>3.75</td></tr><tr><td>09</td><td>1.75</td><td>0.00</td><td>3.75</td></tr><tr><td>10<sup>1</sup></td><td>1.75</td><td>1.00</td><td>3.75</td></tr></tbody></table> <p>■ Dividend ■ Extra dividend — Earnings/share</p> <p><sup>1</sup> Proposal by the Board 2010. Earnings per share include nonrecurring items and selling profits from financial assets available for sale.</p> <p><sup>2</sup> Includes non-operational income; Assa Abloy and Ovako.</p>	Year	Dividend (EUR)	Extra dividend (EUR)	Earnings/share (EUR)	06 <sup>2</sup>	1.75	0.00	3.50	07	2.25	2.00	2.75	08	1.50	0.00	3.75	09	1.75	0.00	3.75	10 <sup>1</sup>	1.75	1.00	3.75
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## Wärtsilä Ship Power

### The leading provider of ship power solutions

Our strong position in all main marine segments is further strengthened by our highly rated ship machinery and systems. Our in-depth understanding of our customers' businesses, combined with our extensive network, broad product portfolio, and ability to be involved as early as in the design process, enables us to support our customers throughout the lifecycle of their installations.

#### Our customer structure is two-fold

Ship Power customers comprise both shipyards and ship owners, and their needs and demands differ significantly. The decision-making process of shipyard customers is typically affected by product prices, delivery times and reliability, project management, and ease of installations. Issues related directly to the ship building process can also be a factor. Ship owners, on the other hand, require reliability, operational efficiency and support, as well as the availability of services. Decision-making is further impacted by freight rates, interest rates, and the cost of the ship.

We are committed to meeting the needs and demands of both customer groups, which we achieve through our in-depth understanding of their businesses and requirements. As a result, we are able to offer solutions that best further their business interests.

#### Our offering covers all main customer segments

- Merchant - includes all vessels for seaborne transportation, such as container vessels, tankers, bulk carriers, LNG carriers, RoRo and other cargo vessels.
- Offshore - includes vessels and platforms used in oil and gas exploration and production, as well as their support activities; drilling rigs and ships, anchor handling vessels, offshore research vessels, floating production units, platform supply vessels, etc.
- Cruise & Ferry - includes cruise vessels, passenger ferries, passenger/cargo ferries, fast ferries, and yachts.
- Navy - includes various kinds of naval vessels and submarines.
- Special vessels - includes a broad range of different vessels, the main categories being tugboats, fishing vessels, dredgers, and inland navigation and special service vessels.

#### Ship Design is critical to early lifecycle entry

Our ship design capabilities enable us to offer our customer optimised, highly efficient solutions that create growth opportunities in lifecycle services. By combining our ship power solutions and ship design knowledge, we are able to create increased value for our customers. By participating in the planning and designing phase, we are able to better understand customer needs and thereby establish a stronger competitive position.

## We have the most extensive product portfolio in the industry

Wärtsilä's integrated ship power solutions are efficient, economically sound, and environmentally sustainable. Our design capabilities, long heritage, and technological leadership form the basis of our reputation. Our offering is the broadest in the industry:

- Medium-speed diesel and gas engines
- Low-speed engines
- Propulsors, propulsion packages
- Seals and bearings
- Automation systems
- Integrated solutions
- Ship design
- New optimised vessel concepts and other solutions

Together with our in-house experience and expertise, this extensive product offering enables us to interface throughout all lifecycle stages. Our ability to combine the products we offer into larger systems and solutions supports our strategy of being the sole ship power supplier to our customers. This strategy provides added value to both of our customer groups despite their differing priorities. Shipyard customers can focus on their areas of expertise and benefit from a lesser risk of product interface problems, while ship owners can rely on benefits related to operations and maintenance.



## Ship Power market development

### 2010 contracting activity stronger than expected

The number of vessels contracted in 2010 represented an increase of 75% compared to the previous year. This was a much faster and more significant recovery than expected. The improvement was backed by a recovery in trade and ship owner earnings, as well as by attractive new building prices. A more positive outlook for ship financing, together with low interest rates, also contributed to the development. While the first half of the year was characterised by high contracting activity for bulk carriers, the second half saw a similar increase in contracting activity for container vessels and more specialised vessel types. The offshore segment continued strong throughout the year and demand was good especially for floating production units. In the fourth quarter demand for more specialised vessels was good.

### Ship power geographical markets - China the biggest market

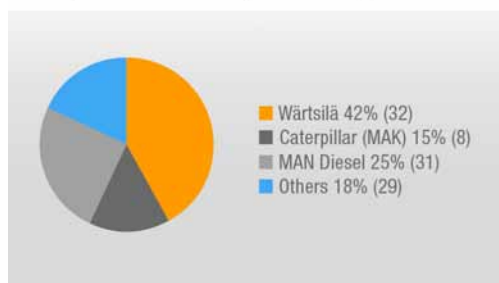
As expected, the Asian shipbuilding market, and especially China emerged stronger than earlier after the downturn. In 2010, China secured the majority of global new building orders, followed by Korea. Both Japan and Europe lost market share in 2010. Growing shipbuilding nations, such as Brazil, were active throughout the year and secured a good share of orders.

In 2010, Chinese ship owners were the most active, ordering more than 20% of all vessels ordered. German owners, traditionally strong in shipping, were slow in ordering whereas Greek owners continued to be active.

### Ship Power market shares

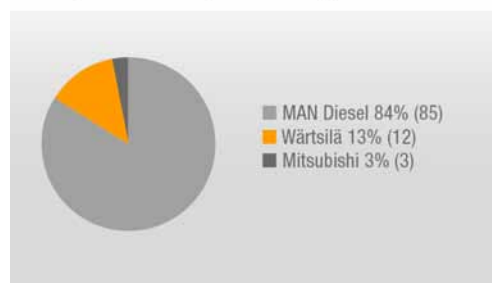
Wärtsilä's market share in medium speed main engines increased from 32% at the end of the previous quarter to 42%. The company's market share in low speed main engines increased slightly to 13% (12). In auxiliary engines the market shares increased slightly to 4% (3).

Market position of medium-speed main engines



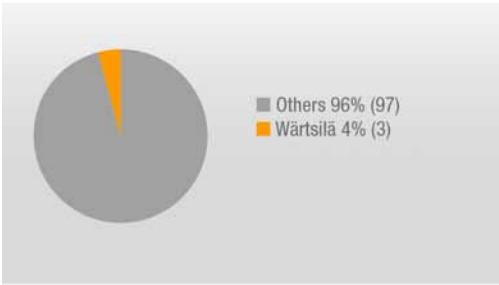
Wärtsilä's own calculation is based on Marine Market Database.  
Market shares based on installed power.

Market position of low-speed main engines



Wärtsilä's own calculation is based on Marine Market Database.  
Market shares based on installed power.

Market position of auxiliary engines



Wärtsilä's own calculation is based on Marine Market Database.  
Market shares based on installed power.

## Ship Power and sustainability

The need for operational flexibility, energy efficiency, and emissions reduction increases the complexity of maritime solutions, resulting in increased demands during each phase of the installation's lifecycle. Wärtsilä Ship Power's strategy is to be the most valuable business partner in each lifecycle phase.

### Operational flexibility

For vessel types requiring considerable operational mode variations, flexible machinery arrangements have been specified for decennia. Vessel speed is increasingly used as a mean of adapting fleet capacity and is replacing constant speed operating, which in turn means that more vessel types have a need for flexible operating arrangements.

Machinery solutions have traditionally focused mainly on achieving the best performance at a specified design point. However, enhanced flexibility requires good performance from the installation over a much wider operating range. Electric and hybrid solutions provide a flatter vessel efficiency curve at the expense of more complex solutions. Each ship is built for a dedicated purpose making it unique and as such the prototype of itself. To limit risk, yards and owners tend to be very conservative in introducing new concepts. Wärtsilä is stepping into this opportunity by offering integrated solutions for which performance guarantees can be given, thereby lowering the threshold for yards and operators to implement more sustainable solutions.

The electronically controlled RT-flex engines offer merchant vessels maximum flexibility within mechanical propulsion solutions. RT-flex engines can be operated at 10% of the nominal speed, and the electronic control enables the engine efficiency curve to be easily adapted to operational requirements.

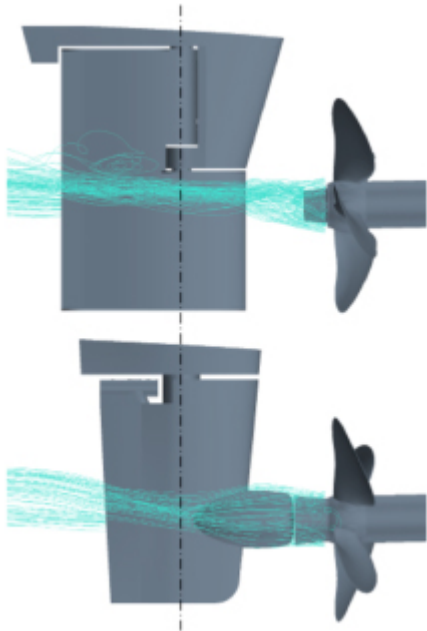
Continuously rising energy consumption is driving fuel prices up. Prior to the first maritime emissions legislation entering into force, seaborne transportation typically used the lowest remaining residue from crude oil distillation. Fuel composition has a direct impact on some emission types, and several emissions reduction technologies place requirements on the fuel. However, increased requirements on liquid fuels result in higher fuel costs and the increased cost of traditional fuels has decreased the price gap between these and alternative energy sources. Already today, natural gas can result in a lower total cost of ownership, depending on the emission limits that have to be achieved. Bio-fuels and high viscosity fuels may also become economically attractive solutions.

### Energy efficiency

Many Wärtsilä products offer the highest efficiency in the market. Full scale measurements of the electrical losses from Wärtsilä's electrical power distribution system have shown values that exceed even our own expectations. In order to minimise electrical distribution losses for larger installations, Wärtsilä is currently scaling up its low loss concept by creating a variant for medium voltage as well. The power range of this solution will cover the demands of the largest cruise vessels.

The Wärtsilä Energopac is another example of a market leading component. Energopac is a rudder solution, which minimises the drag of the rudder by streamlining the water flow from the propeller to the rudder. Full scale measurements for this project have also exceeded expectations.

### Wärtsilä Energopac

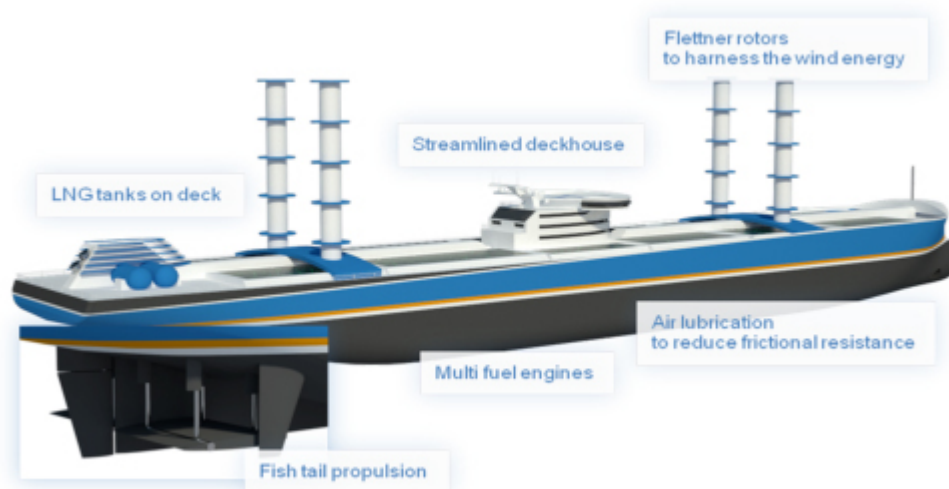


If quantum leaps in operational efficiency are to be made, improving the performance of individual products is not enough. In order to minimise safety margins between components, and to match the performance characteristics of the different components in the power train, an integrated approach is necessary. But it all starts with the propulsive power demand, which comes from the design of the vessel. Here again, Wärtsilä's involvement in ship design enables the achievement of truly optimised solutions.

Having a properly designed installation does not guarantee the vessel having the most efficient operation. The complexity of installations has increased the number of parameters that influence performance, making it more difficult to achieve optimal operation of the vessel. Therefore, Wärtsilä has introduced the Wärtsilä Econometer, which measures actual performance and provides the crew with real time advice on how to operate the machinery more efficiently. Further steps are under development in this direction with Wärtsilä 3C, the Wärtsilä control and command centre.

To make sustainable shipping a more achievable goal, Wärtsilä continues to challenge the industry with innovative conceptual designs that provide operators and owners with a vision for the specifications of more efficient vessels in the future. A large number of these suggestions have been collected and published in Wärtsilä's energy efficiency catalogue.

## An innovative conceptual design combining several efficiency optimisers



## Emissions reduction

Sea-born transportation competes with road, rail and air freighters. Because shipping is by far the most efficient form of transportation, the number of ships in operation worldwide has a significant impact on global emissions.

The existing nitrogen oxide (NO<sub>x</sub>) emission requirements set by the IMO will be tightened as of January 2011, a change known as IMO TIER II. Tier III, which comes into force in 2016, will require an 80% reduction in NO<sub>x</sub> emissions from current levels. Unlike TIERs I and II, the TIER III requirements for NO<sub>x</sub> emissions will only be applicable in designated areas (NECA).

All Wärtsilä engines are IMO Tier II compliant and feature competitive fuel consumption performance. As the Tier III emission restrictions will be different inside and outside the designated areas, and because lowering NO<sub>x</sub> emissions has a negative impact on fuel efficiency, a switch on - switch off solution is favoured. This allows vessels to meet emission requirements in the most efficient way, depending on where they are actually sailing. A number of similarly flexible concepts have been defined. The selection of the best concept is a project specific evaluation, and one that depends on the time the ship is operated inside and outside the emission control areas, and on the types of fuel available. Mathematical models that provide support for comparing alternative solutions based on the project specific mission profile are available.

To meet sulphur dioxide (SO<sub>x</sub>) emission requirements, operators have a choice between primary and secondary methods. Wärtsilä engines are designed to operate on any fuel sulphur content. Exhaust gas scrubbing is an alternative solution for reducing SO<sub>x</sub> emissions. The Wärtsilä sulphur oxides (SO<sub>x</sub>) scrubber is the first of its kind to be granted the Sulphur Emission Control Area (SECA) Compliance Certificate by the classification societies Det Norske Veritas and Germanischer Lloyd.

Secondary Nitrogen Oxides Reducer (NOR) equipment, fulfilling the most demanding NO<sub>x</sub> emission requirements, has been successfully applied for over a decade. Wärtsilä has added NOR equipment to its own portfolio, thereby ensuring optimal integration of the engine and NOR. The precise tuning of the engine and NOR results in better performance and lower cost, as well as minimises the need for additional measurements and improving dynamic behaviour. Because the engine and catalyst characteristics are tuned to work as an integrated system rather than being loose components installed in series and because the control system is based on the same platform, proper communication between engine and NOR is ensured.

In addition to the existing legislation for NO<sub>x</sub> and SO<sub>x</sub> emissions, the IMO MEPC is developing legislation to control greenhouse gas (GHG) emissions from ships. The maximum allowable GHG emission levels will be defined according to the vessel's transportational performance (capacity \* speed). Wärtsilä's lean burn gas engines emit 20 to 30% less GHG compared to diesel engines, thus enabling the design of vessels which would not be possible with diesel engines.

Wärtsilä has developed a number of concepts, which improve total ship efficiency and enable the use of natural gas for powering ships. Our aim is to be at the forefront of all environmental and sustainability initiatives. The main drivers for the development of Wärtsilä solutions are future emissions legislation, fuel availability and price fluctuations, as well as increasing customer needs for more complete solutions rather than separate products. Our technology development is focused, therefore, on improving efficiency across a wide front that incorporates multifuel solutions and systems integration. Compliance with regulations is a natural starting point for all our product development.

To reduce emissions to the water, our sealing systems offer environmentally sound alternatives that prevent the spilling of oil from ships into the environment. We also offer efficient treatment systems for sludge and bilge water.

The Wärtsilä ballast water treatment system is based on the ultra violet principle to avoid the use of chemicals that end up in the sea. This intelligent design not only has minimal internal power consumption, but also has a very low pressure drop. This minimises the additional energy consumption from the ballast water pumps.

## Case: Asia's growing marine markets

The shipbuilding market has gone through major structural changes during the past few years. Most ships are today built in Asian shipyards, and China has emerged as the primary shipbuilding nation. Wärtsilä Ship Power's customer base has become increasingly Asian, which further highlights the importance of Asia to our business.

These developments have led Wärtsilä Ship Power to focus more and more on broadening its presence in Asia, and more specifically, in China. Wärtsilä in China consists today of seven wholly owned ventures, four joint ventures, and several low-speed engine licensees as well. Our manufacturing facilities in China produce Ship Power related products and solutions, such as propellers, auxiliary engines, and thrusters. The relocation of our Ship Power management team to offices in Shanghai, which took place in 2008, further emphasises our commitment to the Asian markets.

We believe in establishing a strong local presence in order to respond to our customers' needs in the best possible way. Therefore, our growth in China is based upon joint ventures. By partnering and growing together with the Chinese, we tailor our global solutions to local needs.



# Wärtsilä Power Plants

## A leading supplier of flexible power plants

Wärtsilä Power Plants provide superior value to its customers by offering decentralised, flexible, efficient and environmentally advanced energy solutions. Wärtsilä's technology enables a global transition to a more sustainable and modern energy infrastructure. Our solutions are modular, tried and tested power plants.

### Our energy solutions offer a unique combination of:

- Energy efficiency
- Fuel flexibility
- Operational flexibility

We offer our customers competitive and reliable solutions that deliver high efficiency. Our power plants engines can run on liquid fuels, a wide range of gases and renewable fuels. Most of our products have multi-fuel capabilities and all can be converted from one fuel to another. Furthermore, the operational flexibility of our products enables high system efficiency, flexibility in operations with varying loads, low water consumption, as well as the possibility to carry out construction in phases according to the customer's needs. These key features, combined with the full lifecycle support we offer, create the basis for Wärtsilä's strong position within the Power Plants market.

With gas strengthening its potential to be the fuel of the future, our focus is on developing competitive solutions for the gas market. This focus supports our growth ambitions and enables a stronger presence in the broader markets.

### Our business is divided into four customer segments

#### Flexible baseload

Wärtsilä supplies flexible baseload power plants mainly to developing markets, islands, and remote locations. Energy consumption growth in these markets is driving a steadily increasing demand for new power generation solutions. Wärtsilä's customers in this segment are mainly Utilities and Independent Power Producers (IPP). Customer needs typically include competitive lifecycle costs, reliability, world-class product quality and fuel and operational flexibility, as well as operations & management services. Wärtsilä is in a strong position to cater to these needs. Flexible baseload power plants are run on both liquid fuels and gas.

#### Grid stability and peaking

Wärtsilä's grid stabilising power plants enable the growth of energy solutions based on wind, solar and hydro power. We offer dynamic solutions used for systems support, reserve power, peaking needs, and in regions with rapidly growing wind power capacity. Customers in this segment are mainly Utilities and IPP's. The strengths of Wärtsilä's products include rapid start and ramp up to full speed, the ability to operate at varying loads, competitive electricity generation and capacity costs, as well as 24/7 service. Grid stability and peaking plants are mainly fuelled by gas.

### Industrial self-generation

Wärtsilä provides power plant solutions to industrial manufacturers of goods in industries such as cement production, mining, and textiles. Customers are mainly private companies and reliability, reduced energy costs, and independence from the grid are among the key factors in their decision making. Power plants in this segment are run on either gas or liquid fuel, depending on fuel availability.

### Solutions for the oil & gas industry

Wärtsilä provides engines for mechanical drive, gas compression stations, and for field power and pumping stations to the oil and gas industry. Typical customer needs include maximum running time, reliability, long-term engineering support and 24/7 service. The solutions we offer run on natural gas, associated gas and crude oil.

## Power Plants market development

### Power Plant markets remained solid in 2010

The Power Plants market activity continued at a good level during the fourth quarter of 2010. The orders were predominantly for small and medium size projects. Industrial output is increasing in most emerging markets which, in combination with population growth and enhanced standard of living, is driving the need for more power generation. The installed base of wind power generation has also increased, which is creating a need for flexible power generation. The financial crisis led to the postponement of investments for power generation in 2009, and this is now creating demand in several markets.

### Power generation market overview

As energy consumption grows, the need for both new power generation equipment increases, as does demand for replacement equipment for older capacity. Today, the global installed power generation capacity totals approximately 4,700 GW, out of which over half is in OECD-countries. Going forward, growth is expected to be stronger in non-OECD countries, due to increasing industrialisation and higher living standards. The majority of Wärtsilä's Power Plants business derives from these emerging markets. Heavy fuel oil (HFO) has traditionally been the dominant fuel for power generation in emerging markets but demand for gas driven plants increases along with the introduction of gas networks. OECD-countries have focused on the development of wind power and increasing the share of natural gas power generation with the target to ramp down old coal based installations. In the USA, the introduction of shale gas has been rapid, and has made the natural gas prices very competitive. Wärtsilä is the only player in the market with such a broad gas engine portfolio within its power range.

### Power Plants market position

The size of Wärtsilä's target markets is approximately 15,000 MW and Wärtsilä's yearly delivery volumes are 2,500-3,000 MW. The development of the heavy fuel oil driven power plants market, where Wärtsilä has a market share of over 50%, is rather stable whereas the market for gas driven power plants is growing. Wärtsilä has a market share of over 60% in the gas engine driven power plants. Wärtsilä is continuously strengthening its position in the gas market, by capturing market share from other technologies and currently has 14% of the market including both gas engines and gas turbines.

## Power Plants and sustainability

The world is currently seeking more sustainable solutions for energy infrastructure. This development is driven by climate policies, energy security and economics. Carbon intensive energy sources are being replaced by low carbon fuels, such as natural gas and renewable solutions. Energy savings and efficiency improvements are being encouraged, and even legally enforced, at every level.

Wärtsilä's energy solutions offer a unique combination of flexibility, high efficiency, and low emissions. Many different fuels, including bio-fuels, can be used efficiently, which helps in reducing greenhouse gas emissions. The flexibility of Wärtsilä's solutions enables the development of a reliable energy infrastructure, wherein most of the sustainable characteristics are already known.

### Efficiency development

We continuously seek improvements in the present engine portfolio, and are developing new engine concepts for the future. As a power plant contractor, we develop our power plants in parallel with the engines. This enables us to optimise both the performance and the reliability of our power plant offering. We offer high efficiency, single cycle solutions and focus on improving efficiency even further through the use of e.g. combined cycle solutions. Power plant net efficiency can be further improved by plant design and by optimising internal power consumption. Such solutions minimise not only fuel and water consumption, but also the emissions per unit of energy, thereby providing major environmental benefits.

### Flexibility

Flexibility is one of the main features of Wärtsilä's power plant solutions. The high modularity of our products makes it easy for our customers to construct an optimally sized plant, and to later expand its size to meet future needs. Fuel flexibility has many advantages for our customers, notably the lowering of energy production costs by using low cost fuels, minimising CO<sub>2</sub> emissions, and the ability to convert from one fuel to another based on fuel availability.

The unique operational flexibility of our products comprises:

- Very fast plant starts and stops
- High ramp rates
- High part-load efficiency
- A broad load range

Frequent starting and stopping does not affect the operational costs of the plant. This is unique, no other competing technology offers the same.

## Towards an optimally sustainable power system

The power generation system of the future will contain a significant percentage of wind power capacity. Such capacity is non-dispatchable and variable, which creates potential for other power units to balance the system. Wärtsilä is in a good position to meet this need, as the operational flexibility of our products makes them easily adaptable to the needs of the grid.

## Reducing emissions

Wärtsilä places high priority on developing diverse and flexible emission reduction techniques. Since emission requirements and the fuels used differ widely, a comprehensive range of products is required in order to offer competitive solutions.

Mitigating the effects of climate change calls for substantial reductions in greenhouse gases (GHG). We believe that the importance of natural gas will increase in the future. Consequently, the multi-fuel capability of our power plant solutions becomes an increasingly significant competitive advantage, as it enables the utilisation of all liquid and gaseous bio-fuels that may become available on a wider scale. Wärtsilä focuses on developing decentralised energy solutions that emit fewer GHG emissions.

## Emission reduction technologies

Emission component	Technology	Principle	Benefit	Typical use
Reducing particle emission	Choosing a better fuel type (ash/sulphur)	Using a fuel with a smaller ash and sulphur content reduces the particle emission produced during combustion.	Fuel-specific	Diesel engine / heavy fuel oil
	Electrostatic filter	In an electrostatic filter, the particles in the flue gas are charged with an electric current and the charged particles are collected on the surfaces of the filter's collector plates. A smallish amount of flue ash is generated as an end product. The particle content achieved also depends on the quality of fuel used.	The particle content of gas discharged through the filter normally varies between 20 and 50 mg/nm <sup>3</sup> (15% O <sub>2</sub> ).	Diesel engine / heavy fuel oil
Reducing NO <sub>x</sub> emission	WetPac - H (humidity control)	The combustion air is humidified by injecting water into it, which lowers the combustion temperature and reduces emission of nitrogen oxides. The amount of injected water required is determined according to air humidity, thus minimising water consumption.	Typical emissions are reduced by approx. 15-20% at the minimum air humidity level.	Diesel engine
	SCR (Selective Catalytic Reduction)	Nitrogen oxides (NO <sub>x</sub> ) are reduced into nitrogen (N <sub>2</sub> ) and water vapour (H <sub>2</sub> O) using ammonia or urea at a suitable temperature on the surface of the catalyst.	Collection efficiency 80-90%. Large collection	Diesel or gas engine

Emission component	Technology	Principle	Benefit	Typical use
		Process control enables the amount of inactive ammonia in the flue gas to be kept low.	efficiencies are possible, but not cost-efficient.	
Reducing SO <sub>2</sub> emission	Lower sulphur content in fuel	The sulphur content of fuel is directly proportional to the sulphur dioxide emission generated.	Fuel-specific	Diesel engine / heavy fuel oil
	NaOH FGD (Flue Gas Desulphurisation)	Sulphur dioxide is removed from the flue gas in a tower washer. Sodium hydroxide is used to neutralise the washing fluid. The plant produces wastewater as an end product, which should be treated.	A typical collection efficiency for SO <sub>2</sub> is approx. 90%.	Diesel engine / heavy fuel oil with low sulphur
	Limestone FGD (Flue Gas Desulphurisation)	The limestone cleaner is based on a wet tower washer in which sulphur dioxide is absorbed from the flue gas. Calcium, for which a disposal procedure should be determined, is produced as an end product.	A typical collection efficiency for SO <sub>2</sub> is 80-90%.	Diesel engine / heavy fuel oil with high sulphur
Reducing CO emission	Oxidation catalyst	Carbon monoxide is oxidised into carbon dioxide on the surface of the catalyst using the oxygen in the flue gas.	Depending on the amount of catalyst used, discharge efficiency is 30-90%.	Gas engines
Reducing hydrocarbon emission	Oxidation catalyst	Hydrocarbons are oxidised into carbon dioxide and water vapour on the surface of the catalyst using the oxygen in the flue gas	Discharge efficient depends on both the catalyst chosen and the hydrocarbons involved.	Gas engines

## Monitoring of emissions

Emission component	Technology	Principle	Benefit	Typical use
Monitoring of gaseous emission	Secondary method - fuel and process parameters	The secondary method is based on periodical flue gas measurements as well as on the systematic monitoring and reporting of certain process and fuel parameters.	Reliable measuring, minimal need for expertise at the plant, suitable for different market areas.	Diesel engine - typically e.g. SO <sub>2</sub> emissions
	Continuous emissions monitoring (CEMS / AMS)	Emissions levels can be monitored constantly using automatic equipment. The operation and maintenance of the equipment requires personnel expertise to ensure reliable performance. The results reported may be uncertain if the necessary expertise is not available.	Actual emission and exceedings are monitored and registered continuously.	Diesel or gas engine - typically e.g. NO <sub>x</sub> emission
Monitoring of particle emission	Secondary method - fuel and process parameters	The secondary method is based on periodical flue gas measurements as well as systematic monitoring and reporting of certain process and fuel parameters.	Reliable measuring, minimal need for expertise at the plant, suitable for different market areas.	Diesel engine
	Continuous emissions monitoring	Constant particle measurement is usually based on secondary monitoring, e.g. analysers that monitor opacity or light diffusion. Calibration based on reference monitoring gives a correlation with the parameter monitored. If the fuel and load conditions vary, the monitoring may not yield reliable results.	The apparent emissions level is monitored constantly and any limits exceeded are registered automatically.	Diesel engine

## Compliance with regulations

Wärtsilä's modern gas engine technology enables current environmental requirements to be met throughout the world. As an example, in 2010 Wärtsilä handed over a 165 MW dual-fuel power plant in California that meets all local environmental demands. Californian requirements are currently considered to be the most stringent requirements anywhere.

Through the use of primary combustions methods, Wärtsilä's oil-fired power plants are also designed to comply with the World Bank guidelines on emission levels, and as required by ambient air quality, national legislation, or project-specific issues. As more and more financing institutions and export credit organisations have committed themselves to these guidelines, compliance has become increasingly widespread in power plant projects around the world.

We actively seek, develop, and deliver better, more modern and more sustainable solutions. We support our customers by providing advice on how to develop their systems and plant portfolios in order to cope with future requirements and norms.



## Case: Seeking growth in the gas power plants market



The latest addition to Wärtsilä's gas engine portfolio provides superior efficiency and increased environmental sustainability.

The use of gas to fuel power plants is increasing in line with the growing demand for more sustainable, and less cost intensive, solutions. Consequently, Wärtsilä's strategic aim is to achieve strong growth in this area, particularly in the market for power plants in the 300-500 MW range. Wärtsilä already has a broad gas engine portfolio, and our focus lies in developing this portfolio even further in order to support our strategy. The latest addition to our gas engine portfolio is the Wärtsilä 18V50SG engine. This engine has an electrical output of 18,321 kW, making it the largest gas powered generating set in the world.

The Aksa Samsun power plant in Samsun, Turkey will be the first installation to incorporate the Wärtsilä 18V50SG engine. Once commissioned, the Aksa Samsun power plant will generate 130 MW in combined cycle mode for supply to the national grid. The incorporation of the Wärtsilä 18V50SG engine will provide exceptional efficiency as well as added environmental sustainability. These features are further evidence of the value that Wärtsilä Power Plants is able to provide locally to its customers.

## Wärtsilä Services

### Optimising efficiency and performance

Wärtsilä Services supports its customers by offering the most comprehensive portfolio of services in the industry, thereby optimising their operations and product lifecycle. Our services network is the broadest in the industry, consisting of over 11,000 services professionals in more than 160 locations in over 70 countries globally.

#### Our offering

Our goal is to offer services based on customer needs. We focus, therefore, on developing close relationships with our customers, thus enabling us to gain an in-depth understanding of their business, and extending our offering accordingly. Our Services business covers both the Ship Power and Power Plants businesses in their entirety. The base for Wärtsilä's Services business has traditionally consisted of our own installations. However, the service offering also covers other brands and several non-engine related services.

We aim at continuously developing our existing competences as well as building new competences in strategic growth areas. Expanding our offering by developing our portfolio through strategic acquisitions and innovations will continue to be our strategic focus in the future. Further growth is sought by strengthening our service agreement offering in response to our customers' increased interest in maintenance partnerships.

#### Our Services

##### Engine Services

We provide complete engine services for Wärtsilä and other engine brands. These services cover everything from basic services to management support and performance optimiser packages.

##### Electrical & Automation Services

Automation services include the design and manufacturing of control systems, power units, and control panels for all industries. We provide a range of services, from instrumentation to turnkey engineering packages or conversion projects.

##### Propulsion Services

We offer complete services for propulsion systems, throughout the lifecycle of an installation. We serve both Wärtsilä and other brands' installations.

##### Boiler Services

Wärtsilä Boiler Services further strengthens our position as a leading total services provider. We provide inspection services, condition based services, and spare parts for all types of boiler plants, as well as economisers and their control systems.

## Environmental Services

In 2010, Wärtsilä launched a new portfolio of services, Environmental Services, offering both marine and energy market customers the most extensive set of environmentally-related services, products and solutions in the industry. This portfolio is in line with Wärtsilä's strategy of strengthening its position as a leading provider of environmental retrofit solutions to already existing installations. Environmental Services helps customers to minimise emissions into the air and water, and helps them to meet increasingly stringent legislation and regulations.

## O&M

Operation & maintenance agreements, in which Wärtsilä takes full control of the offered solution, ensure optimal performance of the installation. Our responsibility is to ensure that the installations meet set performance targets and lifetime criteria, thus allowing owners to concentrate on their core business. At the end of 2010 operations and maintenance agreements covered approximately 160 power plant installations.

## Training Services

Our training services ensure that investments in employee development result in solid business growth. Training programmes are tailored to the requirements of our customers, and range from traditional hands-on training in operations, maintenance and safety issues, and control systems, to advanced remote training systems and e-learning opportunities.

## Services market development

### Marine service market focused on cost savings throughout the year

During 2010, the global economic downturn had its effect on the marine service market which focused strongly on cost savings. Marine customers, especially in the merchant segment continued to limit their maintenance and modernisation investments. A large number of ships were slow steaming which reduces maintenance and repair expenditures. At the end of the year, the amount of idled vessels had decreased to 6% from its peak of 10% at the beginning of 2010. The power plants service business was less affected by the downturn.

Wärtsilä's installed engine base in the Ship Power and Power Plant markets totals close to 180,000 MW and consists of thousands of installations distributed throughout the world. Both end markets consist of several customer segments for Services, and Wärtsilä's portfolio is the broadest in the market. These factors limit the impacts of fluctuations in any individual market or customer segment.

## Services and sustainability

Environmental legislation and the need for energy efficiency are currently the main drivers for our customers' actions to develop their business in a more sustainable way. Wärtsilä Services strives to be a leader in supporting its customers' efforts to meet and exceed current and future business and sustainability demands. Through continuous innovation, we will continue providing shipping companies and energy providers with environmentally sound solutions well into the future.

Wärtsilä Services conducts its business in a responsible way, and creates added value by providing services in close proximity to its customers, and through offering employment opportunities in local communities.

### Solutions for the industry

Wärtsilä Services' key role in sustainability is to provide various services that ensure reliable and optimised operational, environmental, and safety performance. Wärtsilä Services' solutions enable the application of the latest technologies in existing power plants and ships in operation. A lifecycle optimised approach guides the creation of our solution in co-operation with the customer.

#### Energy efficiency

Climate change, the availability of liquid fuels and gas, and stricter environmental requirements all create opportunities for the Services business. We develop and provide services such as upgrades, reconditioning, fuel conversions and retrofit solutions, that improve environmental performance, comply with stringent environmental legislation, and extend the operational lifetime of the application.

#### Emission solutions

We develop and supply a wide range of solutions that enable ships and power plants to comply with prevailing environmental requirements. We offer solutions that reduce particulate matter, NO<sub>x</sub>, smoke and SO<sub>x</sub> emissions. Furthermore, our solutions make it possible to modify or regulate most engines in order to conform to the strictest environmental requirements. This applies to plant upgrades with secondary emission control technologies, such as Selective Catalytic Reduction (SCR), for power plant or marine applications.

#### Water solutions

Wärtsilä's Water Solutions design, optimise and deliver a number of different solutions for common wastewater issues in land-based and marine installations. Our portfolio includes one of the most effective bilge or oily water treatment systems available and it is currently being expanded to include a ballast water treatment system with similar characteristics.

#### Noise and streams

By improving the hydrodynamics of a ship we are able to reduce the wave and streams impacting marine morphology and ecology. Our support in reducing noise from ships and power plants leads to a corresponding improvement in environmental impacts.

## **Maintenance**

Good maintenance of equipment is a key factor in material effectiveness and energy efficiency. Wärtsilä's proactive Dynamic Maintenance Planning (DMP) programme includes the planning and scheduling of engine maintenance based on the online monitoring of the mechanical condition, performance, system efficiency data, and other indicators from each engine. The data is collected and monitored daily, which enables the sources of fault to be identified before failure occurs.

## **Modernisations**

Wärtsilä Services offers environmentally sound primary and secondary technologies as retrofits to all installations. Changes in regulations necessitate upgrades to equipment that allow them to comply with new legislative requirements. Retrofits improve the economic and environmental performance of existing installations, and ensure their safety and reliability throughout the product's lifecycle.

## **Creating value for the future**

We are establishing leading edge technology expertise and are committed to environmental leadership. This expertise will be employed to improve existing solutions, and to develop new solutions aimed at reducing the environmental footprint of operational power plants and ships. Beyond technology, we employ our know-how to advise customers regarding their operations.

## Case: Dynamic Maintenance Planning



Ships powered by Wärtsilä engines sail the oceans of the world. Servicing these vessels is, therefore, a challenge that requires careful planning. How then can this be accomplished efficiently and cost-effectively?

Wärtsilä's new service concept, Dynamic Maintenance Planning (DMP), enables us, in co-operation with the customer, to proactively determine the maintenance needs of a ship, and plan the service activities accordingly.

DMP contracts create predictability, which in turn reduces non-operational periods and provides customers with cost benefits. For Wärtsilä, this predictability means that we can easily ensure that our service professionals are available locally, whenever and wherever their support is required. A key element of DMP is the regular inspection and supervision of our equipment. Real time information from the shipboard system is transmitted on a 24/7 basis to Wärtsilä service professionals based in various locations around the world.

In August, Wärtsilä signed a long term service agreement with Eidesvik Offshore for the supply of maintenance services for the seismic vessel "Oceanic Vega". This contract, and other similar ones, represent an encouraging introduction of the DMP service concept, and is another example of Wärtsilä's glocal activities.

## Flexible manufacturing close to the customer

Wärtsilä's manufacturing focuses mainly on assembling, test running and finishing of products. Flexibility in capacity is guaranteed through an outsourced business model using a broad network of suppliers. Flexibility and being close to the customer is important.

### **The flexibility of our manufacturing is supported by our broad network of suppliers**

Through good co-operation, excellent relations, and the sharing of information with our suppliers, the supply of components and short lead times are secured. Wärtsilä has around 200 main suppliers globally, and our network is continuously being further developed. Our sourcing strategy is to focus on carefully selected high performing suppliers, meaning that the supply base is optimised, with an emphasis on performance and a presence close to our manufacturing units.

### **Manufacturing footprint**

Manufacturing of our medium-speed main engines is concentrated at the delivery centres in Vaasa, Finland and Trieste, Italy. Low-speed main engines are very large and therefore difficult to transport, which is why they are built under license close to shipyards in various parts of the world. Today we have 17 low-speed engine licensees located in Asia, Europe and South America. Our auxiliary engines are manufactured in Shanghai, China. The manufacturing of our propulsion components currently takes place mainly in China, Norway, the UK, Italy, India and Japan. Automation equipment is manufactured in Norway, while our Ecotech-Centre for environmental solutions is situated in Finland. As structural changes continue in our end markets, we will continue to expand our presence in our key markets, especially in the BRIC countries. This enables better exploration of emerging markets, and allows savings to be achieved in both labour and transportation costs.



## Wärtsilä Industrial Operations

	Own	Joint ventures	Licensed	Partners
Medium-speed	●	●		
Low-speed		●	●	
Propulsion	●	●		
Automation	●			
Ecotech	●			●
R&D	●			●

### Main changes in the footprint during 2010

During 2010, Wärtsilä started to adapt its manufacturing capacity both to the structural changes in the market, and to a lower demand environment. Production activities in Drunen and Zwolle in the Netherlands are in the process of being closed, and the manufacturing of controllable pitch propellers in China is in the ramp up phase. During 2010, production of generating sets was transferred from Vaasa, Finland to China. New and more efficient ways to operate were introduced, thus enabling the closure of other smaller units and the consolidation of operations to larger entities in various countries.

Wärtsilä Industrial Operations designs and manufactures engines, generating sets, electrical & automation equipment, integrated environmental & efficiency products and systems, propellers, gears, as well as seals and bearings as integrated deliveries.

To read about our products and R&D please refer to the section [Towards more sustainable solutions](#).

## Wärtsilä and sustainability

Wärtsilä strives to provide solutions for sustainable shipping and enable global transition to a more sustainable energy infrastructure. We support our solutions globally during their entire lifecycle. This creates the basis for our sustainability work, which is supported by our commitment to responsible business conduct.

Our commitment to sustainability and responsible business is based on our mission, vision and strategy which, along with our sustainable development objectives, create the framework for developing the company's activities and products. Wärtsilä's management system and other sustainability tools provide us the means to assess our performance and to improve our operations and products continuously.

Wärtsilä applies global guiding principles such as the Quality, Health & Safety and Environmental policy (QHSE policy) and the Code of Conduct, which together with the company's values ensure a harmonised way of working towards sustainable development. The Corporate Manual includes, in addition to the above, other policies and directives, a description of the company's operating procedures, responsibilities and the management system structure. Wärtsilä's governance and risk management principles, as well as the main sustainability risks, are described in [the Corporate Governance section](#).



## Wärtsilä's focus on sustainability

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:

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

The other important areas of sustainability are presented in the picture [Wärtsilä and sustainability](#). Wärtsilä's strategic targets for environmental and social responsibility are presented in [the Strategy section](#). Wärtsilä's key operational sustainability targets are related to the improvement of energy efficiency and zero injuries.

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

### Sustainability impact

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

### Economic responsibility

Economic performance involves meeting the expectations of shareholders and contributing towards the well-being of society. This requires the company's operations to be profitable and competitive. Economic performance, besides creating economic added value for the company's stakeholders, also calls for promoting well-being in the local communities where the company operates. Good economic performance establishes a foundation for other aspects of sustainability and safeguards the company's future operating capabilities.

## Environmental responsibility

Environmental protection means sound management of natural resources and operating on the terms of the environment. Protecting the air, soil and water, as well as combating climate change and using natural resources in a sustainable way, are all important objectives, whether these apply to Wärtsilä's own operations or to how the company's products are used. Environmental performance also requires the company to identify the lifecycle environmental impacts of its products and to reduce these impacts through proactive research and development.

Continuous improvement of environmental performance is both a challenge and an opportunity. Wärtsilä continuously develops and improves its operations with the help of certified environmental management systems. Strong focus on environmental performance in R&D and product development reduces the environmental impact of products. Climate change and other environmental concerns increase the demand for environmentally sound products.

## Social responsibility

Social performance involves following good practices and procedures in stakeholder relations. This requires continuous co-operation with suppliers, partners and local organisations.

The Code of Conduct sets the boundaries for Wärtsilä's business operations and their development in line with the Group's strategy. The other central aspects of good social performance are creating a safe working environment and operating procedures, ensuring the well-being of the company's employees and the development of personal skills and competencies.

These aspects uphold the ability of the employees to do their work, as well as raise efficiency and improve Wärtsilä's position as a desirable employer. Product safety means responsibility towards the company's customers and its own personnel.

Alongside compliance with safety requirements, essential aspects of product safety also include product support and training. Promoting good social performance requires seamless collaboration throughout the Group network.

# Summary of key figures

Performance indicators	2010 <sup>5</sup>	2009 <sup>4</sup>	2008 <sup>3</sup>	2007 <sup>2</sup>	2006 <sup>1</sup>
<b>Economic (EUR million)</b>					
Net sales	4 553	5 260	4 612	3 763	3 190
Cost of goods, materials and services purchased	-2 927	-3 593	-3 134	-2 576	-2 034
Value added distributed to stakeholders	1 626	1 667	1 479	1 187	1 156
Wages and salaries	773	735	693	592	511
Taxes and social dues	326	337	288	242	213
Net financial items	13	34	9	8	7
Dividends	271	173	148	408	167
Retained earnings for business development	242	388	340	-64	257
R&D expenses	141	141	121	122	85
<b>Environmental</b>					
Total energy consumption (TJ)	1 916	2 194	2 383	2 595	1 837
Electricity consumption (MWh)	149 047	164 022	151 169	134 543	120 782
Heat consumption (MWh)	41 401	37 060	50 193	40 085	104 381
Light fuel oil (t)	3 623	5 662	5 432	5 816	6 825
Heavy fuel oils (t)	9 020	15 652	22 145	16 237	8 147
Natural gas (t)	12 347	11 792	11 160	22 379	10 300
Other fuels (t)	3 729	3 326	1 711	1 380	145
Total water consumption (1 000 m <sup>3</sup> )	10 292	8 128	11 712	11 160	5 794
Consumption of domestic water (1 000 m <sup>3</sup> )	840	808	622	634	739
Consumption of cooling water (1 000 m <sup>3</sup> )	9 452	7 320	11 090	10 526	5 055
Emissions of nitrogen oxides (t)	826	1 290	1 633	1 348	945
Emissions of carbon dioxide (t)	80 234	96 749	122 669	101 705	71 092
Emissions of sulphur oxides (t)	277	595	840	471	206
Particulates (t)	19	28	65	30	13
VOC (t)	61	170	152	79	97
Non-hazardous waste (t)	38 392	49 946	35 055	32 142	29 513
Hazardous waste (t)	5 175	5 857	5 154	7 472	5 308
<b>Social</b>					
Training days (days/employee)	3.1	3.7	3.3	3.3	3.3
Number of lost-time injuries, total	333	470	548	444	435
Lost-time injuries (number/million working hours)	7.8	12.9	16.3	14.6	18.0
Absence rate (% of total working hours)	2.4	2.6	2.4	2.3	2.7

<sup>1</sup>The data includes all Wärtsilä companies except those mentioned in the Sustainability Report 2006 Report Scope section.

<sup>2</sup>The data includes all Wärtsilä companies except those mentioned in the Sustainability Report 2007 Report Scope section.

<sup>3</sup>The data includes all Wärtsilä companies except those mentioned in the Sustainability Report 2008 Report Scope section.

<sup>4</sup>The data includes all Wärtsilä companies except those mentioned in the Sustainability report 2009 Report Scope section.

<sup>5</sup>The data includes all Wärtsilä companies except those mentioned in the Report Scope section of this report.

The operational performance data in this report has been compiled from the economic, environmental and social records of the Wärtsilä companies. Whilst every effort has been made to ensure that the information is neither incomplete nor misleading, it cannot be considered as reliable as the financial information published in the Financial review.

## Sustainability performance management

Wärtsilä's Board of Management has the 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 to the management reviews on both Wärtsilä's Board of Management and Business Management Team levels.

Wärtsilä's sustainability function is responsible for providing the necessary information to the management, identifying development needs, as well as coordinating sustainability programmes and preparing instructions.

Wärtsilä has clearly defined responsibilities supported by necessary instructions and training. This training includes e.g. environmental issues, Code of Conduct, anti-corruption, as well as occupational health and safety issues. Wärtsilä monitors sustainability performance by utilising the information provided by various sustainability tools and activities such as internal audits.

### Voluntary commitments



Wärtsilä has joined the UN Global Compact initiative in 2009. Wärtsilä has also signed an agreement in 2008, whereby Finnish industry voluntarily endeavours to use energy more efficiently. Wärtsilä North America Inc. has joined the Customs Trade Partnership Against Terrorism (C-TPAT) agreement signed in 2003.

### Wärtsilä tools for Sustainability

Basic principles	Systems and processes	Others
Vision, Mission and Strategy	Quality Management System	Sustainability target setting
Corporate Governance	Environmental Management System	Sustainability management reviews
Corporate policies and principles: QHSE Policy and Code of Conduct	Occupational Health and Safety Management System	Business development tools: Due diligence, Environmental surveys
Corporate Manual	Supplier Management System	Stakeholder dialogue
Corporate requirements for suppliers	Risk management process	Sustainability reporting

Continuous improvement process: performance measurement, target setting, taking actions and review of the results.



# Wärtsilä 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 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 or political beliefs, or other characteristics protected by law. Wärtsilä fosters equal opportunity and 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 for 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 combating 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 cannot 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 its 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, termination of employment and payment of damages. Additionally, certain violations of a criminal nature can lead to criminal sanctions, such as fines or imprisonment.

## Wärtsilä's 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 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 Quality and Operational Development Board	Quality, Environmental, Health and Safety and Operational Development issues	Overall responsibility of Wärtsilä operational development, owner of Wärtsilä processes, governing the work of IM, Process, Quality and Environmental, Health and Safety management and development plans and expenditure of the covered areas.
Wärtsilä Group Quality Team	Quality	Quality strategy, targets and guidelines, overall quality process responsibility and cross-divisional quality alignment and harmonisation
Wärtsilä EHS Management Team	Environmental, Occupational health and safety (EHS)	EHS management system development, corporate level measuring and target setting and monitoring of the legislation development
Wärtsilä Environmental Forum	Environmental aspects related to Wärtsilä products	Create and update Wärtsilä's environmental strategy, coordinate environmental technology development, monitor legislation development and environmental statements

## Management systems

Proportion of Wärtsilä companies with certification	
ISO 14001	61%
ISO 9001	71%
OHSAS 18001	44%



## Business Process Management

The Process Management Unit has been established in the Group Quality organisation to ensure that the company's operations are developed consistently and in line with its strategic directions. The Unit is responsible for development and harmonisation of corporate business processes, including business information and supporting business applications, which are developed on a continuous basis to improve the quality and effectiveness of customer service. The working processes are developed based on the initiatives of the Businesses, The Division and the Functions. These joint development projects are governed by the Quality and Operational Development Board, the Business Boards and the Functional Management Teams.

## Product liability

Wärtsilä strives to develop environmentally sound, reliable and safe products. Wärtsilä supports its customers throughout the entire service lives of Wärtsilä products by developing environmentally sound solutions, and also offering these solutions for use with products that are already in operation. Engine and component reconditioning lengthens the service life of products, while modernising engines can improve the performance of installations to the level where they meet both existing and future requirements.

Wärtsilä's engines are designed to meet the requirements of the European Commission's Machinery Directive, the SOLAS Convention, and other relevant safety directives, while Wärtsilä's propulsion systems are designed to comply with SOLAS and the safety requirements of other relevant classification bodies. New types of engines must also meet international safety requirements. Type approval is acquired from classification societies before new products are launched. Wärtsilä's products are delivered with appropriate user guides that include basic information about the products and full instructions for their use.

## Supply chain management

Wärtsilä's supplier requirements address both general features and issues relating to quality, product-specific requirements, environmental management, occupational health and safety, social responsibility and legal compliance. These requirements are included in standard supply contracts. Wärtsilä regularly controls that suppliers comply with these requirements using performance indicators and audits. Suppliers must demonstrate compliance with these requirements in order to receive approved supplier status. The main priorities in Wärtsilä's supplier evaluations are supplier selection, conformance with requirements and performance reviews.



## Stakeholder relations

Wärtsilä's aim is to engage in open and constructive dialogue with its various stakeholders. Wärtsilä actively maintains relations with its stakeholders and develops its activities, products and services based on the feedback received from them. At the corporate level the company has defined its most important stakeholders to be its customers, owners, suppliers, employees and society. Wärtsilä's subsidiaries define their own primary stakeholders which, in addition to the above, include local residents close to production plants, as well as educational institutes and public authorities. Priorities vary from one company to another. Wärtsilä continuously enhances its reporting performance both on its own initiative and in response to feedback from its stakeholders.



# Channels of dialogue

## Channels of dialogue and assessments of stakeholder relations

Stakeholder	Channels of dialogue	Assessments
Customers	Regular contact with customers, lifecycle support for products, customer events and seminars, customer magazines, the internet, conferences and exhibitions, product documentation, customer feedback system, customer relationship on-line (CROL ®)	System for measuring customer satisfaction and quality
Employees	Open and continuous communication between management and employees, annual development discussions, information meetings and internal communication (intranet), employee magazines, training events, national statutory employee bodies and European Works Council, occupational health and safety committees, suggestion system, continuous improvement process (CIP), Technology and Innovation Award, Customer Care Award	Employee satisfaction surveys (My Voice)
Owners, investors	Management meetings with investors, financiers and analysts, stakeholder magazines, general meetings, information meetings, stock exchange and press releases, annual and interim reports, capital markets days, the internet, investor relations surveys, sustainability questionnaires	Investor relations surveys, sustainability surveys and indices
Suppliers	Open and active dialogue between the sourcing organisation and suppliers, supplier portal, supplier development, supplier management system, Supplier Days, Supplier of the Year Award	Supplier assessments
Society	Reporting to, and co-operation with, public officials on issues such as the environment and occupational health & safety, Open Doors days, sustainability report, corporate presentations, local communications, the internet	Stakeholder feedback, corporate image surveys
Organisations	Membership, regular contact, participation in activities of local trade and industrial organisations, active role in working groups, contact with various public bodies, e.g. through ministries, reports	
Universities	Opportunities for practical training and degrees, R&D projects, participation in recruitment fairs and seminars, sponsorship of student activities	Preferred employer surveys
The media	National and international business media and journals, trade publications, interviews and press releases, main annual publications, meetings, visits, factory tours	Surveys conducted among business


Stakeholder	Channels of dialogue	Assessments
		journalists, media surveys, reporting comparisons

## Activities in organisations

Wärtsilä participates in activities of the following organisations:

Stakeholder	Organisation	Nature of activity
Interest groups (Finland)	Confederation of Finnish Industries (EK), Chambers of Commerce The Federation of Finnish Technology Industries	Chairmanship (EK) Active membership
Industrial and trade organisations	European Association of Engine Manufacturers (Euromot), European Marine Equipment Council (EMEC), Engine Manufacturers Association (EMA), Cogen Europe and VDMA	Participation in activities, Presidency (EMEC)
Standardisation organisations	European Committee for standardization (CEN), International Organization for Standardization (ISO)	Participation in activities
International organisations	International Maritime Organization (IMO) International Council on Combustion Engines (CIMAC)	Participation in activities (IMO), Board membership and participation in activities (CIMAC)
Other	World Alliance for Decentralized Energy (WADE), European Federation for Quality Management (EFQM)	Board membership (WADE) Participation in activities

## Case: An active dialogue with our stakeholders



Wärtsilä participated in various partnerships and initiatives in the field of sustainability during 2010. Through dialogue in various forums and direct relationships with stakeholders, a deeper understanding of the key issues and expectations related to sustainable development can be attained.

In June, Wärtsilä joined the World Bank-led Global Gas Flaring Reduction organisation, which strives to reduce the flaring or burning of natural gas associated with oil production. The aim is to reduce greenhouse gas emissions.

Also in June, Wärtsilä joined the Global Compact Nordic Network, which is a local network under the umbrella of the United Nations Global Compact. The purpose of the network is to promote the Global Compact, provide a learning forum, showcase best practices, and inspire and assist other companies in implementing the ten principles.

Wärtsilä is participating in developing the best practices for sustainability reporting, and joined in October the Global Reporting Initiative's (GRI) global network of organisational stakeholders. This group promotes transparency, responsibility, and sustainable development.

Wärtsilä and the Baltic Sea Action Group organised a joint conference on future shipping solutions for the Baltic Sea, held in June in Helsinki, Finland. The conference included various stakeholders, including customers, authorities, and universities, and was aimed at finding practical solutions for the protection of the Baltic Sea environment. Efforts were made to identify future needs in developing more environmental solutions that help the shipping industry to fulfil its responsibilities towards the environment and society in general.

Wärtsilä also joined the Sustainable Shipping Initiative (SSI), a programme initiated by Forum for the Future. This initiative brings together the industry's leading organisations to show what can - and must - be done in order for shipping to contribute to, and benefit from, a sustainable future. This global taskforce gives leading industry players, and their supply chain stakeholders, a framework for assessing the extent of their sustainability challenges. By understanding their role in a sustainable future, companies can gain a competitive advantage and support the development of good policy in the process. SSI was founded earlier this year by Forum for the Future in collaboration with WWF, Maersk Line, BP Shipping, Lloyd's Register, Gearbulk, and ABN Amro.

## Wärtsilä in sustainable development indices

Wärtsilä is included in the Ethibel Investment Register and the Ethibel Pioneer Sustainability Index, ASPI Eurozone® Index and FSTE4Good Index. In 2010, Wärtsilä was included in two new sustainability indexes: The ECPI Global Carbon Equity Index and OMX GES Sustainability Nordic index. It has also been rated a Prime company by oekom research.



FTSE4Good

FTSE4Good Index Series is a series of benchmark and tradable indices for socially responsible investors. The inclusion criteria are designed to help investors minimise social, environmental and ethical risks. The criteria focus on corporate responsibility, human rights, environmental actions, social and stakeholder engagement and countering bribery.



European Corporate Social Responsibility Ratings Agency [www.vigeo.com](http://www.vigeo.com)



The ASPI Eurozone® Index consists of the 120 listed Eurozone companies that perform best in social and environmental terms. The stocks are selected on the basis of Vigeo ratings.



Wärtsilä has been included in the Ethibel PIONEER and Ethibel EXCELLENCE Investment Registers (see [www.ethibel.org](http://www.ethibel.org)) since 28/01/2005 and has been monitored regarding its CSR profile since then. These investment registers form the basis for the European Collective Quality labels ETHIBEL PIONEER and ETHIBEL EXCELLENCE, which are awarded to investment funds and financial products only.



The ECPI Global Carbon Equity Index is an investable index picking companies best equipped to tackle a world of rising carbon emissions and tougher climate legislation from carbon intensive sectors such as Utilities, Basic Materials, Industrial and Energy.



OMX GES Sustainability Nordic Index is based on a risk rating, which is an analysis of risks in the companies' methods of dealing with the environment, human rights and corporate governance. The analysis is based on international norms on Environmental, Social and Governance (ESG) issues in accordance with the UN Principles for Responsible Investments (PRI). It evaluates both the companies' present status and readiness for the future. The analysis model is easy to implement, and gives an immediate overview over a company's sustainability status, which can reduce the investment risk. The Nordic sustainability index comprises the 50 best rated companies on the Nordic exchanges.



Oekom research awards Prime status to those companies which according to the oekom Corporate rating are among the leaders in their industry and which meet industry-specific minimum requirements.

## Recognitions

During 2010, Wärtsilä received the following external recognitions:

Wärtsilä won the "Best Employer of the Year" award at the 4th International Maritime Excellence Awards in Dubai, United Arab Emirates. The Best Employer of the Year Award recognises an organisation's commitment to providing world class training, collaborative working environment, on-time appraisals and promotion opportunities to its employees.

Wärtsilä received an award for supplier excellence from CNOOC, the China National Offshore Oil Corporation.

Wärtsilä's Sustainability Report won first prize in Finland's Corporate Responsibility Reporting 2010 competition in which corporations' responsibility reporting in 2009 was assessed.

Wärtsilä's electronic Annual Report 2009 was selected best annual report in Europe. The prize was handed out at the European Excellence Awards ceremony in Prague, the Czech Republic.



## Case: Shipping scenarios 2030: alternative views on the future of the industry

The modern shipping business is a global puzzle, made up of many pieces, that connects people and businesses around the world. Since 90 per cent of global trade is carried by sea, shipping obviously has a huge daily impact on people's lives. Shipping is also the most efficient and cleanest way of transporting goods over long distances, and must continue to be so in the future.

The future of shipping will be determined by economics, technological development, geopolitical trends, energy resources, social values, and environmental aspects, as well as by the shipping industry itself. The effects of these factors on companies, governments, and people's everyday lives will be significant.

Scenarios represent one means of making sense of a complex environment, and are widely used to understand different ways that future events might unfold. They help companies, governments and organisations with long-term strategic thinking in a fast changing world. Wärtsilä's Shipping Scenarios 2030 were produced by combining extensive expert input, quality research, hard work, dedication, and some imagination, and were published in 2010.

### Complex world condensed into three scenarios

The analysis of a massive amount of information yielded three plausible scenarios.

#### Rough Seas

In the world of Rough Seas, a scarcity of resources is predominant. Wealth is divided unequally among nations, resulting in tension. Climate change adds further stress. New trade routes have emerged as a result of two key developments: an increase in bilateral agreements, and industries moving to resource-rich areas. The entire logistics chain is optimised regionally and national governments control ports. The volumes of water and agricultural products being transported have increased significantly. Global tensions have increased the need for armed escorts, also at sea.

#### Yellow River

In Yellow River, China dominates the global arena economically, geopolitically, and in shipping. China is no longer the world's cheapest manufacturer. Instead, labour and resource-intensive manufacturing has moved to Africa and to other Asian countries. Economic growth is significantly slower in the West, and climate change is tackled only on a regional level. Most of the big shipping companies are Chinese-owned, and trade routes have shifted according to Chinese trade interests. New ports are being built in Africa, Eastern Russia and India, and Chinese ports have grown into sophisticated, integrated logistics centres.

## Open Oceans

The world of Open Oceans is a strongly globalised one. Global mega-corporations and mega-cities have gained power over the nation states. Governments co-operate on the governance of climate issues and free trade protocols. Climate change is perceived as an opportunity, and innovating green solutions has become a lifestyle. In this world, logistics is king. Most goods are transported between the mega-cities, and areas rich in resources such as clean water, food and energy. Environmental challenges have led to the development of new types of vessels; desalination, waste management, and recycling ships are anchored outside mega-cities. Sustainable cruise vacations are a growing trend.

Wärtsilä Shipping Scenarios 2030 can be viewed at [www.wartsila.com/shippingscenarios](http://www.wartsila.com/shippingscenarios)

Wärtsilä Power Scenarios 2023 are available at [www.powerscenarios.wartsila.com](http://www.powerscenarios.wartsila.com)

## Economic performance

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.

### Creating economic added value

Wärtsilä's purpose is to create value for its various stakeholders. The focus is on profitability and raising shareholder value. Achieving this depends on our ability to satisfy the expectations of our other stakeholders as well. 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, and contributing to the well-being of the local communities in which we operate. Despite the uncertain market conditions, our success supported our strategy of profitable growth. Our target has been to grow 6-7% over the cycle and our profitability target (EBIT%) has been 8-10% of net sales over the cycle with a range of +/- 2%. In 2010, Wärtsilä's net sales fell 13% and totalled EUR 4,553 million. Europe's share of net sales was 28%, Asia's 39%, Americas' 23% and others' 11%. Profitability remained at a good level and totalled EUR 487 million (10.7%). After the review period Wärtsilä redefined its financial targets. Our target is to grow faster than global GDP. Our operating profit margin (EBIT%) target is 14% at the peak of the cycle. Even at the trough of the cycle, our target is to keep the operating profit margin above 10%.

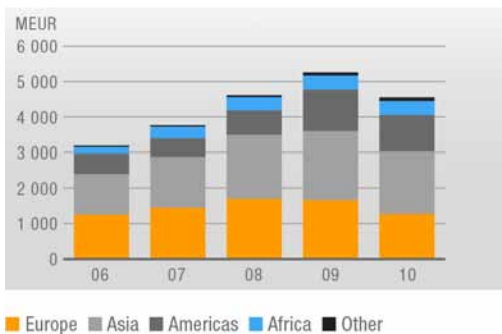
#### Added value to Wärtsilä's stakeholders

MEUR		2010	2009	2008	2007	2006
Customers	Net sales	4 553	5 260	4 612	3 763	3 190
Suppliers	Cost of goods, materials and services purchased	-2 927	-3 593	-3 134	-2 576	-2 034
	Value added	1 626	1 667	1 479	1 187	1 156
Distribution of value added	Distributed to stakeholders					
Employees	Wages and salaries	773	735	693	592	511
Public sector	Taxes and social dues	326	337	288	242	213
Creditors	Net financial items	13	34	9	8	7
Shareholder	Dividends	271	173	148	408	167
Communities	Donations given	1	1	1	1	1
For business development		242	388	340	-64	257

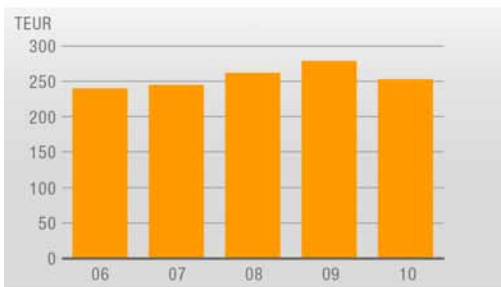
# Customers

Wärtsilä creates added value for its customers by providing products, solutions and services that fulfil their needs and expectations. The development of high-quality, reliable and environmentally sound solutions and services depends on long-term collaboration and continuous interaction with customers. We provide our customers with service throughout the product lifecycle, thus ensuring optimal performance during the product's lifetime. The modernisation of installed products can also extend their service life.

Net sales by market area



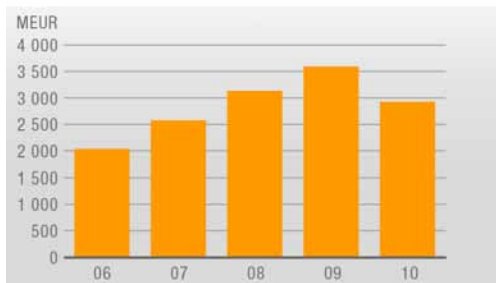
Net sales/employee



## Suppliers

Suppliers play a significant role in our delivery process. We aim to have deep partnerships with our key suppliers in order to ensure that both parties mutually understand and are able to respond to our strict process and product requirements. Apart from financial benefits, partnerships create added value for suppliers through the knowledge and development support we offer them and at the same time Wärtsilä gains from the supplier competence. Successful partnerships can also assist a local supplier in expanding internationally by becoming a part of our global supply chain. In 2010, the value of goods, materials and services purchased by Wärtsilä was EUR 2,927 million. Wärtsilä has more than 3,700 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.

Cost of all goods, materials and services purchased



## Employees

At the end of 2010, Wäertsilä had 17,528 employees worldwide. We also employed thousands of people indirectly through our supply chain. In order to be able to recruit competent and motivated people, we endeavour to offer employees competitive salaries, opportunities for continuous personal development and a good working environment. Developing employee skills and competences is of critical importance both for our business performance and for the development of the employees. Wages and salaries totalled EUR 773 million in 2010. This figure includes basic salaries as well as payments based on various profit sharing and incentive schemes, which cover some 60% of the total workforce.

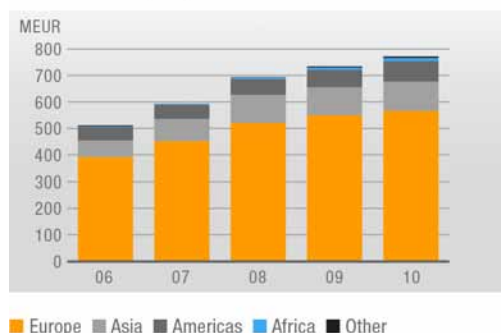
### Pension Cover

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 the Netherlands, Switzerland and the United Kingdom. Most of these defined benefit pension plans are managed by pension funds, and their assets are not included in the Group's assets. Wäertsilä's subsidiaries make their payments to pension funds in accordance with the local legislation and practice 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 21. Pension obligations](#).

### Wage levels

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

Salaries and wages by market area



## Hiring principles

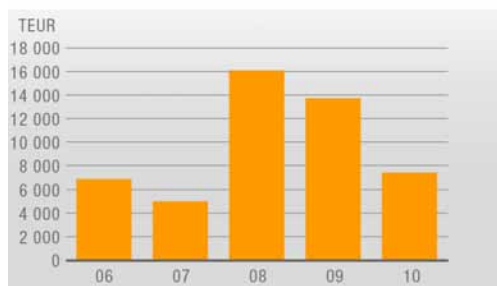
In principal, all open vacancies are published both externally and internally ensuring equal opportunity to apply to Wärtsilä positions. If there is no specific reason, like a competence transfer need from other countries, to hire expatriates to the position, local residents are hired. This principle also applies to senior management. Senior management includes global business and corporate management and local company management positions.

## Public sector

Wärtsilä pays various social dues and taxes to the governments of different countries. Income taxes and social dues in the financial period 2010 were EUR 326 million. 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.

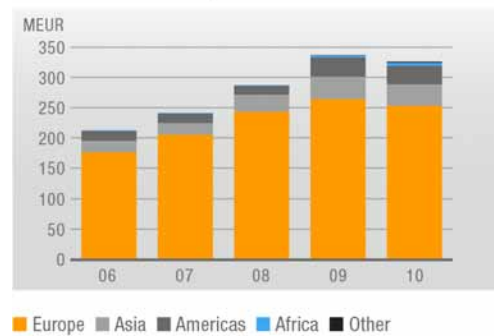
Wärtsilä companies also receive subsidies from the public sector. The value of the subsidies received in 2010 was EUR 7 million and they were among others related to R&D projects, such as the major HERCULES co-operative research project.

Subsidies received from the public sector



The 2006 figures from 12 major Wärtsilä companies and the 2007–2008 figures from 14 major Wärtsilä companies.  
The 2009–2010 figures from 15 major Wärtsilä companies and the parent company.

Taxes and social costs by market area





## Creditors and shareholders

### Creditors

In 2010, Wärtsilä's net financial items totalled EUR -13 million. At the end of the year Wärtsilä's net interest bearing debt amounted to EUR -165 million, the solvency ratio was 40.8% and gearing was -0.09.

### Shareholder value

Dividends totalling EUR 271 million are proposed to be paid to the company's shareholders. Our dividend policy is to pay a dividend equivalent to 50% of the operational earnings per share. The dividends paid per share are presented in the notes to the financial statements. Earnings per share (EPS) was EUR 3.91 and Wärtsilä's market capitalisation at the end of 2010 was EUR 5,631 million.

## Community support

At the national level, we provide financial support for a number of national, cultural and social activities. The Board of Directors has supported activities focused on children and youths, national defence, disabled war veterans, and medical and technical research. Wärtsilä's Board of Directors contributed altogether EUR 670,000 to these activities in 2010. The sum includes EUR 600,000 donations to Finnish Universities.

### Donations to good causes by the Board of Directors

TEUR	2010	2009	2008	2007	2006
Total	670	70	70	70	70

### Donations to local organisations<sup>1</sup>

TEUR	2010	2009	2008	2007	2006
Total	421	527	463	485	614

<sup>1</sup> The 2006 figures include the data from 12 major Wärtsilä companies and the 2007–2008 figures from 14 major Wärtsilä companies. The 2009–2010 figures includes the data from 15 major Wärtsilä companies and the parent company.

## Wärtsilä and emission trading

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 (GHG) emissions. We also advise and support our customers in utilising the Kyoto Protocol's Flexibility Mechanisms (JI and CDM) in their power plant projects. More information about Wärtsilä's solutions for climate change can be found in the [Environmental Performance](#) section. The potential business risks related to climate change and Wärtsilä's products are presented under the sustainability and climate change risks in the Risk Management chapter of the [Corporate Governance](#) review.

## Case: Creating value in local communities

Wärtsilä creates value for its various stakeholders, both directly and indirectly, in all local communities where it operates. Wärtsilä has executed sustainability programmes all over the world to the benefit of the local populations.

Following the devastating earthquake in Haiti, Wärtsilä provided free technical assistance, manpower, and spare parts to the local power authority, Electricité de Haiti, to help rebuild the power infrastructure. Wärtsilä sent a team of experts to Port-au-Prince within three weeks of the disaster, which destroyed large parts of the city. The team assessed the damage to the Varreux power plant, and helped local operators to re-start the undamaged engines and to generate electricity to the local community.

Wärtsilä has decided to donate 1.5 million euro to support science, research and teaching in Finnish Universities. Universities are important partners to Wärtsilä in its research and product development. The aim of this donation is to support the continued future success and high quality of Finnish higher education.

Wärtsilä supported a charity project in the village of Guiyan, Guanghan City, China. A primary school for 250 students was built here following the Wenchuan earthquake in 2008, which destroyed nearly 7.000 schools. The project was supported by the China Children and Teenagers' Fund, and by the local government. It received donations from close to 30 corporations, as well as from 100 individuals, the Embassy of Finland, and numerous volunteer workers.

Constructing school buildings, developing educational possibilities, and enhancing vocational training are objectives of the humanitarian projects carried out by Finn Church Aid in Southern Sudan, Africa. This work is supported by Wärtsilä within the framework of a multi-year partnership programme. The first school building is ready and the second is being finalised.

In Brazil, Wärtsilä employees have been active in helping to establish a volunteer group, known as Grupo Grãos. The group was formed in 2003, and volunteer work is carried out in all locations where Wärtsilä has offices or long term projects and contracts. In 2010, a special Doers Day was held in ten cities with 496 volunteers, 186 of them Wärtsilä employees. Institutions receiving support included orphanages, daycare centres, and shelters for the mentally and physically challenged. The volunteers entertained children and gave company to the elderly. They also carried out building and painting work, donated blood, and registered as bone marrow donors. The work of these volunteers, together with Wärtsilä's donations and support, has led to huge improvements in those institutions receiving support. Local communities have greatly benefited as a result. Six of Wärtsilä's customers and several suppliers were our partners in the Doers Day activities.

Read more about Wärtsilä's community involvement in [social performance](#).

## Environmental performance

The environment is the key element in Wärtsilä's approach to sustainability. For us environmental responsibility has two dimensions: products and operations. Most of our efforts to improve our environmental performance, including within our operations, are conducted as part of product development and improvement. This work is supported by operational measures, which are based on achieving high environmental standards and continuous improvement.

To continually improve environmental performance within the company's operations requires the organisation to constantly work in a systematic way. This work is guided by our strategy and its environmental targets, the Code of Conduct, and the company's policies relating to Quality, Occupational Health and Safety and the Environment, and is co-ordinated and monitored by the Environmental Forum, the Quality and Operational Development Board and the EHS management team. In developing our operations, processes and products, we endeavour to use the latest technologies available for improving efficiency in areas such as material and energy consumption, and for reducing and managing emissions and waste.

Wärtsilä has defined a process for the development of a product environmental strategy and its targets. The process includes the identification of aspects and impacts of the products, the means to influence these impacts, as well as the identification of enabling and restricting boundary conditions and the analyses of the information, and preparation and implementation of the strategy and the targets.



Wärtsilä continuously develops and improves its operations and products with the help of certified environmental management systems. Our principle is to apply certified EHS (Environmental, Health and Safety) management systems based on ISO 14001 and OHSAS 18001 in all Group companies, excluding those companies focusing purely on sales. These units are required to apply Wärtsilä's internal EHS model. Our EHS management systems cover all the operations of our subsidiaries, which means that we are able to promote environmental protection and reduce adverse impacts on a wide front.

The company's EHS management system focuses especially on compliance with legal requirements, identifying and reducing environmental aspects, impacts and risks, training personnel and clearly defining their responsibilities, full documentation of activities and procedures, action in emergencies, and continuous improvement of environmental performance. The company's subsidiaries set their own targets covering significant environmental aspects of their operations, and monitor the overall performance of the management systems. At the end of 2010, 40 Wärtsilä companies had operated with a certified environmental management system. These certified environmental management systems cover roughly 90% of Wärtsilä's total workforce.



## Environmental targets

Target	Status
Reduced energy consumption by at least 10% in terms of absolute consumption (GWh) by 2016 compared to mean energy consumption in 2005.	In 2010, Wärtsilä conducted energy audits in Spain, Italy and China. In Finland, energy audits have been conducted earlier. The energy audits identify the savings potential and measures to improve energy efficiency. The Wärtsilä energy audit programme continues in 2011. Energy savings actions are monitored on an annual basis. By 2010 energy savings of 6.5 GWh have been reached, which represents about 14% of the final target.
R&D: The full release of 710 ppm NO <sub>x</sub> engine concepts for power plant engines and, in the case of marine engines, compliance with upcoming US and EU regulations.	The emission levels for power plant engines have been reached: 710 ppm for W20 and W32 and 900 ppm for W46. The engine types have been released in various release stages. The full releases of various engine types are dependent on sufficient installation feedback. The Wärtsilä 26 marine engine was EPA certified in 2007. The targets were not fully reached.
R&D: Reducing the fuel consumption of diesel and gas engines, reducing fuel consumption and emission levels in 2-stroke engines, and reducing emission levels in common-rail engines.	Wärtsilä has developed technologies to improve the efficiency of diesel and gas engines by 3% compared to 2005 levels. The target was reached. IMO Tier II compliant solutions have been rolled out to the entire 2-stroke engine portfolio. The RT-flex engine models have a higher optimisation potential than their RTA counterparts, resulting in IMO Tier II compliance with a clearly lower (~0) fuel consumption penalty and lower fuel related emissions. Thereby, further increasing the total efficiency of the complete system above the earlier reached 12% by applying waste heat recovery could so far not be achieved.
Ship Power: Broadening of the gas concept, increasing sales of environmental seals, and improving the propulsive performance of seagoing vessels.	The target concerning broadening the gas concept and environmental seals has been reached already earlier. In certain ship types it has been demonstrated that efficiency targets have been clearly exceeded. Projects for further improving total vessel efficiency are ongoing.
Services: Increase in diesel-to-gas engine conversions, sales of exhaust gas scrubbers, and an increase in the number of engines covered by CBM and O&M agreements.	CBM target (5,000 MW) has been reached. The gas conversion target (2,000 MW) was not fully reached. By 2010, gas conversions totalled approx. 600 MW. The exhaust gas scrubber target was not reached. The first commercial scrubber retrofit was sold in 2010. The O&M target (4,500 MW) has been reached.

Target	Status
Power Plants: Introduction of a combined effluent treatment unit for treating various plant effluents, the market launch of wet techniques for optimised NO <sub>x</sub> reduction and fuel economy, and the active sales and marketing of power plant technology based on renewable fuels.	Power Plants has delivered and validated the combined effluent water treatment concept and has readiness to deliver it when local effluent standards require it. This target was reached already earlier. Wet techniques for NO <sub>x</sub> reduction has been extensively studied in engine laboratory conditions. This application has, mainly due to its large consumption of pure water, not raised any bigger interest from the market and further development is on hold. The target was not reached. Power Plants has gathered a broad experience of operating engines on different types of renewable fuels with both vegetable and non-vegetable origin. By 2010, Wärtsilä had sold in total approx. 800 MW of liquid biofuel power plants. This target was reached already earlier.

The targets above were set in 2005. Wärtsilä will set new environmental targets during 2011.



## Wärtsilä Policy for Quality, Health & Safety and the Environment

Our power solutions and services meet or exceed customers' and other stakeholders' expectations being

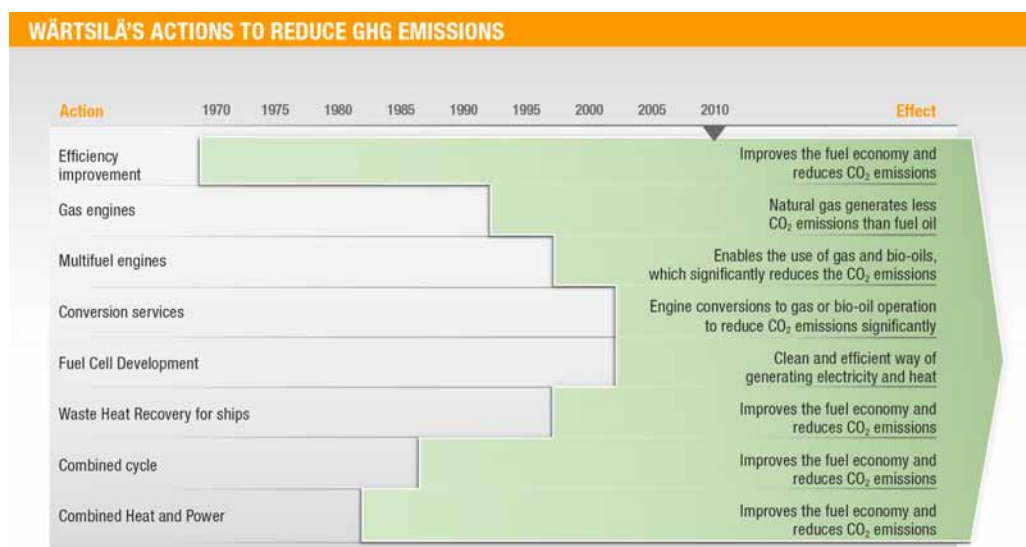
- reliable and safe
- efficient and environmentally sound
- compliant with the applicable legal requirements and regulations.

We continually improve our performance and reduce adverse environmental impact, through objectives set by management, to satisfy our customers and other stakeholders. Our business premises provide a safe and healthy working environment for our employees and partners. Our skilled organisation acts as a responsible global citizen.

Wärtsilä's Board of Management approved the policy in January 2007.

## Solutions for Greenhouse Gas Emissions reduction

Wärtsilä has developed various solutions to assist in reducing greenhouse gases (GHG). As a result of our long-span development work, we have managed to develop a range of engines that feature both high efficiency and low emissions. Wärtsilä's technologies and solutions provide various alternatives to reduce the climate change impact.



### Engine efficiency improvement

High efficiency is important in the control of climate change, and with low emissions our products meet the various environmental regulations. The efficiency of Wärtsilä diesel and gas engines ranges between 42-52%, depending on the engine type.

### Gas and multifuel engines

The Wärtsilä dual-fuel (DF) engine is another innovation having a significant effect on controlling climate change. Thanks to the technology developed by Wärtsilä, our customers can flexibly employ the same engine using various fuels. This also makes it possible to reduce the impact on the environment.

DF-engines are used in power plants and for powering LNG-carriers and also for other types of vessels. This single solution means that the total CO<sub>2</sub> emissions from all our current customers' LNG carrier applications will be reduced by several millions of tons, when compared to traditional gas transportation. At the same time, the availability of gas will be improved and the environmental impacts of gas transportation will be reduced. CO<sub>2</sub> emissions can be reduced even more effectively with renewable energy sources, such as liquid bio-fuels.

## Modernisations and conversion services

Wärtsilä applies new technologies also to its existing products, which makes it possible to further reduce their environmental impact. With the help of our service products, we can improve the efficiency of older engines and reduce their emissions to the same level as those of our newer products. We also convert oil-fuelled engines for gas or bio-fuel use.

## Fuel cell development

A fuel cell is a clean, efficient and reliable method of producing energy, making it a highly attractive option for distributed power generation. Read more on the latest developments of Wärtsilä's fuel cell programme in the section [Creating new solutions](#).

## Waste heat recovery for ships

In addition to general use of waste heat, steam-based combined cycles have been applied in ship applications for a long time. For applications, in which waste heat is limited in amount and temperature, we are designing and commercialising an ORC system to fulfil marine environment requirements.

Wärtsilä has also introduced a Boosting Energy Efficiency Catalogue, which contains more than 50 different efficiency improvement actions for saving energy in ships. Please visit [www.wartsila.com](http://www.wartsila.com) for a more complete view of the solutions introduced in this catalogue.

## Environmentally advanced vessel solutions

The new Wärtsilä Gas Platform Supply Vessel (PSV) design represents a state-of-the-art vessel featuring outstanding energy efficiency, a unique hull form, fuel flexibility, and outstanding vessel performance in areas such as fuel economy and cargo capacity. A unique configuration of the gas electric propulsion system based on a combination of the Low Loss Concept for Electric Propulsion and the recently introduced Wärtsilä 20DF engine. Wärtsilä's ability to offer total concept solutions that include the design of the vessel, the propulsion plant, electric & automation, and a host of fuel saving and environmentally sustainable options, has given the company a notable competitive edge - particularly in the area of specialty vessels such as Gas PSVs.

## Combined cycle

Many steam combined cycle diesel engine plants have been delivered during the recent years. Today, the focus is strongly on introducing high efficiency gas engine combined cycle solutions, specifically intended for plant sizes of multiple hundred megawatts.

## Combined heat and power

Combined heat and power plants (CHP) cover various types of recovery and utilisation of heat energy, in addition to electricity generation. The energy can be utilised as heat, such as hot water or steam, or as cooling by means of chillers. The most recent step is a exhaust gas driven chiller, which is believed to offer a cost-competitive CHP solution for various market areas.

Solution	Power (MW)	Fuel	Annual CO <sub>2</sub> reductions (t)	Reference technology and fuel
Single cycle engine power plant	50	HFO	58 871	Boiler plant/Coal
Single cycle engine power plant	50	HFO	43 687	Gas turbine /LFO
Single cycle engine power plant	50	Gas	26 342	Single cycle gas turbine/Gas
CHP engine plant (total eff. 90%)	30 + 30 (Heat)	Gas	83 552	Boiler plant/Coal (El.) + Boiler plant/LFO (Heat)
DF engines in LNG carriers	40	Gas	41 000	Steam boiler
LNG cruise ship	68	Gas	43 000	Cruise ship/HFO
Gas engine conversion	50	Gas	57 200	Diesel engine/HFO

As the industry frontrunner, Wärtsilä has a responsibility to develop and supply advanced solutions that enable the environmental impact of its customers to be reduced. This is Wärtsilä's main role in the combat against climate change.

## Towards more sustainable solutions

Our most important role in sustainability is to supply environmentally sound solutions and services, which enable our customers to develop their business in a sustainable way. This requires us to continuously invest in technology development and in an ongoing search for new solutions.

Wärtsilä gives strong priority to developing and applying technologies that reduce the environmental impacts of its products. In order to meet the needs of our customers, be prepared for future requirements, and remain an industrial frontrunner, Wärtsilä's product development must be at all times innovative, determined, and willing to explore new technologies. We strive to develop environmentally sound products and solutions across a wide 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. With a proactive approach to meeting future demands, Wärtsilä has developed both primary and secondary technologies and broadened the range of usable fuels.

### Key features of Wärtsilä's environmentally sound solutions include

- Reliability, safety and long life-time
- Solutions to reduce emissions
- Alternatives to heavy fuel oil
- Flexibility in fuel use
- Solutions to maximise efficiency with lowest lifecycle cost
- Solutions to minimise water consumption
- Optimisation of vessel design and operations

Investing in research and product development benefits Wärtsilä's customers as well as the environment, both in the short-term and over a longer time span. Growth in the world's energy needs, combined with increasingly stringent environmental requirements, creates a challenging operating climate for companies in Wärtsilä's line of business. Wärtsilä has responded to these challenges by improving the energy efficiency of its products while simultaneously reducing their emissions.



## Environmental legislation and initiatives

Concerning Wärtsilä products, the environmental requirements are set at the international level mainly by the International Maritime Organization (IMO) and the World Bank. In the stationary field national and regional regulations, such as those of the US EPA, Germany, Japan and India are considered important for our products. Along with the introduction of the new Industrial Emission Directive of the EU, a new benchmark also for gas engines will be established.

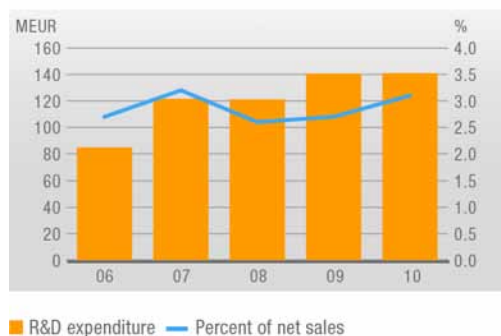
Wärtsilä actively monitors legislative initiatives and changes in environmental legislation to ensure the company's ability to respond appropriately to future operating limitations. Wärtsilä's R&D activities follow the requirements of the changing operating environment, developing products that give the company a competitive edge while enabling more stringent environmental regulations.

## Wärtsilä's R&D focus

Wärtsilä develops efficient and cost competitive products and solutions based on customer needs by combining innovative technologies. Product and solution development is based on effective work process management to ensure that the set targets are reached. The performance of the products and their features are verified through simulations, functional tests and long-term validation. Wärtsilä actively develops the commonality and modularity of its products, and designs products that are easy to manufacture. A substantial proportion of the company's investments in product development is targeted at reducing environmental impacts.

Wärtsilä's R&D activities focus on products and solutions that are fuel-efficient, reliable and safe, self-diagnostic, cost-efficient to operate, and that produce minimal environmental impacts throughout their lifecycles. The company takes a proactive approach to managing its intellectual and industrial property rights through incentive schemes for its employees that encourage innovation and initiative. A paramount priority in Wärtsilä's R&D activities is to develop and safeguard the company's critical areas of expertise.

Research and Development expenditure



## Ensuring reliability and safety

The long operational lifetime and the application of Wärtsilä products highlights the importance of reliability and safety. Wärtsilä's development process is geared to ensuring the reliability and safety features of the end product, and extensive validation and testing programmes are undertaken before the product is fully released.

By focusing on the initial stages of the development process the development time for new solutions can be reduced without compromising the emphasis on reliability and safety. Individual components are validated during their design by using advanced calculations and simulation tools. This method enables Wärtsilä to identify areas of improvement at an early stage in the process, thereby reducing the amount of component testing needed. The actual component and technology testing allows a speedy validation of the systems, which results in faster development and market introduction for new products.

In always seeking newer and better solutions, Wärtsilä is able to perform validation testing on existing installations in co-operation with its customers. The customer benefits by getting the first insight into new technologies while Wärtsilä gains long-term experience under controlled conditions. A typical field installation operates for 6,000 hours per year.

When the product has successfully passed all the process steps and the performance meets Wärtsilä's high standards, it can be brought to the market.





## Improving efficiency

Energy efficiency has always been a priority for Wärtsilä, and remarkable gains in the efficiency of our products and solutions have been achieved over the years. For example, a peaking efficiency of 52% for the best engines is one of the highest efficiency ratings among existing prime movers. However, improving the efficiency of a single component does not necessarily guarantee the best overall outcome. For instance, more can be achieved through comprehensive ship design, systems integration and machinery optimisation. Similarly, in power plants, by combining various technologies an overall efficiency rating of 90% is possible.

### Total efficiency for ships

Improving total ship efficiency reduces life-cycle costs and emissions. By combining our knowledge of automation, machinery, propulsion and ship design into a single integrated solution, a truly efficient ship operation can be achieved. From a longer viewpoint, the potential for improving energy efficiency has been estimated to be 30-50%. This will be achieved by optimising component performance, ship design, waste heat recovery and the recovery of other losses, weather and voyage routing and taking advantage of potential new technologies.

The efficiency of the ship can be improved also by using concepts such as

- the Low Loss concept, which reduces the losses in the electrical power train by 30-50%
- counter-rotating propulsion
- optimisation of the hull design.

Several joint development programmes with customers are currently on-going and are aimed at significantly reducing their operating costs.

System integration enables efficiency improvements while at the same time customers benefit from having proven solutions from a single supplier. Yards can better optimise their building schedules and owners get proven solutions, with lifecycle support, that are easier to manage.

### Engine efficiency

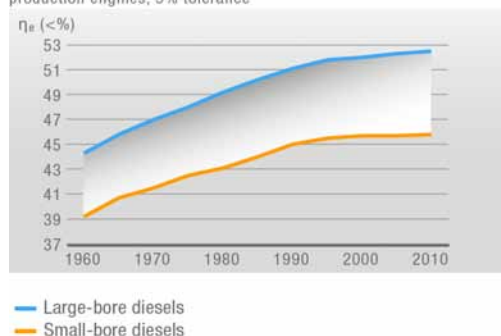
Engine efficiency has always been high on our agenda. However, the improvement of efficiency is becoming challenging by the day as the emissions requirements become increasingly stringent. Amongst the reasons for our success in this field, integrated engine functionalities that enable low emissions and high engine efficiency have been a major factor. Air and fuel admissions are controlled by an automated system that provides optimal combustion under all operative conditions.

Wärtsilä's extensive experience in component design has led to the development of combustion chambers capable of withstanding higher cylinder pressures and temperatures. This contributes to engine efficiency directly and positively.

Wärtsilä have several on-going programmes aimed at ensuring the high efficiency of its engines, while at the same time significantly reducing their emissions. Innovative technologies, including two-stage turbocharging, variable inlet and exhaust valve timing and electronically controlled fuel injection such as common-rail, are important contributors in this task. During 2010 Wärtsilä has announced its first product with 2-stage turbocharging.

#### Wärtsilä engine fuel efficiency development

Wärtsilä marine diesel engines 1960-2010-  $\eta_e$  for production engines, 5% tolerance



## Heat recovery and energy conversion improvements

The utilisation of fuel energy can be further improved by using heat recovery concepts and secondary cycles. Steam-based combined cycles are applied widely in diesel engine applications, and are expected to gain a foothold also in bigger gas engine plants. Organic rankine cycle products are being brought to the marine market and its use in stationary side is being considered. Further improvements can be expected by designing engines for secondary cycles.

## Propeller efficiency upgrades

Successful conversions to achieve propeller efficiency increases up to 10% can be established in different vessel markets, such as the dredging industry, ferries, fishing vessels and tankers. This improvement is made possible by exchanging the open type propeller for one operating in a nozzle. Wärtsilä continued exploring project specific knowledge regarding the interaction between the propulsor and the ship's hull in order to avoid added resistance.

The propeller's efficiency, amongst other parameters, is an important consideration for achieving economic sailing. Fouling, surface roughening, and leading edge damage to the propeller, when in service, can lead to efficiency losses of 3-7%. For ships such as oil tankers and container vessels with annual fuel costs exceeding 5 million euro, such propulsion degradation can easily cost several hundred thousands of euro a year. The deliverable of on-going projects investigating the Efficiency loss of Propellers in Service, will be the performance based maintenance of a ship's propeller and will thus increase the vessel's overall efficiency throughout its lifecycle.

## Case: High efficiency with low emissions

Wärtsilä's environmental strategy calls for its products and solutions to have high efficiency with low emissions. A recent example of Wärtsilä's ability to meet these criteria is the Fri-El Acerra combined cycle plant, located in Naples, Italy.

The Fri-El Acerra plant is equipped with four Wärtsilä 18V46 diesel engines running on liquid bio fuel (LBF). All four engines are equipped with separate waste heat recovery steam generators (WHRSG) for maximum production of superheated steam. The steam is then fed to a common condensing steam turbine for additional electricity production. A water cooled condenser is used, with the water being cooled by cooling towers.

The combined cycle plant has been in operation since November 2009, with the first measurements being taken the following month at a 14°C ambient temperature. The second performance measurements were taken six months later at 28°C ambient temperature.

### Main process parameters of the combined cycle system:

	Design	Measured 2.12.2009	Measured 4-6.6.2010	
Ambient temperature	25	14	28	°C
Engine gross power, 1 engine average (total 4 engines)	17 190	17 218	17 171	kW <sub>e</sub>
Exhaust gas temperature to WHRSG	374	367	396	°C
Exhaust gas temperature from WHRSG	195	177	189	°C
Exhaust gas mass flow to WHRSG	30.5	29.9	30.5	kg/s
Steam pressure	12	11.7	11.8	bar(a)
Steam temperature	344	353	346	°C
Steam mass flow to turbine	8.2	8.7	9.2	kg/s
Turbine back pressure	0.08	0.06	0.09	bar(a)
Condensate temperature after condenser	41.5	42	43	°C
Condensate/make-up temperature to feed water tank	77	77	77	°C
Steam turbine gross power (1 steam turbine)	5 200	5 550	5 822	kW <sub>e</sub>
Additional gross electricity	7.6	8.1	8.5	%

This additional power, generated from the waste heat, directly improves the electrical efficiency of the power plant. At the same time, it correspondingly reduces CO<sub>2</sub> emissions to the same extent, or even more so if the electricity is produced in a less efficient manner. Wärtsilä engines have already a very high internal

efficiency. This, together with an external combined cycle system, results in an extremely high electrical efficiency in this kind of dedicated liquid bio oil fired power plant.

## Reducing sulphur dioxide emissions

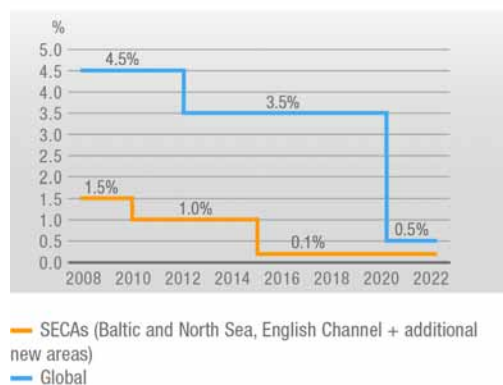
### Marine scrubber

Various desulphurisation techniques have been used in Wärtsilä power plant applications. On the marine side, scrubbers can be found economically very attractive in meeting the future IMO sulphur requirements. Wärtsilä's on-going development and commercialisation project regarding a fresh water marine scrubber is successfully proceeding. The technology developed by Wärtsilä was approved during summer 2009 by two major classification societies, and is thus the first such certified solution in the world. Wärtsilä will deliver a marine scrubber to a containership in August 2011. This is the first commercial marine scrubber project for a main engine. As a next stage, the development project for a novel hybrid scrubber capable of being operated both with fresh and sea water is ongoing.

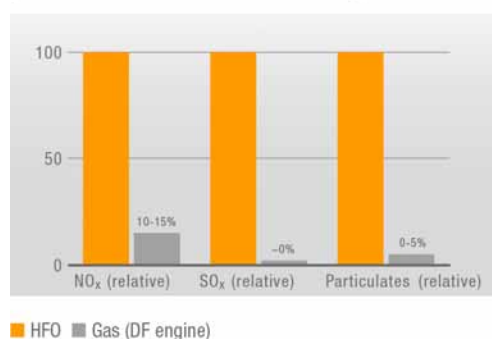
### Low sulphur fuels

The coming regulations limiting the sulphur content in marine fuels will inevitably create some new challenges for customers. Low sulphur fuels have, in most cases, lower viscosity than ordinary fuels, and this will affect the behaviour of the fuel injection systems in diesel engines. Therefore, modifications are often recommended, not only to the engine but also possibly to boilers. Wärtsilä will be able to offer its customers support in adapting to future low sulphur fuel qualities.

Emission legislation – IMO fuel Sulphur cap  
Fuel sulphur content



Comparison of typical specific NO<sub>x</sub>, SO<sub>x</sub> and particulate emissions – influence of fuel type



SECA



Baltic and North Sea,  
English Channel

Date of entry into force of the  
SECA/NECA areas:  
August 2011



US & Canada  
costal water

## Case: Wärtsilä SO<sub>x</sub>Reducer

### Fresh water SO<sub>x</sub> scrubber

The Wärtsilä SO<sub>x</sub> reducer is a fresh water and sodium hydroxide (NaOH) based closed loop exhaust gas scrubber, designed to remove SO<sub>x</sub> from the exhaust gas stream of ships. The Wärtsilä SO<sub>x</sub> reducer scrubber system is an efficient and cost-effective alternative to the use of low sulphur fuel for reducing SO<sub>x</sub> emissions. Wärtsilä is the first manufacturer to have been awarded a marine SO<sub>x</sub> scrubber certificate issued by Det Norske Veritas and Germanischer Lloyd.

### Performance

As a default, the scrubber system is designed for fuel having a maximum sulphur content of 3.5%. The SO<sub>x</sub> reduction efficiency is 97.15%, corresponding to a reduction of fuel sulphur content from 3.5% to 0.1%. This is the typical guaranteed performance of the system.

### Configurations

The SO<sub>x</sub> scrubber system is available in two different configurations:

- Main stream scrubber
- Integrated scrubber

The main stream scrubber is designed to be installed in the main exhaust gas stream of an individual diesel engine. The exhaust gas pressure loss over the main stream scrubber at full gas flow is typically approximately 800 Pa.

The integrated scrubber is designed to clean the exhaust gases of several main and auxiliary engines, as well as onboard oil-fired boilers, with a single scrubber unit. The integrated scrubber system does not increase the exhaust gas back pressure, thus making it particularly suitable also for oil-fired boilers and all diesel engines.

### Test and testing results onboard MT Suula

A Wärtsilä fresh water testing unit was installed onboard the Neste oil tanker MT "Suula". Testing of the unit was started in 2008 and completed in 2010. The MT "Suula" sailed mainly around the Baltic Sea, but also visited North Sea harbours. Normal ship operations were not interrupted or limited during the tests. Test data was recorded in many ways, including a tamper-proof recording device. Gas and liquid samples were taken. Classification societies surveyed the certification process.

The test results were very positive. The measured sulphur reduction was excellent, and well within the International Maritime Organisation's (IMO) most stringent limits. Furthermore, other measured exhaust and effluent parameters were favourable. The effluent was very clean, and the sludge produced by the water cleaning unit was found suitable for normal disposal at port reception facilities. The scrubber and its auxiliary systems worked with a good level of reliability. Sea conditions did not affect or limit the scrubber's use.

## Sulphur removal efficiency during certification tests

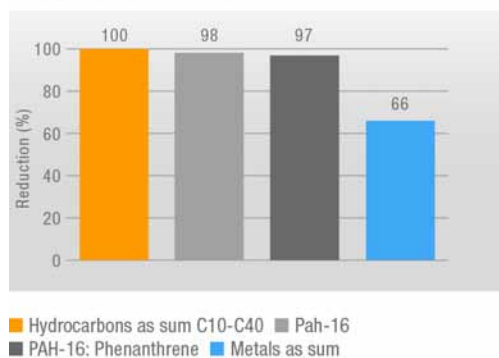
Test		1	2	3	4	5	6	7	8
Engine test load	%	8	40	70	100	8	40	70	100
Fuel sulphur content	% m/m	1.5	1.5	1.5	1.5	3.4	3.4	3.4	3.5
SO <sub>2</sub> after scrubber *	ppm-v	0	0	0	0	0	0	0	0
CO <sub>2</sub> after scrubber	%-v	4.7	6.1	6.5	6.6	4.6	6.0	6.4	6.7
SO <sub>2</sub> / CO <sub>2</sub> ratio	ppm/%	0	0	0	0	0	0	0	0

\* A '0' value indicates the result was below measurable limits (~2 ppm).

Measurement equipment from a 3<sup>rd</sup> party accredited company has an accuracy of ±2 ppm. For reference 0.1 % sulphur corresponds to 20...30 ppm.

As a part of the certification test, the effluent quality was demonstrated to classification societies. The Wärtsilä scrubber fulfils all the effluent quality requirements thanks to the efficiency of the Wärtsilä water treatment unit. The IMO resolution MEPC.184 (59) defines limits for pH, turbidity, PAHphe and nitrate content. Metals in the effluent were also measured. The tests showed that after the water treatment unit, PAHphe concentration and turbidity are clearly below the IMO limits. The pH of the effluent was over 6.5, which is the IMO limit for effluent pH. Certification tests also proved that nitrate concentration in the effluent is below the IMO limits.

Reduction of components in the bleed-off treatment unit  
Fuel sulphur content 3.4% m/m



Reduction in concentration of chemical components in the bleed-off treatment unit with a fuel sulphur content of 3.4% m/m.

More information can be found in [Wärtsilä's public test report](#).



## Reducing nitrogen oxide emissions

The new IMO NO<sub>x</sub> Tier II rules are active from 2011. The new NO<sub>x</sub> limit is 20% below the 2010 emission levels. All Wärtsilä portfolio products are today IMO NO<sub>x</sub> Tier II compliant. In addition, a global restriction of sulphur content in fuel will be limited from 2012 to 3.5%. In restricted SECA areas, a maximum sulphur content of 1% is in force from 2010.

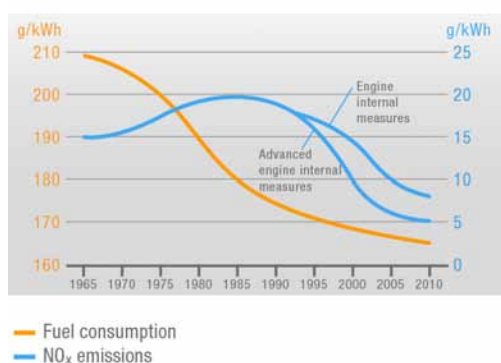
The next emissions level, IMO Tier III, will be valid from 2016 onwards. This is expected to demand a reduction in NO<sub>x</sub> levels of 80% from Tier I levels. An 80% NO<sub>x</sub> reduction requires a step change in terms of engine technology and product offerings. Wärtsilä is looking into different solutions involving:

- Engine internal technologies
- After treatment technologies
- Fuel (Gas) related technologies

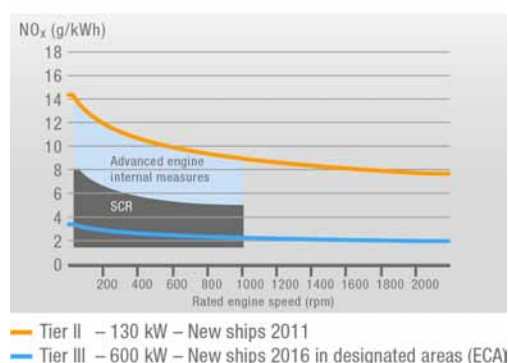
Development of all these technologies will be needed, as will the integration between them. A driving factor in this work is the lifecycle cost of the solution. Since lifecycle costs in 2016 are difficult to predict today, Wärtsilä is working on multiple solutions for meeting these future emission levels. Regardless of the technology preferred by our customers, Wärtsilä intends to have a competitive product in line with our status of being the preferred supplier.

Selective Catalytic Reduction (SCR) will play an important role in the future, and it is essential to ensure that combinations of SCR and scrubbers can be applied. Wärtsilä has experience in SCR systems with wide range of fuels. Wärtsilä is able to deliver also SCR solutions for high sulphur application with or without scrubbers. However, further development and commercialisation work will be carried out to optimise the system for a wider scope of applications, and will take into consideration various side effects and boundary conditions.

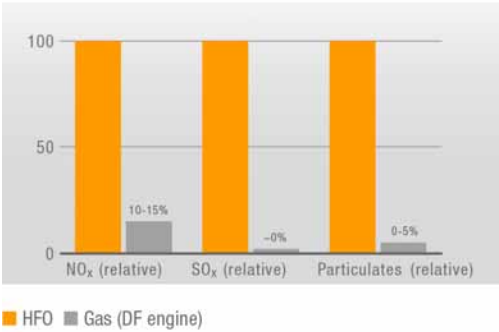
Development of diesel engine specific fuel consumption and NO<sub>x</sub> emissions



Emission legislation – marine application (IMO)  
Revised MARPOL Annex VI



Comparison of typical specific NO<sub>x</sub>, SO<sub>x</sub> and particulate emissions – influence of fuel type



## Case: Enabling ships to operate on gas



The use of liquefied natural gas (LNG) as a marine fuel reduces greenhouse gases and other emissions, such as nitrogen oxides, sulphur oxides and particulates. In addition to the environmental benefits, savings in a ship's operating costs can also be gained from using LNG as fuel.

During 2010, Wärtsilä signed a turnkey contract with Tarbit Shipping of Sweden to convert a chemical tanker, the 'Bit Viking', to LNG propulsion, and to supply the ship with a Wärtsilä LNGPac system for the safe and convenient storage of LNG onboard. This is the first order for a Wärtsilä LNGPac system. The 25,000 dwt 'Bit Viking' is operated by Statoil along the Norwegian coastline, and the conversion will enable the vessel to qualify for lower NO<sub>x</sub> emission taxes under the Norwegian government's NO<sub>x</sub> fund scheme. As a result of the conversion, the ship's emissions will be significantly reduced.

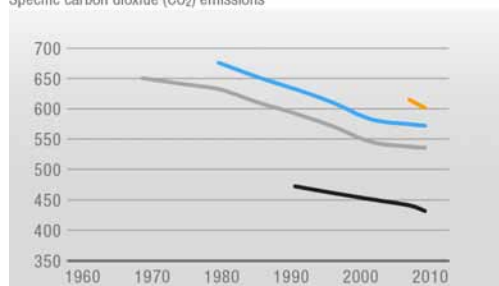
Wärtsilä is currently developing solutions that will enable the use of LNG while the ship is in port. The focus of the development is on the storage system, and is aimed at minimising the negative space impact and structural modifications needed for existing ships.

## Reducing greenhouse gas emissions

In addition to improving the efficiency of its solutions, Wärtsilä is continuously developing technologies for reducing the CO<sub>2</sub> and THC (total hydrocarbons) emissions for both diesel and gas engines. For gas engines Wärtsilä is evaluating a set of methods that reduce the THC levels 30-90%. Complementing the pure engine development work, efforts are underway to design, test and validate a combined catalyst-based methane reduction system for the engine.

Read more about our solution in the section [Solutions for greenhouse gas emissions reduction](#).

Development of specific carbon dioxide emissions of Wärtsilä engines  
Specific carbon dioxide (CO<sub>2</sub>) emissions



Renewable fuel carbon: — Biodiesel  
Fossil fuel carbon: — Heavy Fuel Oil (HFO)  
— Natural Gas — Diesel and light fuel oil (LFO)

## Water solutions

The protection of watercourses is one of the key elements of Wärtsilä's environmental focus. Wärtsilä has developed systems for the treatment of oily water for both land-based and onboard installations. Recent developments include treating oily water in combination with Bio-Sys technology. This reduces the concentration of chemical and biological oxygen demand (COD/BOD) from the outlet water of the plant from 300-400mg/l to less than 15 mg/l, which is below the World Bank standards. Both COD and BOD contribute to the depletion of oxygen in the water course. Wärtsilä's oily water treatment technology enables the oil content of discharge water to be reduced to a level of 5 ppm, which is also type approved by classification societies. In practice these systems typically achieve a level of 1 to 2 ppm, while the IMO regulations allow a discharge level of 15 ppm. In addition, the treatment system reduces heavy metal emissions of discharge water by 90 percent.

Wärtsilä, together with Technology provider Trojan Marinex, has introduced during 2010 an advanced ballast water treatment system that protects local biodiversity from non-indigenous invasive species. These may cause a negative economic impact on society, reduced output from fisheries, and added costs for control and clean up measures. It is estimated that around USD 1.4 trillion per year is spent on clean ups, economic losses, and environmental damage related to ballast water transportation from one ecological zone to another. Our technology is free of any harmful residual products, has high biological efficacy, and is considered safe for personnel, for vessels, and for the environment. The system features a compact design that allows for easy installation onboard, whether it is for a new build or a conversion project, while its low power consumption contributes towards reduced energy costs.

## Creating new solutions

### Development of groundbreaking technology to cut emissions

Wärtsilä and ABB Turbo Systems are co-operating in a joint development programme for a new and groundbreaking application of two-stage turbocharging on large diesel engines. Advanced engine technology, together with two-stage turbocharging, offers significant advantages in fuel consumption and engine emissions.

The application of two-stage turbocharging technology on Wärtsilä diesel engines has been developed through close co-operation between Wärtsilä and ABB Turbo Systems. In this programme, Wärtsilä is focusing on developing advanced engine technology, which with the turbocharger, is able to reach the highest possible performance and become a cost-effective commercial solution for its customers. ABB Turbo Systems is delivering the turbocharging technology with defined performance in terms of airflow, pressure ratios and efficiency.

### Development of fuel cell technology

A fuel cell is a clean, efficient and reliable method of producing energy making it a highly attractive option for distributed power generation. Wärtsilä has been developing fuel cell technology for decentralised power generation and marine applications since the year 2000. The company's fuel cell development team is focusing on developing, designing and manufacturing a solid oxide fuel cell (SOFC) system. In this work Wärtsilä is taking advantage of its extensive know-how in combined heat and power generation, and the company's in-depth knowledge of its marine customers' needs.

Part of the R&D programme covers the development of the WFC20 and WFC50 units, 20 kW and 50 kW SOFC units. Wärtsilä has continued operation of the first demonstration unit in Vaasa, where the fuel cell is driven by biogas collected from a landfill. A methanol based unit has been demonstrated within the METHAPU project, which was successfully concluded during 2010. Development of larger units have progressed through the manufacturing of two 50 kW units within the frames of DemoSOFC and Large SOFC projects, both of which are partially funded by the EU. Commercialisation of fuel cell units for onshore and offshore power plant applications is proceeding in parallel with the development program.

### Enabling gas operations in ships

Multifuel operation using Wärtsilä's Dual Fuel (DF) technology offers environmental advantages of gas engines. It allows low CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub> and particulate emissions, while having redundancy in terms of liquid fuel in case gas is not available. DF technology also allows a choice of fuel based on the cost and availability of gas vs. liquid fuel. The use of DF technology with gas as the fuel is an optimum solution for vessels that spend a lot of time in ECA zones, and for vessels that carry gas with them, i.e LNG carriers.

Wärtsilä is developing a complete portfolio of medium-speed gas engines and related fuel handling equipment in order to be able to deliver solutions for LNG tankers and gas-fuelled ships in general.

## Expanding the fuel versatility

Wärtsilä is utilising more resources on the use of alternative fuels as part of its pro-active approach to providing cost-effective, flexible and environmentally sound solutions for its customers. Wärtsilä studies different fuel sources, such as vegetable oils, animal fats and emulsions, in its fuel laboratory. During this year, we have tested engines running on jatropha oil, fish oil, chicken oil, traditional animal fats and different kinds of synthetic bio-oils.

## Enabling global transition to a more sustainable electricity infrastructure

Wärtsilä develops its products and market approach to offer high value solutions for a more modern and more sustainable energy infrastructure. Wärtsilä's dynamic grid stability solutions make it possible to install much larger quantities of variable, non-dispatchable wind power capacity to the electrical grids without losing system stability. The same dynamic power plant solutions offer unique value in grid contingency situations where dynamic features such as extremely fast starting (5 minutes to full load), loading and stopping, are of paramount importance. Additional benefits are high energy efficiency over a wide load range, multifuel operation, no water usage, and the ability to locate the power generation facility in the load pockets, i.e. inside cities, even in California with the most stringent emission requirements. The combination of wind power and Wärtsilä dynamic power plants offers high potential for dramatically reducing CO<sub>2</sub> worldwide.

## Case: First marine application for a fuel cell unit

In May 2010, Wärtsilä's fuel cell development programme took an important step forward. The first WFC20 fuel cell unit was installed onboard the Wallenius car carrier 'M/S Undine'. The Wärtsilä FC20 power unit is fuelled by methanol, and has an output of 20kW. Furthermore, its SO<sub>x</sub>, NO<sub>x</sub> and particulate emissions are close to zero. A demonstration of the fuel cell technology in a marine application was carried out within the framework of the METHAPU project, in co-operation with Wallenius Marine, Lloyds Register, Det Norske Veritas, and the University of Genova.

Product development in Wärtsilä aims to be proactive and well ahead of impending regulations. The aim is to offer equipment and solutions that not only meet customer needs, but which also satisfy regulatory requirements in the years to come. In addition to the development and shipboard demonstration of the fuel cell technology, the project has played an important role in the formulation of rules and regulations for marine fuel cell applications, and the use of methanol as a fuel in commercial shipping.

This partially EU funded research project was successfully concluded in October 2010 after more than 1,000 hours of global operation in a marine environment.



## Long-term research activities

### The HERCULES β project

Hercules Beta was launched in September 2008 within the EUs 7th framework programme. This 36-month and EUR 26 million project is steered by two leading engine designers and manufacturers, Wärtsilä and MAN Diesel and Turbo, and it brings together 32 partners across Europe. Continuation of research under this framework will ensure the exploitation of the created know-how and partnerships within the first HERCULES project, and will penetrate into new areas. One aim of the project is to develop new technologies to reduce gaseous and particulate emissions from marine engines. A second objective is to increase engine efficiency and reliability, which in turn will reduce specific fuel consumption, carbon dioxide emissions and lifecycle costs. Reductions of more than 70% in NO<sub>x</sub> emissions (compared to 2000 levels) and 10% in fuel consumption is sought by the year 2020.

The technological themes of the HERCULES initiative have, since its inception in 2002, been higher efficiency, reduced emissions, and increased reliability for marine engines. However, for taking marine engine technology a step further towards improved sustainability in energy production and total energy economy, an extensive integration of the multitude of identified new technologies is required. Following the original vision, leading parties have decided to apply a third phase in 2012 called HERCULES-C, as a continuation of the very successful HERCULES programmes. The HERCULES-C Project is planned to run over a three-year period and has a targeted budget of EUR 19 million, bringing the total combined budget of the HERCULES programmes (2004-2015) to EUR 79 million.

### Cleen

The Future Combustion Engine Power Plant (FCEP) research programme was started on January 1st, 2010. The program focuses on research topics and development efforts in the area of reciprocating engine technologies and related power plant technologies. The key areas of research include improvements in the combustion process, energy efficiency, emissions reduction methods, heat recovery systems, and power conversion technologies. In addition, fuel flexibility and the use of renewable fuels in combustion engines are central research areas.

The programme objectives and scope have been set by the industry together with the research institutions, thereby enabling deep co-operation in jointly executing the programme and promoting breakthrough innovations across broad interfaces.

The total cost of the FCEP programme is EUR 38 million. It will be covered by the participating companies (EUR 12.8 million) and research institutes (EUR 5.1 million). The remaining EUR 20 million has been applied for from the Finnish Funding Agency for Technology and Innovation (Tekes). The first period of the program has been successfully accomplished and activities for the second period have started. The program duration has been prolonged from three to four years with planned ending by December 31st, 2013. The consortium consists of the leading combustion engine and power equipment manufacturers, supported by local research institutes and universities. The seventeen consortium partners represent a very high level in technical and scientific excellence.

## Collaboration with stakeholders

Co-operation throughout the value chain is becoming ever more important. It is necessary for understanding the requirements of the end customer, for understanding and optimising the performance of the value chain, and for safeguarding the expertise needed.

Wärtsilä's research organisation has long-term co-operation agreements with research institutes, engineering consultants, licensees, and other corporate partners in fields that are of crucial importance to the well-being of society and the conservation of the environment. Wärtsilä also co-operates with a number of leading European universities conducting research into engine technologies.

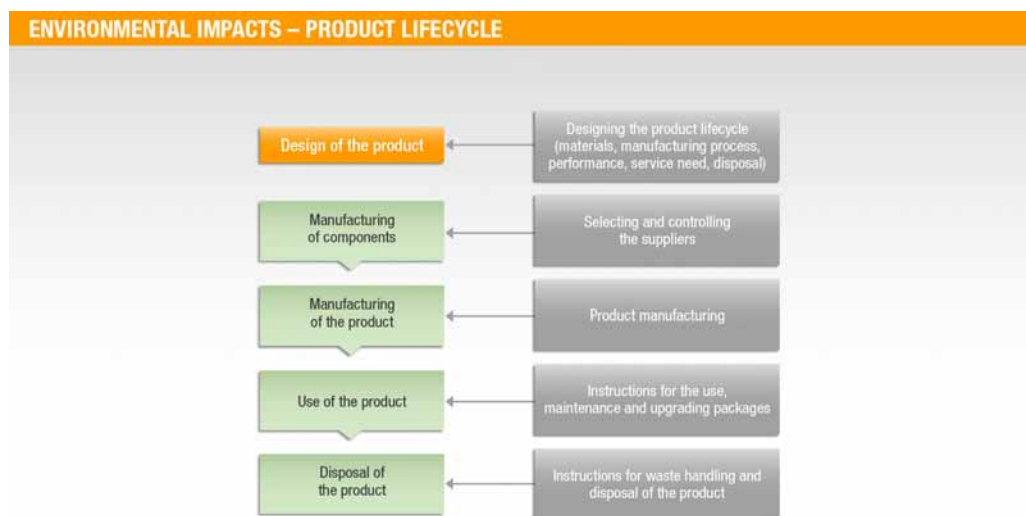
Co-operation with customers and suppliers creates added value for the entire supply chain, as well as for the end customer. Identifying and achieving common goals succeeds best through co-operation with the whole supply chain. Wärtsilä has gained promising results in working closely with various stakeholders towards improving reliability, overall efficiency and the environmental performance of its solutions.

Wärtsilä collaborates with Mitsubishi Heavy Industries and Hyundai Heavy Industries in the fields of product development, manufacturing and distribution. Wärtsilä collaborates with Samsung Heavy Industries in the development of gas-fuelled merchant vessels. Wärtsilä also collaborates with Becker Marine Systems with the aim of furthering the development of marine propeller-rudder systems.

Wärtsilä is involved in an increasing number of customer development cases in which innovative solutions are researched to build the next generation of more efficient ships.

## The importance of understanding lifecycle impacts

Since Wärtsilä's products have such a long operational life, identifying their lifecycle impacts is essential for understanding their total environmental impact. Based on the results of lifecycle assessments, the majority of the environmental impacts of a diesel engine arise during the operation of the engine. These derive from the exhaust emissions and from the fuel supply chain relating to its operation. Wärtsilä manages the lifecycle of its products through product design, careful selection of suppliers, production methods, optimising transportation, maintenance and repair during the products' operational lifetime, and by training and advising customers.



## Summary of environmental aspects

### Summary of environmental aspects of Wärtsilä's products and solutions

Environmental aspect and product	Environmental impact and component	Wärtsilä's solution	Customer's opinions
<b>Emission into the air</b>	<b>Pollution of air</b>		
Engine and power plants	Climate warming: carbon dioxide (CO <sub>2</sub> )	Increasing engine and plant efficiency, multifuel engines	<ul style="list-style-type: none"> <li>• Using a different fuel</li> <li>• Using a fuel with a lower sulphur content</li> <li>• Investment in secondary emission reduction technologies</li> <li>• Planned or optimised maintenance and correct operation</li> </ul>
	Acidification: sulphur oxides (SO <sub>x</sub> )	Increasing engine efficiency, several emission reduction technologies, multifuel engines	
	Acidification, eutrophication, lower atmosphere ozone formation: nitrogen oxides (NO <sub>x</sub> )	Low NO <sub>x</sub> combustion, air humidification technologies, SCR, multifuel engines	
	Human health impacts, visual impacts: particles, smoke (PM)	Optimising the combustion process, common-rail fuel injection, electrical filters	
	Reduces oxygen uptake in the lungs: carbon monoxide (CO)	Optimising injection, compression, and the shape of the combustion space, oxidation catalysts (gas engines)	
	Climate warming (CH <sub>4</sub> ), ozone formation in the lower atmosphere, some carcinogenic compounds: hydrocarbon (THC, VOC)	Oxidation catalysts in gas engines for VOC emissions, optimising the combustion process	
<b>Consumption of raw materials</b>	<b>Depletion of natural resources</b>		

Environmental aspect and product	Environmental impact and component	Wärtsilä's solution	Customer's opinions
Engines	Cast iron, alloy and structural steel, aluminium alloys. Main chemical elements of engines: Fe 90.8%, Al 2.7%, C 2.2%	Long product life, using recycled materials, material efficiency, automated filters, modernising engines, overhauling and recycling components	<ul style="list-style-type: none"> <li>Planned or optimised maintenance and correct operation</li> </ul>
Propulsion systems and seals	Metals, bronze, rubber. Main chemical elements of propulsion systems: Cu 80.1%, Al 9.3%, Ni 4.9%	Long product life, using recycled materials, material efficiency	<ul style="list-style-type: none"> <li>Personnel training</li> <li>Overhauling</li> <li>Recycling components</li> </ul>
Power plants	Several different materials such as steel, concrete, seals, water	Prefabricated modules, material efficiency	<ul style="list-style-type: none"> <li>Recycling catalysts</li> </ul>
Secondary cleaning technologies	Alloy and structural steel, different types of catalyst materials, reagents (e.g. ammonia urea), water	Developing primary technologies; developing secondary technologies in collaboration with equipment manufacturers	<ul style="list-style-type: none"> <li>Optimising process parameters</li> </ul>
<b>Consumption of fuel &amp; lubricating oils</b>	<b>Depletion of natural resources</b>		
Engines and power plants	Liquid oil-based fuels (e.g. LFO, HFO, Orimulsion®), gas fuels (e.g. LNG, NG, CNG) and biofuels (e.g. rapeseed and palm oil, biomass), lubricating oil	Improving energy efficiency, reducing the consumption of lubricating oil, multifuel engines, utilising biofuels and alternative fuels in power production	<ul style="list-style-type: none"> <li>Planned or optimised maintenance and correct operation</li> </ul>
Propulsion systems	Lubricating oil, hydraulic oil	Improving the total operating efficiency of ships, increasing the service life and reducing the consumption of lubricating oil, preventing oil leakages	<ul style="list-style-type: none"> <li>Personnel training</li> <li>Using environmentally benign fuels</li> <li>Using environmentally favourable lubricating oils</li> <li>Using environmentally favourable seals</li> </ul>
<b>Solid and liquid waste</b>	<b>Increased waste and landfill sites</b>		

Environmental aspect and product	Environmental impact and component	Wärtsilä's solution	Customer's opinions
Engines	Lubricating oil used, filters and components, waste oil	Using recyclable materials and optimising the use of material, automated filters, long service intervals, overhauling components, reducing the consumption of fuel	<ul style="list-style-type: none"> <li>Planned or optimised maintenance and correct operation</li> </ul>
Power plants	Construction waste, ash, waste water, waste oil, office waste	Prefabricated, ready-to-install modules	<ul style="list-style-type: none"> <li>Personnel training</li> <li>Recycling and proper waste disposal</li> </ul>
Secondary cleaning systems	End products and catalysts of flue gas decontamination	Evaluating the potential uses of end products, developing dry primary technologies	<ul style="list-style-type: none"> <li>Evaluation of the potential uses of end products</li> <li>Optimising process parameters</li> </ul>
<b>Noise and vibration</b>	<b>Discomfort</b>		
Engines and power plants	Structure-borne noise, flue gas noise, airborne noise	Efficient noise reduction solutions and damping systems, e.g. re-positioning wall structures and noise-generating sources	<ul style="list-style-type: none"> <li>Planned maintenance and correct operation of the power plant</li> </ul>
<b>Heat emission</b>	<b>Warming of the atmosphere</b>		
Engines and power plants	Waste heat from exhaust gases	Heat recovery systems	<ul style="list-style-type: none"> <li>Optimising process parameters</li> </ul>

## Environmental performance indicators

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, also 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.

The main reasons for significant fluctuations in certain reported environmental performance indicators from year to year are:

- Changes in production volumes
- Changes in R&D testing programmes
- Changes in the reporting scope and coverage.

The environmental indexes used in connection with performance indicators are linked to the development of net sales. Therefore, increased investments in R&D during any particular year do not impact net sales, but do increase the absolute value of the indicator.

### Monitoring environmental impacts

Within Wärtsilä, environmental impacts caused by operational activities are monitored as follows:

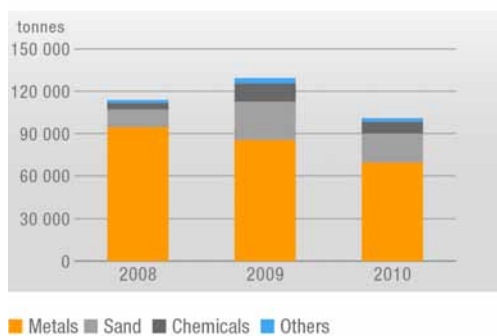
- Participation in the monitoring of air quality with other local stakeholders
- Measurement of air emissions
- Charting of noise levels
- Periodical effluent analysis
- Soil analysis
- Dispersion analyses and bio-indicator surveys.

# Materials, energy and water

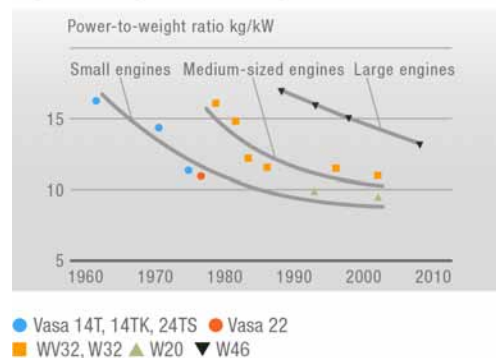
## Materials

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. E.g. recycled material, such as end-of-life coins and bronze propellers, is used in the casting of new propellers. In 2010 the total material usage was 100,896 tons (129,320). The major material groups were various metals 69% (66), sand 21% (21) and various chemicals 8% (10).

Materials



Power-to-weight ratio of Wärtsilä's medium-speed engines for 6-cylinder in-line engines



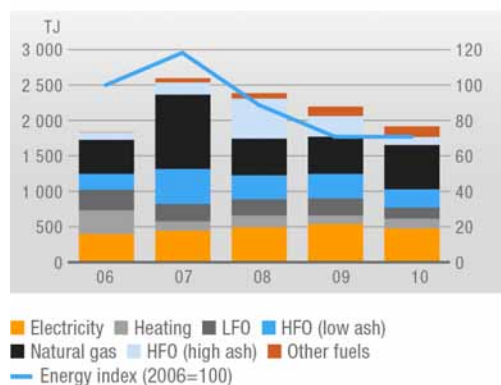


## Energy

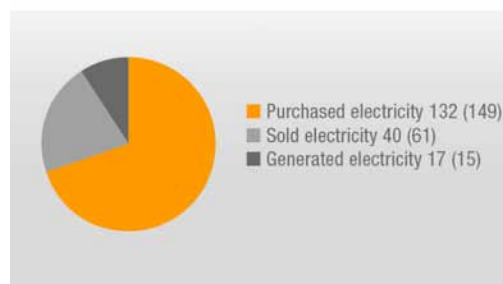
### Total energy consumption

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. The other purposes of use include heating, production and transportation.

Annual energy consumption



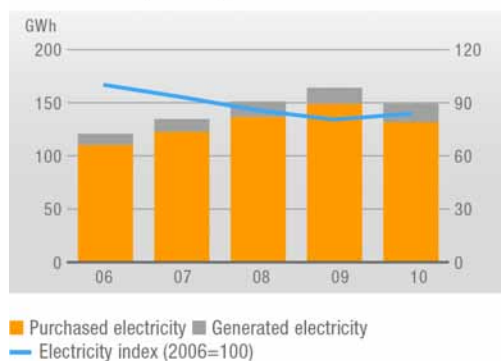
Electricity balance 2010 in GWh



### Electricity

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 a local power company. 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 a local power company.

Annual electricity consumption



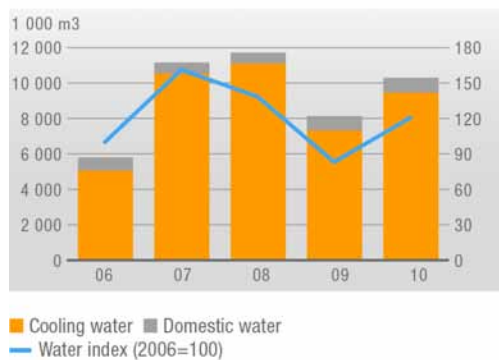
## Heat

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.

## Water

The water consumed by Wärtsilä 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. Heat emissions into water systems arise from engine cooling and process cooling water. Wärtsilä companies use water from the local watercourse for their engine and process cooling needs. In such cases, 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. If effluent is not suitable for sewage treatment, it is taken away for appropriate processing, for example to a special treatment plant for hazardous wastes.

Annual water consumption



## Emissions and wastes

### Emissions to the air

The primary source of manufacturing noise is engine test runs and 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.

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>2</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 (volatile organic compounds) emissions. 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.

In addition to direct CO<sub>2</sub> emissions, Wärtsilä's operations generate indirect CO<sub>2</sub> emissions. In 2010, the calculated secondary CO<sub>2</sub> emissions were 58,002 tons (62,211) (from purchased electricity and heat) and CO<sub>2</sub> emissions from flights totalled 35,060 tons (37,882).

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 three main virtual meeting concepts: Office Communicator, which enables live chats between two persons or more; Live meetings allowing multi-person meetings from personal computers in which presentation material can be shared; and the Telepresence videoconferencing system. Wärtsilä Live and Telepresence are in everyday use. Approximately 400 Live-meetings are arranged daily and there are 25 Telepresence rooms established in Wärtsilä premises in 16 countries.

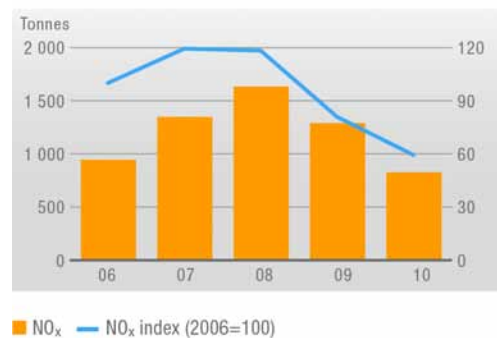
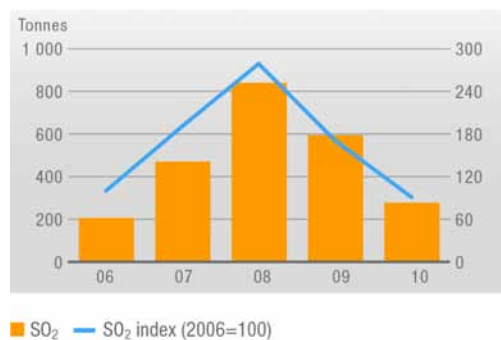
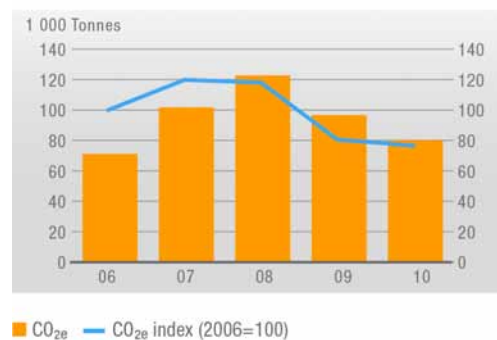
### Waste management

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 and solid wastes etc. Hazardous wastes are taken to a hazardous waste disposal facility for appropriate treatment. All Wärtsilä companies sort their waste according to local municipal regulations. Generally speaking the main sorting categories are: waste to be incinerated, crude waste for landfills, clean cardboard and waste paper. Waste wood, scrap metal and metal swarf are collected separately. Only coarse waste and in some cases waste wood are removed for landfill disposal. Other wastes are used either as raw materials or for energy.

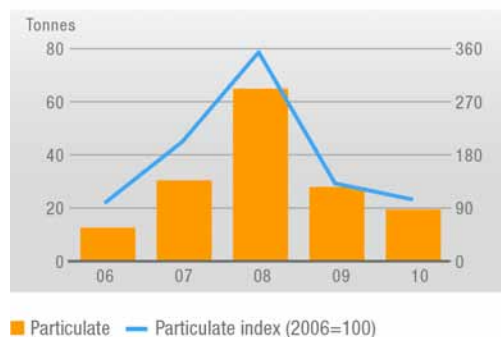
#### Waste management in Wärtsilä has four aims:

- 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.

Annual VOC emissions


Annual NO<sub>x</sub> emissions

Annual SO<sub>2</sub> emissions

Annual CO<sub>2e</sub> emissions


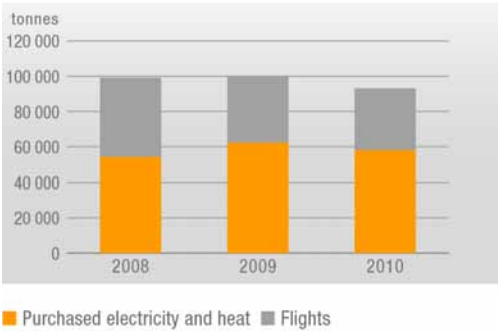
Annual particulate emissions



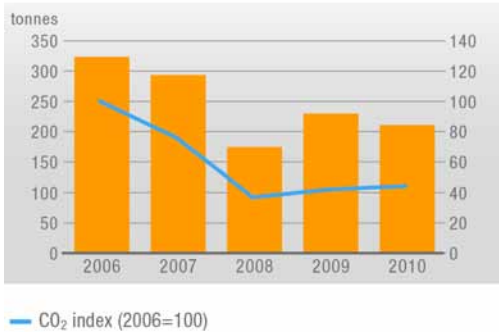
Annual waste



Indirect CO<sub>2</sub> emissions



Total hydrocarbons



## Compliance with legislation

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

### Environmental disturbances and complaints

The number of disturbances, complaints and incidents of noncompliance are presented in the figure below. Reported disturbances cover incidents in which the Wärtsilä company concerned has usually been obliged to report the disturbance to the authorities. The following main environmental disturbances occurred in Wärtsilä's business locations in 2010:

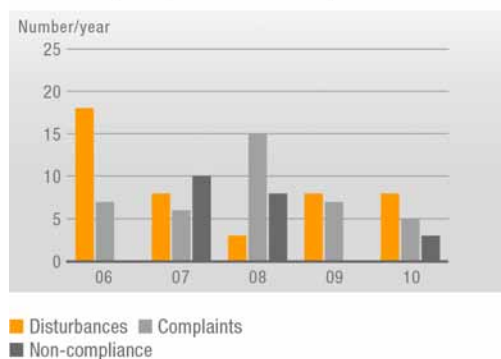
- 4 fires
- 2 fuel oil leakages
- 1 gas leakage
- 1 unconventional operating mode

All the above disturbances were investigated and appropriate corrective actions was taken in each case. The complaints made by occupants of neighbouring sites were mainly related to noise and odours. All complaints were investigated and an appropriate corrective action was taken wherever necessary.

### Cases of non-compliance

Wärtsilä India Ltd. had 2 non-compliance cases related to height of chimneys and exceeded hazardous waste quantities against permit conditions. Chimneys with the required heights are being installed and the revision of permit conditions are currently being processed with the authorities. Wärtsilä Singapore Pte Ltd. had one non-compliance case related to stagnant water and mosquito breeding found on the area of the real estate. This incident caused a fine of 100 EUR. The corrective actions have been taken.

Disturbances, complaints and non-compliance



## Non-compliance cases presented in previous reports

The earlier non-compliance case of Wärtsilä France was directed to activity, which is currently being terminated. Therefore, Wärtsilä France SA has agreed with local authorities not to take any further actions concerning the case. Wärtsilä Denmark A/S has found a permanent solution for waste water treatment. This solution will be implemented during 2011.

## Environmental costs and liabilities

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.

### Wärtsilä real estate and environmental responsibilities

The real estate that Wärtsilä owns or leases is mainly located in urban areas. The company is not aware of any properties that are situated in areas where biodiversity could be endangered. Environmental risks and liabilities are identified and reviewed as a part of overall risk management. In Wärtsilä's operations, potential liabilities are primarily related to the company's real estate. Environmental liabilities are systematically scrutinised in conjunction with every acquisition or sale of real estate. Wärtsilä has recognised certain cases where potential environmental liabilities may exist, but these are not expected to have a significant financial impact on Wärtsilä.

#### Environmental capital expenditure and operating expenses

MEUR	2010	2009	2008	2007	2006
Environmental capital expenditures	2.9	1.1	2.6	2.5	1.8
Environmental operating expenditures	5.5	4.2	5.4	4.1	3.5



## Personnel and social performance



Wärtsilä's aim is to provide the best value and service to our customers by continuously developing our competencies 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 competencies to meet the evolving business needs.

In 2010, Wärtsilä initiated and implemented several changes in the organisation in order to adjust operations to the changes in business environment, to ensure presence close to our customers and to further develop the corporate culture and common way of working.

Our aim is to have energetic, competent and motivated personnel with exciting and meaningful jobs and career opportunities led by excellent leaders. We recognise good performance and respect diversity. We also endeavour, by applying high standards of occupational health and safety, to offer a hazard-free workplace to our 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 relevant 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.

## Implementation of social responsibility targets approved by Wäartsilä's Board of Management

Target	Status
Defining a guideline for Corporate Equal Opportunities.	A policy on fair employment practices and equal opportunity has been created and communicated to Wäartsilä companies and their employees. The target was reached.
95% of key suppliers covered in the supplier ratings by 2010. All of these suppliers should reach Wäartsilä approval and 50% of those should reach the highest approval level.	December 2010 supplier ratings covered 95% of the key suppliers of which 62% had reached the highest approval status. The target was reached.
EHS management systems implemented in subsidiaries.	Wäartsilä subsidiaries have implemented the EHS management systems according to the plan. At the end of 2010 Wäartsilä had 40 certified ISO 14001 companies (covering 90% of employees) and 29 certified OHSAS 18001 companies (covering 73% of employees).
Long-term goal for zero lost time injuries.	Subsidiaries have implemented their action plans for the target. The positive trend continued, the lost-time injury frequency rate was 7.8 compared to the previous year's 12.9.
Work safety card for all Field Service employees.	A corporate safety handbook and an e-learning safety training module are ready and available. Wäartsilä Safety cards are designed and available for each participant, who has successfully completed the training. First pilot E-learning trainings are on-going. The original time-schedule could not be met, but the target remains the same.

# Personnel

## Structural changes in 2010

In January 2010 Wärtsilä announced a plan for adjusting to the changes in the market, and for reducing its manufacturing capacity in the Netherlands, Finland, Italy and Norway, while transferring part of the manufacturing to China. The majority of the propeller production and auxiliary engine production will be located in China, close to the main marine markets. The propeller manufacturing site in Drunen, the Netherlands will be closed. The Wärtsilä 20 generating set production in Vaasa, Finland will be moved to China in order to stay competitive in this commodity market.

In addition to reductions in its global manufacturing staff, Wärtsilä continued to reduce jobs in the Ship Power business as a continuation of the restructuring programme already started in 2009.

The new Services organisational set up, the centralisation of all Supply Management into a single organisation, as well as the re-design of support functions globally, were planned and implemented during the course of 2010 in order to adjust to the changed global market situation.

The re-organisation process in the Services business, named 'Managing for the Future', was announced already in November 2009 and carried out during spring 2010. The new organisational matrix has all customer operations on one axis, and the global product management and support functions on the other.

Wärtsilä merged all strategic sourcing resources into one organisation, Wärtsilä Supply Management, with the aim of targeting further efficiency improvements and securing future demand.

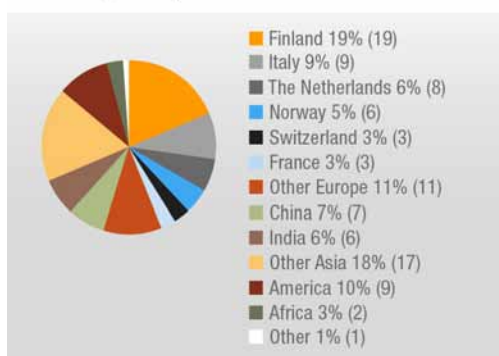
A global project concerning support functions was kicked off in March 2010. The evaluation of every support function globally was carried out in the spring, and implementation plans were drawn up during the autumn. The aim was to create a new organisational design for the support functions. The main principle was centralisation of the support organisations in order to improve the implementation of global initiatives, to harmonize processes across the Group's companies and businesses, and to reduce overlapping work. By these actions, consistent world class services can be provided globally by our support functions and Information Management. The functional country by country analysis, prepared during the autumn, indicated that there were overlapping activities and a need to adjust organisations to the new way of working, as well as to lower volumes.

The formal consultation processes were initiated in the respective Wärtsilä units involved, with the aim of reducing approximately 1,400 jobs during 2010.

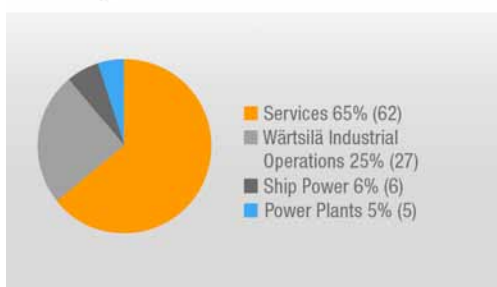
## Personnel

In addition to direct employment, Wärtsilä also indirectly employed an external workforce totalling 2,254 man-years in sub-contracting at its factories and units. The units located in Finland had a total personnel of 3,326 employees.

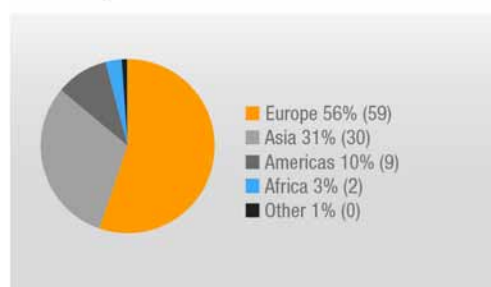
Personnel by country



Personnel by business



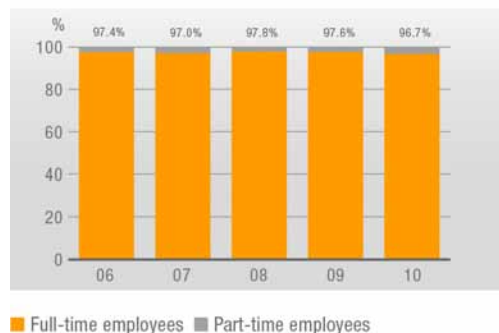
Personnel by market area



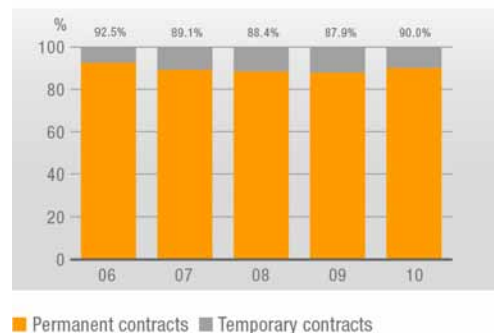
### Number of employees per business

	No. of employees	Change
Services	11 150	-69
Ship Power	969	-171
Power Plants	835	0
Industrial Operations	4 210	-701
Other	364	-72

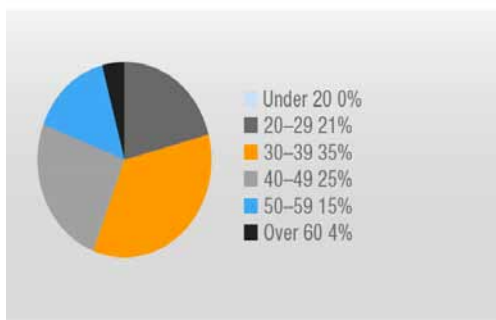
Full-time/part-time employees



Permanent/temporary employees



Age structure



All in all, the number of employees was reduced globally during 2010 by 1,013. Wärtsilä had 17,528 employees at the end of 2010 (18,541).

## People management in 2010

The main goal of Wärtsilä's human resources strategy is to support the corporate strategy, and to bring it alive by developing Wärtsilä's organisation and competencies to meet the business needs. This is done by translating business strategies to people management actions, strengthening leadership and management competencies, as well as performance management and development throughout the organisation, by promoting true employee engagement through a culture of open communication, integrity and innovation, and finally, by ensuring that the businesses have the requisite resources and skilled and motivated people at their disposal. This means supporting organisational design and changes, continuous competence development, and stronger performance management processes with target setting, proper feedback, evaluation of overall performance, and recognition of strong performance.

Wärtsilä Human Resources continued to develop its common people management processes and tools, and common ways of working across national and organisational boundaries. Wärtsilä continued to invest in technologies and tools that enable virtual collaboration and conferencing. These measures have brought clear cost savings, and more importantly, they have increased efficiency and enhanced the balance between work and home life by reducing the time needed for travelling.

## Performance management

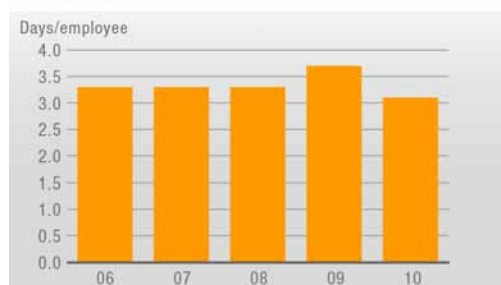
The Performance Management process supports Wärtsilä in reaching its business targets by translating business strategies to individual and team objectives. Each Wärtsilä employee needs to know and understand Wärtsilä's business strategy and its goals. More importantly, they need to know the targets set for their own units, and the main target areas related to their own work. All these items are part of the annual development discussion agenda. Wärtsilä's employee satisfaction survey, MyVoice 2010, demonstrated a promising and positive development in this area.

## Learning and development

Wärtsilä continued its leadership development activities in many areas. An annual executive development programme was held in November, and six global leadership development programmes for senior managers were carried out during 2010. The number of managerial training days is also followed regularly as one of the HR KPIs.

Learning at work, self learning, mentoring, coaching, and job assignments designed to enable the transfer of competence and skills from experienced to younger employees, are integral parts of the development of learning and competence within the company. Employees are given formal training at all organisational levels: from induction training for new employees, to training courses for the company's top executives. Wärtsilä employees attend a total of 54,791 training days a year, averaging 3.1 days per employee. This indicates the broad scope of this function. Many of the training events are tailored to the specific needs of the businesses.

Training days



## Training days

Days/employee	2010	2009	2008	2007	2006
Managers and superiors	3.2	3.9	2.7	5.3	3.3
Other white-collar employees	2.9	3.8	3.3	2.9	3.9
Blue-collar employees	3.3	3.5	3.5	2.8	2.4

## Engagement

Wärtsilä conducted its 5th global employee satisfaction survey, MyVoice, in October 2010. The response rate was an all time high, 74.2 %. Organising Work and Teamwork both received high ratings. The results concerning Competence and Development were also good. Wärtsilä employees feel that they can achieve personal development, while also using their skills and knowledge in their job. The biggest improvements since the MyVoice 2008 survey in individual items were in feedback from the immediate superior, discussions about Wärtsilä values, participation in training, and satisfaction with Compass, Wärtsilä's intranet service. The positive trend in development discussion compliance also continued. As an overall trend throughout Wärtsilä, the results concerning rewarding and job security have declined. The willingness to work hard in order to advance Wärtsilä's success has remained strong.

## Employee practices

Wärtsilä defined a corporate policy on equal opportunities and fair employment practices in June 2010. The policy creates a common framework for employee practices in all Wärtsilä companies and contains the following sections: Equal opportunities, Human and labour rights, Well-being at work, No harassment accepted, Remuneration, Implementation and Violations.

### 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 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 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 awards and wellbeing, fitness and health services are planned and implemented locally taking into account both company guidelines and national practices.

### Minimum notice period

Wärtsilä applies European Union directives, local acts of co-operation in the companies and corporations, collective agreements, and equivalent regulations concerning consultation and local bargaining. Concerning 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, etc., 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 inform at the time of planning any significant operational change.

## Competence Management

Wärtsilä's Competence Management process is an effective and structured way to carry out long-term competence development plans within our businesses and functions. Wärtsilä has defined fifteen global job families consisting of generic job descriptions for seven different demand levels. In the job descriptions the most critical competencies 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 and position profile. Competence assessment of our employees and comparison with competence targets allow us to analyse competence gaps and create development plans accordingly.

All training and development activities in Wärtsilä strive to develop, maintain and renew the 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 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 corporate level issues.

Dialogue at the individual level is conducted through development discussions, which are held annually. The subjects dealt with 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 through either 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. Private initiatives are evaluated by experts within the company and, if found to be feasible, are put into effect.

Business performance updates are given to all personnel on a regular basis in connection of Wärtsilä interim reporting. Company intranet "Compass" and employee magazines "Wattsup" 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, environmentally sound, 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.

### Personnel in figures 2010

Number of employees at 31 Dec. 2010		17 528
Number of nationalities		109
Change in number of employees (net employment creation)		-814
Average age of employees	years	38.9
Male/female ratio	%	86/14
Executive positions globally: male/female ratio	%	90/10
Employee turnover (resigned)	%	9.8
Total payroll costs	MEUR	773
Aggregate coverage of different bonus schemes	%	60
Development discussions held annually	%	72

## Occupational health and safety

Wärtsilä's occupational health and safety principles are defined in the company's QHSE policy and directive on environment, health and safety (EHS). Wärtsilä's subsidiaries are required to have a management system in use that conforms to the QHSE policy and EHS directive. The main aspects of the management system relate to compliance with legislation, identifying and minimising occupational health and safety risks, personnel training, providing written instructions, the use of protective equipment, and the continuous improvement of occupational health and safety performance. At the end of 2010, 29 Wärtsilä companies had operated with a certified occupational health and safety management system. These certified occupational health and safety management systems cover roughly 73% of Wärtsilä's total workforce.

The objective of Wärtsilä's QHSE policy is to prevent and manage health and safety risks to personnel and stakeholders. In addition to the management system, Wärtsilä companies apply occupational health and safety programmes as required by local legislation, which are normally implemented by occupational health and safety committees consisting of representatives of the companies' management and personnel. Accidents are recorded and investigated in the manner required by local legislation. Altogether 67% of Wärtsilä companies have an occupational health and safety committee. The indicators used to measure occupational health and safety performance include the number of accidents, the amount of absence due to sickness, and the frequency of accidents. There was one fatal incident during the review period. An employee of a Wärtsilä subcontractor had a fatal accident in our customer's premises in Pakistan.

Wärtsilä has set a corporate level target of achieving zero lost time injuries. This target is a long-term commitment from the company to strengthen safety culture, and requires actions from all Wärtsilä companies and employees. The safety performance of the companies is followed on a monthly basis. In 2010, Wärtsilä continued strong efforts to improve, consolidate and spread the safety culture. Wärtsilä has created a Safety Handbook and an E-learning training module for safety, which have been pilot tested in 2010. The positive trend in reducing lost time injuries continued, and Wärtsilä achieved a good result in 2010 with a lost time frequency index of more than 30% below that of the previous year.

Absence rate



Injuries



## Case: Safety training in Wärtsilä

Safety is a priority for Wärtsilä. Our culture and values require us to have a hazard-free workplace by applying high standards of occupational health and safety.

A Safety Handbook and a Safety E-learning Training have been developed by the Zero Injury Project to emphasise the importance of safety while performing work at the job site, in factories or workshops, or in the office.

The Safety Handbook will be available in several language versions to support global deployment and operations.

E-Learning Training is composed of six e-learning modules and a one-day case scenario study on job safety and risk assessment. This training is now piloted and the full implementation will start in the beginning of 2011. This training programme is certified by DNV.

Participants who have successfully completed the E- Learning module and passed the evaluation exams will be issued a Wärtsilä Safety Card.

## 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 UN Global Compact, of which six principles are related to Human and Labour rights.

Wärtsilä's employees represent 109 different nationalities. The company supports fair and equal treatment of all its employees. Wärtsilä supports the work-related rights defined by the International Labour Organization (ILO). Therefore the company works to ensure 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. Wärtsilä is unaware of any cases of breach of human rights, discrimination, infringements of rights at work, or the use of forced or child labour. Wärtsilä Korea Ltd. was charged a penalty fee of EUR 26,157 for not fulfilling its legal obligation to hire disabled persons covering 5% of the total headcount. The company has mainly hired blue collar employees, which limits the suitable job offerings to disabled persons. In Wärtsilä Pakistan Ltd. the employment of one person was terminated for violation of company principles and the local law for harassment.

Since Wärtsilä expects its partners and suppliers to act in compliance with its Code of Conduct, similar measures will also apply to them. The company sets common requirements for its suppliers and regularly monitors conformance with these requirements through numerous performance indicators and audits. All the company's main suppliers are required to comply with Wärtsilä's requirements, in order to gain approved supplier status. Wärtsilä assesses all companies in conjunction with mergers and acquisitions. The integral part of these due diligence assessments is compliance with relevant legislation.

## Conducting business in weak governance zones

As a truly international company, Wärtsilä has delivered solutions to more than 160 countries. 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. 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. 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.

## Security practices

Wärtsilä has a security policy and guidelines, which incorporate human rights considerations and international best practices. The policy is also applied to third party organisations. The security personnel of Wärtsilä have been trained according to our policy, guidelines and best practices. Our Security Manager is the Chairman of the board of ASIS Finland and a member of the CSO Roundtable of ASIS International.

## Impact on communities

Wärtsilä aims to contribute towards the well-being of local communities in which the company is present. This can be reached e.g. by creating employment, by paying taxes and social dues, by providing training and education to employees, by 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.

Wärtsilä's impact on employment, on the public sector and the company's activities for charitable purposes are described in the Economic Performance section of this report. Read more about Wärtsilä's concrete actions in the [Creating value in local communities](#) case.

Measures to evaluate the impacts on local communities in conjunction with operational changes of Wärtsilä subsidiaries are determined case by case.



## Suppliers

Wärtsilä has defined its processes for choosing suppliers, determining their requirements and developing the supply relationship. Wärtsilä offers its suppliers a partnership that strengthens the competitiveness of both parties. A precondition of this partnership is open and continuous dialogue. Partnership thinking is also applied in Wärtsilä's research and development activities, where the company often collaborates with universities and key suppliers.

Wärtsilä assesses and manages its suppliers through its Supplier Management System. Wärtsilä regularly conducts supplier evaluations. These are divided into three categories: pre-assessment, auditing, and performance review. A pre-assessment is made of potential new suppliers before the supplier relationship begins. Audits are conducted on new suppliers and on suppliers whose performance does not meet Wärtsilä's requirements. Performance reviews are performed to solve a single deviation from requirements. In the assessment of a supplier, Wärtsilä focuses on several critical indicators, where Wärtsilä expect the supplier to have high standards and performance: compliance with relevant legislation; environmental, occupational health and safety and quality management; process mapping and quality plans and social performance.

In 2010, Wärtsilä rated more than 200 of its key suppliers and conducted dozens of supplier evaluations. Wärtsilä Supplier Development activities are continuously implemented globally. Through the utilisation of the Supplier Development Toolbox, we will improve our suppliers' quality and delivery reliability level to all our business units. The most important tool in the Supplier Development Toolbox is the utilisation of the Part Quality Assurance Plan. The purpose of the part quality assurance is to make sure that the supplier is able to produce the intended parts in a rational and efficient way. All strategic purchasing functions within the Wärtsilä businesses, Industrial Operations and Corporate Supply Management will be merged and streamlined to further achieve economies of scale in purchasing activities within Wärtsilä. Wärtsilä Supply Management (WSM) will have one governance model, one team, one target and one voice to our suppliers. This eliminates overlapping work and provides better control over all spending and suppliers. The Supplier Development and Quality team supports Wärtsilä's targets, enabling customer satisfaction by securing the right quality, on time deliveries and optimised cost performance from our suppliers.

## Preventing corruption and bribery

Wärtsilä's Code of Business Conduct, Anti-Corruption Policy and Broker Directive 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. Because of this, only business gifts of nominal value may be given or accepted. The instructions make it compulsory not only to comply with local anti-bribery provisions but also internationally recognised anti-corruption and anti-bribery principles, and to report any cases of bribery. The company renders extensive training for its personnel on anti-corruption principles and the relevant instructions.

The company had one case of alleged bribery during the review period related to a 2001 project in Kenya. In May 2009, the public prosecutor in Finland brought charges against a former senior manager of Wärtsilä Finland Oy for aggravated bribery. In October 2009, the public prosecutor further filed a demand for a corporate fine from Wärtsilä Finland as a result of the charges against the former senior manager. It is to be noted that the demand for a corporate fine was only ancillary to the charges brought against the former senior manager. Both the senior manager and Wärtsilä Finland regarded the charges as unfounded. The charges related to a consulting agreement, which was made in conjunction with the project in Kenya. The case was heard before the Pohjanmaa District Court (aka the Mustasaari District Court) in November 2009. By its decision on December 18, 2009, the District Court dismissed all the charges against the individual and the demands against Wärtsilä Finland Oy. In February 2010, the public prosecutor filed an appeal with the Vaasa Court of Appeal. By its decision on September 21, 2010, the Vaasa Court of Appeal referred the case back to the District Court for reasons of procedural law. In November 2010, the former senior manager and Wärtsilä Finland Oy submitted a petition for leave to appeal the Court of Appeals decision to the Supreme Court in Finland.

## Political lobbying

Wärtsilä's policy is to engage in 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. During 2010 Wärtsilä did not make any significant contributions to political parties.

## Competition regulation

Wärtsilä has a compliance programme for managing risks relating to competition law in place, and the company's corporate management is strongly committed to implementing this programme. The cornerstone of the programme is a competition law manual, which is kept up-to-date, providing information on competition rules and instructions for Wärtsilä's internal procedures. As before, Wärtsilä arranged a number of competition law training seminars in 2010 for the relevant personnel in order to further promote knowledge of competition laws and thus ascertain full compliance with them.

## Product liability

Wärtsilä's occupational health and safety policy defines procedures for ensuring product safety. Further information about issues relating to product safety is given in the [Wärtsilä and Sustainability section](#). During the review period, no instances of non-compliance related to product liability were identified.

## Customer satisfaction

Wärtsilä continuously develops and deepens relations with its customers. Wärtsilä supports its customers in the design, start up and operation of the equipment and systems it delivers, as the requirements of each customer dictate. Dialogue with customers is vital when developing operations, products and services.

In its most important market areas, Wärtsilä arranges Customer Days for existing and potential customers. These days are used to review subjects of topical interest and to discuss existing and future needs and challenges. In 2010, the Ship Power and Power Plants businesses arranged and participated in close to 200 maritime and energy-related events, international and national seminars, exhibitions and conferences worldwide. These events were visited by thousands of customers, potential customers and other stakeholders such as consultants, suppliers, students, etc.

Wärtsilä uses a Customer Relationship On-Line (CROL®) process for measuring customer satisfaction of the company's sales, delivery and service performance in individual projects and customer relationships. The system requires Wärtsilä to make a self-assessment with the same questions as given to customers, thereby enabling a comparison with feedback from customers. This highlights actions necessary to rectify any issues during the customer relationship lifecycle. Low scores in customer feedback triggers automatic requests for corrective actions. The customer responsible persons are responsible for documenting and carrying out corrective actions, as well as for communicating these to the customers. In addition, the production units, the support functions and various other stakeholders are responsible for taking action regarding feedback that is directly related to their activities. The status and effects of the corrective actions is followed up by upper management on a quarterly basis. During 2010 the system was updated to also track customer needs better and identify opportunities for providing added value to the customers.

The customer opinions collected during 2010 has triggered approximately 500 project/customer specific action plans, which Wärtsilä representatives are working with. The action plans vary from simply agreeing with customers upon a communication plan, to more complex technical problem solving cases. The goal for each action plan is to react on specific customer feedback and to improve customer perception of Wärtsilä.

Wärtsilä measures its performance using a questionnaire, in which customers are asked to comment on statements related to the quality of Wärtsilä products and solutions, the organisation and the professional competence of Wärtsilä employees. The assessment has a scale of 1-10, the highest grade being 10. The overall index of customer satisfaction is used as a Key Performance Indicator for the company.

### The average results for the customer satisfaction survey

	2010	2009	2008	2007	2006
Ship Power	7.6	7.4	7.4	7.5	7.4
Services	7.9	7.9	7.8	7.7	7.6
Power Plants	8.3	8.1	8.3	8.1	7.9
Sample	1 933	1 859	2 204	1 575	1 477

## Our performance

The operational performance data in this report has been compiled from the economic, environmental and social records of the Wärtsilä companies. Whilst every effort has been made to ensure that the information is neither incomplete nor misleading, it cannot be considered as reliable as the financial information published in the Financial review.

## Economic data

	2010	2009	2008	2007	2006
<b>Customers</b>					
Net sales (MEUR)	4 553	5 260	4 612	3 763	3 190
Net sales of market area (MEUR)					
Europe	1 266	1 654	1 695	1 442	1 245
Asia	1 754	1 937	1 792	1 432	1 141
Americas	1 034	1 176	689	520	582
Africa	390	399	379	323	181
Other	109	94	57	46	40
<b>Suppliers</b>					
Cost of goods, materials and services purchased (MEUR)	2 927	3 593	3 134	2 576	2 034
<b>Employees</b>					
Salaries and wages (MEUR)	773	735	693	592	511
Salaries and wages by market area (MEUR)					
Europe	565	549	520	451	391
Asia	111	106	106	84	62
Americas	78	66	60	53	52
Africa	12	9	6	3	2
Other	6	4	1	1	4
Net sales / employee	253	279	262	245	240
<b>Public sector</b>					
Taxes and social dues (MEUR)	326	337	288	242	213
Taxes and social costs by market area (MEUR)					
Europe	253	264	243	205	176
Asia	35	37	28	19	19
Americas	31	32	15	16	16
Africa	5	3	1	1	1
Other	2	1	0	0	0
Subsidies received (TEUR)	7 406	13 725	16 095	4 995	6 892
Net financial items (MEUR)	-13	-34	-9	-8	-7
<b>Community</b>					
Donations given, Board of Directors (TEUR)	670	70	70	70	70
Donations given, Wäertsilä companies (TEUR)	421	527	463	485	614
<b>Expenditure</b>					
R&D costs (MEUR)	141	141	121	122	85
Environmental costs					
Environmental capital expenditures (MEUR)	2.9	1.1	2.6	2.5	1.8
Environmental operating expenditures (MEUR)	5.5	4.2	5.4	4.1	3.5



# Environmental data

	2010	2009	2008	2007	2006
<b>Materials</b>					
Total material usage (t)	100 896	129 320	113 772		
Metals (t)	69 194	85 351	94 431		
Sand (t)	20 739	27 157	12 515		
Chemicals (t)	8 500	12 932	4 551		
Others (t)	2 462	3 880	2 275		
<b>Energy</b>					
Total energy consumption (TJ)	1 916	2 194	2 383	2 595	1 837
Electricity consumption (MWh)	149 047	164 022	151 169	134 543	120 782
Purchased electricity (MWh)	131 562	148 780	136 491	122 372	110 146
Generated electricity (MWh)	17 485	15 242	14 678	12 171	10 637
Sold electricity (MWh)	39 958	60 881	91 025	77 410	41 026
Heat consumption (MWh)	41 401	37 060	50 193	40 085	104 381
Light fuel oil (t)	3 623	5 662	5 432	5 816	6 825
Heavy fuel oils (t)	9 020	15 652	22 145	16 237	8 147
Natural gas (t)	12 347	11 792	11 160	22 379	10 300
Other fuels (t)	3 729	3 326	1 711	1 380	145
<b>Water</b>					
Total water consumption (1 000 m³)	10 292	8 128	11 712	11 160	5 794
Consumption of domestic water (1 000 m³)	840	808	622	634	739
Consumption of cooling water (1 000 m³)	9 452	7 320	11 090	10 526	5 055
<b>Emissions</b>					
Emissions of nitrogen oxides (t)	826	1 290	1 633	1 348	945
Emissions of carbon dioxide (t) (direct)	80 234	96 749	122 669	101 705	71 092
Emissions of carbon dioxide (t) (indirect)	58 002	62 211	54 112		
Emissions of carbon dioxide (t) (indirect - flights)	35 060	37 882	45 014		
Emissions of sulphur oxides (t)	277	595	840	471	206
Emissions of total hydrocarbons (t)	211	230	174	294	323
Particulates (t)	19	28	65	30	13
Emissions of VOC (t)	61	170	152	79	97
<b>Waste</b>					
Total waste	43 566	55 803	40 209	39 614	34 821
Non-hazardous waste (t)	38 391	49 946	35 055	32 142	29 513
Hazardous waste (t)	5 175	5 857	5 154	7 472	5 308
Waste for landfills (t)	21 682	20 752	6 807	7 749	6 185
Waste for recycling (t)	14 221	26 332	25 133	21 520	21 131
Waste for incineration (t)	2 542	2 862	3 115	2 873	2 197
Hazardous waste for landfills (t)	1 127	852	694	520	1126
Hazardous waste for recycling (t)	2 161	2 305	2 220	2 733	2 051
Hazardous waste for incineration (t)	1 887	2 699	2 240	4 219	2 131
<b>Compliance with legislation</b>					
Disturbances	8	8	3	8	18

Non-compliance	3	0	8	10	0
Complaints	5	7	15	6	7

## Social data

	2010	2009	2008	2007	2006
<b>Personnel</b>					
Number of employees in the end of the year	17 528	18 541	18 812	16 336	14 346
Personnel by business					
Services	11 150	11 219	11 011	9 563	8 539
Ship Power	969	1 140	1 601	2 940	2 469
Power Plants	835	835	904	826	838
Industrial Operations	4 210	4 911	4 883	2 642	2 187
Other	364	436	413	365	313
Personnel by market area					
Europe	9 790	10 889	11 048	9 641	8 528
Asia	5 503	5 610	5 692	4 946	4 134
Americas	1 700	1 610	1 577	1 372	1 346
Africa	443	410	416	299	255
Other	92	78	79	78	83
Average age of employees	38.9	38.8	38.0	38.2	39.2
Permanent employees (%)	90	88	88	89	92
Temporary employees (%)	10	12	12	11	8
Full-time employees (%)	97	98	98	97	97
Part-time employees (%)	3	2	2	3	3
Employee turnover (resigned) (%)	9.8	10.5	10.2		
Net employment creation	-814	-310	2 044	1 779	1 277
Training days (days/employee)	3.1	3.7	3.3	3.3	3.3
Managers and superiors	3.2	3.9	2.7	5.3	3.3
Other white-collar employees	2.9	3.8	3.3	2.9	3.9
Blue-collar employees	3.3	3.5	3.5	2.8	2.4
Development discussions held annually (%)	72	78	67	70	60
<b>Gender diversity</b>					
Male/female ratio (%)	86/14	86/14	86/14	87/13	
Executive positions globally: male/female ratio (%)	90/10	87/13			
<b>Regional diversity</b>					
Number of nationalities	109	110	111	102	87
<b>Injuries</b>					
Total number of injuries	971	1 169	1 127	1 159	1 116
Number of lost time injuries resulting in at least					
1 day absence, total	333	470	548	444	435
Number of lost time injuries - work-related	274				
Number of lost time injuries - commuting	59				
Lost time injuries / million working hours	7.8	12.9	16.3	14.6	18.0
<b>Absence rate</b>					
Absence due to illness (% of total working hours)	2.3	2.4	2.2	2.0	2.4
Absence due to lost time injury					
(% of total working hours)	0.2	0.2	0.2	0.2	0.3

Absence due to occupational diseases (% of total working hours)	0.0	0.0	0.0	0.1	0.0
<b>Fatalties</b>					
Number of fatalities, total	1	2	0	3	0
Employees	0	1	0	2	0
Contractors	1	1	0	1	0
<b>Non-compliances</b>					
Number of non-compliance cases	2	4	3	2	0
Fines of non-compliance cases (EUR)	26 157	17 659	2 352	1 300	0
<b>Customer satisfaction</b>					
Ship Power	7.6	7.4	7.4	7.5	7.4
Services	7.9	7.9	7.8	7.7	7.6
Power Plants	8.3	8.1	8.3	8.1	7.9
Sample	1 932	1 859	2 204	1 575	1 477

# Report scope and profile

## Report scope

Wärtsilä's Sustainability Reporting 2010 is prepared according to the GRI (Global Reporting Initiative) sustainability Reporting Guidelines (G3).

Wärtsilä reports those core indicators which are of most relevance to its operations, products and stakeholders. The Sustainability section of the Annual Report examines the company's economic, environmental and social performance. The core indicators chosen are of importance at the corporate level and are based on the core indicators of the G3 guidelines. Reporting of the product performance, which is done mainly on the internet ([www.wartsila.com](http://www.wartsila.com)), describes the environmental aspects and impacts of Wärtsilä's products, the measures taken by Wärtsilä to reduce these impacts, and the environmentally advanced solutions that Wärtsilä has developed.

## Coverage of the report

This 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.

Wärtsilä's businesses comprise of the Ship Power, Power Plants and Services businesses and Wärtsilä Industrial Operations. The first three of these generate external net sales while the fourth is an internal function.

The economic performance data covers all Wärtsilä companies. The data on environmental and social performance covers all Wärtsilä companies except the following:

Wärtsilä Ship Design Russia CJSC  
Whesoe Total Automation Ltd.  
Wärtsilä Tanzania Ltd.  
Wärtsilä Egypt Power S.A.E  
Wärtsilä Belize Ltd.

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.

## Significant changes in Group structure

The structural changes that apply to Wärtsilä are described in the Business review. They relate mainly to development of the Ship Power and Services businesses.

## Coverage of operational data

### Operational data, % of Wärtsilä companies

	2010	2009	2008	2007	2006
Economic	100	100	100	100	100
Environmental	93	84	85	90	90
Social	93	84	85	90	90

### Operational data, % of personnel

	2010	2009	2008	2007	2006
Economic	100	100	100	100	100
Environmental	98	98	95	96	91
Social	98	98	95	96	91

### Operational data, % of product manufacturing

	2010	2009	2008	2007	2006
Economic	100	100	100	100	100
Environmental	100	100	100	100	96
Social	100	100	100	100	96

## Reporting profile

### Data collection

The data on product 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 Group level. The companies report their sustainability data using Wärtsilä's CSM 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.

KPMG Oy Ab has independently assessed the report against GRI principles for defining content and quality. Site assurances were carried out in Hamburg, Germany, in Gothenburg, Sweden and in Winterthur, Switzerland.

Wärtsilä self-declares an Application level of "A+" according to the GRI G3 guidelines for this report. KPMG has checked our reporting and has confirmed it to be Application level "A+".

### **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

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

### **Sustainability Report Project Team**

**Mikael Troberg** Director, Testing and Validation, Industrial Operations  
**Ari Suominen** Director, Technology, Industrial Operations  
**Juhani Hupli** Vice President, Ship Power Technology  
**Leonardo Sonzio** Director, Environmental Services  
**Joséphine Mickwitz** Director, Investor Relations  
**Natalia Valtasaari** IR Officer

**Harri Mäkelä** Sustainability Officer  
**Marko Vainikka** Director, Sustainability  
(contact person: [marko.vainikka@wartsila.com](mailto:marko.vainikka@wartsila.com))

## 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 in 2010 15 major Wärtsilä subsidiaries and the parent company.

**Subsidies:** the data of this indicator included in 2010 15 major Wärtsilä subsidiaries and the parent company.

### Environmental performance data

**Total energy consumption** includes both direct and indirect energy usage. The direct energy usage includes the fuels used by Wärtsilä subsidiaries. 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.

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

**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.

**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. The emissions of vehicles are calculated by using VTT Lipasto database emission factors. The indirect CO<sub>2</sub> emissions (scope 2) are calculated by using the emission factors from GHG Protocol. The CO<sub>2</sub> emissions of air travel are based on calculation of travel agency and are based on DEFRA defined factors.

**Environmental hazards** are considered major incidents, which basically require communication to local authorities.

### Social performance data

**Injuries** the reported figures include all types of reported cases other than Lost time injuries.

**Lost time injuries** the reported figures include all the reported lost time injuries resulting in absence from work of at least one day.

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



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

# Independent assurance report

## To the Board of Management of Wärtsilä Oyj Abp

We have been engaged by the Board of Management of Wärtsilä Oyj Abp (hereafter: Wärtsilä) to provide limited assurance on Wärtsilä's Sustainability Information from the reporting period 1.1.-31.12.2010 presented in connection with the electronic Wärtsilä Annual Report 2010 (hereafter: the Report).

The information subject to the limited assurance engagement (hereafter: the Sustainability Information) includes the data and assertions presented in the "Sustainability" -section and its sub-sections in the Report, as well as the following sub-sections of the "Business" section: "Ship Power and Sustainability", "Power Plants and Sustainability", and "Services and Sustainability". The Sustainability Information also includes data and assertions on product sustainability performance presented on selected and marked pages at [www.wartsila.com](http://www.wartsila.com).

The Board of Management of Wärtsilä is responsible for the presented Sustainability Information as well as for preparing and presenting the Sustainability Information in accordance with the *Global Reporting Initiative (GRI) Sustainability Reporting Guidelines 3.0 (G3)*. The Board of Management of Wärtsilä has approved the presented Sustainability Information.

Our responsibility is to carry out a limited assurance engagement and to express a conclusion on the Sustainability Information subject to the assurance based on the work performed. We have conducted the engagement in accordance with the *International Standard on Assurance Engagements (ISAE 3000): Assurance engagements other than audits or review of historical financial information*, issued by the *International Auditing and Assurance Standards Board*. Amongst others, this standard requires that the assuring party possesses the specific knowledge, skills and professional competence needed to understand and review the information to be assured, and that the assuring party complies with the requirements of the IFAC Code of Ethics for Professional Accountants to ensure their independence.

The evaluation criteria used for our assurance are the *Global Reporting Initiative (GRI) Sustainability Reporting Guidelines 3.0 (G3)*.

## Limitations of the engagement

Sustainability related data and information are subject to inherent limitations applying to data accuracy and completeness, which are to be taken into account when reading our assurance report. The presented Sustainability Information is to be considered in connection with the explanatory information on data collection, consolidation and assessments provided by Wärtsilä. Our assurance report is not intended for use in evaluating Wärtsilä's performance in executing the sustainability principles Wärtsilä has defined. To assess the financial state and performance of Wärtsilä, the Wärtsilä audited Financial Statements for the year ended 31 December 2010 is to be consulted.

## The work performed in the engagement

Our assurance procedures are designed to obtain limited assurance on whether the information subject to the assurance engagement is presented in accordance with the *Sustainability Reporting Guidelines of the Global Reporting Initiative 3.0 (G3)* in all material respects. A limited assurance engagement consists of making inquiries, primarily of persons responsible for the preparation of the sustainability information presented, and applying analytical and other evidence gathering procedures, as appropriate. The evidence gathering procedures mentioned above are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement.

In our engagement we have performed the following procedures:

- Interviews with two members of senior management to reassert our understanding of the connection between Wärtsilä's sustainability procedures and Wärtsilä's business strategy and operations as well as sustainability objectives;
- An assessment of data management processes, information systems and working methods used to gather and consolidate the presented Sustainability Information, and a review of Wärtsilä's related internal documents;
- Comparison of Sustainability Information to underlying rules of procedure, management and reporting systems as well as documentation;
- An assessment of the presented Sustainability Information against the GRI reporting principles;
- A review of the presented Sustainability Information, including the performance data and assertions, subject to the engagement, and an assessment of information quality and reporting boundary definitions;
- Testing of data accuracy and completeness through samples from the Group's information systems and original numerical information received from Wärtsilä's subsidiaries;
- Visits to three Wärtsilä sites selected on the basis of a risk analysis taking into account both qualitative and quantitative information, and a video conference to one additional site.

## Conclusions

Based on the assurance procedures performed, nothing has come to our attention that causes us to believe that the information subject to the assurance engagement is not presented in accordance with the *Sustainability Reporting Guidelines of the Global Reporting Initiative 3.0 (G3)* in all material respects.

Helsinki, 7. February 2011

KPMG OY AB

Pekka Pajamo  
Authorized Public Accountant

Nina Killström  
Corporate Responsibility Advisor

# GRI and UNGC content index

Fully reported

Partly reported

Not reported

Core indicator

Additional indicator

GRI content	Links	Remarks	UNGC Principles
Profile			
<b>1 Strategy and Analysis</b>			
1.1 CEO's statement	<a href="#">Message to the Shareholders</a>		•
1.2 Key impacts, risks, and opportunities	<a href="#">Risks and risk management</a> <a href="#">Strategy - sustainability</a> <a href="#">Ship Power and sustainability</a> <a href="#">Power Plants and sustainability</a> <a href="#">Services and sustainability</a> <a href="#">Wärtsilä and sustainability</a> <a href="#">Towards more sustainable solutions</a> <a href="#">Environmental targets</a> <a href="#">Social targets</a>		•
<b>2 Organisational profile</b>			
2.1 Name of the organisation	<a href="#">This is Wärtsilä</a>		
2.2 Primary brands, products and services	<a href="#">Operating environment</a> <a href="#">Ship Power review</a> <a href="#">Power Plants review</a> <a href="#">Services review</a> <a href="#">Manufacturing review</a>		
2.3 Operational structure	<a href="#">This is Wärtsilä</a> <a href="#">Operating environment</a> <a href="#">Notes to the Consolidated Financial Statements</a>		
2.4 Location of organisation's headquarters	<a href="#">Shares and shareholders</a>	Helsinki, Finland	
2.5 Number of countries and location of operations	<a href="#">This is Wärtsilä</a> <a href="#">Operating environment</a> <a href="#">Notes to the Consolidated Financial Statements</a>	<a href="http://www.wartsila.com">www.wartsila.com</a>	
2.6 Nature of ownership and legal form	<a href="#">Shares and shareholders</a>		

2.7	Markets served	<a href="#">This is Wärtsilä</a> <a href="#">Operating environment</a>	
2.8	Scale of reporting organisation	<a href="#">This is Wärtsilä</a> <a href="#">Shareholders</a> <a href="#">Operating environment</a>	
2.9	Significant changes	<a href="#">2010 in brief</a> <a href="#">Board of Directors' report</a>	
2.10	Awards received in the reporting period	<a href="#">Recognition</a>	
<b>3</b>	<b>Report Parameters</b>		
3.1	Reporting period	<a href="#">Our reporting</a>	
3.2	Date of most recent report	<a href="#">Our reporting</a>	
3.3	Reporting cycle	<a href="#">Our reporting</a>	
3.4	Contact point for questions regarding the report	<a href="#">Our reporting</a>	
3.5	Process for defining report content	<a href="#">Our reporting</a>	
3.6	Boundary of the report	<a href="#">Our reporting</a>	
3.7	Limitations on the report's scope or boundary	<a href="#">Our reporting</a>	
3.8	Basis for reporting subsidiaries and joint ventures	<a href="#">Our reporting</a>	
3.9	Data measurement techniques and bases of calculations	<a href="#">Our reporting</a>  <a href="#">Reporting rules and principles</a>	
3.10	Explanation of re-statements	<a href="#">Our reporting</a>	
3.11	Significant changes from previous reporting periods	<a href="#">Our reporting</a>	
3.13	Assurance policy and practice	<a href="#">Our reporting</a>	
<b>4</b>	<b>Governance, Commitments and Engagement</b>		
4.1	Governance structure	<a href="#">Corporate Governance</a>	
4.2	Position of the Chairman of the Board	<a href="#">Board of Directors</a>	
4.3	Independence of the Board members	<a href="#">Board of Directors</a>	
4.4	Mechanism for shareholder and employee consultation	<a href="#">Annual General Meeting</a>	
4.5	Executive compensation and linkage to organisation's performance	<a href="#">Salary and remuneration report 2010</a>	
4.6	Processes for avoiding conflicts of interest	<a href="#">Corporate Governance</a>	
4.7	Processes for determining expertise	<a href="#">Corporate Governance</a>	
4.8	Implementation of mission and values statements; code of conduct	<a href="#">Strategy</a>  <a href="#">Wärtsilä and sustainability</a> <a href="#">Code of Conduct</a>	•

4.9	Procedures of the Board for overseeing risk management	Corporate Governance Board of Directors' report	
4.10	Processes for evaluating the Board's performance	Corporate Governance Board of Directors' report	
4.11	Precautionary principle	Risks and risk management Wärtsilä and sustainability Environmental performance	•
4.12	Voluntary charters and other initiatives	Strategy Sustainability performance management	•
4.13	Memberships in associations	Activities in organisations	•
4.14	List of stakeholder groups	Stakeholder relations	
4.15	Identification and selection of stakeholders	Stakeholder relations	•
4.16	Approaches to stakeholder engagement	Channels of dialogue	•
4.17	Key topics raised through stakeholder engagement	Stakeholder relations Wärtsilä and sustainability	•

## 5 Management Approach and Performance Indicators

Economic Performance Indicators			
	Disclosure on management approach	Economic performance Financial targets	•
EC1	Direct economic value generated and distributed	Economic performance	
EC2	Risks and opportunities due to climate change	Risks and risk management Wärtsilä and emission trading	•
EC3	Coverage of defined benefit plan obligations	Employees	
EC4	Significant subsidies received from government	Public sector	
EC5	Entry level wage compared to minimum wage	Employees	•
EC6	Spending on local suppliers	Suppliers	
EC7	Local hiring	Employees	•
EC8	Infrastructure investments provided for public benefit	Community support	
EC9	Significant indirect impacts	Economic performance Impact on communities	
Environmental			
	Disclosure on management approach	Environmental performance Summary of environmental aspects	•

Environmental targets				
EN1	Materials used by weight or volume	Materials, energy and water		•
EN2	Recycled materials used	Materials, energy and water	Reporting system under development	•
EN3	Direct energy consumption	Materials, energy and water		•
EN4	Indirect energy consumption	Materials, energy and water		•
EN5	Energy saved due to conservation and efficiency improvements	Environmental targets		•
EN6	Initiatives to provide energy efficient or renewable energy based products and services	Towards more sustainable solutions	<a href="http://www.wartsila.com/sustainability">www.wartsila.com/sustainability</a>	•
EN7	Initiatives to reduce indirect energy consumption	Environmental targets		•
		Emissions and wastes		•
EN8	Total water withdrawal	Materials, energy and water		•
EN9	Water sources significantly affected	Materials, energy and water		•
EN10	Percentage and total volume of water recycled and reused			•
EN11	Location and size of land holdings in biodiversity-rich habitats	Environmental costs and liabilities		•
EN12	Description of significant impact of activities, products, and services on biodiversity	Environmental costs and liabilities	Not applicable	•
EN13	Habitats protected or restored		Not applicable	•
EN14	Managing impacts on biodiversity		Not applicable	•
EN15	Species with extinction risk with habitats in areas affected by operations		Not applicable	•
EN16	Total direct and indirect greenhouse gas emissions	Emissions and wastes		•
EN17	Other relevant indirect greenhouse gas emissions	Emissions and wastes	Reporting system under development	•
EN18	Initiatives to reduce greenhouse gas emission	Emissions and wastes	<a href="http://www.wartsila.com/sustainability">www.wartsila.com/sustainability</a>	•
EN19	Emissions of ozone-depleting substances		Not applicable	
EN20	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions	Emissions and wastes		•
EN21	Total water discharge	Materials, energy and water		•
EN22	Total amount of waste	Emissions and wastes		•
EN23	Significant spills	Compliance with legislation		•
EN24	Transported, imported, exported, or treated hazardous waste		Not applicable	•
EN25	Water bodies and habitats affected by discharges of water		Not applicable	•
EN26	Mitigating environmental impacts of products and services	Ship Power review Power Plants review	<a href="http://www.wartsila.com/sustainability">www.wartsila.com/sustainability</a>	•

Services review			
Environmental performance			
EN27 Reclaimable products and reuse		<a href="http://www.wartsila.com/sustainability">www.wartsila.com/sustainability</a>	•
EN28 Significant fines and sanctions for non-compliance with environmental regulations	Compliance with legislation		•
EN29 Environmental impacts of transportation			
EN30 Total environmental protection expenditures and investments	Environmental costs and liabilities		•
Social			
Disclosure on management approach	Personnel and social performance		•
	Social targets		
LA1 Breakdown of workforce	Personnel		
LA2 Breakdown of employee turnover	Employee practices		•
LA3 Employee benefits	Employee practices		
LA4 Coverage of collective bargaining agreements	Employee practices	<a href="http://www.wartsila.com/sustainability">www.wartsila.com/sustainability</a>	•
LA5 Minimum notice period regarding operational changes	Employee practices		•
LA6 Representation in joint health and safety committees	Occupational health and safety		•
LA7 Injury, lost time injury, fatalities, absence rates	Occupational health and safety		•
LA8 Education and prevention programmes regarding serious diseases	Occupational health and safety	Part of OHS management systems, which cover Wäertsilä employees	•
LA9 Health and safety topics covered in formal agreements with trade unions			
LA10 Average training hours per year	Personnel		
LA11 Programmes for skills management	Personnel		
LA12 Employees receiving regular performance and career development reviews	Employee practices		
LA13 Composition of governance bodies and breakdown of employees	Corporate Governance		•
	Personnel		
	Employee practices		
LA14 Ratio of basic salary of men to women by employee category	Employees		•
	Employee practices		
Human rights			
Disclosure on management approach	Personnel and social performance		•
	Social targets		



HR1	Investment agreements that include human rights clauses	Human and labour rights		•
HR2	Suppliers and contractors that have undergone human rights screening	Suppliers		•
HR3	Human rights related training for employees	Sustainability performance management	Part of Code of Conduct training	•
HR4	Incidents of discrimination and actions taken	Human and labour rights		•
HR5	Supporting right to freedom of association and collective bargaining in risk areas	Human and labour rights		•
HR6	Measures taken to eliminate child labour in risk areas	Wärtsilä and sustainability		•
		Human and labour rights		•
HR7	Measures taken to eliminate forced labour in risk areas	Wärtsilä and sustainability		•
		Human and labour rights		•
HR8	Human rights related training for security personnel	Security practices		•
HR9	Incidents involving rights of indigenous people and actions taken	Human and labour rights		•
Society performance				
	Disclosure on management approach	Personnel and social performance		•
		Social targets		
SO1	Managing impacts of operations on communities	Impact on communities		
SO2	Business units analysed for corruption risks	Preventing corruption and bribery		•
		Risks and risk management		
SO3	Anti-corruption training	Preventing corruption and bribery		•
SO4	Actions taken in response to incidents of corruption	Preventing corruption and bribery		•
SO5	Public policy positions and participation in public policy development and lobbying	Political lobbying		•
SO6	Contributions to politicians and related institutions	Political lobbying		•
SO7	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	Competition regulation		
SO8	Fines and sanctions for non-compliance with laws and regulations	Social data		
Product responsibility				
	Disclosure on management approach	Personnel and social performance		•
		Product liability		
PR1	Assessment of health and safety impacts of products	Product liability		•

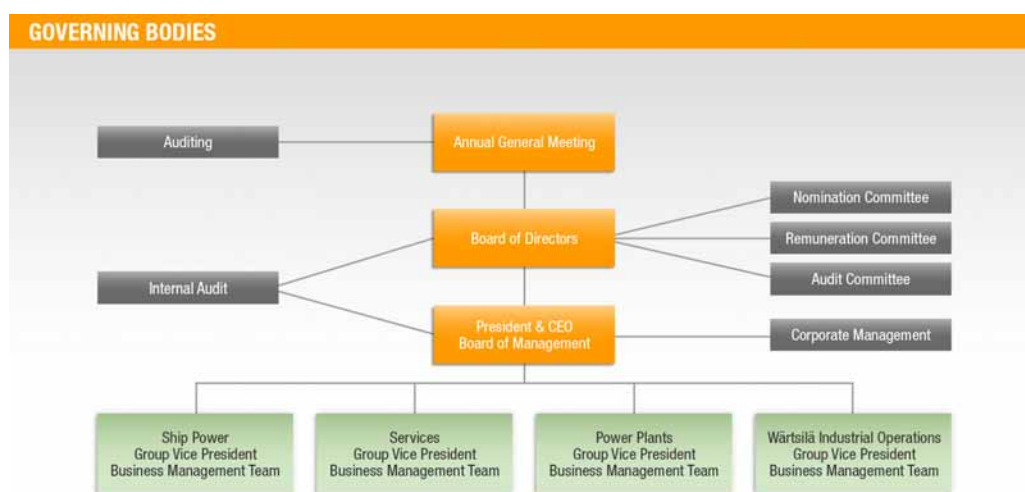
PR2	Non-compliance with regulations concerning health and safety impacts of products	Product liability	•
PR3	Product information required by procedures	Product liability	•
PR4	Non-compliance with regulations concerning product information and labelling	Product liability	•
PR5	Customer satisfaction	Customer satisfaction	
PR6	Adherence to marketing communications laws, standards and voluntary codes	Product liability	
PR7	Non-compliance with marketing communications regulations and voluntary codes	Product liability	
PR8	Complaints regarding breaches of customer privacy	Product liability	•
PR9	Fines for non-compliance concerning the provision and use of products and services	Product liability	

# Corporate Governance

Wärtsilä Corporation applies the guidelines and provisions of its Articles of Association, the Finnish Limited Liability Companies Act and the rules and regulations of NASDAQ OMX Helsinki Exchanges. Wärtsilä also complies with the Finnish Corporate Governance Code 2010 for listed companies. The Code is publicly available on [www.cgfinland.fi](http://www.cgfinland.fi).

## Governing bodies

Management of the Wärtsilä Group is the responsibility of the General Meeting of shareholders, the Board of Directors, and the President and CEO. Their duties are for the most part defined by the Finnish Companies Act.



## Annual General Meeting

The ultimate decision making body in the company 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. These include approving the financial statements, deciding on the distribution of dividends, discharging the company's Board of Directors and CEO from liability for the financial year, appointing the company's Board of Directors and auditors, and deciding on their remuneration.

A General Meeting of Wärtsilä Corporation shareholders is held at least once a year. The Annual General Meeting (AGM) must be held no later than the end of June. Under the Articles of Association, an invitation to a General Meeting shall be published in at least two daily newspapers in common circulation in Finland, as decided by the Board of Directors. The invitation shall be published not earlier than two months prior to the Meeting and not later than three weeks before the meeting, however always at least nine days prior to the shareholders' record date. Wärtsilä also publishes its invitations to General Meetings as stock exchange releases and on its internet website. The documents to be submitted to the General Meeting and draft resolutions to the General Meeting are also published on Wärtsilä's website. The invitation to the General Meeting contains the proposed agenda for the meeting.

Shareholders have, according to the law, the right to put items falling within the competence of the General Meeting on the meeting agenda, if the shareholder so notifies the Board of Directors in writing well in advance of the General Meeting so that the item can be added to the Notice of the General Meeting. Shareholders must notify the Board of Directors of the demand four weeks before the delivery of the invitation to the General Meeting at the latest. Wärtsilä publishes well in advance the date by which a shareholder shall notify the Board of Directors of his or her demand as well as the address or email address to which the demand shall be sent.

The General Meeting is organised in such a manner that the shareholders can participate in the meeting as extensively as possible. The Chairman of the Board of Directors, a sufficient number of members of the Board, and the managing director attend the General Meeting. A person proposed for the first time as director participates in the General Meeting that decides on his or her election unless there are well-founded reasons for absence.

### Annual General Meeting 2010

Wärtsilä's Annual General Meeting, held on 4 March 2010, 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 2009. All related documents can be found on Wärtsilä's website [www.wartsila.com](http://www.wartsila.com).

## 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 has between five and ten members. Board members serve for one year at a time and are elected by a General Meeting. The majority of the directors shall be independent of the company and at least two of the directors representing this majority shall be independent of significant shareholders of the company.

The proposal for board composition shall be 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 so that it may be included in the notice of the general meeting. The candidates proposed in corresponding order thereafter shall be disclosed separately. Wärtsilä published the biographical details of the candidates for the board on its website in connection to publishing the invitation to the Annual 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 in its regular work are set out in the Rules of Procedure approved by the Board. The Board has also approved the rules of procedure applied by the Board's committees setting out the main tasks of the committees and their 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 evaluation of its operations and working methods. The purpose of this evaluation is to establish how the Board has executed its tasks during the year and to act as a basis when assessing how the Board functions.

The Board of Directors convenes 7-10 times a year following a predetermined schedule. In addition to these meetings, the Board convenes as necessary. All meetings are documented.

### Board of Directors in 2010

In 2010 the Board consisted of nine members: Ms Maarit Aarni-Sirviö, Mr Kaj-Gustaf Bergh, Mr Alexander Ehrnrooth, Mr Paul Ehrnrooth, Mr Ole Johansson, Mr Antti Lagerroos (chairman), Mr Bertel Langenskiöld, Mr Mikael Lilius and Mr Matti Vuoria (deputy chairman).

Until 4 March 2010, the Board consisted of six members: Ms Maarit Aarni-Sirviö, Mr Kaj-Gustaf Bergh, Mr Kari Kauniskangas, Mr Antti Lagerroos (chairman), Mr Bertel Langenskiöld and Mr Matti Vuoria (deputy chairman).

During 2010, Wärtsilä's Board of Directors held 12 meetings. The average attendance of all directors was 95%.

## Independence of the Board of Directors

Four members were determined to be independent of the company and of significant shareholders: Maarit Aarni-Sirviö, Antti Lagerroos, Bertel Langenskiöld, and Mikael Lilius.

Two members were determined to be dependent on the company and independent of significant shareholders: Ole Johansson, due to his position as President and CEO of Wärtsilä Corporation; and President & CEO of Varma Mutual Pension Insurance Company Matti Vuoria, due to the interlocking control relationship between Wärtsilä Corporation and Varma Mutual Pension Insurance Company.

Three members were determined to be dependent on significant shareholders and independent of the company: Kaj-Gustaf Bergh, Chairman of the Board of Fiskars Corporation, Alexander Ehrnrooth, Deputy Chairman of the Board of Fiskars Corporation, and Paul Ehrnrooth, Deputy Chairman of the Board of Fiskars Corporation. Fiskars Corporation owns approximately 17% of Wärtsilä Corporation's shares, therefore these members are representatives of a significant shareholder.

## Board member meeting participation in 2010

Member	Position	Board meetings	Participation (%)
Antti Lagerroos	Chairman	12/12	100
Matti Vuoria	Deputy Chairman	12/12	100
Maarit Aarni-Sirviö	Member	11/12	92
Kaj-Gustaf Bergh	Member	12/12	100
Alexander Ehrnrooth	Member	7/8	88
Paul Ehrnrooth	Member	7/8	88
Ole Johansson	Member	8/8	100
Bertel Langenskiöld	Member	11/12	92
Mikael Lilius	Member	7/8	88
Kari Kauniskangas	Member until 4 March 2010	4/4	100

## Board responsibilities

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

- the annual and interim financial statements
- the matters to be put before General Meetings of shareholders
- the appointment of the President and CEO, the Executive Vice President and the CEO's deputy if any
- and the organisation of financial supervision in 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 these matters are:

- approval of the Group's strategic plan and long-term goals
- approval of the Group's annual business plan and budget
- decisions concerning investments, acquisitions or divestments that are significant or that deviate from the Group's strategy
- approval of product development projects and development programmes with strategic importance
- decisions to raise loans and the granting of security or similar collateral commitments when their size is significant
- approval of risk management principles
- the Group's organisational structure
- appointment of the company's Board of Management and approval of their remuneration and pension benefits
- monitoring and assessing the performance of the President and CEO
- approval of the company's management principles and steering systems
- appointment of the Board of Directors' committees
- the granting of donations to good causes

## Board of Directors CVs



Antti Lagerroos



Matti Vuoria



Maarit Aarni-Sirviö



Kaj-Gustaf Bergh



Alexander Ehrnrooth



Paul Ehrnrooth



Ole Johansson



Bertel Langenskiöld



Mikael Lilius

### Antti Lagerroos

Independent of the company and significant shareholders. Chairman of the Board of Wärtsilä Corporation. Born 1945, LL.Lic. Member of the Board of Wärtsilä Corporation since 2002, Chairman of the Board since 2003.

**Primary working experience:** University of Turku, Lecturer in Process, Criminal and Public law 1971-78. Vaasa School of Economics, acting Professor of Fiscal Law 1973-79; Hollming Oy, President of Legal Affairs and Finance 1979-81; Salora Oy, Chairman & CEO 1981-84; Salora-Luxor Division, President 1984-86; Nokia Corporation, Member of the Operating Board 1984-86; Nokia Corporation, Member of Board of Directors 1986-90; Nokia Mobile Phones, Executive President 1989-90. President & CEO and Member of the Board of Finnlines Plc 1990-2007.



**Other positions of trust:** Cargotec Corporation, Member of the Board.

### Matti Vuoria

Dependent on the company due to the interlocking control relationship between Wärtsilä Corporation and Varma Mutual Pension Insurance Company. Independent of significant shareholders. Deputy Chairman of the Board of Wärtsilä Corporation. Born 1951, BA, Master of Laws. President & CEO of Varma Mutual Pension Insurance Company. Member of the Board of Wärtsilä Corporation since 2005.

**Primary working experience:** Secretary General, Ministry of Trade and Industry 1992-98; Full-time Chairman of the Board of Directors, Fortum Corporation 1998-2003.

**Other positions of trust:** Sampo plc, Deputy Chairman of the Board; Stora Enso Oyj, Member of the Board; The Federation of Financial Services and The Finnish Pension Alliance TELA, Member of the Boards, The Securities Market Association and the Finnish-Russian Chamber of Commerce, Chairman of the Boards.

### Maarit Aarni-Sirviö

Independent of the company and significant shareholders. Born 1953, MSc. (Tech.), MBA. Member of the Finnish association of Professional Board Members. 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 leadership positions, latest Vice President, BU Phenol; and in Neste Oyj; 1977-94.

**Other positions of trust:** Rautaruukki Oyj, Member of the Board; Finnish Business and Policy Forum EVA, Member of the Supervisory Board.

### Kaj-Gustaf Bergh

Independent of the company and dependent on significant shareholders. Bergh is a representative of a significant shareholder. Born 1955. B.Sc., LL.M. Managing Director of Föreningen Konstsamfundet r.f. Member of the Board of Wärtsilä Corporation since 2008.

**Primary working experience:** Ky von Konow & Co, Administrative manager, 1982-83; Ane Gyllenberg Ab, Administrative manager, 1984-85; Oy Bensow Ab, Director, Executive vice president, 1985-86; Ane Gyllenberg Ab, Chief executive officer, 1986-98; SEB Asset Management, Director; 1998-2000; Skandinaviska Enskilda Banken, Member of management, 2000-9/2001; Föreningen Konstsamfundet r.f., Chief executive officer, 5/2006-.

**Other positions of trust:** Chairman of Boards; Finaref Group Ab; Fiskars Corporation and KSF Media Holding Ab. Member of Boards; Ab Forum Capita Oy; Julius Tallberg Oy Ab; Ramirent Group and Stockmann Oyj Abp.

## Alexander Ehrnrooth

Independent of the company and dependent on significant shareholders. Ehrnrooth is a representative of a significant shareholder. Born 1974, M.Sc.(Econ.), MBA. President & CEO of Virala Oy Ab. Member of the Board of Wärtsilä Corporation since 2010.

**Primary working experience:** President & CEO of Virala Oy Ab 1995-.

**Other positions of trust:** Fiskars Corporation, Deputy Chairman of the Board.

## Paul Ehrnrooth

Independent of the company and dependent on significant shareholders. Ehrnrooth is a representative of a significant shareholder. Born 1965, M.Sc.(Econ.), President & CEO and Chairman of the Board of Turret Oy Ab. Member of the Board of Wärtsilä Corporation since 2010.

**Primary working experience:** Several management positions in Kone Corporation 1993-1994 and Wärtsilä Corporation 1994-1999. Savox Oy, President and CEO, 1999-2004.

**Other positions of trust:** Fiskars Corporation, Deputy Chairman of the Board; Savox Oy, Chairman of the Board; Ixonos Oy, Member of the Board.

## Ole Johansson

Dependent on the company and independent of significant shareholders. Born 1951. B.Sc. (Econ.). President & CEO of Wärtsilä Corporation. Member of the Board of Wärtsilä Corporation since 2010.

**Primary working experience:** Wärtsilä Group 1975-79 and rejoined in 1981. Wärtsilä Diesel Inc., Vice President 1984-86; Wärtsilä Diesel Group, Vice President & Controller 1986-94; Metra Corporation, Senior Vice President & CFO 1994-96; Metra Corporation, Executive Vice President & CFO 1996-98; Wärtsilä NSD Corporation, President & CEO 1998-2000.

**Other positions of trust:** Chairman of the Board, Outokumpu Oyj; Chairman of the Board, the Confederation of Finnish Industries EK; Deputy Chairman of the Board, Varma Mutual Pension Insurance Company; Member of the Board, Technology Industries of Finland; Member of the Board of the Finnish Business and Policy Forum EVA and the Research Institute of the Finnish Economy ETLA.

## Bertel Langenskiöld

Independent of the company and significant shareholders. Born 1950, MSc (Eng.). President of Metso Paper Inc. Member of the Board of Wärtsilä Corporation since 2002.

**Primary working experience:** Tampella Power Kvaerner Pulping, Power Division, President 1994-2000; Fiskars Corporation, President 2001-03; Metso Minerals, Inc., President, 2003-06; Metso Paper, Inc., Fiber Business Line, President 8/2006-3/2007.

**Other positions of trust:** Member of the Board of Luvata Group.

## Mikael Lilius

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

**Primary working experience:** Huhtamäki Oy, President of the Packing Division, 1986-89; KF Industri AB (Nordico), President & CEO, 1989-91; Incentive AB, President and CEO, 1991-98; Gambro AB, President and CEO, 1998-2000; Fortum Oyj, President and CEO, 2000-2009.

**Other positions of trust:** Huhtamäki Oyj, East Office of Finnish Industries, Hanken & SSE; Chairman of the Boards, Aker Solutions A/S and Evli Bank Ltd., Member of the Boards, Ab Kelonia Oy, Member of the Supervisory Board.

## The Board's committees

The Board of Directors annually appoints an Audit Committee, a Nomination Committee and a Remuneration Committee, and may also nominate any other committees, if considered necessary at its constitutive meeting following the Annual General Meeting. The Board appoints the members of these committees and their chairmen. The Board also has 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 wish to do so. 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 execution of its task of supervising the company's financial management. The Board appoints from among its members at least three members to the Committee. The members shall have the qualifications necessary to perform the responsibilities of the Audit Committee.

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.

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

### Audit Committee in 2010

Chairman Antti Lagerroos; members Maarit Aarni-Sirviö, Alexander Ehrnrooth, Bertel Langenskiöld. All members are independent of the company and three members are independent of significant shareholders. The Audit Committee met 4 times in 2010. 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 Committee communicates, as necessary, with major shareholders in matters concerning the appointment of the Board of Directors. The Nomination Committee can also, as necessary, prepare proposals to be put before the General Meeting concerning the appointment of board members. The Nomination Committee prepares matters concerning the remuneration that applies to board members.

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 on the Committee's meetings to the Board.

### **Nomination Committee in 2010**

Chairman Antti Lagerroos; members Kaj-Gustaf Bergh, Paul Ehrnrooth, Matti Vuoria. Three members are independent of the company and two members are independent of significant shareholders. The Nomination Committee met 2 times in 2010. 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 nomination of the President and CEO, the Executive Vice President, the CEO's deputy and other board members to be put before the Board. The Committee prepares proposals to be put before the Board of Directors concerning the incentive schemes and remuneration that apply to the President and CEO and the company's other senior executives.

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 on the Committee's meetings to the Board.

### **Remuneration Committee in 2010**

Chairman Antti Lagerroos; members Bertel Langenskiöld, Mikael Lilius, Matti Vuoria. Three members are independent of the company and all are independent of significant shareholders. The Remuneration Committee met 3 times in 2010. The average attendance of all committee members was 100%.

## The Board of Management

The company's Board of Management comprises the President and CEO, the Group Vice Presidents heading the Ship Power, Power Plants, Services businesses and Wärtsilä Industrial Operations, the Chief Financial Officer, the Group Vice President, Legal Affairs & Human Resources and the Group Vice President, Communications & Branding. 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 and CEO. It considers strategic issues related to the Group and its businesses, as well as investments, product policy, the Group's structure and corporate steering systems, and it supervises the company's operations.

The Chief Financial Officer's main areas of responsibility include group control, treasury (including project and customer financing), taxation and process development, corporate planning and information management support functions. The Group Vice Presidents heading the businesses are each responsible for the sales volumes and profitability of their respective global businesses, employing the services of the Group's worldwide subsidiaries. The main areas of responsibility of the Group Vice President, Legal Affairs and Human Resources are Legal, HR, Intellectual asset management and sustainability. The main areas of responsibility of the Group Vice President, Communications & Branding are external and internal communications, as well as branding.

Information on the members of the Board of Management, their areas of responsibility and holdings can be found in the section [Board of Management CVs](#) and in the full [Corporate Governance statement](#).

### The Board of Management in 2010

In 2010 the Board of Management met 13 times. The principal issues addressed by the Board of Management were related to market development, business strategy, company profitability, restructuring, as well as issues relating to development of competitiveness and costs. The development of markets, order intake and production capacity and footprint, as well as supplier relationships in the global economic environment, were also vital concerns addressed by the Board of Management. Other important matters considered by the Board of Management included the development of the company's personnel and management resources worldwide, as well as developing internal global processes and working practices.

## The President and CEO and the Executive Vice President

The Board of Directors appoints a President for the Group who is also its Chief Executive Officer. The President and 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 and CEO's service terms and conditions are specified in writing in the President and CEO's service contract. The President and CEO of the company is Mr Ole Johansson. The Board of Directors appoints, if necessary, one or several executive vice presidents. The company's Executive Vice President is its Chief Financial Officer Mr Raimo Lind. Mr Lind also acts as the deputy to President and CEO Mr Ole Johansson.

## Board of Management CVS



Ole Johansson



Raimo Lind



Jaakko Eskola



Lars Hellberg



Kari Hietanen



Atte Palomäki



Vesa Riihimäki



Christoph Vitzthum

### Ole Johansson

President & CEO of Wärtsilä since 2000. Born 1951, BSc (Econ.).

**Primary working experience:** Wärtsilä Group 1975-79 and rejoined in 1981. Wärtsilä Diesel Inc., Vice President 1984-86; Wärtsilä Diesel Group, Vice President & Controller 1986-94; Metra Corporation, Senior Vice President & CFO 1994-96; Metra Corporation, Executive Vice President & CFO 1996-98; Wärtsilä NSD Corporation, President & CEO 1998-2000.



**Positions of trust:** Outokumpu Oyj, Chairman of the Board; Confederation of Finnish Industries EK, Chairman of the Board; Varma Mutual Pension Insurance Company, Deputy Chairman of the Board; Wärtsilä Corporation, Member of the Board; Technology Industries of Finland, Member of the Board; Member of the Board of the Finnish Business and Policy Forum EVA and the Research Institute of the Finnish Economy ETLA.

## Raimo Lind

Executive Vice President and Deputy to the President since 2005. Group Vice President, CFO since 1998. Born 1953, MSc (Econ.).

**Primary working experience:** Wärtsilä Group, positions within control and finance and in development and internationalisation 1976-80; Wärtsilä Diesel Group, Vice President & Controller 1980-84; Wärtsilä Singapore, Managing Director & Area Director 1984-88; Wärtsilä Service Division, Deputy Vice President 1988-89; Scantrailer Ajoneuvoteollisuus Oy, President 1990-92; Tamrock Oy, CFO 1992-93; Tamrock Service Business, Vice President 1994-96; Tamrock Coal Business, Vice President 1996-97.

**Positions of trust:** Sato Oyj, Deputy Chairman of the Board; Elisa Oyj, Member of the Board.

## Jaakko Eskola

Group Vice President, Ship Power since 2006. Born 1958, MSc (Eng.). Joined the company in 1998.

**Primary working experience:** VTT Technical Research Centre of Finland, Researcher 1983-84; Industrialisation Fund of Finland, Corporate Analyst 1984-86; National Banking Group, various managerial positions in international project finance 1986-97; PCA Corporate Finance, Executive Director 1997-98; Wärtsilä Development & Financial Services Oy, President 1998-2005; Wärtsilä Corporation, Power Plants, Vice President, Sales & Marketing 2005-06.

**Positions of trust:** European Marine Equipment Council (EMEC), President.

## Lars Hellberg

Group Vice President, Industrial Operations since 2004. Born 1959, BSc (Eng.). Joined the company in 2004.

**Primary working experience:** Volvo Cars AB, Research Engine Engineer and Project Manager in vehicle development programmes; Vice President, Industrial Operations; Vice President of Global Business & Volume Optimisation; General Manager in Volvo Car Operations BV 1979-2001; Saab Automotive AB, Executive Director for the Customer Satisfaction and Quality division and a Member of the Board of Management 2001-04.

## Kari Hietanen

Group Vice President, Legal Affairs and HR, Company Secretary since 2002. Born 1963, LL.M. Joined the company in 1989.

**Primary working experience:** Metra Corporation and Wärtsilä Diesel Group, Legal Counsel 1989-94; Wärtsilä Diesel Group, General Counsel 1994-99; Wärtsilä Power Divisions, Group General Counsel 2000-01.

**Positions of trust:** German-Finnish Chamber of Commerce, Deputy Chairman of the Board.

## Atte Palomäki

Group Vice President, Communications & Branding since 2008. Born 1965, MSc (Pol.). Joined the company in 2008.

**Primary working experience:** MTV3, News anchor 1993-95; News producer 1995-2000; Senior economic correspondent 2000-02; Kauppalehti, Senior business correspondent 2002-05; Nordea Bank AB (publ.), Chief communication officer, Finland 2005-06; Group chief press officer 2007-08.

**Positions of trust:** Talentum Oyj, Member of the Board; Finnfacts, Member of the Board.

## Vesa Riihimäki

Group Vice President, Wärtsilä Power Plants since 2009. Born 1966, MSc (Eng.). Joined the company in 1992.

**Primary working experience:** Wärtsilä Diesel Oy, Design Engineer, Projects 1992-1993; Chief Design Engineer, Projects 1993-1997; Wärtsilä NSD Finland Oy, Design Manager, Electrical Systems 1997-2000; Wärtsilä Finland Oy, Design Manager Power Generation Systems 2000-2002; General Manager, Electrical & Automation Systems 2002-2003, Vice President, Power Plant Technology 2004-2009.

## Christoph Vitzthum

Group Vice President, Wärtsilä Services since 2009. Born 1969, M.Sc. (Econ.). Joined the company in 1995.

**Primary working experience:** Metra Finance, Foreign Exchange Dealer 1995-97; Wärtsilä NSD Corporation, Power Plants, Business Controller 1997-99; Wärtsilä Corporation, Ship Power, Vice President, Finance & Control 1999-2002; Wärtsilä Propulsion, President 2002-06; Group Vice President, Wärtsilä Power Plants 2006-2009.

**Positions of trust:** NCC AB, Member of the Board.

## Other Management

### Corporate Management

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

**Yngve Bårgård**

Vice President, Corporate Supply Management

Born 1958, BSc (Eng.)

**Päivi Castrén**

Vice President, Human Resources

Born 1958, MSc (Soc. Sc.)

**Maj-Len Ek**

Vice President, Group Control until 31.8.2010

Born 1948, BSc (Econ.)

**Per Hansson**

Vice President, Corporate Planning

Born 1967, MSc (Eng.)

**Anu Härmäläinen**

Vice President, Group Control as of 1.9.2010

Born 1965. MSc (Econ)

**Johan Jägerroos**

Vice President, Corporate Internal Audit

Born 1965, MSc (Econ.)

**Esa Kivineva**

Chief Information Officer (CIO)

Born 1961, PhD (Eng.)

**Markus Pietikäinen**

Vice President, Group Treasury

Born 1975, MSc (Econ.)

## Business Management Teams

Each business head is supported by a Business Management Team to consider issues, including the business's strategy and business operations.

### Ship Power

**Jaakko Eskola**

Group Vice President, Ship Power  
Born 1958, MSc (Eng.)

**Lars Anderson**

Vice President, Merchant  
Born 1968, BSc (Mech. Eng.)

**Arne Birkeland**

Vice President and Head of Marine Lifecycle Solutions  
Born 1966, MSc (Business)

**Aaron Bresnahan**

Vice President, Specials  
Born 1969, MBA & MA (Strategic Studies)

**Juhani Hupli**

Vice President, Technology  
Born 1966, MSc (Mech. Eng.)

**Riku-Pekka Hägg**

Vice President, Ship Design  
Born 1975, MSc (Mech. Eng.)

**Sinkka Ilveskoski**

Director, Legal & Contract Management  
Born 1967, Master of law

**Timo Koponen**

Vice President, Finance & Control  
Born 1969, MSc (Econ.)

**Magnus Miemois**

Vice President, Offshore  
Born 1970, MSc (Eng.)

**Helena Räihälä**

Director, Human Resources

Born 1973, MSc (Econ.)

**Mikael Simelius**

Vice President, Marketing

Born 1964, MSc (Econ.)

**Power Plants**

**Vesa Riihimäki**

Group Vice President, Power Plants

Born 1966, MSc (Eng.)

**Tore Björkman**

Vice President, Sales, Europe and Africa

Born 1957, BSc (Mech. Eng.)

**Minna Blomqvist**

Director, Human Resources

Born 1969, MSc (Eng.)

**Frank Donnelly**

Vice President, Sales, America

Born 1953, BSc (Math.)

**Jussi Heikkinen**

Vice President, Marketing & Business Development

Born 1955, MSc (Energy and Power Plant Technology)

**Thomas Hägglund**

Vice President, Power Plant Technology

Born 1962, MSc (Eng.)

**Antti Kämi**

Vice President, Project Management

Born 1964, MSc (Civil Eng.)

**Caj Malmsten**

Vice President, Finance & Business Control

Born 1972, MSc (Econ.)

**Markus Pietikäinen**

Vice President, Group Treasury & Financial Services

Born 1975, MSc (Econ.)

**Rakesh Sarin**

Vice President, Sales, Middle East and Asia  
Born 1955, BSc (Chemical Eng.)

**Laura Susi-Gamba**

Director, Legal Affairs  
Born 1963, LL.M

**Niklas Åberg**

Director, Quality Management  
Born 1967, MSc (Eng.)

**Services**

**Christoph Vitzthum**

Group Vice President, Services  
Born 1969, MSc (Econ.)

**Pierpaolo Barbone**

Vice President, Area Middle East & Asia  
Born 1957, MSc (Min. Eng.)

**Fred van Beers**

Vice President, Area North Europe  
Born 1962, Bachelor's degree,  
Merchant Engineer & Bachelor degree, BtB Marketing

**Arne Birkeland**

Vice President, Marine Lifecycle Solutions  
Born 1966, MSc (Business)

**Stefan Fant**

Vice President, Area South Europe & Africa  
Born 1955, BSc (Mech.)

**Tomas Hakala**

Vice President, Area Americas  
Born 1968, BSc (Mech.)

**Roger Holm**

Vice President, Solutions Management  
Born 1972, MSc (Econ.)

**Ralf Lindbäck**

Director, Legal Affairs  
Born 1958, LL.M

**Stefan Nysjö**

Vice President, Delivery Management  
Born 1970, BSc (Mech.)

**Eva-Stina Rönnholm**

Vice President, Finance  
Born 1967, MSc (Econ.)

**Sini Spets**

Director, Human Resources  
Born 1974, MSc (Psychology)

## Industrial Operations

**Lars Hellberg**

Group Vice President, Industrial Operations  
Born 1959, BSc (Eng.)

**Arjen Berends**

Vice President, Business Control  
Born 1968, MBA

**Stefan Damlin**

Vice President, Business Development Centre  
Born 1968, MSc (Econ.)

**Juha Kytölä**

Vice President, Product Centre Ecotech  
President of Wärtsilä Finland Oy  
Born 1964, MSc (Eng.)

**Arto Lehtinen**

Vice President, Product Centre Propulsion  
Born 1971, MSc (Eng.)

**Sergio Razeto**

Vice President, Product Centre 4-Stroke  
President of Wärtsilä Italia S.p.A.  
Born 1950, MSc (Eng.)

**Trudy Schoolenberg**

Vice President, Global R&D  
Born 1958, PhD, Physics and Mechanics

**Paolo Tonon**

Vice President, Product Centre Automation

Born 1970, MSc (Eng.)

**Martin Wernli**

Vice President, Product Centre 2-stroke

President of Wärtsilä Switzerland Ltd

Born 1960, JD Attorney at Law



## Managing Directors of the subsidiaries

The Managing Directors of the Group's subsidiaries are responsible for ensuring that the local service, sales and manufacturing resources are correctly dimensioned to meet the needs of the businesses; that the subsidiary's personnel development needs are met; that the subsidiary's operations fulfil the requirements stipulated in the Group's quality system; that these operations comply with the respective country's legal requirements and with good business practice; and that communication in the subsidiary is conducted according to the targets of the Group.

## Insider Management

Wärtsilä applies the legal provisions applying to the management of insiders, as well as the Guidelines for Insiders approved by NASDAQ OMX Helsinki Exchange for public listed companies, and the stipulations and guidelines of the Finnish Financial Supervision Authority.

Wärtsilä's permanent insiders comprise the statutory insiders, i.e. the Board of Directors, the President and CEO, the Executive Vice President and the Principal Auditor, as well as the members of the Board of Management.

Certain members of the Corporate Management and other employees, as required by their duties, also belong to the company's own non-public insider register. When significant projects are at the preparation stage, the company also draws up insider registers for the projects concerned. Insiders are given written notification of their status as insiders as well as instructions on the obligations that apply to insiders.

The company's insiders are not permitted to trade in the company's shares for 14 days (however Wärtsilä recommends 30 days) prior to publication of the interim reports or the annual financial statements bulletin.

Wärtsilä's insider register is maintained by the parent company's legal affairs function, which is responsible for keeping the information updated. Information on the interests and holdings of the company's permanent insiders and related parties is available from the SIRE system of the Finnish Central Securities Depository Ltd. The same information is also available on Wärtsilä's homepage.

# Audit

## Internal

The Group's internal audit is handled by the company's Internal Audit unit, which reports to the President and CEO. The purpose of the Internal Audit is to analyse the company's operations and processes, and 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 assigned by the Board of Management.

The internal audit function covers all of the company's organisational levels and subsidiaries. An internal audit is undertaken in the main subsidiaries on an annual basis and in network companies with 3-year intervals. The internal audit 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 also 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

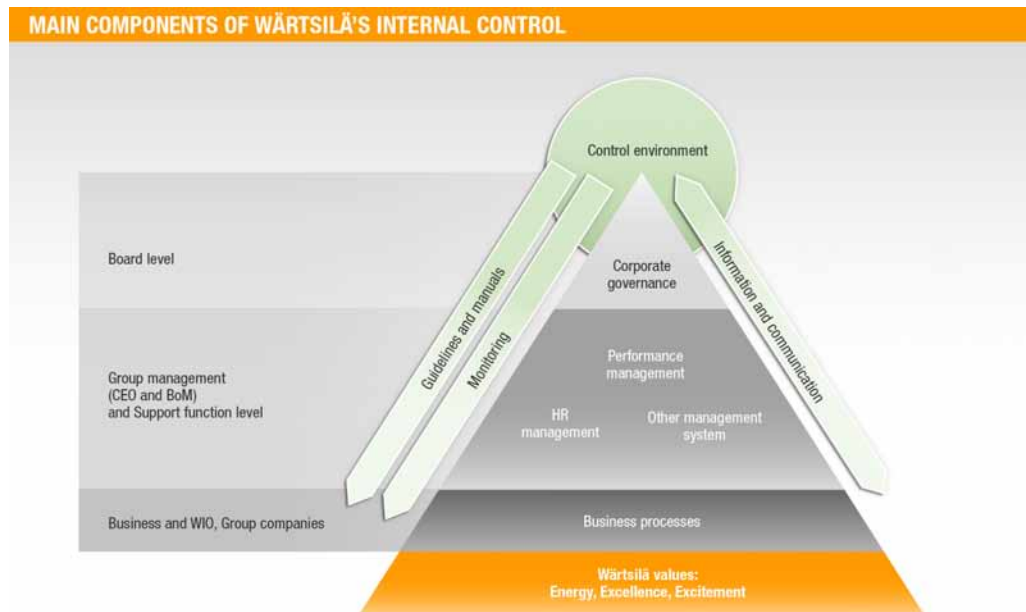
The company has one auditor which shall be an auditing firm authorised by the Central Chamber of Commerce. The auditor is elected by the Annual General Meeting to audit the accounts for the ongoing financial year and its duties cease at the close of the subsequent Annual General Meeting. The auditor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

On closing of the annual accounts, the external auditor submits the statutory auditor's report to the company's shareholders, and it also regularly reports the findings to the Board of Directors' Audit Committee. An 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 2010

In 2010, the AGM appointed the firm of public auditors KPMG Oy Ab as Wärtsilä Corporation's auditor. Auditing fees paid to all the auditors of the Group companies amounted to EUR 2.3 million in 2010. Consultancy fees unrelated to auditing duties paid to the auditors totalled EUR 1.5 million. These latter fees mainly concerned consultation on taxation matters.

# Internal control



Wärtsilä has defined its objectives for internal control based on the international COSO framework. According to Wärtsilä's definition, internal control is a process taken part by Wärtsilä's Board of Directors, management, the Boards of Directors of Group companies and other personnel, designed to provide reasonable assurance regarding the achievement of objectives.

Internal control covers all the policies, processes, procedures and organisational structures in 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, and that the company's assets, including its brand, are safeguarded and that financial reporting is correct. Internal control is not a separate process or set of activities, but it is embedded in the operations of Wärtsilä. 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 to comply with laws and regulations in countries where it operates.

## Performance management

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

The achievement of the annual targets is followed up through monthly management reporting. The performance of the Businesses and WIO and achievement of the annual targets are reviewed on a monthly basis in the respective Management Team meetings. The performance and the achievement of the targets of the Group and of the different Businesses and WIO 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.

Financial reporting in Wärtsilä is carried out in a harmonised way in all major Group Companies, using single instance ERP system and a common chart of accounts. The international financial reporting standards (IFRS) are applied in the whole 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 internal control over accounting and financial administration is arranged appropriately. The Audit Committee of the Board of Directors of Wärtsilä Corporation is responsible for overseeing the financial reporting process. The Group Finance & Control function is responsible for notifying relevant levels of management of deviations from plans, for analysing the underlying reasons, and for suggesting corrective actions. The Group Finance and Control supports the Businesses and WIO in decision-making and analysis to ensure attaining financial targets. It is also responsible for maintaining and developing 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, and also for developing the financial reporting processes and respective controls.

## **Legal and compliance management**

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

Legal and compliance management act predominantly in a proactive manner. A key activity is to strengthen and ensure the culture of appropriate conduct and behaviour both internally and in external business transactions. Company-wide control mechanisms and processes are a part of the overall internal control system.

## **HR management**

Human resource management practices and processes have a fundamental role in Wärtsilä's system of internal control. Wärtsilä's key human resource management processes with respect to internal control are compensation and benefits, HR development, recruitment and resourcing management and individual performance management, as well as processes for collecting feedback from the employees. These processes for their part help ensure the effectiveness of internal control in Wärtsilä. The HR function is responsible for maintaining and developing Wärtsilä's HR processes to enable effective internal control also on the individual level.

## Other management systems

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

### Quality

The quality of Wärtsilä's solutions, and thus quality management, is a top priority in 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 vision, mission and values together with a solid financial performance form the basis for sustainable development in Wärtsilä. Furthermore, significant attention is paid to social and environmental sustainability of Wärtsilä's operations.

### Risk management

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

Wärtsilä has defined and implemented entity level and process level control activities as well as information systems controls. Control activities at different levels are needed to directly mitigate risks at the respective levels. Wärtsilä's risk management processes consist of a 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 and WIO reports its main risks to the Board of Management of Wärtsilä which also follows up the execution of the defined risk management action plans on a regular basis. The Board of Directors of Wärtsilä Corporation 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 President & CEO, with the assistance of the Board of Management, is responsible for organising and ensuring risk management in all Wärtsilä's operations. Business and WIO management is responsible for defining action plans for managing the most important risks.

Wärtsilä's most important strategic, operative and financial risks can be found in the [Risks and risk management](#) section.

### 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.

## Values and control environment

The foundation of Wärtsilä's internal control system is its values: Energy, Excellence and Excitement. Wärtsilä's values are reflected in its day-to-day relations with its suppliers, customers and investors and also in Wärtsilä's internal guidelines, policies, manuals, processes and practices. The control environment sets the tone of internal control in Wärtsilä, influencing 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 include the corporate culture: the integrity, ethical values and competence of Wärtsilä's personnel, as well as 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 the basis for the reasonable assurance regarding Wärtsilä achieving the objectives for internal control. The President & CEO and the Board of Management define Wärtsilä's values and ethical principles (reflected in the Code of Conduct) and set the example for the corporate culture, which create the basis for the control environment. The same parties, together with Ship Power, Power Plants and Services (hereafter Businesses) and Wärtsilä Industrial Operations (hereafter WIO) management, are responsible for communicating Wärtsilä's values to the organisation.



## Business processes

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

# Guidelines and Communication

## Guidelines and manuals

The components of Wärtsilä's internal control system, for example corporate governance, management system, the performance management process, as well as the business and other processes, are described in various guidelines and manuals. The key Group level policies and guidelines are collected 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 financial reporting in Wärtsilä. The Board of Management of Wärtsilä Corporation approves Wärtsilä's Group level policies and any changes to them.

In addition to the Group level guidelines and manuals, the Businesses and WIO have issued related guidelines and instructions for their own, specific purposes. The Business and WIO 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 follow up the achievement of the company's objectives. Both financial and non-financial information is needed, relating to both internal and external events and activities. Informal ways for employees to give feedback to management and to communicate suspected misconducts (for example directly to the Legal Affairs or Internal Audit function) are used. All external communication is 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 in Wärtsilä is performed both on an ongoing basis, and through separate evaluations including internal, external and quality audits. The Business and WIO management is responsible for ensuring that relevant laws and regulations are complied in their respective responsibility areas. The management in Wärtsilä in turn performs monitoring as part of the 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 in 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 monitors that the financial reporting processes and controls are being followed. It also monitors the correctness of external and internal financial reporting. The Legal function monitors the adherence to the compliance policies of the group. The External Auditors verify the correctness of external annual financial reports.

# Salary and remuneration report 2010

## 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 2010:

- To the ordinary members EUR 60,000 /year
- To the deputy chairman EUR 90,000 /year
- To the chairman EUR 120,000 /year

In addition, each member will be paid EUR 400/meeting attended, the chairman's and committee chairmen's meeting fee being double this amount. Roughly 40% of the annual fee is paid in Wärtsilä shares.

The nine members of Wärtsilä's Board of Directors were paid altogether 626 thousand euro for the financial period that ended 31 December 2010. The Board's members were not covered by the company's stock option scheme or bonus scheme.

### Fees paid in Wärtsilä shares in 2010

Board of Directors	No. of shares
Chairman Antti Lagerroos	1 275
Deputy Chairman Matti Vuoria	956
Maarit Aarni-Sirviö	637
Kaj-Gustaf Bergh	637
Alexander Ehrnrooth	637
Paul Ehrnrooth	637
Ole Johansson	-
Bertel Langenskiöld	637
Mikael Lilius	637

### Fees paid to the Board of Directors in 2010 (thousands of euros)

Board of Directors	2010	2009
Chairman Antti Lagerroos	138	125
Deputy Chairman Matti Vuoria	97	89
Maarit Aarni-Sirviö	67	61
Kaj-Gustaf Bergh	66	60
Alexander Ehrnrooth	64	-
Paul Ehrnrooth	63	-
Ole Johansson	-	-
Bertel Langenskiöld	67	60
Mikael Lilius	62	-

**Board of Directors until 4 March 2010**

Kari Kauniskangas	2	59
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**Board of Directors share ownership in Wärtsilä****31 December 2010**

<b>Board of Directors</b>	<b>Share</b>
Antti Lagerroos	28 226
Change in 2010	+1 275
Matti Vuoria	4 257
Change in 2010	+956
Maarit Aarni-Sirviö	2 638
Change in 2010	+637
Kaj-Gustaf Bergh	1 934
Change in 2010	+637
Alexander Ehrnrooth	650
Change in 2010	-
Paul Ehrnrooth	637
Change in 2010	-
Ole Johansson	24 533
Change in 2010	-
Bertel Langenskiöld	4 238
Change in 2010	-1 584
Mikael Lilius	4 670
Change in 2010	-

**Board of Management share ownership in Wärtsilä****31 December 2010**

<b>Board of Management</b>	<b>Share</b>
Ole Johansson	24 533
Change in 2010	-
Raimo Lind	3 383
Change in 2010	-
Jaakko Eskola	5
Change in 2010	-
Lars Hellberg	0
Change in 2010	-
Kari Hietanen	72
Change in 2010	-
Atte Palomäki	300
Change in 2010	-
Vesa Riihimäki	-

Change in 2010	-
Christoph Vitzthum	466
Change in 2010	-

## Remuneration of the President and CEO and the Board of Management

The remuneration paid to the President and CEO and other members of the Board of Management, and the principles underlying it, are determined by the Board of Directors. The remuneration paid to the President and CEO and the other members of the Board of Management consists of a monthly salary and a bonus. The Board of Directors determines the terms for the bonus payment. The bonus payments for the President and CEO and the Board of Management are paid according to the achievement of the company's profitability targets for the financial year. The variable salary can be at the most one third of the maximum total salary. Additionally, the group has a long-term incentive scheme for senior management tied to the development of the company's share. Monthly updated information on shares held by the President and CEO and the other members of the Board of Management can be found on Wärtsilä's website at [www.wartsila.com](http://www.wartsila.com).

The President and CEO is eligible to take retirement on reaching the age of sixty and his retirement pension is 60% of his statutory earnings. Remuneration paid to the President and CEO if dismissed by the company, corresponds to 24 months' salary plus six months' period of notice salary. The optional retirement age of certain Board of Management members is sixty years. For these members additional pension schemes are based on the retirement scheme of the national social security system to which the person in question belongs. The retirement pension is 60% of statutory earnings.

### Financial benefits of President and CEO Ole Johansson:

- Salary 2010: EUR 646 thousand
- Bonuses 2010: EUR 257 thousand
- Bonus schemes based on share price development: EUR 450 thousand \*)
- Optional retirement age: 60
- Period of notice: 6 months
- Compensation paid if dismissed by the company: 24 months' salary + 6 months' period of notice salary.

\*) In addition, EUR 1,084 thousand has been reserved for long-term bonus schemes based on share price development.

Consolidated Financial Statement, [Note 29: Related party disclosures](#)

## Incentive schemes

The Board of Directors determines the incentive schemes for the President and CEO and other members of the Board of Management, and the principles underlying them. 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.

### Short-term management incentive schemes

The Group operates a bonus scheme, which is implemented globally in all businesses. The bonus is based on the Group's profitability and agreed personal targets. Close to 1,800 directors and managers are covered by this bonus scheme.

The Group's white- and blue-collar employees are covered by various bonus or profit-based incentive schemes. These are applied in each country according to that country's legislation, or to agreements concerning profit-sharing schemes. All in all, some 60% of the company's employees are covered by the Group's bonus scheme and various other profit-related incentive schemes.

### Long-term incentive scheme

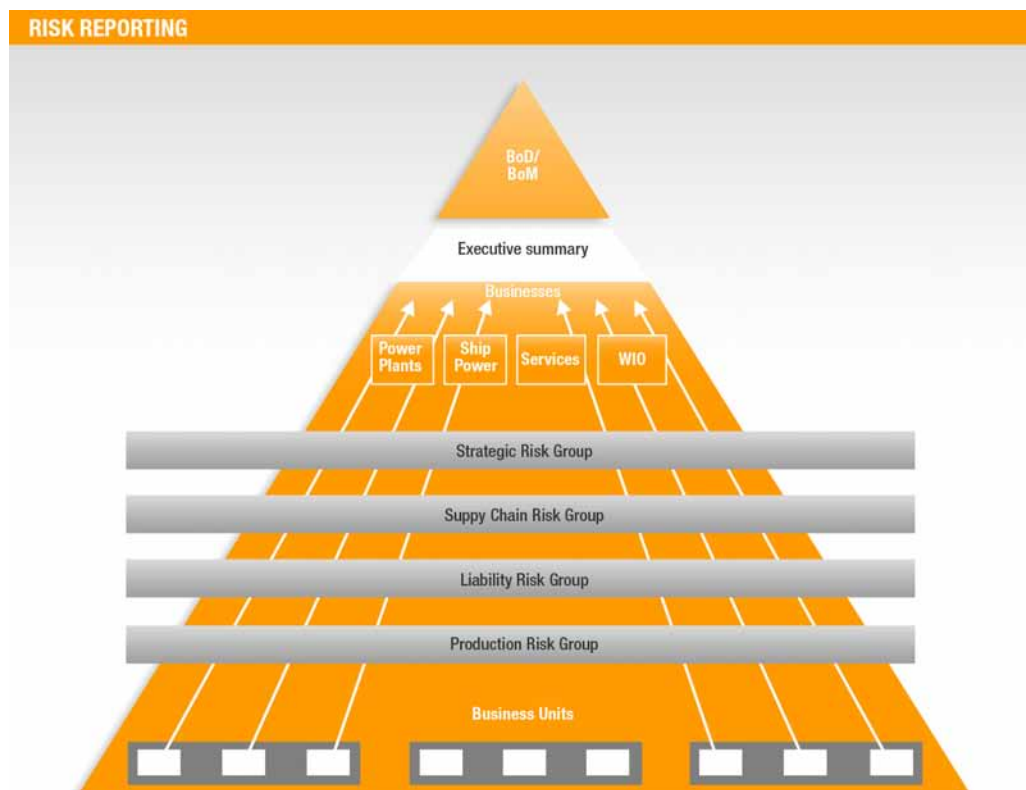
The Board of Directors has decided on a long-term bonus scheme for senior management tied to the stock development of the company's share. The size of the bonus is based on share price development during a predetermined timeframe and an upper limit is set for the bonus. The bonus scheme takes into account a 50% dividend payout. The yearly bonus scheme applies to approximately 80 directors.

The 2007 bonus scheme comprises 687,500 bonus rights. The bonus payment is based on the share price development during a two-year and nine months period on the basis of a share price of EUR 22.63. The bonus cannot exceed EUR 9 per bonus right. The 2007 bonus scheme was paid in November 2010.

The 2008 bonus scheme comprises 835,000 bonus rights. The bonus payment is based on the share price development during a two-year period on the basis of a share price of EUR 23.04. The bonus cannot exceed 15 euro per bonus right. The 2008 bonus scheme will be due for payment in November 2011.

The 2009 bonus scheme comprises 841,500 bonus rights. The bonus payment is based on the share price development during a two-year period on the basis of a share price of EUR 28.47. The bonus cannot exceed 15 euro per bonus right. The 2009 bonus scheme will be due for payment April 2012.

## Risks and risk management



### Risk management principles

Risk management in Wärtsilä is a continuous process of analysing and managing all the opportunities, threats, and risks faced by the company to achieve its goals and to ensure the company remains a going concern. The basis for risk management is the lifecycle quality of Wärtsilä's operations and products, and the continuous, systematic, loss-prevention work at all levels of the Group on the principle that "everybody is responsible". In the long term this is the only way to reduce the total risk costs.

The Board of Directors and the Board of Management decide and give guidelines on strategic matters. The Businesses are responsible for achieving their set strategic goals and for mitigating and managing all their risks. The risk management function is part of Group Treasury, which reports to the CFO. It reviews the business risk profile, prepares the risk management policy, co-operates with the businesses in the implementation of risk mitigation work, and develops global and local insurance schemes with insurance companies and brokers. The Audit Committee reviews and assesses the adequacy of risk management. The risk management policy is endorsed by the Board of Directors.

### Risk reporting

Wärtsilä continued to strengthen its risk reporting during 2010. The Board of Management in its meetings carries out annual Management Reviews on each Business, including their risks and risk mitigation. The risk map of the Group and all Businesses is then presented in the Finance Management Review in the autumn



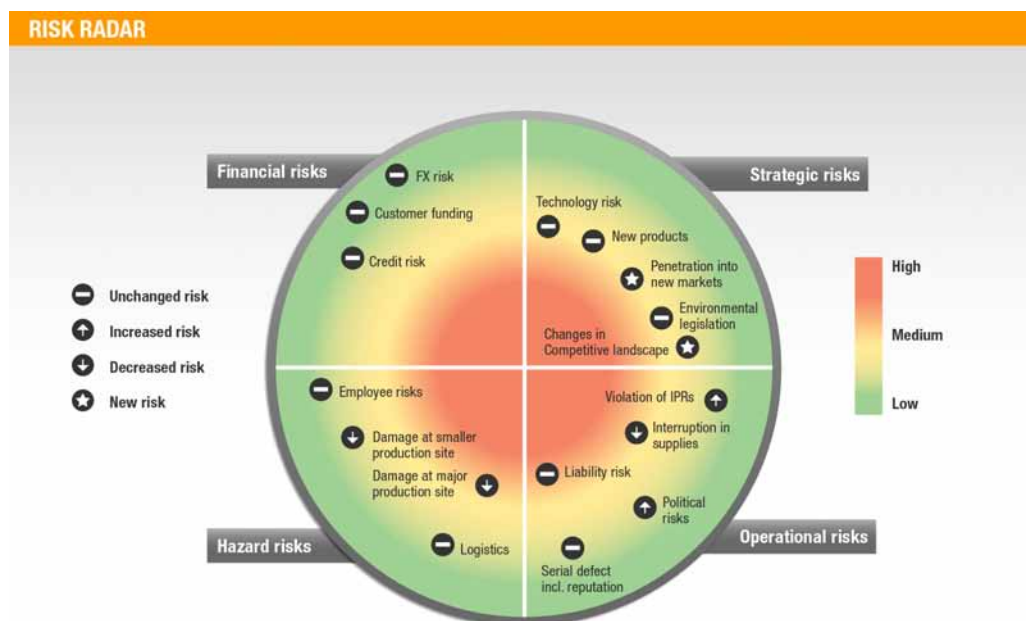
before the budgeting round. The risks are identified as either internal or external, quantified in euro and their probabilities are estimated. The results of this work are summarised in the Wärtsilä Risk Radar. Risk mitigation actions, including potential investments, are decided in the normal course of business. The Group Risk report is then presented to the Board of Directors.

The Business Management Teams have risk management as a separate item on their agenda. The Businesses are responsible for organising, follow-up actions, and reporting on risk management from underlying Business units. During 2010 separate risk assessments were performed for each business resulting in the creation of business specific risk radars. In addition to divisional risk reporting, Wärtsilä has four cross-business risk groups. The manufacturing, supply chain, and liability groups have been active for the past two years, and a strategic risk group, as the latest addition to the cross-business risk identification and mitigation work, was established in 2010. These forums concentrate on risk identification and mitigation from the corporate view. The groups have approximately four meetings annually.

The Corporate Risk Management function co-ordinates risk management activities and reporting within the Group. The Internal Auditing is responsible for reviewing the Risk Management process on an annual basis.

## Risk Categories

The relevant risks for Wärtsilä have been classified in four sections; strategic, operational, hazard and financial risks. Risk is defined as the outcome of the probability and the loss exposure of the occurrence. The outcome or potential loss expectancy is highest with strategic and operational risks, and lowest with hazard and financial risks.



## Strategic risks

A specific strategic risk assessment is part of the strategic planning process within the Group.

### Business environment risks

Business cycles in the global economy and in our customers' industries influence the demand for our products, as well as our financial condition and operating result. Our flexible multiproduct manufacturing model based on capacity outsourcing, plus a stable business mix with a large share of sales deriving from Services, brings Wärtsilä a certain measure of stability in a cyclical market. The turmoil experienced in the financial markets, and the subsequent slump in the world economy, continued to have an effect on Wärtsilä during 2010. Important economic matters that indirectly affect Wärtsilä, its clients and suppliers, include inter alia, the liquidity and solvency of the financial institutions - and thus not only their capability but also 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 IFC, the availability of export credit schemes and guarantees, and other such factors. However, a relatively large order book gives Wärtsilä some time to adapt to the market conditions.

### Market and customer risk

Having given the first indications of revival already at the end of the previous year, the recovery of the shipping industry continued during 2010. However, there are big differences between the various shipping segments. As anticipated, the Asian - and especially Chinese - shipbuilding industry has emerged as the world's strongest. In 2010, Chinese shipyards were awarded almost half of new ship orders (both in terms of tonnage as well as in number of ships). Wärtsilä is well prepared for this development by having delivery centres and joint ventures with local players in China, Korea and Japan, and by having located its top management in its Ship Power business in Shanghai. Wärtsilä is well represented in all the major shipbuilding areas and is active in all major vessel segments. This mitigates both single customer related and geography related risks.

The merchant vessel segment remains an area with problems of overcapacity. This has kept ordering volumes low, even though the recovery, for example in bulkers, has been much more rapid and strong than estimated just a year ago. The market continues to bear the consequences of the recent crisis, and the financing for new projects is currently one of the major obstacles to a complete recovery. Some cancellations are still to be expected, but order postponements and rescheduling are the main effects of the still somewhat unstable market.

In the Power Plants business, there was a clear improvement in ordering activity and several large power plant orders were closed during 2010. The risks related to the availability of financing decreased as a result of the improvements in the financial sector. The number of projects under bidding also remained at a good level. Geographically, the most active markets were Asia, Central America and South America.

Wärtsilä Power Plants has four types of customers: Industrial customers, IPPs, utilities, and oil & gas sector customers. All customer types were well represented in the order intake profile, and the strongest growth in order intake was with IPP's and Utility customers. Power Plants' strategic objective is to support its

customers by offering energy efficient, fuel flexible, and operationally flexible solutions that offer optimal means for managing the varying grid load profiles. Wärtsilä's solutions also enable the introduction of a higher share of renewable energy sources, which need backup generation availability in order to ensure capacity at all times.

The volume level for the Services business remained stable, and long-term volumes are still expected to grow faster than new equipment sales. Wärtsilä has over 14,000 customers and an active engine base of nearly 180,000 MW, which means that its dependency on any single customer or customer segment is insignificant. Wärtsilä will continue to develop its service portfolio in close co-operation with its customers. New opportunities are created by the fact that customers are continuously looking for new means of cost reduction and efficiency improvement.



## Competitive situation and price risk

Price competition has intensified during the year as a result of there being only a limited number of new projects as compared to available capacity. Ship Power's largest competitors in main engines are MAN Diesel and Caterpillar (MAK). No significant changes took place in the competitive situation and market shares during 2010. In propulsion equipment, the competition is more fragmented and varies by product segment. The concept of selling packaged solutions rather than merely single products reduces price volatility. Being a systems integrator with automation and ship design capability will prove to be even more important in the future.

In the power plant market based on liquid fuels, Wärtsilä's main competitors are the same engine manufacturers as for Ship Power. In natural gas based power generation the main competitors are gas turbine manufacturers, such as GE, Siemens, Rolls Royce and Ansaldo.

In the Services business, Wärtsilä has no direct competitors and none that offer a similar portfolio of services from a single source. Each service has therefore its own identified set of competitors. Excluding the service networks of other engine manufacturers, there are few global players in the service market. Consolidation within the customer industries and increased cost consciousness will enhance Wärtsilä's possibilities for offering a wider scope of service solutions, especially to ship owners.

## Political and legislative risks

Wärtsilä is present in over 160 locations in more than 70 countries and has delivered power plants to more than 165 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 in projects of importance to Wärtsilä's operations. Much of this engagement takes place through interest groups and trade organisations. The company monitors political and legislative changes at both corporate and subsidiary levels.

## Climate change and sustainability risks

Wärtsilä has assessed sustainability risks, including climate change risks, in both its strategic and operative risk assessments. However, these 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 in changes in customer attitudes to using combustion engines and fossil fuels. The risks in changes to environmental legislation are related to the complexity of the overall field of different emissions, the balance between commercially available fuels and resulting emissions, available abatement technologies, the impact on overall energy efficiency, and the resulting financial feasibility. Being at the forefront of technological developments gives Wärtsilä many opportunities arising from tightening environmental regulations. Wärtsilä has for decades improved the efficiencies of its products while at the same time reducing emissions. The fuel flexibility of Wärtsilä's products enables the utilisation of various fuels, including renewables, and their operational flexibility enables the installation of large capacity based renewable energy sources without hampering the reliability of the electricity grid. Wärtsilä's technology also enables the generation of energy with a minimum use of water. A lack of fresh water is one of the major challenges that the world is expected to face in the future.

The International Maritime Organisation (IMO) regulates the emissions of nitrogen oxides (NO<sub>x</sub>) from marine engines, as well as the sulphur content of the fuel used. Stricter requirements will enter into force in various phases during the years 2010-2020. Regarding NO<sub>x</sub> emissions, Wärtsilä has already introduced solutions that comply with these requirements. Wärtsilä engines are designed for operation on any fuel sulphur content. As a response to the tightening sulphur oxides (SO<sub>x</sub>) emissions, Wärtsilä has developed technology that allows exhaust gases to be cleaned to meet the tight regulations. Additionally, Wärtsilä has a multifaceted gas engine strategy and can provide gas engines for vessels.

The Thermal Power Plants EHS (Environmental Health and Safety) Guidelines, published by the World Bank/IFC (International Finance Corporation), are technical reference documents with general and industry-specific examples of Good International Industry Practices (GIIP). Leading international banks have reached an agreement with the IFC to follow guidelines based on the IFC's environmental and social standards, and have thus adopted the Equator Principles. Many other financial institutions, such as Export Credit Agencies, are also using the World Bank Group Guidelines, in addition to national norms in their projects. Consequently, the World Bank/IFC EHS Guidelines are today the minimum environmental standard in global power plant projects. It is estimated that more than 70% of finance activities for projects in emerging markets, are now carried out in accordance with the Equator Principles.

The EU Industrial Emissions Directive has been approved by the European Parliament and has entered into force at the beginning of 2011. UNECE Gothenburg Protocol revision work is on-going, and is expected to be finalised during 2011. An intensive interaction between the various stakeholders is currently taking place.

Wärtsilä has been, and remains, actively engaged in the dialogue between the different authorities, associations, industry groups, and customers, in order to ascertain the optimal solutions to meet market needs.

Wärtsilä's strong focus on R&D and solutions development gives us many opportunities in the field of sustainability. In shipping, Wärtsilä can reduce the carbon footprint of ships through ship design, efficient engines, and optimal propulsion solutions. In Power Plants, Wärtsilä can offer further improvements, such as more efficient engines, fuel flexibility (such as bio-fuels and natural gas) and CHP (combined heat and power) applications with very high overall efficiency. In Services, Wärtsilä can offer several retrofit solutions in the after sales market to reduce emissions and increase efficiency. Wärtsilä can also offer environmentally sound solutions for a number of applications, including bilge and ballast water treatment. Wärtsilä's Product Center Ecotech focuses on environmental technologies that are related to products other than engines in order to quickly respond to market and customer needs with fully integrated and validated solutions.

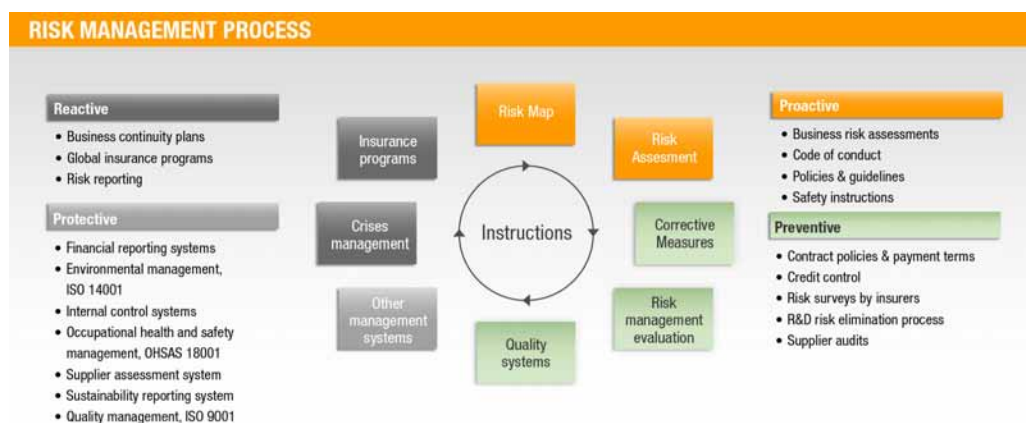
For more information, please see the separate [Sustainability report](#) included in this annual report.

## Technology risks

As a technology leader Wärtsilä needs to maintain its cost competitiveness and places high emphasis on engine efficiency and emissions control. New products are developed based on Wärtsilä's strategy viewpoint of offering lifecycle service and efficiency through, for example, utilising ship design, electrical & automation, and environmental technologies. Wärtsilä aims to increase the competitiveness of its solutions through solid R&D work and innovation.

## Operational risks

Operational Risk Management is part of the daily work of the Businesses. Apart from normal risk management work, the specific Operational Risk Groups that include members from each Business aim at establishing a continuous process of operational improvements.



### Manufacturing risk

Risk assessments have been made, and significant safety and risk mitigation investments completed, in the main delivery centres. Wärtsilä uses management systems for quality, environmental, occupational health and safety, and other systems to improve productivity and safety. Wärtsilä has implemented business continuity plans (BCP) in its key delivery centres.

As the majority of ship construction has already shifted to Asia, Wärtsilä needs to constantly analyse its manufacturing footprint and capacity costs, including within the supply chain. A significant step in the adjustment of the manufacturing footprint was taken in January 2010 when Wärtsilä announced its plan to close the delivery centre in Drunen, the Netherlands, and to move the production primarily to China. This was seen as being necessary in order to meet market demand in Asia, as well as to address over capacity by concentrating production within fewer units. The flexibility and agility needs of the market are also being met by introducing multiproduct factory concepts.

### Supplier and subcontractor risk

The centralised Wärtsilä Supply Management (WSM) function is responsible for all strategic sourcing activities. Within that responsibility, WSM manages and controls Wärtsilä's supplier network to make sure that the supplier performance is in line with Wärtsilä's expectations. Supplier performance is, therefore, continuously measured. A continuous assessment of business interruption risks in co-operation with our suppliers is one means of managing business continuity planning. Several supplier risk audits have been completed jointly with the insurer as another means of mitigating risks. These audits are now part of the regular work for the WSM and Risk Management functions. To further mitigate risks, a comprehensive follow-up of suppliers' creditworthiness has been established.



Wärtsilä Supply Management has developed its activities by creating close collaboration and long-term relationships with its main suppliers. By having these close relationships, WSM secures a common view with its suppliers on values and goals. These shared values and goals support Wärtsilä's management of strategic risks. In addition, WSM continues its supplier structuring programme in order to create and maintain a sustainable supplier base. As part of that programme, WSM further develops its global sourcing activities. Furthermore, supplier related risks are also addressed by having double sourcing on key components.

### **Lifecycle quality of products and product liability risk**

Launching new products always involves risks. In the R&D process several risk management techniques are applied, including FMEA, a risk elimination tool, a single issue list, and in-house validation testing. Furthermore, Wärtsilä seeks to control quality risks by controlling the incoming quality from the supply chain, and by designing and manufacturing products with all due care. Wärtsilä applies a GATE model in order to control the product development process. First, only a limited release of new products is allowed. Using the gate approach, only after testing and further validation has been completed is the full release given to the sales organisations. The 5S (meaning sort, shine, set, standardise and sustain) philosophy is being implemented in all production sites to increase quality and to support lean operations. Services is responsible for all warranty issues, and offers a feedback loop from the field to production and R&D, while taking care of customers' installations throughout their lifecycle. The company makes warranty provisions to cover any warranty costs that may arise after product delivery. Product liability insurance covers unexpected damages.

### **Contractual risks**

Wärtsilä's non-Service sales consist of project deliveries of various sizes. The most substantial orders concern turnkey power plants, the biggest of which during 2010 was a 380 MW plant in Brazil. However, the risks from individual projects do not reach significant levels considering the total volume of business. The lifecycle quality of the products and work, initiating from the design and extending throughout all stages of the production process as well as the field service work, plus the use of standard sales contracts including the establishment of a contract review process, reduce the risk of product liability claims.

### **Commodity price risk**

#### **Oil**

The direct effect of oil price changes on Wärtsilä's production is very limited. The indirect effects of oil price volatility on customers are outweighed in importance by the long economic life of the investments, fuel-efficient technologies, and the availability of alternative fuels.

#### **Metals**

Metal prices have an indirect effect on engine component costs. This exposure is not hedged but annual agreements are in place to balance the short-term fluctuations. 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.



## Hazard risks

Occupational health and safety systems, travel safety instructions, and crises management guidelines are aimed at protecting Wärtsilä employees. Appropriate insurances are in place for the personnel, and to emphasise the importance of employee safety, Wärtsilä's Board of Management has decided on a corporate level target of zero lost time injuries. A specific project has been established for this purpose, and the target is a part of the company's sustainability programme.

Environmental management systems are in place to mitigate environmental hazard risks. Wärtsilä's Real Estate unit 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 production plants are situated within Natural Catastrophe 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 production sites, business impact analyses have been conducted and continuity plans created, regarding both property and business interruption risks.

Risks that Wärtsilä is unable to influence through its own efforts are transferred where possible to insurance companies. Wärtsilä uses appropriate insurance policies to cover indemnity risks related to its personnel, assets, business interruption, and third-party and product liability. Wärtsilä has established its own reinsurance company, Vulcan Insurance PCC Ltd, as a risk management tool for this purpose.



Wärtsilä's product lifecycle is described against the simultaneous risk mitigation work done and the respective insurance coverage for accidents.

## Financial risks

Wärtsilä's financial risks are presented in the notes to the financial statements, [note 33](#).

## Wärtsilä's risk profiles and responsibilities

Risks	Risk profile	Policy or other guideline	Responsible body
<b>Strategic risks</b>		Wärtsilä's strategy and business plans	Wärtsilä Board of Directors (BoD), Board of Management (BoM) and Wärtsilä's Businesses (Businesses)
Business environment risk		Wärtsilä's strategy and business plan	BoM and Businesses
Market and customer risk		Wärtsilä's strategy and business plan	BoM and Businesses
Competitive situation and price risk		Wärtsilä's strategy and business plan	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 management function
Technology risk		Patents and industrial rights, Product guarantees	Businesses and R&D function
<b>Operational risks</b>		Wärtsilä's strategy and business plans	BoM and Businesses
Manufacturing risk		Production systems, Business Continuity Plan (BCP)	Wärtsilä Industrial Operations (WIO) and Businesses, Production Risk Group
Supplier and subcontractor risk		Supplier requirement and supplier management system, Business Continuity Plan (BCP)	Businesses and Corporate Supply Management (CSM), Supply Chain Risk Group
Lifecycle quality of products and product liability risk		Management systems (ISO 9001), Safety instruction and manuals, risk management policy, R&D risk elimination instructions	WIO, R&D function, Businesses and RM and Legal functions, Quality Risk Group
Contractual risks		Standard contracts	Legal function and Businesses, Liability Risk Group
Commodity price risk		Production cost control	Businesses and Treasury function
Data security risk		Data security principles	Businesses and IM function

Risks	Risk profile	Policy or other guideline	Responsible body
<b>Hazard risk</b>		Risk management policy and guidelines	Wärtsilä's Businesses and RM function
Personnel risk		Management system ( OHSAS 18001), travel safety instructions, crises management guidelines and premises safety plans	Businesses, Human Resources (HR) and RM functions
Natural catastrophes		Crises management guidelines, Business Continuity Plan (BCP)	Businesses and RM fuction
Fire, Cargo and other accidents		Management systems (ISO 14001 & OHSAS 18001), premises safety plan	Businesses, RM and Real Estate (RE) functions
<b>Financial risks</b>		Treasury policy	Businesses and Treasury function
Foreign exchange risk		Wärtsilä's strategy and business plans	Businesses and Treasury function
Interest rate risk		Wärtsilä's strategy and business plans	Businesses and Treasury function
Liquidity and refinancing risk		Wärtsilä's strategy and business plans	Businesses and Treasury function
Credit risk		Credit policy	Businesses and Treasury function

 Low
  Medium
  High

## Shares and shareholders

Wärtsilä Corporation's shares are listed on the NASDAQ OMX Large Cap list on the Helsinki Stock Exchange. Wärtsilä's total number of shares at the end of the review period was 98,620,565.

### Key figures for Wärtsilä share

		2010	2009	2008	2007	2006
Earnings per share (EPS)	EUR	<b>3.91</b>	3.94	3.88 <sup>2</sup>	2.74	3.72
Book value of equity per share	EUR	<b>16.61</b>	15.17	12.01	13.70	12.74
Dividend per share	EUR	<b>2.75<sup>1</sup></b>	1.75	1.50	4.25	1.75
Dividend per earnings	%	<b>70.3<sup>1</sup></b>	44.4	38.7	155.1	47.0
Dividend yield	%					
Series A		-	-	-	8.01	4.29
WRT1V <sup>3</sup>		<b>4.82<sup>1</sup></b>	6.23	7.14	8.16	4.29
Price per earnings (P/E)						
Series A		-	-	-	19.4	11.0
WRT1V <sup>3</sup>		<b>14.6</b>	7.12	5.41	19.0	11.0
Price to book- value (P/BV)						
Series A		-	-	-	3.9	3.2
WRT1V <sup>3</sup>		<b>3.4</b>	1.9	1.7	3.8	3.2
Adjusted number of shares	x 1 000					
end of financial year		<b>98 621</b>	98 621	98 621	95 970	95 554
on average		<b>98 621</b>	98 621	97 944	95 751	94 429

<sup>1</sup> Proposal of the Board of Directors.

<sup>2</sup> 3.96 euros before the effect of the combination of Wärtsilä's share series.

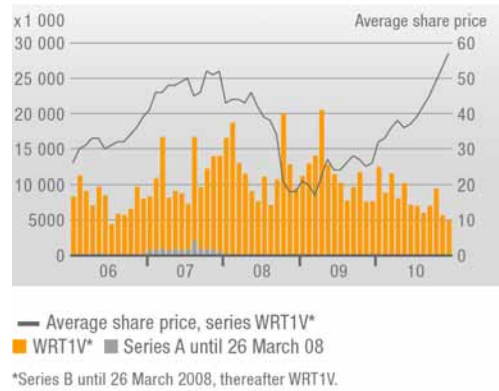
<sup>3</sup> Series B until 26 March 2008, thereafter WRT1V.

## The Wärtsilä share on the Helsinki Stock Exchange

Market capitalisation 2006–2010



Traded shares/month 2006–2010



WRT1V\* quotations 2006–2010



**The Wäertsilä share on the Helsinki Stock Exchange**

		2010	2009	2008	2007	2006
Trading volume	MEUR					
Series A <sup>1</sup>		-	-	13.5	665.7	55.6
WRT1V <sup>2</sup>		<b>3 912.5</b>	3 215.8	5 220.5	6 018.1	2 963.2
Total		<b>3 912.5</b>	3 215.8	5 234.0	6 683.8	3 018.8
Number of traded	x 1 000					
Series A <sup>1</sup>		-	-	289	13 412	1 716
WRT1V <sup>2</sup>		<b>98 076</b>	137 102	147 205	125 257	92 322
Total		<b>98 076</b>	137 102	147 595	138 669	94 038
Stock turnover	%					
Series A <sup>1</sup>		-	-	4.5	56.8	7.2
WRT1V <sup>2</sup>		<b>99.4</b>	139.0	149.3	173.0	128.2
Total		<b>99.4</b>	139.0	149.3	144.4	98.4
Average share price	EUR					
Series A <sup>1</sup>		-	-	46.79	49.63	32.52
WRT1V <sup>2</sup>		<b>39.86</b>	23.46	35.41	48.04	32.07
Trading low/high	EUR					
Series A <sup>1</sup>	low	-	-	33.05	38.05	24.60
	high	-	-	53.00	58.00	40.99
WRT1V <sup>2</sup>	low	<b>28.19</b>	15.81	15.50	38.44	24.80
	high	<b>59.25</b>	30.91	52.40	58.89	41.20
Share price at the year-end						
Series A <sup>1</sup>		-	-	-	53.09	40.75
WRT1V <sup>2</sup>		<b>57.10</b>	28.07	21.01	52.09	40.81
Year-end market capitalisation	MEUR	<b>5 631</b>	2 768	2 072	5 023	3 898

<sup>1</sup> Series A until 26 March 2008.<sup>2</sup> Series B until 26 March 2008, thereafter WRT1V.

# Shareholders

Wärtsilä has approximately 37,400 shareholders. At the end of the period, 51% of the share capital was held by foreign shareholders. At the end of 2009, the corresponding figure was 45%.

Ownership structure 31 December 2010



Ownership structure on 31 December 2010

Group	Number of shareholders	%	Number of shares	%
Private corporations	1 561	4.2	3 041 502	3.1
Banks and insurance companies	47	0.1	1 600 592	1.6
Public sector entities	47	0.1	9 369 919	9.5
Non-profit organisations	815	2.2	11 595 146	11.8
Households	34 622	92.6	22 667 444	23.0
Outside Finland	299	0.8	17 949 903	18.2
Nominee registered	14	0.04	32 396 059	32.8
<b>Total</b>	<b>37 405</b>	<b>100.0</b>	<b>98 620 565</b>	<b>100.0</b>

Division of shares 31 December 2010

Number of shares	Number of shareholders	%	Number of shares	%
1-50	7 098	19.0	216 083	0.2
51-1000	5 936	15.9	509 019	0.5
101-1 000	19 191	51.3	7 173 168	7.3
1 001-5 000	4 242	11.3	8 864 363	9.0
5 001-10 000	512	1.4	3 627 402	3.7
10 001-100 000	376	1.0	9 026 494	9.2
100 001-500 000	37	0.1	7 709 259	7.8
500 001-1 000 000	6	0.02	3 836 806	3.9
1000 001-	7	0.02	25 261 912	25.6
Nominee registered			32 396 059	32.8
<b>Total</b>	<b>37 405</b>	<b>100.0</b>	<b>98 620 565</b>	<b>100.0</b>



## Major shareholders 31 December 2010

Owner	Shares	Shares %
1 Avlis Ab	16 846 301	17.08
2 Varma Mutual Pension Insurance Company	5 130 087	5.2
3 Ilmarinen Mutual Pension Insurance Company	1 799 993	1.83
4 Svenska Litteratursällskapet i Finland r.f.	1 761 416	1.79
5 The Social Insurance Institution of Finland	967 955	0.98
6 Sigrid Juselius Foundation	665 398	0.67
7 Jenny and Antti Wihuri Foundation	631 608	0.64
8 The Finnish Cultural Foundation	540 000	0.55
9 State Pension Fund	520 328	0.53
10 Inez och Julius Polins Fond	511 517	0.52
11 Samfundet Folkhälsan i Svenska Finland r.f.	412 158	0.42
12 Signe and Ane Gyllenbergs foundation	404 444	0.41
13 Livräntestalten Hereditas	377 749	0.38
14 Ella and Georg Ehrnrooth Foundation	371 465	0.38
15 Savox Investments S.a.	365 000	0.37
16 Brita Maria Renlund Foundation	350 000	0.35
17 Åbo Akademi Foundation	300 555	0.3
18 Mutual Insurance Company Eläke-Fennia	270 000	0.27
19 OP-Delta Equity Fund	270 000	0.27
20 William Thuring's Stiftelse	242 222	0.25
21 Rantanen Tuula Anneli	241 333	0.24
22 Folkhälsans Forskningsstiftelse - Kansanterveyden tutkimussäätiö	240 489	0.24
23 Svenska Kulturfonden i Björneborg	222 005	0.23
24 Kuntien Eläkevakuutus	221 652	0.22
25 Blåberg Meeri	220 000	0.22
26 Ingman Finance Oy Ab	220 000	0.22
27 Sijoitusrahasto Gyllenberg Finlandia	194 191	0.2
28 Louise och Göran Ehrnrooths stiftelse	188 815	0.19
29 Erikoissijoitusrahasto OMX Helsinki 25	182 479	0.19
30 Svenska Handelsbanken Ab (publ)	179 437	0.18
31 Svenska Folkskolans Vänner	166 218	0.17
32 Fromond Elsa	155 478	0.16
33 Von Fieandt Johan	154 246	0.16
34 Schweizerische Nationalbank	152 272	0.15
35 Tallberg Carl Johan	143 341	0.15
36 Riihimäen Konepajakoulun Säätiö	141 293	0.14
37 Stockmann Marita	135 613	0.14
38 Magnus Ehrooth Foundation	133 000	0.13
39 Relander Harald Bertel	130 000	0.13
40 Sr Danske Invest Suomi Osake	122 532	0.12
41 Odin Finland	120 247	0.12
42 Pensionsförsäkringsbolaget Veritas	120 000	0.12
43 Emil Aaltosen säätiö	119 500	0.12

44 Blomberg Anne-Sofie	111 752	0.11
45 Sr Danske Invest Finland	106 997	0.11
46 Petter och Margit Forsströms stiftelse	105 000	0.11
47 Sr Danske Invest Suomi Yhteisöosake	94 693	0.1
48 Indeksirahasto Nordea Suomi Sijoitusrahasto	83 504	0.08
49 Markkola Leena	82 000	0.08
50 Finska Läkaresällskapet r.f.	81 050	0.08
<b>Total</b>	<b>37 307 333</b>	<b>37.83</b>

## Changes in ownership - flagging notifications

During the review period, Wärtsilä was informed of the following changes in ownership:

On 17 December 2010 BlackRock Inc. increased its holding in Wärtsilä Corporation. Following the transaction BlackRock Inc. owned 4,941,759 shares or 5.01% of Wärtsilä's share capital and total votes.

On 20 December 2010 BlackRock Inc. decreased its holding in Wärtsilä Corporation. Following the transaction BlackRock Inc. owned 4,898,350 shares or 4.97% of Wärtsilä's share capital and total votes.

## Management holdings

The members of the Board of Directors, the CEO, the CEO's deputy, and the corporations under their control own altogether 75,166 Wärtsilä Corporation shares, which represent 0.08% of the stock and of the voting rights.

[The Board of Directors share ownership in Wärtsilä 31 December 2010](#)

## Authorisations granted to the Board of Directors

Following the Annual General Meeting held on 4 March 2010, there are no current authorisations.

## The Board of Directors' dividend proposal

The Board of Directors proposes that a dividend of 1.75 euro per share and an extra dividend of 1.00 euro per share, totalling 2.75 euro per share, be distributed for the financial period that ended 31 December 2010.

## Wärtsilä on the capital markets 2010

Wärtsilä's shares are listed on the NASDAQ OMX Large Cap list of the Helsinki Stock Exchange under the trading code WRT1V. All shares carry equal voting and dividend rights.

### Investor Relations activities in 2010

During 2010, Wärtsilä conducted more than 200 IR meetings. The activity and interest towards Wärtsilä increased from 2009, when markets were unstable, and was well-balanced throughout the year. The IR team, consisting of Wärtsilä's CEO, CFO, IR Director and IR Officer, conducted meetings in the Scandinavian countries, the UK, France, Germany, the Netherlands, and Belgium, as well as on the east and west coasts of the USA. In addition to one-on-one meetings, several group meetings were hosted at Wärtsilä's offices during the year. The IR team also gave presentations at a number of investor conferences targeting institutional investors, both in Finland and abroad. Wärtsilä's Capital Markets Day, held in the spring in Helsinki, was well-appreciated by some 50 institutional investors, equity analysts and bankers. During the year, Wärtsilä's foreign shareholder base increased slightly to 51% (45). The biggest share of foreign shares was held by the United Kingdom.

The Finnish Foundation for Share Promotion regularly organises Investment Evenings in different parts of Finland. During the spring Wärtsilä gave presentations at these evenings, and in the fall participated in the Sijoitus-Invest investment fair in Helsinki. These events are primarily aimed at domestic private investors.

### Wärtsilä's Investor Relations policy

The ultimate objective of Wärtsilä's Investor Relations is to produce accurate, sufficient, and up-to-date information about the development of Wärtsilä's business operations, strategy, markets and financial position. This is to ensure that the capital markets have relevant information concerning the company and its shares in order to determine the fair value of our shares. To reach this objective we annually publish three interim reports, 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. Our web pages serve as an archive for all current and historical data on factors affecting the value of our shares.

### Prospects

Information on Wärtsilä's prospects and result forecast is published in the Financial Statements Bulletin for the financial year (and repeated in the Annual Report) and in the interim reports. The forecasted prospects are approved by the Board of Directors.

Wärtsilä does not publish quarterly result forecasts. Should there be a change in business circumstances that cause the prospects to be affected, Wärtsilä will publish changes to the prospects in accordance with prevailing regulations.

## Market estimates

The company will review, upon request by an analyst, his or her earnings model or report only on factual accuracy or information that is in the public domain. Wärtsilä does not comment 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. During this time the company's representatives do not meet with investors or analysts, or comment on the company's 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 to enable stakeholders to form a true and fair view of the company. Our communications activities comprise internal and external corporate communications and investor relations. Wärtsilä publishes stock exchange releases, general press releases, and trade press releases. Our subsidiaries publish press releases with local relevance.

Stock exchange releases give information on news that could affect the share price. Press releases provide information on business-related news or other news of general interest to our stakeholders. Releases to the trade press provide more detailed information on our products and technologies. All releases are published in Finnish, Swedish and English except those to the trade press, which are only produced in English. The stock exchange releases and press releases are available on Wärtsilä's web pages immediately after they are published.

## Contacts

Relations with the company's investors and analysts are handled by Joséphine Mickwitz.

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Director, Investor Relations  
Tel. +358 (0)10 709 5216  
Mobile: +358 400 784 889  
E-mail: josephine.mickwitz@wartsila.com

Wärtsilä's corporate communications and media relations are the responsibility of Atte Palomäki, Group Vice President, Communications & Branding.

## Analysts

To the best of our knowledge, the following analysts and possibly more have, on their own initiative, followed Wärtsilä's development during the past 12 months. They have analysed Wärtsilä and drawn up reports and comments and are able to evaluate the company as an investment target. Wärtsilä takes no responsibility for the opinions they have expressed.

<b>ABG Sundal Collier AB</b>	Christer Fredriksson	+46 8 5662 8625
<b>CA Cheuvreux</b>	Andreas Dahl	+46 8 723 5163
<b>Carnegie Investment Bank AB, Finland Branch</b>	Sasu Ristimäki	+358 9 618 711
<b>Danske Bank A/S, Helsinki Branch</b>	Antti Suttelin	+358 10 236 4708
<b>Deutsche Bank AG, Helsinki Branch</b>	Timo Pirskanen	+358 9 2525 2553
<b>E. Öhman J:or Securities</b>	Jari Harjunpää	+358 9 8866 6021
<b>Fearnley Fonds ASA</b>	Rikard Vabo	+47 22 936 000
<b>FIM</b>	Sanna Kaje	+358 9 6134 6430
<b>Goldman Sachs International</b>	Daniela Costa	+44 (0) 20 7774 8354
	Tim Rothery	+44 (0) 20 7774 6987
<b>Handelsbanken Capital Markets</b>	Tom Skogman	+358 10 444 2752
<b>HSBC Bank plc</b>	Tarun Bhatnagar	+91 80 3001 3726
	Colin Gibson	+44 (0) 20 7991 6592
<b>Jefferies International Ltd</b>	John Dean	+44 (0) 20 7029 8682
<b>Nordea Markets</b>	Jan Kaijala	+358 9 1655 9706

<b>Pohjola Bank plc</b>	Pekka Spolander	+358 10 252 4351
<b>SEB Enskilda, Helsinki Branch</b>	Tomi Railo	+358 9 6162 8727
<b>Swedbank Markets</b>	Erkki Vesola	+358 20 746 9153
<b>UBS Deutschland AG</b>	Sven Weier	+49 69 1369 8278
<b>Ålandsbanken Equities</b>	Johan Lindh	+358 20 429 3762

# Information for Shareholders

## Annual General Meeting

The Annual General Meeting of Wärtsilä Corporation will take place on Thursday, 3 March 2011, beginning at 4 p.m., in the Congress Wing of the Helsinki Fair Center, address: Messuaukio 1, 00520 Helsinki, Finland.

## Right to attend

Shareholders registered no later than 21 February 2011 in the company's list of shareholders maintained by the Finnish Central Securities Depository 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 28 February 2011 either by letter, by e-mail, by fax or by telephone.

## Registration:

Wärtsilä Corporation  
Share Register  
P.O. Box 196  
FI-00531 Helsinki  
Finland  
Telephone: +358 10 709 5282  
Between 9 a.m. and 12 (noon) on weekdays  
Fax: +358 10 709 5283  
E-mail: [yk@wartsila.com](mailto:yk@wartsila.com)  
Internet: [www.wartsila.com/agm\\_register](http://www.wartsila.com/agm_register)

Letters, e-mails and faxes informing of participation must reach the Company before the notification period expires at 4 p.m. on 28 February 2011. Letters authorising a proxy to exercise a shareholder's voting right at the Annual General Meeting should reach the Company before the notification period expires.

## Payment of dividend

The Board of Directors proposes that a dividend of 1.75 euro per share and an extra dividend of 1.00 euro per share, totalling 2.75 euro per share, be paid for the financial year 2010. The dividend will be paid to shareholders who are registered in the list of shareholders maintained by the Finnish Central Securities Depository Ltd on the record date, which is 8 March 2011. The dividend payment date proposed by the Board is 15 March 2011.

## Stock Exchange Releases

Wärtsilä's Stock Exchange Releases are available in English, Finnish and Swedish on Wärtsilä's Internet site.

# Financial information 2011

## Annual Report 2010

The electronic Annual Report 2010 is also available in Finnish and Swedish and is published on Wärtsilä's Internet site, [www.wartsila.com](http://www.wartsila.com).

## Interim Reports 2011

- January-March on Wednesday 20 April 2011
- January-June on Wednesday 20 July 2011
- January-September on Wednesday 19 October 2011

Interim Reports are available in English, Finnish and Swedish on Wärtsilä's Internet site, [www.wartsila.com](http://www.wartsila.com).



## Annual summary of stock exchange releases

22.12.2010 Notification in accordance with the Finnish Securities Market Act Chapter 2 § 9: BlackRock, Inc. decreased holding in Wärtsilä Corporation

20.12.2010 Notification in accordance with the Finnish Securities Market Act Chapter 2 § 9: BlackRock, Inc. increased holding in Wärtsilä Corporation

02.11.2010 Wärtsilä has sold its stake in Assa Abloy

20.10.2010 Wärtsilä Corporation Interim Report January - September 2010

14.10.2010 Wärtsilä's profitability for 2010 estimated to be better than earlier expected

21.07.2010 Wärtsilä Corporation Interim Report January - June 2010

27.05.2010 Wärtsilä enters rail market through joint venture with Transmashholding in Russia

14.05.2010 Wärtsilä to deliver its largest power plant project ever - close to EUR 200 million order from Brazil

23.04.2010 Wärtsilä Interim Report January-March 2010

04.03.2010 Decisions of Wärtsilä's Annual General Meeting 4 March 2010

04.03.2010 Constitutive meeting of the Board of Directors of Wärtsilä Corporation

11.02.2010 Wärtsilä Corporation's electronic annual report 2009 published

04.02.2010 Notice to the Annual General Meeting of Wärtsilä Corporation

28.01.2010 Financial Statement Bulletin 2009

19.01.2010 Wärtsilä plans to reduce its manufacturing footprint and to move part of production to China

# Financials

## Board of Directors' report

### Highlights of 2010

#### Solid performance at all levels

The year 2010 was a year of restructuring and recovery. The ordering of new ships started to pick up earlier than expected, and the orders for Wärtsilä Ship Power more than doubled compared to 2009. The activity in our Power Plants and Services divisions has remained high. As a consequence, our order intake grew 22%. Net sales developed as expected and fell by 13 percent to EUR 4,553 million, while profitability remained at a good 10.7% level, well in line with Wärtsilä's estimate for 2010. The cash flow from operating activities was at an all time high level and totalled EUR 663 million (349).

The recovery in the shipbuilding industry was a much faster and more significant recovery than expected. The improvement was backed by a recovery in trade and ship owner earnings, as well as by attractive new building prices.

The financial crisis which led to the postponement of investments for power generation in 2009, eased during 2010 and market activity was at a good level during the year. The installed base of wind power generation has also increased, which is creating a need for flexible power generation.

During the year, the global economic downturn had its effect on the marine service market which focused strongly on cost savings. Marine customers, especially in the merchant segment continued to limit their maintenance and modernisation investments. A large number of ships were slow steaming and idled. The power plants service business was less affected by the downturn.

In January 2010, Wärtsilä started the adaptation of manufacturing capacity to both the structural changes in the market and to a lower demand environment. Some of the manufacturing capacity has been moved to China and two factories in the Netherlands are in the process of being closed. Lower capacity utilisation has also triggered an analysis and adaptation of all Wärtsilä's global services and staff functions with the aim of streamlining processes, decreasing overlaps, and improving the cost efficiency.

#### Net sales

MEUR	2010	2009	Change %
Ship Power	1 201	1 767	-32
Services	1 823	1 830	0
Power Plants	1 525	1 645	-7
Eliminations and adjustments	4	17	
<b>Group</b>	<b>4 553</b>	<b>5 260</b>	<b>-13</b>

### Strategy

Wärtsilä's strategic aim is to strengthen its leading position in its markets and to ensure continued growth by offering customers reliability and the best lifecycle efficiency available. This is made possible by an integrated equipment and solutions portfolio combined with a broad service offering that matches customers' needs worldwide. The foundation of Wärtsilä's competitive edge lies in its continuous focus on innovation and R&D and its aim is to be the technology leader in its industries. Wärtsilä's ability to focus on long-term business drivers, its strong financial base, and agility in adapting to changing market conditions puts the company in a strong position to pursue its strategy.

#### Strategic acquisitions, joint ventures and expansion of the network in 2010

In May, Wärtsilä signed a joint venture agreement with the Russian company Transmashholding (TMH) to manufacture modern multipurpose diesel engines in Russia. The engines, including a new and technically advanced version of the Wärtsilä 20-engine, will be used in shunter locomotives and for various marine and power applications. The two companies will jointly engineer the railway application. Wärtsilä and TMH will also evaluate broadening the activities of the joint venture to include the development and manufacturing of other diesel engine models in the future. The value of Wärtsilä's investment in the joint venture is approximately EUR 30 million and production of the engines is planned to start in 2012.

During the year, Wärtsilä continued to expand its service network with the inauguration of a new office and workshop facility in Panama.

#### Long-term financial targets

Wärtsilä has redefined its long-term financial targets. Our target is to grow faster than global GDP. Our operating profit margin (EBIT%) target is 14% at the peak of the cycle. Even at the trough of the cycle, our target is to keep the operating profit margin above 10%. Our target is to maintain gearing below 50%. Our target is to pay a dividend equivalent to 50% of earnings.

# Year 2010

## Operating environment and market development

### Ship Power

#### 2010 contracting activity stronger than expected

The number of vessels contracted in 2010 represented an increase of 75% compared to the previous year. This was a much faster and more significant recovery than expected. The improvement was backed by a recovery in trade and ship owner earnings, as well as by attractive new building prices. A more positive outlook for ship financing, together with low interest rates, also contributed to the development. While the first half of the year was characterised by high contracting activity for bulk carriers, the second half saw a similar increase in contracting activity for container vessels and more specialised vessel types. The offshore segment continued strong throughout the year and demand was good especially for floating production units. In the fourth quarter demand for more specialised vessels was good.

#### Ship Power geographical markets - China the biggest market

As expected, the Asian shipbuilding market, and especially China, emerged stronger than earlier after the downturn. In 2010, China secured the majority of global new building orders, followed by Korea. Both Japan and Europe lost market share in 2010. Growing shipbuilding nations, such as Brazil, were active throughout the year and secured a good share of orders.

In 2010, Chinese ship owners were the most active, ordering more than 20% of all vessels ordered. German owners, traditionally strong in shipping, were slow in ordering whereas Greek owners continued to be active.

#### Ship Power market shares

Wärtsilä's market share in medium speed main engines increased from 32% at the end of the previous quarter to 42%. The company's market share in low speed main engines increased slightly to 13% (12). In auxiliary engines the market shares increased slightly to 4% (3).

### Power Plants

#### Power Plants markets remain solid

The Power Plants market activity continued at a good level during the whole year. Industrial output is increasing in most emerging markets which, in combination with population growth and enhanced standard of living, is driving the need for more power generation. The installed base of wind power generation has also increased, which is creating a need for flexible power generation. The financial crisis led to the post-

ponement of investments for power generation in 2009, and this is now creating demand in several markets.

#### Power generation market overview

As energy consumption grows, the need for both new power generation equipment increases, as does demand for replacement equipment for older capacity. Today, the global installed power generation capacity totals approximately 4,700 GW, out of which over half is in OECD-countries. Going forward, growth is expected to be stronger in non-OECD countries, due to increasing industrialization and higher living standards. The majority of Wärtsilä's Power Plants business derives from these emerging markets. Heavy fuel oil (HFO) has traditionally been the dominant fuel for power generation in emerging markets but demand for gas driven plants increases along with the introduction of gas networks. OECD-countries have focused on the development of wind power and increasing the share of natural gas power generation with the target to ramp down old coal based installations. In the USA, the introduction of shale gas has been rapid, and has made the natural gas prices very competitive. Wärtsilä is the only player in the market with such a broad gas engine portfolio within its power range.

#### Power Plants market position

The size of Wärtsilä's target markets is approximately 15,000 MW and Wärtsilä's yearly delivery volumes are 2,500-3,000 MW. The development of the heavy fuel oil driven power plants market, where Wärtsilä has a market share of over 50%, is rather stable whereas the market for gas driven power plants is growing. Wärtsilä has a market share of over 60% in the gas engine driven power plants. Wärtsilä is continuously strengthening its position in the gas market, by capturing market share from other technologies and currently has 14% of the market including both gas engines and gas turbines.

### Services

#### Marine service market focused on cost savings throughout the year

During 2010, the global economic downturn had its effect on the marine service market which focused strongly on cost savings. Marine customers, especially in the merchant segment continued to limit their maintenance and modernisation investments. A large number of ships were slow steaming which reduces maintenance and repair expenditures. At the end of the year, the amount of idled vessels had decreased to 6% from its peak of 10% at the beginning of 2010. The power plants service business was less affected by the downturn.

Wärtsilä's installed engine base in the Ship Power and Power Plants markets totals close to 180,000 MW and consists of thousands of installations distributed throughout the world. Both end markets consist of several customer segments for Services, and Wärtsilä's portfolio is the broadest in the market. These factors limit the impacts of fluctuations in any individual market or customer segment.

## Order intake and order book

### Order intake increased

Wärtsilä's order intake for the financial period totalled EUR 4,005 million (3,291), an increase of 22%. The book-to-bill ratio was 0.88 (0.63). Wärtsilä Ship Power's order intake was EUR 657 million (317), an increase of 107% over the corresponding period last year. The market started to show small signs of recovery in the first quarter of 2010, leading to increased ordering activity for Wärtsilä Ship Power from the second quarter of 2010. Wärtsilä noted increased activity in the Offshore segment throughout the year and secured several offshore orders during the period. Wärtsilä signed a major contract with the Brazilian industrial group QUIP to supply a totally integrated power solution for a new FPSO (Floating Production Supply and Offloading) vessel. The vessel is unique in that it will be the first FPSO vessel ever to operate on more than 100 MWe of installed power, produced by gas engines.

For the financial period, the Power Plants order intake totalled EUR 1,413 million (1,048), a 35% increase compared to last year. The clearly increased order intake was attributable to the improved financing situation in general, as well as recovery in many emerging economies. During the year Wärtsilä received several significant orders. Wärtsilä was contracted to supply Africa's largest gas engine power plant. The contract value is EUR 120 million and it is to be installed in Cameroon. In the second quarter, Wärtsilä was awarded a contract from Brazil to build the largest power plant ever built by Wärtsilä anywhere in the world. This turnkey contract is valued at close to EUR 200 million and the plant will have an electrical output of 380 MW. In addition, Wärtsilä received more than 900 MW of orders from Bangladesh, and almost 700 MW of orders from Turkey.

The Services order intake totalled EUR 1,931 million (1,917) for the financial period. Customers showed an increasing interest throughout the year in cost savings and in reducing their environmental footprint and Wärtsilä received several orders for environmental upgrades and conversions.

### Order book

At the end of the financial period Wärtsilä's total order book stood at EUR 3,795 million (4,491), a decrease of 16%. The Ship Power order book stood at EUR 1,825 million (2,553), -29%. The Power Plants order book amounted to EUR 1,299 million (1,362), which is 5% lower than at the same date last year. The Services order book totalled EUR 671 million (576) at the end of the financial period, an increase of 16%.

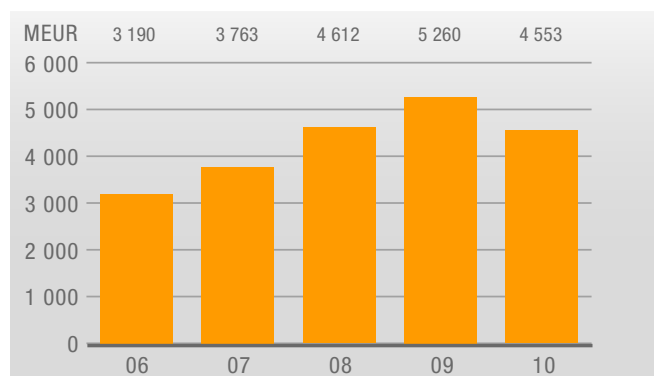
## Net sales and profitability

### Sales developed as expected

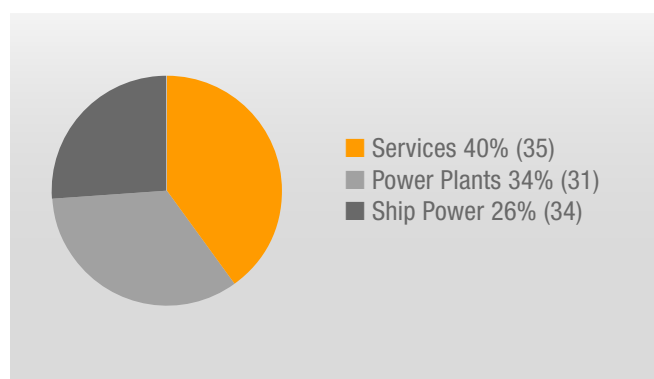
Wärtsilä's net sales for January-December 2010 totalled EUR 4,553 million (5,260), -13%. This was well in line with Wärtsilä's estimate of a decrease of approximately 15%. Ship Power's net sales decreased by 32% and totalled EUR 1,201 million (1,767). Net sales for Power Plants totalled EUR 1,525 million (1,645), a decrease of 7%. Net sales from the Services business remained at last year's level and amounted to EUR 1,823 million (1,830). Ship Power accounted for 26%, Power Plants for 34% and Services for 40% of the total net sales.

Of Wärtsilä's net sales for January-December 2010, approximately 70% was EUR denominated, 12% USD denominated, with the remainder being split between several currencies.

### Development of net sales



### Net sales by business area



### Solid profitability

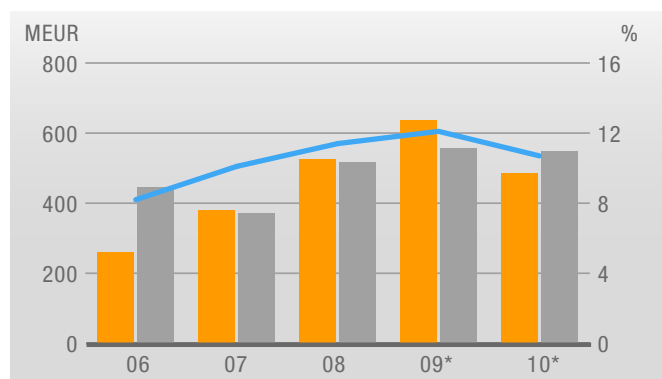
The operating result before nonrecurring expenses was EUR 487 million (638) for the financial period. The operating margin (EBIT) was 10.7% of net sales (12.1), well in line with Wärtsilä's estimate for 2010. Including nonrecurring expenses, the operating result was EUR 412 million or 9.1% of net sales. Wärtsilä

recognised EUR 75 million of nonrecurring expenses related to the restructuring measures during the financial period.

Based on the new, leaner structure, its good position in the markets and its efficient services organisation, Wärsilä has redefined its long-term EBIT margin target to be 14% at the peak of the cycle. At the trough of the cycle Wärsilä's target is to keep the operating profit margin above 10%. This replaces the previous target of 8-10% +/-2% over the cycle.

Financial items amounted to EUR -13 million (-34). Net interest totalled EUR -12 million (-17). Dividends received totalled EUR 7 million (6). The deviation in financial items is mainly due to exchange rate differences, which were negative during the corresponding period of 2009 as well as lower net interest expenses. Profit before taxes amounted to EUR 548 million (558). Taxes in the reporting period amounted to EUR 151 million (161). The profit for the financial period amounted to EUR 397 million (396). Earnings per share were 3.91 euro (3.94) and equity per share was 16.61 euro (15.17). Return on investment (ROI) was 26.0% (29.9). Return on equity was 25.0% (29.2)

## Result



■ Operating result ■ Profit before taxes  
— Operating result, %

\*Operating result before nonrecurring items

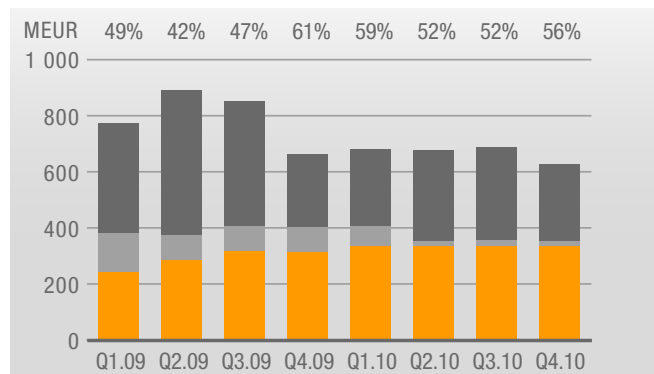
## Balance sheet, financing and cash flow

For January-December 2010 the cash flow from operating activities was at an all time high level, 663 million (349). Net working capital at the end of the period totalled EUR 170 million (482). Advances received at the end of the period totalled EUR 616 million (879). Liquid reserves at the end of the period amounted to EUR 776 million (244).

Wärsilä had interest bearing loans totalling EUR 628 million at the end of December 2010. The existing funding programmes include long-term loans of EUR 572 million, unutilised Committed Revolving Credit Facilities totalling EUR 560 million, and Finnish Commercial Paper programmes totalling EUR 700 million. The total amount of short-term debt maturing within the next 12 months is EUR 56 million.

The solvency ratio was 40.8% (40.0) and gearing was -0.09 (0.28).

## Loans

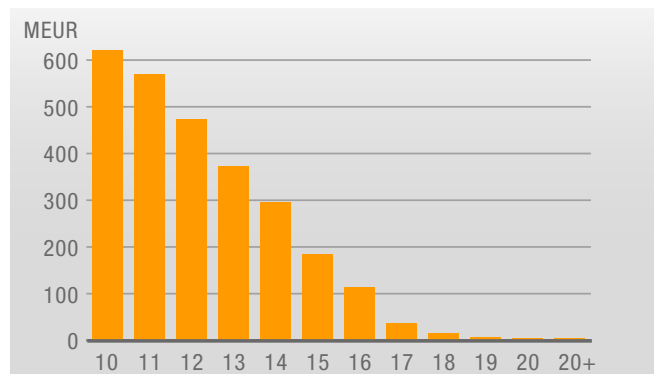


■ Fixed rate loans ■ Derivatives ■ Floating rate loans

% = Fixed portion of loans (incl. derivatives)

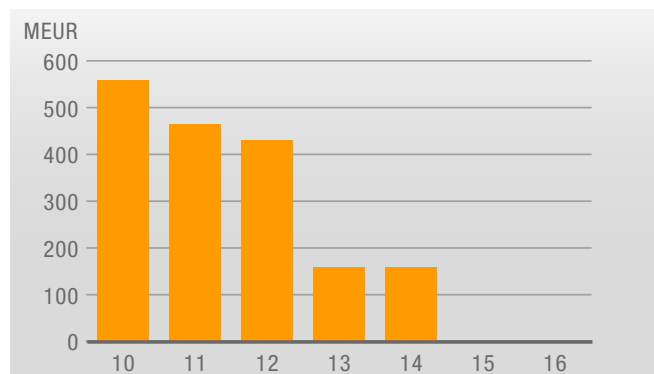
## Maturity profile of long-term loans

(end of period)

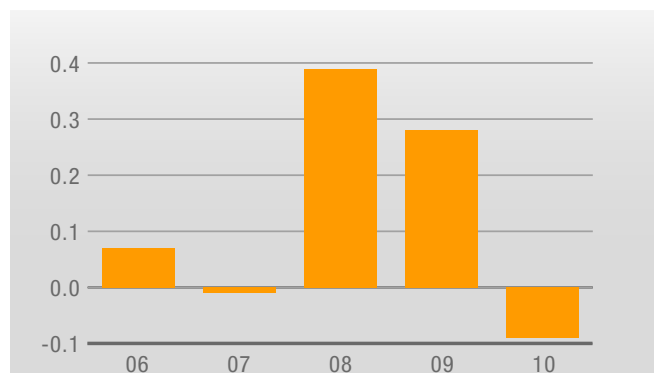


## Committed revolving credit facilities

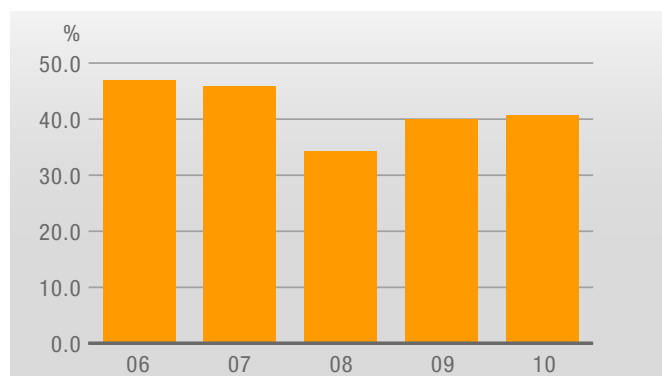
(end of period)



## Gearing



## Solvency ratio



## Interest-bearing loan capital

MEUR	2010	2009
Long-term liabilities	572	591
Current liabilities	56	73
Loan receivables	-17	-6
Cash and bank balances	-776	-244
<b>Net</b>	<b>-165</b>	<b>414</b>

## Holdings divested

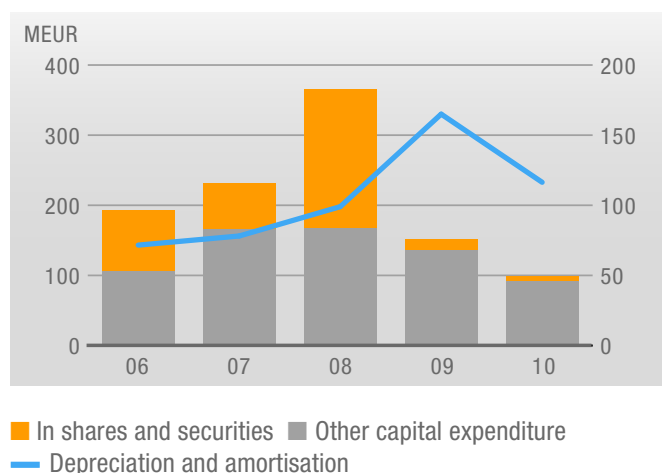
During the third quarter Wärtsilä sold its holding in Sampo Group for EUR 35 million. The realised selling profit amounted to EUR 32 million. During the fourth quarter Wärtsilä sold its holding of 7,270,350 B shares in Assa Abloy for EUR 135 million and booked a selling profit of EUR 117 million.

## Capital expenditure was clearly below depreciation

Gross capital expenditure in the financial period totalled EUR 98 million (152), which comprised EUR 92 million (136) in production, logistics and information technology investments, and EUR 6 million (16) in acquisitions and investments in securities. Depreciation and amortisations for the period amounted to EUR 116 million (165).

Maintenance capital expenditure for 2011 will be in line with or slightly above depreciation. Possible acquisition opportunities may affect capital expenditure for the year.

## Gross capital expenditure



## Gross capital expenditure

MEUR	2010	2009
Other investments	92	136
Investments in securities and acquisitions	6	16
<b>Group</b>	<b>98</b>	<b>152</b>

## Restructuring measures

Following the global financial crisis, Wärtsilä began adjusting its capacity and cost structure in May 2009 to reflect lower demand. These efforts were intensified in January 2010.

The first steps taken were to reduce the number of jobs in Ship Power, the business that had been the most severely hit by the market downturn.

In January 2010, measures continued by starting the adaptation of manufacturing capacity to both the structural changes in the market and to a lower demand environment. Some of the manufacturing capacity has been moved to China and two factories in the Netherlands are in the process of being closed. New and more efficient ways to operate have been introduced, thus enabling the closure of smaller units and the consolidation of operations to larger entities in various countries, as well as the consolidation of manufacturing close to growing markets. Temporary lay-offs have mainly been used in Finland and Norway. Lower capacity utilisation has also triggered an adaptation of all Wärtsilä's global staff functions with the aim of streamlining processes, decreasing overlaps, and improving the cost efficiency. Wärtsilä initiated processes to reduce approximately 400 jobs globally in its support functions during the fourth quarter.

Through all of these measures initiated in different phases, Wärtsilä is reducing the number of personnel by approximately 1,800 employees.

When fully implemented, it is estimated that the reductions will decrease costs by approximately EUR 130 million, which is slightly higher than previously anticipated. Of these cost savings, about EUR 60 million have materialised by the end of 2010. The remainder of the savings will gradually materialise during 2011. Wärtsilä anticipates that the majority of these cost savings will be permanent.

The total nonrecurring costs related to the restructuring will be approximately EUR 150 million, somewhat higher than previously estimated. From the costs, EUR 40 million non-cash write-offs were recognised in 2009. In January-December 2010, Wärtsilä recorded EUR 75 million nonrecurring items related to restructuring measures. The remainder of the costs will be recognised during the first half of 2011.

## Manufacturing and Research &amp; Development

## Manufacturing

The year 2010 was characterised by restructuring and reorganisation of Wärtsilä's manufacturing footprint and measures continued throughout the year.



The set up for manufacturing controllable pitch (CP) propellers at the joint venture, Wärtsilä CME Zhenjiang Propeller Co. Ltd. in Zhenjiang, China, is proceeding according to plan. The majority of the equipment needed will be relocated from the Wärtsilä factory in Drunen. The inauguration of the new factory and the first deliveries are planned for the second quarter of 2011.

The activities in Wärtsilä's joint venture with Transmashholding in Russia relating to the manufacturing of modern and multipurpose diesel engines, including a new and technically advanced version of the Wärtsilä 20 engine which will be used in shunter locomotives and for various marine and power applications, is proceeding according to plan. The first test locomotive was started at the end of the year.

#### Megawatts delivered

	2010	2009	Change, %
Power Plant engines	3 442	2 886	19.3
Ship Power, own engines	2 057	3 293	-37.5
Wärtsilä total	5 498	6 179	-11.0
By licensees	3 193	3 311	-3.6
Engine delivery total	8 691	9 490	-8.4

### Research and development

The foundation of Wärtsilä's competitive edge lies in its continuous focus on innovation and R&D and in its aim is to be the technology leader in its industries. This is done by offering a streamlined portfolio of products and by integrating products into larger solutions. Environmental solutions are an integrated part of Wärtsilä's product portfolio. Wärtsilä's R&D activities focus on products and solutions that are fuel-efficient, reliable and safe, cost-efficient to operate, and that produce minimal environmental impacts throughout their life-cycles. Wärtsilä is in the process of renewing its 4-stroke and 2-stroke engine portfolio to meet the needs brought by the tightened environmental legislation.

In 2010, Wärtsilä's research and development expenses totalled EUR 141 million (141), or 3.1% of net sales.

### New product launches

During the first quarter of 2010, Wärtsilä launched a new product, the Wärtsilä NOR, which is a NO<sub>x</sub> reducer based on Selective Catalytic Reduction technology. This is a proven means for the effective reduction of NO<sub>x</sub> emissions.

In the third quarter, Wärtsilä launched its new Communication and Control Centre, the first system to integrate an entire ship control system into a single solution.

In September, Wärtsilä launched the latest addition to its gas engine portfolio, the Wärtsilä 18V50SG engine. The engine has an electrical output of 18,321 kW, making it the largest gas powered generating set in the world.

Wärtsilä also launched the Wärtsilä Ballast Water Treatment solution which provides customers with a reliable means for

responding to the requirements set by the International Maritime Organization, and to additional requirements stipulated by maritime authorities.

The new Propulsion Condition Monitoring Service, adapted from the remote monitoring architecture Wärtsilä developed for its engine monitoring service, is the first of its kind in the marine propulsion market.

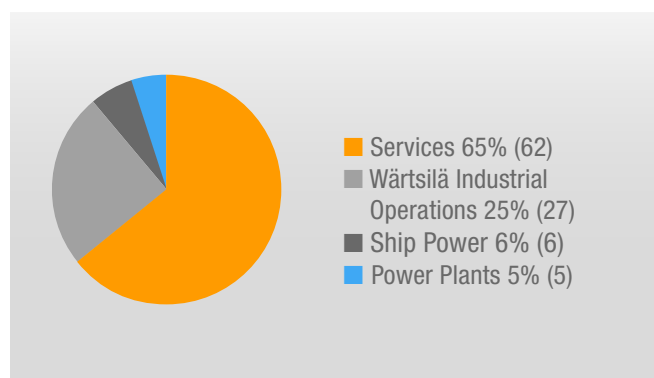
In the fourth quarter, Wärtsilä introduced a more powerful version of its popular Wärtsilä 32 engine for marine applications.

### Personnel

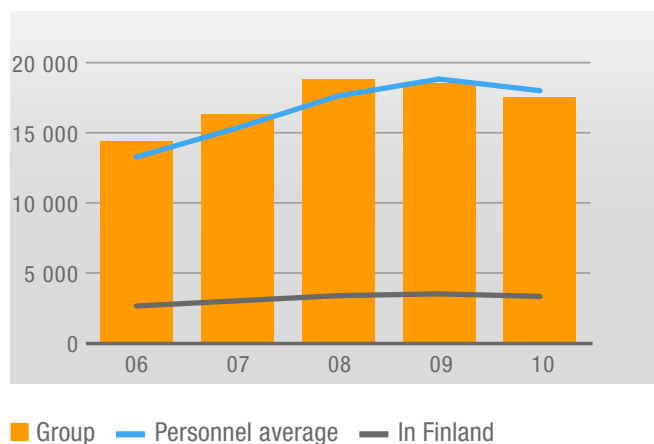
Wärtsilä had 17,528 (18,541) employees at the end of December 2010. On average, the number of personnel for January-December 2010 totalled 18,000 (18,830). Ship Power employed 969 (1,140) people. Power Plants employed 835 (835) people, Services 11,150 (11,219) and manufacturing and R&D (Wärtsilä Industrial Operations) 4,210 (4,911) people.

Of Wärtsilä's total number of employees, 19% (19) were located in Finland, 6% (8) in the Netherlands and 31% (31) in the rest of Europe. Personnel employed in Asia represented 31% (30), out of which 7% (7) were in China, in India 6% (6), in Singapore 5% (5), and in the rest of the Asia 14% (12).

#### Personnel by business



#### Personnel



## Sustainable development

The global quest for sustainable and environmentally sound development is an important demand driver for Wärtsilä. Increased environmental concerns and more stringent regulations, both globally and locally, are creating pressure on the marine industry to constantly investigate new ways of reducing the environmental impact of ships. Wärtsilä is well positioned to reduce sea transport emissions and greenhouse gas emissions, thanks to its various technologies and specialised services. The need to reduce greenhouse gas emissions also continues to drive change in the energy sector.

During the second quarter, Wärtsilä in co-operation with the Baltic Sea Action Group (BSAG), arranged an environmental conference to seek shipping solutions that can benefit the seriously polluted Baltic Sea.

Wärtsilä joined the World Bank-led Global Gas Flaring Reduction organisation, which strives to reduce the flaring or

burning of natural gas associated with oil production, thereby reducing greenhouse gas emissions.

In December, Wärtsilä joined the Sustainable Shipping Initiative (SSI), a programme initiated by Forum for the Future. The initiative brings together the industry's leading organisations to show what can and must be done for shipping to contribute to, and benefit from, a sustainable future.

In 2010, Wärtsilä's share was included in two new sustainability indexes: The ECPI Global Carbon Equity Index, and the OMX GES Sustainability Nordic index. Wärtsilä was also rated a PRIME company by Oekom Research.

Wärtsilä is committed to support the UN Global Compact and its principles with respect to human rights, labour, environment and anti-corruption.

Wärtsilä's Sustainability Report, which is part of the annual report, is prepared in accordance with the GRI G3 guidelines. It represents a balanced and reasonable view of Wärtsilä's economic, environmental and social performance. The sustainability report is assured.

## Shares and shareholders

### Shares on Helsinki Exchanges

31 Dec. 2010	Number of Shares	Number of votes	Number of shares traded 1-12/2010	
WRT1V	98 620 565	98 620 565	98 075 775	
1 Jan. - 31 Dec. 2010	High	Low	Average 1)	Close
Share price	59.25	28.19	39.86	57.10
1) Trade-weighted average price				
Market capitalisation	31 Dec. 2010	31 Dec. 2009		
EUR million	5 631	2 768		
Foreign shareholders	31 Dec. 2010	31 Dec. 2009		
	51.0%	45.4%		

### Flagging notifications

During the review period, Wärtsilä was informed of the following changes in ownership:

On 17 December 2010 BlackRock Inc. increased its holding in Wärtsilä Corporation. Following the transaction BlackRock Inc. owned 4,941,759 shares or 5.01% of Wärtsilä's share capital and total votes.

On 20 December 2010 BlackRock Inc. decreased its holding in Wärtsilä Corporation. Following the transaction BlackRock Inc. owned 4,898,350 shares or 4.97% of Wärtsilä's share capital and total votes.



## Decisions taken by the Annual General Meeting

Wärtsilä's Annual General Meeting held on 4 March 2010 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 2009. The Meeting approved the Board of Directors' proposal to pay a dividend of 1.75 euro per share. The dividend was paid on 16 March 2010.

The Annual General Meeting decided to change the eighth article of the Articles of Association so that the publication of the notice for the general meeting will be no later than three weeks, but at least nine (9) days before the record date of the general meeting. The change is due to a change in the Finnish Limited Liability Companies Act.

The Annual General Meeting decided to change the fourth article of the Articles of Association so that the maximum number of members of the Board of Directors was increased to ten, and that the Board of Directors consists of 5-10 members.

The Annual General Meeting decided that the Board of Directors shall have nine members. The following were elected to the Board: Ms Maarit Aarni-Sirviö, Mr Kaj-Gustaf Bergh, Mr Alexander Ehrnrooth, Mr Paul Ehrnrooth, Mr Ole Johansson, Mr Antti Lagerroos, Mr Bertel Langenskiöld, Mr Mikael Lilius and Mr Matti Vuoria.

The firm of public auditors KPMG Oy Ab was appointed as the company's auditors.

The Annual General Meeting authorised the Board to resolve on donations of EUR 1,500,000 at the maximum to be made to universities during 2010. The primary recipient of the donations is Aalto University.

### Organisation of the Board of Directors

The Board of Directors of Wärtsilä Corporation elected Antti Lagerroos as its chairman and Matti Vuoria as the deputy chairman. The Board decided to establish an Audit Committee, a Nomination Committee and a Compensation Committee. The Board appointed from among its members the following members to the Committees:

#### Audit Committee:

Chairman Antti Lagerroos, Maarit Aarni-Sirviö, Alexander Ehrnrooth, Bertel Langenskiöld

#### Nomination Committee:

Chairman Antti Lagerroos, Kaj-Gustaf Bergh, Paul Ehrnrooth, Matti Vuoria

#### Compensation Committee:

Chairman Antti Lagerroos, Bertel Langenskiöld, Mikael Lilius, Matti Vuoria

## Risks and business uncertainties

No major changes occurred in Wärtsilä's business environment in the fourth quarter and Wärtsilä expects that its business environment will continue to improve.

Although the risks have decreased substantially, the main risks within Ship Power remain the slippage of shipyard delivery schedules, as well as the risk of cancellation of existing orders. Due to high contracting activity in 2010, there is a risk of a slowdown in certain vessel segments.

In the Power Plant business, the consequences from the financial crisis can still be seen in the timing of bigger projects.

In Services, the biggest risk continues to be the uncertainty in the marine markets.

The annual report for 2010 contains a thorough description of Wärtsilä's risks and risk management.

## Market outlook

Although the recovery of the shipbuilding markets has been much stronger than anticipated, the market fundamentals in some vessel segments remain unchanged. There is overcapacity, especially in the merchant segment, as order books are still being delivered and ordering activity has been strong in this segment in 2010. Wärtsilä's view on the developments in the merchant segment is cautious for 2011. The strengthening of the offshore segment as well as other more specialised vessel segments important for Wärtsilä, is expected to continue in 2011. Interest in the use of natural gas as fuel in the shipping industry is expected to continue, providing good potential for Wärtsilä within this field.

In 2011, the prevailing conditions will continue to affect competition and price pressure among shipbuilding suppliers. Wärtsilä expects that its Ship Power order intake in 2011 will be moderately better than in 2010.

Recovery in the power generation market is expected to continue in 2011. The growing emerging markets will continue to invest in power generation, and the OECD countries are expected to gradually address the need for changes in their power generation systems. The investments in renewable power may still take some time to recover, but the operational base of renewable energy, mainly wind power, has increased substantially in the past years. This creates a need for flexible power generation to manage the power variations.

At the same time the economics of natural gas generation are good. Natural gas prices have remained stable, and in the USA the prices of natural gas and oil have decoupled as a result of the quick ramp up of shale gas supply and moderate demand. There is also expectation that the ramp down of older coal based generation, due to environmental reasons, will create demand for clean, gas based generation. Wärtsilä Power Plants estimates its order intake to remain at a good level in 2011.

Wärtsilä expects that a sustainable recovery in the marine service market will begin during 2011. Power plant installa-

tions will continue to be run at high operating levels. The focus on operational improvement and competitiveness will remain high on customers' agendas. Wärtsilä is well positioned to offer service solutions that ensure the reliability and availability of installations whilst reducing the overall maintenance spend. Increasingly stringent environmental regulations pose a challenge for our customers. Wärtsilä's extensive product portfolio offers competitive options for our customers for meeting the new requirements. The size and scope of Wärtsilä Services creates stability in a changing market environment, and provides a platform for future growth.

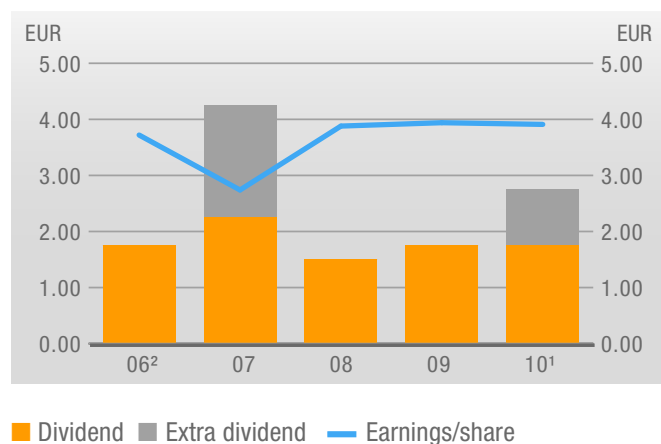
## Wärtsilä's prospects for 2011

Wärtsilä expects its net sales for 2011 to grow 3-5% and operational profitability (EBIT% before nonrecurring items) to be around 11%.

## Board of Directors' dividend proposal

The Board of Directors proposes that a dividend of 1.75 euro per share and an extra dividend of 1.00 euro per share, totalling 2.75 euro per share, be paid for the financial year 2010. Wärtsilä's distributable funds at the end of the period totalled EUR 901,099,082.48.

Earnings/share, dividend/share



<sup>1</sup> Proposal by the Board 2010. Earnings per share include nonrecurring items and selling profits from financial assets available for sale.

<sup>2</sup> Includes non-operational income; Assa Abloy and Ovako.

# Five Years in Figures

MEUR		2010	2009	2008	2007	2006
<b>Net sales</b>						
		4 553	5 260	4 612	3 763	3 190
of which outside Finland	%	99.4	99.3	98.1	98.2	98.5
Exports from Finland		2 584	3 114	2 574	2 017	1 726
Personnel on average		18 000	18 830	17 623	15 337	13 264
of which in Finland		3 326	3 506	3 378	3 010	2 641
Order book		3 795	4 491	6 883	6 308	4 439
<b>From the consolidated statement of income</b>						
Depreciation, amortisation and impairment		116	165	99	78	72
Share of result of associates and joint ventures*		5	6	-	1	1
Operating result before nonrecurring items		487	638	525	380	263
as a percentage of net sales	%	10.7	12.1	11.4	10.1	8.2
Operating result		412	592	525	380	263
as a percentage of net sales	%	9.1	11.2	11.4	10.1	8.2
Financial income and expenses		-13	-34	-9	-8	-7
as a percentage of net sales	%	-0.3	-0.6	-0.2	-0.2	-0.2
Net income from financial assets available for sale		149	-	-	-	124
Share of result of associates; Ovako*		-	-	-	-	67
Profit before taxes		548	558	516	372	447
as a percentage of net sales	%	12.0	10.6	11.2	9.9	14.0
Profit for the financial period		397	396	389	265	353
as a percentage of net sales	%	8.7	7.5	8.4	7.1	11.1
<b>From the consolidated statement of financial position</b>						
Non-current assets		1 483	1 548	1 498	1 283	1 233
Current assets		3 213	3 108	3 245	2 466	1 955
Total equity attributable to equity holders of the parent		1 638	1 496	1 184	1 315	1 217
Non-controlling interests		26	16	15	10	13
Interest-bearing debt		628	664	664	283	270
Non-interest-bearing liabilities		2 404	2 479	2 880	2 141	1 687
Total equity and liabilities		4 696	4 655	4 743	3 749	3 188
Gross capital expenditure		98	152	366	231	193
as a percentage of net sales	%	2.2	2.9	7.9	6.1	6.1
Research and development expenses		141	141	121	122	85
as a percentage of net sales	%	3.1	2.7	2.6	3.2	2.7
Dividends paid for the financial year		173**	173	148	216	167
Extra dividend		99**	-	-	192	-
Dividends total		271	173	148	408	167
<b>Financial ratios</b>						
Earnings per share (EPS)	EUR	3.91	3.94	3.88	2.74	3.72
Diluted EPS	EUR	3.91	3.94	3.88	2.73	3.71
Dividend per share	EUR	2.75**	1.75	1.50	4.25	1.75
Dividend per earnings	%	70.3**	44.4	38.7	155.1	47.0
Interest coverage		18.9	16.4	14.0	13.7	13.1
Return on investment (ROI)	%	26.0	29.9	32.4	26.0	31.8
Return on equity (ROE)	%	25.0	29.2	30.8	20.8	29.5
Solvency ratio	%	40.8	40.0	34.3	45.9	47.0
Gearing		-0.09	0.28	0.39	-0.01	0.07
Equity per share	EUR	16.61	15.17	12.01	13.70	12.74

\* Share of result of associates excluding Oy Ovako Ab has been transferred above operating result.

\*\* Proposal of the Board of Directors. Financial ratios calculated from total amount of dividend.

# Calculations of Financial Ratios

## Return on investment (ROI)

$$\frac{\text{Profit before taxes + interest and other financial expenses}}{\text{Total equity and liabilities – non-interest-bearing liabilities – provisions, average over the year}} \times 100$$

## Return on equity (ROE)

$$\frac{\text{Profit for the financial period}}{\text{Equity, average over the year}} \times 100$$

## Interest coverage

$$\frac{\text{Profit before taxes + depreciation and amortisation + interest and other financial expenses}}{\text{Interest and other financial expenses}}$$

## 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)

$$\frac{\text{Profit for the financial period attributable to equity holders of the parent company}}{\text{Adjusted number of shares over the financial period}}$$

## Equity per share

$$\frac{\text{Equity attributable to equity holders of the parent company}}{\text{Adjusted number of shares at the end of the financial year}}$$

## Dividend per share

$$\frac{\text{Dividends paid for the financial year}}{\text{Adjusted number of shares at the end of the financial year}}$$

## Payout ratio

$$\frac{\text{Dividend per share}}{\text{Earnings per share (EPS)}} \times 100$$

## Effective dividend yield

$$\frac{\text{Dividend per share}}{\text{Adjusted share price at the end of the financial year}} \times 100$$

## Price/earnings (P/E)

$$\frac{\text{Adjusted share price at the end of the financial year}}{\text{Earnings per share (EPS)}}$$

## Price/book value per share (P/BV)

$$\frac{\text{Adjusted share price at the end of the financial year}}{\text{Equity per share}}$$

## Nonrecurring items

nonrecurring items related to restructuring measures

# Consolidated Financial Statements

## Consolidated Statement of Income

MEUR	Note	2010	%	2009	%
<b>Net sales</b>	1, 3	<b>4 553</b>	100.0	5 260	100.0
Change in inventories of finished goods & work in progress		-164		98	
Work performed by the Group and capitalised		2		1	
Other operating income	4	52		50	
Material and services	5	-2 372		-3 183	
Employee benefit expenses	6	-948		-910	
Depreciation amortisation and impairment	7	-116		-165	
Other operating expenses		-601		-564	
Share of result of associates and joint ventures	14	5		6	
<b>Operating result</b>		<b>412</b>	9.1	592	11.2
Dividend income	8	7		6	
Interest income	8	6		4	
Other financial income	8	12		12	
Interest expenses	8	-18		-21	
Other financial expenses	8	-20		-35	
Net income from financial assets available for sale	15	149			
<b>Profit before taxes</b>		<b>548</b>		558	
Income taxes	9	-151		-161	
<b>Profit for the financial period</b>		<b>397</b>	8.7	396	7.5
Attributable to:					
Equity holders of the parent company	10	386		389	
Non-controlling interests		11		8	
		<b>397</b>		396	
Earnings per share attributable to equity holders of the parent company:					
Earnings per share (basic and diluted) EUR		<b>3.91</b>		3.94	
<b>Statement of Comprehensive Income</b>	11				
<b>Profit for the financial period</b>		<b>397</b>		396	
<b>Other comprehensive income after tax:</b>					
Exchange rate differences on translating foreign operations		17		18	
Financial assets available for sale					
fair valuation		30		34	
transferred to statement of income		-110			
Cash flow hedges		-9		20	
Share of other comprehensive income of associates and joint ventures				1	
Other income/expenses		1			
<b>Other comprehensive income</b>		<b>-71</b>		73	
<b>Total comprehensive income for the period</b>		<b>326</b>		469	
Total comprehensive income attributable to:					
Equity holders of the parent company		313		460	
Non-controlling interests		13		9	
		<b>326</b>		469	

## Consolidated Statement of Financial Position, Assets

MEUR	Note	31.12.2010	%	31.12.2009	%
<b>Non-current assets</b>					
Goodwill	12	574		558	
Intangible assets	12	205		222	
Property, plant and equipment	13	455		449	
Investment properties	13	11		9	
Investments in associates and joint ventures	14	65		56	
Financial assets available for sale	15, 17	18		151	
Interest-bearing investments	17	16		2	
Deferred tax receivables	20	122		88	
Trade receivables	17			2	
Other receivables	18	16		12	
		1 483	31.6	1 548	33.2
<b>Current assets</b>					
Inventories	16	1 244		1 577	
Interest-bearing receivables	17	1		4	
Trade receivables	17	860		1 028	
Income tax receivables		26		10	
Other receivables	18	305		244	
Cash and cash equivalents	19	776		244	
		3 213	68.4	3 108	66.8
<b>Total assets</b>		<b>4 696</b>	<b>100.0</b>	<b>4 655</b>	<b>100.0</b>

## Consolidated Statement of Financial Position, Equity and liabilities

MEUR	Note	31.12.2010	%	31.12.2009	%
<b>Equity</b>					
Share capital	22	336		336	
Share issue premium	22	61		61	
Translation differences		8		-6	
Fair value reserve	23	12		99	
Retained earnings		1 221		1 006	
Total equity attributable to equity holders of the parent		1 638	34.9	1 496	32.1
Non-controlling interests		26	0.6	16	0.3
<b>Total equity</b>		<b>1 664</b>	<b>35.4</b>	<b>1 512</b>	<b>32.5</b>
<b>Liabilities</b>					
<b>Non-current liabilities</b>					
Interest-bearing debt	17, 25	572		591	
Deferred tax liabilities	20	70		93	
Pension obligations	21	40		46	
Provisions	24	45		24	
Advances received		104		187	
Other liabilities	17, 26			1	
		831	17.7	941	20.2
<b>Current liabilities</b>					
Interest-bearing debt	17, 25	56		73	
Provisions	24	233		181	
Advances received		511		691	
Trade payables	17, 25	366		299	
Income tax liabilities		105		75	
Other liabilities	16, 25	929		883	
		2 201	46.9	2 202	47.3
<b>Total liabilities</b>		<b>3 032</b>	<b>64.6</b>	<b>3 143</b>	<b>67.5</b>
<b>Total equity and liabilities</b>		<b>4 696</b>	<b>100.0</b>	<b>4 655</b>	<b>100.0</b>

## Consolidated Statement of Cash Flows

MEUR	2010	2009
<b>Cash flow from operating activities:</b>		
Profit before taxes	548	558
Adjustments:		
Depreciation, amortisation and impairment	116	165
Financial income and expenses	13	34
Selling profit and loss of fixed assets and other changes	-147	-7
Share of result of associates and joint ventures	-5	-6
Cash flow before changes in working capital	526	743
<b>Changes in working capital:</b>		
Assets, non-interest-bearing, increase (-) / decrease (+)	132	114
Inventories, increase (-) / decrease (+)	379	66
Liabilities, non-interest-bearing, increase (+) / decrease (-)	-141	-358
Changes in working capital	370	-179
<b>Cash flow from operating activities before financial items and taxes</b>	<b>896</b>	<b>564</b>
<b>Financial items and taxes:</b>		
Interest and other financial income	11	15
Interest and other financial expenses	-72	-72
Income taxes	-173	-158
Financial items and taxes	-233	-215
<b>Cash flow from operating activities</b>	<b>663</b>	<b>349</b>
<b>Cash flow from investing activities:</b>		
Investments in shares and acquisitions	-6	-16
Investments in property, plant and equipment and intangible assets	-92	-136
Proceeds from sale of property, plant and equipment and intangible assets	9	3
Proceeds from sale of financial assets available for sale	173	-21
Loan receivables, increase (-) / decrease (+) and other changes	-13	-1
Dividends received	8	8
<b>Cash flow from investing activities</b>	<b>79</b>	<b>-163</b>
<b>Cash flow after investing activities</b>	<b>742</b>	<b>187</b>
<b>Cash flow from financing activities:</b>		
Proceeds from non-current borrowings	37	263
Repayments and other changes in non-current loans	-78	-109
Loan receivables, increase (-) / decrease (+)	2	3
Current loans, increase (+) / decrease (-)	-2	-141
Dividends paid	-175	-156
<b>Cash flow from financing activities</b>	<b>-216</b>	<b>-140</b>
<b>Change in cash and cash equivalents, increase (+) / decrease (-)</b>	<b>525</b>	<b>47</b>
Cash and cash equivalents at beginning of period	244	197
Exchange rate changes	7	
Cash and cash equivalents at end of period	776	244

## Consolidated Statement of Changes in Equity

	Total equity attributable to equity holders of the parent						Non-controlling interests	Total equity
MEUR	Share capital	Share issue premium	Translation difference	Fair value reserve	Retained earnings	Total		
<b>Equity on 1 January 2009</b>	336	61	-27	50	764	1 184	15	1 199
Translation differences			21			21		21
Other changes					1	1		1
Financial assets available for sale								
gain / loss arising from fair valuation, net of taxes				34		34		34
Cash flow hedges								
gain / loss arising from fair valuation, net of taxes				3		3		3
transferred to statement of income, net of taxes				12		12	2	14
<b>Comprehensive income</b>			21	49	1	71	1	73
Profit for the financial period					389	389	8	396
<b>Total comprehensive income for the period</b>			21	49	390	460	9	469
Dividends paid					-148	-148	-8	-156
<b>Equity on 31 December 2009</b>	<b>336</b>	<b>61</b>	<b>-6</b>	<b>99</b>	<b>1 006</b>	<b>1 496</b>	<b>16</b>	<b>1 512</b>
Translation differences			14			14	1	15
Other changes					2	2	-1	1
Financial assets available for sale								
gain / loss arising from fair valuation, net of taxes				30		30		30
transferred to statement of income, net of taxes				-110		-110		-110
Cash flow hedges								
gain / loss arising from fair valuation, net of taxes				6		6		6
transferred to statement of income, net of taxes				-13		-13		-12
<b>Comprehensive income</b>			14	-87	2	-72	1	-71
Profit for the financial period					386	386	11	397
<b>Total comprehensive income for the period</b>			14	-87	387	314	12	326
Dividends paid					-173	-173	-2	-175
<b>Equity on 31 December 2010</b>	<b>336</b>	<b>61</b>	<b>8</b>	<b>12</b>	<b>1 221</b>	<b>1 638</b>	<b>26</b>	<b>1 664</b>

Additional information on share capital is presented in Note 22 and for fair value and other reserves in Note 23.



# Accounting Principles for the Consolidated Accounts

## Basic information

Wärtsilä Corporation is a Finnish listed company organised under the laws of Finland and domiciled in Helsinki.

Wärtsilä is a global leader in complete lifecycle power solutions for the marine and energy markets. By emphasising technological innovation and total efficiency, Wärtsilä maximises the environmental and economic performance of the vessels and power plants of its customers.

In 2010, Wärtsilä's net sales totalled EUR 4.6 billion with approximately 17,500 employees. The company has operations in 160 locations in 70 countries around the world.

## Basis of preparation

The consolidated annual 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 as at 31 December 2010. 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 Finnish accounting principles and corporate legislation.

Reporting is based on the historical cost convention. Exceptions are financial assets available for sale, financial assets and liabilities designated at fair value through the statement of income, derivative contracts, items hedged at fair value, and share-based transactions made with cash and measured at fair value. The figures are in millions of euros.

Since 1 January 2010 the Group has applied the following updated standards, amendments and interpretations which have effect on the consolidated financial statements:

- *Revised IFRS 3 Business Combinations.* Changes have an impact on the amount recognised as goodwill and gain or loss resulting from the sale of business. The revised standard also has an impact in the items recognised in the statement of income both when the business combination is carried out and in the subsequent periods during which additional purchase price is paid or additional acquisitions are made.
- *Amendment to IAS 27 Consolidated and Separate Financial Statements.* According to the amendment the effects, arising from changes in subsidiary ownership, are recognised directly in Group's equity when the parent company remains in control. When the Group loses the control in a subsidiary, the remaining investment is recognised at fair value through the statement of income. The same is applicable to investments in associates (IAS 28) and joint ventures (IAS 31). As

a consequence of the amendment in the standard, potential losses of a subsidiary can be allocated to non-controlling interests even if the loss amount exceeds the investment made by the non-controlling interest.

Since 1 January 2010 the Group has applied the following updated standards, amendments and interpretations which have no significant impact on the consolidated financial statements:

- *Amendment to IAS 39 Financial Instruments: Recognition and Measurement - Eligible Hedged Items*
- *IFRIC 18 Transfers of Assets from Customers*
- *Amendments to IFRIC 9 Reassessment of Embedded Derivatives and IAS 39 Financial Instruments: Recognition and Measurement - Embedded Derivatives*

## Use of estimates

The preparation of the financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the valuation of the reported assets and liabilities and other information, such as contingent liabilities and the recognition of income and expenses in the statement of income. Although these estimates are based on management's best knowledge of current events and actions, actual results may differ from the estimates. The most important items, which require management estimates and which may include uncertainty, include the following:

Sales revenue is typically recognised when the product or service has been delivered, its value has been determined and it is probable that the receivable will be collected. These estimates affect the amount of sales revenue recognised. Revenue from long-term projects, and long-term operations and maintenance agreements is recognised according to their percentage of completion when the profit on the project or agreement can be reliably determined. The degree of completion and the profit are based on management's estimates as to the realisation of the project or agreement. These estimates are reviewed regularly. Recognised sales revenue and profit 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.

Warranty provisions are recorded on the recognition of sales revenue. The provision is based on 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 such provisions are not always sufficient.

The Group is a defendant in several court cases arising from its business operations. A provision 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.

The recoverable amounts of property, plant and equipment, intangible assets and goodwill are determined for all cash-generating units annually or, if it is shown that the asset has lost value, 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 growth, operating margin, useful life, future investment needs, and the discount interest rate. Changes in these assumptions can significantly affect future estimates.

Estimates of pension obligations in the case of defined benefit plans are based on actuarial estimates of factors including future salary increases, discount interest rates and income from reserve funds. Changes in these assumptions can significantly affect the company's pension obligations and pension costs.

### Principles of consolidation

The consolidated financial statements include the parent company Wärtsilä Corporation and all subsidiaries in which the parent company directly or indirectly holds more than 50 per cent of the voting rights or in which Wärtsilä is otherwise in control, as well as the Group's associated companies (20 to 50 per cent voting rights and significant influence over the company but not control over its financial and operating policies). Associated companies and joint ventures are included in the consolidated financial statements using the equity method. 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 reported if the Group has incurred obligations from the associated company or joint venture.

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. The Group's share of the associated company's or joint venture's changes recorded in other comprehensive income are recorded in the Group's other comprehensive income.

Acquired or established subsidiaries, associated companies and joint ventures are included in the consolidated financial statements from the day the company was acquired or established, until ownership of the company legally terminates.

Acquired companies are accounted for using the purchase method of accounting. 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 non-controlling interests, if the Group already has control, the non-controlling interest is valued either at fair value or at the non-controlling interests' proportionate share of the identifiable net assets. The differ-

ence 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 possible consideration paid, measured at fair value. The acquisition costs are expensed in the same reporting period in which they occur. For the acquisitions made before January 1, 2010, the accounting principles valid at the time of the acquisition have been applied.

All intra group transactions, dividend distributions, receivables and liabilities and unrealised margins are eliminated in the consolidated financial statements. In the statement of income, non-controlling interests have been separated from the income for the reporting period. In the Group's statement of financial position, non-controlling interests are shown as a separate item under equity.

### Measurement of fair value of assets acquired in business combinations

In major business combinations, the Group has employed an external advisor when measuring the fair values of the property, plant and equipment and intangible assets acquired. In the case of property, plant and equipment, comparisons have been made with the market prices of corresponding assets, and the decrease in value resulting from the assets' age, degree of wear and other similar factors has been estimated. Measurement of the fair value of intangible assets is based on estimates of cash flows related to these assets.

### Joint ventures

Joint ventures are companies in which the Group shares control with another party. The Group's holdings in joint ventures are consolidated by using the equity method. The Group's proportion of profit is shown in the statement of income on line Share of result in associates and joint ventures. Wärtsilä's proportion of retained earnings post acquisition is included in the equity.

### Foreign subsidiaries

The statements of income and other 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 reporting period. The translation of the profit of the period and other comprehensive income using different exchange rates in the statement of comprehensive income and the statement of financial position cause translation differences, which are recognised in equity and which are recorded 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 converted into euros using the exchange rates prevailing at the end of the reporting period.

### Transactions in foreign currencies

Transactions denominated in a foreign currency are translated into euros using the exchange rate prevailing at the dates of the transactions. Receivables and liabilities are translated into euros at the exchange rate prevailing at the end of the reporting period. Exchange rate gains and losses related to non-financial receivables and liabilities are reported on the applicable line in the statement of income and are included in operating result. Exchange rate differences related to financial assets and financial liabilities are reported as financial items in the statement of income.

### Net sales and revenue recognition

Sales are presented net of indirect sales taxes and discounts. Sales are recognised when the significant risks and rewards connected with ownership have been transferred to the buyer. This typically means that revenue recognition occurs when a product or service is delivered to the customer in accordance with the terms of delivery.

Revenue from long-term construction contracts and long-term operating and maintenance agreements is recognised in accordance with the percentage of completion method when the outcome of the contract can be estimated reliably. The percentage of completion is based on the ratio of costs incurred to total estimated costs to date for long-term construction contracts, whereas for long-term operating and maintenance agreements it is calculated on the basis of the proportion of the contracted services performed. When the final outcome of a long-term project cannot be reliably determined, the costs arising from the project are expensed in the same reporting period in which they occur, but revenue from the project is recorded only to the extent that the company will receive an amount corresponding to actual costs. Any losses due to projects are expensed immediately.

### Research and development costs

Research costs are expensed in the reporting 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 criteria of IAS 38 (Intangible assets), including commercial and technological feasibility, have been met. These projects involve the development of new or significantly improved products or production processes. Capitalised development costs are amortised and the cost of buildings, machinery and facilities for development depreciated on a systematic basis over their expected useful lives. Grants received are reported as other operating income.

### 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 contributions to defined contribution plans are charged to the statement of income in the year to which they relate. The present value of the obligation arising from defined benefit plans is determined using the projected unit credit method and the plan assets are measured at fair value as at the measurement date. The Group's obligation with respect to a plan is calculated by identifying the extent to which the cumulative unrecognised actuarial gain or loss exceeds by more than 10 per cent the greater of the present value of the defined benefit obligation and the fair value of the plan assets. The excess is recognised in the statement of income over the expected average remaining working lives of employees participating in the plan. Defined benefit plans are calculated by qualified actuaries.

### Share-based payments

The fair value of employee options is reported as an expense and an increase in shareholders' equity.

The company's bonus programme, which is fixed to share value, is valued 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 programme.

### Goodwill and other intangible assets

The difference between the purchase price and the fair value of a company's net assets and contingent liabilities at the date of acquisition is reported as goodwill. Goodwill consists of the future economic benefit of those assets whose value the Group is unable to calculate either separately or individually at the date of acquisition. Goodwill is not amortised but tested for impairment at least annually, and more often if there are indications of impairment.

Other intangible assets include patents, licenses, capitalised development costs, software, customer relations and other intellectual property rights. These are valued at cost except for intangible assets identified in connection with acquisitions, which are valued at the fair value at the acquisition date. 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.

The general guidelines for scheduled amortisation are:

Development costs	5-10 years
Software	3-7 years
Other intangible assets	5-20 years

The estimated useful lives are reviewed at the end of each reporting period, and if they differ significantly from previous estimates, amortisation periods are adjusted accordingly.

## Property, plant and equipment

Fixed assets acquired by the Group are recorded in the statement of financial position at cost less accumulated depreciation and impairment losses. Grants received are reported as a reduction in acquisition costs. The fixed assets of acquired subsidiaries are valued at their fair value at the acquisition date.

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

The estimated useful lives are reviewed at the end of each reporting period, and if they differ significantly from previous estimates, depreciation periods are adjusted accordingly.

## Borrowing costs

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 activated in the statement of financial position as part of the cost of the asset. Other than immediate borrowing cost related costs are expensed in the period in which they are incurred.

## 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 treated as long-term investments and are valued at cost less accumulated depreciation and impairments.

## Leases

Lease agreements where all material rewards and risks of ownership have been transferred to the Group are classified as finance leases. Assets acquired under finance lease are recognised as fixed assets at the lower of the fair value of the leased asset or the estimated present value of the underlying lease payments. The corresponding rental obligation, net of finance charge, is included in interest-bearing liabilities 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 other similar fixed assets.

Lease agreements where the risks and benefits of ownership have not been transferred to the Group are classified as operating leases. Operating lease payments are reported as rental expenses.

## Inventories

Inventories are carried at the lower of cost or 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 financial liabilities

Financial assets are classified into the following categories: financial assets designated at fair value through profit or loss, investments held to maturity, loans and other receivables, and financial assets available for sale. Financial assets are classified on the basis of their purpose upon initial recognition.

### Financial assets at fair value through profit and loss

The financial assets at fair value through profit or loss category includes derivatives that do not qualify for hedge accounting, 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. The financial asset is classified in this category if acquired principally for the purpose of selling in the short term.

Financial assets are recognised at fair value at the end of the reporting period using prevailing market rates.

Derivatives are initially reported at cost in the statement of financial position and are thereafter valued at their fair value at the end of each reporting period.

### Investments held to maturity

Investments held to maturity are valued at cost. Investments held to maturity are assets with fixed or determinable payments, that mature on a fixed date, and which the Group intends and is able to hold until maturity.

Loan receivables as well as financial liabilities are recognised at the settlement date and measured at amortised cost using the effective interest rate method. Transaction costs are included in the initially recognised amount.

### Loans and other receivables

Trade receivables are recognised at their anticipated realisable value, which is the original invoiced amount, less an estimated valuation allowance for impairment. Receivables are valued individually. Credit losses are expensed in the statement of income.

### Financial assets available for sale

Investments in other companies are classified as financial assets available for sale and are recognised at fair value. Listed shares are valued at their market value. Unlisted shares for which the fair value cannot be reliably measured are valued at cost less impairment. Changes in fair value are reported directly in other comprehensive income until the shares are disposed of, at which point the accumulated fair value changes are released from equity to the statement of income. If the fair value of shares becomes permanently impaired or

there is objective evidence that it is impaired, impairment is recognised in the statement of income.

Gains and losses on disposal and impairments of shares that are attributable to operating activities are included in operating income, while gains and losses on disposal and impairments of other shares are included in financial income and expenses.

### Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, deposits held at call with banks and similar investments. Other liquid funds comprise short-term highly liquid investments that are subject to only minor fluctuations in value.

### Derivatives

Certain foreign exchange derivatives are eligible for hedge accounting in accordance with IAS 39. Changes in the fair value of derivative contracts that have been signed to hedge future cash flows are reported under other comprehensive income and presented in the fair value reserve in equity, provided that they meet the requirements for hedge accounting. Changes in fair value due to interest rate differences are reported in the statement of income. Any accrued profit or loss in the hedge reserve under other comprehensive income is reported as an adjustment to selling proceeds or transaction costs in the same period as any transactions relating to the hedged obligations or estimates.

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.

Equity in foreign subsidiaries situated outside the euro zone is hedged against exchange rate fluctuations, mainly through foreign exchange derivatives and foreign currency borrowings using the equity hedging method to reduce the effect of exchange rates on the Group's equity. When a foreign subsidiary is sold, these translation differences are included in the gain or loss on disposal reported in the statement of income.

For derivatives that do not satisfy the conditions for hedge accounting in accordance with IAS 39, changes in fair value are reported immediately in the statement of income.

The fair value of interest rate swaps is calculated by discounting the underlying future cash flows. Currency forwards are valued at existing forward rates at the end of the reporting period. Currency options are valued at their market value at the end of the reporting period.

### 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 within 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 and financial assets available for sale.

### Impairments

The carrying amounts of assets are reviewed at the end of the reporting period to determine whether there is any indication of impairment. The assets are divided into the smallest possible cash-generating units that are effectively independent of any other assets of the Group. An impairment loss is recognised whenever the carrying value of the assets or cash-generating unit exceeds their fair value. An asset's value in use is the higher of its net realisable value or the recoverable amount from the asset. The recoverable amount is based on discounted future cash flows. Previously reported impairment losses of property, plant and equipment are reversed if the assumptions for calculating the recoverable amount have changed.

### Provisions

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, forecast losses on projects and restructuring costs.

Estimated future warranty costs relating to products supplied are recorded as provisions. The amount of future warranty costs is based on accumulated experience.

Provisions for restructuring costs are made once the personnel concerned have been informed of the terms or a restructuring plan has been established. The plan must indicate which activities and personnel will be affected and the timing and cost of implementation.

### Income taxes

The statement of income includes taxes on the Group's consolidated taxable income for the reporting period in accordance with local tax regulations, tax adjustments for previous reporting periods, and changes in deferred taxes. Deferred tax liabilities and assets are calculated on all 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 reporting period. They are recognised in the statement of income unless related to items recognised directly in equity and other comprehensive income. The statement of financial position includes deferred tax liabilities.

ties in their entirety and deferred tax assets at their estimated probable amount.

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### Dividends

The dividend proposed by the Board of Directors is deducted from distributable equity when approved by the company's annual general meeting.

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### Adoption of new and updated IFRS standards

In 2011 the Group will adopt the following new and updated standards and interpretations issued by the IASB. The changes will have no significant impact on the consolidated financial statements.

- *Amendment to IAS 32 Financial instruments: Presentation - Classification of Rights Issues* (effective for periods beginning or after 1 February 2010). The amendment concerns the classification of rights (share options, share subscription rights or other share rights) offered for a fixed amount of foreign currency.
- *Revised IAS 24 Related Party Disclosures* (effective for periods beginning or after 1 January 2011). The change simplifies the disclosure requirements for government-related entities and clarifies the definition of a related party.



# Notes to the Consolidated Financial Statements

## 1. Segment information

The business of Wärtsilä consists of one business area, the Power Businesses. The Power Businesses are subdivided into two mutually supportive market areas, Ship Power and Power Plants. These offer customers the same product concept modified for specific applications. The main products for both these markets are gas and diesel engines and related services. The market segments are highly dependent on each other.

In the Power Businesses, the design-related research and development and manufacturing required for the engines sold to both markets take place in the same R&D centres and factories. The manufacturing process is the same for each market. Similarly, the same Group companies are responsible for the distribution of these products and the services related to them. Capacity costs cannot be reliably allocated to the two different markets. These costs are significant and vary between the two units in different years. Customers in both markets are capital-intensive corporations with global operations. Development of the two market areas is strongly linked to global economic trends.

As geographical information, Wärtsilä reports the geographical areas Finland, other European countries, Asia, Americas and other continents. In the geographical information net sales is split by the customer's destination and non-current assets by origin.

### Geographical information 2010

MEUR	Finland	Other European countries	Asia	Americas	Other	Total
Net sales	26	1 239	1 754	1 034	499	4 553
Non-current assets*	256	879	122	47	8	1 311

### 2009

MEUR	Finland	Other European countries	Asia	Americas	Other	Total
Net sales	37	1 618	1 937	1 176	493	5 260
Non-current assets*	273	856	113	45	6	1 293

\* Non-current assets consist of goodwill, intangible assets, property, plant and equipment, investment properties and investments in associates and joint ventures.

### Business area information

Internal management reporting is used to monitor the development of operations on the basis of market based business areas. Reporting serves goal setting and budget control and is thus a management tool rather than an actual external economic indicator.

Wärtsilä's highest operative decision maker (CODM, Chief Operating Decision Maker according to IFRS 8) is the Group President with the support of the Board of Management and, in some cases, the Board of Directors. The Group President assesses the Group's financial position and its development as a whole, not based on the results of the business areas. As the Group's level of integration is high, the reported indicators from business areas do not give a true picture of the business areas' financial position and development. It is also considered that they are of limited value to an external reader due to poor comparability, for example.

Against this background, Wärtsilä's business cannot be divided into separate operative segments with individual reporting.

During the financial year 1 January-31 December 2010 and 1 January-31 December 2009, Wärtsilä did not have individual significant customers or lands according to the definition of IFRS 8.

### Net sales

MEUR	2010	2009
Ship Power	1 201	1 767
Power Plants	1 525	1 645
Services	1 823	1 830
Other	4	17
<b>Total</b>	<b>4 553</b>	<b>5 260</b>

## 2. Acquisitions and disposals

### Acquisitions 2010

In 2010, no acquisitions have been made.

### Acquisitions 2009

#### Overall impact on performance

MEUR	Booked in income statement 2009	On full-year pro forma performance
Net sales	24	5 271
Operating result	-1	592

In full-year pro forma performance the estimated impact of acquisitions on the consolidated financial statements is presented as if all the acquisitions were made on 1 January 2009.

The acquisition of 60% of the shares in the Italian company Wärtsilä Navim Diesel was the most significant acquisition for Wärtsilä during the year. After the acquisition Wärtsilä's ownership in the company was 100%. The assets, liabilities and contingent liabilities of the company are measured at market value at the time of acquisition. The valuation of customer relations and goodwill in intangible assets amounted to EUR 8 million. The goodwill calculated on this acquisition is based on synergic effects expected to materialize when the entire operation can be integrated in the Group's former operation in Italy.

The other acquisitions are related to Ship Design companies in Serbia and Russia.

Acquisition price	MEUR
Consideration paid in cash	13
Acquisition costs	-
	13
Acquired assets to fair value	-5
Goodwill	8

#### Cash flow from the acquisitions

Consideration paid in cash	13
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#### Specification of acquired assets

	Book value	Fair value
Intangible assets	1	4
Property, plant and equipment	1	1
Inventories	1	1
Receivables	10	10
Liabilities	-10	-10
Deferred tax liabilities		-1
<b>Total</b>	<b>4</b>	<b>5</b>

## 3. Long-term construction contracts and long-term operating and maintenance agreements

### Long-term construction contracts

MEUR	2010	2009
Net sales in the statement of income	589	585

### Long-term construction projects in progress

MEUR	2010	2009
Cumulative net sales	1 324	1 705
Cumulative operating result	228	218
Advances received at 31 December	1 014	1 368
Receivables from the revenue recognition netted with the advances received at 31 December	116	92

### Long-term operating and maintenance agreements

MEUR	2010	2009
Net sales in the statement of income	225	225

## 4. Other operating income

MEUR	2010	2009
Profit on sales of property, plant and equipment and intangible assets	4	3
Government grants	6	7
Sale of by-products	2	3
Sale of scrapped material	3	2
Income related to cancelled orders*	27	30
Other operating income	9	4
<b>Total</b>	<b>52</b>	<b>50</b>

\* Expenses related to cancelled orders are recorded on respective expense accounts. The net effect of the cancellations is not material.

## 5. Material and services

MEUR	2010	2009
<b>Raw material and consumables</b>		
Purchases during the financial year	-1 209	-1 809
Change in inventories	-156	-122
External services	-1 007	-1 253
<b>Total</b>	<b>-2 372</b>	<b>-3 183</b>



## 6. Employee benefit expenses

MEUR	2010	2009
Wages and salaries	773	735
Pension costs		
Defined benefit plans	12	12
Other pension and past service costs	51	58
Other compulsory personnel costs	112	106
<b>Total</b>	<b>948</b>	<b>910</b>

Salaries paid to the management are specified in Note 29.

Wages and salaries include bonus salaries paid, based on the bonus scheme 2007 and a provision for expenses arising from bonus schemes 2008 and 2009, totalling EUR 18 million (6). These bonus schemes are tied to the price development of the company's share.

The 2007 bonus scheme comprised 662,500 bonus rights. The 2008 bonus scheme comprises 800,000 bonus rights and the 2009 bonus scheme 841,500 bonus rights. The bonus payments for the bonus scheme 2007 were based on the share price development during a two-year and nine months period on the basis of a share price of EUR 22.63 with the maximum bonus amount per bonus right being EUR 9.00. In the 2008 and 2009 bonus schemes, the bonus payment is based on the share price development during a two-year period, for the bonus scheme 2008 on the basis of a share price of EUR 23.04 and for the bonus scheme 2009 on the basis of a share price of EUR 28.47. Both bonus schemes 2008 and 2009 are taking into account a 50% dividend payout and the paid bonuses can not exceed EUR 15.00 per bonus right.

	2010	2009
Personnel on average	18 000	18 830

## 7. Depreciation, amortisation and impairment

MEUR	2010	2009
Intangible rights	5	6
Other intangible assets	37	52
Buildings and structures	12	10
Machinery and equipment	58	54
Other tangible assets	3	3
Impairment*		40
<b>Total</b>	<b>116</b>	<b>165</b>

\* Refers to restructuring programs published in January, 2010.

## 8. Financial income and expenses

MEUR	2010	2009
Dividend income on financial assets available for sale	7	6
Interest income on loans and other receivables	5	4
Interest income on financial assets at fair value through the statement of income	3	11
Interest income on investments held to maturity	1	
Changes in fair values of financial assets/liabilities at fair value through the statement of income	1	
Exchange rate differences*	5	
Other financial income	2	2
<b>Total financial income</b>	<b>25</b>	<b>22</b>

Interest expenses on financial liabilities measured at amortised cost	-18	-21
Interest expenses on financial liabilities at fair value through the statement of income	-8	-10
Changes in fair values of financial assets/liabilities at fair value through the statement of income		-1
Write-down of loan receivables		-10
Exchange rate differences*		-6
Other financial expenses	-12	-9
<b>Total financial expenses</b>	<b>-38</b>	<b>-57</b>

<b>Total financial income and expenses</b>	<b>-13</b>	<b>-34</b>
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\* Includes the result from the ineffective portion of cash flow hedges, EUR 4 million (-5).

## 9. Income taxes

MEUR	2010	2009
Income taxes		
for the financial year	-169	-174
for prior years	-11	-7
Change in deferred tax	28	20
<b>Total</b>	<b>-151</b>	<b>-161</b>
Profit before taxes	548	558
Tax calculated at the domestic corporate tax rate (26%)	-143	-145
Effect of changed tax rates		1
Effect of different tax rates in foreign subsidiaries	-2	1
Effect of income not subject to tax and non-deductible expenses	-7	-6
Utilisation of previously unrecognised tax losses carried forward	22	5
Unrecognised taxes on losses carried forward	-10	-2
Other taxes	-12	-10
Other temporary differences	10	2
Income taxes for prior years	-11	-7
<b>Tax charge in the consolidated statement of income</b>	<b>-151</b>	<b>-161</b>

## 10. Earnings per share

Earnings per share is calculated by dividing the profit for the period attributable to shareholders by the weighted average number of the shares outstanding. Diluted earnings per share is calculated by adjusting the weighted average number by the dilutive effect of stock options outstanding during the period. The options have a dilutive effect if the exercise price with an option is lower than the market value of the share. During the reporting periods there were no programmes with dilutive effect.

MEUR	2010	2009
Profit for the period attributable to equity holders of the parent company	386	389
Thousands of shares		
Weighted average number of shares outstanding	98 621	98 621
Earnings per share (basic and diluted), EUR	3.91	3.94

## 11. Components of other comprehensive income

MEUR	2010	2009
Exchange rate differences on translating foreign operations	17	18
Financial assets available for sale		
Gains (losses) arising during the period	40	46
Adjustments for amounts transferred to initial amount of hedge items	-149	-108
Cash flow hedges		
Gains (losses) arising during the period	11	3
Adjustments for amounts transferred to initial amount of hedge items	-18	-7
Share of other comprehensive income of associates and joint ventures		23
Other income/expenses	1	26
Income tax relating to components of other comprehensive income	26	-19
Other comprehensive income	-71	73

## Tax effects relating to other comprehensive income

	2010			2009		
MEUR	Before tax amount	Tax	Net-of-tax	Before tax amount	Tax	Net-of-tax
Exchange rate differences on translating foreign operations	17		17	18		18
Financial assets available for sale	-108	28	-80	46	-12	34
Cash flow hedges	-7	-2	-9	26	-7	20
Share of other comprehensive income of associates and joint ventures				1		1
Other income/expenses	1		1			
Other comprehensive income	-97	26	-71	91	-19	73

## 12. Intangible assets

### Impairment testing of goodwill

Goodwill from acquisitions is allocated to the Group's cash-generating units (CGUs) being the lowest level of assets for which there are separately identifiable cash flows. Currently Wärtsilä identifies two (2009: 3) separate independent cash inflow CGUs to which goodwill can directly be linked as per the below table. In addition, the goodwill allocated for companies acquired during the current period has been subject for impairment testing separately. These companies as well as CGU Automation have been integrated into the Power Business operations in 2010 and no longer constitute a separately identifiable CGU.

### Cash-Generating Units (CGU)

	Goodwill	
MEUR	2010	2009
Automation		36
Ship design	116	110
Other acquired companies, non-integrated		7
Power Businesses, other	459	405
<b>Total</b>	<b>574</b>	<b>558</b>

The recoverable amounts from the CGUs are determined based on value-in-use calculations. The calculations are on an orderbook and a discounted cash flow method basis, derived from 5-year cash flow projections from management approved strategic plans. The current market situation has been taken into account as decreased sales expectations as well as adapting capacity. The estimated performances of the CGUs are 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 flows beyond the five-year period are 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 demand for related services. The projected development of total costs in the market affects the profitability, whereas any single cost item has not been seen as having material impact. The valuation drivers for the new equipment sales are the growth in the global economy whereas for after sales the drivers are also the demand for related services and 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 2010 it has been considered that the general interest rate is currently on a lower level. Wärtsilä has used a WACC of 9,3% (2009: 10,0%) in the calculations.

As a result of the impairment test no impairment loss for non of the CGUs was recognized for the period ended December 31, 2010 and 2009 respectively. The recoverable amounts from all CGUs exceeded their carrying values by more than 200%.

### Sensitivity analysis

Sensitivity analyses have been carried out for the valuation of each Cash Generating Unit by making downside scenarios. The change in the enterprise value was evaluated through these downside scenarios by changing the underlying assumptions in the valuations. The changes in the assumptions and their effects are:

- sales growth and EBIT profitability lowered based on scenario analysis in each business, effect 28% (13%)
- terminal growth rate lowered by 50%, effect 12% (10)
- WACC increased by 2%, effect 28% (20).

According to the performed sensitivity analyses, none of the downside scenarios would change the long term key assumptions for which Wärtsilä's recoverable amounts are based, and would also not cause their respective values to fall short of their carrying amounts. As a result of performed impairment tests, there is no need for write-downs of the goodwill in a particular cash generating unit.

In management's opinion, changes in the basic assumptions provided in these theoretical downside scenarios 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.

**2010**

MEUR	Intangible rights	Construction in progress and advances paid	Other intangible assets	Goodwill	Total
Acquisition cost at 1 January 2010	74	27	395	562	1 058
Changes in exchange rates			3	17	21
Additions	2	8	7		17
Disposals and reclassifications	5	-17	8		-4
Acquisition cost at 31 December 2010	81	18	414	579	1 091
Accumulated amortisation and impairments 1 January 2010	-43		-231	-4	-279
Changes in exchange rates			-2		-2
Accumulated amortisation on disposals	2		9		11
Amortisation during the financial year	-5		-37		-42
Accumulated amortisation and impairments 31 December 2010	-46		-261	-4	-311
<b>Book value at 31 December 2010</b>	<b>35</b>	<b>18</b>	<b>153</b>	<b>574</b>	<b>780</b>

Developing costs for internally produced assets amounting to EUR 6 million (7) were activated during the financial period and the asset value was EUR 38 million (36).

**2009**

MEUR	Intangible rights	Construction in progress and advances paid	Other intangible assets	Goodwill	Total
Acquisition cost at 1 January 2009	73	19	368	549	1 009
Changes in exchange rates	1		8	18	27
Acquisitions			4	8	12
Additions		17	7		24
Disposals and reclassifications		-8	8	-14	-14
Acquisition cost at 31 December 2009	74	27	395	562	1 058
Accumulated amortisation at 1 January 2009	-37		-179		-216
Changes in exchange rates			-1		-1
Amortisation during the financial year	-6		-52		-58
Impairments				-4	-4
Accumulated amortisation and impairments at 31 December 2009	-43		-231	-4	-279
<b>Book value at 31 December 2009</b>	<b>31</b>	<b>27</b>	<b>164</b>	<b>558</b>	<b>779</b>

## 13. Property, plant & equipment

Wärtsilä centralises warehousing and logistics of spare parts by investing in a new distribution centre in the Netherlands. The investments to the new distribution centre amounted to EUR 26 million during the review period and commitments related to the investment were EUR 6 million at the end of the review period.

### 2010

MEUR	Land and water	Buildings and structures	Machinery and equipment	Construction in progress and advances paid	Other tangible assets	Investment properties	Total
Acquisition cost at 1 January 2010	25	251	682	60	63	9	1 092
Changes in exchange rates		8	17	1	1		27
Additions		2	25	43	3	2	75
Disposals	-3	-5	-32		-2		-42
Reclassification	3	1	30	-33			
Acquisition cost at 31 December 2010	25	258	724	70	65	11	1 153
Accumulated depreciation at 1 January 2010		-117	-471		-46		-634
Changes in exchange rates		-3	-10		-1		-14
Accumulated depreciation on disposals		5	29		1		35
Depreciation during the financial year		-12	-58		-3		-73
Reclassification			1				
Accumulated depreciation at 31 December 2010		-128	-510		-48		-686
<b>Book value at 31 December 2010</b>	<b>25</b>	<b>130</b>	<b>214</b>	<b>70</b>	<b>17</b>	<b>11</b>	<b>466</b>
Value of finance-leased assets included in book value		2	8				10

Investment properties include land areas not used by the Group. Their estimated market value is around EUR 32 million (31). During the period, investment properties were sold totalling EUR 1 million (3) generating a profit of EUR 0 million (2).

### 2009

MEUR	Land and water	Buildings and structures	Machinery and equipment	Construction in progress and advances paid	Other tangible assets	Investment properties	Total
Acquisition cost at 1 January 2009	23	225	600	59	62	11	980
Changes in exchange rates		2	6	1			9
Acquisitions							1
Additions	2	17	55	33	6		112
Disposals		-1	-5	-1	-1	-2	-10
Reclassification		8	26	-31	-3		
Acquisition cost at 31 December 2009	25	251	682	60	63	9	1 092
Accumulated depreciation at 1 January 2009		-108	-378		-46		-533
Changes in exchange rates		-1	-5				-6
Accumulated depreciation on disposals		1	5				7
Depreciation during the financial year		-10	-54		-3		-67
Reclassification			-3		3		
Impairments			-36				-36
Accumulated depreciation and impairment at 31 December 2009		-117	-471		-46		-634
<b>Book value at 31 December 2009</b>	<b>25</b>	<b>134</b>	<b>211</b>	<b>60</b>	<b>18</b>	<b>9</b>	<b>457</b>
Value of finance-leased assets included in book value		2	8				11

## 14. Investments in associates and joint ventures

MEUR	2010	2009
Book value at 1 January	56	41
Acquired shares*		11
Share of result	5	6
Dividends	-1	-2
Changes in exchange rates	4	
<b>Book value at 31 December</b>	<b>65</b>	<b>56</b>

\* Business arrangement Wärtsilä Biopower/MW Power included in 2009.

### Summary financial information (100%):

#### 2010

MEUR		Holding %	Assets	Equity	Liabilities	Net sales	Profit for the financial period
Wärtsilä Qiyao Diesel Company Ltd.	China	50.0	29	14	15	28	2
Wärtsilä Hyundai Engine Co Ltd.	Korea	50.0	153	59	94	89	6
Repropel Sociedad de reparacao de helices	Portugal	50.0	1	1		1	
Wärtsilä Land & Sea Academy, Inc.	Philippines	40.0		-1	1	1	
MW Power Oy	Finland	40.0	135	36	98	111	7
Cosco-Shipyards Total Automation Co Ltd.	China	40.0	4	2	2	4	
Neptun Maritime AS	Norway	40.0	1		1	1	
El-Design AS	Norway	37.0	1	1			
Qingdao Qiyao Wärtsilä MHI Linshan Marine Diesel Co Ltd.	China	27.0	208	40	168	58	-3
AWEK Industrial Patents Ltd. Oy	Finland	25.0	1			3	
WD Power Investment Ky	Finland	21.7	1	1			

#### 2009

MEUR		Holding %	Assets	Equity	Liabilities	Net sales	Profit for the financial period
Wärtsilä Qiyao Diesel Company Ltd.	China	50.0	25	10	15	31	-1
Wärtsilä Hyundai Engine Co Ltd.	Korea	50.0	143	48	96	85	8
Repropel Sociedad de reparacao de helices	Portugal	50.0	1	1	1	1	
IHB Design AD	Bulgaria	50.0				1	
Wärtsilä Land & Sea Academy, Inc.	Philippines	40.0		-1	1		-1
MW Power Oy	Finland	40.0	101	36	65	168	10
Cosco-Shipyards Total Automation Co Ltd.	China	40.0	3	1	2	4	1
Neptun Maritime AS	Norway	40.0	1	1		2	
El-Design AS	Norway	37.0	1			1	
Qingdao Qiyao Wärtsilä MHI Linshan Marine Diesel Co Ltd.	China	27.0	180	39	142	22	-9
AWEK Industrial Patents Ltd. Oy	Finland	25.0	1			3	
WD Power Investment Ky	Finland	21.7	1	1			

## 15. Financial assets available for sale

Financial assets available for sale include listed and unlisted shares. Listed shares are measured at fair value. For unlisted shares the fair value cannot be measured reliably, in which case the investment is carried at cost.

MEUR	2010	2009
Book value at January 1	151	106
Acquired shares	5	2
Fair value adjustments	40	46
Changes in exchange rates	1	1
Decrease of shares	-179	-3
<b>Book value at December 31</b>	<b>18</b>	<b>151</b>

MEUR	2010		2009	
	Acquisition cost	Market value	Acquisition cost	Market value
<b>Listed shares (level 1)</b>				
Sampo plc			4	32
Assa Abloy AB			18	98
Lyxor ETF MSCI Emerging Markets	2	2		
Listed shares	2	2	22	130
<b>Unlisted shares (level 3)</b>				
Other shares	16	16	21	21
Unlisted shares	16	16	21	21
<b>Total shares</b>	<b>18</b>	<b>18</b>	<b>43</b>	<b>151</b>

In 2010 EUR 149 million gain was recognised in the consolidated statement of income, of which EUR 32 million is related to the sale of Sampo plc shares and EUR 117 million to the sale of Assa Abloy AB shares. In 2009 EUR 2 million loss was recognised in the operating result in the consolidated statement of income.

## 16. Inventories

MEUR	2010	2009
Materials and consumables	470	625
Work in progress	596	753
Finished products	53	59
Advances paid	126	140
<b>Total</b>	<b>1 244</b>	<b>1 577</b>

## 17. Financial assets and liabilities by measurement category

2010

MEUR	Cash flow and net investment hedges	Financial assets/liabilities at fair value through the statement of income	Loans and receivables	Financial assets available for sale	Investments held to maturity	Financial liabilities measured at amortised cost	Carrying amounts of the statement of financial position items	Fair value
<b>Non-current financial assets</b>								
Financial assets available for sale				18			18	18
Interest-bearing investments			1		15		16	16
Other receivables			3				3	3
<b>Current financial assets</b>								
Interest-bearing receivables			1				1	1
Trade receivables			860				860	860
Derivatives	10						10	10
Other receivables		6	3				9	9
Cash and cash equivalents		776					776	776
<b>Carrying amount by category</b>	<b>10</b>	<b>782</b>	<b>868</b>	<b>18</b>	<b>15</b>		<b>1 693</b>	<b>1 693</b>
<b>Non-current financial liabilities</b>								
Interest-bearing debt						572	572	572
<b>Current financial liabilities</b>								
Interest-bearing debt						56	56	56
Trade payables						366	366	366
Derivatives	6	2					8	8
Other liabilities						15	15	15
<b>Carrying amount by category</b>	<b>6</b>	<b>2</b>				<b>1 009</b>	<b>1 017</b>	<b>1 017</b>

2009

MEUR	Cash flow and net investment hedges	Financial assets/liabilities at fair value through the statement of income	Loans and receivables	Financial assets available for sale	Investments held to maturity	Financial liabilities measured at amortised cost	Carrying amounts of the statement of financial position items	Fair value
<b>Non-current financial assets</b>								
Financial assets available for sale				151			151	151
Interest-bearing investments			2				2	2
Trade receivables			2				2	2
Other receivables			5				5	5
<b>Current financial assets</b>								
Interest-bearing receivables			4				4	4
Trade receivables			1 028				1 028	1 028
Derivatives	6	1					7	7
Other receivables		16	2				18	18
Cash and cash equivalents		244					244	244
<b>Carrying amount by category</b>	<b>6</b>	<b>261</b>	<b>1 043</b>	<b>151</b>			<b>1 461</b>	<b>1 461</b>
<b>Non-current financial liabilities</b>								
Interest-bearing debt						591	591	593
Other liabilities						1	1	1
<b>Current financial liabilities</b>								
Interest-bearing debt						73	73	73
Trade payables						299	299	299
Derivatives	15	9					24	24
Other liabilities						12	12	12
<b>Carrying amount by category</b>	<b>15</b>	<b>9</b>				<b>976</b>	<b>1 000</b>	<b>1 002</b>

## 18. Other receivables

MEUR	2010	2009
Interest receivables	2	1
Derivatives	10	7
Other financial items	6	16
Insurance receivables	14	5
Rental accruals	4	6
Project accruals	12	14
Accruals from long-term contracts	103	54
Other accruals	47	31
Loan receivables	5	6
Defined benefit plan	12	8
VAT receivables	66	62
Other receivables	40	46
<b>Total</b>	<b>321</b>	<b>256</b>
<b>Non-current</b>	<b>16</b>	<b>12</b>
<b>Current</b>	<b>305</b>	<b>244</b>

## 19. Cash and cash equivalents

MEUR	2010	2009
Cash and bank balances	751	221
Current deposits	26	23
<b>Total</b>	<b>776</b>	<b>244</b>

## 20. Deferred taxes

### Change in deferred taxes during 2010

MEUR	1 January 2010	Recognised in the consolidated statement of income	Other comprehensive income	Translation differences	Acquisitions	31 December 2010
<b>Deferred tax assets</b>						
Tax loss carry-forwards	23	19				42
Pension obligations	4			1		5
Provisions	10	4				15
Eliminating the intra group profit in stock	10	-1				9
Other temporary differences	41	8		2		51
<b>Total</b>	<b>88</b>	<b>30</b>		<b>4</b>		<b>122</b>
<b>Deferred tax liabilities</b>						
Intangible assets and property, plant and equipment	26					26
Fair value reserve	31	3	-27			8
Other temporary differences	35	-1		1		36
<b>Total</b>	<b>93</b>	<b>2</b>	<b>-26</b>	<b>2</b>		<b>70</b>
<b>Net deferred tax assets/liabilities</b>	<b>-4</b>	<b>28</b>	<b>26</b>	<b>2</b>		<b>52</b>



## Change in deferred taxes during 2009

MEUR	1 January 2009	Recognised in the consolidated statement of income	Other comprehensive income	Translation differences	Acquisitions	31 December 2009
<b>Deferred tax assets</b>						
Tax loss carry-forwards	23					23
Pension obligations	3					4
Provisions	10	-1		2		10
Fair value reserve	11		-11			
Eliminating the intra group profit in stock	14	-4				10
Other temporary differences	24	16		1		41
<b>Total</b>	<b>85</b>	<b>12</b>	<b>-11</b>	<b>2</b>		<b>88</b>
<b>Deferred tax liabilities</b>						
Intangible assets and property, plant and equipment	34	-12		4		26
Fair value reserve	23		8			31
Other temporary differences	29	3		2	1	35
<b>Total</b>	<b>86</b>	<b>-8</b>	<b>8</b>	<b>6</b>	<b>1</b>	<b>93</b>
<b>Net deferred tax assets/liabilities</b>		<b>20</b>	<b>-19</b>	<b>-3</b>	<b>-1</b>	<b>-4</b>

At 31 December 2010 the Group had temporary differences on which no deferred tax receivables were booked totalling EUR 15 million (38), as it is uncertain if they will be realized. Most of them were related to cumulative losses.

## 21. Pension obligations

MEUR	2010	2009	Movement in plan assets		
<b>Recognised asset for defined benefit plan at 31 December</b>	<b>12</b>	<b>8</b>	Fair value of plan assets at 1 January	227 198	
Recognised liability for defined benefit obligations	20	20	Exchange rate differences	30 4	
Long-service leave and other past service obligations	36	26	Contribution paid to the fund	16 14	
<b>Total past service obligations at 31 December</b>	<b>56</b>	<b>46</b>	Benefits paid by the plan	-9 -12	
			Expected return on plan assets	11 9	
			Actuarial gains and losses		13
			<b>Total</b>	<b>275</b>	227
			Unrecognised assets		-2
			<b>Recognised fair value of plan assets at 31 December</b>	<b>275</b>	225
			<b>Unrecognised actuarial gains and losses</b>		
			Unrecognised actuarial gains and losses at beginning of year	-18	-21
			Exchange rate differences	-2	-2
			Actuarial gains and losses for year -obligations	-13	-7
			Actuarial gains and losses for year -plan assets		13
			Impact of acquired/disposed companies and other changes	1	-1
			<b>Unrecognised actuarial gains and losses at the year end</b>	<b>-32</b>	-18
			<b>Recognised net liability for defined benefit obligations</b>	<b>9</b>	12
			<b>Expenses recognised in income statement</b>		
			Current service costs	13	11
			Interest on obligation	11	9
			Expected return on plan assets	-11	-9
			Actuarial gains and losses	1	1
			Gains and losses on curtailments and settlements	-2	
			<b>Defined benefit expenses</b>	<b>12</b>	12
			<b>Actual return on plan assets</b>	<b>10</b>	19

Pension cover is based on the legislation and agreement 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 the Netherlands, Switzerland and the United Kingdom. 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 practice in each country. Authorised actuaries in each country have performed the actuarial calculations required for the defined benefit plans.

Long-service leave and other past service obligations are mainly obligation for benefit payments in Italy and France.

Movement in defined benefit obligations	2010	2009
Defined benefit obligations at 1 January	254	229
Exchange rate differences	32	6
Current service costs	13	11
Interest cost	11	9
Benefits paid	-12	-13
Curtailments and settlements	-2	
Changes in actuarial gains and losses	14	3
Impact of acquired and disposed companies and other changes	4	8
<b>Defined benefit obligations at 31 December</b>	<b>315</b>	<b>254</b>

Historical information	2010	2009	2008	2007	2006
Present value of the defined benefit obligation	315	254	229	212	307
Fair value of plan assets	-275	-227	-198	-202	-295
<b>Deficit in the plan</b>	<b>40</b>	<b>28</b>	<b>31</b>	<b>9</b>	<b>12</b>

Plan assets invested in:	2010	2009	Actuarial assumptions 2010	Europe	Other
Equity instruments (%)	24	24	Discount rate (%)	2.5-5.4	1.5-12.5
Bonds and other financial instruments (%)	47	49	Expected return on plan assets (%)	4.0-7.2	1.75-10.5
Properties (%)	16	14	Future salary increases (%)	1.0-4.0	4.0-15.0
Other assets (%)	13	14			
			<b>Actuarial assumptions 2009</b>	<b>Europe</b>	<b>Other</b>
			Discount rate (%)	3.25-5.4	1.5-12.0
			Expected return on plan assets (%)	3.5-6.3	1.5-16.0
			Future salary increases (%)	1.0-4.5	1.2-10.0

## 22. Share capital of the parent company

### MEUR

Share capital	Number of shares	Share capital	Share issue premium	Total
1 January 2009	98 620 565	336	61	397
31 December 2009	98 620 565	336	61	397
<b>31 December 2010</b>	<b>98 620 565</b>	<b>336</b>	<b>61</b>	<b>397</b>

## 23. Fair value reserve

MEUR	Cash flow hedges	Financial assets available for sale	Total
Difference between fair value and book value at 1 January 2009		63	63
Deferred tax liabilities/assets	4	-16	-12
Fair value reserve at 1 January 2009	4	47	50
Transferred to income statement, net of taxes	12		12
Fair value adjustments	3	46	49
Deferred tax liabilities/assets		-12	-12
Fair value reserve at 31 December 2009	19	80	99
Transferred to income statement, net of taxes	-13	-110	-123
Fair value adjustments	9	40	49
Deferred tax liabilities/assets	-3	-11	-14
<b>Fair value reserve at 31 December 2010</b>	<b>12</b>		<b>12</b>

## 24. Provisions

### 2010

MEUR	Litigation	Warranty liabilities	Foreseeable losses	Restructuring	Other provisions	Total
Provisions at 1 January 2010	10	151	11	7	26	205
Changes in exchange rates		2				2
Additions	5	81	19	46	24	176
Used provisions	-2	-59	-7	-25	-4	-98
Released provisions			-3	-1	-5	-10
<b>Provisions at 31 December 2010</b>	<b>14</b>	<b>175</b>	<b>20</b>	<b>27</b>	<b>42</b>	<b>277</b>
Non-current						45
Current						233

### 2009

MEUR	Litigation	Warranty liabilities	Foreseeable losses	Restructuring	Other provisions	Total
Provisions at 1 January 2009	8	138	16	5	23	189
Changes in exchange rates		1	1			2
Additions	3	66	4	3	18	94
Used provisions	-1	-54	-8		-8	-71
Released provisions			-1	-1	-7	-9
<b>Provisions at 31 December 2009</b>	<b>10</b>	<b>151</b>	<b>11</b>	<b>7</b>	<b>26</b>	<b>205</b>
Non-current						24
Current						181

The Group is a defendant in a number of lawsuits that arise out of, or are incidental to, the ordinary course of its business. These lawsuits concern issues such as product liability, labour relations, property damage and personal injury. It is the Group's policy to provide for amounts related to these legal matters if liability is ascertainable with reasonable certainty.

## 25. Financial liabilities

### 2010

MEUR	Current < 1 year	Non-current 1-5 years	> 5 years	Total
Loans from pension insurance companies*	34	210	79	323
Loans from other financial institutions*	15	132	142	290
Finance lease liabilities	3	7	1	11
Other interest-bearing loans	4			4
Trade payables	366			366
Derivatives	8			8
Other liabilities	15			15
<b>Total</b>	<b>445</b>	<b>349</b>	<b>222</b>	<b>1 017</b>
* Estimated interest expenses, total	15	42	9	66

### 2009

MEUR	Current < 1 year	Non-current 1-5 years	> 5 years	Total
Loans from pension insurance companies*		185	114	299
Loans from other financial institutions*	66	79	201	346
Finance lease liabilities	3	8	1	12
Other interest-bearing loans	4	3		7
Non-interest-bearing loans	1			1
Trade payables	299			299
Derivatives	24			24
Other liabilities	12			12
<b>Total</b>	<b>409</b>	<b>274</b>	<b>316</b>	<b>1 000</b>
* Estimated interest expenses, total	14	52	24	90

Fair value of financial liabilities are presented in Note 17. Financial assets and liabilities by measurement category.

## 26. Other liabilities

MEUR	2010	2009
Project costs	611	572
Personnel costs	153	113
Derivatives	8	24
Interest and other financial items	15	12
Other accruals	60	82
VAT liabilities	17	11
Other liabilities	65	69
<b>Total</b>	<b>929</b>	<b>883</b>
Non-current		1
Current	929	883

## 27. Financial instruments

The Group applies hedge accounting to significant foreign currency forward contracts. Detailed financial information is presented in Note 33. Financial risks.

MEUR	2010	of which closed	2009	of which closed
<b>Nominal values of derivative financial instruments (level 2)</b>				
Interest rate swaps	20		90	
Currency forwards				
Transaction risk	608	114	1 042	433
Translation risk	415		339	
Currency options, written	19		5	
Currency options, purchased			72	
<b>Total</b>	<b>1 063</b>	<b>114</b>	<b>1 548</b>	<b>433</b>
<b>Fair values of derivative financial instruments (level 2)</b>				
Interest rate swaps	-1		-2	
Currency forwards				
Transaction risk	7		-9	
Translation risk	-4		-5	
Currency options, purchased	-1		-1	
<b>Total</b>	<b>2</b>		<b>-17</b>	

Foreign currency forward contracts fall due during the following 12 months. Interest rate swaps are denominated in euros and their average interest-bearing period is 29 months.

### Currency distribution of currency forwards and currency options

MEUR	Outstanding offers	Order book	Net loans	Translation risk
Currency forwards				
USD		290	11	86
NOK		3	44	150
CHF			51	
SGD			22	44
JPY		68	7	18
GBP			14	21
Other*			61	98
		361	210	417
Currency options				
USD	19			
<b>Total</b>	<b>19</b>	<b>361</b>	<b>210</b>	<b>417</b>

\* Other does not include any material single currencies.

## 28. Collateral, contingent liabilities and other commitments

		2010		2009
MEUR	Debt in the statement of financial position	Collateral	Debt in the statement of financial position	Collateral
Mortgages given as collateral for liabilities and commitments				
Loans from credit institutions			1	2
Loans from pension institutions	33	43	34	44
Other commitments	16	16	5	10
Total	49	59	40	56
Chattel mortgages given as collateral for liabilities and commitments				
Other commitments		18		10
Total		18		10
MEUR				
			2010	2009
Guarantees and contingent liabilities				
on behalf of Group companies			623	678
on behalf of associated companies			9	8
Total			632	686
Nominal amounts of rents according to leasing contracts				
Payable within one year			22	21
Payable later			52	68
Total			74	89

## 29. Related party disclosures

Related parties comprise the Board of Directors, the President and CEO, the Board of Management as well as the associated companies and the joint ventures.

### Salaries and bonuses paid to management

In thousands of euros	2010	2009
President and CEO and his deputy		
Salaries and other short-term benefits	924	922
Bonuses*	367	246
Share based bonuses	675	
	<b>1 966</b>	1 169
Other members of the Board of Management		
Salaries and other short-term benefits	1 503	1 678
Bonuses*	561	376
Share based bonuses	1 350	
	<b>3 415</b>	2 054
Board of Directors 31 December 2010		
Antti Lagerroos, chairman	138	125
Matti Vuoria, deputy chairman	97	89
Maarit Aarni-Sirviö, member	67	61
Kaj-Gustaf Bergh, member	66	60
Alexander Ehrnrooth, member	64	
Paul Ehrnrooth, member	63	
Ole Johansson, member		
Bertel Langenskiöld, member	67	60
Mikael Lilius, member	62	
Board of Directors, until 4 March 2010		
Kari Kauniskangas, member	2	59
	<b>626</b>	455
<b>Salaries and bonuses paid to management, total</b>	<b>6 006</b>	3 677

\* In addition a cost reserve of EUR 4,876 thousand (1,780), has been made for the expenses arising from the bonus schemes tied to the price development of the company's share for President and CEO and his deputy and the other members of the Board of Management.

The holdings of Wärtsilä shares of the President and CEO, and some of the members of the Board of Directors and Board of Management at the year end were 76,009 shares (70,428).

The President and CEO and some of the members of the Board of Management are entitled to retire 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	2010	2009
Net sales to the associates and joint ventures in the consolidated statement of income	5	16
Receivables from the associates and joint ventures in the consolidated statement of financial position	12	23
Advances paid to the associates and joint ventures in the consolidated statement of financial position	52	54
Payables to the associates and joint ventures in the consolidated statement of financial position	8	11

Detailed financial information of the associated companies and joint ventures is presented in Note 14. Investments in associated companies and joint ventures.

### 30. 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 2010 the AGM appointed the firm of public accountants KPMG Oy Ab as Wärtsilä Corporation's auditors.

#### Auditors' fees

MEUR	KPMG	Others		
	2010	2009	2010	2009
Audit fees	2.1	1.9	0.2	0.1
Statement fees		0.1		
Tax advisor fees	0.9	1.0	0.1	0.3
Other fees	0.4	0.6	0.1	
<b>Total</b>	<b>3.5</b>	<b>3.5</b>	<b>0.4</b>	<b>0.4</b>

### 31. Exchange rates

In the consolidated financial statements there are nearly 60 currencies consolidated. The most essential currencies are presented here.

	Closing rates		Average rates	
	31 December 2010	31 December 2009	2010	2009
USD	1.33620	1.44060	1.33126	1.39327
NOK	7.80000	8.30000	8.00948	8.72877
CHF	1.25040	1.48360	1.37888	1.50987
GBP	0.86075	0.88810	0.85896	0.89105
SGD	1.71360	2.01940	1.80993	2.02296
BRL	2.21770	2.51130	2.33874	2.76237
INR	59.75800	67.04000	60.64895	67.48022
JPY	108.65000	133.16000	116.80901	130.23383
CNY	8.82200	9.83500	9.00655	9.51737

### 32. Subsidiaries

Geographical area	Company name	Location	Share %
Europe	Wärtsilä Technology Oy Ab	Finland	100.0
	Wärtsilä Finland Oy	Finland	100.0
	Wärtsilä Sweden AB	Sweden	100.0
	Wärtsilä Norway A/S	Norway	100.0
	Wärtsilä Ship Design Norway AS	Norway	100.0
	Wärtsilä Danmark A/S	Denmark	100.0
	Wärtsilä Italia S.p.A.	Italy	100.0
	Wärtsilä France S.A.S.	France	100.0
	Wärtsilä Defence S.A.	France	100.0
	Wärtsilä Switzerland Ltd.	Switzerland	100.0
	Wärtsilä Netherlands B.V.	The Netherlands	100.0
	DTS-Zwolle B.V.	The Netherlands	100.0
	Wärtsilä Ibérica S.A.	Spain	100.0
	Wärtsilä Portugal Lda.	Portugal	100.0
	Wärtsilä Deutschland GmbH	Germany	100.0
	Wärtsilä Ship Design Germany GmbH	Germany	100.0
	Wärtsilä UK Ltd	Great Britain	100.0
	Vulcan Insurance Ltd.	Great Britain	100.0
	Wärtsilä Greece S.A.	Greece	100.0
	Wärtsilä Ireland Ltd.	Ireland	100.0
	Wärtsilä Polska Sp.z.o.o.	Poland	100.0
	Wärtsilä Ship Design Poland Sp.z.o.o.	Poland	100.0
	Wärtsilä-Enpa A.S.	Turkey	51.0
	Wärtsilä BLRT Estonia Oü	Estonia	51.7
	Wärtsilä BLRT Lietuva UAB	Lithuania	51.0
	Wärtsilä Vostok, LLC	Russia	100.0
	Wärtsilä Hungary Kft	Hungary	100.0
	Wärtsilä Ukraine LLC	Ukraine	100.0

Americas	Wärtsilä North America, Inc.	USA	100.0
	Wärtsilä Defence Inc.	USA	100.0
	Wärtsilä Development & Financial Services Inc.	USA	100.0
	Wärtsilä Canada Inc.	Canada	100.0
	Wärtsilä de Mexico SA	Mexico	100.0
	Wärtsilä Caribbean, Inc.	Puerto Rico	100.0
	Wartsila Dominicana Inc.	Dominican Republic	100.0
	Wärtsilä Guatemala S.A.	Guatemala	100.0
	Wärtsilä Chile Ltda.	Chile	100.0
	Wärtsilä Ecuador S.A.	Ecuador	100.0
	Wärtsilä Brasil Ltda.	Brasil	100.0
	Wärtsilä Colombia S.A.	Colombia	100.0
	Wärtsilä Peru S.A.C.	Peru	100.0
	Wärtsilä Argentina S.A.	Argentina	100.0
	Wärtsilä Venezuela, C.A.	Venezuela	100.0
	Wärtsilä Panama S.A.	Panama	100.0
Asia	Wärtsilä China Ltd.	Hong Kong	100.0
	Wärtsilä-CME Zhenjiang Propeller Co. Ltd	China	55.0
	Wärtsilä Engine (Shanghai) Co Ltd	China	100.0
	Wärtsilä Shanghai Services Ltd.	China	100.0
	Wärtsilä Propulsion (Wuxi) Co. Ltd.	China	100.0
	Wärtsilä Singapore Pte Ltd.	Singapore	100.0
	Wärtsilä Ship Design Singapore Pte Ltd	Singapore	100.0
	Wärtsilä Japan Company Ltd	Japan	99.7
	Wärtsilä India Ltd.	India	100.0
	Wärtsilä Vietnam Co Ltd.	Vietnam	100.0
	Wärtsilä Korea Ltd.	South Korea	100.0
	Wärtsilä Taiwan Ltd.	Taiwan	100.0
	Wärtsilä Philippines Inc.	Philippines	100.0
	PT. Wärtsilä Indonesia	Indonesia	100.0
	Wärtsilä Lanka Ltd.	Sri Lanka	100.0
	Wärtsilä Pakistan (Pvt.) Ltd.	Pakistan	100.0
	Wärtsilä Bangladesh Ltd.	Bangladesh	100.0
	Wärtsilä Azerbaijan LLC	Azerbaijan	100.0
	Wärtsilä Power Contracting Saudi Arabia Ltd.	Saudi Arabia	60.0
	Wärtsilä Gulf FZE	United Arab Emirates	100.0
Other	Wärtsilä Ships Repairing & Maintenance LLC	United Arab Emirates	100.0
	Wärtsilä Australia Pty Ltd.	Australia	100.0
	Wärtsilä New Zealand Ltd	New Zealand	100.0
	Wärtsilä PNG Ltd	Papua New Guinea	100.0
	Wärtsilä Egypt Power S.A.E	Egypt	100.0
	Wärtsilä South Africa (Pty) Ltd.	South Africa	100.0
	Wärtsilä Eastern Africa S.A.	Kenya	100.0
	Wärtsilä Uganda Ltd.	Uganda	100.0
	Wärtsilä West Africa S.A.	Senegal	100.0
	Wärtsilä Central Africa Ltd.	Cameroon	100.0
	Wärtsilä Tanzania Ltd	Tanzania	100.0

A complete list of shares and securities in accordance with the Accounting Ordinance is included in the official financial statements of the parent company.

## 33. 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, 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 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 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. The Group does not expect significant losses from foreign exchange rate changes in 2011. The cancellation of orders could lead to ineffective currency hedge. Approximately 70% of sales and 63% of operating costs in 2010 were denominated in euros. The Group's profits and competitiveness are also indirectly affected by the home currencies of its main competitors: USD, GBP, JPY and KRW.

The instruments, their nominal values and currency distribution used to hedge the Group's foreign exchange exposures are listed in Note 27.

Some Group companies in countries whose currencies are not fully convertible like Brazil and China have unhedged, intercompany loans nominated either in EUR or USD. Total amount of the loans is EUR 41 million.

Since Wärtsilä has subsidiaries outside the euro zone, the Group's shareholders' equity is sensitive to exchange rate fluctuations. At the end of 2010 the net asset value of Wärtsilä's foreign subsidiaries outside the euro zone totalled EUR 447 million, of which EUR 407 million was hedged. The ineffective portion of the equity hedges was not significant.

IFRS hedge accounting has been applied to EUR 889 million currency forwards. 10% change in the exchange rates would cause from these currency forwards an approximately EUR 66 million after tax influence on the equity. In 2010 EUR 6 million fair value adjustments related to cash flow hedges were booked in equity. EUR 12 million of the fair value adjustments were transferred from equity to the statement of income as net sales or operating expenses during 2010. The result from ineffective portion of the cash flow hedges, EUR 4 million, has been booked in financial items.

### Currency distribution 2010

%	Net sales	Operating costs	Trade receivables	Trade payables
EUR	70	63	72	74
USD	12	9	9	2
NOK	3	4	3	2
CHF	1	3	1	3
Other EU currencies	1	2	1	2
SGD	1	2	3	1
BRL	2	3	1	1
INR	1	2	2	1
CNY	2	2	1	1
JPY		3	1	2
Other currencies	7	9	5	9
	100	100	100	100

### 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 roll-overs). 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 booked directly to 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 2010 totalled EUR 628 (664) million. The average interest rate was 2.5% (2.3) and the average re-fixing time 22 (23) months. At the end of 2010 a one percentage point parallel decrease/increase of the yield curve would have resulted in a EUR 11 million increase/decrease in the value of the net debt portfolio, including derivatives.

Wärtsilä spreads its interest rate risk exposure by taking both fixed and floating rate loans. The share of floating rate loans as a proportion of the total debt can vary between 30–70%. At the end of 2010 the floating rate portion of total loans was 44% after adjustment for interest rate derivatives. A one percentage point change in the interest level would cause a EUR 2 million change in the following year's interest expenses of the debt portfolio, including derivatives.

Additional information related to loans can be found in note 17 and 25.

### 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.

The existing funding programmes include:

- Committed Revolving Credit Facilities totalling EUR 560 million.
  - Finnish Commercial Paper programmes totalling EUR 700 million.
- The average maturity of the long-term loans is 46 months and the average maturity of the confirmed credit lines is 31 months. Additional information in Note 25.

Wärtsilä Group's liquidity is strong. Wärtsilä had cash and cash equivalents totalling EUR 776 million at the year end as well as EUR 560 million non-utilised committed credit facilities and substantial Commercial Paper programmes. Wärtsilä minimises its refinancing risk by having a balanced and sufficiently long loan portfolio.

### Revolving credit facilities

#### MEUR

Year	Maturing	Available (end of period)
2010		560
2011	95	465
2012	35	430
2013	270	160
2014		160
2015	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 company did not have long-term suppliers' credits at the end of 2010. No losses were recorded on suppliers' credits.

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 (Wärtsilä Group Treasury) as local laws and central bank regulations allow it. The Group's funds are placed in instruments with sufficient liquidity (short-term 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 Wärtsilä Group Treasury and Wärtsilä does not expect any future defaults from the placements.

#### Aging of trade receivables

MEUR	2010		2009	
	Trade receivables	of which impaired	Trade receivables	of which impaired
Not past due	568		613	
Past due 1-30 days	100		139	
Past due 31-180 days	121	1	180	2
Past due 181-360 days	42	5	78	3
Past due 1 year	81	45	58	33
<b>Total</b>	<b>911</b>	<b>51</b>	<b>1 068</b>	<b>38</b>

In 2010, EUR 16 million provisions for doubtful receivables has been recognised in the statement of income.

#### Equity price risk

Wärtsilä has investments in publicly quoted shares (Note 15). The market value of these shares at the end of 2010 was EUR 2 million. 10% strengthening or weakening in share price does not have any significant impact on Group's equity after taxes.

Wärtsilä also has equity investments totalling EUR 9 million in power plants companies, most of which are located in developing countries and performing well according to expectations.

#### 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 have a solvency ratio of 35–40% and to pay a dividend equivalent to 50% of operational earnings per share.

Wärtsilä redefined in January 2011 its long-term financial targets. Wärtsilä's target is to maintain gearing below 50% and to pay a dividend equivalent to 50% of earnings.

MEUR	31.12.2010	31.12.2009
Equity and liabilities	4 696	4 655
Advances received	-616	-879
	4 080	3 777
Total equity	1 664	1 512
Solvency ratio, %	40.8	40.0

In the capital management Wärtsilä also follows the gearing development:

Interest-bearing liabilities, non-current	572	591
Interest-bearing liabilities, current	56	73
Cash and cash equivalents	-776	-244
	-148	420
Loan receivables	-17	-6
<b>Net interest-bearing loan capital</b>	<b>-165</b>	<b>414</b>
Gearing	-0.09	0.28

# Parent Company Financial Statements

## Parent Company Income Statement (FAS)

MEUR	Note	2010	2009
<b>Other operating income</b>	1	72	77
Personnel expenses	2	-48	-40
Depreciation and amortisation	3	-14	-12
Other operating expenses		-102	-87
<b>Operating result</b>		-93	-62
Financial income and expenses	4		
Income from financial assets		377	84
Interest income and other financial income		27	32
Exchange gains and losses		-39	-13
Interest expenses and other financial expenses		-42	-30
		324	74
<b>Result before extraordinary items</b>		231	11
Group contribution	5	360	393
<b>Result before appropriations and taxes</b>		591	405
Change in depreciation difference		-2	-1
<b>Result before taxes</b>		589	404
<b>Income taxes</b>	6	-101	-84
<b>Result for the financial period</b>		488	320

## Parent Company Balance Sheet (FAS)

MEUR	Note	31.12.2010	31.12.2009
<b>ASSETS</b>			
<b>Fixed assets</b>	7		
<b>Intangible assets</b>			
Other long-term expenditure		32	31
Construction in progress		6	14
		<b>38</b>	<b>46</b>
<b>Tangible assets</b>			
Land and water		8	7
Buildings and structures		1	1
Machinery and equipment		1	2
Other tangible assets		1	1
Construction in progress		2	1
		<b>13</b>	<b>12</b>
<b>Financial assets</b>			
Shares in Group companies		450	450
Loan receivables from Group companies			1
Other shares and securities		6	19
		<b>456</b>	<b>470</b>
<b>Fixed assets and other non-current financial assets</b>		<b>507</b>	<b>527</b>
<b>Non-current receivables</b>			
Receivables from Group companies	8	172	166
Loan receivables		17	12
		<b>188</b>	<b>177</b>
<b>Current receivables</b>			
Trade receivables		1	
Receivables from Group companies	9	1 401	1 444
Other receivables		1	3
Prepaid expenses and accrued income	10	15	19
		<b>1 419</b>	<b>1 467</b>
<b>Cash and bank balances</b>		<b>665</b>	<b>151</b>
<b>Total current assets</b>		<b>2 272</b>	<b>1 795</b>
<b>Assets</b>		<b>2 779</b>	<b>2 322</b>

MEUR	Note	31.12.2010	31.12.2009
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>	11		
Share capital		336	336
Share premium reserve		61	61
Retained earnings		413	266
Result for the financial year		488	320
<b>Total equity</b>		<b>1 298</b>	<b>983</b>
<b>Accumulated appropriations</b>			
Depreciation difference		10	8
Provisions		17	
<b>Liabilities</b>	12		
<b>Non-current</b>			
Loans from credit institutions		249	263
Loans from pension insurance companies		217	221
Liabilities to Group companies	14	72	77
		<b>538</b>	<b>561</b>
<b>Current</b>			
Loans from credit institutions		14	64
Loans from pension insurance companies		29	
Trade payables		5	4
Liabilities to Group companies	14	766	618
Other current liabilities		2	5
Accrued expenses and deferred income	13	99	79
		<b>915</b>	<b>770</b>
<b>Total liabilities</b>		<b>1 453</b>	<b>1 331</b>
<b>Equity and liabilities</b>		<b>2 779</b>	<b>2 322</b>

## Parent Company Cash Flow Statement (FAS)

MEUR	2010	2009
<b>Cash flow from operating activities:</b>		
Operating result	-93	-62
Adjustments for:		
Depreciation and amortisation	14	12
Selling profit and loss of fixed assets		-3
Cash flow before changes in working capital	-78	-53
Changes in working capital:		
Assets, non-interest-bearing, increase (-)/ decrease (+)	-40	115
Liabilities, non-interest-bearing, increase (+)/ decrease (-)	7	-60
	-33	55
<b>Cash flow from operating activities before financial items and taxes</b>	<b>-112</b>	<b>2</b>
Interest and other financial expenses	-96	-46
Dividends received from operating activities	217	80
Interest and other financial income from operating activities	22	25
Income taxes	-68	-65
	76	-6
<b>Cash flow from operating activities</b>	<b>-36</b>	<b>-4</b>
<b>Cash flow from investing activities:</b>		
Investments in tangible and intangible assets	-8	-12
Proceeds from sale of investments	13	
Proceeds from sale of tangible and intangible assets	155	3
Loan receivables, increase (-)/ decrease (+) and other changes	-14	1
Dividends received	5	5
<b>Cash flow from investing activities</b>	<b>151</b>	<b>-3</b>
<b>Cash flow after investing activities</b>	<b>115</b>	<b>-7</b>
<b>Cash flow from financing activities:</b>		
Loans receivables, increase (-)/ decrease (+)	82	129
Current loans, increase (+)/ decrease (-)	140	-367
Proceeds from non-current borrowing	25	185
Repayments and other changes of non-current loans	-69	-20
Group contributions	393	301
Dividends paid	-173	-148
<b>Cash flow from financing activities</b>	<b>399</b>	<b>80</b>
<b>Change in cash and bank balances, increase (+) / decrease (-)</b>	<b>514</b>	<b>74</b>
Cash and bank at beginning of period	151	77
Cash and bank at end of period	665	151

# 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

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. Open hedging instruments of foreign currency based items, including interest components, are valued at the balance sheet date. Exchange gains and losses related to business operations are treated as adjustments to net sales and operating expenses. Exchange gains and losses related to financing operations are entered under financial income and expenses.

## 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

Fixed assets are valued in the balance sheet at their direct acquisition cost less accumulated depreciation. Certain land areas also include revaluations.

Depreciation 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.

## Extraordinary income and expenses

Extraordinary income and expenses consist of items, such as Group contributions, that fall outside the ordinary activities of the company.

## 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 realized. 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	2010	2009
Rental income	2	2
Profit on sales of fixed assets		3
Services to Group companies	69	71
Other operating income	1	1
<b>Total</b>	<b>72</b>	<b>77</b>

## 2. Personnel expenses

MEUR	2010	2009
Wages and salaries	41	30
Pension costs	6	8
Other compulsory personnel costs	2	2
<b>Total</b>	<b>48</b>	<b>40</b>

Salaries and remunerations to senior management

The President and CEO and his deputy and members of the Board of Directors

3 2

The President and CEO and some of the members of the Board of Management have the right to retire at the age of 60 years.

The Company's Board of Directors decides the remunerations of the President and CEO and his immediate subordinates.

Personnel on average during the year	389	398
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## 3. Depreciation and amortisation

MEUR	2010	2009
<b>Depreciation according to plan</b>		
Other long-term expenditure	14	12
Total depreciation according to plan	14	12
Total book depreciation	17	13
Depreciation difference	-2	-1
<b>Accumulated depreciation difference</b>		
Depreciation difference on 1 January	8	7
Change in the depreciation difference	2	1
Depreciation difference on 31 December	10	8

## 4. Financial income and expenses

MEUR	2010	2009
Dividend income		
From Group companies	217	80
From other companies	5	5
<b>Total</b>	<b>222</b>	<b>84</b>
Other interest income		
From Group companies	22	30
From other companies	2	1
<b>Total</b>	<b>24</b>	<b>30</b>
Other financial income		
From Group companies	4	5
From other companies	6	11
<b>Total</b>	<b>10</b>	<b>16</b>
Exchange gains and losses	-39	-13
Interest expenses		
To Group companies	-8	-9
To other companies	-13	-17
<b>Total</b>	<b>-21</b>	<b>-26</b>
Other financial expenses		
To Group companies	-3	-3
To other companies	-15	-15
<b>Total</b>	<b>-18</b>	<b>-18</b>
Impairments of non-current receivables	-9	
Net income from financial assets available for sale	155	
<b>Financial income and expenses, total</b>	<b>324</b>	<b>74</b>

## 5. Extraordinary income and expenses

MEUR	2010	2009
Group contributions received	360	393

## 6. Income taxes

MEUR	2010	2009
Income taxes		
for the financial year	-100	-84
for prior years	-1	-1
<b>Total</b>	<b>-101</b>	<b>-84</b>
Income taxes on extraordinary items	94	102



## 7. Fixed assets

### Intangible assets

MEUR	Other long-term expenditures	Construction in progress	Total 2010	Total 2009
Acquisition cost at January 1	110	14	126	116
Additions	2	4	6	8
Reclassifications	13	-13		2
Acquisition cost at December 31	125	6	132	126
Accumulated amortisation at January 1	-79		-80	-68
Amortisation during the financial year	-14		-14	-12
Accumulated amortisation at December 31	-93		-94	-80
Book value at 31 December 2010	32	6	38	
Book value at 31 December 2009	31	14		46

### Tangible assets

MEUR	Land and water	Buildings and structures	Machinery and equipment	Construction in progress	Other tangible assets	Total 2010	Total 2009
Acquisition cost at January 1	7	11	12	1	2	32	32
Additions	1			1		3	3
Disposals							-2
Reclassifications							-2
Acquisition cost at December 31	8	11	12	2	2	35	32
Accumulated amortisation at January 1		-10	-10		-1	-21	-20
Amortisation during the financial year			-1			-1	-1
Accumulated amortisation at December 31		-10	-11		-1	-22	-21
Book value at 31 December 2010	8	1	1	2	1	13	
Book value at 31 December 2009	7	1	2	1	1		12

### Shares and securites

MEUR	Shares in Group companies	Receivables from Group companies	Shares in other companies	Total 2010	Total 2009
Acquisition cost at January 1	450	1	19	470	471
Additions			2		
Disposals			-15	-15	-1
Acquisition cost at December 31	450		6	456	470
Book value at 31 December 2010	450		6	456	
Book value at 31 December 2009	450	1	19		470

## 8. Non-current receivables

MEUR	2010	2009
<b>Receivables from Group companies</b>		
Non-current investments		1
Loan receivables	172	166
<b>Total</b>	<b>172</b>	<b>166</b>

## 9. Current receivables from Group companies

MEUR	2010	2009
Trade receivables	3	3
Loan receivables	1 390	1 428
Prepaid expenses and accrued income	8	13
<b>Total</b>	<b>1 401</b>	<b>1 444</b>

## 10. Prepaid expenses and accrued income

MEUR	2010	2009
Derivatives	13	13
Other financial items	2	6
<b>Total</b>	<b>15</b>	<b>19</b>

## 11. Shareholders' equity

MEUR	2010	2009
<b>Share capital</b>		
Share capital on 1 January	336	336
Share capital on 31 December	336	336
<b>Share premium reserve</b>		
Share premium reserve on 1 January	61	61
Share premium reserve on 31 December	61	61
<b>Retained earnings</b>		
Retained earnings on 1 January	586	415
Ordinary dividend distribution	-173	-148
Reversal of revaluation		-1
Result for the financial period	488	320
Retained earnings on 31 December	901	586
<b>Total shareholders' equity</b>	<b>1 298</b>	<b>983</b>
<b>Distributable equity</b>	<b>901</b>	<b>586</b>

## 12. Liabilities

MEUR	2010	2009
<b>Non-current</b>		
Interest-bearing	538	561
<b>Total</b>	<b>538</b>	<b>561</b>
<b>Current</b>		
Non-interest-bearing	135	114
Interest-bearing	781	656
<b>Total</b>	<b>915</b>	<b>770</b>

### Debt with maturity profile

2010	Current	Long-term		
MEUR	< 1 year	1-5 years	> 5 years	Total
Loans from financial institutions	14	121	128	263
Loans from pension institutions	29	172	45	246
<b>Total</b>	<b>43</b>	<b>293</b>	<b>173</b>	<b>509</b>
<b>2009</b>	<b>Current</b>	<b>Long-term</b>		
<b>MEUR</b>	<b>&lt; 1 year</b>	<b>1-5 years</b>	<b>&gt; 5 years</b>	<b>Total</b>
Loans from financial institutions	64	71	192	327
Loans from pension institutions		151	70	221
<b>Total</b>	<b>64</b>	<b>222</b>	<b>286</b>	<b>508</b>

## 13. Accrued expenses and deferred income

MEUR	2010	2009
Income and other taxes	64	31
Derivatives	10	27
Personnel costs	18	11
Interest and other financial items	3	4
Other	4	6
<b>Total</b>	<b>99</b>	<b>79</b>

## 14. Liabilities to Group companies

MEUR	2010	2009
Other long-term liabilities	72	77
Trade payables	3	4
Other current liabilities	738	589
Accrued expenses and deferred income	26	25
<b>Total</b>	<b>839</b>	<b>695</b>

## 15. Collateral, contingent liabilities and other commitments

	2010	2009
	Debt in balance sheet	Debt in balance sheet
<b>MEUR</b>		
<b>Guarantees and contingent liabilities</b>		
On behalf of Group companies	623	678
On behalf of Associated companies	9	8
<b>Total</b>	<b>632</b>	<b>686</b>
<b>Nominal amounts of rents according to leasing contracts</b>		
Payable within one year	3	3
Payable after one year	9	12
<b>Total</b>	<b>12</b>	<b>15</b>

## 16. Inner circle loans and other commitments

There are no loans 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.

## 17. Auditors' fees and services

The following remuneration was paid to auditors and accounting firms for audits and other reviews based on applicable legislations and for advice as well as for independent advice.

In 2010 the AGM appointed the firm of public accountants KPMG Oy Ab as Wärsilä Corporation's auditors.

### Auditors' fees

	2010	2009
<b>TEUR</b>		
Audit fees	166	155
Tax advisor fees	284	153
Other fees	102	242
<b>Total</b>	<b>552</b>	<b>550</b>

# Proposal of the Board

The parent company's distributable funds total 901,099,082.48 euros, which includes 487,792,193.41 euros in net profit for the year. There are 98,620,565 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:

<b>EUR</b>	
A dividend of EUR 1.75 per share be paid, making a total of	172 585 988.75
An extra dividend of EUR 1.00 per share be paid, making a total of	98 620 565.00
That the following sum be retained in shareholders' equity	629 892 528.73
<b>Total</b>	<b>901 099 082.48</b>

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, 27 January 2011

Antti Lagerroos

Matti Vuoria

Maarit Aarni-Sirviö

Kaj-Gustaf Bergh

Alexander Ehrnrooth

Paul Ehrnrooth

Bertel Langenskiöld

Mikael Lilius

Ole Johansson  
President and CEO

# Auditor's report

## To the Annual General Meeting of Wärtsilä Corporation

We have audited the accounting records, the financial statements, the report of the Board of Directors, and the administration of Wärtsilä Corporation for the year ended December 31, 2010. The financial statements comprise the consolidated balance sheet, consolidated income statement, statement of comprehensive income, statement of changes in equity, consolidated cash flow statement and notes to the consolidated financial statements, as well as the parent company's balance sheet, income statement, cash flow statement and notes to the financial statements.

## Responsibility of the Board of Directors and the President and CEO

The Board of Directors and the President and CEO 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, as well as for the preparation of financial statements and the report of the Board of Directors that give a true and fair view in accordance with the laws and regulations governing the preparation of the financial statements and the report of the Board of Directors in Finland. The Board of Directors is responsible for the appropriate arrangement of the control of the company's accounts and finances, and the President and CEO shall see to it that the accounts of the company are in compliance with the law and that its financial affairs have been arranged in a reliable manner.

## Auditor's Responsibility

Our responsibility is to express an opinion on the financial statements, on the consolidated financial statements and on the report of the Board of Directors based on our audit. The Auditing Act requires that we comply with the requirements of professional ethics. We conducted our audit in accordance with good auditing practice in Finland. Good auditing practice requires that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and the report of the Board of Directors are free from material misstatement, and whether the members of the Board of Directors of the parent company and the President and CEO are guilty of an act or negligence which may result in liability in damages towards the company or have violated the Limited Liability Companies Act or the articles of association of the company.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements and the report of the Board of Directors. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstate-

ment, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of financial statements and report of the Board of Directors that give a true and fair view 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 company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements and the report of the Board of Directors.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion on the consolidated financial statements

In our opinion, the consolidated financial statements give a true and fair view of the financial position, financial performance, and cash flows of the group in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

## Opinion on the company's financial statements and the report of the Board of Directors

In our opinion, the financial statements and the report of the Board of Directors give a true and fair view of both the consolidated and the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of the financial statements and the report of the Board of Directors in Finland. The information in the report of the Board of Directors is consistent with the information in the financial statements.

## Other opinions

We support the adoption of the financial statements. The proposal by the Board of Directors regarding the treatment of distributable funds is in compliance with the Limited Liability Companies Act. We support that the Board of Directors of the parent company and the President and CEO be discharged from liability for the financial period audited by us.

Helsinki, January 27, 2011

KPMG OY AB

Pekka Pajamo  
Authorized Public Accountant

# Quarterly Figures 2009–2010

## Condensed Statement of Income

MEUR	Q4/2010	Q3/2010	Q2/2010	Q1/2010	Q4/2009	Q3/2009	Q2/2009	Q1/2009
<b>Net sales</b>	1 462	1 039	1 131	922	1 519	1 167	1 333	1 241
Other operating income	21	13	11	7	11	20	13	5
Expenses	-1 313	-910	-1 007	-851	-1 280	-1 026	-1 167	-1 087
Depreciation, amortisation and impairment	-29	-29	-28	-30	-73	-31	-30	-30
Share of result of associates and joint ventures	2	2		2	1	3	1	1
<b>Operating result</b>	143	114	105	49	179	133	149	130
Financial income and expenses	-10	-6	4		-9	-9	-9	-7
Net income from assets available for sale	117	32						
<b>Profit before taxes</b>	251	140	109	49	170	125	141	123
Income taxes	-71	-35	-31	-14	-51	-38	-39	-34
<b>Profit for the financial period</b>	179	104	79	35	119	87	102	89
<b>Earnings per share, EUR</b>	1.78	1.03	0.77	0.33	1.17	0.87	1.01	0.89
Order intake	1 003	1 004	1 117	881	823	725	785	958
Order book, at the end of period	3 795	4 243	4 315	4 330	4 491	5 351	5 829	6 477
Personnel, at the end of period	17 528	17 704	17 905	18 410	18 541	18 806	19 106	18 844