

Annual Report 2003

Business Review

170 Years of Excellence.

Information for Shareholders

Annual General Meeting

The Annual General Meeting of Wärtsilä Corporation will take place on Monday 15 March 2004, beginning at 4 p.m., in the Congress Wing of the Helsinki Fair Centre, address Messuaukio 1, 00520 Helsinki.

Right to attend

Shareholders who have been registered no later than 5 March 2004 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 attendance

Shareholders wishing to attend the Annual General Meeting are required to inform the Company thereof not later than 4.00 pm on 11 March 2004 either by letter, by e-mail, by fax or by telephone.

Address:

Wärtsilä Corporation
Share Register
P.O. Box 196
FI-00531 Helsinki
Finland
Telephone +358 10 709 5282, between 10 a.m. and 2 p.m. on weekdays
fax +358 10 709 5283
e-mail: yk@wartsila.com

Letters, e-mails and faxes informing of the participation at the Annual General Meeting must reach the Company before the notification period expires at 4.00 p.m. on Thursday 11 March 2004. Letters authorizing 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 will propose to the Annual General Meeting that a dividend of EUR 0.75 per share to be paid on the 2003 financial period. The dividend will be paid to shareholders who are registered in the list of shareholders maintained by Finnish Central Securities Depository Ltd on the record date, which is 18 March 2004. The dividend payment date proposed by the Board is 25 March 2004.

Annual Report 2003

This Annual Report is also available in Finnish and Swedish and may be downloaded at Wärtsilä's Internet site, www.wartsila.com

Interim Reports 2004

Wärtsilä Corporation will publish Interim Reports on its financial performance during 2004 as follows:

5 May 2004 January–March
6 August 2004 January–June
28 October 2004 January–September.

These Interim Reports are published in English, Finnish and Swedish on Wärtsilä's Internet site.

Stock Exchange Releases:

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

Information material orders

Wärtsilä's Annual and Interim Reports, brochures and releases are available at the Communications Department either by telephone +358 10 709 0000, fax +358 10 709 5219, e-mail: corpcom@wartsila.com or they can be ordered via Internet www.wartsila.com

1834

Wärtsilä is established when the governor of the county of Karelia approves the construction of a sawmill by a rapids in the municipality of Tohmajärvi on 12th April. Some years later the sawmill becomes the property of Nils Ludvig Arppe.

1936

Wärtsilä acquires the Onkilahti engineering workshop in Vaasa and the next year the Pietarsaari workshop in the town of Pietarsaari.

1965

The company is renamed Oy Wärtsilä Ab.

1984

Wärtsilä floats its second share issue for international investors and is the first Finnish company to be quoted on the London stock exchange.

1989

- Wärtsilä Diesel acquires the French SACM, a manufacturer of high-speed engines.
- Wärtsilä acquires a majority holding in the Dutch company Stork Werkspoor B.V., which makes medium-speed engines. This company is renamed Stork-Wärtsilä Diesel B.V.

1938

The diesel engine era begins when Wärtsilä signs a licence agreement with Friedrich Krupp Germania Werft AG in Germany. The first diesel engine sees the light of day in Turku in November 1942.

1978

Acquisition of 51% of the NOHAB diesel business from Bofors in Sweden, marking the beginning of Wärtsilä's international manufacturing operations. The remaining shares are acquired in 1984.

1988

A company is set up in India and floated on the Bombay stock exchange. The diesel engine assembly plant in Khopoli is built.

1990

Wärtsilä extraordinary shareholders' meeting approves the merger plan according to which Wärtsilä will be merged into Lohja Corporation, later renamed Metra Corporation.

1898

As a consequence of the ownership change the sawmill and iron works company is renamed Wärtsilä Ab, which becomes a new company called Ab Wärtsilä Oy in 1907.

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1991

Imatra Steel is created when Ovako AB, an associated company, is split up between its owners, Metra and SKF.

1995

Wärtsilä Diesel and the American Cummins Engine Company Inc. set up a joint venture based on equal ownership to develop and manufacture high-speed 170 and 200 series engines.

1996

Metra and Fincantieri agree on the merger of Wärtsilä Diesel, New Sulzer Diesel and Diesel Ricerche in 1997, the new company will be called Wärtsilä NSD Corporation.

1999

The split-up of the Cummins-Wärtsilä joint venture.

2001

- Wärtsilä sells its 46.7% holding in Sanitec.
- Wärtsilä takes ownership of Swedish service company Ciserv AB.
- Wärtsilä expands into biopower and acquires a Finnish company Sermet Oy.

2000

- Wärtsilä NSD and John Crane-Lips, a leading global supplier of marine propulsion systems, sign an alliance on the supply of complete marine propulsion systems.
- An extraordinary meeting of Metra shareholders on 13th September approves the Board of Director's proposal to rename the group Wärtsilä Corporation.

2003

- Wärtsilä and Volvo Penta to cooperate in the service and sales of marine engines.
- Wärtsilä's strategic focus on ship power and service.
- Wärtsilä wins its largest ever power plant order, 270 MW.
- Wärtsilä sells its 26.3% holding in Polar Kiinteistö Oyj.

2002

- The Ciserv-group expands through acquisitions in Singapore, Denmark and Canada.
- Wärtsilä acquires John Crane-Lips, which will operate within Wärtsilä under the name Wärtsilä Propulsion.
- Wärtsilä and Haldor Topsøe start co-operation in fuel cell development
- Wärtsilä and Mitsubishi co-operate on development of a new low-speed engine.

Wärtsilä in Brief

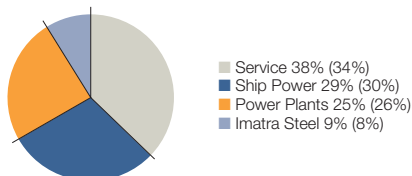


Wärtsilä Corporation is listed on the Helsinki Exchanges. The number of shareholders is almost 27.000. Approximately 90% of the sharestock is owned by Finnish investors.

Key figures in 2003

- Net sales EUR 2,357.5 million
- Operational EBIT EUR 100.0 million
- Operating result EUR -18.4 million
- Profit before taxes EUR -34.4 million
- Balance sheet total EUR 2,382.9 million
- Gearing 0.48
- Personnel at close of period 12 110

Net sales by divisions 2003



Breakdown of capitalization: debt & equity¹



Wärtsilä's brands:

WÄRTSILÄ®, SULZER®, LIPS®, JMT®,
Deep Sea Seals ja Imatra Steel

Wärtsilä is The Ship Power Supplier for builders, owners and operators of vessels and offshore installations. We are the only company with a global service network to take complete care of customers' ship machinery at every lifecycle stage.

Wärtsilä is a leading provider of power plants, operation and lifetime care services in decentralized power generation.

The Wärtsilä Group includes Imatra Steel, which specializes in special engineering steels.

Strategy

We supply solutions that meet the need of our sea transportation and decentralized power generation customers worldwide to convert fuels into power efficiently, reliably, cost-effectively and with the lowest possible environmental impact.

Wärtsilä caters to the needs of shipowners and shipyards by offering ship power systems and service. Wärtsilä supplies engines, propulsion and control solutions for all types of marine vessels and offshore applications. Our worldwide service network provides ship machinery maintenance and recondition throughout the lifetime of the systems. We expand our service business by providing innovative services that support our customers' business, such as non-OEM service in key ports, predictive and condition-based maintenance, and operations and maintenance contracts.

Wärtsilä supplies power solutions based on oil, gas and dual-fuel reciprocating engines. Our target is to strengthen our global leadership position within our focus area: decentralized power generation market. Wärtsilä supports its power plant customers by providing operation and maintenance services for their installations.

Holdings

Wärtsilä regards its holdings as financial resources for developing its main business.

Wärtsilä owns 7.6% of Assa Abloy AB:s shares.

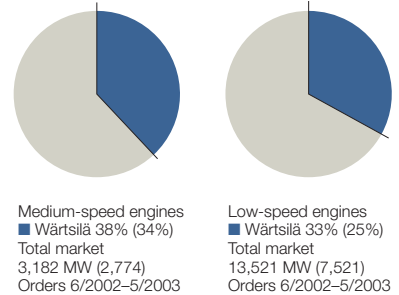
The market capitalization of this holding at the end of the financial year was EUR 261.9 million. Its book value is EUR 67.4 million.



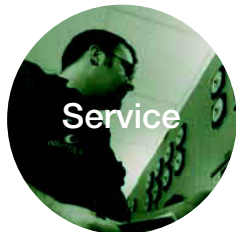
- Net sales EUR 686.1 million
- Order intake in 2003 EUR 626.4 million
- Year-end order book EUR 606.8 million

Wärtsilä is The Ship Power Supplier. Wärtsilä supplies engines, propulsion and control systems for all types of marine vessels and offshore applications.

Wärtsilä's market share 2003 in medium-speed and low-speed main engines



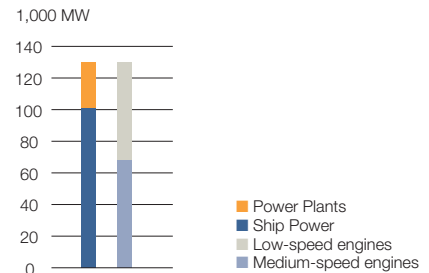
Source: Diesel & Gas Turbine Worldwide



- Net sales EUR 885.5 million
- Personnel at year end 5 993
- Long-term service agreements 9,629 MW
- Operation and maintenance agreements 2,289 MW

Wärtsilä supports its customers throughout the lifetime of their installations. Wärtsilä provides service and reconditioning both for ship machinery and power plants. Wärtsilä is expanding its service business by providing innovative services that support its customers' business, service for several engine brands in key ports, long-term service contacts, predictive and condition-based maintenance, and operations and maintenance contracts.

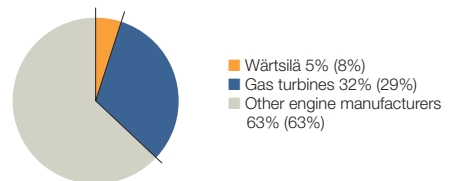
Wärtsilä's engine base



- Net sales EUR 577.5 million
- Order intake in 2003 EUR 639.3 million
- Year-end order book EUR 357.2 million

Wärtsilä is a leading supplier of power plants for decentralized power generation. We offer power plant solutions based on oil, gas and dual-fuel engines.

Market share of Wärtsilä Power Plants 2003



Engine and gas turbine orders (unit size 1-60 MW) for Power Plants 6/2002-5/2003

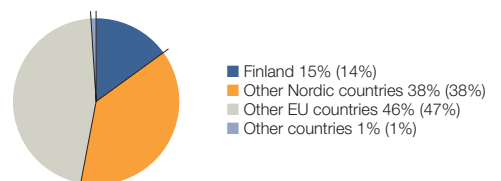
Source: Diesel & Gas Turbine Worldwide



- Net sales EUR 202.7 million
- Operating profit EUR 0.7 million
- Operational result EUR 5.1 million
- Personnel at end of period 1 213

Imatra Steel is Wärtsilä's special engineering steels company. Imatra Steel produces round, square and flat special steel bars, forged engine and front axle components. Its customers are European automotive and mechanical engineering companies.

Imatra Steel net sales by market area 2003



Wärtsilä as an Investment

Wärtsilä Corporation's shares are quoted on the Main List of the Helsinki Exchanges and they are also traded on the SEAQ International (Stock Exchange Automatic Quotation system) on the London Stock Exchange.

Wärtsilä Corporation's share capital is minimum EUR 87.5 million and maximum EUR 350 million. Within these limits the share capital may be raised or lowered without amending the Articles of Association. The company's paid-up share capital is EUR 208,774,902. The company's Series A shares carry 10 votes each and the Series B share one vote each at general shareholders' meetings. The nominal value of the shares in both series is EUR 3.50. All shares carry equal dividend rights. There are 15,419,005 Series A shares and 44,230,967 Series B shares, making 59,649,972 in all.

Dividend policy

Wärtsilä's target is to pay a dividend equivalent to 50% of operational earnings per share. Board's proposal for dividend for the financial year 2003 is EUR 0.75 per share.

Reporting according to IAS/IFRS

The consolidated financial statements of Wärtsilä Group have been prepared in accordance with the laws and regulations in force in Finland and in compliance with the company's Groupwide ac-

counting principles. The differences compared to IAS are mainly coming from evaluation of derivatives, shares and pension liability as well as capitalization of research and development costs and timing of provisions.

The reporting in accordance with IAS/IFRS will commence from beginning of year 2005. Collection of data for this purpose is continuing according to plan.

Highlights of 2003

Wärtsilä revised its corporate strategy at the end of the summer, deciding to focus primarily on ship power systems and service. Wärtsilä's aim is to increase its product range and service portfolio in this sector. With Asia rapidly becoming the hub of the world's shipbuilding industry, and price competition becoming increasingly intense, Wärtsilä also decided to start manufacturing propellers and auxiliary engines in China.

In acquiring new service companies Wärtsilä's aim is to broaden and deepen the range of services it offers. The Ciserv group, which provides a comprehensive portfolio of ship maintenance and re-conditioning services, expanded during the year with the addition of three companies and today this group comprises seven service companies at central points along key maritime routes. This gives Wärtsilä excellent opportunities for increasing its market share of service for 2-stroke engines since Ciserv is also geared to servicing engines of other manufacturers' brands.

Key ratios

EUR million	2001	2002	2003	1-3/2003	4-6/2003	7-9/2003	10-12/2003
Net sales	2,358.7	2,519.0	2,357.5	488.1	538.5	608.7	722.1
Power Divisions	2,174.3	2,319.9	2,155.8	433.1	483.2	568.4	671.0
Imatra Steel	186.4	200.4	202.7	55.1	55.5	40.6	51.6
Operational EBIT	95.8	77.8	100.0	9.3	16.2	26.1	48.4
Power Divisions	87.8	74.6	95.0	8.3	14.0	26.9	45.8
Imatra Steel	6.4	3.2	5.1	1.0	2.2	-0.8	2.6
Depreciation and writedowns ¹	-88.5	-105.4	-101.0	-34.1	-26.2	-25.2	-15.5
Power Divisions	-69.8	-93.4	-88.7				
Imatra Steel	-11.5	-11.9	-12.3				
Operating result	523.9	188.9	-18.4	5.0	16.2	26.1	-65.7
Power Divisions	-34.6	74.6	-35.0	8.3	14.0	26.9	-84.2
Imatra Steel	6.4	3.2	0.7	-3.4	2.2	-0.8	2.6
Capital gains	550.4	111.1	15.9				15.9
Profit before extraordinary items	508.7	170.4	-34.4				
Earnings per share, EUR	5.53	2.05	-0.66	-0.08	0.22	0.27	-1.06
Balance sheet total	2,405.0	2,685.0	2,382.9	2,554.6	2,548.9	2,456.6	2,382.9
Interest-bearing liabilities, gross	168.3	624.3	496.8				
Convertible subordinated debentures	28.1	27.9	27.5	27.9	27.9	27.9	27.5
Cash and bank balances	184.6	185.8	150.0	128.5	136.5	109.1	150.0
Operating result, %	22.2	7.5	-0.8	1.0	3.0	4.3	-9.1
Operational EBIT, %	4.1	3.1	4.2	1.9	3.0	4.3	6.7
Power Divisions ²	4.0	3.2	4.4	1.9	2.9	4.7	6.8
Imatra Steel ²	3.4	1.6	2.5	1.9	4.0	-2.1	5.1
ROI, %	43.0	14.9	0.1				
Power Divisions ²	10.7	7.7	8.4				
Imatra Steel ²	6.0	2.9	4.0				
Megawatts delivered, Power Divisions	6,172	6,354	4,847	985	946	1,343	1,574
Order book, end of period, Power Divisions	1,516.5	1,206.6	1,245.0	1,368.5	1,392.8	1,405.1	1,245.0
Order intake, Power Divisions	2,040.4	1,882.8	2,148.7	590.4	511.9	555.8	490.6
Personnel, end of period	11 122	12 459	12 110	12 272	12 261	12 154	12 110
Power Divisions	9 738	11 068	10 897	10 894	10 871	10 937	10 897
Imatra Steel	1 384	1 391	1 213	1 378	1 390	1 217	1 213

¹ 2003 does not include writedowns of EUR million 55.0 included in restructuring; 2001 EUR 37.5 million.

² Excluding non-recurring costs.

Wärtsilä re-examined the structure and product range of its power plants business as well. The Power Plants division now concentrates on competitive products and areas of strength in markets and products. Although supplying power plants for baseload, peak shaving and standby needs Wärtsilä now gives highest priority to the growing market in the middle of this spectrum: intermediate load power plants.

As a result of the large fluctuations in power plant volume, coupled with the company's new product strategy, Wärtsilä decided to begin consultations with personnel on discontinuing manufacturing operations in France. The company also outsourced its power plant engineering services, to enable it to react fast and flexibly to the strong changes taking place in the power plant market.

In January 2004 Wärtsilä started consultation with personnel on discontinuing the manufacturing in Turku, Finland.

Strategy revisions are integral to the Group's development process, the purpose of which is to significantly improve its profit generating ability. The Group has set an operating margin target of 7–8% by the end of 2005.

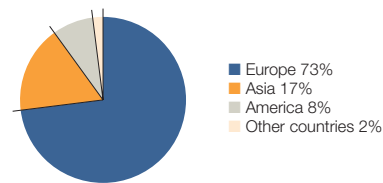
Orders for large vessels especially strong

In the tanker, bulk carrier and containership markets, investments focused in particular on large vessels. An exceptionally big number of orders was placed in the first half of the year 2003 with Asian shipyards. Growth in Europe, Wärtsilä's traditional domestic market, continued to be sluggish. Asian shipyards began to reach full capacity where large vessels were concerned. Prospects in the ship-building industry remained favourable due to recovery in freight prices, the availability of venture capital, and regulations requiring all new tankers to incorporate double hulls.

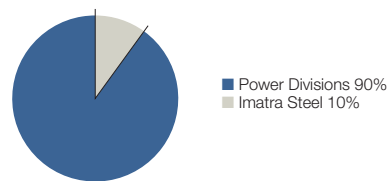
Several power plant projects

The number of active power plant projects was at a satisfactory level despite the worldwide economic uncertainty and Wärtsilä won a number of fairly large orders during 2003. The full-year intake of power plant orders was higher than in 2002 although decisions on orders continued to be postponed in this sector. The intake of orders for biopower plants was again favourable.

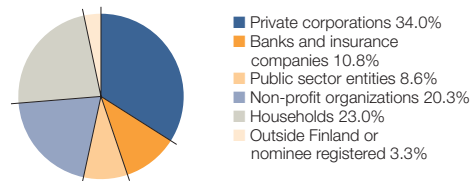
Personnel by market area



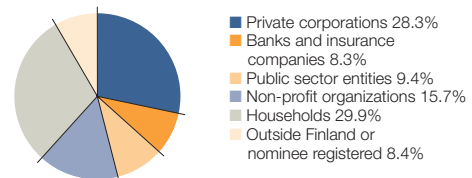
Personnel 2003



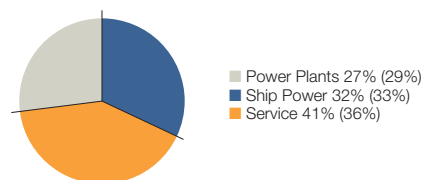
Ownership structure according to votes 31 Dec. 2003



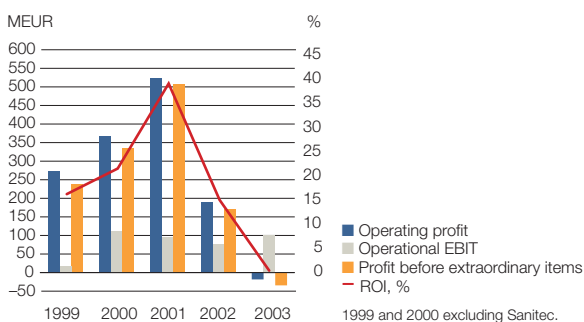
Ownership structure according to shares 31 Dec. 2003



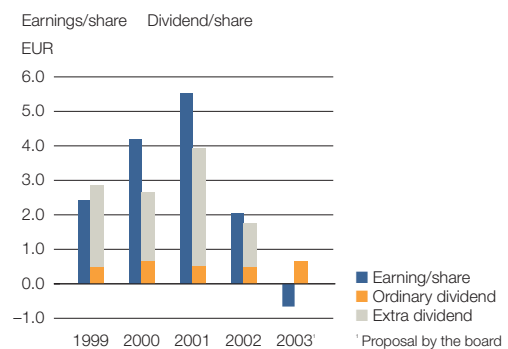
Power Businesses, net sales 2003



Result



Financial indicators per share



Share price on the Helsinki Exchanges 2003

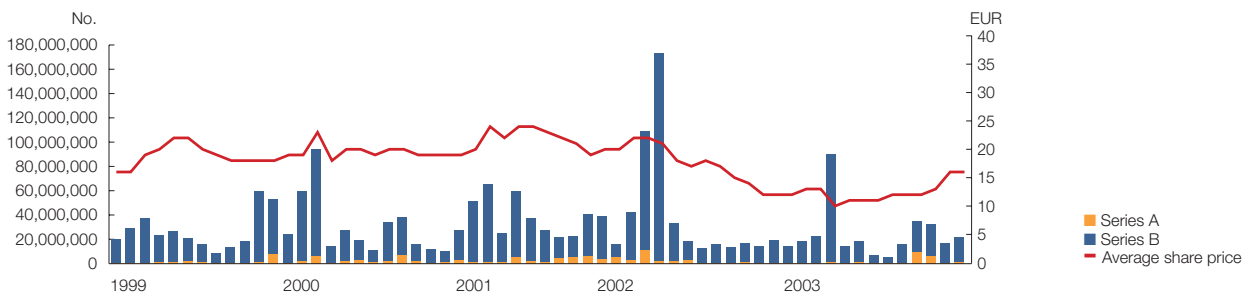
	High EUR	Low EUR	Average ¹ EUR	Number of traded
Series A	16.30	10.00	12.56	1,672,961
Series B	15.95	9.20	11.83	23,334,771

¹ Trading volume weighted average price.

Shares 31 December 2003

	Series A	Series B	Total
Number of shares	15,419,005	44,230,967	59,649,972
Number of votes	154,190,050	44,230,967	198,421,017

Share trading by month



Key figures for Wäertsilä shares

		2003	2002	2001	2000	1999
Earnings per share (EPS)	EUR	-0.66	2.05	5.53	4.2	2.43
Book value of equity/share	EUR	13.03	15.56	17.55	14.59	13.09
Dividend /share	EUR	0.75 ¹	1.75	4.00	2.65	2.85
Dividend/earnings	%	n/a	85.4	72.3	63.1	117.3
Dividend yield	%					
Series A		4.92 ¹	13.69	19.42	13.61	15.66
Series B		4.93 ¹	14.56	19.23	13.55	15.41
Price/earnings (P/E)						
Series A		n/a	6.2	3.7	4.6	7.5
Series B		n/a	5.9	3.8	4.7	7.6
Price to book value (P/BV)						
Series A		1.2	0.8	1.2	1.3	1.4
Series B		1.2	0.8	1.2	1.3	1.4
Adjusted number of shares	1,000					
end of financial year		59,650	59,469	59,454	54,202	54,200
on average		59,561	59,454	56,097	54,200	54,199

¹ Proposal of the Board of Directors

Shares and Shareholders

	2003	2002	2001	2000	1999 ¹
Turnover of shares in Helsinki Exchange	41.9%	43.4%	35.4%	33.2%	32.7%
Turnover of votes in Helsinki Exchange	20.2%	19.9%	19.9%	16.8%	14.5%
Turnover of shares in SEAQ system in London	1.9%	11.1%	10.5%	8.7%	9.2%
Outside of Finland and nominee-registered	8.4%	8.8%	10.5%	12.4%	16.5%

¹ Metra Corporation

Major shareholders	Number of shares x 1,000		% of votes	% of shares
	Series A	Series B		
1 Fiskars Corporation	4,104	7,370	24.4	19.2
2 Sampo Life Insurance Company Ltd	1,665	1,129	9.0	4.7
3 Varma Mutual Pension Insurance Company	930	792	5.1	2.9
4 Svenska Litteratursällskapet	965	21	4.9	1.7
5 Agrofim Oy Ab	797	650	4.3	2.4
6 Stiftelsen Brita Maria Renlund	228	330	1.3	0.9
7 Sigrid Juselius Foundation	249	125	1.3	0.6
8 Signe & Ane Gyllenbergs Foundation	230	100	1.2	0.5
9 The Social Insurance Institution	165	377	1.0	0.9
10 Technology Industries of Finland	186	218	1.0	0.7
10 largest total	9,519	11,112	53.5	34.5

Main releases in 2003

These releases can be read in full on Wärtsilä's website
www.wartsila.com

- 31.1.2003** Wärtsilä Corporation emphasizes emissions reduction technology
- 3.2.2003** Wärtsilä acquires Dutch marine service company
- 5.2.2003** Wärtsilä wins seven orders for bio-energy plants
- 6.2.2003** Wärtsilä's net sales grows to EUR 2,519 million. The Board proposes a total dividend of EUR 1.75 per share.
- 11.2.2003** New-generation Sulzer engines interest customers – orders for three containerships
- 4.4.2003** Two Wärtsilä BioPower plants to Finnforest sawmills
- 29.4.2003** Interim Report January–March 2003: operating profit improved to EUR 5 million
- 16.5.2003** Wärtsilä 64 engines for four multipurpose vessels
- 16.6.2003** Styria Group to buy Imatra Steel's Spring Works
- 31.7.2003** Interim report January–June 2003: strategic focus on ship power systems and service
- 18.8.2003** Wärtsilä and Volvo Penta to co-operate in service and sales of marine engines
- 28.8.2003** Wärtsilä wins power plant orders in July–August in excess of EUR 200 million – largest ever power plant to Honduras
- 29.8.2003** Statement by Wärtsilä on the Gotland bribery suspect
- 10.9.2003** Capital Markets Day: Wärtsilä to concentrate on Marine and Service – refocusing its Power Plants business and adapting capacity to market conditions
- 1.10.2003** Wärtsilä sells its holding in Polar: capital gain of EUR 15 million
- 10.10.2003** Wärtsilä judged best producer of separate sustainability report in Finland – Wärtsilä chosen for Kempen and SNS sustainable development index
- 10.11.2003** EUR 100 million EIB loan for Wärtsilä R&D
- 12.11.2003** Wärtsilä power plant engineering in Finland to Citec
- 2.12.2003** Wärtsilä to start propeller manufacture in China, joint venture with CME – part of shipbuilding group CSSC
- 3.12.2003** Wärtsilä wins major new orders, January November order intake 17% higher than in same period last year

Communications policy and investor relations activities

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.

Wärtsilä's communications activities comprise internal and external corporate communications and investor relations.

Wärtsilä publishes stock exchange releases and stock exchange announcements, general press releases and trade press releases. Wärtsilä's subsidiaries publish press releases with local relevance. Stock exchange releases give information on news that could affect the share price. Stock exchange announcements are releases of a technical nature. Press releases provide information on business-related news or other news of general interest to Wärtsilä stakeholders. Releases to the trade press provide more detailed information on Wärtsilä's products and technology.

All releases are published in Finnish, Swedish and English except those to the trade press, which are produced only in English. The stock exchange releases and press releases are available on the Internet immediately after they are published.

In conjunction with the publication of its annual and interim results Wärtsilä holds conferences for investors, analysts and the media. The company's top management regularly meets investors in Europe and the USA, and analysts and investors are also invited to visit the company. Wärtsilä arranges Capital Markets Days for analysts and fund managers. In Finland the company meets investors at investor fairs and at local evening meetings arranged by the Finnish Foundation for Share Promotion. As a general rule the material presented at its conferences is also published on the company's website.

Wärtsilä observes a four-week "silent period" preceding the publication of its results. During this time the company's representatives do not meet investors or analysts, or comment on the company's financial position.

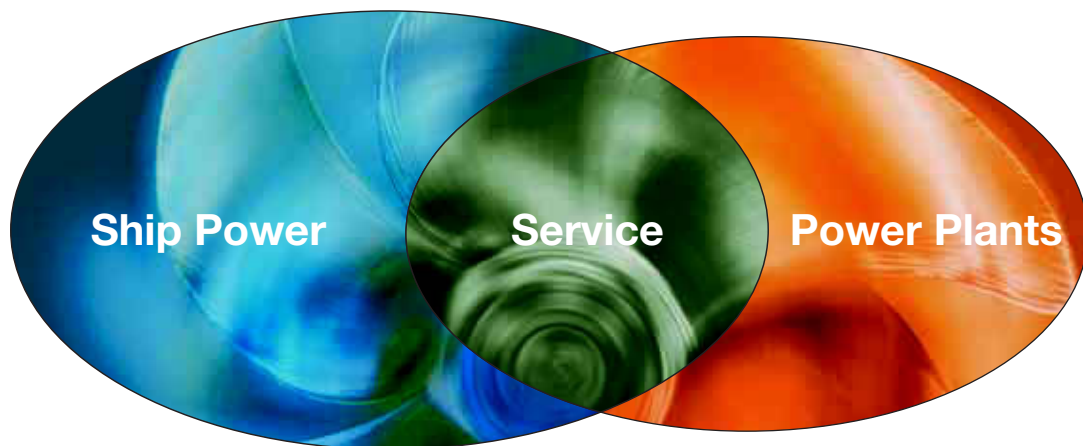
Vice President, Corporate Communications is responsible for Wärtsilä's press relations and its investors and analysts are the responsibility of its Investor Relations Manager.

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Wärtsilä's Strategy



Ship Power

The leading global ship power and service provider.

Service

Interlinks these two businesses. Service supports Wärtsilä customers throughout the lifecycle of their installation.

Power Plants

A significant supplier of decentralized power plant solutions and operation and maintenance services.

Wärtsilä is The Ship Power Supplier for builders, owners and operators of vessels and offshore installations. We are the only company with a global service network to take complete care of customers' ship machinery at every lifecycle stage.

Wärtsilä is a leading provider of power plants, operation and lifetime care services in decentralized power generation.

Mission

We supply solutions that meet the need of our sea transportation and decentralized power generation customers worldwide to convert fuels into power efficiently, reliably and with the lowest possible environmental impact.

Wärtsilä is a leading player in two markets. Wärtsilä is The Ship Power Supplier for builders, owners and operators of vessels and offshore installations.

Wärtsilä is a leading supplier of decentralized power generation solutions and of operation and maintenance services for them.

In the marine market Wärtsilä caters to the needs of shipowners and shipyards by offering ship power systems and service. Wärtsilä supplies engines, propulsion and control solutions for all types of marine vessels and offshore applications. We continue to expand our product offering through acquisitions and partnerships. Wärtsilä is the only company in its field with a worldwide service network. We take complete care of customers' ship machinery at every lifecycle stage. We expand our service business by providing innovative services that support our customers' business, such as non-OEM service in key ports, predictive and condition-based maintenance, and operations and maintenance contracts.

In the decentralized power generation market Wärtsilä supplies power plants, and operation and maintenance services for them, to electricity utilities, industry, local authorities, and other electricity and heat producers. Wärtsilä's power plant solutions are based on oil- and gas engines and on biofuel. Our target is to strengthen our global leadership position within our focus area: decentralized power plant market.

Vision

We will continuously strengthen and develop the leading position we hold in our chosen markets by reliably and professionally providing the total solutions, equipment and service that our cus-

tomers demand to compete successfully in their markets. The value we create for our customers over the lifecycle of our products will build long-lasting and renewed business relationships. Our operations and products meet strict environmental regulations.

Financial goals

Wärtsilä's goal is to offer investors a competitive return on their investment through profitable growth.

The average growth target for corporate annual sales is 6–7%. The target of the Ship Power and Power Plants businesses is 4%, and for the Service business 10–15%. The operating profit target of these Wärtsilä Power Divisions is 7–8% of net sales, which will be reached in 2005.

The balance sheet shall in a capital-efficient way provide the means to execute Wärtsilä's strategy and maintain investment-grade status over the business cycle. The solvency ratio target is 40%.

Dividend policy

Wärtsilä's target is to pay a dividend equivalent to 50% of operational earnings per share.

Environment

Wärtsilä's target is to develop and produce environmentally advanced solutions and services for its customers that fulfil all their vital requirements. We require world-class environmental performance of our solutions and services. We put high priority on developing systems and services that have low emissions and high efficiency.

Social performance

Wärtsilä's intention is to act as a good corporate citizen wherever the company is active. This is accomplished through open communication and good codes of conduct and relationships with its local stakeholders.

The sustainability targets are presented in more detail in the Sustainability report 2002.



Chief Executive's Review 2003



Dear Shareholders,

The year 2003 will remain one of the most active in the history of the shipbuilding industry; the world's shipyards took in orders for more than 1,800 (1,100) new vessels representing 108 (52) million dwt. At the same time Asian shipyards further strengthened their hold on the global shipbuilding market as only nine per cent of orders for new vessels were placed with shipyards outside Asia last year. These orders applied to all types of cargo vessel.

Many reasons underlie the surge in activity but a common factor in all of them is the economic upswing that has now started or is imminently expected. The worldwide imbalance between consumption and production is fuelling the need for transport. This has increased the volume of container traffic and oil transport, raising freight prices to record levels last year. Another factor boosting transport volumes further is the extremely rapid growth of the Chinese economy in recent years.

The first tentative signs of economic recovery were also evident in the power plant sector last year. Projects that have been under preparation for years made progress around the world although it is difficult to give any one reason for this trend.

Focus on ship power solutions

Wärtsilä's Ship Power Supplier concept is based on the combination of Wärtsilä and Sulzer engines, Lips propellers, and Wärtsilä Propulsion's marine seals and bearings. The market position held by these products guarantees Wärtsilä the opportunity to compete around the world, wherever ships are being built. They also give Wärtsilä a platform foundation for developing its business models and indeed last year we defined ship power solutions and service as the company's core growth business.

Engines designed and manufactured by Wärtsilä have for years been used to drive not just marine vessels but also land-based power stations. Having two strings to our bow increases our engine manufacturing volumes and thus our competitive efficiency. Product development benefits as well, because we can apply our experience with power plants to marine installations and vice versa.

Wärtsilä's focus in its power plant business – decentralized power generation – is, like the entire power sector, highly sensitive to economic fluctuations. Although basic demand for power is still expected to rise even faster than total energy consumption, the fluctuations in demand we have seen in recent years have taken too great a toll on our profitability. During the year now behind us, we accelerated the action needed to significantly reduce our vulnerability in this business. Measures included pulling out of power plant solutions based on high-speed engines, which led to the decision to discontinue engine manufacture at our Mulhouse factory in France. Similarly, our decision to outsource power plant engineering in Vaasa, Finland, will reduce our sensitivity to fluctuations in the long term and improve profitability.

Marine engine market shares on the rise

Buoyant demand in shipbuilding was most evident last year in tankers, containerships and bulk carriers. An increase in the size of containerships was visible as well. Wärtsilä and Sulzer engines have traditionally been strongest as main engines for large ships. Statistics published by Diesel & Gas Turbine in autumn 2003 indicate that Wärtsilä raised its market share in low-speed main engines to 33 per cent (25) and in medium-speed main engines to 38 per cent (34).

The growth in market share for low-speed engines demonstrates the confidence held by shipowners in Sulzer technology and in the good co-operation that our licensed manufacturers enjoy with them. Most of these engines are made under licence in Korea, Japan and China.

For medium-speed engines manufactured in our own factories, we strengthened our market share but overall demand grew considerably more slowly than for engines manufactured under licence. This was a result, among other things, of the low number of orders for cruise ships, passenger vessels and RoRo ferries placed during the year. The growth of the market share shows that our long-term efforts to improve the environmental efficiency of these engines are paying off. In the development of all Wärtsilä and Sulzer engines Wärtsilä focuses on technology that supports sustainable development.

With the increase in orders for tankers, containerships and bulk carriers, overall demand for auxiliary engines grew 11 per cent. Wärtsilä's share of this market has always been low but last year it declined further. Most of this market is in Asia, where competition on price is intense.

In the propeller market Wärtsilä's position is strong in controllable pitch propellers whereas our market share in fixed pitch propellers is small. The main market for these propellers is in Asia and we intend to raise our presence by starting to manufacture these products in China.

As the focus of our marine business shifted to licensed Sulzer engines, our net sales in this sector declined. This also reduced the capacity load at our engine factories, which was particularly low in the early months of the year.

Power plant demand highly volatile

Demand for power plants has always been extremely variable and last year was no exception. Our order book at the start of the year was low, as was our order intake as the year got under way. Net

sales of our Power Plants business decreased by a further 13 per cent compared to the previous year. Naturally, the low power plant volume also affected the capacity load at our engine factories.

Early in the year, however, there were signs that certain large power plant projects would move to the order stage and during the second half of the year we indeed received several significant new orders. One of these was for a 270 megawatt power plant running on heavy fuel oil for Honduras, the largest ever supplied by Wärtsilä. As a result our year-end order book was clearly higher than at the same time in 2002.

Service supports total solutions

The contribution of service and spare parts to the Power Divisions' net sales grew to 41 per cent. Net sales from Wärtsilä's Service business last year increased 5 per cent. The growth was low due to the weakening of the US dollar.

Today half of Wärtsilä's total workforce work in service-related activities. The concept of Total Service is now part of the normal working day in Wärtsilä and we consider this business has the potential to grow further. When our customers choose a Wärtsilä product, increasingly often they also want to be sure that the installation will perform reliably and efficiently for years to come.

An important part of our total service concept is the group of Ciserv companies, located at strategic points along major maritime routes. These companies are able to maintain and repair all ship machinery and engines regardless of their make. We will continue to expand our Ciserv chain both through acquisitions and by establishing new service locations.

Capacity reductions in Europe

Demand for marine engines is strong in the case of low-speed engines for cargo vessels. Competition on price is growing in this sector. Demand for power plants will continue to fluctuate substantially while various types of supplier agreements are reducing the need for our own manufacturing capacity. With these trends in mind we began last autumn to examine the feasibility of reducing our engine manufacturing capacity. As a result of this analysis we have started consultations with personnel on discontinuing production at Mulhouse and Turku factories. These decisions, along with restructuring in our power plant business and other streamlining measures, will reduce our total workforce by approximately 1 100 employees.

At the time of writing, these consultations are still in progress. The discontinuing of the engine manufacturing is estimated to take place in Mulhouse during the summer 2004 and in Turku at latest by the end of the year. These measures will have no impact on the Group's research and development, which will continue at its present extent in Vaasa and Winterthur.

Strengthened positions in Asia

China has rapidly established itself as the world's leading shipbuilding countries. Wärtsilä has licensee agreements for low-speed engines with several Chinese manufacturers and we have also exported both medium-speed engines and propellers to China from our factories in Europe.

To secure our position in this growing market we have set in motion a series of measures leading to the start of propeller and auxil-

iary engine manufacture in China. We signed an agreement in December with the Chinese shipbuilding group CSSC on the establishment of a joint venture to make propellers. Wärtsilä owns 55 per cent of this company and the Chinese party 45 per cent.

Imatra Steel looks to its profitability

Conditions in the special engineering steels market in Europe remained uncertain throughout 2003 as companies waited for the next business upswing. Sharp increases in raw materials and energy prices, along with temporary shortages of raw materials, only made the situation more unsettled. Demand for long special steels remained at the previous year's level.

The programme of streamlining measures started at the Imatra Steel Works in autumn 2002 continued during the year. This included adjusting personnel levels to the reduced production and delivery volumes. At the same time the company continued to take measures to broaden employee skills and increase flexibility.

In June we decided to pull out of the spring manufacturing business. The Billnäs spring works was sold to the leading European producer of automotive springs, which already began to have a positive impact on Imatra Steel's profitability from the end of the year.

Restructuring to support profitability

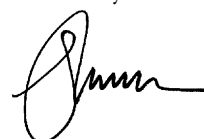
Net sales of the Group's main business, the Power Divisions, did not reach the level of the previous year. Operational profitability nonetheless showed a clear improvement as the operating profit rose to 4.4 (3.2) per cent. Our profitability, however, is still well below the Group's target.

The low profitability showed that the restructuring measures carried out over the past few years have been insufficient in relation to the changes experienced in the whole shipbuilding and power plant sectors. In this context, we have entered a provision of altogether EUR 130 million in the 2003 annual accounts to cover the new restructuring measures mentioned earlier.

We consider that the measures we have started are absolutely necessary for securing our market position and also for reaching our long-term profitability target. If, as planned, most of the restructuring measures are implemented during 2004, the 7–8 per cent operating margin target of the Power Divisions could be reached by the end of 2005.

In closing, let me thank our customers for the confidence you have placed in us. I also wish to thank our shareholders for the interest you have continued to show in our company. And finally my thanks are due to our entire workforce, who have systematically worked to maintain the confidence of our customers and therefore the success of the company.

February 2004



Ole Johansson



When shipowners choose the engines and propulsion system for their vessel, they are investing in top quality and reliability at a competitive price. Wärtsilä's ability to design, engineer, manufacture, supply and service complete ship power systems is a unique combination of competences. Mikael Mäkinen (left), Group Vice President, Ship Power, and Tage Blomberg, Group Vice President, Service.

Lifetime Reliability for Engines and Power Transmission Systems

Wärtsilä's main products are technically advanced engines and power transmission systems which include gearboxes, propellers, bearings, seals and control systems. Wärtsilä is well recognized as The Ship Power Supplier in the shipping business.

As the leading global ship power supplier Wärtsilä's sphere of operations is worldwide. The company's intake of orders, which often come in clusters, is affected both by global business cycles and by single events. Economic growth and raw material costs are reflected in freight charges and passenger services, which in turn will affect shipowners' willingness to invest. The cyclical nature of the shipbuilding sector is further emphasized by orders made for speculative reasons.

The Wärtsilä Group companies have been developing and manufacturing technically demanding and cost-efficient engines for more than 100 years. They are used in a wide variety of marine applications. Wärtsilä's fundamental business is unchanged but in recent years the company has systematically broadened the coverage of its product portfolio. Wärtsilä is today the only company that supplies entire ship power systems and service throughout the world for the lifetime of the vessel. More and more customers are buying this sort of total solution with lifetime service, and are also signing operation & maintenance contracts.

**Every third vessel
has ship power
equipment
supplied by Wärtsilä.**

1,400 ship orders in Asia

– 400 in Europe*

Since 2000 the hub of the shipbuilding industry has shifted increasingly to Asia and the position of European shipyards has weakened significantly in just a few years. In 2003 orders for 400 vessels were placed with European shipyards whereas Asian shipyards recorded an intake of 1,400. South Korea and Japan continue to be the world's largest shipbuilding countries but China is growing rapidly in this field and has embarked on a substantial expansion of its shipbuilding industry. Chinese shipyards have rapidly joined the ranks of the world's leading shipbuilders with Shanghai today numbered among the world's largest ports.

Recognizing China's fast growth, Wärtsilä responded in 2003 with the decision to start manufacturing propellers and engines in the country in co-operation with local component manufacturers. Wärtsilä's network of local Chinese partners will also offer components at competitive prices for the company's manufacturing plants in Europe.

Asian shipyards are increasingly specializing in technically advanced special vessels. Wärtsilä, with its own manufacturing operations in China, is now able to offer a more competitive range of engines and power systems for different types of vessels.

Asia is no new area for Wärtsilä. The company has had a number of service companies strategically located at critical points along

main maritime routes in Asia for years. Moreover, Wärtsilä has licensees for its low-speed, 2-stroke Sulzer engines at eight factories in China, South Korea, Taiwan and Japan, as well as a further two licensees in Poland and Croatia.

Weighing over 2,000 tons, the largest Wärtsilä engines have a maximum output of 80,000 kW

Wärtsilä's low-speed Sulzer engines are manufactured under licence. Wärtsilä is responsible for product development and for providing sales support as well as maintenance and repair services. All licensees except one are shipyards, or companies owned by a shipyard. They themselves manufacture most of the engines needed for the vessels they are building at these shipyards. Wärtsilä receives a licence fee proportional to the engine's output.

In 2003 Wärtsilä and Volvo Penta signed a partnership agreement under which Wärtsilä will sell and service this Swedish company's marine engines. The largest Volvo Penta engines, with an output of 1,500 kW, are used for auxiliary electricity generation and standby purposes in ocean-going vessels. Wärtsilä's engines have outputs ranging from 80,000 kW down to 1,000 kW. The agreement thus solidly supports Wärtsilä's portfolio of ship power systems and engines.

In the product development of its marine engines, Wärtsilä focuses on raising efficiency and reducing emission levels. Wärtsilä has succeeded in

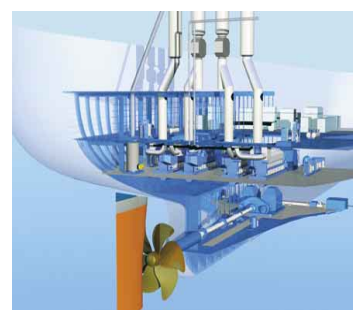
retaining its position at the cutting edge of development; the emission levels of its engines are well below the environmental requirements of the leading international organizations.

The Ship Power Supplier solution for LNG carriers

Wärtsilä has carried out extensive research in order to find the most attractive propulsion solution for LNG carriers. Until now, steam turbines have dominated as propulsion machinery for LNG carriers.

A number of propulsion alternatives have been evaluated after analysing the specific characteristics of LNG trade. The conclusion is that low-pressure dual-fuel engine technology provides the largest benefits to the LNG industry.

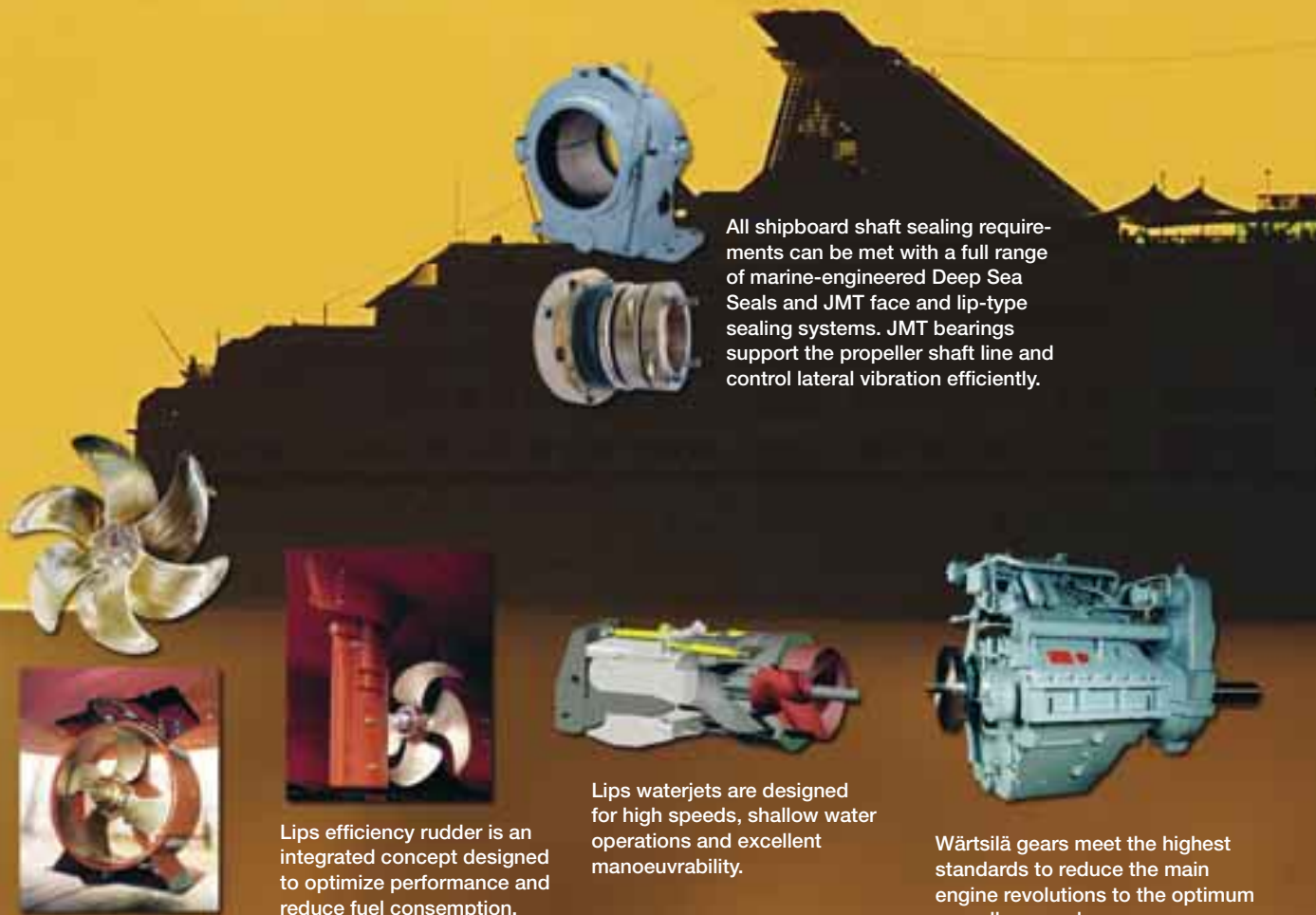
Dual-fuel-electric machinery requires significantly less engine room space than a steam turbine installation. This enables increased cargo capacity for a given displacement, or alternatively smaller ship dimensions for a given cargo capacity.



* vessels larger than 2,000 gt

The Ship Power Supplier

Wärtsilä provides ship machinery, propulsion and manoeuvring solutions customized for all types of marine vessels and offshore applications. Wärtsilä is committed to provide full customer support throughout the entire process from design to construction and operation of a vessel.



All shipboard shaft sealing requirements can be met with a full range of marine-engineered Deep Sea Seals and JMT face and lip-type sealing systems. JMT bearings support the propeller shaft line and control lateral vibration efficiently.


Lips controllable and fixed pitch propellers provide world-class performance in propulsion efficiency and reliability for all ship types.

Lips steerable thrusters with controllable pitch and fixed pitch propellers up to 7 MW for superior manoeuvrability.

Lips efficiency rudder is an integrated concept designed to optimize performance and reduce fuel consumption, vibration and noise level.

Lips waterjets are designed for high speeds, shallow water operations and excellent manoeuvrability.

Wärtsilä gears meet the highest standards to reduce the main engine revolutions to the optimum propeller speed.



Lips propulsion control systems are designed for monitoring and controlling all components in a modern propulsion system and always tailored to each individual ship.



Wärtsilä medium-speed 4-stroke main and auxiliary engines from 0.5 to 23 MW and Sulzer RTA and RT-flex low-speed 2-stroke main engines from 7 to 80 MW. Wärtsilä gas and dual-fuel engines from 1.5 to 16 MW allow flexible choice of fuel. Wärtsilä generating sets from 0.5 to 24 MW for ship service power generation and diesel electric propulsion.

Lips transverse thrusters up to 3.5 MW with a bevel-gear driven propeller in a transverse tunnel for optimal manoeuvring and economy of operation.



Last autumn Gas de France contracted a 153,000 m³ LNG (liquefied natural gas) carrier at the Chantiers de l'Atlantique shipyard in France. The carrier will be powered by a Wärtsilä propulsion system based on three 12-cylinder and one 6-cylinder Wärtsilä 50DF dual-fuel gas-diesel engines, another milestone for Wärtsilä in the LNG market. On its completion in 2005, the vessel will be the largest LNG carrier in the world.

As a result of both increased fuel efficiency and increased cargo capacity, an LNG carrier with dual-fuel-electric machinery will deliver more natural gas to the offloading terminal even when gas is used as fuel throughout the voyage. In addition, harmful exhaust emissions are considerably lower than from a steam turbine-powered vessel. Diesel-electric propulsion enables also largely improved flexibility in the machinery layout, resulting in savings in ship construction.

The Ship Power Supplier solution for LNG carriers thus uses Wärtsilä dual-fuel engines for electric power generation. The electric power is being supplied to an electric propulsion system, fairly similar to the diesel-electric propulsion systems on modern cruise ships, driving a single fixed-pitch propeller. The Wärtsilä 50DF is a true dual-fuel engine, using low-pressure natural gas as primary fuel and marine diesel oil as secondary fuel.

Serving shipowners and shipyards

Customers of Wärtsilä's marine engines are either shipowners or shipyards. Shipowners frequently make the choice of engine in the case of technically demanding special vessels or a series of vessels. In less demanding applications, or when selecting auxiliary engines, the decision-maker is often the shipyard.

The relationship between the buyer of the engine and Wärtsilä is based on many years of co-operation. The shipowner and Wärtsilä together choose the optimum engine output and power transmission system with all its associated components. A key aspect of this process is to find the optimal operating costs for the vessel throughout its lifetime.

A power system is a long-term investment. Wärtsilä's Total Service strategy, therefore, is to add value to its customers' business by maximizing the performance, availability and reliability of the power system during its entire lifecycle.



Operations & Maintenance

A Wärtsilä O&M agreement means that we take care of everything from recruitment, training and management of the O&M staff, to energy production, logistics and other services. An O&M agreement brings production performance guarantees and financial predictability, giving owners a predictable and stable O&M cost profile over the years.



OEM – Original equipment manufactured

Original parts and upgrades maximize equipment performance throughout the installation's lifetime while full OEM reconditioning and upgrade solutions bring older power systems up to today's technical standards. Available through the Wärtsilä network of 6 000 service professionals and one-stop workshops they cover all types of engines, auxiliary systems, propulsion systems and gear components supplied by Wärtsilä.

The Total Service Supplier

WLSA – Wärtsilä Land & Sea Academy

WLSA provides complete training solutions for land and sea installations covering all operation, maintenance and safety issues for marine and power plant staff, including professional career path planning and competence tracking services.



Online services

Wärtsilä's range of online services is easily integrated with customers' business activities and processes, enabling access to interactive instruction manuals, viewing spare parts information and ordering parts online – anytime and from anywhere.



Operations & Maintenance

A Wärtsilä O&M agreement means that we take care of everything from recruitment, training and management of the O&M staff, to energy production, logistics and other services. An O&M agreement brings production performance guarantees and financial predictability, giving owners a predictable and stable O&M cost profile over the years.

Wärtsilä's total service concept includes maintenance and recondition, operation and training.

Service is becoming an increasingly integral part of Wärtsilä's marine engine and power plant marketing, a trend that reflects the evolving expectations and wishes of its customers. The shipowner enters into a service contract with industry professionals to raise the operating lifetime of the engine and save costs. The power plant owner, by contrast, is often a company not directly operating in the energy business; in signing an operation and maintenance contract their interest is the freedom to concentrate on their own core business. Wärtsilä ensures a continuous and steady supply of power.

Wärtsilä's service network covers all Wärtsilä and Sulzer power plant and marine installations, while the Ciserv service group provides a full range of maintenance and recondition services for all marine engines and vessels.

Wärtsilä's own service market consists of the active installed base of Wärtsilä and Sulzer engines, which today totals some 130,000 MW. Marine engines account for 100,000 MW of the total and power plants for the remainder. The number of service and operation & maintenance (O&M) agreements signed with Wärtsilä is growing steadily and now covers 2,289 MW of installed capacity in power plants.

Altogether 132 power plants around the world have O&M agreements with Wärtsilä under which Wärtsilä is responsible for the operation of the power plant and its service and maintenance. Roughly 40% of new orders for power plants received by Wärtsilä include an O&M agreement. O&M agreements can also be made with customers in the marine sector, the first such case being the agreement signed in October 2003 with SEMCO Salvage & Marine in Singapore. In the offshore sector, likewise, Wärtsilä is responsible for operating an oil drilling rig owned by the South American company Petrobras.

The Ciserv ship recondition and maintenance group was established in 2001. By acquiring service companies with a strategically significant local presence, Wärtsilä is able to offer the widest possible range of customized maintenance and recondition services for its 2-stroke engines manufactured under licence and also for engines and propulsion systems of other brands.

The group currently includes seven service companies. It will be further developed through both acquisitions and organic growth.

Wärtsilä has service operations in over 60 countries

Wärtsilä Service's net sales have risen by 13.5% on average over the past five years. The volume of long-term O&M agreements has grown even faster.

Information technology goes hand in hand with service operations today. Wärtsilä's own Condition Based Maintenance (CBM) system, for example, gives greater flexibility in planning maintenance. One of CBM's features is remote monitoring, which enables Wärtsilä professionals to monitor the operation of

a power plant or marine vessel from the other side of the world. Building on this technology, last year Wärtsilä placed heavy emphasis on developing knowledge tools (Case Based Reasoning) to take advantage of the company's vast troubleshooting knowledge base.

Wärtsilä also sells spare parts via the Internet. Using Spares-on-Line a vessel can order the parts it needs to the nearest port. In this context Wärtsilä has also developed a unique Code Resolution System which enables precise tracking of more than 35 million spare part combinations, giving Wärtsilä customers a profound advantage in term of safe and economical operation.



Covering all brands, the Ciserv group offers the widest range of reconditioning support for diesel engine components, and tailored services for power plants and a variety of ship equipment. The Ciserv specialist knowledge includes auxiliary equipment, boilers, control and automation equipment and general steelwork as well in-situ machining, audits and laser alignment services.

Ciserv is present today in seven key locations around the world, strengthening Wärtsilä's world coverage of the 2-stroke engine service market: Canada, Denmark, Dubai UAE, the Netherlands, Singapore, Sweden and USA. Wärtsilä will continue to globally expand the services offered by Ciserv in the main world hubs through selected acquisitions.

Vessels powered by Wärtsilä

Ship	Main engines		Auxiliary engines	Propulsion and sealing systems
	2-stroke ¹	4-stroke ²		
Bulk carriers	■	■	■	■
Tankers	■	■	■	■
General cargo and container vessels	■	■	■	■
Offshore vessels		■	■	■
Cruise and passenger ferries		■	■	■
Naval ships		■	■	■
Service vessels		■	■	■
Fishing vessels		■		■

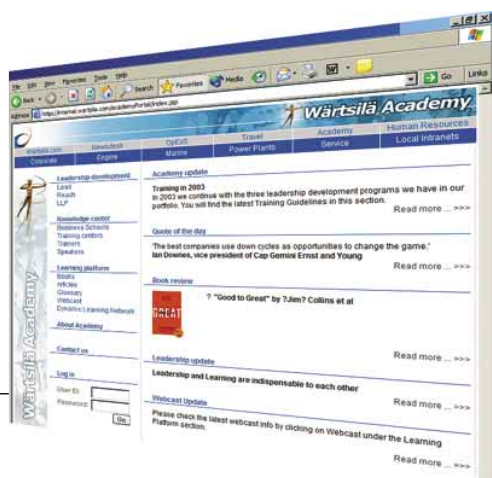
¹ Wärtsilä's two stroke low-speed engine. Marketed under the Sulzer name.

² Four stroke medium-speed engine



The multipurpose vessel Wladyslaw Orkan is powered by a Sulzer 7RT-flex60C main engine.

Solutions for Decentralized Power Generation



Wärtsilä Land & Sea Academy

The Norwegian shipowner Odfjell ASA is one of the largest customers of Wärtsilä's Land & Sea Academy. Wärtsilä provides maintenance services for the shipowner's vessels on a regular basis. The crew on these vessels also need continuous training to maintain and enhance their professional skills. In 2002 the two companies signed a multi-year contract under which the Land & Sea Academy provides Odfjell with services supporting competence and career management development for 2 000 seafarers.

The need for training has increased year by year and Wärtsilä has substantially boosted its own training capacity to meet this demand, including setting up its own training centres in the Philippines and the USA. These centres, along with six other similar facilities, form a global network of training centres. Nor is training limited only to Wärtsilä's own products and systems. The centres employ the best professionals in the business as instructors, an advantage made possible by Wärtsilä's large network of partners.

The Academy gives practical training in all aspects of power plant or marine vessel operation. Besides covering engines and power transmission systems the Academy's training programme addresses all issues related to operation including fire safety, data management, communication, legislation, competence development and career management, and even navigation in co-operation with partners.

The Academy has also developed its own distance learning programme called e-learning under which seafarers all over the world can study subjects of their choice via the Internet.

Wärtsilä operates in the decentralized power generation market, focusing on power plants that its customers can run flexibly as power loads fluctuate.

Energy consumption worldwide is growing at an average long-term rate of 2–3% a year. This ensures a good foundation for growth also for Wärtsilä, one of the world's leading suppliers of decentralized power production technology.

Business cycles in general and also single events have a particularly heavy impact on power plant investments. Global economic growth has slowed during the past couple of years while several international crises have made investors more cautious. On the other hand, massive electricity blackouts around the world have drawn the attention of decision-makers to the infrastructure needed for generating and transmitting power. Signs of global economic recovery strengthened during 2003 and as a result interest in power plant investments has started to rise as well.

The power generation market

The power generation market can be examined from two viewpoints: the industry's infrastructure, and how the power plant is operated.

In infrastructure terms power generation consists of large, "centralized" power stations that feed into the national grid, and smaller regional or local "decentralized" power plants. A third category is even smaller units built, for example, to serve the needs of individual industrial sites.

The operational mode of the power plant offers another perspective. Power plants that are operated continuously are called base load plants, whereas the other end of the spectrum consists of peak shaving or standby power plants.

Wärtsilä supplies both base load and peaking or standby plants but today focuses on the growing market between these two extremes. Called intermediate load plants, these units operate when consumption is at its highest, ensuring heat during cold weather, for example, or providing power for air conditioning equipment during hot conditions. In the decentralized power generation market Wärtsilä concentrates on solutions that enable customers to manage their power supply flexibly as needs vary. Decentralized power plants are fast to build and can be expanded as new needs arise. Moreover, their power transmission costs are lower, transmission losses can be minimized, and the heat they produce can be used for local industrial processes, district heating and air conditioning.

Full service for customers

Wärtsilä's customers are typically industrial facilities, private and public power companies and other enterprises. For many of these customers power production lies outside their main business; when buying from Wärtsilä they are looking more for an overall solution rather than a power plant as such. They need the assurance that the power plant is optimized to their needs and that it will operate cost-efficiently throughout its lifetime. Roughly 40%



Wärtsilä operates in the market for decentralized power plants, concentrating on power plants that customers can run flexibly as energy consumption fluctuates. When making an operations & maintenance contract, the customer knows in advance how much energy generation will cost in the long term. From left: Tage Blomberg, Group Vice President, Service and Pekka Ahlqvist, Group Vice President, Power Plants.

of Wärtsilä's most recent orders for power plants include an operation and maintenance (O&M) agreement for just this purpose, allowing the customer to calculate the long-term production cost per kilowatt from the outset of the project.

Main markets in developing countries and Latin America

The main power plant markets for Wärtsilä's oil- and gas-fired power plants are Asia and Latin America. As production is increasingly moved to low-cost countries, power generation is not far behind – in fact it often takes the lead. Developing countries are rapidly building up their power production infrastructures and at the same time private companies are investing in their own power plants. In these markets an industrial facility's own power

Largest power plant in Wärtsilä's history

Honduras is one of the fastest developing countries in Central America and its need for power is growing strongly. In August 2003 the Honduran company Luz y Fuerza de San Lorenzo S.A. (Lufussa) ordered a 270 MW power plant from Wärtsilä to supply the electricity needs of the country's capital, Tegucigalpa.

The plant, the largest ever ordered from Wärtsilä, will be driven by sixteen Wärtsilä 46 engines. It is scheduled to enter operation in summer 2004.

plant is often a more reliable source of power than the local or national grid and in addition it can be used to produce heat as well as electricity.

Flexible power generation through supplier network, outsourcing and standardization

Wärtsilä has standardized and modularized its power plants to ensure their rapid delivery. Wärtsilä is also seeking greater flexibility through its network of suppliers which, along with outsourcing, allows flexibility as market conditions fluctuate.

Products

For the decentralized market, Wärtsilä supplies oil- and gas-fired power plants with outputs from one megawatt to 300 MW. The smallest plants are typically designed for the power generation needs of individual sites or small communities. The largest plants, on the other hand, produce enough power to meet the energy needs of a European town of some 150 000 inhabitants or, in the case of developing countries, communities with much larger populations.

Wärtsilä’s power plant range also includes heat and combined heat and power (CHP) generating plants fired by bio waste fuels, as well as mechanical drives for gas compression and oil pumping applications.

The Kyoto Protocol and other atmospheric emissions regulations give Wärtsilä a competitive advantage in the power plant market. For years the company has been a front-runner in the development of environmentally sound combustion technology. The emission levels of Wärtsilä applications have systematically fallen below national and international limits, laying the groundwork for future standards.

Regulations governing emissions into the atmosphere are currently more stringent for power plants close to urban areas than for marine applications. However, environmental aspects are being given increasing priority at sea as well and Wärtsilä has therefore paid close attention to the environmental performance of its marine engines. Examples include the medium-speed EnviroEngine with advanced common rail technology, and the low-speed RT-flex engine, both of which reduce exhaust emissions and don’t cause visible smoke. The RT-flex also reduces fuel consumption and improves ship controllability.

Wärtsilä supplies power plants as turnkey deliveries and offers operation & maintenance agreements.

Emissions from Wärtsilä power plants are kept at a low level by effectively controlling the combustion process. Even most stringent environmental requirements can be met by installing exhaust gas cleaning equipment.



The heart of the genset is Wärtsilä’s engine technology, that combines high efficiency with low emissions.

20–30 fast track turnkey power plant projects that include everything from engineering and procurement to construction are carried out every year.

Wärtsilä offers a full range of services ranging from rapid spare parts delivery to a complete operation and maintenance partnership.



Prefabricated modules guarantee consistent quality and performance and make site installation simply a matter of assembling and connecting the modules.

The engine cooling arrangement with air coolers reduces water consumption to almost zero, minimizing the effect on local water resources.





Modernization of the base metallurgical line at the Imatra Steel Works will further enhance product quality, strengthen competitiveness and raise the service capabilities of the Works.

Kari Tähtinen, President of Imatra Steel.

Imatra Steel – Special Steel and Forged Components

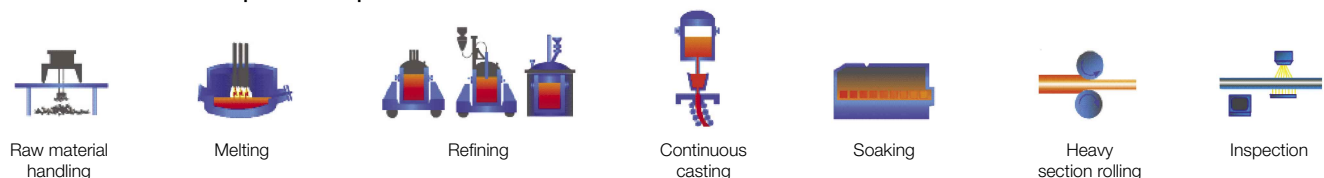
Imatra Steel produces long special steel products for the automotive industry and other demanding engineering applications, as well as forged engine and front axle components. As a supplier of high-quality products and related services, Imatra Steel focuses on sustaining direct and long-term customer relationships. Towards that end, the company bases its business on customer partnerships and a lean, customer-orientated organization.

The trend among Imatra Steel's customers, in both the automotive and the mechanical engineering industries, is towards in-

creased consolidation and globalization. This means that Imatra Steel, as a component manufacturer and steel supplier, must be able to take on an ever more responsible role in the supply chain. To do so, Imatra Steel must be involved more closely, and at an earlier stage, in its customers' product and process development projects and in enhancing logistics solutions with them.

Imatra Steel's business operations are based on meeting customer needs and on producing added value in the value chain for both Imatra Steel's own customers and the customers they serve.

The Imatra Steel Works production process



The benefits of this approach include reduced production costs for the customer, significant improvements in the properties of finished products, and substantial environmental gains in at least some stage of a product's lifecycle. In the automotive industry, for instance, changing emission requirements mean engines must have lower emission levels and vehicles must be lighter. Where trucks are concerned, higher payloads make transportation more economical. The lighter crankshafts and front axle beams that Imatra Steel's forging division supplies make an important contribution to meeting these requirements.

The main products of the Imatra Steel Works are steels used in manufacturing forged components and steels with high machinability. The modernization of the base metallurgical process line, which included upgrading the continuous bloom caster, bloom reheating furnace and heavy section mill, was completed during 2003. Its purpose was to enhance product quality, strengthen competitiveness of the metallurgical line and increase the Steel Works's service capabilities.

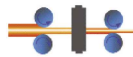
Among other things, this modernization programme now enables the factory to increase the size range of the round and square bars it supplies.

Direct quenching steels and highly machinable steels are the spearheads of the factory's product development. This product group also includes Imatra Green Cut®. Now undergoing testing, this steel has been developed as an alternative to the lead-alloy free cutting steels used by the automotive industry.

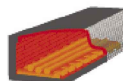
Imatra Steel's forging business comprises Imatra Kilsta and Scottish Stampings. The business expanded and grew stronger during 2003 as the full benefits of synergies achieved through the acquisition of Scottish Stampings were felt. The forging division thus further strengthened its position as a leading manufacturer of engine and front axle components for heavy trucks. The product portfolio for engine components includes crankshafts, and for front axle components includes front axle beams, steering knuckles and steering arms. The in-house machining capacity has been expanded and also the network of machining contractors has been developed, because customers increasingly wish to have forged components that are fully machined.



Billet heating



Medium section rolling



Further processing

Holdings

Assa Abloy

Assa Abloy is the world's leading lock company. The company is listed on the Stockholm Stock Exchange. Wärtsilä holds 27.8 million Assa Abloy shares, or 7.6% of the total. The market capitalization of this holding at the end of the financial year was EUR 261.9 million and the book value in the Group balance sheet was EUR 67.4 million.

Assa Abloy's share of the highly fragmented global lock market is approximately 10–12%. In 2003 net sales Assa Abloy totalled SEK 24,080 (25,397) million and it recorded a profit before tax and non-recurring items of SEK 1,903 (2,015) million. The Group employs approximately 30 000 people.

Wärtsilä Real Estate

Wärtsilä Real Estate is a Group support unit in real estate matters. It is also responsible for developing, leasing and maintaining the properties owned by the parent company.

Wärtsilä Real Estate's purpose is to ensure that the premises used by the company's divisions support their business goals in the most efficient way.

Human Resources

Wärtsilä's HR function is responsible for ensuring that the Group's human resources and its personnel development programmes are competitive worldwide. The performance of the HR function is measured by the organization's ability to generate continuous added value for customers and Wärtsilä's business.

Operational targets

Wärtsilä's Human resources function covers the entire Group. It focuses on predefined HR processes and directly supports the Group's business operations. Its main purpose is to ensure that the Group has the competitive and innovative management and employee resources and competences necessary to reaching its profit targets. The company requires continuous efficiency and high quality in its operations. Human resources supports this aim by recruiting the best resources and by providing focused and sufficiently wide-ranging training schemes for personnel. Wärtsilä operates a competitive incentive scheme to encourage and reward its employees. The most important elements of this scheme are harmonizing the Group's targets with the individual targets of its employees, and ensuring that the scheme has wide coverage of geographical regions and personnel groups.

Personnel development

Wärtsilä renewed its Human resources strategy during 2003 to ensure that the Group derives maximum benefit from its investments in personnel development. This means that, in addition to management training schemes, the HR function also defines, supports and monitors the training programmes run by Wärtsilä subsidiaries.

Emphasizing continuous development that supports the company's business goals and operating procedures, Wärtsilä organized six training programmes in 2003 for middle management in all main markets as well as two courses for senior management. Wärtsilä managers also participated in two development programmes organized by the IMD (International Institute for Management Development). Employees also have access to web-based training through the IMD.



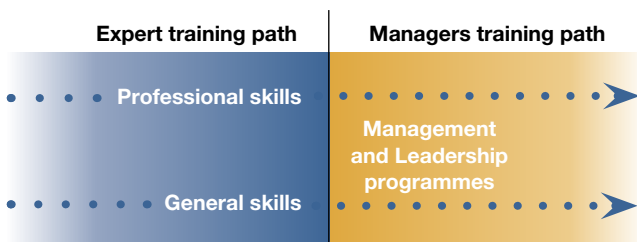
Personnel training depends on the active support and encouragement of employee supervisors. Wärtsilä offers its employees two flexible training paths: one to develop specialists and the other senior management. General training is the responsibility of the subsidiaries; the divisions take care of professional training.

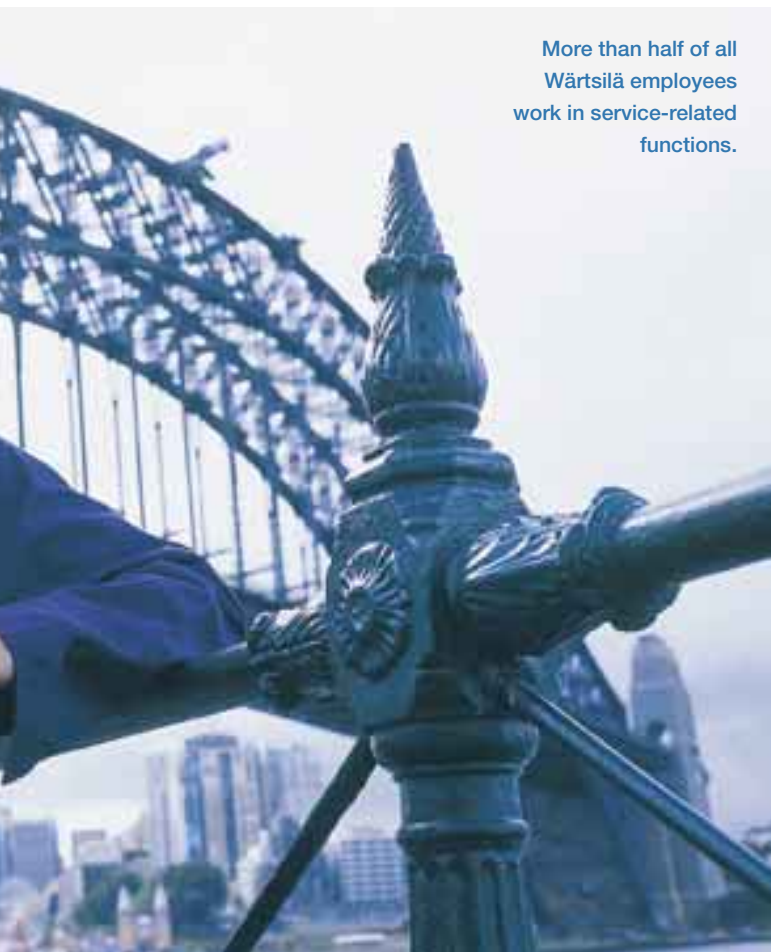
Human resources management tools

Annual appraisal discussions between supervisors and their subordinates have become an established management tool. Apart from facilitating target-setting and feedback, they are also useful for cascading the Group's strategy down through the organization. In pace with changes in the company's operations, this tool and the way it is used have been made as supportive and clear as possible. All Wärtsilä units hold these discussions and at the moment roughly 75% of the discussions take place on time and are documented. The next target is to raise this performance level even higher and also to make use of information technology in all stages of the process.

In the management and executive training schemes run by the Group, top managers participate in planning and running the schemes as trainers. This dialogue and tutor activity has yielded

Expert and Manager training paths





More than half of all Wärtsilä employees work in service-related functions.

Future challenges

The most important HR target in 2004 is to extend the functional capabilities and geographical coverage of its personnel management information system. This will make it possible to manage the Group's human resource needs and costs more efficiently.

Top priority will be given to continuous improvement of personnel competences and development, the challenge of developing management skills in an ever changing environment, and the introduction of a reward and incentive scheme that covers all employees.

The continuing globalization of business also calls for further development of the HR function and a willingness to take up new challenges.

Personnel in figures 2003

Total number of employees on 31 Dec. 2003:	12,110
Average age of employees:	34.4 years
Total wage and salary costs in 2003:	EUR 554.4 million
Aggregate coverage of profit-sharing and bonus schemes:	65%
Completion of annual appraisal discussions:	75%

positive and long-term results evident in the form of greater personnel commitment to the company, enhanced personal competences, and the building of a natural forum for discussion.

The company has successfully used information technology to develop the flow of information to the entire workforce.

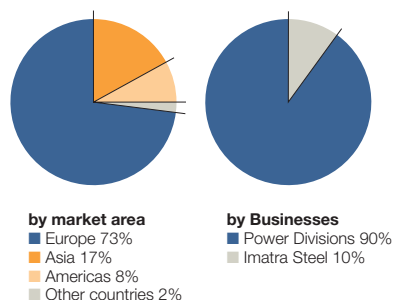
Group-wide personnel management system

Wärtsilä developed a Group-wide personnel management information system during 2003 which makes it possible to maintain information on all employees, organizations and job descriptions. Special attention was given to ensuring that the system's information is correct and complies with local legislation without, however, compromising the transparency and indisputable advantages that it offers.

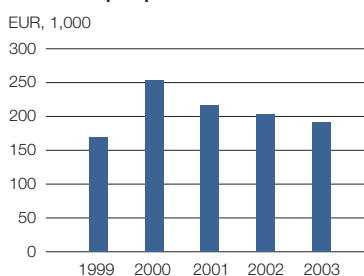
European Works Council

Wärtsilä also continued to maintain discussion with its employees in Europe with the framework of its long established European Works Council.

Personnel



Net sales per person



Sustainable Development

Companies are showing responsibility towards its various stakeholders when they take action to achieve sustainable development in their operations. By giving priority to sustainable development and technology that supports this principle, companies ensure that they continue to operate efficiently in the future. Achieving this principle in practice requires an active approach by companies themselves in addition to the direction given by society at large.

Wärtsilä's mission, vision and sustainable development strategy point the development of its operations and products in the right direction. This is supported by Wärtsilä's management system, OpExS, a tool for continuous improvement. The Group's global policies on the environment, quality and occupational health and safety harmonize Wärtsilä's working procedures around the world.

Sustainable development in Wärtsilä has three interlinked elements: protection of the environment, economic accountability

and social accountability. An essential part of Wärtsilä's sustainability activities is reporting that provides information on the company's performance in these three areas including where it has succeeded and failed. Wärtsilä published its first Sustainability Report in June 2003. It was prepared according to the GRI (Global Reporting Initiative) Sustainability Reporting Guidelines 2002.

Economic accountability

Economic accountability means fulfilling the expectations of shareholders while simultaneously contributing to the economic wellbeing of society. This requires the company to perform in an efficient, productive and competitive way. A good financial result provides a solid foundation on which to build the other elements of sustainable development.

Wärtsilä's aim is to generate added value for its various stakeholders. Good profitability is essential to meeting the expecta-



Highlights of 2003

- 3 companies received ISO 14001 certification.
- 2 companies were granted OHSAS 18001 certification.
- Wärtsilä's Sustainability Report 2002 was judged the best such separate report published in Finland.
- Wärtsilä revised its procedures for selecting and assessing its suppliers, and introduced new Wärtsilä requirements for suppliers.
- The first W50DF dual-fuel engines were ordered for an LNG tanker.
- The first W32 and W38 EnviroEngine™ engines were successfully launched.
- New technology based on water injection into the engine's intake air was developed to reduce diesel engine NO_x emissions.
- Development was started to reduce engine noise levels. Extremely efficient secondary NO_x emission reduction equipment for gas power plants was tested and sales were started. This technology reduces NO_x emissions to extremely low levels with low (5 ppm) ammonia slip in the exhaust gas.

tions of the company's owners and other stakeholders. Wärtsilä must be able to offer its customers high-quality products, solutions and services. The company must also develop long-term relationships with its suppliers, and provide its employees with a competitive level of remuneration and a good working environment with the opportunity to participate in improving the wellbeing of their local working community.

Environmental protection

Rational use of natural resources and sound management of the environment are essential to maintaining a good level of environmental protection. Preventing pollution of the air, soil and water as well as combating climate change and sustainable use of natural resources are all important goals regardless of whether they relate to the company's own activities or to how its products are used.

Protection of the environment is one of the main priorities in Wärtsilä's product development activities. The high efficiency

and low emission levels of its products are among the most important goals of design and development. Advanced products meet the requirements of our customers and offer them added value well into the future.

Environmental performance in Wärtsilä relates mainly to our manufacturing operations. The most significant environmental aspects concern consumption of energy and natural resources, and therefore emissions. Efficient energy consumption and reduced emission levels are top priorities in Wärtsilä factories.

Social accountability

Social accountability is about good working practices in relations with our various stakeholders. This includes the wellbeing of our employees and improving their know-how, as well as product safety and seamless collaboration throughout the company. Social accountability also depends on continuous collaboration with suppliers, business partners and local communities.

Wärtsilä's aim is to offer its employees an interesting and inspiring working environment that enables and encourages learning. In its product development and manufacturing processes,

Wärtsilä works to minimize the risks associated with the manufacture and use of its products.

For Wärtsilä social accountability means compliance with relevant international agreements and national legislation, as well as behaving as a good corporate citizen in each country of operation. Wärtsilä encourages open dialogue with its stakeholders. The company includes feedback from stakeholders and various surveys in the development of its business processes. Wärtsilä also maintains active contact with the authorities at both national and international levels, one purpose of which is to develop environmental protection technology.

Management system	Environment ISO 14001	Quality ISO 9000
Shared of certified Wärtsilä companies (original scope)	69%	93%
New scope including recently accquired companies	47%	79%

In addition 8 Wärtsilä companies have gained OHSAS 18001 certificates.

Wärtsilä's policies and responsibilities			
Policy approved by Board of Management	Quality 15.2.2002	Environment 11.5.1999	Occupational Health and Safety 19.1.2001
Person responsible	Sven Bertlin Executive Vice President, President, Engine division	Matti Kleimola Group Vice President, CTO	Kari Hietanen Group Vice President, Legal Affairs and Human Resources

R&D's Main Goal – a Competitive Product

Wärtsilä applies new technology diversely and cross-scientifically to solve demanding product development tasks in a way that adds value to our customers.

Wärtsilä's research and development organization defines the basic elements that make a product attractive and competitive. R&D in Wärtsilä aims to develop products and applications that are reliable, self-diagnostic and economical in operation. A crucial requirement is that the environmental impact of our products is low throughout their lifecycle.

Wärtsilä R&D organization is also responsible for maintaining close, continuous and beneficial co-operation with research institutions. Research collaboration with partners is likewise essential in areas that are of importance to society at large and the wellbeing of the environment.

Highlights of 2003

2003 was a challenging year with respect to technology. Common rail technology was launched in new 4-stroke engine installations, an example being the Crystal Serenity cruise ship. The first power

plant running on Orimulsion® fuel was taken into operation in Guatemala. Gas engine development focused once again on raising the already high performance of this engine type and on development of a new combustion control concept.

Common rail technology was also a key element in 2-stroke engine development as a new common rail system was designed, developed and tested during the year for Wärtsilä's largest 2-stroke engine, the RT-flex 96C. The first such engine will be manufactured at the HSC shipyard in Korea in 2004. Another significant focus of 2-stroke engine development was further enhancement of the TriboPack standard to achieve extremely low lubrication oil consumption.

In propeller and propulsion systems development work led to a design that will achieve better thrust and lower flow resistance.

Fuel cell development in Wärtsilä continued in line with the plan endorsed for this technology. The focus during 2003 was on designing a suitable development environment and research equipment, and on more closely defining the business plan. Our principal partners in this work are VTT and Haldor Topsøe A/S.



(Top left) Paavo Pitkänen, Jaakko Iloniemi, Risto Hautamäki, (middle left) Bertel Langenskiöld, Göran J. Ehmrooth, (bottom) Antti Lagerroos

Board of Directors

Mr Antti Lagerroos, LLLic.
Chairman, born 1945. President & CEO and Member of the Board of Finnlines Plc. Member of the Board of Wärtsilä Corporation since 2002. Member of the Board of Fortum Oyj and Member of the Supervisory Board of The Mutual Pension Insurance Company Ilmarinen. Owns 6,500 Wärtsilä B shares.

Mr Göran J. Ehmrooth, MSc (Econ.). Deputy Chairman, born 1934. Chairman of the Board of Fiskars Corporation. Member of the Board of Wärtsilä Corporation since 1992. Owns 2,815 Wärtsilä A shares and 4,149 Wärtsilä B shares.

Mr Risto Hautamäki, MSc (Eng.), born 1945. President & CEO of Tamfelt Corp. Member of the Board of Wärtsilä Corporation since 2003. Owns 1,600 Wärtsilä B shares.

Mr Jaakko Iloniemi, MSc (Pol. Sc.), born 1932. Member of the Board of Wärtsilä Corporation since 1994. Owns 1,597 Wärtsilä B shares.

Mr Bertel Langenskiöld, MSc (Eng.), born 1950. President & CEO of Metso Minerals, Inc. Member of the Board of Wärtsilä Corporation since 2002. Member of the Supervisory Board of Rautaruukki Corporation. Owns 1,481 Wärtsilä B shares.

Mr Paavo Pitkänen, MA, born 1942. Managing Director of Varma Mutual Pension Insurance Company. Member of the Board of Wärtsilä Corporation since 1995. Member of the Boards of Stora Enso Oyj and Sampo plc. Owns 1,597 Wärtsilä B shares.

Corporate Governance

Wärtsilä Corporation applies the guidelines and provisions of its Articles of Association, the Finnish Companies Act and the Helsinki Exchanges. Wärtsilä also complies with most of the Corporate Governance recommendations for public listed companies published by HEX Plc, the Central Chamber of Commerce of Finland and the Confederation of Finnish Industry and Employers. This recommendation is due to come into effect on 1 July 2004.

Management of the Wärtsilä Group is the responsibility of the General Meeting of Shareholders, the Board of Directors and the President and CEO. The duties of these three bodies are for the most part defined by the Finnish Companies' Act.

General Meetings

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. The AGM resolves on the issues defined for annual general meetings in the Finnish Companies Act and Articles of Association. These include approving the financial statements, deciding on the distribution of dividend, discharging the company's Board of Directors and CEO from liability for the financial year, appointing the company's auditors, and deciding on their compensation.

Under the Articles of Association, an invitation to a General Meeting must be published in at least two daily newspapers chosen by the Board of Directors and commonly distributed in Finland no earlier than two months and no later than one week prior to the meeting. Wärtsilä also posts its invitations to General Meetings on its Internet website.

The Board of Directors

Wärtsilä's Board of Directors has between five (5) and eight (8) members who are elected for a term of one year. In 2003 the Board had six members.

The Board elects a chairman and deputy chairman from among its members. Information on the members of the Board of Directors and their business interests appears on page 28.

The principles applied by the Board in its regular work are set out in the Rules of Procedure approved by the Board. These also define the main tasks and operating principles to be adopted by the committees appointed by the Board. The committees do not have the authority to make decisions; their purpose is to prepare matters for the consideration of the Board.

The Board of Directors is responsible for the administration of the company and the proper organization of its operations. The Board supervises the company's operations, decides on policies, goals and strategies of major importance, confirms the annual

budget and action plan, and approves the annual and interim financial statements. The Board handles and prepares the matters to be brought before the AGM. The Board appoints the President and CEO, the Executive Vice President and other members of the Board of Management, and decides on their remuneration.

The Chairman of the Board of Directors in 2003 was Antti Lagerroos and the Deputy Chairman was Göran J. Ehrnrooth. The Board convened 11 times. The average attendance of the Board's members at its meetings was 92.7%.

All six members of the Board of Directors are independent of the company. Risto Hautamäki, Jaakko Iloniemi, Antti Lagerroos, Bertel Langenskiöld and Paavo Pitkänen are independent of the shareholders of the company.

Board committees

The Board of Directors annually appoints the number of committees necessary to prepare the matters belonging to the Board's responsibility. In 2003 the Board appointed an Audit Committee to monitor the company's financial condition, to supervise its financial reporting, to evaluate the internal control and the adequacy and appropriateness of the company's risk management, to handle the plans and reports submitted by the internal audit, to evaluate the company's compliance with laws and regulations, to maintain contact with the auditor and to examine their reports. The Audit Committee assembled four times.

The members of the Audit Committee were Antti Lagerroos, chairman, Göran J. Ehrnrooth and Paavo Pitkänen, all of whom are independent of the company.

In 2003 the Board of Directors appointed no other committees.

The President and CEO

The Board of Directors appoints the 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 a Board of Management. Mr Ole Johansson is the President and CEO of the company.

The Executive Vice President

The Board of Directors appoints, if necessary, one or several executive vice presidents. The company currently has one executive vice president who has also been appointed as the deputy to the President and CEO. Mr Sven Bertlin is the Executive Vice President.

The Board of Management

The company's Board of Management comprises the President and CEO, the executive vice president, the heads of the divisions, the chief financial officer, the chief technical officer, and the group vice president, legal affairs and personnel. 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, investments, product policy, the Group's structure and corporate steering systems, and it supervises the company's operations.

The division heads on the Board of Management are each responsible for the sales volumes and profitability of their respective global businesses, employing the services of the Group's worldwide subsidiaries. Information on the members of the Board of Management appears on page 31.

The Board of Management convened 14 times in 2003. The main issues that it dealt with during 2003 were the refocusing of Wartsilä's strategy on ship power systems and service, and the corporate changes related to this strategy. Other subjects included raising operational efficiency and reducing capacity in line with market conditions, personnel development, and matters related to internal processes and working procedures.

The Corporate Management

The company's Corporate Management includes, in addition to the members of the Board of Management, the directors in charge of corporate functions and the president of Imatra Steel.

Corporate Management meetings are chaired by the President and CEO and their composition varies depending on the issues under consideration. Corporate Management meetings are convened to prepare proposals to the company's Board of Directors, to deal with issues concerning communications, personnel development, quality, information management and other development issues, to handle relations with stakeholders, and to consider issues specific to Imatra Steel.

Information on the members of the Corporate Management is given on page 33.

Division Boards

Each division head is supported by a Division Board to consider issues including the division's strategy and business operations. Information on the members of the Division Boards is shown on page 33. Imatra Steel is supervised by its own Board of Directors.

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 divi-

sions; that the subsidiary's personnel development needs are met, that the subsidiary's operations fulfil the requirements stipulated in the Group's quality system; and that these operations comply with the respective country's legal requirements and with good business practice.

Remuneration

As decided by the Annual General Meeting in 2003, the chairman of the Board of Directors receives an annual fee of 55,000 euros and an additional 800 euros for each meeting at which he is present. The deputy chairman's annual fee is 42,000 euros with an additional corresponding fee of 400 euros per attended meeting. The other members of the Board of Directors each receive an annual fee of 27,500 euros and a fee per attended meeting of 400 euros. The AGM also decided that part of the fee may be paid in the form of Wartsilä shares. The fees paid to the members of the Board of Directors in 2003 are shown in the table below.

The annual fees of the members of the Board of Directors in 2003

	Fees paid as Wartsilä B shares ¹
Antti Lagerroos, Chairman	2,500 ²
Göran J. Ehrnrooth, Deputy Chairman	1,555
Risto Hautamäki	1,018
Jaakko Iloniemi	1,018
Bertel Langenskiöld	1,481 ²
Paavo Pitkänen	1,018

¹ Meeting fees in addition to fees paid as Wartsilä shares

² The fees paid to Antti Lagerroos and Bertel Langenskiöld in the form of shares also include fees accruing during 2002 but paid in 2003.

The President and CEO is paid a bonus in addition to his monthly salary, the terms of which are determined by the Board of Directors. In 2003 the President and CEO's remuneration, including benefits in kind and bonuses, totalled EUR 583,340. The President and CEO is eligible to take retirement on reaching the age of sixty. Compensation paid to the President and CEO if he is dismissed by the company corresponds to 12 month's salary in addition to six months' period of notice salary.

The executive vice president and other members of the Board of Management are paid a bonus in addition to their salaries, the terms of which are determined by the Board of Directors.

The President and CEO and the members of the Board of Management hold warrants under two stock option schemes. Information on these warrants is shown on page 31.

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.

(Top left) Ole Johansson, Pekka Ahlqvist, (middle left) Raimo Lind, Kari Hietanen, Sven Bertlin, (bottom left) Matti Kleimola, Tage Blomberg, Mikael Mäkinen



Board of Management

Mr Ole Johansson, BSc (Econ.), born 1951. President and CEO. Worked for the company 1975–79 and rejoined in 1981. Owns 1,700 Wärtsilä A shares and 7,800 Wärtsilä B shares. Warrant 2001 allows subscription of 84,000 Wärtsilä B shares and warrant 2002 allows subscription of 150,000 Wärtsilä B shares.

Mr Sven Bertlin, BSc (Econ.), born 1944. Executive Vice President. Group Vice President, Engine division. Joined the company in 1970. Owns 118 Wärtsilä A shares and 12,354 Wärtsilä B shares. Warrant 2001 allows subscription of 42,000 Wärtsilä B shares and warrant 2002 allows subscription of 40,000 Wärtsilä B shares.

Mr Pekka Ahlqvist, MSc (Eng.), born 1946. Group Vice President, Power Plants. Joined the company in 1999. Owns 1,500 Wärtsilä B shares. Warrant 2001 allows subscription of 42,000 Wärtsilä B shares and warrant 2002 allows subscription of 40,000 Wärtsilä B shares.

Mr Tage Blomberg, BSc (Eng.), born 1949. Group Vice President, Service. Joined the company in 1975. Owns 1,350 Wärtsilä A shares. Warrant 2001 allows subscription of 42,000 Wärtsilä B shares and warrant 2002 allows subscription of 40,000 Wärtsilä B shares.

Mr Kari Hietanen, LL.M., born 1963. Group Vice President, Legal Affairs and HR. Company Secretary and Secretary to the Board of Management. Joined the company in 1989. Owns 48 Wärtsilä B shares. Warrant 2001 allows subscription of 42,000 Wärtsilä B shares and warrant 2002 allows subscription of 40,000 Wärtsilä B shares.

Mr Matti Kleimola, LicSc (Tech.), born 1946. Prof., Group Vice President, CTO. Employed by the company 1974–84 and rejoined in 2000. Owns 500 Wärtsilä A shares and 500 Wärtsilä B shares. Warrant 2001 allows subscription of 42,000 Wärtsilä B shares and warrant 2002 allows subscription of 40,000 Wärtsilä B shares.

Mr Raimo Lind, MSc (Econ.), born 1953. Group Vice President, CFO. Employed by the company 1976–89 and rejoined in 1998. Owns 530 Wärtsilä A shares and 1,030 Wärtsilä B shares. Warrant 2001 allows subscription of 42,000 Wärtsilä B shares and warrant 2002 allows subscription of 40,000 Wärtsilä B shares.

Mr Mikael Mäkinen, MSc (Eng.), Naval Architect, born 1956. Group Vice President, Ship Power. Joined the company in 1982. Warrant 2001 allows subscription of 42,000 Wärtsilä B shares and warrant 2002 allows subscription of 40,000 Wärtsilä B shares.

Management incentive schemes

The company has two stock option schemes for senior managers. The 2001 warrants cover 78 and the 2002 warrants 39 key personnel. More information on these schemes is provided on page 33 of the Financial Review 2003.

The Group also operates a bonus scheme in the parent company, the divisions and subsidiaries. The bonus is based on the company's result and working capital, or division result and working capital, as well as agreed personal targets. Approximately 900 directors or managers are covered by this bonus scheme.

Decisions on stock option schemes, and the bonuses paid to the President and CEO and members of the Board of Management, are made by the company's Board of Directors. Decisions on bonus schemes for other directors and managers and made by the Board of Management.

All in all, 60% of the company's employees are covered by the Group's bonus scheme and various other profit-based incentive schemes.

Internal supervision and risk management

Responsibility for the management of the company and its proper organization lies with the Board of Directors. In practice it is the President and CEO's task to ensure the proper organization of the company's accounting and supervision mechanisms, assisted by the Board of Management. As a general rule the instructions and guidelines apply to the entire Group or to individual divisions.

The company's financial progress is reviewed monthly through a Group-wide reporting system. This includes an income statement, balance sheet information, key indicators, and events of importance to the company's operations.

The divisions are responsible for managing the company's day-to-day business risks supported by the special expertise of corporate management. Financial risk management and global risk insurance is the responsibility of the parent company.

The internal audit

The Group's internal audit is handled by an internal auditor provided by KPMG Wideri Oy Ab's Management Assurance Services. He works under the guidance and supervision of Wärtsilä's board of management. The internal and external audits are supervised by separate individuals. The internal auditor prepares an annual plan under which he independently audits different parts of the company but he is also empowered to carry out special audits. The internal auditor reports to the President and CEO. If required the auditor can also take direct contact with members of the Board of Directors.

Insider management

Wärtsilä applies the Guidelines for Insiders approved by the Helsinki Exchanges for public listed companies on 1 March 2000. The rules applying to insiders are included in the Group's internal Corporate Manual, which is available on the company's intranet. 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 and certain other members of the Corporate Management.

The company's insider register is maintained by the company's legal affairs department, which keeps its information updated. Information on the interests and holdings of the company's permanent insiders is available from the SIRE system of the Finnish Central Securities Depository Ltd, Eteläesplanadi 20, FI-00130 Helsinki, Finland, tel. +358 800 180 500. The same information is also posted on Wärtsilä's website.

The external audit

The company has at least one and at most three CPA-authorized auditors, at least one of whom is an auditing firm. The auditors are elected by the AGM to audit the accounts for the ongoing financial year and their duties cease at the close of the subsequent Annual General Meeting. The auditors are responsible for auditing the consolidated and parent company's financial statements and accounting records and the administration of the parent company. In 2003 the AGM appointed the firm of public accountants KPMG Wideri Oy Ab as Wärtsilä Corporation's auditors.

Auditing fees paid to the auditors during 2003 amounted to EUR 1.9 million. Consultancy fees unrelated to auditing duties paid to the auditors totalled EUR 1.4 million. These latter fees concerned acquisitions and consultation on taxation matters.

Communication

The principal information on Wärtsilä's administration and management is published on the company's website. Stock exchange releases and press releases and significant presentation material used by senior executives are likewise published on the company's website as soon as these are made public.

Corporate Management

Corporate Management comprises the Board of Management along with the following directors responsible for various corporate functions:

Mr Christian Andersson

born 1944. LL.M. Group Vice President, External Relations.

Ms Maj-Len Ek

born 1948. BSc (Econ.).
Vice President, Group Treasury.

Ms Bodil Forss

born 1957. MSc (Eng.).
Chief Information Officer (CIO).

Mr Per Hansson

born 1967. MSc (Eng.).
Vice President, Corporate Planning.

Mr Heikki Horstia

born 1950. BSc (Econ.).
Vice President, Group Treasury.

Ms Eeva Kainulainen

born 1948. MSc (Soc.Sc.).
Vice President,
Corporate Communications & IR.

Ms Taina Sopenlehto

born 1960. Doctor of Technology.
Vice President, Human Resources.

Mr Kari Tähtinen

born 1946. Doctor of Technology.
President of Imatra Steel Oy Ab.

Business Boards

Ship Power

Mr Mikael Mäkinen

born 1956. MSc (Eng.), Naval Architect.
Group Vice President, Ship Power.

Mr Carl-Henrik Björk

born 1947. Marine Engineer, Vice President,
Marketing.

Mr Frans Don

born 1952. BSc (Eng.). Vice President,
4-stroke.

Mr Tom Eriksson

born 1967. MSc (Econ.), Vice President,
Finance & Control.

Mr Vicente Iza

born 1953. Naval Architect. Vice President,
Solutions.

Mr Clas-Eirik Strand

born 1945. BSc (Eng), Vice President,
2-stroke.

Mr Christoph Vitzthum

born 1969. MSc (Econ.). Vice President,
Propulsion- and Seal Systems.

Power Plants

Mr Pekka Ahlqvist

born 1946. MSc (Eng.). Group Vice
President, Power Plants.

Mr Jaakko Eskola

born 1958. MSc (Eng.). Vice President,
Wärtsilä Development & Financial Services.

Mr Osmo Härkönen

born 1949. MSc (CE). Vice President,
Delivery Management.

Mr Pekka Ilvonen,

born 1954. MSc (Eng.). MBA. Vice President,
Sales.

Mr Olli-Pekka Vanhanen

born 1964. MSc (Econ.). Vice President,
Finance & Business Control.

Mr Jukka Ylänen

born 1957. MSc (Eng.), Vice President,
Solutions.

Service

Mr Tage Blomberg

born 1949. BSc (Eng.). Group Vice
President, Service.

Mr Pierpaolo Barbone

born 1957. MSc (Min. Eng.). Vice President,
Field Service.

Mr Stefan Fant

born 1955. BSc (Mech.). Vice President,
Operations & Maintenance.

Mr Rolf Vestergren

born 1948. BSc (Eng.). Vice President,
Technical Service.

Mr Christer Kantola

born 1952. BSc (Mech.). Vice President,
Service Sales.

Mr Donal Lynch

born 1956. Business Management Diploma
(Operations/General). Vice President, Parts.

Ms Eva-Stina Stén

born 1967. MSc (Econ.). Vice President,
Finance & Control.

Engine Division

Mr Sven Bertlin

born 1944. BSc (Econ.). Executive Vice
President, Group Vice President, Engine
Division.

Mr Kim Backman

born 1959. BSc (Eng.). Vice President,
Sourcing.

Mr Juha Kytölä

born 1964. MSc (Eng.). Vice President,
4-stroke engine development.

Mr Nikola Mikulicic

born 1940. MSc (Eng.). Vice President,
2-stroke engine development.

Mr Erik Pettersson

born 1953. BSc (Eng.). Vice President,
Production.

Mr Hans Westö

born 1947. BSc (Econ.). Vice President,
Business Control.

Imatra Steel

Mr Kari Tähtinen

born 1946. Doctor of Technology. President
of Imatra Steel Oy Ab.

Mr Kalevi Laaksonen

born 1943. BSc (Econ.). Corporate
Controller.

Mr Kalevi Taavitsainen

born 1949. MSc (Eng.). General Manager of
Imatra Steel Works.

Mr Dan-Åke Widenberg

born 1949. MSc (Econ.). Managing Director,
Imatra Kilsta AB.

Glossary for Wärtsilä Power Businesses

Terms frequently used in publications by Wärtsilä's Power Divisions.

Baseload = Power plants running for more than 6,000 hours/year, i.e. generating power for continuous use.

Biofuel = Biofuels are a large source of energy worldwide. They are derived from forest, swamp and agricultural biomass, and from organic solid, liquid and gaseous biowastes recoverable from municipal, agricultural and industrial processes.

BioGrate = The patented BioGrate combustion technology is especially suitable for burning wood residue, bark and sawdust. BioPower's small power plant technology is based on BioGrate combustion technology.

Biopower = Biofuels are considered renewables; therefore biopower is viewed as a "clean" technology.

Boiler plant = The plant entity which includes the boiler and all the necessary equipment and auxiliary components needed for operating the plant process.

Bow thruster = A transverse thruster mounted in the bow of a ship to make manoeuvring easier in harbours.

cgt (compensated gross tonnage) = The compensated tonnage of a ship, i.e. the ship's volume adjusted (compensated) by a factor to render the amount of work at the yard equivalent for different types and sizes of ship.

CIPS = Coastal and Inland Propulsion System. A tailor-made propulsion system with small fixed pitch propellers (diameter below 3.5 m) suitable for inland navigation vessels, fishery vessels, coasters and luxury (mega) yachts.

CO₂ = Carbon dioxide. A component in exhaust gases formed when fossil fuels are burned. The most significant greenhouse gas in the atmosphere; it prevents thermal radiation entering the atmosphere from being reflected back into space.

Cogeneration = The simultaneous generation of electricity and heat. Also called

Combined Heat and Power (CHP) = This method raises total efficiency to above 90% since the heat produced by power generation is recovered and used, for example, in industrial processes or to supply district heat.

Combined cycle technology = The use of two different power generation processes, e.g. fuel engines and steam turbines, in the same power plant. The second process utilizes the heat recovered from the first.

Common rail = A method of fuel injection that eliminates the principle of one pump/cylinder. The common rail is constructed from a series of accumulators inter-connected by small-bore piping. The injection pressure is adjusted as desired and the injection timing (start and stop) controlled electronically. Wärtsilä has used common rail technology to develop the "smokeless engine", which also reduces NO_x and CO₂ emissions.

Controllable pitch propeller (CPP) = A propeller whose pitch can be controlled (changed) by rotating the blades with a hydraulic or electro-mechanical system in the propeller's hub.

DCC (Diesel Combined Cycle) = Technology utilizing waste heats from diesel engine for additional el-generation via a steam turbine.

Decentralized power plant = A small local power plant for small towns, communities or industrial processes i.e. close to consumption.

Deep Sea Seals (DSS) = The trademark for Wärtsilä Propulsion seals.

DeNO_x = Secondary emission reduction technology for emissions of nitrogen oxides. Commonly used technology is Selective Catalytic Reduction (SCR) system.

DWI (Direct Water Injection) = A method in which water is injected into the engine cylinders prior to fuel injection in order to reduce nitrogen oxide emissions. Direct water injection reduces the combustion temperature and therefore the formation of nitrogen oxides.

DWT (dead weight tons) = The difference between the displacement and the lightweight of a ship, i.e. the combined weight of its cargo, passengers, crew, stores, fuel and other liquids.

EEQ (Engineering equipment) = Engineering and delivery of equipments for power plant

Efficiency (power generation) = The ratio between the input fuel energy and the power produced. The total efficiency of a power plant means the amount of total fuel energy that can be converted into electricity and heat.

Electrical efficiency = In simple cycle, the ratio between the input fuel energy and the electrical energy produced.

EnviroEngine™ = A smokeless dieselelectric propulsion package developed jointly by Wärtsilä and Carnival Corporation for marine vessels. Combines the use of common rail and DWI technologies. Since both methods are electronically controlled, the EnviroEngine offers an optimized combination of engine efficiency, smoke emissions and NO_x emissions.

EPC (Engineering procurement construction) = The turnkey delivery = A power plant delivered to the customer ready for operation.

Eutrophication = A process by which pollution from such sources as sewage effluent or leachate from fertilized fields causes a lake, pond or fen to become overrich in organic and mineral nutrients, so that algae grow rapidly and deplete the oxygen supply.

Extra dividend = will be doled out for share owners with the decision of Annual General Meeting in case that company have extra assets which are not going to be used for development of business nor e.g. acquisitions.

Face seal = A non-polluting seal (e.g. Coastguard) that eliminates oil loss from a ship's outboard seal, even when this is fouled or badly damaged. The face seal is suitable either for retrofitting to existing vessels or for use on new tonnage, especially cruise vessels, tankers, bulk carriers, RoRo vessels and offshore applications.

FGD (Flue Gas Desulphurisation) = Secondary emission reduction technology for emissions of sulphur oxides. Examples include alkali scrubbing and semidry FGD using quicklime or calcium carbonate scrubbers.

Fixed pitch propeller (FPP) = A monoblock (cast in one piece) propeller optimized for only one operating condition.

Four-stroke engine = An engine in which the pistons complete their power stroke every second crankshaft revolution.

FSN (Filter Smoke Number) = A unit defining the amount of smoke. When measuring, exhaust gas is fed through a special filter element, the colour of which is then analyzed optically.

Fuel cell = Fuel cells are electrochemical devices that convert the energy of a fuel through a chemical reaction directly into electrical energy and heat. The basic physical structure or "building block" of a fuel cell consists of an electrolyte layer in contact with a porous anode and cathode on either side of it.

Fuel cell stack = A fuel cell stack is a multi-layer sandwich of fuel cells and interconnecting plates. The plates function as channels for distributing fuel gas and oxygen to the cells and also as an electrical conductor to couple the repeating cells in series. Piling a sufficient number of cells in series raises the stack voltage and power to the optimum level. See also Solid oxide fuel cell.

Gas compression = The raising of gas pressure and density for further processing. This makes it possible to use smaller storage tanks or pipes to transport a given quantity of gas.

Gasification = The production of fuel gas from biofuel for heat and/or power generation.

GT (gross tonnage) = The gross tonnage of a vessel, i.e. its total enclosed volume.

HFO = Heavy fuel oil

High-powered special vessels = Passenger or naval vessels able to travel at high speeds.

High-speed engine (diesel/gas) = An engine running at speeds over 1,200 rpm (revolutions per minute).

Hot combustion = A method that raises the temperature of the engine exhaust gases by reducing the air intake and isolating the combustion chamber. This increases total efficiency and enhances the engine's suitability for combined cycle technology.

IMO (The International Maritime Organization) = Independent Power Producer (IPP) = A private corporation producing electricity for sale on a national grid. Also an IPP power plant.

JMT (Japan Marine Technologies) = Japanese trademark for lip seals.

Lean burn -gas engine = A gas-fired engine in which the gas-air mixture in the engine's cylinders contains substantially more air (roughly double) than required for complete combustion of the gas. The over-abundance of air achieves high output and efficiency combined with low nitrogen oxide emissions.

Licensee = A company authorized to manufacture under licence and that pays royalty fees on the products sold. Wärtsilä's low-speed Sulzer engines are mainly manufactured under licence.

Lip seal = (e.g. MKII) Multi barrier type of sealing system. Applicable to any size or type of vessel. Highly resistant to wear and fouling.

Load management = Meeting varying demand for power, e.g. producing more or less energy when required.

Low NO_x technology = A method for reducing nitrogen oxide emissions that also raises engine efficiency. Emission levels are reduced by regulating the combustion temperature in the cylinders and the duration of fuel injection.

Low-speed engine = An engine running at speeds below 300 rpm.

Medium-speed engine (diesel/gas) = An engine running at speeds of 300–1,200 rpm.

Multi-fuel engine = A Wärtsilä engine running on both gaseous and liquid fuels. (Engines denoted DF (dual fuel) and GD (gas diesel) are multifuel engines).

Multi-purpose container carrier = A freighter carrying primarily containers but also able to transport other unitized cargo.

NO_x = Nitrogen oxides (NO and NO₂). Products formed during the combustion of nitrogen in both the fuel and combustion air. Nitrogen oxides contribute to local eutrophication and acidification.

NT (net tonnage) = The net tonnage of a vessel, i.e. the volume of its payload spaces.

O&M = Operations and Maintenance.

OEM = Original Equipment Manufacturer.

Offshore = Industrial activity at sea, e.g. drilling and pumping at an oil or gas well.

Operations agreement = Operations & Maintenance (O&M) = Full performance and operational responsibility for the plant, its engines and auxiliary systems.

OpExS (Operative Excellence System) = This system, which covers all Wärtsilä's operations, aims to generate added value for Wärtsilä's various stakeholders. The system addresses issues including quality, the environment, occupational health and safety, continuous improvement process and self-assessment.

Orimulsion® = An emulsion of Orinoco bitumen and water produced in Venezuela.

Panamax vessel = A vessel whose main dimensions (beam/length/draught) are limited to enable the vessel to negotiate the Panama Canal.

Post-panamax vessel = A vessel too large for the Panama Canal. Generally refers to cruise ships and large container ships.

Propulsion package = The propulsion train used to drive a ship (propeller, reduction gear, engine, etc.).

Pyrolysis = The production of a fuel gas which can be processed as oil and which is combustible in boilers or diesel engines. This is still at the R&D stage although pilot plant projects exist.

Reduction gear = The core function of a reduction gearbox is to reduce the main engine speed to the optimum propeller speed.

RoPax vessel = Combined RoRo and passenger ship, a ship equipped with large Roro decks and limited passenger facilities.

RoRo vessel = Roll-On/Roll-Off, a ship designed for carrying vehicles and wheelbased cargo, which are driven onboard and ashore.

Selective Catalytic Reduction (SCR) = A method to reduce NO_x emissions using a catalytic converter fitted after the engine. The catalytic converter requires the addition of an ammonia or a urea solution to the exhaust gases.

Semi-submersible vessel = A vessel designed to be partially submerged to perform a specific task (e.g. semisubmersible oil or gas drilling rigs).

Service agreement = A service agreement covers all aspects of maintenance and service for optimizing a power plant's lifecycle. This can include everything from parts supply and daily assistance, inspection and maintenance to implementation of agreed performance targets and even complete operation & maintenance packages for the installation.

Shaft efficiency = The ratio between the mechanical power measured on the engine shaft and the chemical power of the input fuel.

Shaft output = The power output developed by the engine's crankshaft.

Simple cycle = Power generation using only a thermal power plant.

SO₂ = Sulphur dioxide. Formed by the combustion of sulphur when burning sulphur-containing fuels. Sulphur dioxide contributes to acidification.

SOFC (Solid oxide fuel cell) = The fuel for a SOFC can be hydrogen, natural gas or diesel. Fuel cells offer very low emissions, high electrical efficiency and outstanding reliability. They are very suitable for the production of power in decentralized stationary (CHP) and marine applications. See also fuel cell.

Steerable thruster = A 360 degrees rotatable propulsor with FPP or CPP, which applies thrust in any direction and thus achieves superior manoeuvrability. Steerable thrusters can be used for both offshore (dynamic positioning) and seagoing (free-running) applications.

TEU (Twenty-foot equivalent unit) = 1 TEU is equivalent to the capacity of one 20-ft long container; hence a 12,500 TEU containership can in principle carry 12,500 20-ft long containers. The TEU takes no account of a container's weight.

Traditional fuel injection = Mechanically controlled fuel injection. Each engine cylinder has its own fuel injection pump and all the pumped fuel is fed directly into the cylinder.

Turbocharging = The pressure of the air fed into the cylinder is raised using the energy in the engine's exhaust gas. This increases the amount of air in the cylinder, allowing injection of a higher quantity of fuel for greater output.

Turnkey power plant = A power plant delivered to the customer ready for operation.

Two-stroke engine = An engine in which the pistons complete their power stroke every crankshaft revolution.

ULCC tanker = Ultra Large Crude Carrier, an ocean-going supertanker designed to carry extremely large amounts of crude oil (>300,000 dwt).

VLCC tanker = Very Large Crude Carrier, an ocean-going supertanker designed to carry large amounts of crude oil (>200,000 dwt).

Waterjet = A propulsor that uses a pump to accelerate waterflow. The momentum generated by the acceleration of the flow results in a force that propels a ship.

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