

# Of machines and people

The history of Wärtsilä group  
as it was experienced

1969

2019

John Steinbeck's novella *Of Mice and Men* (1937) is regarded as an apt portrayal of the society of its time, seen through the story of two migrant ranch workers. We aimed for a similar discerning view in this publication, the name of which drew inspiration from Steinbeck's book.



## Of machines and people

The Wärtsilä shipyard in Helsinki had its own vocational school for training workers.

The student body was male-dominated, as was the entire shipyard community. There were barely any female welders at the shipyard, and the few that worked there had to get used to the male humour.

The cover photo was taken at a welding course at Wärtsilä's Helsinki shipyard in October 1986. Efforts to trace the woman shown in the photo have been unsuccessful. None of the shop stewards and vocational school instructors remembered her when asked.

Perhaps she ended up pursuing a different career.

Photos: Heikki Kotilainen/Lehtikuva

“

The entire production chain has been reimagined, like in the automotive industry. There's a basic model and customers can choose optional parts and features for a slightly higher price.”

**Maarit Aarni-Sirviö**

“

The sense of solidarity was fantastic. A strike was a strike but, when you worked, you were diligent about it.”

**Lars Jakobsson**

“

The biggest threat is that we won't see what's around the corner, that we allow ourselves to become self-contained.”

**Mikael Lilius**

“

You have to keep moving ahead fast. You have to find foreign partners, not just Finnish partners. You can get started with representatives but you need your own people.”

**Pentti-Juhani Hintikka**

“

No company can pursue many different demanding goals at the same time.”

**Antti Lagerroos**

“

Finland was a country under construction. It was taken for granted that the executives of major enterprises had good relationships with the country's leadership.”

**Ole Johansson**

“

Wärtsilä's technology has had a very significant impact on world trade as a Finnish company that is perceived as a neutral operator.”

**Alexander Ehrnrooth**

“

With the growth of the cruise market the Wärtsilä four stroke brand and the Trieste factory started a period of development and success.”

**Corrado Antonini**

“

Sulzer was an expensive acquisition, but you could argue that Wärtsilä would not exist in its current form if it weren't for the Sulzer deal.”

**Björn Wahlroos**

“

If we don't think about what is important for society now and in the future, who will?”

**Jaakko Eskola**

“

In the 1970s, it would have been hard to believe the company will have a foreign primary shareholder and — for a while — a Swedish President and CEO.”

**Raimo Lind**

“

Feelings are part of doing business. Things have to feel right.”

**Clas-Eirik (Casse) Strand**

“

Without Wärtsilä, you wouldn't have shipyard operations in their current form in Turku and Helsinki.”

**Pekka Virtanen**

“

You have to keep up with fast-moving customers. That's essential for your image as well as your profitability.”

**Bertel Langenskiöld**

“

We never discussed who will pay with customers, we settle the matter first. One became known for fixing everything and not complaining.”

**Mikael Mäkinen**

“

During the negotiations, Wahlforss decided to send my wife to Moscow!”

**Åke Wolfram**

“

It was a process of building the culture and strategy: you needed to establish a common language and concepts for what we're trying to accomplish.”

**Anneli Valpola**

“

Our development efforts weren't always a success; we had to fly crankshafts to the Philippines on Russian aircraft after the previous crankshaft had pierced the hull.”

**Heikki Allonen**

“

One of the keys to success was making maintenance a local activity and training people to do it. You didn't have to spend all your time sitting on a plane flying here and there.”

**Harry Lindroos**

“

There's been revolution as well as evolution: business operations have been adapted, developed and sharpened. What doesn't fit has been let go.”

**Sven Bertlin**

“

All the chief executives have been good guys and we still operate on a first-name basis. Jaakko is Jaakko.”

**Ilkka Kallinen**

“

Getting the deals done was very demanding. There were millions at play and you always had to write the numbers down to be sure.”

**Aleksei (Allu) Kulikoff**

”

There have been good people and good leaders, otherwise the company would never have survived!”

**Maj-Len Ek**

“Don't be too certain of learning the past from the lips of the present. Beware of the most honest broker. Remember that what you are told is really threefold: shaped by the teller, reshaped by the listener, concealed from both by the dead man of the tale.”

**Vladimir Nabokov:** The Real Life of Sebastian Knight, 1941

# Contents

	Foreword	4
	Years 1969–2019	5
<b>1</b>	<b>On Wärtsilä's spirit</b>	<b>8</b>
	From the era of the captain of industry to global business	10
	A day in the life of the President and CEO	30
	Management training	32
<b>2</b>	<b>The Golden Age of the Eastern trade</b>	<b>34</b>
	The best sauna in Moscow and liquid refreshments	36
	A mighty Soviet beauty	54
	Measured in Ladas	56
	Do they sell toilets here?	58
<b>3</b>	<b>Technological leadership</b>	<b>60</b>
	Without courage and the right attitude you have nothing	62
	The day the flywheel broke in half	81
	“The entire town of Vaasa smelled like burnt bread”	81
<b>4</b>	<b>The ship is loaded</b>	<b>84</b>
	Out into the world!	86
	Surrounded by civil war and under curfew: yes we can!	110
<b>5</b>	<b>A great turning point</b>	<b>112</b>
	From the bankruptcy to new beginnings	114
	The difficulty of making predictions	126
	A Midsummer visitor to Nakkila	127
<b>6</b>	<b>The Metra era</b>	<b>130</b>
	From a general store to a European specialty shop	132
	From the Ehrnrooths to the Wallenbergs	144
<b>7</b>	<b>The start of a partnership</b>	<b>146</b>
	The customer as the focal point	148
	What's the deal with the Irish debt crisis?	162
<b>8</b>	<b>Wärtsilä, quo vadis?</b>	<b>164</b>
	The present and the future	166
	The focus remains on people	194
	Our thanks	197

ISBN 978-952-68866-6-4  
Copyright © 2018 Wärtsilä

Photos: Wärtsilä archives and Indav Oy,  
or other sources mentioned by the photos

Read more: [wartsila.com/wartsila185](https://www.wartsila.com/wartsila185)

Execution Mlltton  
Distribution Alma Talent  
Printing Öhrling, Tampere 2018

## Dear reader,

Nearly every Finn has some sort of link to Wärtsilä, or at least an impression of the company. As you might expect of a company that has been closely involved in the ups and downs and turning points of Finnish history, views differ. Throughout its 185 years, Wärtsilä has been a significant employer and driver of renewal in many industries. Wärtsilä is an institution in Finland.

Paavo Haavikko wrote a history of the company in 1984 to mark its 150th anniversary, and dozens of other books have been written about Wärtsilä, its leaders and its business units.

Nevertheless, there is one book that has not been previously written: an oral history that covers Wärtsilä's most recent decades, not from the viewpoint of traditional historical research or economic history but through the perspectives and interpretations of the people who were directly involved, through their stories and colourful anecdotes.

A company's success is built on the competence, ideas and well-being of its employees. Keeping this in mind is vital for us today and in the future.

This book is Wärtsilä's salute to the people whose courage, enthusiasm and commitment have driven the company's success. Dozens of individuals who were involved with Wärtsilä over several decades were invited to be interviewed for this book. Only a few declined and, in the end, nearly 60 were included. Most of them eagerly spent several hours recounting what they characterised as the greatest moments of their life.

Of course, there are also critical voices among those interviewed, and we are equally grateful to them – no company can prosper by always choosing the safe option. The story of Wärtsilä's past decades also includes failures and wrong choices. We can only hope we have learned from them. Our past mistakes are part of the road we have travelled to becoming the company we are today. Learning lessons the hard way can sometimes turn out to be a blessing in the long run.

The theme selected for this book is Wärtsilä's purpose and the reason for the company's existence. We define it as "Enabling sustainable societies with smart technology". Sustainable

development is a guiding light for us. We want our global operations to be as sustainable, valuable and transparent as possible in terms of both environmental and social criteria. We want to relay this to our customers and enable the same for them.

The cornerstones of our competitive advantage are smart technology as well as long-term and in-depth customer insight. Development in digital solutions and artificial intelligence is extremely fast. Tomorrow is already here today. But the future is not something that simply happens. It is created. Wärtsilä will continue to push forward with the renewal of its operations and organisation by being open-minded about using the latest technology and continuously developing new solutions. At the same time, we will constantly evaluate the social impacts of our operations. Even just a few years ago, who could have imagined remote-controlled smart vessels with wireless charging? Or power plants that combine solar panels, engines and batteries? Such innovations, which increase safety and reduce environmental impacts, will soon be commonplace.

A modern enterprise can't only think about itself. Our network consists of our employees and shareholders as well as the society around us: our customers, supply chain and partners, nations and cities. Universities and other schools not only educate the human resources we need, but also nourish us. For a future-oriented company such as ours, an effective ecosystem is like life insurance.

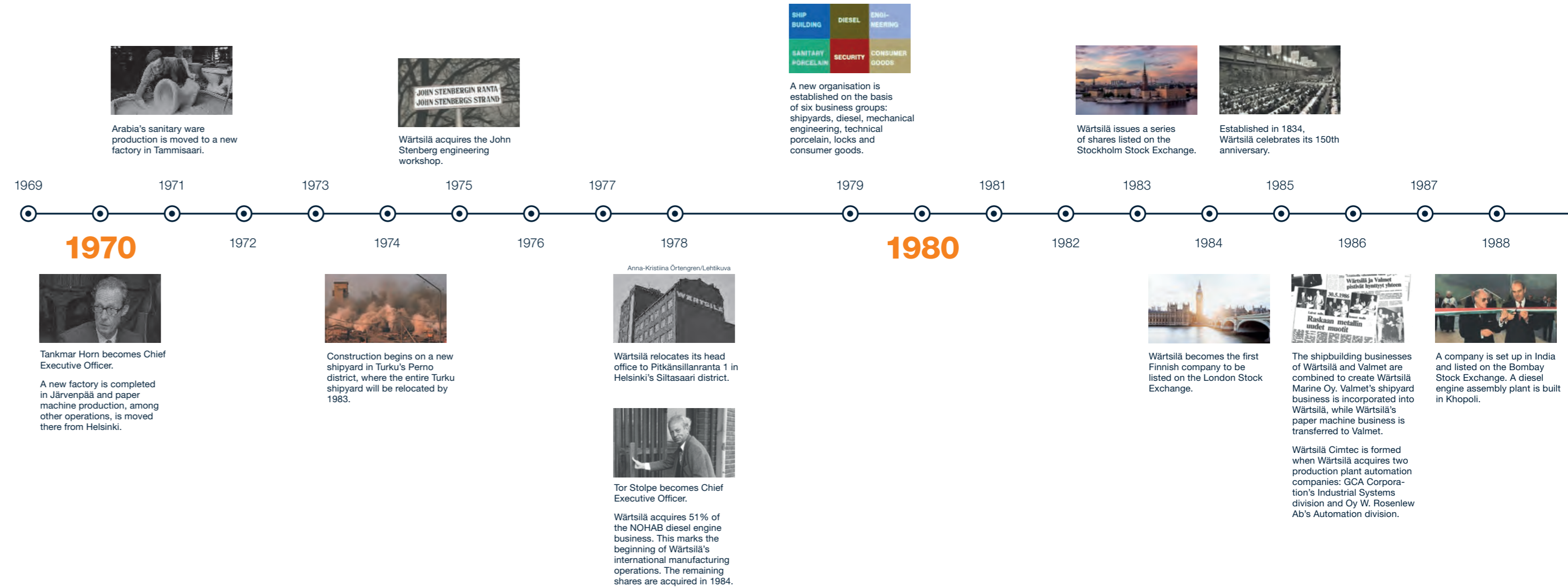
Someone might ask why we have chosen to look back to mark this anniversary. Well, without history and historical insight, there is no future. In another 15 years, in 2034, Wärtsilä will celebrate its bicentennial. Where will we be then? The answer to that question is in our hands. What we do know is that we must continue to rely on the strengths that have propelled our company forward through recent decades: a "can do" mentality, confidence in the future and a genuinely open mind.

I hope you enjoy reading this book!

**Jaakko Eskola**  
President and CEO  
Wärtsilä Corporation

## Wärtsilä 1969–2019

Wärtsilä celebrates its 185th anniversary in 2019. These are Wärtsilä's key milestones from the past 50 years.





Pekka Laine is appointed President and CEO.

Wärtsilä Marine Oy files for bankruptcy.



Wärtsilä Diesel acquires the high-speed engine manufacturer SACM and a majority holding in Stork Werkspoor B.V., which produces medium-speed engines. The company is renamed Stork-Wärtsilä Diesel B.V.

Klaus Grönbärj is appointed President of Wärtsilä.



Georg Ehrnrooth is appointed President and CEO of Metra Oy Ab.

The electronics company Elcoteq Oy Ab is sold.

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

Metra shares are listed for trading on the London Stock Exchange.

Wärtsilä sells its 35% stake in Valmet Paper Machines Ltd to Valmet.



Lohja Caravans is sold.



Wärtsilä Diesel and Cummins Engine Company Inc. set up a joint venture to develop and manufacture high-speed 170 and 200 series engines.



Metra and Fincantieri agree on the merger of Wärtsilä Diesel, New Sulzer Diesel and Diesel Ricerche under the name Wärtsilä NSD Corporation. The merger also includes a 40% share of Grandi Motori Trieste SpA, with Fincantieri as the other owner.



The Sanitec division is listed on the Helsinki Stock Exchange.

Wärtsilä NSD acquires Fincantieri's 60% stake in Grandi Motor Trieste.

The Cummins-Wärtsilä joint venture is terminated.



Wärtsilä sells its entire 46.7% stake in Sanitec.

Wärtsilä acquires the service company Ciserv.

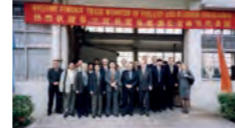


Wärtsilä expands into biopower by acquiring Sermet Oy.

Wärtsilä increases its holding in Wärtsilä India Ltd to 89.69%.

Wärtsilä acquires the marine engine maintenance company Caltax Marine Diesel BV, which is given the new name Ciserv Netherlands BV.

Wärtsilä sells its holdings in Polar.



The production of marine propulsion systems in China begins through a joint venture established with CME, which is part of the CSSC shipbuilding group.



Wärtsilä's subsidiary Imatra Steel becomes part of the newly established company Ovako. Wärtsilä owns 26.5% of Ovako.

Acquisitions:

- DEUTZ marine engine servicing
- Automation equipment servicing company Gerhardt Holding Co. Inc.

Wärtsilä India Ltd is delisted from the Bombay Stock Exchange.

Wärtsilä and Hyundai Heavy Industries Co. Ltd sign an agreement to set up a joint venture in Korea to manufacture dual fuel engines.

Acquisitions:

- Senitec AB
- Marine Propeller (Pty) Ltd
- McCall Propellers Ltd
- Railko Ltd's Marine business
- Electrical Power Engineering (Scotland) Ltd

Wärtsilä and its competitor MAN Diesel launch the EU-supported HERCULES-Beta research project aimed at developing a clean next-generation diesel engine with optimal efficiency.

Wärtsilä opens the global Manufacturing Technology Centre in Vaasa.



Wärtsilä joins the UN Global Compact to further consolidate its commitment to sustainable business practices.

Wärtsilä acquires Cedervall, a leading manufacturer of shaft seal and bearing systems for the marine industry.



Björn Rosengren is appointed President and CEO following the retirement of President and CEO Ole Johansson.

Wärtsilä becomes a Lead Partner of Crisis Management Initiative. CMI works to resolve conflicts and build sustainable peace.

A new centralised spare parts distribution centre is opened in the Netherlands.



A low-speed two-stroke dual fuel engine is launched.

Wärtsilä launches GasReformer, a product that turns oil production gas into energy.

The Wärtsilä 31 engine is listed in the Guinness Book of Records as the world's most efficient four-stroke diesel engine.

Wärtsilä's two-stroke engine business is transferred to a joint venture with China State Shipbuilding Corporation. CSSC holds a 70% stake in Winterthur Gas & Diesel Ltd, with Wärtsilä holding the remaining 30%.



Jaakko Eskola is appointed President and CEO.

Wärtsilä successfully tests the remote operation of ships in cooperation with Gulfmark Offshore. A ship along the coast of Scotland is controlled from Wärtsilä's San Diego office.

Wärtsilä delivers a 15 MWp solar power plant in Burkina Faso. Together with a power plant previously delivered by Wärtsilä, it constitutes the largest engine-solar PV hybrid power plant in Africa.

Wärtsilä and Carnival Corporation sign a 12-year strategic performance-based partnership.

Acquisitions:

- Greensmith Energy Management Systems Inc.
- Puregas Solutions
- Guidance Marine Limited
- Trident B.V.

Wärtsilä reorganizes itself into the Marine and Energy Businesses.

1989

1991

1993

1995

1997

1999

2001

2003

2005

2007

2009

2011

2013

2015

2017

2019

1990

1992

1994

1996

1998

2000

2002

2004

2006

2008

2010

2012

2014

2016

2018



Wärtsilä merges with Lohja. The new company is given the name Metra Oy Ab.

Wärtsilä sells its majority stakes in Oy Arabia Ab and Rörstrand-Gustavsberg AB.

Wärtsilä Diesel's head office moves to Strasbourg.

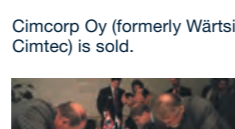
FINLUX

Metra sells Finlux to Nokia.



Abloy Security and Lock Group are merged to form Assa Abloy, in which Metra holds a 55% stake.

Metra sells its remaining stake in the construction material business to Partek.

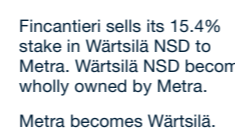


Cimcorp Oy (formerly Wärtsilä Cimtec) is sold.

The European Works Council is established. Wärtsilä Diesel and employee representatives sign a cooperation agreement on the European Works Council.



Wärtsilä NSD moves from Strasbourg to Helsinki.



Ole Johansson, President of Wärtsilä NSD, becomes Wärtsilä's President and CEO.

Fincantieri sells its 15.4% stake in Wärtsilä NSD to Metra. Wärtsilä NSD becomes wholly owned by Metra.

Metra becomes Wärtsilä.



Wärtsilä acquires John Crane-Lips, which continues to operate under the name Wärtsilä Propulsion.

Wärtsilä discontinues engine production in Turku.

OVAKO

Wärtsilä, SKF and Rautaruukki sell Ovako.

Acquisitions:

- Aker Kvaerner Power and Automation Systems AS
- Total Automation Ltd
- Ship design company Schiffko



Wärtsilä and Metso establish a joint venture combining Metso's Heat & Power business and Wärtsilä's Biopower business. Metso owns 60% and Wärtsilä 40% of the joint venture.

Acquisitions:

- Maritime Service AS
- International Combustion Engineering A/S (I.C.E)
- Claus D. Christophel Mess- und Regeltechnik GmbH
- Vik-Sandvik
- Navelec SAS
- Conan WU & Associates Pte Ltd.

Wärtsilä installs a fuel cell unit on a car carrier. The fuel cell unit is the first of its kind in the world. During the test period, it provides power to the vessel while producing very low emissions.

Wärtsilä expands into the rail market — joint venture with Transmashholding to manufacture diesel engines in Russia.



Wärtsilä sells its 40% stake in MW Power Oy to its joint venture partner Metso.

A Wärtsilä-led consortium signs an agreement to deliver the world's largest three-fuel power plant in Jordan.

Acquisitions:

- Hamworthy
- MMI Boiler Management



Wärtsilä acquires L-3 Marine Systems International.

Wärtsilä sells its 50% stake in Wärtsilä TMH Diesel Engine Company LC to its joint venture partner Transmashholding.

Wärtsilä is awarded the first liquefied natural gas (LNG) receiving terminal project in Tornio.

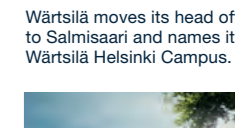


Wärtsilä enters the solar energy business by delivering more than 10 MW solar power plants and hybrid power plants where Wärtsilä's engines are combined with PV panels.

Wärtsilä exits the two-stroke engine business and transfers its 30% minority stake in the two-stroke joint venture Winterthur Gas & Diesel to China State Shipbuilding Corporation.

Acquisitions:

- Eniram
- American Hydro



Wärtsilä moves its head office to Salmisaari and names it Wärtsilä Helsinki Campus.

Wärtsilä starts a substantial investment in a new innovation and technology hub in Vaasa.

Wärtsilä acquires marine navigation solutions provider Transas.

# On Wärtsilä's spirit

Wärtsilä has come a long way since the days of Wilhelm Wahlforss at the helm as an iconic captain of industry some fifty years ago. If you were to ask Wärtsilians themselves, the company's success over the past decades has been built on its Ostrobothnian mentality and "can do" attitude.

The strong sense of community during the Wahlforss era extended to the employees' families. In Vaasa, the company organised cross-country skiing races for the employees' children.

1



## From the era of the captain of industry to global business

They say death is the great equaliser, but sometimes it marks not only the end of a human life, but also an entire era. Wärtsilä Corporation's former chief executive **Wilhelm Wahlforss** passed away from a sudden illness during a game of bridge on the island of Nauvo in 1969.

Wahlforss, known to everyone by his nickname **Vikkelä-Ville** (Quick Willy), was one of the driving forces behind the development and renewal of heavy industry in Finland. It started as a rescue operation. Having taken the helm as the chief executive of Wärtsilä in 1926, Wahlforss cut costs, took out loans, reduced wages, made acquisitions and expanded the company's operations. In post-war Finland, when industrial capacity needed to be increased overnight to cope with reparations and the major industrial activities were divided between a small group of business owners, what Wahlforss and Wärtsilä were left with was shipyards and ships.

→

**Wilhelm Wahlforss** was Wärtsilä's chief executive from 1926 to 1961 and subsequently served as the Chairman of the Board until his death.

As was typical of major corporations at the time, under Wahlfors's leadership Wärtsilä diversified its operations and went on to include categories such as porcelain, steel, diesel engines, glass, locks, ships and paper machines in its catalogue. After his retirement in 1961, the spirit and influence of the iconic captain of industry remained.

**Krister Ahlström**, who would later go on to become Vice President but was only a young production planner at the time, described Wahlfors's passing as a terrible shock – although the 78-year-old had already been retired for eight years. Some people leave a more lasting impression than others.

## In the 1960s, Wärtsilä's operating methods and management style were still quite hierarchical, although the natural charm of Finland's Swedish-speaking population helped smooth the rough edges of the managers, who were veterans of the war.

The stories of societies, individuals and businesses have chapters where the old must give way to the new. While these changes can sometimes be quick and dramatic, they mostly happen gradually.

In the 1960s, Wärtsilä's operating methods and management style were still quite hierarchical, although the natural charm of Finland's Swedish-speaking population helped smooth the rough edges of the managers, who were veterans of the war. Voices were rarely raised on the corridors of the management, but there was a wide chasm between the executive level and the factory floor.

The line between the masters and the employees was clear.

People at the Taalintehdas iron mill were so fearful of the corporate headquarters that everyone, including the chief accountant, jumped when the phone rang. One of the first things done at the Turku's Pommila machine shop, built in 1967, was to remove the doors of the downstairs bathroom stalls. The managers wanted to make sure the employees wouldn't slack behind closed doors. The workers kicked up a fuss and the occupational health care unit didn't spare harsh words for the young engineer who had made the decision.

The latter half of the 1960s can be characterised as a period of transition for Wärtsilä. The remnants of the era of rural industrial communities and company towns were still very much evident, even if the generation of grandfathers and fathers as the iconic captains of industry was a thing of the past. At the same time, a new guard emerged in the form of recently graduated engineers. In line with Wahlfors's principles, many of them had started from the bottom and were now climbing up the ladder.

The corporate culture was ripe for renewal, as were the basic practices of day-to-day business. The changes began in earnest when **Tankmar Horn** became the company's first modern chief executive in 1970.

In the early part of the 1970s, financial statements were only a concern for the Group's senior management. The focus was on tax planning, even at the expense of the profitability of the products. Factory managers were not always allowed to see their financial results, nor did they have the courage to ask. According to one anecdote, a manager was once asked how the year had gone and his response was "it's such a big secret that I haven't dared to look".

Nevertheless, changes came fast. **Ingvald Ahlgren** rose to take charge of the Group's financial management and hired a new generation of financial wizards such as **Klaus Grönbärj** and **Ole Johansson**. The financial managers were assembled into a task force to develop up-to-date budgeting and monitoring systems. They challenged the old guard with their questions.



Wärtsilä's Board of Directors in morning coats congratulating Chairman of the Board **Wilhelm Wahlfors** on his 70th birthday in 1961.



Factory workers in 1973.



The management also gradually awakened to the need to increase employee engagement and training.

Wärtsilä began to grow and shape itself into a major global corporation. The company's personnel and their wide-ranging expertise was brought to the fore.

**T**he reasons behind Wärtsilä's success repeatedly highlighted by the company's key personnel include a strong "can do" mentality, a burning desire to create something new and the courage to take on projects even when they seem impossible. Another perceived strength is a Group-wide team spirit that extends from top to bottom and is characterised by trust, sharing responsibility and helping colleagues. The company is like a band of brothers.

Success was not, however, achieved overnight. It took a great deal of evolution – and the occasional revolution – as well as technological innovation. As time passed, the organisation found a common goal.

For a long time, however, it was mainly about money.

The focus was on wages and the combinations between basic pay and performance-based pay, with a great deal of inflexibility on both sides. The management kept the purse strings tight, while those on the factory floor were keeping a close eye on each other in the name of solidarity.



The shipyard had its own vocational school for training workers.

If a young trainee finished a job in record time and was handed a brown envelope that was thicker than usual, he might get a tap on the shoulder from the shop steward, pointing out the need to spare a thought for his older colleagues who can't do the job quite as fast and who don't have the energy to spend their coffee breaks running to the warehouse and back.

For a diversified conglomerate like Wärtsilä, it was essential to ensure that the HR side of the business was smooth and well managed. The goal was to maintain internal peace and cohesion while under external pressure. Deliveries had deadlines and sticking to them was a matter of honour. You couldn't run around putting out fires.

**T**he foundation for a new kind of cooperation between management and workers in Finnish society was created in the 1970s through an ongoing dialogue on corporate democracy, culminating in 1978 in the entry into force of the Act on Cooperation within Undertakings.

Wärtsilä strove to be a progressive company in this regard. While established forms of interaction between the management and workers already existed, more were needed. Naturally, the Group's units complied with national agreements on wages, but the interpretations of collective labour agreements varied at times.

The units introduced CLA (Collective Labour Agreement) training in the 1970s and the factories' chief shop stewards were invited to Helsinki annually to discuss current topics. The shop stewards also attended negotiation days led by the head of employee relations.

Nevertheless, the prevailing societal atmosphere was irresistibly reflected in companies. It was an age of over-politicisation, a time when national policy was partly determined among – and within – large industrial enterprises. The left wing of the political spectrum was fighting for the workers' souls. Tensions were increased by the fragmentation and power struggles of the labour movement as well as communists becoming divided between a moderate majority and a more orthodox minority who came to be known as the Taistoists.

In the first elections of the unified Finnish Metalworkers' Union in November 1971, the two factions were quite evenly balanced. The social democrats got 54 per cent of the vote, while the communists got 46 per cent. These divisions were also evident within Wärtsilä.

Matti Tapola/Lehtikuva



Strikers at the Wärtsilä shipyard in Helsinki at the start of the Finnish Metalworkers' Union strike on 8 February 1971.

Martti Peltonen/Lehtikuva



Striking metalworkers on a motorised march in Hyvinkää in spring of 1971.

At the Vaasa factory and the Helsinki shipyard, the local trade union branches were dominated by the majority communists, while the Taistoist faction was in charge at the Järvenpää machine shop and Turku shipyard.

The possibility of strikes was an ever-present element of Finnish industry throughout the 1970s. A seven-week strike by the metalworkers' union involved as many as 180,000 workers in early 1971. It is estimated that there were nearly a thousand wildcat strikes at Wärtsilä during the decade. The 1970s atmosphere in Finnish society and at Wärtsilä is illustrated by the fact that the shipyards kept separate tallies of strikes caused by the company's actions and strikes caused by external factors.

In a Ministry of Labour report analysing the general reasons for strikes, Wärtsilä came under serious criticism for the lack of consistency in its personnel policies and the ineffectiveness of chains of communication. Occasional clumsiness in management was also a likely background factor that contributed to the inconsistency. There was a dearth of management skills in the sense that the term is understood today. For a long time, management was primarily strategic, like leading troops in battle. The focus was on getting the men to do what needed to be done.

It should be noted that Wärtsilä's history does include examples of flexibility as well. The Pietarsaari foundry employed a large number of Laestadians. Known for their exceptionally strong work ethic, there was one thing they never compromised on. Every Friday at 2:00 p.m. they took off their work gloves and spent the last two hours of the day reading the Bible. Time after

**Every Friday at 2:00 p.m. they took off their work gloves and spent the last two hours of the day reading the Bible.**

time, the management tried to say that this was not OK. Time after time, the Laestadians gave the same reply: we work so hard that we should have this right. The empire acquiesced.

**T**he days of big personalities, charisma and interpersonal chemistry were far from over.

Krister Ahlström had joined the company, then under the name of Kone & Silta, as a work planning engineer in 1966 and he had subsequently been involved as a production engineer in the planning of the Järvenpää unit commissioned in 1970. When the plant's workers went on strike, they needed a familiar face to sort things out.

“Usually we would end strikes by paying the workers a little more, but once I put a stop to a strike by words alone. There was an illegal work stoppage in Järvenpää. I got in touch with the manager and suggested that I could go talk to them because I knew the guys. So I went there and told them not to be crazy and to put a stop to it. They quietly went back to work. Later, when asked why they ended their strike, they said they did so because Allu told them to. That's the kind of influence I had there,” Ahlström recounts.

Street credibility was an important quality to have. It was just how things were back then. **Ari Valjakka** joined Wärtsilä in 1977 to develop the personnel and communications department, having previously worked as the Communications Director of the Employers' Association of the Finnish Metal Industries in 1970–1975. In the eyes of the workers, he had earned his stripes during the metalworkers' strike by travelling around Finland from one event to another in a limousine owned by the Confederation of Finnish Employers, spending the nights sleeping in the back seat.

“I got along well enough with the workers at Wärtsilä, although they did insist that they would come out on top in the end. They said I'm a good enough man that they'll take me in an iron cage along Mannerheimintie to the Olympic Stadium, where they'll have me cut the grass – with nail clippers. I think I had a reputation as someone they could negotiate with. But it was always the line management that resolved disputes. I was just the support organisation,” Valjakka explains.

**Increasing focus was put on communication and training in the 1980s. In addition to the employee magazine, the units also published their own magazines.**



In spite of Valjakka's significant role, it wasn't a one-man show. The support organisation at Wärtsilä was different compared to many other major corporations. The personnel administration, occupational safety and health, training, external communication and internal communication were all bundled together. This created valuable synergies and made work more efficient.

Even more focus was placed on communication and training in the following decade, the 1980s. There was an employee magazine and the units also published their own magazines. The executives honed their skills by taking courses on how to perform on TV and radio. The AV department even had film production operations. The investments in communication were a response to the left wing of the political spectrum dominating the media.

The company also wanted to create increased understanding of its objectives. This was achieved in some very concrete ways: on the factory floor, next to the engine under construction, there was an information board indicating the date on which the engine was due to be delivered, to whom and for what purpose it was intended, and how many engines that customer had previously ordered. The information board increased the employees' professional pride and made them perceive their work as more meaningful. The company recognised that people appreciate being kept in the loop.

More extensive training for personnel was introduced following a decision made by **Tor Stolpe**. It started with management development. Wärtsilä's head office has traditionally been small, with 150 people at its peak. For that reason, company initiatives were typically promoted at the unit level and function by function. The central administration's role was to get impulses and ideas going.

According to **Kari Tähtinen**, long-time President of Imatra Steel, the development projects and pilots led by the head office were seen as indispensable by his organisation and they were eager to volunteer to take part. Without the initiatives from the head office, the small unit in a highly competitive industry would have found it impossible to keep up with development and allocate in-house human resources to similar development efforts.

In general, there was strong resistance to change when it came to training projects, says **Anneli Valpola**, who was part of the personnel unit at the time. This could be partly explained by a sense of self-importance among the ranks of the engineers, but a

more likely reason for the negativism was a problem that plagues almost every large organisation.

“There is always a love-hate relationship between operational units and the head office, and Wärtsilä was no exception. In the 1970s, the units and the head office had little in common. The units wanted to act independently and wanted nothing from the central administration. It wasn't until 1975 that topics such as management by objectives, targets and target setting began to be talked about. You didn't get anywhere by sending out orders by letter or force-feeding ideas. You had to get out there in person and talk,” Valpola explains.

Recognising that there was resistance to change, Wärtsilä wisely chose one of its own to lead the efforts. Without credibility at the shipyards, it would have been a difficult job. Valpola had worked as the training manager of the Helsinki shipyard since 1973. The recruitment process was done anonymously, and there were some dissenting voices when her gender was revealed after the choice was made.

Valpola was the first female executive at Wärtsilä, but she doesn't think her gender was a big issue. If anything, being a woman was an advantage.

“I think my appointment was bigger news outside the company than inside. I was always treated well. I was even given the opportunity to do some exceptional things. In the international environment, the company was clever in taking advantage of my gender. I was able to make a memorable impression on people in the male-dominated world of Wärtsilä's industry.”

One of the new ideas in the 1970s was groundbreaking even on the global scale. Tankmar Horn came up with the idea of sending a group of about 20 people to Japan for a couple of weeks in late 1979 on a “productivity and quality trip”. The delegation included representatives of all of Wärtsilä's units, from company offices to the factory floor and from management to shop stewards – but only one woman.

The idea of making such a trip was so novel that its sensibility was initially questioned at the executive level. It was also new for the Japanese hosts, who said it was the first visit of its kind by a foreign delegation. Accordingly, the reception was very friendly.



Wärtsilä executives going on a trip in 1976.

The delegation wanted to learn and absorb influences, and this goal was certainly achieved. They visited a number of factories, machine shops, shipyards and unions. The Finnish delegation was impressed with the Japanese spirit of cooperation and how tidy and punctual everything was, and noted these observations in its reports. They bought a cine-camera in Japan to capture the lessons they learned on film.

There were also times when the delegation had to improvise. The Japanese corporations all had a company song that they belted out at the start of each work day. Deciding they needed to have a song as well, the Finnish delegation changed the lyrics to one of the big Finnish hits of the year, "Mäntsälä on my mind" by Kake Singers, to come up with "Wärtsilä on my mind".

The connections established on the trip also led to further collaboration. Wärtsilä signed a cooperation agreement with a Japanese shipyard. Groups consisting of a supervisor and a few workers regularly visited Japan, usually for a period of six weeks to work with the Japanese and gain exposure to new ideas and influences. They also brought back many concrete tips on matters such as the ergonomics of welding.

**B**ehind the training projects, and at Wärtsilä's own academies, for example, there were concerns over the avail-

“

**Wärtsilä had 1,200 senior salaried employees with university degrees and 80 per cent of them had a technical background.”**

Anneli Valpola

ability of skilled and committed workers. Southern Finland was plagued by major labour shortages that led to higher wage costs. Regional differences in the availability of labour were the reason why the Abloy lock factory, for example, was established in Joensuu. Also fresh in the memory were the days when the Turku machine shop was only a stepping stone on the way to the Swedish job market for many workers.

While the labour situation was a factor, the main motivation behind the growing focus on training was the need to prepare for doing business in the global market. The traditional thinking of Finnish engineers was that building a good machine is enough to bring buyers to your door – a view that many at Wärtsilä also held. This was an illusion that needed to be dismantled through the use of training under Valpola's leadership.

The company had decided to enter the international market and there was no time to waste. Finding a solution to the skills shortage was an absolute necessity.

“Wärtsilä had 1,200 senior salaried employees with university degrees and 80 per cent of them had a technical background. As we started to engage in international business, we lacked people who had experience of being responsible for a profit centre. We had to come up with 200 of them from within our ranks,” Valpola says.

The training also served deeper purposes. The programmes helped build roots for the company's culture and strategy by defining core values, establishing a common language and concepts for what the organisation was doing. What is the business idea and what is Wärtsilä's way of putting it into practice? What is the company's view of its customers and what kind of value can Wärtsilä offer them in a way that also benefits the company? What are the components of the portfolio? What are the business areas?

The content of the training programmes also recognised that Wärtsilä's professionals are people with private lives.



A celebratory lunch was served to all of the company's personnel on Wärtsilä's 150th anniversary in 1984.

“The leadership programmes had elements of increasing the participants’ self-knowledge and improving their life planning skills. They emphasised the importance of expatriates looking after their families while posted abroad. We prepared folders with instructions for our expatriates, and we were probably the first company to have a guide for returnees as well. That was critical. Those instructions and guides would just fly off our shelves,” Valpola recalls.

The training programmes were introduced in 1980. The first one was the JOWA executive training programme with just over 400 participants.

The JOTOS programme for unit heads made use of job rotation within the company. There was also a middle management

## While the traditional approach to deficiencies had been to focus on the skill gap, the problem could also be approached from another direction: what is it that makes the good employees good?

training programme that each division could customise according to their needs, with some 1,500 people taking part.

A frequently used method was action learning, which meant giving the participants a concrete project worth real money instead of having them work on theoretical challenges. For men of action seasoned in a “can do” mentality, this was a very effective approach.

In management training and development, Wärtsilä was a trailblazer even on the international stage. The best trainers and consultants were sought from all over the world. Wärtsilä became an example that was cited in business schools and books.

The most interesting executive development programme was given the impressive name STEP – Strategic Transnational Executive Programme. In addition to Wärtsilä, the participants included giant corporations such as Volvo, Norsk Hydro, Hewlett-Packard and the London-based investment bank Samuel Montagu, with Shell also later indicating its willingness to get involved.

It may be that mementos of the five STEP programmes can still be found in the coffee rooms of major corporations in the form of shot glasses and coffee mugs from Arabia – a Wärtsilä Group company – gifted by Wärtsilä to the programme participants and personalised with their signatures.

The programme helped instill the view that new learning and development was necessary for everyone, not just the senior management. STEP was largely the brainchild of Tor Stolpe, who was known for his favourable stance on training, and it was put into action by a cadre of international executives who shared that sentiment. Incentives were created to ensure that even those who stubbornly resisted the idea of participating would find it impossible to excuse themselves.

The extensive training of non-managerial personnel began in earnest in the late 1980s. One of the tools used in the training of employee representatives at several factories was a game called “The ABCs of Finance”. For chief shop stewards, it was illuminating to see how easily a few wrong moves can render a production plant ripe for layoffs.

The methods used in personnel development were occasionally unorthodox. While the traditional approach to deficiencies had been to focus on the skill gap, the problem could also be approached from another direction: what is it that makes the good employees good?

“At one point, we were short on salespeople in the diesel engine business and we decided to do something about it. I discreetly set up interviews with our best-performing salespersons to find out how they had grown into their roles. It turned out that the

best salespeople had previously worked in roles in the maintenance business that required initiative. Until that time, we had followed the usual practice of assigning newly recruited fresh graduates to some job in a booth on the engineering design side of things. We decided to change things up by first assigning them to maintenance to solve problems and learn about customer needs. After we made this adjustment to the career path, we had no shortage of salespeople,” Valpola recalls.

**T**he most significant change in corporate culture started from the merger of Wärtsilä and Lohja Corporation in 1990. The transformation from a diversified conglomerate into a global and focused company represented a tremendous cultural shift.

**Georg Ehrnrooth** was appointed as the President and CEO of the merged company, which was known as Metra. One of the first things he did was to ask the various personnel groups to express their views, in writing, on what the HR policies of the new company should include. Metra also introduced activities aimed at maintaining the employees’ ability to work.

One important benefit of this process was the creation of trust between Group management and **Seppo Leino**, the shop steward of Wärtsilä Diesel’s production plant in Turku. When the going got tough, they reached for their phones and talked things through.

The cooperation and strong relationship would later prove helpful in larger markets as well. As the process of internationalisation moved ahead, common policies and rules needed to be established for the Europeanised company in the early 1990s. Ehrnrooth wanted to engage the personnel in this effort. The company’s norms were written down and approved together.

Having played an important role in the process of establishing the Group-wide rules and policies, Seppo Leino would later experience their benefits first hand – even if it sometimes took a quick phone call to the management.

“On the European scale, we did feel like a unified whole. We felt a strong sense of togetherness when we compared how things are done in different places. However, we once had a meeting in France and it became clear that the employer had implemented

some rules of their own. I got on the phone with Ehrnrooth to ask him how come our agreements weren’t being followed. He said he had no idea about any changes and confirmed that all of our agreements must apply. And that settled it,” Leino recalls.

One big concrete change in the early 1990s was the elimination of contract work and changes in the way work was priced. This was not only a blessing for the employees, who now had more influence on the content of their work, but also the Group as a whole. Productivity began to improve.

**A**t the start of the new millennium, and having weathered the storms of the 1990s, Wärtsilä was a global corporation that was focused on its strengths. The needs and requirements concerning communication increased exponentially. Employees, the media and investors all had to be kept duly informed in real time.

Rapid technological advances meant dramatic changes over a period of just a few years.

In the late 1980s, communication with employees involved sending faxes to the subsidiaries, which then distributed the information as they saw fit. Disclosures to the stock exchange were handled by a messenger, with the physically delivered documents stamped as received. Communications with London relied on telex.

For a long time, the Group’s languages were Finnish and Swedish. This did not change until Wärtsilä Diesel’s international expansion, when **Clas-Eirik Strand**, the man in charge of the company’s conquest of Asia, says he grew tired of working late into the night translating Group materials into English for his colleagues.

The introduction of e-mail in the 1990s was, of course, a profound change. At first, its use was limited to the finance departments and “important” affairs, such as reporting. Its broader adoption for communication would have to wait.

For the communications department, the big thing was the intranet, and Wärtsilä wanted to make full use of it. At one point, the Group had 50 different intranet applications, a separate one for each subsidiary. This fragmentation was finally left

behind in 2008 with the introduction of a uniform global intranet application.

This coincided with a cultural shift. Unidirectional communication gave way to dialogue. **Eeva Kainulainen** worked in Wärtsilä's communications function from 1988 to 2011. As Vice President of Global Communications, she was in the eye of the storm of the information revolution.

“The shift from top-down communication to two-way dialogue was challenging for some of the management. It could take a long time to get a reply if the topic of communication was related to criticism. But it was great to have the opportunity to ask. Another

“

**The shift from top-down communication to two-way dialogue was quite a difficult one for the management. It could take a long time to get a reply if the topic of communication was related to criticism.”**

**Eeva Kainulainen**

change that characterised that time period was the increased urgency of things. The expectation was that messages would be immediately replied to and things would be taken care of right away,” Kainulainen says.

As was the case for most corporations in those days, information and the flow of information had a profound impact on Wärtsilä's spirit, culture and operating methods. The changes in the ways of working are illustrated by small details.

For example, employee representatives began to be invited to the Group's executive-level meetings and bodies as the 1980s

went on. This took some getting used to – for both sides. It had been customary to serve French roast coffee at the meetings, but a quick switch to a Finnish roast was made at the employee representatives' request.

There was another deep-seated practice that took much longer to change.

**Bertel Langenskiöld**, who joined the Board of Directors in 2002, recalls that four of the Board members smoked cigars and one smoked a pipe. “Half an hour into a meeting the room would be so thick with smoke that you could barely see the person sitting across from you,” Langenskiöld says. When

Langenskiöld's tenure ended in 2011, there was no more smoke in the air in Board meetings.

There were also other firmly rooted practices that only changed well into the 2000s. The meetings of the Board of Directors had traditionally been prepared by discussing the agenda with the Chairman beforehand. There was a clear desire to know in advance what would be discussed and what decisions would be made. It was not until **Mikael Lilius'** chairmanship that the Board's discussions became more open and genuine. There was also a growing trend of meeting with customers and getting out into the field to visit production units.

This coincided with an increased understanding of the potentially significant symbolic meaning of things.

In the first decade of the 2000s, the meetings of the Board of Directors were still held in a banquet room on Helsinki's Tehtaankatu. Wärtsilä's head office, however, was located in Siltasaari, a traditionally working-class neighbourhood across Pitkäsilta, a bridge that Field Marshal Mannerheim had only first crossed after the Winter War in 1940.

The Board of Directors' move to join its people represented a small step geographically but one giant leap for Wärtsilä.



**1979**

In 1979, the head office was covered in snow



**2017**

In 2017, it flew the rainbow flag to show support for Pride.

Atte Palomäki

Pia Posio



## 2018

Wärtsilä's head office moves to Salmisaari in Helsinki, bringing the nearly 500 Wärtsilä employees working in the metropolitan area under one roof in a modern office with just under 11,000 square metres of space. The use of renewable energy is emphasised at the property by installing solar panels on the roof and providing charging stations for electric cars in the indoor car park, among other innovations.

## A day in the life of the President and CEO

Life is fast and furious at the upper echelons of a global corporation. What did that mean in practice in the early 2000s? In this humorous memoir Executive Secretary Inari Räikkönen reminisces what kinds of messages she was writing to President and CEO Ole Johansson to keep him up to speed. They reveal how hectic the days really were.



CEO Ole Johansson with his secretary Inari Räikkönen.

“I moved your barber’s appointment from the morning to the afternoon. You’ll have time to go there from 14:10 to 14:20, just before the start of the birthday reception at the Bank of Finland.”

Ilkka (Driver **Ilkka Kallinen**) will bring the mail folder out to you after all, because it turns out you’re not coming to the office in the morning. You’re going straight to Eteläranta where your first meeting starts at 7:45. NB! In addition to your mail, the folder has a large number of Recruitment Proposals for you to sign. They’re a bit urgent.

I moved your barber’s appointment from the morning to the afternoon. You’ll have time to go there from 14:10 to 14:20, just before the start of the birthday reception at the Bank of Finland (the rest of the congratulatory delegation will wait for you on the stairs in front of the main entrance and the group will only enter once you’ve arrived).

DHL delivered seven parcels today, they’re gifts from your last trip to China. You can see them in your office.

Your Finpro speech is awaiting your comments ASAP, see separate e-mail.

Your passport was so full that the Chinese Embassy returned it without issuing a visa. We need to apply for a new passport (express) and then get your Indian and Chinese visas sorted. In the morning, Ilkka will take you from your home to Eteläranta via the police station (fortunately they agreed to open the passport office a little earlier than usual). Timppa (**Timo Kuitinen**, another driver) will bring your passport photo and old passport to the police station from the office so we can get the process started.

You’ve received a request to speak at the Finlandia Hall at the beginning of next month on the topic of “Strategic spearheads”. It would be on the same day as your speech

“Your passport was so full that the Chinese Embassy returned it without issuing a visa. We need to apply for a new passport (express) and then get your Indian and Chinese visas sorted.”

“Callback requests: Urgent message from France re: Big Bird, Très Confidential et absolutement VIP. I told them you’d get back to them when your schedule allows it.”

at the KPMG annual meeting, right after a BoM meeting. You could make it if we suggest that “Strategic spearheads” be moved to a later time slot, such as 17:18–17:46. I’m assuming you want me to reply in the affirmative? You will still be able to make it to the event at the French Embassy that evening.

Your IR trip to the U.S. needs to be shortened to just one day. The travel agency is working on a proposed flight itinerary that would allow you to make it to both the Boston meeting and the New York meeting. The revised itinerary will allow you to make it to Italy for the ship naming ceremony on Friday.

The lunch appointment with Nalle that you wanted for August could be set up for late October if it’s enough for you to meet from 12:15 to 13:05. I’ll confirm it.

Hufvudstadsbladet, Kauppalehti, Financial Times and the main news channels are requesting a statement from you ASAP regarding the prevailing economic situation. I promised them you’d give them a call either between 8:47 and 8:58 from the car en route from Eteläranta to the office (your guests will arrive at 9:00, meeting room: Långhjelm) or between 10:01 and 10:12 from the car en route back to Eteläranta. OK?

We heard today that the Russians have to again cancel next week’s meeting in Helsinki, the one that was already called off once and then reinstated.

No, you CAN’T do a roundtrip from Mumbai to Moscow on a Tuesday before lunch!

The seating assignments for tomorrow evening will need to be revised, the number of guests keeps changing. Timppa will bring the new proposed seating assignment to Ilkka’s car for you to see when you meet at the police station when he delivers your passport photo. Please comment on it ASAP so Jarkko can set up the tables correctly on Tehtaankatu. Ilkka will take the seating map, with any comments you might add, to Jarkko while you’re at the barber’s.

None of the proposed 12 alternatives for the timing of the Board of Directors’ trip to Vaasa have gained support, so we’re looking for new dates. But it looks like the trip won’t be happening before the end of the year.

Callback requests: Urgent message from France re: Big Bird, Très Confidential et absolutement VIP. I told them you’d get back to them when your schedule allows it.

Project “Oriharo”: Corporate Development is currently fine-tuning the information package (17 MB) to be delivered to the other party. It should appear in your e-mail inbox by the morning. Hopefully you can make any changes you want before submitting the passport application?

NB: the register of insiders must be updated on 31 AUG. I will leave it on your desk for your signature in due time.

# Management training

One important objective at Wärtsilä in the 1980s was to promote delegative management. To illustrate the issue, Anneli Valpola collected more than 100 expressions spoken in management meetings. The members of the Board of Management were then invited to assess which of the expressions represented an authoritarian management style and which represented a delegative style. The results of the exercise were collectively reviewed.

Many of the participants recognised their colleagues from the expressions, and many even themselves. This direct approach and self-reflection was effective. The executives decided they would try to use more delegative language to help build Wärtsilä's new corporate culture.

**WARTSILÄ**  
 MANAGEMENT AND COMPETENCE DEVELOPMENT  
 A Valpola/mk 24.10.1988

The following sentences are more or less typical for authoritarian (A) or delegative (D) management in everyday use.

Please divide the sentences quickly into two groups A and D. Choose from both groups 5-10 sentences which are often used in Wärtsilä and which are critical for delegation targets

	A	D	Prior
1. We'll have to give it further consideration	///	///	///
2. Do as you think best	/	///	//
3. That was a quiet meeting again	///	//	/
4. What do you think?		///	///
5. Can I be of assistance?	/	///	/
6. Sometimes making proposals is like talking to a brick wall	///		//
7. This is the way I see it	///	///	/
8. Call them and tell them the meeting is postponed	///	///	
9. Truly rewarding discussions	//	///	
10. I'm pleased to see that internal efficiency gives us an edge over our competitors	///	///	///
11. Everyone here knows the most important things	///	///	/
12. You can see it on the bottom line	///	///	///
13. It's your baby all right	///	///	//
14. The follow-up is reliable since it integrates the views of a number of parties	//	///	///
15. Is it in the budget?	///	//	///
16. Knowing alone is enough, there's little need to go around praising people	///		
17. They don't understand why it must be done like this	///		///
18. We'll do it this way, but are you quite sure nothing'll go wrong?	///	///	/
19. There are always plans	///	//	//
20. If people feel involved, the work gets done		///	///
21. This is going to be a good learning process		///	///

028 UNKOPPIET

	A	D	Prior
22. Take care of these on the double, they're late already	///	///	///
23. You know this much better than I do	//	///	//
24. Now you see this in a new light	///	///	
25. I didn't look at the papers until last night and nothing could be changed any more	///		///
26. What alternatives do you have in mind?		///	///
27. Besides, it'll be much cheaper	///	///	/
28. Everyone reached a new level in this project		///	/
29. The best procedure is for everyone to present their own stuff	///	///	/
30. Has this really been looked into in depth?	///	///	//
31. Don't worry - it'll turn out all right	///	///	
32. Can we come back to this some time later on?	///	///	///
33. With these people you can laugh until you cry	///	///	/
34. As soon as we're through with these changes	///	///	
35. Anyone can understand this	///	///	
36. What I'm interested in is the end result	///	///	///
37. This is your line, isn't it	///	///	/
38. The profit is nowhere near the target	///	//	/
39. This is top priority: leave everything else for tomorrow	///		//
40. Let's see who should be in on this	///	///	///
41. It's on your desk now	///	///	//
42. Let me know what you're going to do next	///	///	//
43. I expect you understand what I mean	///	///	/
44. I thought I was supposed to ask you before implementation	///	///	/
45. The primary emphasis is on improving the general functional resources	///	///	//
46. You'd better settle it between you two	//	///	
47. If only I had had time to give them counsel in advance	///	///	///

029 MINOPIET

# The Golden Age of the Eastern trade

It was a time when deals were made at the highest political and corporate executive levels, within a carefully planned and mutually agreed framework. Then, suddenly, the state on the other side collapsed.

In 1969, sailors from Murmansk gifted **Urho Kekkonen** with a tame polar bear cub named Mishka. President Kekkonen donated the animal to the Helsinki Zoo, where it lived for about 20 years.

# 2

The deals of major Finnish corporations were agreed at the national level for periods of five years at a time. The photo shows **Tankmar Horn** third from left, in front of the white pillar, behind a young **Paavo Väyrynen**.



## The best sauna in Moscow and liquid refreshments

Never before or after have the fates of major corporations and a nation's people been as intertwined as they were in the 1950s and 60s. It was a symbiotic relationship. There were some twenty corporations that Finland's exports relied on. Wärtsilä was one of them.

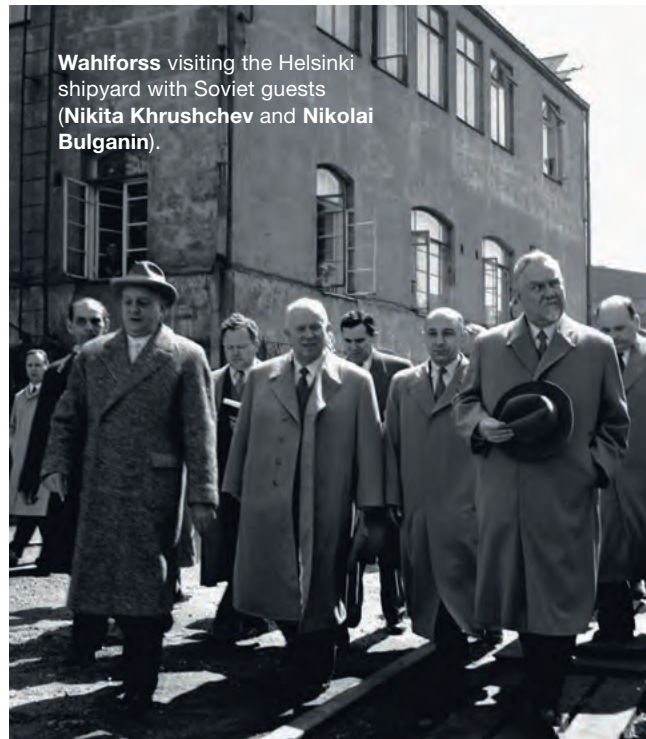
It was a time when deals were made at the highest political and corporate executive levels and the agreements were put into action according to a carefully planned and mutually agreed framework.

→

Economic historians have debated whether the war reparations to the Soviet Union (USD 300 million in gold to be paid over six years) paradoxically helped create the Finnish metal industry and the shipbuilding industry in particular. Or were the reparations merely an additional boost to industries that were already developing well? In any case, the reparations had a major impact on Wärtsilä's development. Without them, it would have been unnecessary – and perhaps impossible – to create the same level of capacity and know-how in Finland.

As **Paavo Haavikko** points out in his 1984 book on Wärtsilä's history, war reparations accounted for half of the Vaasa machine shop's invoicing in 1947–1950, for example. This trend continued, thanks to the trade agreement signed in 1951 between Finland and the Soviet Union. Exports accounted for approximately 50 per cent of Wärtsilä Group's invoicing throughout the 1950s.

At the time, Wärtsilä's largest product category by far was ships, with the Soviet Union as the primary destination.



Wahlfors visiting the Helsinki shipyard with Soviet guests (Nikita Khrushchev and Nikolai Bulganin).

Exporting ships to the East was good business. Payments were front-loaded, with the final quarter received on delivery. The benefits were reaped not only by Wärtsilä, but also the entire nation, in the form of the financial resources necessary to build the welfare state. Wärtsilä became synonymous with the Eastern trade – bigwigs cracking bottles against the hulls of ships made for good photos.

The company also became respected and influential on the Soviet side of the border. The director of Communications **Ari Valjakka** was granted audiences with the chief executives of Pravda and the TASS news agency.

It could be said that the war reparations and subsequent Eastern trade made Wärtsilä almost a state within a state.

In the 1960s, trade with the Soviet Union was still practically managed by the top management, meaning **Wilhelm Wahlfors** personally. He was assisted by **Arvid Helsingius**, the man in charge of the Group's Eastern trade. On the Soviet side, everything – from buying to selling and spare parts – was handled by the External Economic Association Sudoimport. In the following decade, Wärtsilä began to partly delegate responsibilities to lower levels, but the process remained the same: first the technical negotiations, then the commercial details and finally the signatures of the management.

Bilateral trade meant that counter-purchases were part of the picture, and the Soviet side was occasionally quite dissatisfied with the Finns not buying enough technical goods from the East. Wärtsilä decided to establish a new position for the sole purpose of handling that issue. In 1975, the post was taken up by **Lars Jakobsson** with free licence to buy whatever he could find. His purchases included special-alloy steel, pumps, generators, radio hardware and navigation equipment. He even bought a wall mosaic for a nuclear icebreaker.

Finnish engineers were not terribly enthused by the counter-purchases, as the equipment was often heavy and difficult to install. Nevertheless, they had to cooperate, as there were more important things at play. The Soviets themselves were not always eager to use their products either and were more interested in Western technology.



Deals were sealed in meetings between the heads of state, **Urho Kekkonen** and **Leonid Brezhnev**.



An admiral on an inspection visit.

**Exporting ships to the East was good business. Payments were front-loaded, with the final quarter received on delivery.**

Tankmar Horn being interviewed at the Helsinki shipyard in the 1970s. Hard hats were worn in front of the camera, but not behind it.



Without the need for counter-purchases, Wärtsilä would have been quite self-sufficient in its ship production, with the Group being able to produce everything from steel to windlasses.

In the long run, being hermetic is not necessarily advantageous for a company. Self-sufficiency and having a secure market position can hinder renewal.

This may have been the case in the 1970s, when Wärtsilä was at risk of being left in the starting blocks as the world changed. Sales were focused on the domestic market and, aside from the Eastern trade, exports were mainly restricted to the Nordic region. The Finnish market was close to being saturated. As the 1980s approached, Wärtsilä had to shift its gaze to the global markets in order to grow.

The East provided a safe practice field and when lessons had to be learned the hard way, the Soviets bore the cost. The Eastern

trade also offered pathways to internationalisation towards the West. In the 1980s, the Soviet Union ramped up its oil and gas exploration efforts in regions including the Caspian Sea. Faced by a lack of expertise in this area in Finland, Wärtsilä went in search of it in North America, where two engineering companies were established in the United States and Canada in 1984–85.

The most significant internationalisation-related lessons learned from the Eastern trade were related to perseverance.

**Martin Saarikangas** was an important figure at Wärtsilä from the late 1950s to the late 1980s and he was heavily involved first in the Eastern trade and later in the Western trade. He says the difference was clear: “The easiest deal with the Soviets was harder than a difficult deal with the West.”



A Russian admiral hosted by **Tor Stolpe** and **Martin Saarikangas**.

By his own count, Saarikangas made 594 trips to the Soviet Union over the course of 30 years, spending more than three years in total housed in Soviet hotels. “It was one big theatre. You had to keep your nerve. Negotiations on a single agreement could take two years, or even 26 years,” Saarikangas says.

The deal that was in the works for a quarter century was for a nuclear icebreaker.

“In 1962, the men in Moscow asked us if we wanted to build that kind of an icebreaker for them. We sat across the table from senior Soviet leaders including First Secretary **Nikita Khrushchev**. That’s when it began. Back then, in the 1960s, the Soviets would dictate what the five-year plans included. By the following decade, Finnish industry figures were allowed to participate in drawing up the plans. When Finnish President Urho Kekkonen made his final visit to Moscow in 1978, it was agreed that Wärtsilä would deliver two nuclear icebreakers. For two years, I travelled to Moscow every week. I submitted the quote in 1982 and the final agreement was signed in 1984. The delivery was made four years later, 26 years after the initial enquiry. It was the largest export deal in Finnish history at the time,” Saarikangas recalls.

Russian language proficiency at Wärtsilä could have been better. Fortunately, there were excellent interpreters available. Sure, there were occasional blunders made, but humour – at least of a certain kind – is universal.

“We were at a naming ceremony for a car ferry built for the Soviet buyers. We had smashed the bottle against the hull and I was supposed to announce that we would now enter the ship through the stern ramp. Unfortunately, the Russian word I used for the rear opening was one that is associated with the human anatomy. That resulted in some hilarity. Later, at the company Christmas party, I was given tickets for a Turku–Stockholm cruise in remembrance of my little mishap,” recalls **Aleksei Kulikoff**, who served as an interpreter for Wärtsilä’s management from 1973 to 1999. Russian jokes and word play meant it was far from an easy job at times. He often needed to explain the joke to the Finns in advance so they knew to laugh at the right time.

Certainly, it was sometimes hard to see the humorous side when it came to the practicalities of the Eastern trade. Compliance with some demands was hard to interpret as anything other than mischief. In the 1960s, ordering phone calls was often an arduous task and mail travelled slowly. When you went for a visit, you had to stay for a week or two. Starting an office required accreditation, as if you were a diplomat.

The amount of bureaucracy was incredible and you needed a visa to enter the country and to get out. The actual starting times of previously agreed meetings could be quite random. The people at the Wärtsilä office established at the Hotel Berlin in 1979 had to wait for phone calls that sometimes came late at night, in true Stalinian style.

Small gifts to the right people at the right time were part of the picture. For example, when dealing with the Conjecture Department responsible for determining whether the price set by Wärtsilä was appropriate, it was customary to accidentally leave behind a useful little item such as a calculator or torch. In today’s world, these gestures would be inappropriate, if not illegal, but it was a different time and you had to follow the local customs. You couldn’t keep the wheels turning without giving a few well-timed gifts. It was about the gesture more than anything else. You had to reciprocate for favours received.

“  
**The easiest deal with the Soviets was harder than a difficult deal with the West.”**

**Martin Saarikangas**



Champagne splashed and cameras flashed at ship naming ceremonies. The guests of honour (from left): **Esko Rekola**, Queen **Silvia** of Sweden, **Elsa Höberg** and **Magnhild Borten**, the wife of the Prime Minister of Norway.



**Urho Kekkonen** christening Urho, the icebreaker named after him. The other guests of honour are (top) **Tellervo Koivisto**, **Annikki Mattila** and **N.S. Patolichev** from Kazakhstan.



The new icebreakers Moskva (left) and Leningrad being built for the Soviet Union at Wärtsilä's Hietalahti shipyard in Helsinki.

Erkki Laitila/Lehtikuva



Maintaining good relationships was important. **Igor Selho**, the head of Wärtsilä's Moscow office, had put together an archive with details such as each contact's birthday, their wives' birthdays and how many children they had. When making calls, it was courteous to enquire as to the well-being of the wife and the progress of the daughter's studies. Forgetting to arrange for a gift on Women's Day in March would have been a cardinal mistake.

These courtesies had not been part of the engineering curricula at Finnish universities. Management mechanisms were also a big issue.

"Russian culture is very much centred around the senior manager. When he was away, everything ground to a halt. This made it essential to be well acquainted with their secretaries.

After all, they were the ones who actually drew up the documents, not the managers themselves. Gifting a box of chocolates or a bottle of champagne to a secretary could make all the difference. You had to maintain friendly relations and honesty was essential. I was never deceived about a single agreement, and there certainly were many of them over the years. The collapse of the Soviet Union meant we had to establish new personal relationships directly with various buyers," recalls **Lars Jakobsson**, who was involved in establishing the Wärtsilä-Tampella office in Moscow in 1980.

And did the sauna get a lot of use? Did it ever! For Igor Selho, the record was eight times in the sauna in a single week. And was there a lot of drinking? Indeed there was. Selho remembers one



In 1984, a deal was negotiated with the Soviet Union on building a nuclear icebreaker. The men around the negotiating table are (from left) **Lars Jakobsson**, Wärtsilä's Purchasing Manager; **Tankmar Horn**, Chairman of the Board of Directors; **O.S. Kropotov**, the President of Sudo-import; and an engineer named **Soltanovich**.

conversation on a normal weekday morning with a visitor to his office.

"Would you like a cup of coffee?"

"Yes please, and some cognac. Are you having one as well?"

"I'd rather skip the cognac. After all, it's only 9 a.m. and I have another appointment at 10."

"That's out of the question. I say you're having cognac with me and that's that."

## One thing should be emphasised. There was a strict policy of not closing deals in the sauna or during drinking sessions.

**T**owards the latter years of the Soviet era, the rituals of drinking and sauna-going grew closely intertwined. Wärtsilä's representative office in Moscow, established in 1982, naturally included the city's best sauna. After **Gorbachev** introduced restrictions on the availability of alcohol, the sauna became a popular port of call for Wärtsilä's local business contacts.

It should be emphasised that there was a strict policy of not closing deals in the sauna or during drinking sessions. The entertaining happened before or after the real business was taken care of. When it came to the actual negotiations, the Russians were hard as nails. With millions of roubles on the line, the deals were challenging and the figures were always carefully written down to avoid misunderstandings. There were always new twists in the form of different individuals and issues, and the psychological and

emotional aspects needed to be considered on both sides. Doing business is not just a matter of cold facts and numbers. Putting the finishing touches on an agreement ultimately required the senior figures to get involved to shake hands on the deal.

**B**esides the bilateral nature of Finnish-Soviet trade, the significance of oil prices was another key characteristic of dealing with the East. In practice, this meant a lot of ups and downs. One of the peaks occurred in the mid-1980s, when the order book was filled to the brim. This was also the period when the Leningrad diesel engine plant project took place.

The idea, which had emerged very quickly, was to engage in the licence manufacturing of Wärtsilä diesel engines in Vsevolozhsk, a town 40 kilometres outside of Leningrad. The construction of the plant began in 1984 and it was mostly completed six years later by the building contractor Finn-Stroi. In the end, production at the plant never began. In spite of this, the Soviet Union paid licence fees for hundreds of engines that would ultimately not get manufactured.

The price of oil collapsed and the Soviet Union began to enter its death throes. As the state struggled to remain solvent, it had to come up with payment systems and credit arrangements instead of advance payments to keep trade going. The Bank of Finland kept a close eye on the rouble exchange rate and how things were going. There was an effort to understand the customer in both good times and bad.



**Tankmar Horn** feeling festive with a Russian colleague.

Lars Jakobsson's archives

Some astute observers had already predicted that the Soviet Union would soon meet its end, and the same fate would befall Wärtsilä's business of exporting ships to the East. Looking back, Wärtsilä's dealings with Finland's eastern neighbour had been quite lucrative. By the end of the 1980s, Wärtsilä had delivered nearly 60 icebreakers to the Soviet Union, among other things.

“  
**We travelled there very often, almost every month. As time passed, we got acquainted with them and even became friends.”**

Tankmar Horn

One thing never changed throughout the Soviet era. Everything was based on personal contacts, relationships and even friendships. The head of the commercial department at the Soviet Embassy in Helsinki was a regular weekend visitor of Martin Saarikangas' in Porkkala. “We went there very often, almost every month. As time passed, we got acquainted with them and even became friends,” Tankmar Horn recalls.

Knowing how to do business with the eastern neighbours required an understanding of Russian culture and history. For example, you had to be shrewd to know how hard to push on prices. As a former diplomat and a gentleman, Tankmar Horn was a master of these situations, and it helped to have friends on the other side of the table. Saarikangas recalls how, after a weekend spent together in Porkkala, his director friend would covertly give him a hand signal. A thumbs-up gesture, thumbs down or a hand held horizontally indicated whether there was room to hike up the price in the following week's negotiations.

The end of the 1980s and the early years of the 1990s were not an easy time for Wärtsilä's men in Moscow and elsewhere across the border. Back home, much of the old company had been lost when Wärtsilä Marine went bankrupt, and the Lohja merger had seen what remained of the company renamed as Metra. On the eastern side of the border, the entire state was gone.

Wärtsilä's people had a box seat on history from their office on Ulitsa Lunacharskogo. At night, you had cars blowing up in the streets and perhaps the odd person emptying the magazine on his Kalashnikov. During the August Putsch, a coup attempt by the communists in 1991, the Finns watched through the window as tanks fired on Dom Sovetov, the Russian White House.

After Wärtsilä Marine's bankruptcy in 1989 and the end of bilateral trade linked to the price of oil that same year, the Soviet side occasionally wondered about the Finns' continued presence in the country. From the Finnish perspective, the turn of events was not only difficult to

digest, but also cause for concern – what would happen with the deals that had already been signed? Wärtsilä drafted a letter to

Lars Jakobsson's archives



Wärtsilä's representative office in Moscow during the Soviet era was in the diplomatic district, on the second-highest floor of the building shown here. It was said the office had the best sauna in Moscow.

calm things down and convince the trading partner that commitments would still be upheld.

Following the Lohja merger in 1991, the Group's business had expanded to include concrete, TV sets, motorhomes and caravans. Wärtsilä's men in the East had to go from selling ships to selling everything under the sun. They tried to market and sell all manner of things, but nobody was buying. There was no money. Aside from a project to renovate Yeltsin's yacht, business was slow.

The former Soviet Union was being replaced by a new state and the growing pains were obvious. Many a hard lesson was learned on how to deal with the new Russia. The wild entrepreneurial spirit of post-Soviet Russia spawned a wide range of imaginative proposals. Some were harder to turn down than others. During Gorbachev's presidency, Wärtsilä's representatives visited the Academy of Foreign Trade in Moscow, after repeated invitations, to deliver guest lectures on marketing and Western economics.

We've bought a plot of land, could you come build a ski resort? No, sorry, we can't.

How different things had been just a few years earlier, not to mention the previous decades.

Around came 1991, or you might call it Year Zero. President **Tor Stolpe** had already started the search for new business in the previous decade when the prospects of continued shipyard cooperation appeared weak. In spite of that, the early years of the 1990s were a tough time. Among the many things that the fall of the Soviet Union had put a stop to was a promising consortium to develop the Shtokmanovskaya offshore gas field in the Barents Sea. In addition to Wärtsilä, the planned consortium had included Imatran Voima, Neste, Norsk Hydro, Conoco and the Soviet/Russian Ministry of Oil and Gas. The intention was for Wärtsilä to invest in the gas field and receive contracts to build ships and structures.

The emphasis of the Eastern trade soon shifted to diesel engines and power plants. To that end, a separate office was established in Moscow in 1992. Representative offices were also opened in St. Petersburg, Vladivostok and Kiev. The first sales were made in the mid-1990s. Business expanded, particularly to Arctic Siberia. Small power plants were even built in four reindeer herding villages. Few suppliers had the capacity to deliver power plants that could operate in temperatures of -55 degrees Celsius. Wärtsilä did, and the Group gradually made headway into markets dominated by Gazprom, Rosneft and Lukoil.

To be fair, there were some failures as well. At the start of the new millennium, Russian Railways came up with a large-scale project to modernise its locomotives, which gave Wärtsilä's

**The wild entrepreneurial spirit of post-Soviet Russia spawned a wide range of imaginative proposals. Some were harder to turn down than others.**

senior management the idea of establishing a locomotive engine factory in Russia as a 50/50 joint venture. As is often the case, the joint venture model was not optimal. A bigger problem, however, was the lack of a suitable engine. The project was announced in 2010 and the agreement was signed in the presence of then Prime Ministers Vladimir Putin and Matti Vanhanen. Russian Railways subsequently shelved its project and the engine factory project was cancelled a few years later.



## A mighty Soviet beauty

Weighing in at more than three tonnes and with a length exceeding six metres, the GAZ Chaika, or “Gull”, was an impressive addition to Wärtsilä’s automobile fleet. Finland’s three largest exporters – Wärtsilä, Kone and Nokia – were each given permission, or perhaps urged, by an influential figure on the Soviet side to buy a Chaika luxury car as a counter-purchase. Wärtsilä did so in 1985.

“I still remember the number plate. It was AVV-130. We always drove it when we went to Leningrad or the Soviet Union. It was a highly regarded vehicle there. You had to be a minister-level person to have one. It also got you special treatment at the customs. You never had to wait in line. It won you plenty of friends wherever you went. You’d have people taking photos of the car at border crossings and service stations.

And you never got a ticket when you were driving the Chaika. Driving other cars, you’d get plenty of tickets. It was a local custom. I remember we had a board full of three-rouble and six-rouble tickets on the wall of our break room.

With a 7.2 litre V8 engine under the hood, the Chaika had plenty of power when you got it moving. The three-speed transmission made it a difficult car to drive: going from first to second gear, it would make sputtering noises if you forgot to step off the accelerator a bit. It also had a crazy long wheelbase that made turning quite interesting. Making a U-turn was a bit of a workout.

It wasn’t cheap either. The price was the same as a large S-Class Mercedes, around FIM 800,000. For that money, I think you’d rather have the Mercedes. But at least the Chaika was handmade. Even the seats mimicked those of a luxury Mercedes. They had the same velour pattern.”

### **Ilkka Kallinen**

company driver for Wärtsilä since 1986

## IDÄNKAUPPA • VIENTI VIE, TUOKO TUONTI?



Mikä on se maa, joka ei tuota öljyä, mutta suree ja kärsii, kun öljyn hinta laskee? Näin kysytään tietokilpailuissa maailmalla. Oikea vastaus tiedetään parhaiten Suomessa.

TEKSTI: ARJA PIISPA  
KUVAT: JORMA KOMULAINEN

**W**ärtsilän hallituksen ja johtokunnan puheenjohtaja, ministeri *Tankmar Horn* kaivaa povitaskustaan pienen muistion ja löytää etsimänsä luvun: 37 000. Niin monella Ladalla voitaisiin korvata vaje, joka syntyy Neuvostoliiton tuontiimme aina, kun öljyn hinta laskee yhden dollarin.

Öljyn hinta on laskenut 18 dollaria sen jälkeen, kun alkaneen viisivuotiskauden kauppavaihdon runkosopimus viime vuonna allekirjoitettiin.

»Tämä esimerkki osoittaa, miten mahdottomassa tilanteessa ollaan. Tuontivajetta ei voi korvata millään. On pakko hyväksyä se, toivottavasti väliaikainen, olo-tila, että vienti supistuu.»

Horn ei kuitenkaan ole valmis uskomaan, että supistaminen koskisi nimenomaan laivateollisuutta tai Wärtsilän muuta metalliteollisuutta.

»Naapuri on vakuuttanut, että laivakiintiöt toteutetaan niin kuin runkosopimuksessa on sovittu. Me emme voi muuta kuin luottaa siihen, mitä veli sanoo.»

*Wärtsilän pääjohtaja, ministeri Tankmar Horn on omalta osaltaan yrittänyt vaikuttaa idänkaupan tasapainoon. Hänellä on jo toinen Lada Helsingin virka-autonaan. Kuljettaja Ilkka Kallinen ei ole valittanut.*

## Measured in Ladas

The principles of trade were different in the 1980s. Eastern trade was conducted under the framework of five-year plans and deals were made by the State. A one-dollar increase in the price of oil meant a deficit of 37,000 Lada cars in Finnish imports from the Soviet Union.

An article published in the 1980s by the weekly news magazine Suomen Kuvalehti reveals that Chairman of the Board **Tankmar Horn** "was not willing to believe" that a temporary reduction in imports would apply specifically to the shipbuilding industry or Wärtsilä's other metal industry activities.

After all, "our neighbours have assured us that the ship quota will remain in effect for the entire duration of the framework agreement, and we have no choice but to rely on their word."

# KUUDENSADANTUHANNEN LADAN VAJE



Sanitec's products attracted international interest.

## Do they sell toilets here?

It was a time when the Soviet Union had ceased to exist, the wheels of history had reversed and a state named Russia was back on the map.

To be more precise, it was Friday afternoon and the doorbell rang at the Wärtsilä (Metra) Moscow office.

Igor Selho, the man in charge of the office, was not having one of his better days. He had recently had sinus surgery but, conscientious as he was, he had returned to his post instead of staying in Helsinki on sick leave.

Who could be calling on a Friday afternoon?

“Two scruffy looking fellows showed up at the door and asked if we sold toilets there. I gave them my card and asked them to give me a call at a more suitable time. To my surprise, I got a call the following Tuesday and one of the men came back for a visit. This time he was impeccably dressed and he said he wanted to distribute our Sanitec products,” Selho recalls.

Clearly, it was a matter that needed to be taken seriously.

“I handed him our brochure, asked him how many toilets he needed and enquired about his finances. He started picking out items from the brochure and later asked me if he could have two lorryloads. I told him that it could be arranged and we could deliver the goods about four days after receiving payment. Turns out he wasn't kidding about wanting to sell some toilets. He went on to become a millionaire. He even has two homes in Spain. On Epiphany, he gifted me a bottle of cognac. It wasn't until later that I realised it was worth about 2,200 dollars.”

**Igor Selho**  
head of Wärtsilä's Moscow office  
1988–2000

# Technological leadership

Wärtsilä has always been quick to adopt new technology. However, its trailblazing role is not based on technological superiority as much as a superior attitude that has allowed the Group to take its future into its own hands and create its own success.

Wärtsilä Corporation's innovation exhibition at the Finlandia Hall in Helsinki, April 1986. A new ergonomic computer desk is being exhibited.

3

UUSI NÄYTTÖPÄÄTE  
• EI TARVITA ERKOISSILMÄLASEJA  
• TOIMISTON YLEISLIE AIVARAMMAKSI  
• LAAJEMMAT SÄÄTÖMAHDOLLISUUDET  
• VÄHEMMÄÄ

## Without courage and the right attitude you have nothing

From the perspective of technology, Wärtsilä's development over the past 50 years has certainly been diverse. With this in mind, we should start by going back to the 1960s, when the old conglomerate was producing everything from toilets to locks, ships, washing machines and caravans.

The Group has always been quick to adopt new technology and come up with innovations of its own.

→



The first computer arrived on Finland's shores in 1961, at the Helsinki University of Technology. Wärtsilä booted up its first computer just two years later and even established an IT department at the Helsinki shipyard. Another two years on, the company was using a computer-based system for cutting steel. Wärtsilä became the first company in the entire world to have the ability to go from the engineering stage directly to the production machines without an intermediate stage involving the traditional drawing boards. This reduced the time spent on steel engineering, which is a major part of shipbuilding, by 90 per cent.

Back then, environmental considerations were an economic issue. They represented a way to improve efficiency, extend life cycles and thereby reduce costs, rather than being a starting point for engineering, which they only emerged as in the early 2000s.

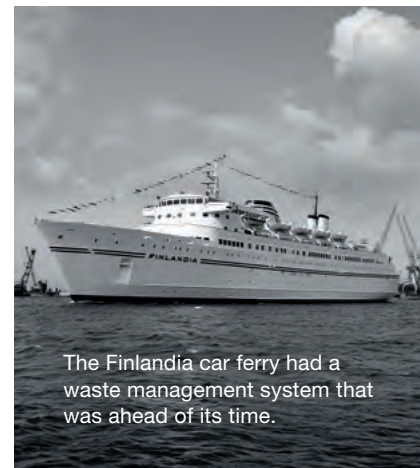
The Finlandia car ferry delivered in 1967 was already equipped with a waste management system. Until then, all waste had simply been tossed overboard, including paperboard and glass. Thanks to the development efforts of Wärtsilä's young engineers, the Helsinki shipyard won the Shipyard of the Year award for its new waste management system.

## Back then, environmental considerations were an economic issue. They represented a way to improve efficiency, extend life cycles and thereby reduce costs.

For MS Song of Norway, a cruise ship completed in 1970, Wärtsilä's key innovation was a vacuum toilet that reduced water consumption from 20 litres per flush to one litre. The invention was later utilised by Sanitec, which was established as a sub-



Wärtsilä established an IT department as early as 1963.



The Finlandia car ferry had a waste management system that was ahead of its time.



Abloy's unpickable lock.



The first computers took up entire rooms.

sidiary of Wärtsilä in 1990 and subsequently sold to a Germany-based private equity firm after the turn of the century.

Another major 1970s innovation that deserves mention is the unpickable lock developed by Abloy Oy, which was part of Wärtsilä Group at the time. Abloy's subsequent merger with Assa became one of the most profitable pieces of business in Wärtsilä's entire history, and the success story of Abloy locks has continued into the 21st century under the Assa Abloy banner.

In addition to toilets and locks, Wärtsilä was also ahead of its time when it came to modular construction. The shipbuilding process was turned on its head at the turn of the 1960s–70s. Until that time, the approach had been to first build the hull and only then

build the cabins and other interior elements inside the confined spaces of the ship. The new method was to design the steel hull according to a specific cabin layout. Cabins were built separately, according to detailed specifications, at a factory established in Piikkiö for that purpose. This made it possible to build the cabins at the same time as the ship's hull – a prime example of out-of-the-box thinking that has since become the global standard in all types of construction. This was Wärtsilä at its best.

Another innovation that was well ahead of its time was a prototype of an entirely automated production plant for Sanitec in Sweden, including a fully robotic production line, although Sanitec's new owner would later discontinue the plant's operations in the 2000s.



The 35-metre test basin built in Vallila was used to improve the Manhattan tanker's icebreaker bow using scale models.

Icebreakers are a chapter unto themselves. The Manhattan Project was the code name for the American-led effort to develop a nuclear weapon. As it happens, Wärtsilä had a project with the same name that also began in the United States.

In 1968, Exxon found a vast oil field in Alaska. The problem was transporting the oil to the markets. The Exxon-owned tanker SS Manhattan had to be converted into an icebreaker, and Wärtsilä won the contract. The company now had a Manhattan Project of its own.

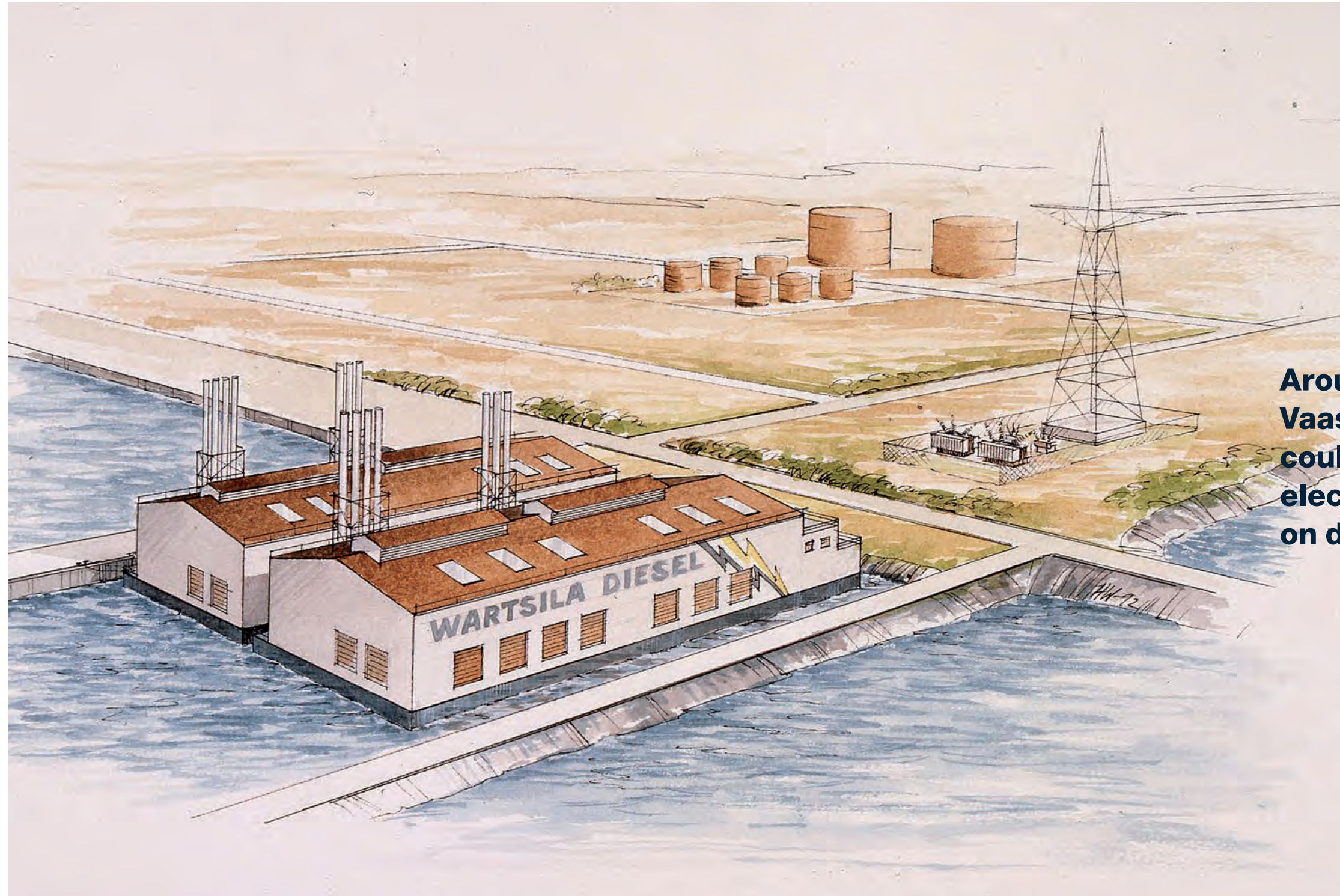
In 1969, a 35-metre ice test basin was built for the project in Helsinki's Vallila district, funded by the Americans. Based on the designs developed in Vallila, the tanker was subsequently reinforced and extended and its bow was reshaped. The project was a success and SS Manhattan became the first commercial vessel to transit the Northwest Passage.



For Wärtsilä, the project's significance went beyond its price tag, which was around EUR 300 million in today's money. It meant that Helsinki was now home to a state-of-the-art ice laboratory along with the empirical data and methodology that came with it. This capital was put to good use. One milestone was Urho, commissioned in 1975, representing the world's first icebreaker that had been exclusively tested using an artificial water basin. Inspired by the SS Manhattan project, Wärtsilä's new arctic research centre was inaugurated in 1982 nearby, in Helsinki's Arabia district. Today, Helsinki's icebreaker research and testing tradition lives on in the form of Aker Arctic Technology Oy, which was established in Vuosaari in 2007–2008.



The test laboratory in Helsinki's Vallila district was the world's first to simulate the Arctic conditions.



It was around this same time that Wärtsilä made a Darwinian leap from sea to land. Around 1984, a team of engineers in Vaasa realised that marine engines could also be used to generate electricity, and this could be done on dry land. This was one of the most important technological innovations of Wärtsilä's history and it paved the way for its expansion into decentralised energy production and the power plant business.

Gas-operated versions of heavy fuel oil engines were developed, a process that also provided the Group with advanced expertise in the use of gas in a broader sense. Marine know-how was later utilised in floating power plants, with some 30 such facilities built and towed to the far reaches of the world.

**Around 1984, a team of engineers in Vaasa realised that marine engines could also be used to generate electricity, and this could be done on dry land.**

The power plant business changed Wärtsilä's business model. The company went from selling technology to profiling itself as a comprehensive solutions partner. Rather than simply building and selling facilities, Wärtsilä adopted an approach based on the customer's long-term needs and goals as well as social and economic analyses based on them.

The focus shifted to the service business and comprehensive solutions. A big part of this was maintenance, which eventually grew into the comprehensive management of power plants. This helped Wärtsilä stand out from the competition.

**Ole Johansson**, President and CEO from 2000 to 2011, summarises the change in approach:

“The Service business that Wärtsilä is known for today relies heavily on Wärtsilä being deeply involved in the customer’s operations. When we prepared a bid for a power plant, we didn’t calculate the price based on our production costs. Instead, we took the opposite approach and thought about what the electricity market in the country in question was like. From there, we worked backwards to determine what price we could get for a power plant in that environment.”

## “The adoption of information technology was a significant trend. People would call me and my colleagues the Fighting Toshiba.”

Heikki Allonen

Many projects started out as development cooperation projects, which required the planning of entirely new financing models in collaboration with the World Bank and other international organisations and banks. There were also political risks involved, and they could be quite substantial in some cases. In Guatemala, for example, the work took place during a civil war.

Wärtsilä has played a crucial role in the development of several countries. In many developing countries, in particular, Wärtsilä became practically synonymous with power plants. **Lars Hellberg**, President of Wärtsilä Industrial Operations division from 2004 to 2013, highlights the Group’s role as a developer of infrastructure in many countries.

“If you look at the Caribbean in the 1990s, the developing countries of Africa, Indonesia and so on, it was Wärtsilä that built the power plants that provide electricity for homes and industrial facilities. I believe the company is in a position to continue to play a key role in that area,” Hellberg says.

Technological competence is one thing, but putting it into practice is a different matter. Technology and innovation should not be evaluated in isolation. You also have to look at processes. Without project-related expertise and effective project management, technological competence cannot be fully utilised.

Wärtsilä has understood that smooth and efficient production operations are essential for competitiveness. However, digesting this fact and making the necessary changes hasn’t always been painless. Sometimes, lessons have been learned the hard way. The people who worked at Wärtsilä back then compare some of the worst examples of logistics and internal communication to houses of cards.

Things were reorganised time after time. **Krister Ahlström** recalls one such example that occurred when the company gave up its old practice of placing machines in groups. Production was reorganised using a cell structure, with the machines placed in the order required by the process. This made it possible to finally get over the old rule of reserving one week per machine for the process,

with each machine having a large buffer of inventory in case of any delays or defects. This coincided with the adoption of a more proactive approach.

“The changes brought about a tremendous increase in productivity. The diesel engine factory in Vaasa was the first to implement the changes and the same practices were gradually introduced throughout the Finnish steel industry,” Ahlström says.

Soon, rapid internationalisation created the need to reshuffle the deck once more.

By the end of the 1990s, the Group had several nationallevel systems in logistics, materials management, inventory accounting and invoicing. The large-scale systems used by the production plants were at the point of collapse because it was impossible to get the systems to communicate with each other. Whenever something was added or removed, things only got worse.

The solution to these problems was the Group-wide deployment of SAP to replace all other ERP systems after the turn of the century. Wärtsilä was the first Finnish machine engineering company to successfully roll out a single global system. The benefits of the system quickly became evident when volumes began to increase substantially in 2005.

The Group even turned it into an advantage that it consisted of many production plants that competed with each other like barons and lords. When one unit wanted a new machine tool, another one would soon follow. The solution was a contract manufacturing system that supported the centralisation of decision-making and streamlining of processes. Investments in standardisation also played a significant role, particularly from the turn of the century onwards.

Through Wärtsilä’s history, machines have occasionally determined the way people operate, rather than the other way around – Wärtsilä is a textbook example of a technology company. Most of the time, however, the opposite has been true. Having said that, engineers are only human, which means they are sometimes resistant to change, no matter how progressive their attitudes and how pioneering the company spirit.

Senior Vice President of Corporate Planning **Heikki Allonen** recalls a meeting nearly 30 years ago when new gadgets began to show up in people’s pockets and on tables.

“The adoption of information technology was a significant trend. People would call me and one of my colleagues the Fighting Toshiba because we had laptop computers, which few people



Floating power plants are one of the things Wärtsilä is known for. This one is in Lihir, Papua New Guinea.

had back then. Later, I would also be called the Mobile Phone Man for a similar reason. At one meeting to review business plans, I had Excel spreadsheets open on my computer. One of the guys sitting across from me quipped ‘At least I’m still using my brain!’”

“  
**At one meeting to review business plans, I had Excel spreadsheets open on my computer. One of the guys sitting across from me quipped ‘At least I’m still using my brain!’”**

Heikki Allonen

**W**ärtsilä’s reputation is one of an innovative company that has often been the driving force behind changing the dynamics of the game, introducing new rules or even creating a whole new game. Wärtsilä has had the ability to create and launch innovations that not only satisfied market demand, but often changed the market in significant ways.

Innovation is an overused word among industrial companies and technology firms. In Wärtsilä’s case, however, it is hard to avoid – especially if the word is broadly defined to include the mental capacity to see things from new perspectives and have a strong vision of the future.

Without the right attitude and the courage that goes with it, a company is nothing. At Wärtsilä, this has been referred to as the Ostrobothnian mentality. It’s a sentiment that has always characterised the company’s spirit, and there are plenty of examples of it in Wärtsilä’s history.

One such example occurred in 1974 when Wärtsilä bought 140 hectares of shoreline land and forest near Turku and started to build a shipyard in Pernö. As if that weren’t enough, the Group took an order for seven LPG (Liquefied Petroleum Gas) ships at the same time. The shipping business had been hit by a global crisis and taking the orders was a pre-condition for building the new shipyard. The ships and the shipyard were built side by side. The ships were completed on budget – and on time – in spite of the tight schedule, but there was more to the crisis: the customer, a Norwegian shipping company, was unable to pay for five of the ships. The dispute threatened to bankrupt Wärtsilä, but Tankmar Horn was ultimately able to sell the ships to other buyers. The Turku shipyard completed its move to the new location in 1983.

The significance of the intangibles is underlined by Mikael Mäkinen. He started working at Wärtsilä alongside his studies in 1975. His career at the company would take him to Sweden, Asia and France, including a spell as the Managing Director of Wärtsilä NSD Singapore, and he would eventually become Executive

Vice President of Wärtsilä Corporation.

“As strange as it sounds, a company’s most important innovation is ultimately not the product itself but an unwavering belief in achieving success. It’s an almost foolhardy attitude that says you can deal with whatever is thrown at you. Who could have thought that the world’s leading manufacturer of diesel engines would come from Vaasa? It wasn’t until later that we understood the extent of the risks involved, and we did make our fair share of mistakes along the way. But as the saying goes: nothing ventured, nothing gained!”

A company has a dialectic relationship with the surrounding society and markets. It can’t survive, let alone prosper, in a vacuum. Sometimes, the impulses for product development come from external sources. At other times, the company itself can be a driver of change. The balance shifts back and forth like a pendulum or a seesaw.

Raimo Lind’s personal archives



Team Finland establishing Wärtsilä Power’s Singapore office. From left: **Martti Rewell, Helena Haapio, Raimo Lind, Casse Strand, Svante Norby and Johan Stoor.**

“  
**In some cases, we had to go in at night to replace components on ships and in power plants because we couldn’t tell the customer they didn’t always work as they should.”**

Raimo Lind

Wärtsilä has often been the one to take a run-up, jump on its end of the seesaw and send the other side flying into the air. To take the playground metaphor further, there has also been occasional stumbling around in the sandpit, but that’s all part of growing

up. The journey has been characterised by an occasionally rebellious attitude and stubbornness, perhaps even some arrogant pride.

Raimo Lind joined Wärtsilä in 1976, left at one point to work at Tamrock for nine years, came back to Wärtsilä in 1998 and finally retired in 2013 having held a number of positions, including a stint as Regional Director in Asia and later as Group CFO and Executive Vice President.

“We had a lot of committed people who worked very hard and wanted to make better products than our competitors. We had unlimited confidence in ourselves, even if that attitude wasn’t always entirely justified in the early days. If we had known then what we

know today, would we have even booked our flights and boarded the plane? There were times when we were foolhardy enough to sell products that we hadn’t tested for countless hours. In some cases, we had to go in at night to replace components on ships

and in power plants because we couldn't tell the customer they didn't always work as they should. But we kept our products running by having our own maintenance organisation and a team of dedicated people with a penchant for improvisation. In a way, every maintenance engineer was a profit centre unto himself," Lind recalls.

## Back in the 1970s, the world was very product-centric. There was simply a lack of quality products in the market.

**T**he development of the Vasa 32 engine is an interesting chapter of Finnish industrial history.

Back in the 1970s, the world was very product-centric. There was simply a lack of quality products in the market. The companies that were able to deliver good products to their customers were successful.

The development of one such product began in Vaasa in the mid-1970s. It is no exaggeration to say that, had that project failed, Wärtsilä would not exist in its current form.

Two oil crises were major factors behind the engine's development and subsequent success. The 1973 Yom Kippur War led to an oil embargo and production restrictions by the Arab world. The price of crude oil quickly increased fivefold. The Iranian Revolution and the Iran-Iraq War at the end of the decade further increased oil prices and caused the second oil crisis.

Cynically speaking, the oil crises were the best thing that could have happened to Wärtsilä, and the company acted decisively to take advantage of the opportunity.

The Group set a goal of developing a lower-consumption power source for the shipbuilding industry, one that could be used as an auxiliary engine as well as a primary engine. In addition to running on traditional diesel, it would also need to run on heavy fuel oil – a propellant of lower purity – which would mean substantial savings for shipping companies.

The production of diesel engines was nothing new for Wärtsilä. It had begun in Turku in the pre-war era, under a licencing agreement signed with a German company in 1938. In Vaasa, the production of diesel engines had started in 1956.

In spite of this vast experience, the Vasa 32 engine was an entirely different story. Identifying a gap in the market was not enough in itself, you also needed enthusiastic young engineers who were not too concerned with bureaucracy.

One of them was **Daniel Paro**, who would go on to become Wärtsilä's Vice President

of Research and Development.

He first joined Wärtsilä as a trainee in the early 1970s while he was still an engineering student. Needing to come up with something for the summer trainee to do, the senior engineer assigned to be his mentor had an idea after lunch on Paro's first day. He decided Paro should have a look through the literature to see if he could find any information on heavy fuel oil engines.

Eventually Paro's time as a trainee ended, he went back to school and also completed his military service. Fortunately, he had made enough of an impression that he was later offered a full-time position at Wärtsilä. The heavy fuel oil engine idea had stuck in his mind and he continued with his research in his free time. He got a helping hand from a few of his colleagues and people who were skilled at technical drawings. His work turned into a six-page report. As his position in the company hierarchy was quite low, he asked "a girl he knew in town" to revise the report for him.

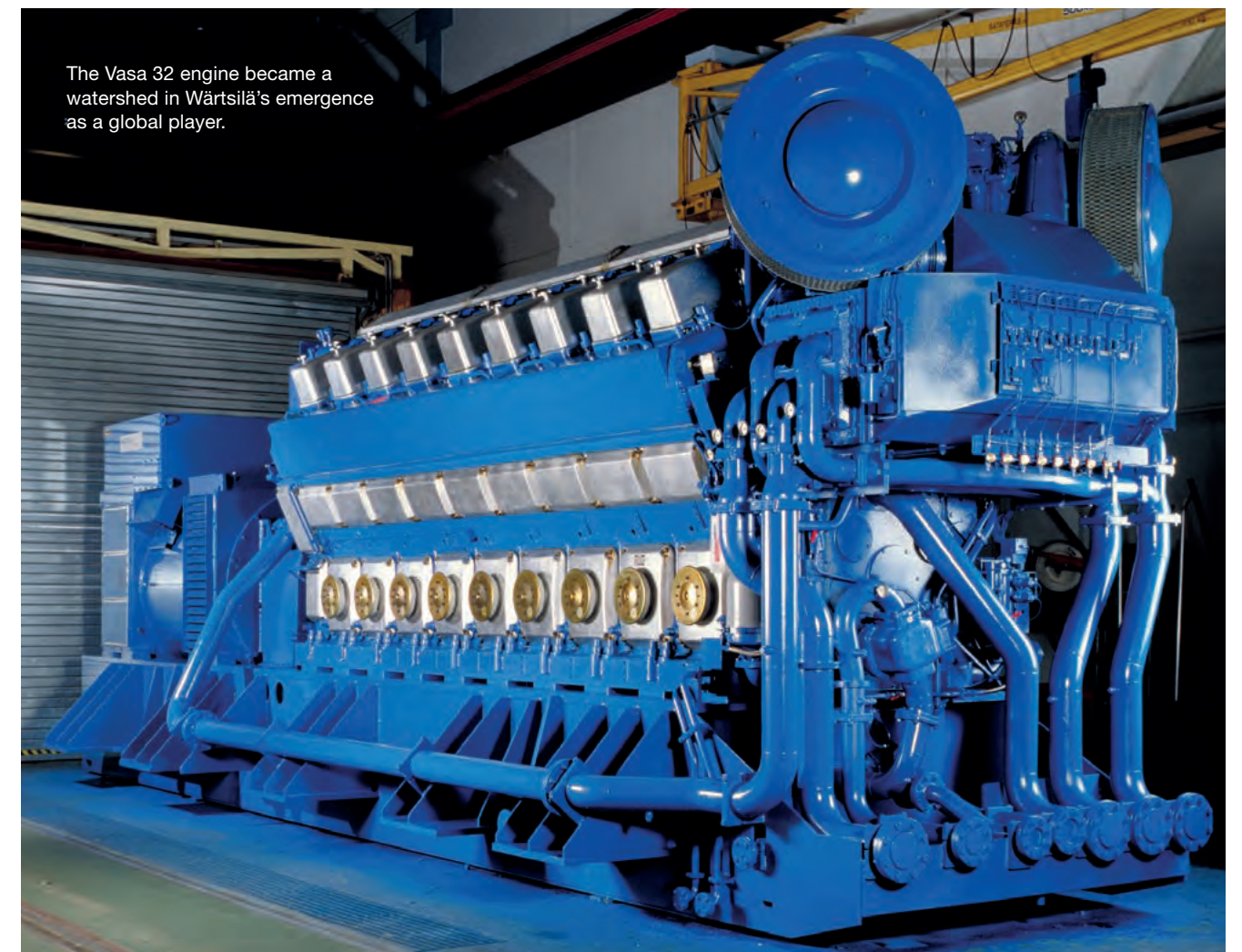
His enthusiasm about the potential new product did not immediately catch on in the company, and the idea was in danger of being buried. Nevertheless, preliminary assessments had been

conducted on the new engine and there was demand for it in the market. **Matti Kleimola**, the man appointed as the Vasa 32 project lead, observed that the Vaasa unit's financial resources would not be sufficient. They would need assistance from the Group. Financial support from the Ministry of Trade and Industry was also available.

Kleimola decided to put in an application.

"I had joined Wärtsilä in Vaasa in autumn 1974. Our plan was to get the project going and then invite Wärtsilä's senior management to Vaasa along with Industrial Counsellor **Björn Blomqvist**, who

had a key role in the Ministry's process for approving projects. We scheduled the seminar before Christmas and prepared presentations about the project. Following the presentations, Blomqvist got up and said this was such a significant endeavour for Finnish industry that the Ministry would definitely lend its support. CEO **Tankmar Horn**, **Georg Ehrnrooth** and research centre director **Martti Kaila** looked at each other, wondering what to say – after all, the Board of Management hadn't approved the project yet. Horn stood up and thanked our young team of engineers along with the management of the factory and the representatives of the Ministry. A few days later, we got the go-ahead," Kleimola recalls.



The Vasa 32 engine became a watershed in Wärtsilä's emergence as a global player.

The Vasa 32 engine became a lever that Wärtsilä used to elevate itself into a global player. Later renamed the Wärtsilä 32, the engine is Wärtsilä's highest-selling product globally and it has been used in vessels ranging from fishing trawlers to cruise ships. It was subsequently adapted to run on natural gas and biofuels, and its use was expanded to include energy and offshore purposes. Three Wärtsilä Diesel engineers – Daniel Paro, **Carl-Erik Røsgren** and **Ingemar Nylund** – received the Finnish Engineering Award in recognition of their work. The 6,000th Vasa 32 engine rolled off the production line in 2009.

The Vasa 32 engine turned out to be a life preserver for the Group. When the 1990s recession brought Finland to its knees, Wärtsilä remained standing. The price of oil had skyrocketed, but heavy fuel oil prices had not. HFO engines enjoyed strong sales. Speed was another factor behind the engine's success. Wärtsilä was the only company in the world that could make deliveries on a turnaround time of just five months, with the competition taking 10 months to a year.

**P**roduction technology developed in leaps and bounds in the 1980s. The first signs of automation appeared, along with the emergence of Japanese production philosophies, especially the continuous improvement of quality. Flexible manufacturing systems (FMS) rose to prominence, bringing with them the first applications of robotics. Production turnaround times were radically shortened and waste was reduced along with manufacturing costs. FMS technology was also harnessed at the Vaasa engine factory. Visitors from all over the world came to see the state-of-the-art production line.

The most concrete technological advance in the 1980s was probably the arrival of CAD techniques. It marked the start of development towards 3D technology and digital reality, which would be incorporated into Wärtsilä's operations after the turn of the century.

A particularly significant year in Wärtsilä's history was 1985, when the Group established its diesel division and decided to enter the prime mover market. This was also when work began on the Wärtsilä 46 engine. Production started two years later and the engine is still in use to this day.

Another important technological milestone was Wärtsilä's first LNG (Liquefied Natural Gas) engine, introduced in 1995. As its fuel, it uses part of the gas carried by LNG tankers. The naturally evapo-

rating boil-off gas (BOG) is cleanly recovered and used to power the engine. The world's first large passenger ship fuelled by bunkered liquefied natural gas was MS Viking Grace, which operates between Turku and Stockholm. Soon after her maiden voyage, the cruise ferry was visited by delegations from all of the world's major cruise operators eager to learn more about the vessel. MS Viking Grace's satisfied chief engineer effectively became a Wärtsilä marketing representative alongside his normal duties.

**Tage Blomberg**, whose career at Wärtsilä from 1975 to 2010 included time spent as the head of the Services division, still remembers what a shock it was for the market.

“When we first introduced our LNG engine in 1995, all of our competitors thought we were crazy: natural gas and the marine industry didn't go together and they would not be pursuing the development of such engines. In the end, it took them five years before they were able to launch their corresponding engines. Clearly, we had been ahead of our time.”

## Another important technological milestone was Wärtsilä's first LNG engine, introduced in 1995.

**E**ngine development and manufacturing has been an ongoing activity, a work in progress, at Wärtsilä. At the turn of the 21st century, the entire Wärtsilä Group's business was downscaled – by closing down five production plants, among other things – and the Group focused on its strengths. Nevertheless, there have still been plenty of technological advances and updates in the engine business. New attributes are constantly



MS Viking Grace is the world's first passenger ship fuelled by liquefied natural gas (LNG).

required from engines due to shifts in society and the resulting changes in needs.

In the 2010s, the portfolio has been expanded with the introduction of the low-speed Wärtsilä X62 and Wärtsilä X72 engines in 2011. The following year saw the launch of the Wärtsilä X92, an engine for large container vessels that further expanded the Group's range of two-stroke engines. In 2013, Wärtsilä launched new engines based on low pressure technology as well as two auxiliary engines. The year after that, the Group solidified its leadership in dual fuel technology by introducing the Wärtsilä 46DF engine.

The most significant technological progress in the 2010s has involved the Wärtsilä 31 engine. In 2015, the company made the Guinness Book of World Records when the Wärtsilä 31, which can run on various heavy fuel oils as well as gas and diesel, was recognised as the world's most efficient four-stroke diesel engine. The idea for the Wärtsilä 31 was borrowed from the world of

## This is what it means to be a technological crusader: wins and losses, steps forward, back and sideways, evolution and revolution.

automotive engineering. Developed with the help of Volvo AB, the engine proved to be a success in marine and power applications. The single-cylinder engine design made it possible to reduce the number of parts. Wärtsilä also took a page out of Scania's book by utilising modular construction and taking a critical look at the number of parts required for the engine. The Wärtsilä 31 engine has only about 8,000 parts. This is a significant

improvement over its predecessors, which had more than 10,000 parts. The decrease in the number of parts means substantial savings not only in production, but also in the amount of spare parts needed for maintenance. The test engine's award-winning design maximises the convenience of maintenance operations. This saves time and money, particularly when working in confined engine rooms.

In response to the increased use of renewable energy, Wärtsilä has expanded its range to include the necessary special solutions, such as hybrid engines launched in the 2010s to support the use of wind and solar power plants. They can quickly replace wind and solar power when the weather conditions demand it. The environmentally friendly and flexible solutions reduce the carbon dioxide emissions and overall carbon footprint of the customers' facilities.

This is what it means to be a technological crusader: wins and losses, steps forward, back and sideways, evolution and revolution.



The most significant technological progress in the 2010s has involved the Wärtsilä 31 engine.

## The day the flywheel broke in half

One morning in 1978, Production Manager Jaakko Raikko burst into Matti Kleimola's office at 7:30. When they had started the vertical lathe that morning, the Vasa 32 flywheel – measuring 1.5 metres in diameter and weighing several tonnes – in the lathe had broken in half.

Now, 40 years later, recalling the incident brings a smile to Kleimola's face.

"Isn't that odd, I said. We decided we would evaluate the issue soon but, 30 seconds later, I realised the potential repercussions of the problem. We had already delivered the first six engines to a Norwegian shipping company. They had been installed at a shipyard in Japan and the vessel was in operation, transporting fruit between Japan and Australia. If a flywheel on board were to break apart, it would go through the hull and sink the ship," Kleimola explains.

The first ships in which the engines had been installed had Wärtsilä's maintenance engineers on the crew. They were immediately issued instructions to keep an eye on flywheel tension. Subsequent inspections revealed that there was no real danger of the flywheels blowing up.

An investigation into the causes of what happened at the production plant indicated that the Finnish foundry that was Wärtsilä's trusted supplier for the part had used an incorrect method for expediting the cooling process during casting, which had created a dangerous level of tension in the product. While the change seemed small, the meticulously engineered process had no tolerance for it.

**Matti Kleimola**  
then project lead for the V32 engine,  
later CTO of Wärtsilä

## "The entire town of Vaasa smelled like burnt bread"

"Marseglia Group is Italy's largest refiner of various vegetable oils for diverse purposes including skin care products. In 2002, the Group approached Wärtsilä with an idea.

Would it be possible to power diesel engines with unprocessed, low-quality oil from olives and waste plants that is not suitable for food use? The refineries needed electricity and steam.

Wärtsilä's management was not enthused by the prospect of developing 'another new product'. The market was small and the development project would be a long one.

This reluctance did not, however, prevent the engineers of the product development team from starting to look for new solutions alongside their other duties. Based on their proposed solutions, the Italians were requested to send a couple of barrels of olive oil to be tested in the laboratory's test engine.

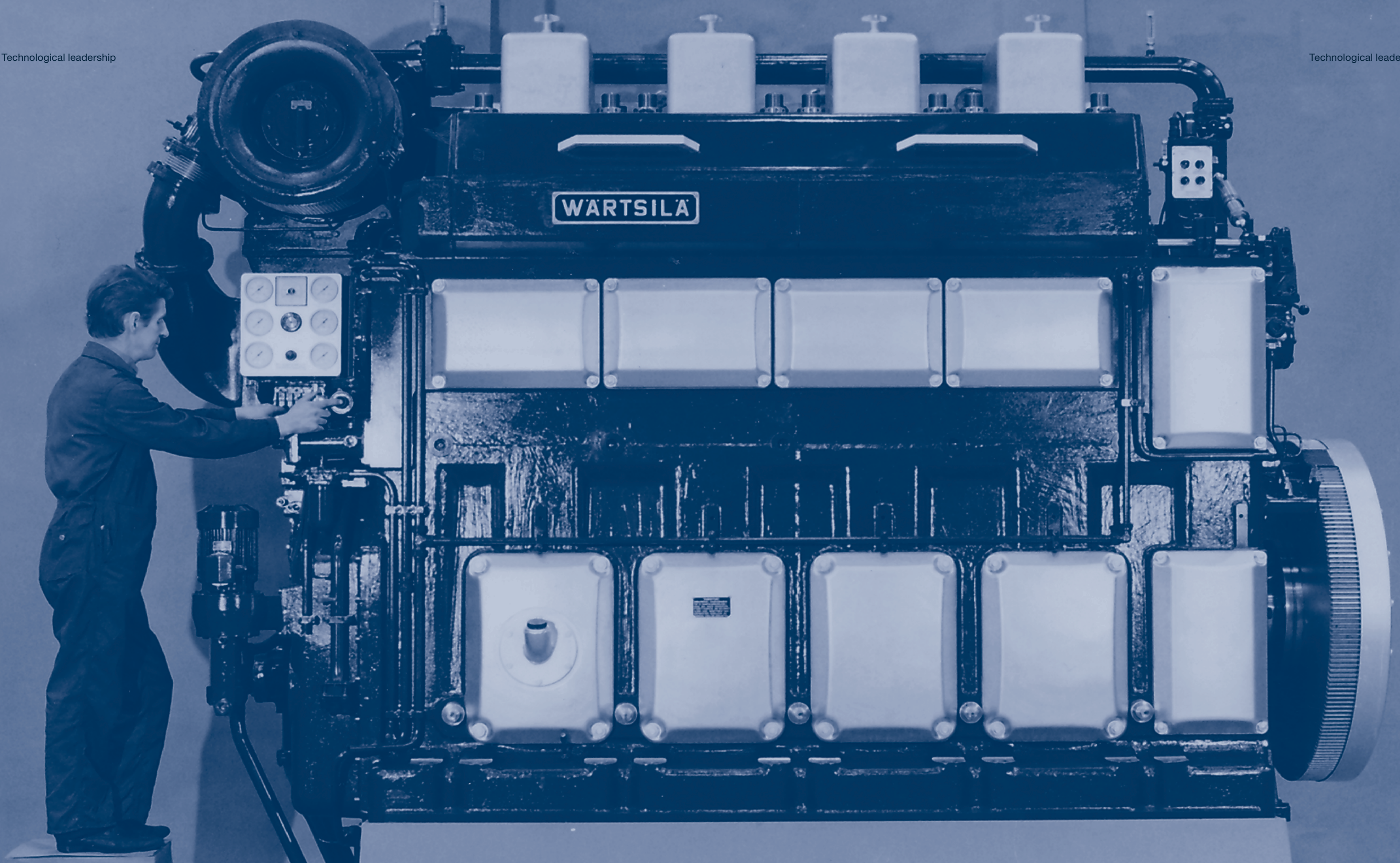
You can imagine my surprise when I received a phone call from the factory gates: there's an Italian road tanker here, loaded with olive oil – what should we do?

We drilled a hole in the laboratory wall and the heated oil was funnelled straight from the road tanker into the test engine. The project didn't remain a secret for long, however. When we ran our tests, people around Vaasa took notice of the smell of burnt bread and wondered whether the large local bakery had caught fire.

Following our tests and a few modifications, it turned out that the engine ran just fine on vegetable oil. The adjustments also eliminated the smell issue, and the product was ready to be sold to the customer.

The hobby of Ostrobothnian engineers had turned into a new product. Our entrepreneurial spirit and characteristic stubbornness helped open up the market for biofuel engines.

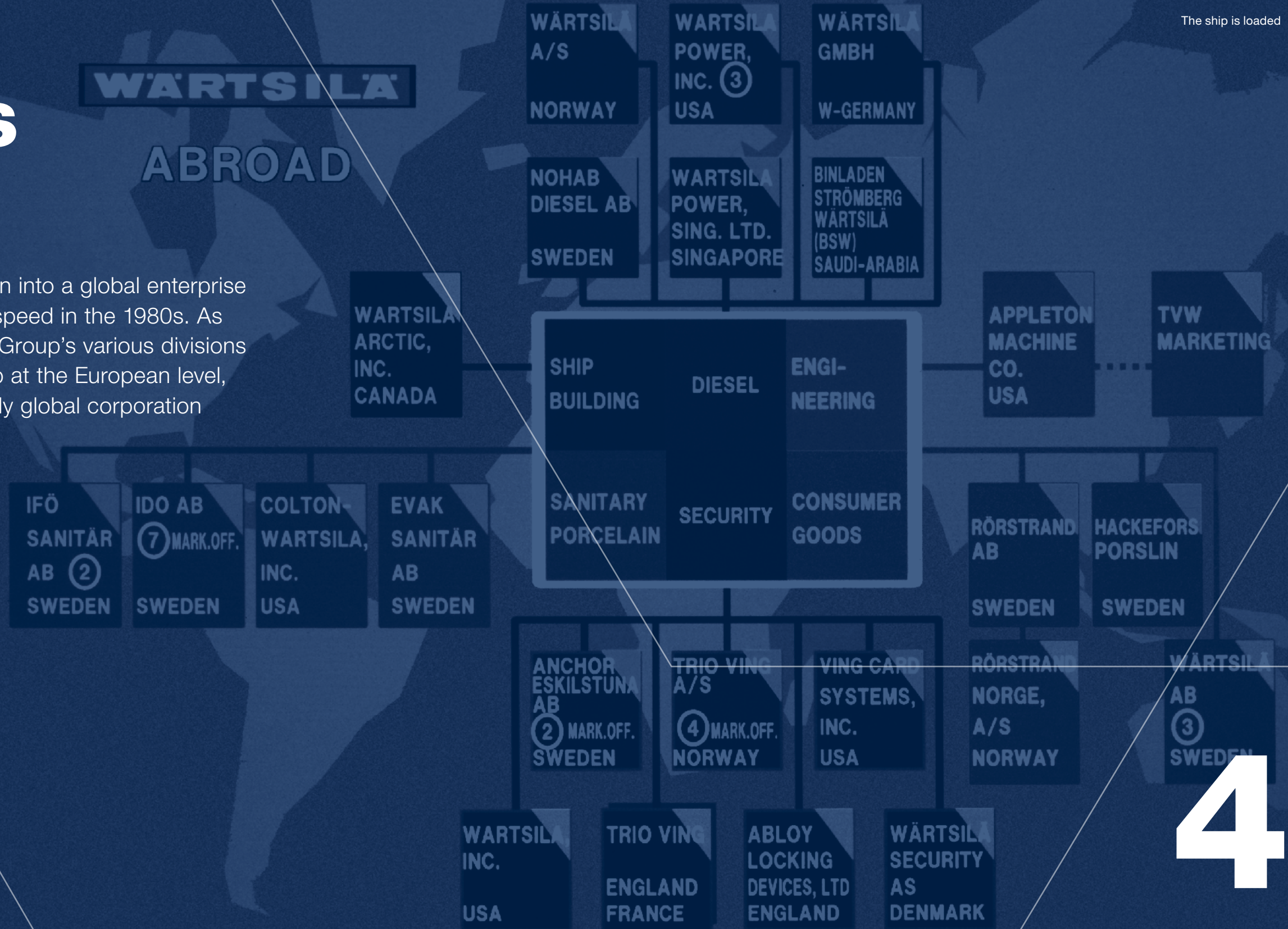
**Harry Lindroos**  
at Wärtsilä in various positions  
from 1980 to 2011






# The ship is loaded

## WÄRTSILÄ ABROAD

Wärtsilä's internationalisation and evolution into a global enterprise began in the late 1970s and reached full speed in the 1980s. As the 1990s started, goals were set for the Group's various divisions with the aim of pursuing sector leadership at the European level, for example. The transformation into a truly global corporation began in the early 2000s.



-  Marketing
-  Production
-  Several offices/factories

Each of Wärtsilä's six main businesses had its own strategy for international expansion.



Frenzied trading on the London Stock Exchange. In 1984, Wärtsilä became the first Finnish company to be listed on the London Stock Exchange.

## Out into the world!

The beginnings of Finnish society as we know it can be traced back to the 1980s. The post-war psychological, political and regulatory obstacles were eliminated one by one. Similar developments were also taking place in the bigger picture. The new megatrend of globalisation was emerging.

The international investments of OECD countries more than tripled in the 1980s and grew fourfold again in the 1990s. The internationalisation of companies picked up speed. Finland's overseas investments in the 1990s were more than a hundred times higher than in the 1970s. The Asian Tigers that had emerged alongside the powerful Japanese economy in the 1970s – South Korea, Singapore, Taiwan, Malaysia and Hong Kong – made substantial investments in export promotion.

→

The world became more open. From Finland's perspective, the most significant factor that pushed open the door was the EEC free trade agreement, which entered into force in 1974 and eliminated practically all customs duties on industrial goods by 1977.

The subsequent decade saw the opening up of the money markets. Following the deregulation of the financial markets in the mid-1980s, there were no more restrictions on foreign borrowing. Money could be freely exported, imported and borrowed.

The new situation presented both an opportunity and a risk for businesses. Wärtsilä seized the moment.

## The new era called for a shift towards more customer-oriented and needs-driven business. In the face of extreme cost efficiency, it became necessary to customise products.

"The deregulation of the capital markets not only made the borrowing of money easier and more international but, even more significantly, it made it easier to raise capital in the form of equity. We had largely relied on domestic share ownership until then. As the regulations were stripped away, we gained access to the international equity markets for raising capital," says Klaus Grönbärj, who was Wärtsilä's CFO in the 1970s and 1980s and also had a short stint as President in 1989. In London, he was better known as Mr IR Finland, with investor relations being a big part of his job description.

In 1984, Wärtsilä had become the first Finnish company to be listed on the London Stock Exchange, one year after the company was listed in Stockholm. Listing on the New York Stock Exchange was also considered, but the idea was ultimately shelved.

Finland was an exotic acquaintance for the international capital markets. Wärtsilä decided to underline this impression, with Grönbärj as the Master of Ceremonies.

"I remember a trip we organised to Lapland, with two private aircrafts flying London-based investors to Saariselkä for a once-in-a-lifetime experience. We took our guests to Tankavaara to pan for gold and, in their pans, we planted five-markka coins emblazoned with an icebreaker motif. When they panned for gold, they discovered a golden Wärtsilä icebreaker," Grönbärj recalls.

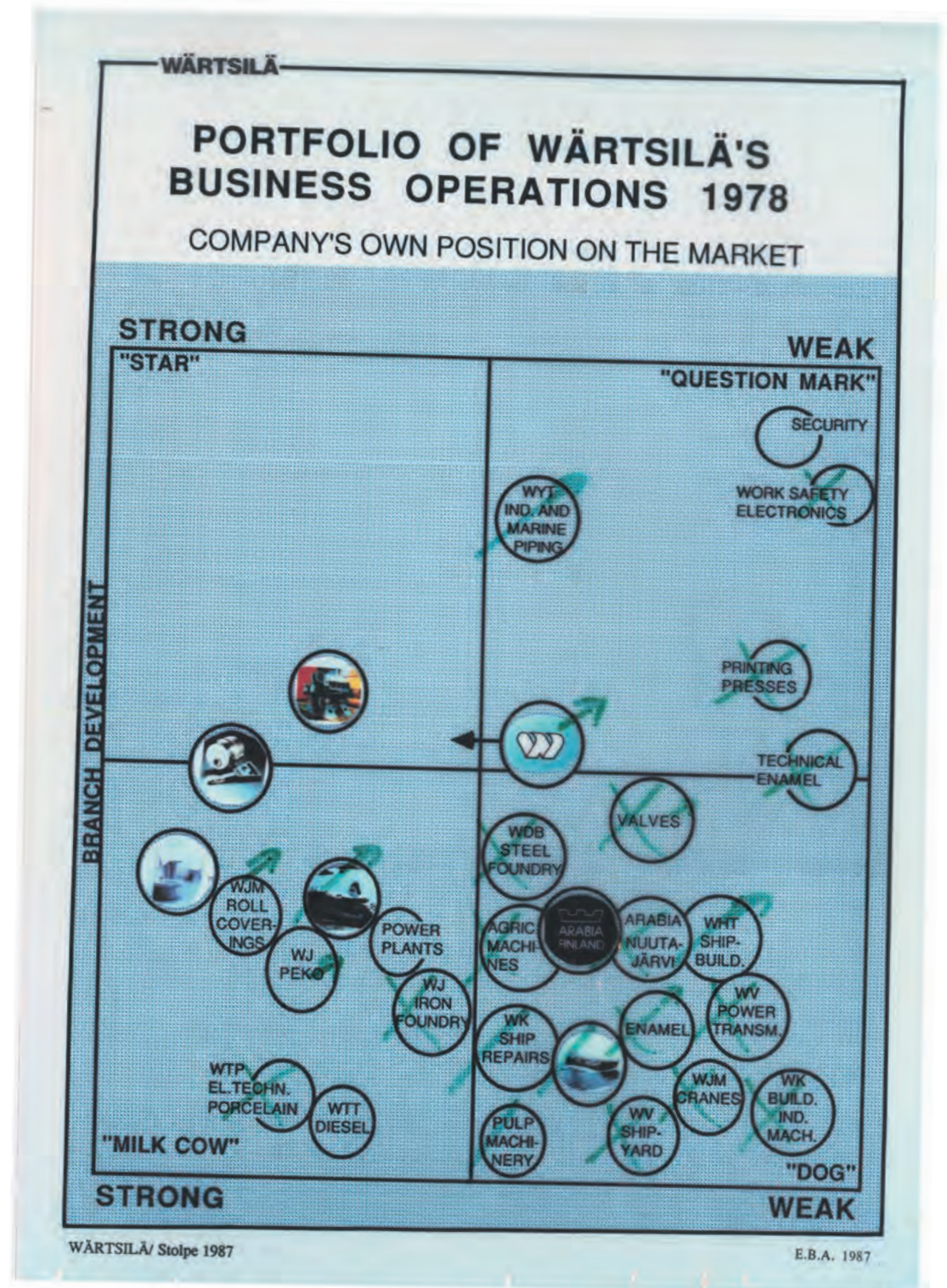
The deregulation and internationalisation of the capital markets ushered in changes in the nature of the business as well as the company's relationship with society and the Finnish state.

The business had always been very product-driven. The company's relationship with the Finnish state had been governed by an unwritten agreement. As a heavy industry company, Wärtsilä had been rather dependent on state support. Without export and cost guarantees, life would have been much more difficult in an environment characterised by constant double-digit inflation. Cost guarantees had been given by the state for major construction

projects to compensate for the effect of inflation and foreign exchange rates. Wärtsilä had reciprocated by maintaining a high level of employment.

The new era called for a shift towards more customer-oriented and needs-driven business. In the face of the extreme cost efficiency that is characteristic of the global economy, it became necessary to customise products. It can be assumed that increased tensions emerged in the relationship between Wärtsilä's senior management and Finland's political leadership.

Tor Stolpe's slides from 1987. The business areas had changed significantly. Many of the businesses from 1978 had been crossed out and the remaining ones had been reshuffled in the company's Boston matrix.



WÄRTSILÄ/ Stolpe 1987

E.B.A. 1987

**W**ärtsilä's internationalisation and evolution into a global company can be roughly divided into three phases that took place over three decades. Each of these three phases had certain special characteristics.

The first phase began in the late 1970s and accelerated rapidly in the 1980s. The second phase of internationalisation started at the beginning of the 1990s: business became more maintenance-driven and the Group acquired engine suppliers and took over their global maintenance operations. The third phase, the transformation into a genuinely global company, started in the first decade of the 2000s.

While the three phases each have their unique characteristics, there is also a common thread: opportunism.

Wärtsilä has had the ability to find new market areas, both geographically and in terms of products, as well as react quickly to market changes and create new products and applications. When necessary, the Group has also taken a long-term view. Wärtsilä

## **Wärtsilä has been able to find new market areas and to react quickly to market changes.**

worked on selling propellers to the Pakistani navy for 22 years before a breakthrough was finally made.

The starting point of the Group's internationalisation had been Finland's war reparations and the resulting bilateral trade with the Soviet Union, which was a very profitable opportunity for Wärtsilä. While the rest of Europe suffered from an oil crisis, Finland and Wärtsilä enjoyed lucrative export opportunities as the price of Soviet oil increased sharply. The heavy emphasis





The focus areas defined in the renewal of the line organisation around the same time, in the late 1970s, were the lock business (Abloy), sanitary and household porcelain products and, most significantly, the production of diesel engines. The long-term objective was to become less dependent on shipbuilding.

Focusing on diesel engines was a logical decision. Wärtsilä had a spearhead product in that business, the Vasa 32 heavy diesel oil engine. You had to go where the customers, shipyards, transport connections and subcontractors were. The Group began to acquire companies and consolidate the industry with the aim of obtaining end customer contacts and, later, focus increasingly on maintenance, which would subsequently come to be referred to as Services and, eventually, as life cycle solutions.

## Only in 1978 had the interpretation of the law changed to allow Finnish enterprises to acquire companies outside of Finland without having to apply for permission.

**W**ärtsilä's international production operations began in 1978 when the Group acquired the Björkboda lock factory. More significant from a historical perspective was the reversal of roles with the Swedes. In 1951, Wärtsilä had signed a licensing agreement on the manufacture of Nohab diesel engines. The former licensee now acquired a 51 per cent stake in the same engine manufacturer from the Swedish company Bofors AB.

The acquisition also gave Wärtsilä a bridgehead to access the American market. Unlike Wärtsilä, Nohab had sold engines to

the U.S. market and it owned a company in New Orleans that was nearly equal in size in terms of revenue.

Looking back, you cannot overstate the significance of the Nohab acquisition. The interpretation of the law had only changed in 1978 to allow Finnish enterprises to acquire companies outside of Finland without having to apply for permission. There were no M&A consultants and the models were built using a slide rule. Raimo Lind, who had his hands firmly on that slide rule, provides an eye-opening account of the acquisition process:

“When we acquired Nohab, we had agreed that I would not take time off during the summer and the companies’ respective Boards of Directors would meet in August. When the Swedes came back from their holidays, they said they wanted SEK 400 million. I said it’s worth four million. At first, they didn’t allow me in the meeting. After three phone calls, I went in and delivered a long presentation to the two Boards. They agreed on four million. As I recall, I was given a raise of FIM 400 for saving the company 496 million. But it was great to have my moment in the spotlight with the bigwigs.”

There was also some fumbling around when it came to post-acquisition processes. There were no structures or mechanisms to support the integration of the new organisations. This occasionally led to unnecessary internal competition.

Over time, the necessary lessons were learned and any inferiority complexes were shaken off. People realised that their French or American counterparts weren’t that different in terms of their skills and competencies, they just had more experience in the larger arenas of international business.

The Finnish national trait of tenacity and resilience was replaced by the British attitude of ‘the world is my oyster’. Everything felt within reach if you put in the effort. Engineers began to morph into salesmen, buyers, restructuring experts and entrepreneurs.

**I**n the sanitary ware business, the Tammissaari factory boasted strong margins. Encouraged by the success of the Tammissaari unit, Wärtsilä acquired a toilet manufacturing facility with about 800 employees in Colton, California, in 1985. The acquisition turned out to be a mistake and a money pit. The market analysis had been overly optimistic: California’s water shortage wasn’t as bad as it was thought to be, and the American consumers knew how to conserve water without having to resort to technological innovations, simply by placing a rock in the cistern.

## The Finnish national trait of tenacity and resilience was replaced by the British attitude of ‘the world is my oyster’. Everything felt within reach if you put in the effort.

Nevertheless, the sanitary ware and porcelain business was a successful chapter in Wärtsilä’s internationalisation. Sanitec, the subsidiary established in conjunction with the Metra merger between Wärtsilä and Lohja Corporation, practically dominated the European market in its pomp. EU subsidies and the reconstruction of Eastern Europe helped fuel its success.

There was room for growth in Europe and Sanitec grasped the opportunity with both hands by acquiring factories in Germany, France and Italy. Production volume tripled in the 1990s. The recipe for success had two key ingredients: reducing production costs and making the most of branding. Sanitec consisted of several local subsidiaries that were given room to operate while applying the core principle of consolidating the continental sanitary ware industry.

Mining engineer Henrik Eklund, who came from the Lohja side of the merger, was appointed as Sanitec’s CEO in 1990.

“The idea was to acquire strong brands while moving manufacturing operations to countries with low wage costs, such as Portugal, Poland and Egypt. Sanitec wasn’t a big name in the business, but we achieved success by using acquisitions to bring together strong brands such as IDO, Pozzi-Ginori and Keramag. In our marketing, our Country Managers decided how the products were sold, while Sanitec decided what would be manufactured and where. Our growth was rapid and we eventually ranked first or second in our markets in the major countries we operated in. Our annual revenue was approximately EUR 1 billion and we had about 10,000 employees,” Eklund recalls.

In spite of its success, Sanitec’s story as part of Metra ended quickly. Having taken back its original name, Wärtsilä decided to focus on diesel engines, a business that was three times larger than Sanitec. Selling Sanitec would also free up capital for the Group’s chosen core business.

Another factor in the decision was the growing feeling that Sanitec’s big future as a successful listed company was more uncertain than previously thought. **Berndt Brunow** was appointed as President in 1999, the year Sanitec was listed on the stock exchange.

“The success built on years of growth driven by the reconstruction of Eastern Europe had perhaps blinded some at the company. That ended in 2000. We recognised we had to do something and put the company up for sale. We met with a lot of potential buyers, both industrial corporations and equity firms. In the end, the agreements were signed quite quickly,” Brunow recalls.

Sanitec was sold to Germany-based equity investors in 2001 in what turned out to be a profitable move for Wärtsilä. The buyers

were unable to sustain Sanitec's success and the company is now part of the Swiss-owned Geberit Production Oy.

In spite of how things turned out, Brunow says the story of Sanitec is something to be proud of and it illustrates the way Wärtsilä operates, even in the international business environment.

“Two things were particularly impressive about the company. The first was the use of internal benchmarking. Units in different countries competed against each other on certain performance indicators. For example, in ceramics, we kept a close eye on the percentage of products that come out of the kiln intact. Our rate was above 90 per cent, compared to about 80 among our competitors. This demonstrates our strong focus on production efficiency.”

“The other thing I would highlight is financial control. The costs of Sanitec's units were reviewed in great detail on a monthly basis and action was taken where necessary. The rules were strict but fair. It was part of Wärtsilä's DNA of improving internal operating methods,” Brunow adds.

**A**bloy locks had been part of Wärtsilä's product range since 1936. Like Sanitec, its ultimate fate was to be sold to finance the Group's other business operations. The driving force behind this decision was the desire of Metra and **Georg Ehrnrooth**, Metra's President and CEO since 1991, to turn the conglomerate into an international player with a sharper focus on its leading products. Many different tools were used in these development efforts, including the listing of Sanitec on the stock exchange and the Assa Abloy merger. For a long time, the internationalisation of the Group's chosen divisions was financed by the proceeds from the Sanitec and Abloy transactions.

At the start of the 1990s, Abloy's annual revenue was FIM 0.5 billion and it had approximately 1,300 employees. For a

long time, Wärtsilä had looked for an opportunity to acquire its smaller Swedish competitor Assa and achieve control over the newly created entity.

The challenge was finding a sensible structure that would include the hardware business of manufacturing locks as well as the related security solutions business. The key to this problem was eventually found at the turn of 1993–1994. Under the agreement reached between the parties, Metra initially owned 55 per cent of the shares but was committed to selling shares gradually to

“**The costs of Sanitec's units were reviewed in great detail on a monthly basis and action was taken where necessary. The rules were strict but fair.**”

**Berndt Brunow**

reduce its stake to less than half of the merged entity. Later, at the start of the 21st century – when Wärtsilä again went by its original name – the Group sold its entire stake in Assa Abloy.

**Heikki Allonen**, who was Metra's Senior Vice President of Corporate Planning at the time, commends the decision.

“It proved to be the right move for us. The funds raised from the transaction could be used later in other businesses, such as the diesel engine division, when they went through tough times.”

Wärtsilä acquired as many as 10 diesel engine manufacturers around the world in the 1980s, but international expansion was also pursued by establishing new factories. However, there were often country-specific barriers in those days.



The Sanitec (above) and Abloy businesses, although profitable, were sold in the 1990s.

One such example was India, which was a closed economy in the 1980s. The first Wärtsilä engine was imported into India in 1983. It was difficult in the early days, as even bringing in spare parts required a permit and import duties were high.

A creative solution was needed, and finding one would open up an entire market.

“The pragmatic thing to do was to establish a new company. Starting a company was subject to a permit and its foreign ownership could not exceed 40 per cent at that time. The Finnish ownership of the new company was thus limited to 40 per cent, with Wärtsilä owning 25 per cent and Finnfund 15 per cent. A further 15 per cent was offered to two Indian partners, and the remaining 45 per cent was subscribed to by the Indian public through an IPO of shares. Wärtsilä identified the market potential and gained the opportunity to deliver over 2000 megawatts of reliable industrial power in India by 2000,” explains Pradeep Mallick, the first MD of the diesel engine assembly plant built in Khopoli in 1989. The company was listed on the Bombay Stock Exchange that same year. With the liberalisation of the Indian economy in 1991, Wärtsilä was able to increase its shareholding at first to 51%, by buying shares of their partners, and later when the law permitted, to 100% ownership, as it stands today.

## The decision was made to hire 80 local employees to work at the assembly plant in India. The recruits were selected from a pool of 20,000 applicants.

The scale of certain aspects of the operations astonished Wärtsilä, which was only taking its first international steps. The decision was made to hire 80 local employees to work at the assembly plant in India. The recruits were selected from a pool of 20,000 applicants.

While establishing a company and assembly plant in India represented a new move for Wärtsilä in many ways, an even more significant chapter in Wärtsilä’s story had already been written a few years earlier when the Group’s first Asian production unit was built in Singapore.

Singapore is an example of something that is occasionally forgotten: the significance of individuals. While a company’s operations are a collective endeavour, much like the exploits of a theatre troupe or sports team, you always have key individuals that create added value for the community. Everyone’s contribution is important, but the performance of a charismatic lead actor or star goalscorer can make a story unforgettable.

Wärtsilä is no exception to the rule that key individuals will always make their presence felt. They include **Daniel Paro** on the technology side of things, **Martin Saarikangas** on the shipyards and, when it comes to internationalisation and power plants, **Clas-Eirik “Casse” Strand** was such an individual.

Casse’s career at Wärtsilä began in 1975 and was part of the company’s path to globalisation. From the beginning of 1982 to September 1984, he was in charge of production, services and sales in southern Asia and Australia. Starting a factory in Singapore was the most concrete example of these responsibilities. The company handed him FIM 7 million and told him to go establish a factory.

“Singapore was a safe location for a production unit and it was in line with the idea of being close to the customer. The problem was that all brochures and production documentation were only available in Finnish at the time, and correspondence with colleagues in Finland was in Finnish or Swedish. So, it was very difficult to share with my Singaporean colleagues. Translating it all was a massive undertaking. I decided that we needed to make a complete switch to English. Back

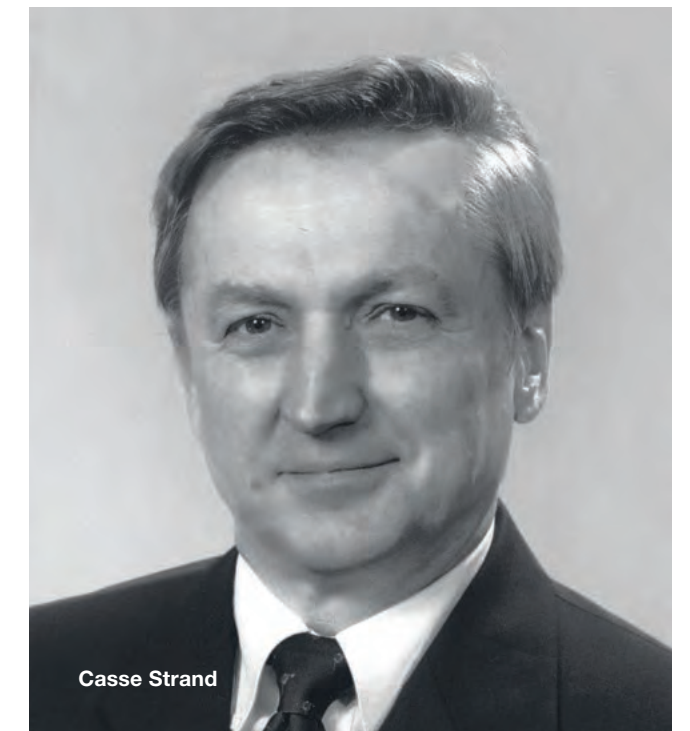
then, the prevailing attitude was that it was necessary to ensure that people back in Finland know what’s going on, and that was the justification given for the use of Finnish and Swedish. My opinion was that our foreign personnel were equally important,



Daniel Paro



Martin Saarikangas



Casse Strand

so we should use English. I played a role in making that happen,” Strand says, recalling this small but ultimately significant step on Wärtsilä’s path towards being an international company.

Singapore had also developed into a hub for services. In 1984, Wärtsilä decided to turn Services into a business area of its own. Casse Strand was appointed to lead that business and its development.

“The idea of Services as a business was a new one, both in companies and elsewhere in society. The idea was to create a service network around the world. This also entailed creating the pricing structure for spare parts, which is something that is still in use to this day. Selling the concept to the customers was surprisingly easy. The key was to create an easy-to-understand package: what is included and what is the cost. Finding competent personnel was also very important,” Strand explains.

“

## Translating was a lot of work. I decided that we needed to make a complete switch to English.”

Casse Strand

A few years later, in 1986, there was a conversation among Wärtsilä’s senior management.

Casse Strand suggests that the spark for the conversation came at least partly from the positive experiences gained from the launch of the Service business. Could the same move be repeated in the power plant business? It started small, with a three-person team developing diesel power plants in Vaasa.

“The starting point was that the engines from the Marine business were suitable for use in power plants. We had a compet-

itive advantage against gas turbines, but they had a good reputation and strong image,” says Strand, who was the first person to take charge of the diesel power plant business.

Some people inside the company wondered what the move to power plants was all about. Wasn’t this supposed to be a marine industry company? The small team in Vaasa had to occasionally justify its existence to others, which was perhaps no wonder, as it was the Marine business that was driving product development. The power plant business was treated a bit like an adopted child – it was allowed to exist and do business on the marine industry’s terms, using engines developed for the marine industry that were only later applied to power plants.

It took a long time, but the power plant business gradually grew in importance and began to be recognised as focus of activity and product development in its own right. The strong margins from power plants helped bring about this change. Analyses also backed the view that the company genuinely needed to expand its horizons from the maritime market.

At first, the new markets were found in jungles and backwoods. In searching for its identity, the power plant business had created a concept.

“The solution was to build entire power plants rather than just supply the engines. In a way, this meant going into the construction business. After about six months of discussions with construction companies and engineering firms,

we found our concept. We needed a fixed core group to do the planning, engineering and implementation, we had to have a seamless logistics chain and on-site construction needed to be simple, standards-based and modular. Unnecessary on-site warehousing is an expense we wanted to do without, so our principle was to get in and out quickly,” Strand explains.

According to **Pentti-Juhani Hintikka**, who was appointed as President of Wärtsilä Diesel in autumn 1988, there were also external reasons for deciding to take the broader picture into the division’s own hands.



Selling power plants meant that Wärtsilä entered the construction business, as power plants in exotic locations had to be built from the ground up. Above: the Tbilisi power plant in Georgia. Below: The Luzonette power plant construction site.



“We had won a number of good power plant contracts in Central America and the Far East, but our partner ABB was unwilling to participate in a consortium, so we had to take on more responsibility. First we sold engines, then we sold engines and generators. Soon, we were selling all the auxiliary equipment and, ultimately, even the buildings. We found ourselves delivering complete power plants. We then took that one step further by adding maintenance services to the mix. The final phase was that we were actually selling kilowatt-hours,” Hintikka says.

The diesel engine strike force saw its reputation and results grow internationally but, naturally, the degree of success varied. The business was even expanded into the United States, with Strand relocating there in 1990 to take charge of the power plant business. In developing countries around the world, many regions relied on Wärtsilä’s power plants for their first electricity production operations. Wärtsilä became synonymous with power plants in a number of countries.

“

**In certain countries, everything is up for negotiation – even after the papers have been signed. But that goes for both parties.”**

**Casse Strand**

It was a hectic time. The power plant business was built further even when the technology wasn’t quite there yet. Some of the financing mechanisms that were created turned out not to be entirely sustainable. Nevertheless, the potential risks did not materialise. They were worth taking. This isn’t to say the projects were always successful. There were often many problems that needed to be solved with customers. One example was a power plant built over a 10-month period in Bangladesh that ultimately did not generate any profit, but it did increase awareness of the Wärtsilä brand. Since then, Wärtsilä has built 2,000 MW worth of

power plants in Bangladesh, representing some 25 per cent of the country’s entire energy production capacity.

According to the philosophy of internationalisation implemented by Casse Strand, the difficulties had to be perceived as opportunities. It called for creative adaptation.

“In certain countries, everything is up for negotiation – even after the papers have been signed. But that goes for both parties. The supplier also has room to negotiate, not just the customer. When you go out into the international markets, you have to strive to be considered local. It helps with acceptance. That makes you part of the local network. That was a key principle of internationalisation that I learned and applied,” Strand says.

Besides cultural differences, cyclicalities are another potential complication in international business. The engine and power plant businesses are particularly sensitive to economic cycles.

Wärtsilä’s power plant business was not greatly affected by the recession in Finland in 1990–91.

What took place in 1997 was an entirely different story. The power plant business hit a wall due to the Asian financial crisis. Hintikka remembers those times well, as the impact on the company went beyond the bottom line.

“Suddenly we saw FIM 500 million in profits evaporate, which put us into the red by about 50 million, taking into account the provisions for losses arising from the Sulzer deal. No projects were completed and there were no new con-

tracts to work on. This was also a time when Finland had seen the introduction of the short-termist American view of quarterly performance. You were expected to report a strong result every quarter. It was a laughable expectation in a business like this, where annual fluctuations can be quite considerable. But that’s how it was.”

A few years later, Wärtsilä Diesel was back to operating at full capacity. Its annual revenue reached approximately FIM 12 billion by the end of the decade, up from 1.5 billion a decade earlier.

**T**he seeds for Wärtsilä Diesel’s revenue growth were sown in the late 1980s. Wärtsilä realised that selling engines was not particularly profitable, but after-sales service was. The problem was that there weren’t enough engines out there to service.

## **Pekka Laine opened the gates and told the diesel engine team to get busy. Even the head office was moved to Strasbourg in 1990.**

“We thought about how to proceed. There were a lot of old diesel engine factories that had neglected to keep up with product development and their survival was at risk. But they had their maintenance service business. We decided to buy out these manufacturers, shut down their old-fashioned engine production and take advantage of their potential in the spare parts and engine servicing business,” Hintikka explains.

It was time to get out there and make some deals. Wärtsilä’s President and CEO **Pekka Laine** opened the gates and told the diesel engine team to get busy. Even the head office was moved to Strasbourg in 1990. It was necessary to have a European presence in case Finland would not join the EU.

A period of intensive network building followed. By the turn of the millennium, Wärtsilä had more than 50 subsidiaries selling and servicing engines, along with about 20 licensees. Over the same period of time, the division had invested in the renewal of its product line, particularly the development of gas and dual-fuel engines.

The outcome was a global network unmatched by the competition. It also established the basic structure, although its results

only became evident later on. At the beginning of the 1990s, the maintenance service business accounted for about 30 per cent of Wärtsilä Diesel’s revenue. Following the introduction of new engines, this figure rose to approximately 50 per cent in the 2000s, which was enough to soften the impact of cyclical fluctuations.

The French company SACM was an example of a significant acquisition.

Wärtsilä Diesel’s 1989 acquisition of SACM (Société Alsacienne de Constructions Mécaniques), a manufacturer of high-speed engines, was motivated by the idea of expanding into smaller engines.

“SACM was an interesting company. Its products included emergency generators, which are used in a large proportion of the world’s nuclear power plants, along with engines for vehicles ranging from fishing vessels to Leclerc tanks. The tank

engine business wasn’t something we were counting on, with arms spending declining in Europe at the time, but we were obligated by the French government to produce the engines. The engine wasn’t actually ready for production, but our engineers in Vaasa helped fix the worst of the problems and we ultimately delivered a couple of hundred tank engines,” recalls Hintikka, who received SACM as a sort of a welcoming gift, having just been appointed as President of Wärtsilä Diesel.

Ultimately, the SACM acquisition did not turn out as well as hoped. The major role played by the state and trade unions in French business culture became a tough obstacle to overcome. Hintikka highlights the challenges associated with streamlining the business.

“It was hard to get anything sorted out with the French back then. Terminating employees required the state’s permission, and that was a lengthy process. Making changes was slow in France. Had we been able to manage it well, it could have been a good business.”

The SACM deal wasn’t the only acquisition made in Central Europe in 1989. The other one was partly motivated by the

acquiree having a strong market position in the Caribbean and Indonesia.

Hintikka picked up the phone.

“In 1989, we got in touch with Stork Werkspoor, a Dutch manufacturer of medium-speed engines. They were open to the idea, admitting they would not be able to make it alone for very long. The price was right and we signed the deal in December, after quick negotiations lasting only eight months. We proceeded with the integration process and working with the Dutch was smooth. We would later go on to provide maintenance services for tanks for the Dutch army as well. Having previously served in the armoured unit in my youth, it was a familiar field for me personally,” Hintikka says.

In addition to the important phone calls made by Hintikka, there were also some incoming calls of similar significance.

Wärtsilä was approached by Cummins Engine in 1994. The following year, the two companies established a 50–50 joint venture. The SACM factory in France was included in the venture, which had two products: the high-speed CW170 and CW200 engines,

The expectations were high and there was a strong desire for the joint venture to succeed. Nevertheless, five years later, in 1999, the Cummins-Wärtsilä joint venture was dissolved. What went wrong?

Interviewed in May 2018, Wärtsilä Diesel’s then-President and CEO is still irked by the outcome.

“What really bothers me is that our partnership with Cummins had tremendous potential. We threw the baby out with the bathwater. We just didn’t have enough,” Hintikka says.

In 1989, two men received orders from their bosses. One was told to buy, the other was told to sell. Neither remembers his mission as a highlight of his career.

“We had found out that the Swiss company Sulzer was looking to sell its diesel business. Tor Stolpe tasked me with making the acquisition. We started planning and negotiating, but it was tough going. Sulzer was still fairly strong back then and our main competitors were throwing spanners in the works. We worked very hard for a year and a half until the project fell through for us when a consortium formed by Bremer Vulkan and Fincantieri made a better offer and acquired Sulzer’s diesel division. It ultimately wasn’t a surprise that we failed to close the deal. The price was too high and perhaps our resources were not sufficient to handle it,” Hintikka recalls.

**Peter Sulzer**, the head of the diesel division of his century-old family enterprise at the time, was against the idea of selling off the division.

“Diesel engines were the company’s main product. It had a strong reputation, high brand awareness and leading position. In spite of these realities, the consultants played around with the numbers and, instead of listening to the customers, recommended the divestment. I felt it was the strong strategy. I tried to push the sale through, but it was difficult. It was a tough period in the marine industry market,” Sulzer explains.

representing entirely new engine types. Wärtsilä Diesel was responsible for development and Cummins for industrial production. Sales were handled independently by both parties.

The solution was found when the Italian company Fincantieri, the Germany-based Bremer Vulkan and a group of private individuals established New Sulzer Diesel in 1990. Peter Sulzer, one of the main shareholders, was appointed as the CEO of the new company.

New Sulzer Diesel achieved a good level of success, but its structure began to crumble due to Bremer Vulkan’s difficulties. By 1995, it had become obvious that the company would have to file for bankruptcy. The shares previously held by Bremer were acquired by the other major shareholder, Fincantieri, to increase its ownership to 100 per cent.

## Wärtsilä Diesel wanted to gain access to two-stroke engines used in large container ships.

As a state-owned shipyard, Fincantieri did not consider itself to be the ideal owner for a manufacturer of diesel engines. Peter Sulzer had to again put on his selling shoes and look for a buyer. The most interested – and perhaps the only – buyer candidate for New Sulzer Diesel turned out to be Metra and its Wärtsilä Diesel division.

Wärtsilä Diesel wanted to gain access to two-stroke engines used in large container ships. Sulzer had a 30 per cent market share in that segment, which was also the motivation behind the acquisition of the Grandi MotorI plant. Naturally, the prospect of providing after-sales service for two-stroke engines was also enticing.

Pentti-Juhani Hintikka first met Fincantieri CEO **Corrado Antonini** in May 1995. After 18 months of difficult negotiations, Metra and Fincantieri combined their diesel engine businesses in 1997 to create Wärtsilä NSD, which made Wärtsilä a genuinely significant player in the marine market and prevented Sulzer from ending up in the hands of Wärtsilä’s German rival MAN.

However, the agreement included a provision that still rubs chief negotiator Pentti-Juhani Hintikka the wrong way.

“Antonini was an expert deal-maker. He had a diesel engine plant called Grandi Motori in Trieste. I had visited the plant a couple of years earlier and found that it was much too large considering the available volume. The plant had some 1,800 employees and Grandi Motori as a whole had about 3,000. Aside from Sulzer’s engine production, the plant didn’t have a single marketable product, with the exception of an engine for torpedo boats that had no business significance.

I tried to make it clear to my bosses that including Grandi Motori in the deal would require substantial and expensive changes to Wärtsilä Diesel’s production machinery, which we had recently made major investments in. The deal would also endanger our partnership with Cummins. Antonini made it clear that the Sulzer Diesel acquisition was conditional

on including the Trieste plant in the newly established Group. Wärtsilä Diesel’s Board of Directors deemed the value of the Sulzer brand to be high enough that they went ahead with the deal,” Hintikka recalls.

The Sulzer Diesel acquisition was also seen in another light. “The key was that we wanted to expand. New Sulzer Diesel’s products were an essential part of the marine industry. The idea was that the acquisition would make Wärtsilä a leading player in the diesel engine business. I didn’t want to tack on NSD to Wärtsilä Diesel’s name any more than anyone else, but it was just something we couldn’t get rid of until we bought them out,” **Ole Johansson** says.

Finnish banking magnate **Björn Wahlroos** was involved in Wärtsilä's acquisitions from 1985 to the start of the new millennium, first through SYP and later through Mandatum.

“The Sulzer acquisition was one that investment bankers would characterise as strategically important as a euphemism for being

## The plant didn't have a single marketable product, with the exception of an engine for torpedo boats that had no business significance.



bad. I wasn't part of the negotiations, but I was involved through the Board of Management on occasion. We felt the price was too high, but we said that if the deal is considered essential from a strategic viewpoint, we're not going to tell you not to go ahead with it. In hindsight, it's safe to say Wärtsilä would not exist in its current form if it weren't for the NSD acquisition. So, looking at it from a long enough time horizon, it was a good deal and an important move to make,” Wahlroos says.

Former Executive Vice President **Christoph Vitzthum**, who was previously in charge of the power plant business as well as the service business, also sees the Sulzer acquisition as part of aggressive expansion that provided access to a much larger customer base and paved the way for expanding into auxiliary equipment and a broader portfolio that included propellers, ship-use seals and electrification.

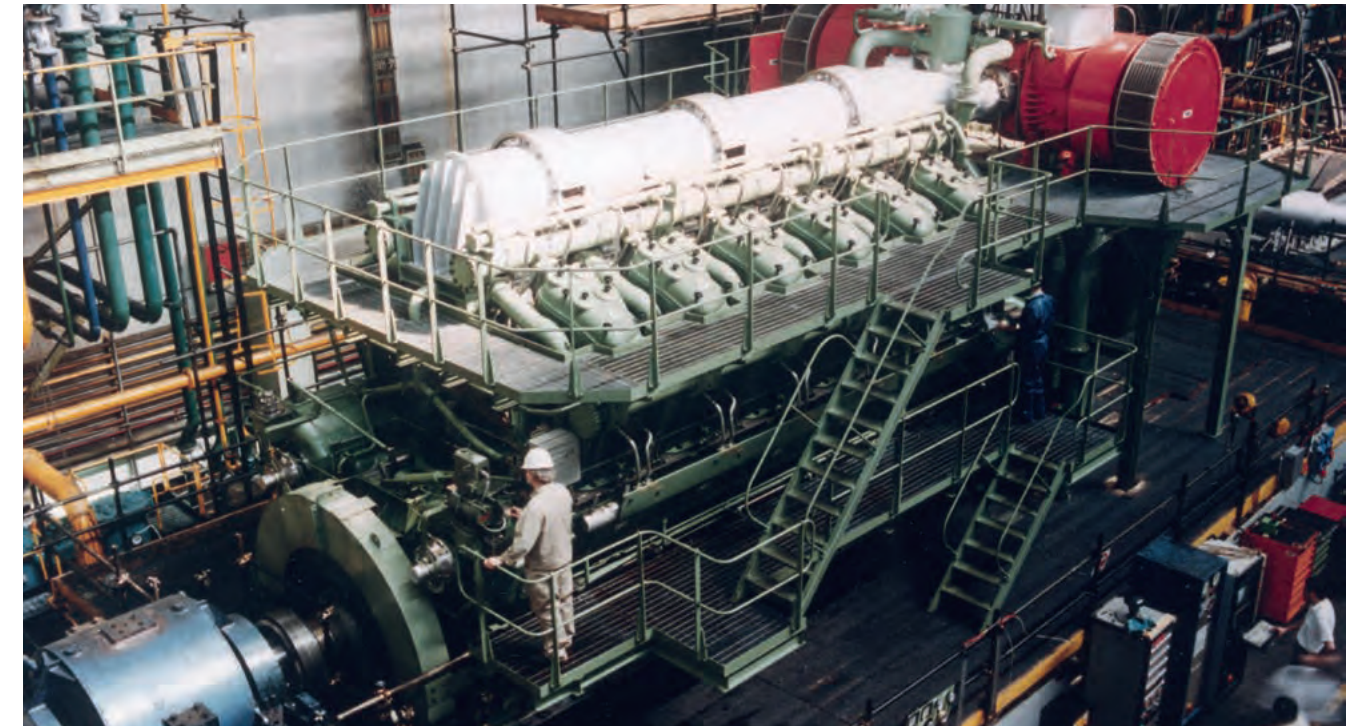
Ultimately, the story of the Sulzer acquisition was not so much about whether the deal was rational, but how it was managed afterwards. Collateral damage could not be avoided: there were retirements, dismissals and resignations.

At the end of the 1990s, Wärtsilä's engine production relied primarily on six plants: Vaasa (engines 32 and 20) and Turku (46) in Finland, Zwolle (38 and 26) in the Netherlands, Mulhouse/SACM (200) in France, Trollhättan/Nohab (28) in Sweden, the Trieste plant acquired in Italy as part of the Sulzer deal and a test plant focused on two-stroke engine design in Winterthur, Switzerland. However, Wärtsilä soon found itself in a serious cost crisis. The power plant business crashed due to the Asian crisis in 1997 and, following the acquisitions made by the Group, the product portfolio was too broad and disjointed. Inside the Group, different engine clans were in competition with each other.

The situation escalated at the Grandi Motor plant and what happened there had an impact on the other factories. It was necessary to allocate production to Trieste to keep the plant in operation. The closure of the plant was not an option, as the Italians had negotiated tough terms. Employees would be entitled to five years' pay if the plant were closed down.



When Metra and Fincantieri merged their diesel engine businesses in connection with the Sulzer acquisition, the Grandi Motori plant in Trieste, Italy was part of the deal.



The Board of Directors decided to reduce the amount of products and production plants, in France, among other places. While the majority saw it as a necessary move under the circumstances, some considered the moves to be flawed and panicky, further evidence of a lack of tactical nous on the international playing field.

One move that created bad blood in the public arena and inside the company was the 2004 decision to close down the Turku plant and relocate the production operations to Italy, against the loud objections of fur hat delegations and trade unions. The situation was not helped by the news that broke around the same time regarding a major order received by the Turku plant from Iraq, and Finnlines ordering ships from Italy instead of Finland.

The mood among the people in Turku was hardly improved when it became clear what kind of company had been added to

## One strong argument in favour of closing down the Turku plant was that there was no room for expansion along the banks of the River Aura.

the Group. Italian business culture was from another planet back then. Shop steward **Seppo Leino** visited the production plant in Italy around the time of the acquisition.

“The acquisition of the production plant in Italy, which led to the closure of our Turku plant, was something I never understood. We had a lot of work. They sent me to Italy to see how we could introduce the Finnish negotiation culture to that environment. I brought along an interpreter and an occupational safety delegate.

The Italian executives wondered why Wärtsilä had sent a shop steward over. The plant’s personnel manager was there for the first negotiations. He pointed to the Italian shop stewards in attendance and basically said ‘Look at these guys, how are we expected to cooperate with these terrorists?’ It was like going back in time to a 1960s shipyard: a couple thousand workers, loads of bureaucracy and very little getting done.”

There was, however, one strong argument in favour of closing down the Turku plant: there was no room for expansion along the banks of the River Aura.

**W**hile the relocation of production can be considered to have been the correct decision in hindsight, the shift to a market for a new type of engine would ultimately fail.

The reasons were at least partly psychological. At that stage, the traditional Finnish engineer’s mentality was not what was needed to join the ranks of the really big players. Selling hardware straight from the factory is one thing. Having to build and maintain relationships with huge shipyards – both licensees and their factories – is a different kettle of fish. Marketing and sales did not intersect effectively.

One person who was seriously displeased by the situation was Peter Sulzer. During his time at Wärtsilä NSD, he waged a quixotic battle against the senior management starting in the late 1990s.

“Four-stroke engines and two-stroke engines are two entirely different worlds.

In the year 2000, I wrote a letter to the senior management to warn them that if the organisation and the attitude – meaning sales and marketing – did not change, we would surely fail. We had to adapt to the market. We couldn’t expect the market to adapt to our products. But they were prisoners of their own success, blinded by their achievements, and they thought their style was always going to be the right one. It was the wrong way to do business. That’s why I left the company, and I’ll be a happy man if I never have to hear about diesel engines again,” Sulzer says.

Licensing as a business model was also quite unfamiliar to the company, which still had a deeply rooted spirit of doing things in-house and focusing on the company’s own technology.

While the Sulzer saga ultimately opened new doors and represented an important lesson in Wärtsilä’s story, it felt like a misstep at the time. Ole Johansson, who took over from Hintikka as the President of Wärtsilä Diesel, talks openly about what went wrong.

## The era of the diversified conglomerate was nearing its end. Companies had to identify their core strengths and areas of expertise and focus on what truly mattered.

“We shouldn’t be afraid to discuss our failures. In the early stages of our internationalisation, we perhaps lacked the confidence to take a firm enough grip of our acquisitions. One such case was the New Sulzer Diesel acquisition, which saw us acquire a business headquartered in Switzerland that included heavy machines and related licences. It involved an approach that was completely new to us. Instead of being manufactured by Sulzer itself, the two-stroke engines were produced under licence. We acquired the technology and the engines were manufactured by licensees. There were significant technical problems and we failed to develop sufficiently strong relationships with the manufacturers. We didn’t internalise the licensing-based approach to business and it turned out to be a flop,” Johansson admits.

The two-stroke engine business was gradually sold off to Chinese buyers in the 2010s. This ended the two-stroke chapter

in Wärtsilä’s history, although providing maintenance for the engines remains part of Wärtsilä’s service offering to this day.

**I**n 2002, Wärtsilä had completed its largest acquisition to date by buying the marine propulsion system manufacturer John Crane-Lips. The successful acquisition meant Wärtsilä had reached a significant milestone: it had become the world’s leading ship power supplier.

Wärtsilä had quickly evolved into a global company. The process of internationalisation had been breathlessly fast.

However, it came with a price – Wärtsilä was very close to being a company in crisis. Profitability was weak, the cost structure was heavy and profits had been earned by selling off real property. At the start of the new millennium, the cumulative operating profit for the preceding five years was three per cent.

The era of the diversified conglomerate was nearing its end. Companies had to identify their core strengths and areas of expertise and focus on what truly mattered. This was also the case for Wärtsilä,

which now had three divisions – marine engines, power plants and services – along with the Imatra Steel plant.

It was time to start devising a new strategy.

## Surrounded by civil war and under curfew: yes we can!

“The floating power plant was parked in an area controlled by the Guatemalan navy. The idea that the floating power plant could have been moved out, if necessary, was not feasible because the navy was watching over it. It illustrates the world of finance at the time, the fact that no-one bothered to find out that Guatemala was in a state of civil war, with a curfew in effect at night. There were so many terrible elements involved. When I got home, I had to tell people it wasn’t exactly a straightforward affair. But the people at Wärtsilä were excited about the project, which goes to show that Wärtsiläians are ready to work under all circumstances.”

Jaakko Eskola recalls a mid-1990s Wärtsilä Diesel power plant project for which he helped arrange financing from KOP Bank before he joined Wärtsilä himself. It was one of the first power plants exported to Guatemala, built on a floating platform in the port of Puerto Quetzal, powered by 10 Vasa 32 engines and operated by Enron.

Wärtsilä’s regular financing partner, SYP Bank, had turned down the idea of financing high-risk power plant projects in the developing countries, and KOP Bank was eager to take the opportunity to snatch a customer from its main rival.

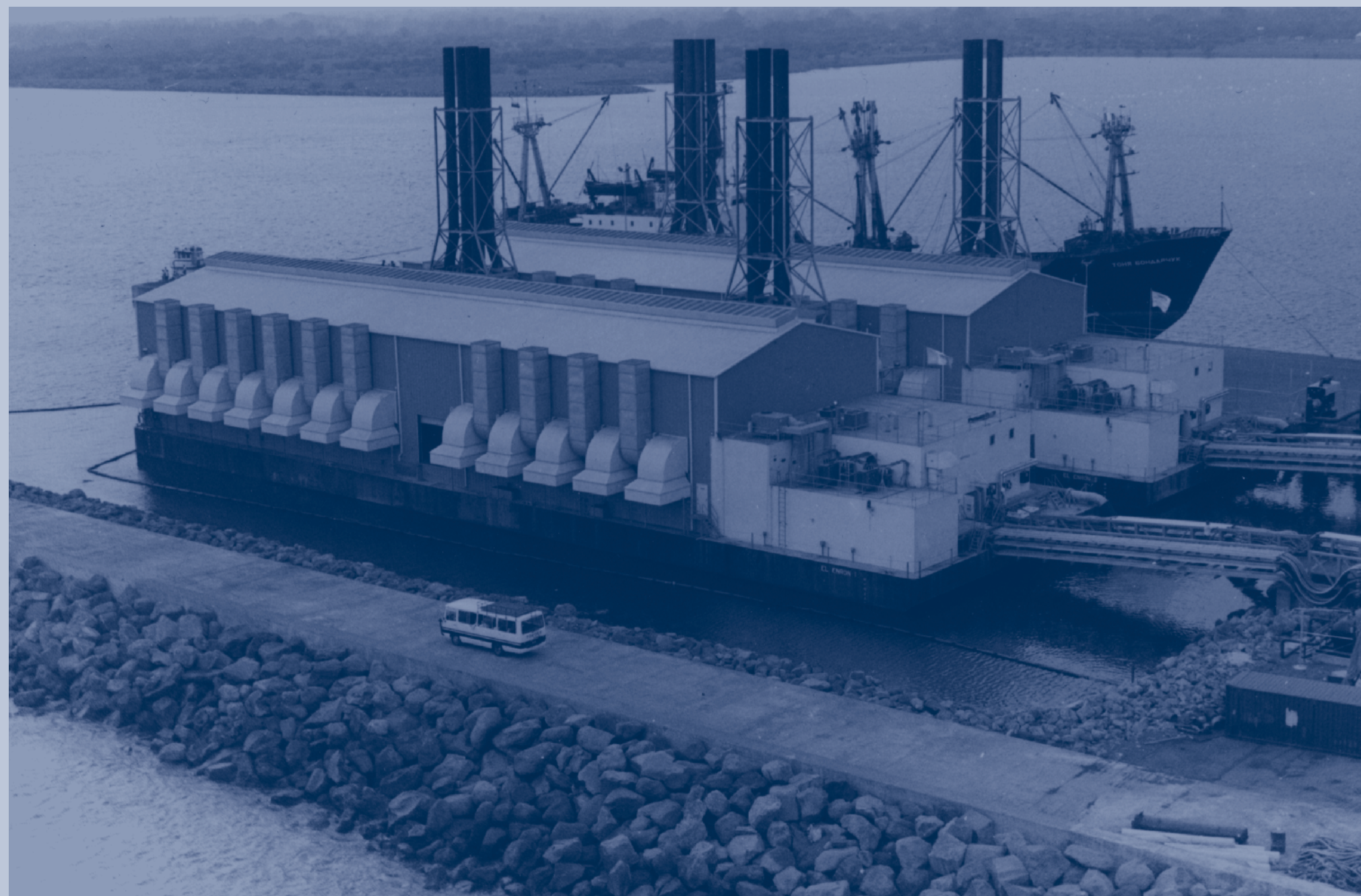
KOP and SYP soon merged under the banner of Merita Bank, and Eskola was

in charge of the entire Wärtsilä account. He proposed to the bank’s Board that financing should be granted for the Guatemala power plant project. Only then did he travel to Central America to see what he had agreed to finance.

Eskola can laugh about it now, and he tips his hat to the Wärtsilä Diesel daredevils who fearlessly went out into the international markets. In his view, the success of the power plant business was mainly driven by courage both at the individual level and at the organisational level. There was a strong belief that anything could be created from the ground up.

“The idea of putting a ship engine on dry land to generate energy was a simple concept, but nobody bought it. Not deterred by this in the slightest, the people at Wärtsilä decided to construct the buildings around the engines, even to build the entire energy infrastructure needed. In some countries, they really did it from the ground up. Can you imagine the audacity it took? It was a good example of the kind of things Wärtsilä gave its people the opportunity to do. It is part of the Wärtsilä ethos: if someone comes up with an idea, they are given the chance to try it out. It can turn into a tremendous business.”

**Jaakko Eskola**  
Wärtsilä’s current President and CEO



# A great turning point

No one who worked at Wärtsilä in the late 1980s will ever forget where they were when they first heard about Wärtsilä Marine's bankruptcy.

A demonstration by Wärtsilä Marine personnel in Helsinki. Employees from Turku travelled to take part.

Pentti Koskinen / Lehtikuva

## From the bankruptcy to new beginnings

**Ilkka Kallinen** had joined Wärtsilä in summer 1977 as an apprentice at the Helsinki shipyard. While he enjoyed the nine years he spent as a mechanic, it was a strenuous job. It was hot in the summer, bitterly cold in the winter and always noisy. His back started causing him problems.

In spring 1986, he saw a note on a company bulletin board announcing a vacancy for a driver at the head office. He had worked as a taxi driver on the side, so he put in an application and was soon hired as the President and CEO's personal driver, with his predecessor having been taken ill.

In what became a long chapter in Kallinen's career, one summer stands out in particular.

→



“**S**ummer 1989 was mad. I drove our leased Mercedes some 13,000 kilometres over a period of just a few months. A lot of it was on the weekends and I was barely seen at home around that time. When a person gets in the car, you can sense subtle signs of how they’re doing. That summer, it was obvious that something was not right.”

Wärtsilä changed for good in 1989. It ceased to be a shipyard company when Wärtsilä Marine went bankrupt.

It was one of the largest bankruptcies in the history of Finnish and Nordic business. The liquidation of the bankruptcy estate, documented in a line of folders 50 metres long, was finally completed 24 years later, at the end of November 2013. The largest among the estate’s 1,500 creditors was the Finnish state, which ultimately collected about EUR 1 billion. The total fees of the estate’s administrators exceeded EUR 7 million.

## Wärtsilä changed for good in 1989. It ceased to be a shipyard company when Wärtsilä Marine went bankrupt.

**T**he reasons for the bankruptcy can be traced back to the 1970s. Japan emerged as a competitor in the Far East, using lower prices to gain market share particularly in container ships and tankers. European shipyards tried to respond with the help of state subsidies and price dumping, but they failed. By the mid-1980s, the market share of Western European shipyards had fallen to 14 per cent, while the Japanese had seen theirs climb to above 50 per cent.

The arrival of the shipyard crisis on Finland’s shores was somewhat delayed. Finnish shipyards had specialised in passenger ships that required a stronger focus on design, engineering and customised production, where the competition wasn’t quite as cut-throat. The impact was also buffered by bilateral trade between Finland and the Soviet Union and the high oil prices that supported that trade. As the empire began to crumble and the price of oil came crashing down, Finnish shipyards came face to face with the harsh reality of the situation.

The Ehrnrooth family had entered the picture at Wärtsilä in the mid-1980s after **Tankmar Horn** invited his good friend, SYP Bank magnate **Casimir Ehrnrooth**, to join the Board of Directors. There was a noticeable change in the balance of power between the company’s executive management and the Board of Directors. The Board of Directors took on a more active role in relation to Wärtsilä’s management.

The exact identity of the individuals who decided on the survival strategy – which proved to be wrong – is subject to speculation, but President and CEO Tor Stolpe played the most significant role. He initiated the negotiations that took place in spring 1986 regarding the merger of Finnish shipyards and led to Wärtsilä and Valmet merging their shipyard businesses to form Wärtsilä Marine later that year. Wärtsilä owned 70 per cent of the new company, while Valmet owned 30 per cent. The Finnish state helped the union of the two paupers by granting a tax break of FIM 700 million. In conjunction with the deal, Valmet and Wärtsilä merged their paper machine businesses with the opposite allocation of ownership: 30 per cent for Wärtsilä and 70 per cent for Valmet.

Many of the interviewees said that they had wondered if Tor Stolpe’s early-stage dementia, which they heard about much later, affected these decisions.

In any case, the decision caused a serious rift between Stolpe and **Martin Saarikangas**, Vice President of Wärtsilä’s shipyards

division and manager of the Helsinki shipyard. Saarikangas, very much a man with his own ideas about things, felt that the worst error of judgment behind the decision was to rely on the Eastern trade.

“I put together the shipyard restructuring programme in 1986 and presented it to Stolpe. He suggested that Wärtsilä and Valmet should merge their shipyards. I was completely against the idea. I expected trade with the Soviet Union to end within a few years. Valmet was selling 100 per cent of its ships to the Soviet Union and Wärtsilä 25 per cent. I had made it clear that we needed to move on from our reliance on the Eastern trade. President **Reagan**’s policies were driving Soviet Union into economic ruin. Stolpe just said the merger would go ahead without me.”

Saarikangas drifted – or was pushed – to the sidelines. He was assigned to the U.S. in autumn 1986 to head Wärtsilä Marine’s marketing in North America. He returned to Finland and Wärtsilä Marine in spring 1989 and, later that year, he was appointed as the manager of the Helsinki shipyard in a final rescue attempt.



Pekka Laine was made the scapegoat for the entire crisis.

Saarikangas has subsequently elaborated on his views of the birth, bankruptcy and later stages of Wärtsilä Marine in his biography written by **Heikki Haapavaara**.

**T**he man appointed as the President of Wärtsilä Marine was **Pekka Laine**, who came in with a formidable reputation due to his track record of having been an eagle-eyed supervisor at United Paper Mills. The shipyard business was a new industry for him. In the pulp and paper industry, machines did the bulk of the work. At shipyards, people were at the heart of operations, and managing people is one of the most difficult skills there is.

Tough times place additional challenges on management. You need clarity, delegation, trust, realism, consistency and the courage to disagree. When it came to having these qualities, Wärtsilä Marine – and Wärtsilä as a whole – were not entirely at the standard required by the situation at the time.

Laine feels that he did what he was hired to do and characterises his performance as “at least fairly good”. In the eyes of the people, he became the scapegoat for the entire crisis. They made derisive songs about him, characterising him as the Devil’s progeny, someone who could “even take Hell to the digital era”. Following death threats, the Finnish Security Police advised him to not walk across Pitkäsilta bridge or show his face in front of the company headquarters. The President had to sneak into his company car through the basement.

Then again, the starting point was not great. The house that Pekka Laine had walked into was built on a crooked foundation.

Valmet had sold ships to the Soviet Union at losing prices, prioritising the employment angle. The share capital of the new company was valued at approximately FIM 1.5 billion, but this largely consisted of overvalued real estate. Cash holdings stood at FIM 150 million, which is about the size of the office coffee fund for a company in such a capital-intensive business. This equation made it difficult to get loans from banks, and the price of borrowed capital was high.

The people behind the wheel at Wärtsilä Marine tried a downhill start to get the company going. To get the engine started, they tried to grow the order book while simultaneously cutting costs. With the help of consultants, the cost savings target was set at 30

per cent. The most visible measures were the closures of the Valmet shipyards in Vuosaari and Pansio.

The company took as many orders as it was able to get its hands on.

An agreement was signed with Carnival Cruise Line for the construction of three cruise ships. However, the cruise ship segment was not the strongest aspect of the company's production operations and, with the benefit of hindsight, the ships were underpriced. The boom in the construction of Baltic Sea cruise ferries was also reflected in Wärtsilä Marine's order books. Some have suggested that orders were taken just for the sake of having more orders on the books. The blind desire to add more pages to the order books meant that costs and prices were overlooked.

As it turned out, the company and the life raft built to rescue it began to leak at the other end, too.

It was estimated that the company would need about 10,000 workers to fill the orders it had accumulated. However, due to the reorganisation measures, the uncertainty felt by employees and resignations, the number of personnel had in fact declined. Other industries were attracting workers away from the shipyards. The deregulation of the foreign exchange markets had led to an upswing, especially in the construction industry, and Wärtsilä Marine began to run out of manpower. By late 1988, the number of personnel was approximately 7,000.

The company had to turn to subcontractors – the same ones used by the construction industry, for example. Wages and the costs of supplies skyrocketed. The cost-cutting targets became unachievable and the losses, which had already amounted to approximately FIM 1 billion in summer 1988, grew further. A year later, the losses were estimated at more than FIM 1.5 billion.

The attempted rescues failed and the state was unwilling to buy out the company or become a shareholder. Other efforts to secure additional financing were also unsuccessful. Wärtsilä Marine filed for bankruptcy at 3:30 p.m. on 23 October 1989.



Thousands of people took part in demonstrations, not only shipyard workers but also others who supported their cause.

For the company's employees at the time, it was a generational event that could be compared to the 9/11 attacks. Where were you when...?

The Personnel Department did all it could to help employees – and the management, in particular – cope with the trying times.

**Efforts to secure additional financing were unsuccessful. Wärtsilä Marine filed for bankruptcy at 3:30 p.m. on 23 October 1989.**

“That was a time when Pekka Laine was very effective. He gave us free reign to do certain things. We actually had a lot of people pass away around that time. It was a bad time,” **Anneli Valpola** says quietly.

People received counselling from the company's occupational health physician on a weekly basis. Systematic efforts were made to find alternative jobs for the personnel. The gravity of the situation is illustrated by the fact that events were organised for the key individuals to talk about their thoughts and feelings, with even their spouses invited to attend.

**Björn Wahlroos** was involved in the restructuring moves of Wärtsilä and Wärtsilä Marine from 1985 to the turn of the millennium, first through SYP Bank and later Mandatum.



The demonstrations ended up at the doorstep of politicians, like the steps of the Parliament House shown here.

Naturally, many of the underlying personal relationships had been established much earlier through family connections and the broader community of Swedish-speaking Finns. Familiarity with Wärtsilä's story had developed in informal settings. Through his father – Ministry of Trade and Industry Secretary-General **Bror Wahlroos** – Björn Wahlroos had known **Tankmar Horn** since childhood. Uncle Tankmar was an occasional dinner guest at the family house.

One anecdote from winter 1989 describes not only Tankmar Horn's personality, but also how removed the Chairman of Wärtsilä's Board of Directors (1987–1991) was from the realities of the world of business at the time.

The topic of conversation was the Wärtsilä Marine bankruptcy, and the story is recounted here with the utmost affection.

“Once at the dinner table in winter 1989, holding a tumbler in his hand, Tankmar said to me ‘Now, Nalle, you have to explain what the hell happened. These things have always been sorted out at the government level!’ Tankmar's background was in the Ministry for Foreign Affairs and he didn't fully understand – or live in – the world of business. In his world, corporations didn't have to sort things out at their own risk. They were more like extensions of the state. How could there be a bankruptcy! That sort of thing shouldn't even be possible, and if it was, it certainly couldn't be his fault or Wärtsilä's,” Björn Wahlroos recalls.

**T**he Finnish banking system in the 1980s was split by a veritable Great Wall of China, a boundary that companies could not jump across. You had the KOP Bank camp on one side and the SYP Bank camp on the other. With its roots in the community of Swedish-speaking Finns, Wärtsilä would have been a natural fit with the latter group. Strangely, though, SYP was not one of Wärtsilä's shareholders.

This changed in the late 1980s.

Björn Wahlroos joined SYP Bank in 1985, with investments among his responsibilities. Wahlroos and SYP determined that Wärtsilä was undervalued due to its shipyard-related problems. In spite of the shipyard situation, the bank began acquiring shares in the company. By 1989, it had practically become Wärtsilä's largest shareholder.



Timo Hämäläinen/Lehtikuva

**Björn Wahlroos** was responsible for the Wärtsilä account at SYP Bank in the late 1980s. The bank was also a creditor in the bankruptcy.



Ari Ojala/Lehtikuva

As Secretary-General at the Ministry of Trade and Industry, **Bror Wahlroos** looked after the state's interests.

Each member of the bank's Board was responsible for a key account. The Wärtsilä portfolio was managed by **Ahti Hirvonen**, who had been appointed as SYP's CEO in 1989. Following Hirvonen's appointment to Wärtsilä's Board of Directors, the portfolio was assigned to Björn Wahlroos.

Late spring 1989 rolled around and, as Wahlroos puts it, “the proverbial hit the fan”.

“**Now, Nalle, you have to explain what the hell happened. These things have always been sorted out at the government level!”**

**Tankman Horn** (according to Björn Wahlroos)

“Hirvonen came from a meeting of Wärtsilä's Board of Directors and said there's a problem. That's how it began. Pekka Laine had been promoted to Group President and CEO and his successor at the helm of Wärtsilä Marine, **Ingmar Ingvesgård**, told me that reporting had been incomplete, bad deals had been made and things were looking grim – Wärtsilä Marine would run out of money in a couple of weeks. I called Wärtsilä CFO **Klaus Grönbärj** and told him to sort out the mess they had created. Klasu countered by saying there was an unequivocal decision by Wärtsilä's Board of Directors to not invest any more money in Wärtsilä Marine and to let it go bust if it can't be avoided. I called him into my office and he began to understand that things weren't quite so simple. We couldn't let a division go bankrupt just like that.”

Around the same time, Pekka Laine had presented his strategy proposal to Wärtsilä's Board of Directors. It fell on deaf ears.

Laine, who would become the personification of Wärtsilä Marine's demise, was completely excluded from the decisions made in the final stages.

In June, guarantees were used to put together an emergency arrangement before Finland went on holiday for the month of July, as was customary at the time.

The situation had not improved when everyone came back in August. **Raimo Sailas** from the Ministry of Trade and Industry, Björn Wahlroos and Finnish Guarantee Board Managing Director **Ilkka Niemi** negotiated a financing agreement. It included a division of responsibilities between SYP Bank, Posti-pankki and the Finnish Guarantee Board along with a commitment to providing working capital to prevent Wärtsilä Marine from becoming insolvent.

After the agreement was signed, Minister of Trade and Industry **Ilkka Suominen** publicly stated on 9 August that the company would not be allowed to fold and its existing projects would be completed. Björn Wahlroos believes the statement was motivated by the state's

desire to renegotiate contracts with clients and the need to underline how essential these negotiations were.

While Suominen's assertion was well-meaning and aimed at stabilising the situation, Wahlroos still thinks it was a tactical mistake.

“Why would anyone renegotiate anything after the state had promised to act as a guarantor? That was the problem. On top of that, Carnival Cruise Line had a good agreement from their perspective. They owned every single screw as soon as it was drilled into the hull. They came and tugged the half-finished ship off the shipyard. We ended up in a grey area where the state tried to resolve the situation but failed to make progress.

The final stages before the bankruptcy was announced were chaotic and full of drama. No one knew for sure what the losses

on the order backlog would be. The most frequently quoted estimate came from Bror Wahlroos' trusted auditor: FIM 2 billion. One interesting footnote to the story was that Bror Wahlroos had, in the words of his son, "in a display of naïveté, the spirit of the volunteer fire brigade and a distinct lack of self-preservation instincts" agreed to be appointed the Chairman of Wärtsilä Marine's Board of Directors for a couple of months in autumn 1989.

From Wärtsilä's perspective, the final nail in the coffin was Ilkka Suominen announcing that Wärtsilä Marine was placed in liquidation. According to Martin Saarikangas, then-manager of the Helsinki shipyard, it was a close call.

## “ The bankruptcy led to the emergence of a new world that turned out just fine. The company's ability to achieve success stems from those turning points.”

**Pekka Laine**

"I had negotiated deals with all of the shipping companies that had vessels under construction that would have seen them come in with an injection of equity. The crucial meeting had been set for 25 October 1989, but it wasn't to be. On Monday the 23rd, Ilkka Suominen decided that Wärtsilä Marine would file for bankruptcy after the banks refused to provide any further funds. If they had waited just two more days, I would have come up with the money."

The Finnish state, Postipankki and SYP Bank negotiated a deal that both Wärtsilä and Valmet agreed to participate in and put up

funds. This ensured that the banks' losses were not as high as previously feared. In the very final stages, the deal nearly fell through in the Finnish government's session due to a technical error by the presenting official.

The situation was rectified by a bit of political creativity that turned out to be a blessing. The Minister of Justice, lawyer **Matti Louekoski** proposed the solution – presumably based on a suggestion by the Finnish Metalworkers' Union – of signing the agreement on a conditional basis. The signatories signed version 4B of the agreement with the understanding that it would be updated to version 7, which all parties had agreed upon.

For Raimo Sailas, the head of the state's budget department, Wärtsilä Marine's bankruptcy was a traumatic event. One reason for this may be that he was questioned by law enforcement on a couple of occasions, although it seemed that neither the officers nor the suspect knew why they were there.

Above all, Sailas sees the bankruptcy as having had symbolic value. According to his biography, written by **Jarkko Vesikansa**, Sailas considered the episode the starting shot for the recession and a trigger for some serious soul-searching. If such a large company can fold like this, perhaps nothing is beyond the realm of possibility – even though everything seems so permanent in good times. Could the same fate even befall the state? Perhaps this marked the birth of

the Raimo Sailas that Finns would come to know during the recession as the national pessimist with bags under his eyes, the great rationer who reminded public officials and the broader public about the economic realities of the situation.

And what happened to the shipyard? How about we let Martin Saarikangas, a man known for his modesty, have the final word.

"Well, Wärtsilä Marine went bankrupt on Monday and the following Thursday I started a company called Helsinki New Shipyard. I took the share certificates to Bunta (Bror Wahlroos)

and the documentation was approved in 10 minutes in a meeting of the National Board of Patents and Registration. SYP Bank agreed to get involved. I opened an account at the bank and deposited USD 80 million. The girl behind the counter nearly fainted."

"I started Masa Yards on 7 November 1989 and made it known that I needed FIM 600 million in share capital. In cash. We got busy and, 10 days later, we had the money. We forced Wärtsilä to grant a capital loan of FIM 200 million. I paid the loan back by handing a cheque to **Robert Ehrnrooth** (Metra) in 1994 – after I had made a billion in profit."

To this day, people still wonder whether a genuine effort was made to avoid the Wärtsilä Marine bankruptcy. Was the outcome, in spite of the drama, what the company's Board of Directors and shareholders actually wanted?

The post-mortems, vastly divergent interpretations and speculation still go on, 30 years after the fact.

Like Pekka Laine, you could take the starkly realistic perspective: "It (the bankruptcy) led to the emergence of a new world that turned out just fine. The company's ability to achieve success stems from those turning points."



**Martin Saarikangas** at the auction held on 26 November 1990 following Wärtsilä Marine's bankruptcy.

## The difficulty of making predictions

Why did Wärtsilä Marine drift into bankruptcy? The reasons can be largely explained by breaking down the cost structure of a ship.

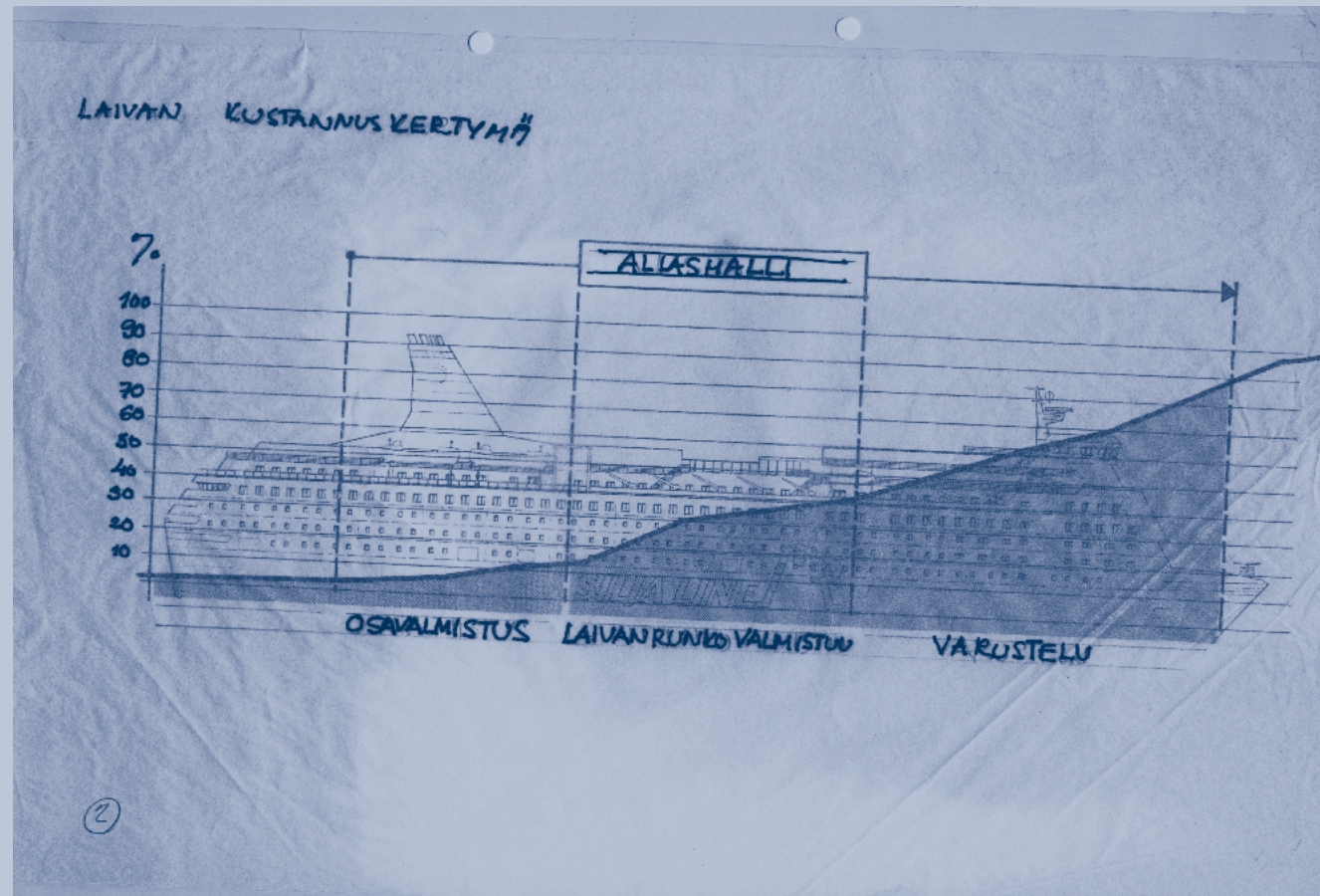
Shipbuilding can be divided into four stages: designing the ship, manufacturing the parts, putting the parts together to create the hull and finally fitting out the

ship. The majority of the costs are generated in the last of these four stages.

However, ships were sold years ahead of their completion and their prices were based on predictions of future costs and the pressures of competing against other shipbuilding companies. In hindsight, the ships delivered in the late 1980s were underpriced. At the same time, inflation had driven up wages and other costs.

When the Soviet orders suddenly ceased and other sales opportunities were missed by Wärtsilä, mainly due to the French competitor benefiting from state subsidies as high as 60%, Wärtsilä Marine's revenue streams dried up.

After this situation led to streamlining measures and dismissals at Wärtsilä Marine, suddenly the company didn't even have employees to fulfil the previously agreed underpriced contracts. Instead, the work had to be commissioned from subcontractors at high prices.



## A Midsummer visitor to Nakkila

Prime Minister **Harri Holkeri's** cabinet, a coalition between the National Coalition Party and the Social Democratic Party that also included the Swedish People's Party and the Rural Party, was in office from April 1987 to April 1991.

**Ilkka Suominen**, the chairman of the National Coalition Party, was the Minister of Trade and Industry, which meant he was closely involved in the Wärtsilä Marine crisis and eventual bankruptcy. After all, the state owned 50 per cent of the company.

### When and how did you find out about Wärtsilä Marine's difficulties?

The way it started was actually quite dramatic. I found out about the company's problems on the day before Midsummer's Eve in 1989. I got a call from **Pekka Laine**, the President of Wärtsilä Marine. I was already in Nakkila for Midsummer, so I told Pekka I was out of town. He said he'd meet me there. I poured us some malt whisky and we went over to the garden swing. As we sat down with our tumblers, he said 'So, Ilkka, the thing is that I need FIM 2 billion.' That's how it began. The reason for the situation was that they had knowingly – such a big company couldn't possibly do it by mistake – sold ships at a loss. They had been taking on unprofitable projects for a couple of years to keep their order books going. This meant that their costs were higher than their revenues.

### Did you take any action? What did you do?

My Secretary-General, **Bunta Wahlroos**, was already on his summer holiday. However, since the problem involved such a huge sum of money, I decided to get in touch with Under-Secretary of State **Juhani Kivelä** at the Ministry of Finance. He took it upon himself to look into the matter. When Bunta came back from his holiday, true to style, he got his hackles up and said it was a case for the Ministry of Trade and Industry to handle.

We conducted an audit of Wärtsilä Marine and held a press conference with Bunta on the 9th of August, stating our assessment that the existing deliveries of ships could be completed and there were sufficient funds available. However, in early September, I still had doubts so I assigned two auditors, **Furstenborg** and **Manner**, to take another look at Wärtsilä Marine's books. They came back with a report in October saying it wouldn't work. There weren't enough funds after all.

### What were the final rescue attempts like?

Naturally, the matter was discussed between the Ministry and SYP Bank. When things came to a head in November, we were still prepared to grant the additional financing necessary to complete the ships. SYP, however, made it clear they were not going to throw good money after bad money. I suppose it was the right call by the bank, but the consequence was that my Secretary-General, a man of jurisprudence, told me we had no option but to place Wärtsilä Marine in bankruptcy. Not doing so would have been against the law. As someone whose academic background was in political sciences, I was not in a position to argue about legality. The reason I say this is because I have often been asked whether we really had to place the company in bankruptcy. The fact is that when a company knows it is running out of money, it is legally obligated to request bankruptcy proceedings. Otherwise it would be deceiving its customers and suppliers. The estimate was based on the statement by the auditors I mentioned.

**Björn Wahlroos has made references to the press conference in early August, suggesting that the expressions you used regarding state guarantees for certain orders put them in an impossible negotiating position. It practically meant promising the shipping companies that the orders would be completed under all circumstances.**

I would dispute that claim from my friend Björn. I mean the part that the state promised to provide guarantees. The assessment made by me and Bunta at the time was that the funds would be sufficient. That view was based on an audit. It was only much later that the perception arose that could justify what Björn says about state guarantees. In 2010, the subcontractors argued that the press conference created a subjective right for them based on the state's promise to

ensure the completion of the ships under all circumstances. They had taken on loans and liabilities by continuing to supply goods and materials. When the bankruptcy happened, they were left holding the bag. They sued me and Bunta Wahlroos, arguing that our statements in the press conference had created a subjective right for them. We went to court and the District Court agreed with the claimants, finding that they had a subjective right. The Court of Appeal disagreed. A press conference is not a venue where binding agreements are made. It's a venue for making statements on what the situation looks like and what the intended course of action is. The case went to the Supreme Court and they agreed with the District Court, finding me and Bunta guilty. My friend **Pekka Hallberg** (President of the Supreme Administrative Court 1993–2012) said it was a calamity and the first time that the American concept of justice had been introduced to the Finnish judicial system. He couldn't believe it. I eventually received a letter signed by **Erkki Tuomioja**, absolving me of financial liability. So at least I wasn't on the hook for hundreds of millions.

**Martin Saarikangas, the manager of the Helsinki shipyard at the time, claims he had financing agreements ready and the bankruptcy could have been avoided if he had just two more days to work with.**

Saarikangas himself was behind some of the underpriced deals for ships. And if they genuinely had such agreements, why didn't they come see us at the ministry to stop us? Besides, Martin wasn't really in a position to have a significant influence over the matter, was he? It was all in the hands of Ahti Hirvonen at SYP Bank. My respect for Hirvonen grew when the bankruptcy was sorted out. SYP could have dodged the bullet, but Ahti put in money in the bankruptcy estate, which meant that SYP also suffered losses, although not to the same extent as the state.

**How would you sum up the Wärtsilä Marine episode from the state's perspective?**

Well, Pekka Laine initially asked for FIM 2 billion. Before the claims by the subcontractors, which the state ended up having to cover, Bunta and I had estimated that we'd been able to bring the state's losses down to just under FIM 500 million. I'm not exactly sure how much that figure went up when the subcontractors' claims were fulfilled. Probably not by more than 150–200 million. In any case, we were able to reduce the state's losses by the actions we took. It was a mess that wasn't caused by me and Bunta, but we ended up having to wash the proverbial baby's bottom.

The auditors' statements are properly documented. The Board of Management and the Board of Directors saw where the company was headed but didn't put a stop to it. They allowed time to pass and let the business continue leaking money, so they ultimately ran out.

**Were any lessons learned from all this?**

If I remember correctly, it led to a comprehensive reform of Finnish auditing law, involving three major pieces of legislation. It revealed deficiencies in how auditors were required to look at companies to fulfil their legal obligations. It also led to calls for a minister to be designated responsible for state-owned companies. We now have an agency tasked with the oversight of state-owned enterprises and I think the plans for that agency began after the Wärtsilä Marine case.

The state's involvement in the Wärtsilä Marine rescue operation was assessed by Minister of Trade and Industry **Ilkka Suominen** (left) and Secretary-General **Bror Wahlroos**. The state would cover half of Wärtsilä Marine's losses.

# The Metra era

The 1990s was an era of Europeanisation for the large Finnish enterprise. Globalisation called for specialisation. The chapters in Wärtsilä's story during this period include the death of the old company, the merger to form Metra and the company being born again under its old name.

Metra's international expansion was led by Georg Ehrnrooth, who came from the Lohja Corporation side of the merger.

# 6

A detail from *Kullervo Rides to War*, a painting by Akseli Gallen-Kallela. A fresco based on Gallen-Kallela's piece, painted on the wall of the music room of the Old Student House in Helsinki, was the inspiration for the Metra logo.



## From a general store to a European specialty shop

“That’s out of the question. Everyone who sees it will burst out laughing, at least in Finland.”

That was the first reaction of **Eeva Kainulainen**, Vice President of Global Communications at the time. The new holding company needed a fresh identity along with a suitable logo. One of the proposals by the UK-based advertising agency hired for the job consisted of a large letter “E”. It was a reference to Ehrnrooth, the name of the family that had become the company’s largest group of shareholders.

→

## The Corporate colours Yhtiön värit

The group symbol should always where possible be reproduced in blue PMS 288, and the logotype with its secondary titles in black.

In monochrome print work, the group symbol and logotype can both be printed in black or the basic colour used.

On very dark backgrounds the group symbol and logotype can also be reversed, ie white.

Liikemerkin tulee aina kun se on mahdollista olla painettuna sinisellä PMS 288 ja logon sekä siihen liittyvien yksikkötekstien mustalla.

Yksivärisissä painotöissä liikemerkki ja logo voivat kumpikin olla painettu mustalla tai painotuotteessa muutoin käytetyllä perusvärillä.

Hyvin tummalla taustalla liikemerkki ja logo voivat olla myös negatiivisina eli valkoisina.



### One colour printing

Black or used basic colour

### Yksiväripainatus

Musta tai käytetty perusväri



### Two colour printing

Blue PMS 288  
Black

### Kaksiväripainatus

Sininen PMS 288  
Musta



### Four colour printing

Blue on coated paper  
100% cyan  
80% magenta  
10% black  
Blue on uncoated paper  
100% cyan  
60% magenta  
10% black  
Black

### Nelivärierottelu

Sininen päällystetyllä paperilla  
100% sininen  
80% punainen  
10% musta  
Sininen päällystämättömällä paperilla  
100% sininen  
60% punainen  
10% musta  
Musta

“We started to build the corporate image and the new Group from a blank slate. Its identity was completely different from the old Wärtsilä. Its businesses numbered in the double digits and included everything from coffee cups to diesel engines. We had to start with something that was quintessentially Finnish. The advertising agency we used was from the UK, so they didn’t have a great understanding of Finnish society to begin with,” Kainulainen recalls.

“We started to build the corporate image and the new Group from a blank slate. Its identity was completely different from the old Wärtsilä.”

Eeva Kainulainen

They took our feedback on board and sought inspiration from Finnish history. The solution was found in the music room of the Old Student House in Helsinki.

“The logo we decided on was a piece of star-studded sky. It was taken from ‘Kullervo Rides to War’, a 1901 painting by **Akseli Gallen-Kallela**. Naturally, we acquired a licence to use it. The symbolism behind the choice probably included our Finnish origins and international ambitions, along with the idea that only the sky was the limit for the new company,” Kainulainen suggests.

The logo was designed for a company created by the merger of Wärtsilä and Lohja in November 1990, confirmed by the District Court of Tohmajärvi.

The shortlist for the new company’s name included Awara, Awardi, Kwarts, Wasama, Merak and W&L, a combination of the initial letters of the two companies’ names. Also on the list were Sasek, Semera and Wertex from Lohja’s side and Primo from Wärtsilä’s side.

Ultimately, the name given to the new company was Metra, a portmanteau of the Finnish words “metalli” and “raken-taminen”, meaning metal and construction. In press releases, Metra was defined as “an international industrial corporation whose key areas of focus are building-related activities and the diesel engine business”.

Wärtsilä’s original name had been soiled by the Wärtsilä Marine bankruptcy. It was shelved and left to wait for better days. “Lohja” as the new company’s name was out of the question. Lohja as a company shared its name with its hometown, a medium-sized city in southern Finland. The joke at Wärtsilä was that they had to send a secretary to the local book shop to buy a map so they could see where this Lohja was located.

In 1989, Wärtsilä Group was an amputee. Wärtsilä Marine had accounted for more than 40 per cent of the Group’s consolidated revenue in 1988. One of the legs the Group had traditionally stood on had been cut off. The removal of the shipyard business can also be seen as a purifying and rehabilitative move. It meant the Group was now free of a limb that had harboured a latent infection.

The reasons for the merger could actually be traced further back than the Wärtsilä Marine bankruptcy.

In the 1980s, Wärtsilä had suffered from internal competition that gradually culminated in a rift between two strong personalities: **Christian Landtman**, the head of the shipyard business, and President and CEO **Tor Stolpe**.

PATENTTI- JA REKISTERIHALLITUS  
PATENT- OCH REGISTERSTYRELSEN

Kaupparekisteri  
Handelsregister

91-000770

136

Rekisterinumero - Registernummer

21.037

Rekisteröity - Registrerat den

20.2.1908

Toiminimi - Firma  
Oy Wärtsilä Ab

9A(A)

Rekisteri- ilmoitus nro Register- uppgift nr	Merkitty rekisterin införd i registret	Kuulutus Kungörelse	Kotipaikka/Kunta, josta toimintaa johdetaan Hemort/Den kommun, från vilken verksamheten ledes
297	16.1.1991	lehdessä 1/91	Wärtsilä

Yhtiön postiosoite: John Stenbergin ranta 2, 00530 Helsinki.

Tuomioistuin on myöntänyt luvan sulautumissopimuksen täytäntöönpanoon. Yhtiö on sulautunut Oy Lohja Ab -nimiseen osakeyhtiöön RN:o 31.232.



tuomion leimaverolain 12 §:n  
mukaan leimaverosta.  
Tarkasti todistaa

16. 01. 91

Allekirjoittanut saaneena

*Rose-Marie Punagin*  
ROSE-MARIE PUNAGIN

Jäljennöksen oikeaksi todistavat:

*Sirkka Toivanen*  
*W. Lejola*

It came down to the relative importance of different industries. For **Tankmar Horn**, who was Wärtsilä's President from 1970 to 1976 and subsequently chaired the Board of Management and the Board of Directors, the company's core business was heavy industry and shipyards in particular. Horn's group – which ran the shipyards and the Eastern trade – had justifiably considered itself the engine of Wärtsilä's profits. However, **Tor Stolpe** wanted to focus on the renewal and diversification of Wärtsilä, to complement the old businesses by introducing new areas of activity. The difference of opinion had ended in **Tankmar Horn's** favour.

As the 1990s rolled around, gone were the shipyards and gone were both Horn and Stolpe. The table was set for an inevitable grand metamorphosis.

It started with the merger of Wärtsilä and Lohja to form Metra.



Martti Kainulainen/Lehtikuva



Matti Björkman/Lehtikuva

Outside interest in Wärtsilä had increased in the late 1980s. Wärtsilä's difficulties were public knowledge. The company was in a vulnerable state and **Klaus Grönbärj** looked pale.

One outside party that watched with interest, weighing the possibilities, was Lohja Corporation. The company had a strong balance sheet that provided opportunities for growth. Lohja's Board of Directors gave the management the green light to contact Wärtsilä. It was a family affair. Lohja's President and CEO was **Georg Ehrnrooth** and the Chairman of the Board of Directors was his second cousin **Robert Ehrnrooth**, whose brother **Casimir Ehrnrooth** was a member of Wärtsilä's Board of Directors and held a key position at SYP Bank.

The first steps towards the merger were taken even before the Wärtsilä Marine bankruptcy.



(Above left) The merger of Wärtsilä and Lohja was announced by Wärtsilä CEO **Tankmar Horn** (shown on the right) and Lohja Corporation CEO **Georg Ehrnrooth**, who would be appointed as the President and CEO of the new Group.

(Left) **Tankmar Horn** and **Esko Rekola** talking at the press conference.

(Above) Lohja Corporation was one of the biggest names in the Finnish construction industry in the late 1980s.

**Heikki Allonen** was Lohja’s Senior Vice President of Corporate Planning at the time.

“We were interested in certain parts of Wärtsilä, mainly on the construction side. Our primary interest, however, was in Sanitec. We even enquired about the possibility of buying it. While that idea was rejected, we received a counter-enquiry: would you be interested in talking about Wärtsilä as a whole? The fall of Wärtsilä Marine put the merger talks on hold. We decided to take a step back to see what the bankruptcy meant,” Allonen recalls.

Private equity firms also smelled blood in the water. Proventus – a family business owned by the Swedish investor **Robert Weil** – and its CEO **Mikael Kamras** had identified Wärtsilä as an undervalued company that didn’t have a clear primary shareholder. They started a classic cornering operation that didn’t go unnoticed in other circles. The people inside the fortress that was SYP Bank were not overly concerned. The bank itself owned approximately 15 per cent of Wärtsilä and its affiliates, Varma Mutual Pension Insurance Company and the industrial insurance arm Teollisuusvakuutus, also held shares in the Group.

One of the starting points for the discussions concerning the future of Wärtsilä and Lohja was how to align with the established spheres of banking in Finland. Major Finnish enterprises were typically either in the KOP Bank camp or the SYP Bank camp. According to Klaus Grönbärj, long-time CFO and briefly President and CEO of Wärtsilä, the company was a bit of a rebel in this regard by making the banking dinosaurs compete with each other. This approach was not always favourably looked upon, but Grönbärj believes it meant Wärtsilä helped promote competition in the banking sector, which is something that is taken for granted these days.

While that is probably true, in the lead-up to Metra’s creation, Wärtsilä – and Grönbärj as one of its representatives – fell firmly in line as part of the SYP sphere of influence. One noteworthy aspect of Metra’s creation was that, like in all dramatic turning points, there was a human element in the mix. No matter how large the shareholdings and the sums of money involved, there may be some simple interpersonal dynamics at play behind the scenes. One key individual might not be fond of another.

Whether you find these human factors charming or appalling depends on your perspective. There are also people who take a clinical or starkly realistic view of events, such as **Björn Wahlroos**, who says he’s too old to sugarcoat his statements.

The situation in autumn 1989 was that there was talk around town, not only about the manoeuvres of the Swedish private equity firm Proventus, but also other buys.

“We had relied on rumours until then, but then we received confirmation – in quite an unusual way – of a hostile cornering operation. **Nipa Hakkarainen**, an industrialist who was in the KOP camp, tugged my SYP colleague **Erik Stadigh** by the sleeve at Frankfurt Airport and told him that KOP had called United Paper Mills to ask if they were interested in taking part in a cornering operation against SYP and Wärtsilä. He revealed this on the condition that no one can ever find out who leaked the information. But it’s fine to talk about it now. Nipa’s motive was simple: he detested KOP President **Jaakko Lassila**. By the end, they were at war with each other,” explains Björn Wahlroos.

As a diplomat and a gentleman, the Chairman of Wärtsilä’s Board of Directors Tankmar Horn was not one to put credence in such conspiratorial stories. He found them distasteful. He was equally turned off by the “defence plan” developed at SYP Bank.

Horn’s attitude is understandable, as the plan practically called for splitting up Wärtsilä. For the bank, the plan would have been highly lucrative.

The brainstorming group that drafted the plan consisted of Horn along with **Ahti Hirvonen**, **Mika Tiivola**, **Kurt Stenvall**, Casimir Ehrnrooth and Björn Wahlroos. The idea was to merge Wärtsilä with Spontel (whose Chairman Wahlroos was) and to establish a holding company that would be affiliated with the bank. Some parts would be sold off and the rest would be formed into industrial divisions. While that is quite close to what happened in the end, the time was not ripe for it yet.

There was also an alternative plan on the table, one whose progress was expedited by dinners at the Palace restaurant and pheasant hunting trips. After all, the talks were held among family – or at least among friends.

**H**ow did it all happen in the end? The recollections of the next stages of the story are quite consistent between the key individuals, such as Wahlroos and Georg Ehrnrooth.

**Georg Ehrnrooth**, an old Wärtsiläian and then-President and CEO of Lohja, indicated in late 1989 that Lohja was interested in Wärtsilä in a broader sense, not just Sanitec.

The idea of a merger between Lohja and Wärtsilä made it to the drawing board. Ehrnrooth and Wärtsilä’s Klaus Grönbärj began to chart the structure of the potential new company. Among other things, they needed to ensure that Fiskars and shareholders affiliated with it would have 20 per cent of the votes in the new constellation.

## As secrecy is paramount in merger negotiations, code names were used. Wärtsilä was walrus, Fiskars was fox, and so on.

The final picture began to take shape in December. The first concrete merger document, with the working title New Corp, was presented in a Monday morning meeting after a weekend spent on a hunting trip hosted by Nokia. The plan also appealed to Tankmar Horn: Wärtsilä would live on, at least in some form.

However, the first document was only the starting point for complex negotiations. A four-day crunch of almost non-stop talks began that same Monday. SYP Bank’s main representative in the project to build the new conclave of Lohja and Wärtsilä

was Björn Wahlroos, who was also Lohja’s auditor at the time. Ehrnrooth and Grönbärj were joined at the table by lawyers and advisors from both companies.

Wahlroos recalls running between rooms at all hours of the night as the shareholdings, valuations and percentages were calculated. One of the issues concerned the fate of the steel company Ovako, with the decision being made in a matter of minutes in the small hours of the night.

Ovako was owned by the Swedish company SKF (50%), SYP Bank (5%), Fiskars (20%) and Wärtsilä (25%). SYP and Fiskars agreed to sell their shares in Ovako to Wärtsilä, making it a significant shareholder alongside SKF.

This arrangement also meant a change in Wärtsilä’s (Metra’s) ownership structure. Wärtsilä acquired SYP’s and Fiskars’ shares in Ovako by carrying out a directed share issue. This made Fiskars – and its principal shareholders, the Ehrnrooths – a significant shareholder in Wärtsilä.

As secrecy is paramount in merger negotiations, code names were used. Wärtsilä was walrus, Fiskars was fox, and so on.

The intensive effort that began on Monday culminated in an announcement made on Thursday morning. It was preceded by the dismissal of President and CEO **Pekka Laine**, a task that was carried out by an initially reluctant Tankmar Horn.

Wahlroos has later described the result at that stage as more of a letter of intent than an actual *merger agreement*. That was the case at least for real estate, which was to be worked on later. It takes time to put together a fair deal.

As one might expect, the most significant challenges were related to reaching an agreement on the valuations of Lohja and Wärtsilä. The two-man team of Björn Wahlroos and Georg Ehrnrooth found that their estimates were about FIM 450 million apart. The disparity was apparently due to **Christian Caspar**, the

Swedish McKinsey consultant used by Wärtsilä, neglecting to include taxes in his calculations concerning the potential sale of properties. SYP and Wahlroos valued Wärtsilä's properties at FIM 1.1 billion, while Ehrnrooth's figure was 700 million.

The issue – and, at the same time, the merger between Lohja and Wärtsilä – was ultimately settled by a handshake between Wahlroos and Ehrnrooth, marking their agreement that SYP would have the option of buying all of Wärtsilä's properties. The agreement concerning the properties was later adjusted by another gentlemen's agreement to FIM 300 million. It also meant that a piece of Wärtsilä's history changed hands: the penthouse of the Grönqvist building on Helsinki's Esplanadi, also known as "Tankmar's party flat", was acquired by the bank.

And what happened to the shares acquired by the Swedish private equity firm Proventus as part of its cornering operation? In January 1990, Proventus CEO Mikael Kamras made his way to Helsinki to suggest that he should get a seat on Metra's Board of Directors. Wahlroos and Ehrnrooth both made it clear to Kamras, more or

less discreetly, that it was not a realistic wish. The Swedish investors were soon bought out by acquiring their shares at a fair price.

**W**hat was the final outcome of the merger? And what would have been the other alternatives?

This chapter in Wärtsilä's history could have been written very differently. It could have been the story of how Wärtsilä was chopped up and sold off by equity firms. According to Lohja's Vice President of Corporate Planning Heikki Allonen, who moved to Metra as a result of the merger, the phones started ringing as soon as the merger was announced. Several investment bankers called to enquire which parts of the company were for sale. An interested buyer in the UK wanted to buy the diesel engine business.

If it weren't for the merger, Wärtsilä would not exist today, at least not in its current form. Lohja Corporation would probably have gone bankrupt or ended up being restructured in the great

Finnish recession, which is what happened to other large construction companies, such as Haka and Polar.

The decisions that prevented that fate were made over a period of months, weeks, days and, ultimately, the small hours of the night in December 1989.

By saving each other, Wärtsilä and Lohja saved themselves and took their destiny into their own hands. The merger went through because Wärtsilä was facing an urgent situation, Lohja had the desire to make it happen, and Fiskars was available to become the long-term shareholder that Wärtsilä was looking for.

## This chapter in Wärtsilä's history could have been written very differently. It could have been the story of how Wärtsilä was chopped up and sold off by equity firms.

It created a corporate structure that was ahead of its time. Instead of seeking industrial synergies between divisions, it applied principles from the world of finance.

Having rejected the siren calls of investment bankers, the company began a trimming down process of its own.

"This conglomerate was created by a merger in which small units that were not viable from the viewpoint of international business were restructured. That created the foundation for what Wärtsilä is today: a successful and sound company. It also created Assa Abloy and Sanitec, which became significant sources of funds for

Wärtsilä and gave the Group the opportunity to build Wärtsilä Diesel. You could say we created three global companies that were leaders in their respective industries and we got rid of the rest," says Georg Ehrnrooth, the conductor of the constellation, describing the idea behind Metra.

In practice, the clean-up and value creation operation began by choosing four separate core divisions for Metra. The largest of these, Wärtsilä Diesel, operated in the global market, although much of its production and technologies were located in Europe. Sanitec, a subsidiary specialising in bathroom ceramics, had rapidly expanded its operations by acquiring companies that

dominated their small local markets. The challenge Sanitec faced was the need to expand from a multi-local operator to a sufficiently large European player. Abloy Security Oy specialised in locks and security solutions, a market that was growing at an annual rate of 10 per cent. Metra's fourth core area of operations was the construction material business inherited from Lohja Corporation. It was a highly local and raw material-dependent business that was to suffer severely from the Finnish recession of the early 1990s.

Once the decision about what to focus on had been made, Metra began to quickly cut off loose ends. It sold its stake in a paper machine manufacturer to Valmet as part of the merger process in 1990, and Arabia was sold to Hackman. Among

Lohja's previous divisions, Elcoteq Oy was sold to its management in 1991. The following year, Finlux Oy and its TV tube business was sold to Nokia. Lohja Caravans was sold in 1993 to a company established by investors. Finally, after the various phases of the merger had been completed, Metra sold the rest of its construction material business to Partek in 1994. Most of the businesses that came from Lohja's side of the merger withered away.

The Ovako steel company was a more complicated matter. As a 50/50 owned company making heavy losses, it was difficult to manage. Metra and SKF both owned 50 per cent in Ovako. The

Martti Kainulainen/Lehtikuva



Press conference on the merger of Lohja and Wärtsilä on 20 December 1989. Reijo Kaukonen, Fiskars (left); Tankmar Horn, Wärtsilä; and Georg Ehrnrooth, Lohja

structure was changed in 1991. Ovako was split in two: the Sweden-based SKF got the Luleå plant, while Metra got the Imatra steel mill along with the Kilsta and Billnäs forges.

When Ovako was later reborn in 2005, Wärtsilä transferred the Imatra steel mill to it. Wärtsilä owned just over 26 per cent of the new Ovako. The following year, SKF, Wärtsilä and the other owner, Rautaruukki, sold Ovako to Dutch investors and a German steel company.

## A decade after the Lohja merger, a demerger was now in the works.

**T**he very end of the millennium, 1999, was another interesting period. Wärtsilä again came close to going down a different path. A decade after the Lohja merger, a *demerger* was now in the works.

The idea was to split up Metra to form three listed companies: Wärtsilä NSD, Sanitec and Metra Invest. Metra Invest would have consisted of the remaining shares in Assa Abloy, Metra's remaining real estate assets and other business, along with potential new investments.

The project fell through at a late stage.

“We had already issued a stock exchange release and the plans were fully formed, but we had to put a stop to it. The reason was the impact of the Asian crisis on Wärtsilä. The result of the diesel

engine business was not where it needed to be. We had misjudged the division's profitability and listing it on the stock exchange as a separate company was not possible. This also represented a failure on my part. I should've had a better understanding of the situation. I was too optimistic,” says Ole Johansson, who was Metra's Executive Vice President at the time.

As the plans for the demerger fell through, Metra continued to trim the fat and sell off parts of the business.

Sanitec was listed on the stock exchange in 1999. At that time, some of the shares were sold and some were distributed as dividends to Wärtsilä shareholders. The remaining shares in Sanitec, which had become part of Metra in 1990, were sold in 2001. The 1994 merger of the Wärtsilä-owned Abloy and the Swedish company Assa has been described as the most profitable deal in Wärtsilä's entire history. Wärtsilä sold a total of 30 million Assa Abloy shares in 2001–2002 and continued to sell shares until 2010. According to calculations made later by **Maj-Len Ek**, Vice President, Group Control, the Group earned a total profit of EUR 1.2 billion from selling the shares. It was an extraordinary cash cow.

The capital raised by selling the shares was initially used to keep the Group afloat – after all, the diesel engine business was badly in the red – but it also helped finance the Group's renewal and internationalisation. The funds from Assa Abloy shares were used – partly out of necessity – to shape Wärtsilä Diesel into the spearhead for a new beginning. With the loss of shipyards as an internal market, going out into the world was the only option. Metra hatched to reveal a provider of diesel engines, diesel and gas power plants as well as maintenance and other services.

**F**rom the late 1980s to the beginning of the 2000s, a period of just over a decade, history picked up speed and the pace of time quickened. There was a shift from conglomerates to truly international operators. Globalisation called for specialisation. The chapters in Wärtsilä's story during this period include the

death of the old company, the merger to form Metra and the rebirth – under the old name – of a company that was now renewed, or at least intended to be.

“  
**Someone needed to step in and demonstrate a long-term commitment to share ownership and guarantees of continuity.”**

**Göran J. Ehrnrooth**

However, the story would not be complete without mentioning one more plan. Had the plan been realised, it could have turned Wärtsilä into an entirely different company.

In the late 1990s, the company's external advisors had come up with the idea of a merger between Wärtsilä and Partek, which was considered undervalued by investors. Known as the “Machine” project, it was initially met by controversy at Wärtsilä. Apparently, the most significant reason for the controversial reception was the question of Fiskars' role. As a large shareholder, Fiskars was “cautiously negative” towards the idea, in the words of then-Chairman of the Fiskars Board of Directors **Göran J. Ehrnrooth**.

Nevertheless, the project was pushed forward and planned quite extensively until the Finnish state, a major shareholder in Partek, decided in 2002 to sell its shares to Kone Corporation in a surprise move. At Wärtsilä, this turn of events was seen by some as a significant lost opportunity. For a time, it created considerable discord at the interpersonal level.

Measured in terms of quick money, the big beneficiary was the Herlin family instead of the Ehrnrooths. In spite of that, Göran J.

Ehrnrooth's opinion on the matter is clear. The train was already on the tracks and the new plan would have been a confounding factor. “It's a good thing that the project fell through. It was better for Wärtsilä that way: the company already had its own direction and brand.”

Metra's President and CEO Georg Ehrnrooth had retired on 13 September 2000. That same day, an Extraordinary General Meeting had decided to change the company's name to Wärtsilä. Wärtsilä NSD President Ole Johansson had been selected as Ehrnrooth's successor. In 2003, **Antti Lagerroos** became the Chairman of the Board of Directors, with Göran J. Ehrnrooth as the Vice Chairman.

Johansson and Lagerroos are described as two very different personalities who made an excellent partnership and ushered in one of the best periods in Wärtsilä's history. The Partek episode

and other schisms were left behind.

“For a while, both sides must have wondered how it would turn out. But as trust grew, it became the best period of my entire career. I'm sure that was also helped by Wärtsilä's gradually improving profitability, which was supported by the exacting but fair management incentive systems that Lagerroos strongly advocated on the Board of Directors,”

**I**t is also important to recognise the presence and role of a large shareholder in the company's transformation. As Göran J. Ehrnrooth summarises it: “Restoring peace inside the company called for a hands-on approach by the principal owner at the time. Someone needed to step in and demonstrate a long-term commitment to share ownership and guarantees of continuity. That was the role of Fiskars.”

This chapter in Wärtsilä's history ultimately became a textbook example of how crucial it is to a company's success to have compatible agendas between the major shareholder, the Chairman of the Board of Directors and the President and CEO.

## From the Ehrnrooths to the Wallenbergs

Fiskars Oy, a company controlled by the Ehrnrooth family, owned 5.52 per cent of Wärtsilä at the end of June 2018. A quarter of a century earlier, at the beginning of the 1990s, the situation was completely different.

Jeppe Wikström/Lehtikuva



(From left) Through Investor, **Markus, Peter and Jakob Wallenberg** have become Wärtsilä's largest shareholders.

Fiskars and the Ehrnrooths had become significant shareholders in Wärtsilä when it merged with Lohja Corporation in 1990 to form Metra. In an underlying arrangement, SYP Bank and Fiskars had sold their shares in the Ovako steel company to Wärtsilä. **Georg Ehrnrooth**, who had previously been in charge of Wärtsilä's production plants in Joensuu and had also been the President of Lohja Corporation in the 1980s, was appointed as Metra's President and CEO in 1991. He held that position until the year 2000.

Fiskars – and the Ehrnrooth family behind it – held 16 per cent of the votes and approximately 13 per cent of the shares in Metra. In the 1990 Fiskars Annual Report, President and CEO **Reijo Kaukonen** describes Metra as “a long-term industrial wealth-creating investment” and writes that the sizeable holding “will permit Fiskars to contribute to the development of this strong group of companies through its role as an active shareholder”.

By the end of the decade, Fiskars' shareholding entitled it to 23 per cent of the votes. The proportion of Metra's total revenue that Fiskars' shareholding corresponded to was practically equal to the Fiskars Group's own annual revenue.

A committed principal shareholder provided stability, continuity and security, first for Metra and later for the reborn Wärtsilä. During the first decade of the new millennium, there were many attempts to acquire Wärtsilä – including multiple attempts by the same buyer. Wärtsilä had a few investment banks prepare strategies against potential hostile takeover attempts, but they were never needed.

While Fiskars was a great stabilising force, it can also be considered a fairly conservative shareholder. It could afford to take that approach, as it practically controlled Wärtsilä. Perhaps for historical reasons, Fiskars was worried that Wärtsilä's operative management would not focus sufficiently on the organic low-risk development of its core businesses and would instead go seeking and buying rapid growth. Another concern was that Wärtsilä might use mergers to build a sort of Fortress Finland against potential foreign buyers,

owing to the Partek plans that had recently fallen through.

Tensions between Wärtsilä and its principal owner increased gradually. The culmination point was seen in 2007.

Wärtsilä had the opportunity to make a mega-investment in Germany, one that would have created openings for very large engine deliveries and, most likely, their maintenance. Financing for the EUR 4 billion deal was already arranged. The German government and the European Commission had given it the green light. Wärtsilä's Board of Directors was unanimous.

For Fiskars, it was a difficult issue on which there was no internal consensus in the company. As the principal shareholder, it nevertheless had the power to call the deal off – which it did, at the last minute. The risk of compromising the company's ability to pay dividends has been mentioned as a reason for the decision.

Wärtsilä swallowed the bitter pill and backed out of the deal for fear of drifting into a dispute with its principal shareholder, which could have led to difficulties in developing the company. The deal eventually went to Mercedes-Benz. The episode is still remembered as “a hell of a situation” with the involvement of “a squirrel and small teeth”, whatever that means.

To improve the atmosphere and mutual understanding, cousins **Paul and Alexander Ehrnrooth** were elected to join Wärtsilä's Board of Directors alongside **Kaj-Gustaf Bergh**, the Chairman of Fiskars' Board of Directors.

One consequence of the collapse of the megaproject was the combination of Wärtsilä's Series A and Series B shares into one single class of shares, which both Fiskars and Wärtsilä agreed on. For a long time, the value of the share had suffered from the company having one large shareholder that didn't have a corresponding equity stake. The combination of the shares also had a positive impact on Wärtsilä's future. The “family business discount” was

eliminated and the predictability of decisions improved.

Another motive behind the combination of the two series of shares was Fiskars wanting to reduce its connections to Wärtsilä. The large shareholding and cross ownership were perceived by foreign investors as unhealthy features that gave rise to questions and slowed down Wärtsilä's progress towards being an increasingly refined and valuable company and object of ownership. At the same time, Fiskars was gradually revising its strategy to be more of a consumer products company, and it needed capital for this purpose.

Fiskars began to slowly reduce its shareholding in Wärtsilä. Then, there was a strike of good fortune from the west, even if Fiskars initially pretended to be uneasy about it.

Investor, the investment vehicle of Sweden's Wallenberg family, had started its due diligence on Wärtsilä in 2010 and bought its first shares the following year. It was a coming together of two famous families.

The Wallenberg-controlled Investor and the Ehrnrooth-controlled Fiskars combined their shareholdings in Wärtsilä under a joint venture in April 2012. Until then, the largest stake in Wärtsilä had been the 15 per cent that Fiskars controlled through its Swedish subsidiary Avlis. The new joint venture – two-thirds owned by Fiskars, with Investor owning the remaining third – became Wärtsilä's largest shareholder with 19.4 per cent.

“The Wallenberg family coming in as a significant shareholder was an important turning point. We were in New York for a road show, talking to investors, when the news broke. Suddenly, everyone was interested in Wärtsilä. Large analyst firms that previously hadn't given us the time of day were now eager to meet with us. Wärtsilä becoming Investor's first non-Swedish ‘core holding’ company was like an international quality certificate,” recalls Atte Palomäki, Executive Vice President, Communications & Branding.

The arrangement was lauded as ingenious by analysts. Fiskars received a substantial premium for its shares, which provided it with a useful injection of cash. At the same time, Fiskars' influence in Wärtsilä remained nearly as strong as before, as it became the majority owner of Wärtsilä's new principal shareholder. The arrangement also increased the market capitalisation of both Fiskars and Wärtsilä.

For Wärtsilä's future, it was a significant arrangement. Wärtsilä gained access to the extensive industrial experience and know-how of the Wallenberg family. The selection of the President and CEO had been a harbinger of what was to come. While the search was global, there was a particular focus on Swedish engineering companies. In autumn 2011, the Board of Directors unanimously chose to appoint **Björn Rosengren**, who came to Wärtsilä from Atlas Copco, a company within the Wallenberg sphere of influence.

The joint venture between Investor and Fiskars was dissolved in September 2014, leaving Fiskars with 5.1 per cent of the shares and votes in Wärtsilä. Investor's share rose to 16.8 per cent.

At the end of June 2018, the Wallenberg-owned Investor AB is Wärtsilä's largest shareholder with a stake of 17.68 per cent.

Investor is a long-term owner. **Johan Forssell**, representing Investor AB in Wärtsilä's Board of Directors, is looking towards the future.

“We have invested more than ten billion Swedish crowns in Wärtsilä and have so far generated a good return on the investment. As the largest owners we are very satisfied with the development of the company, not in the least the ability to identify and develop offers in new technologies and applications. Our goal and ambition are to be a committed owner and develop the company in an environment which makes ever increasing demands on innovation, flexibility and speed.”

# The start of a partnership

Like many companies, Wärtsilä once thought that a successful sales transaction was the goal and the end point after which you could shift your focus to new customers. In the 1980s, however, the company began to recognise the business significance of maintenance services: the sales transaction became only the midway point in a business relationship that could generate decades of stable revenue from after-sales service. Shaking hands on a deal is now perceived as the starting point for a new partnership – a shared journey with the customer.



## The customer as the focal point

As the old saying goes, what doesn't grow from the ground, Wärtsilä manufactures. In light of the company's evolution, it's a statement that requires a bit of revision. According to **Jaakko Eskola**, Wärtsilä's President and CEO since 2015, Wärtsilä is now first and foremost a service company. "Through Services, we can create and maintain the perfect customer relationship – or destroy it. That makes it our most important business area."

What, then, does Service business – a term that summarises Wärtsilä's business approach since the turn of the millennium – ultimately mean, and what does it consist of? It's a term that is used often, usually in fairly non-specific ways.

→

Wärtsilä increased its presence on the bridges of ships in addition to the engine rooms.

According to the Finnish Terminology Centre TSK, an independent expert body, service business is an often independent element of business operations, where service is the foundation for value creation. By definition, it excludes trade in goods but includes the provision of opportunities for self-service. The term “solution business” is often used synonymously. In the solution business, the development of the customer’s business requires close long-term cooperation and a comprehensive understanding of processes.

Previously, services were mainly understood as maintenance and supplying spare parts. These were aspects of business that Wärtsilä gradually began to recognise as significant in the 1980s. The following decade, the company acquired struggling diesel engine plants and diesel engine maintenance firms to get its hands on their spare parts and maintenance business.

**Tage Blomberg**, whose 35 years at Wärtsilä included a period as Group Vice President, Services, recalls that he acquired a total of 25 engine maintenance firms. During his time at the company, 1975–2010, the number of Wärtsilä pins on the world map increased from about 10 to 75.

## The change in attitude was triggered by an insight into the broader significance a global service network would have for customer relationships.

Today, the Services business operates at more than 200 locations in nearly 90 countries. The people employed by the Group’s maintenance and service concepts represent more than half of Wärtsilä’s personnel. Spare parts and services account for approximately 50 per cent of the Group’s annual revenue.

The foundation for Wärtsilä’s Service business in its current form was established in the first decade of the new millennium. To say that it represented a transformation of the company’s identity would not be an exaggeration. The weak market climate was a factor that compelled the company to change. While five production plants were closed down in 1999–2003 and there were reductions in personnel, the maintenance business was a profitable area of activity that the Group did not want to endanger through the measures that were taken.

The creation of the Group’s new strategy, which began in 2003, provided an impetus for the change. Marine engines and Services were defined as key focus areas of the new strategy. The power plant business was put on the back burner to some extent.

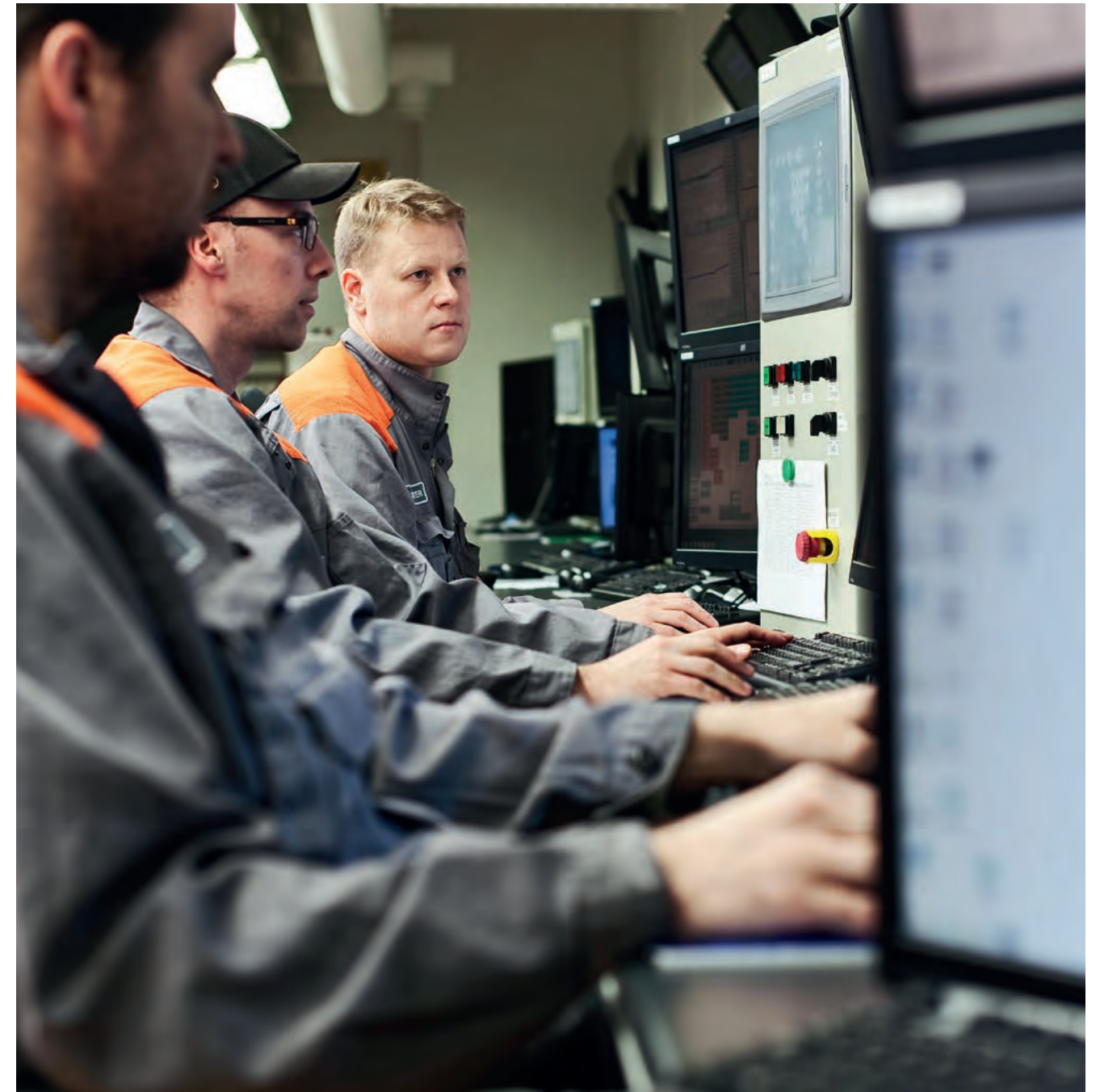
**Antti Lagerroos**, who was elected the Chairman of the Board of Directors in 2002, considered Services to be the business of the future. The Group shifted its focus to the Service business and began to expand its geographical scope with the aim of building a global service network in locations of logistical significance. Most significantly, the marine engine services business was expanded to cover all marine engines, not only those supplied by Wärtsilä itself.

Gradually, the Group’s view of after-sales service was broadened beyond mere spare parts deliveries and the related maintenance activities. Where the signing of the contract had previously been the end of the journey, it now became a midway point.

Under the old approach, maintenance was like a fixed Keynesian element used to even out cyclical fluctuations as the engine business and the power

plant business took turns stalling.

In the new strategy, closing a deal was the starting point: the beginning of a beautiful partnership where the roles of seller and buyer become blurred as they go on a shared journey.



The operations of ships and power plants can be monitored and controlled in real time and remotely to an increasing extent.



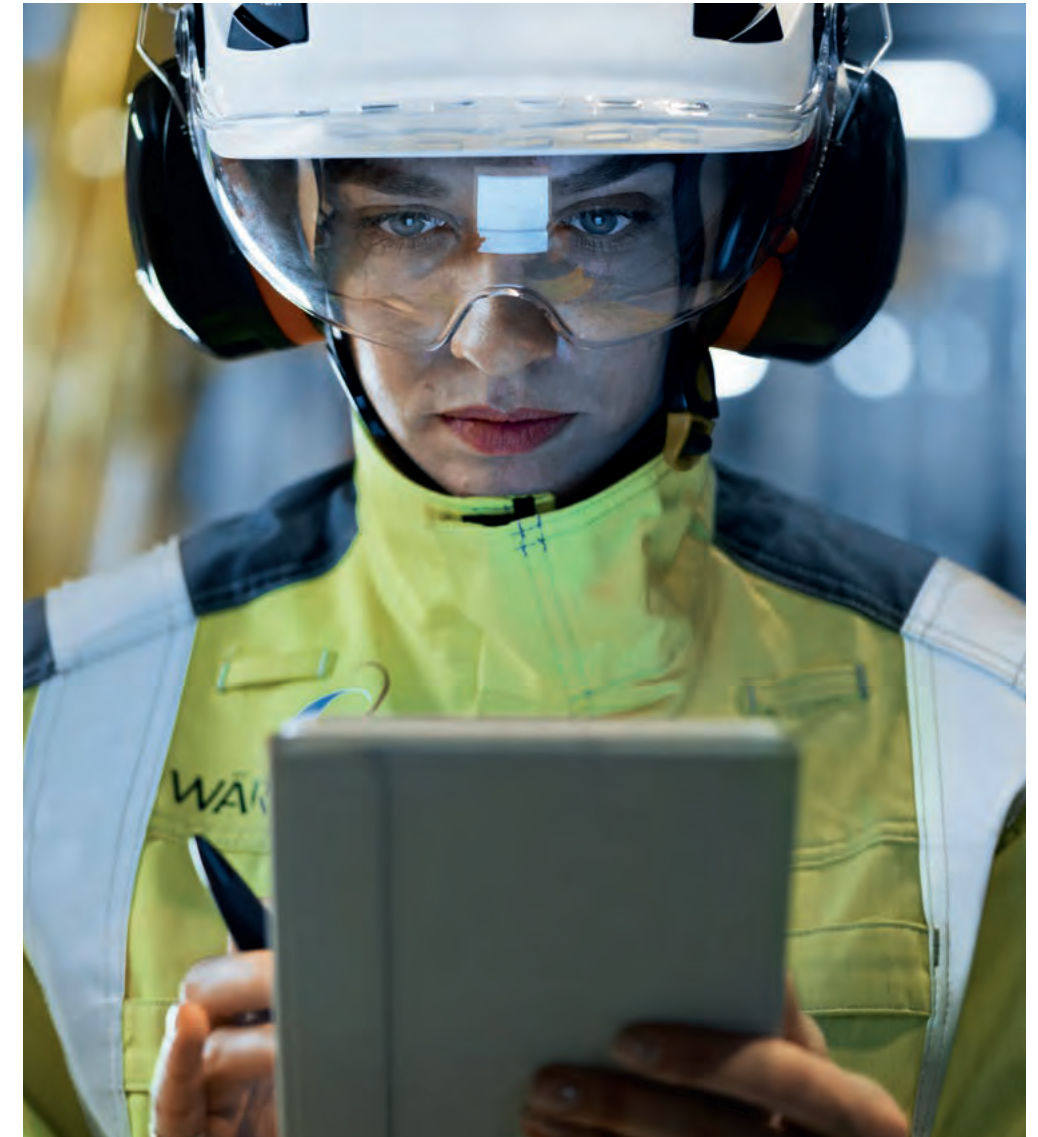
Wärttilä's Annual General Meeting 2018



Wärtsilä is responsible for servicing ships and power plants, but Wärtsilä's own personnel rarely stay on board the ships or spend time on location at plants. Maintenance operations are mostly done remotely, or remotely in cooperation with local personnel.



Sometimes, urgent maintenance needs to be performed in highly challenging conditions.



Maintenance workers now wear virtual reality goggles instead of welding goggles, often holding a computer device instead of a hammer.



Management is increasingly about communication. Chief Digital Officer **Marco Ryan** poses for a photo at the shore near Pitkäsilta bridge, with Kauppalehti journalist **Ilkka Sinervä** taking care of the lighting.

Instead of maintenance, the talk was about the aftermarket and Services, specifically as independent business areas.

In the old seller-buyer model, engines were installed and given a test run, and the customers were then left to their own devices. Maintenance would typically then be carried out in fixed intervals of 10,000 hours, for example. The modern approach is completely different. Engines are sold with the promise that they will run and work as expected. In exchange for a monthly fee, the engine is managed in real time. The engines have dozens – if not hundreds – of data points that relay information to Wärtsilä's remote monitoring centres. When problems arise, the relevant information can be communicated ahead of time.

The change in attitude needed for this new approach was essential, but it didn't happen overnight. It was triggered by an insight into the broader significance a global service network

ahead of our competition. We had our own highly trained people around the world, relaying important information to our technology departments, production plants and the rest of the organisation. Putting together the necessary reporting and impact models was a challenging and lengthy process, but we did it quite well. We had to distribute information on essential issues to ensure that customers were satisfied and there weren't too many red flags around."

Once that had been accomplished, it only took a short step to reach the next phase: presence and ongoing maintenance. **Maarit Aarni-Sirviö** provides a concrete example.

"The buyers of power plants don't want to operate the plants themselves. They buy the energy the plant generates rather than the plant itself. This gives us the opportunity to handle the plant's maintenance and normal operation. We ensure that there is

power in the battery when it's needed. That's when you're in the service business, earning steady revenue in the form of a service fee."

Aarni-Sirviö's background is in the Borealis business. She has been on Wärtsilä's Board of Directors since 2007. Having been involved in the company for just over 10 years, she has witnessed the breakthrough of customer orientation, which is the foundation of the service business.

"I've seen a major change in Wärtsilä's management and the business environment. In the past, Wärtsilä was a technology company. The customer was not the focal point. However, in determining how to respond to market needs,

it was necessary to bridge the gap between the customer and production. It was a big change with profound implications. Now, if you go and ask an employee in production about who pays their wages, they'll say it's the customer – not Wärtsilä."

The customer's star status was also reflected in the company's product design and production engineering. Wärtsilä looked to the automotive industry for inspiration. Customisation and

“  
**Now, if you go and ask an employee in production about who pays their wages, they'll say it's the customer – not Wärtsilä.**”

**Maarit Aarni-Sirviö**

would have for customer relationships. This is how **Johan Stoor**, who joined the company in 1961 and retired in 2001 after serving as a Director in the diesel engine business describes what happened.

"Feedback was tremendously important for us. And who is the best source of feedback? Those of us who work in maintenance out in the field and come in contact with customers. We were



Atte Palomäki

“  
**A spirit of entrepreneurship was created in the company. Decisions are now made close to the customer. Our most significant knowledge is at the customer interface.**”

Björn Rosengren

Wärtsilä attracts interest from the international business media. Part of President and CEO **Björn Rosengren's** (2011–2015) job was to be a messenger and evangelist.

modularity were the words of the day. Instead of producing fully tailored products, the company started to build no-frills models that have optional parts and features available.

**Björn Rosengren**, the man appointed as Wärtsilä's President and CEO in autumn 2011, launched a major change.

In 2012, the market conditions were difficult in the Energy business as well as the Marine business. It was around this time that Rolls-Royce was looking to acquire Wärtsilä.

Rescue came in the form of not only innovation, but also the aftermarket. Although, at first, the aftermarket needed to be sorted out.

For Björn Rosengren, the aftermarket meant profitability, continuity and balance – the most important aspect of business. However, Wärtsilä was not taking advantage of its full potential. The reason was the way things were done.

“When I came in, Wärtsilä's decision-making was highly centralised. All production and product development was organised under one central unit. You had your industrial unit and marketing and sales under another unit. There was a continuous dialogue between them and a lot of blaming back and forth. After just six months, I was convinced that it was a highly unproductive situation. By the one-year mark, it had become clear that things had to change.”

Rosengren reacted in a manner true to his background and put in place a model that was typical of Atlas Copco and Swedish business.

For Wärtsilä to become more entrepreneurially driven, the organisation needed to be restructured. The solution was to turn Wärtsilä into something akin to a group of small companies.

“We organized the company into product areas with full profit and loss responsibility. The aftermarket became one product area and the transparency and focus allowed us to strengthen our aftermarket and achieve a significant improvement in aftermarket profitability.”

Wärtsilä was listed on the Helsinki Stock Exchange three years after the company was established. New York's Nasdaq congratulates the company a century later.

Nasdaq handout/Lehtikuva



In addition to transparency, the change meant demanding more individual accountability and entrepreneurial spirit from people. As is always the case, the plans were also met with some resistance, but Rosengren says the change was surprisingly smooth and quick.

“I believe in individual accountability. The head of each business unit was assigned overall responsibility from product development to production and sales. This created a spirit of entrepreneurship in the company. Decisions are now made close to the customer. Our most significant knowledge is at the customer interface.”

Rosengren says it's a simple equation.

“The owners of ships and power plants always need high-quality technical support. If their perception is that Wärtsilä satisfies that need, they will continue to buy the company's products.”

In addition to in-house innovation, customer orientation was enhanced through acquisitions.

And what might be the role of Services in the Wärtsilä of the future? Will the share of hardware decline? To be close to the shipyards, Wärtsilä has moved the production of several engine models to China, to a joint venture established in 2014 with China State Shipbuilding Corporation.

The thoughts of Mikael Lilius, the current Chairman of Wärtsilä's Board of Directors, include strong assumptions as well as question marks.

“Service provision will increase in volume and become even more comprehensive. This means long-term contracts that will also see us take on risk. Perhaps we will assume even more comprehensive responsibility for ships and power plants. To have something to service, you also need to have the hardware itself. But will the Wärtsilä of the future produce engines itself? We know all about them, but will they be entirely manufactured by another party in the future? Will Wärtsilä become even more of a knowledge-based company?”

These thoughts are reflected in Wärtsilä's purpose: *Enabling Sustainable Societies with Smart Technology.*

Atte Palomäki



## What's the deal with the Irish debt crisis?

In the 2010s, Wärtsilä began to be seen as a serious player in the world of international business. In December 2010, Wärtsilä's President and CEO **Ole Johansson** was invited to go on the Bloomberg morning show to talk about current topics in the marine industry. Wanting to avoid the worst of London's morning traffic and prepare for the interview carefully, Johansson and the Executive Vice President in charge of Communications made it to the studio more than an hour ahead of the agreed time.

Suddenly, they put Ole in front of the cameras. The first question he was asked on camera was about the Irish debt crisis. They had mistaken him for another interviewee who had not shown up on time.

Not flustered by the unexpected question, Ole simply said "I can certainly give you my opinion on that, but I came here to talk about the future of the marine industry and energy production."

Then it was Bloomberg's turn to get flustered, and the director ordered them to switch from a live broadcast to taping the programme.

# Wärtsilä, quo vadis?

Wärtsilä's purpose is "Enabling sustainable societies with smart technology". It defines the company's direction and reason for being. How is Wärtsilä putting its purpose into action today, and how is the company charting its future path?



Some 59% of Wärtsilä's personnel are currently employed by Wärtsilä Services, which will be combined with the Marine Solutions and Energy Solutions businesses from the beginning of 2019.

## The present and the future

Steel, ships, toilets, locks, laundry machines, caravans, paper, engines, power plants – the number of factors that have played a role in Wärtsilä's story could fill an entire catalogue. But what is Wärtsilä today, as we approach the end of the second decade of the 21st century?

After being appointed as the President and CEO in autumn 2011, **Björn Rosengren** travelled around Finland and made an observation. Many people you meet will have an opinion about Wärtsilä, often on a very personal level.

It's no wonder, really. In the era of rural industrial communities and company towns, Wärtsilä maintained the services that people now receive from the local government. The company had hospitals, vocational schools, housing and even a church.

→

**W**ärtsilä has been the first workplace for countless people and a school of management for many. The number of theses written for Wärtsilä is counted in the thousands and the number of jobs in the tens of thousands. The Vaasa region, where an estimated 20 per cent of families have had some connection to Wärtsilä at some point, has seen the growth of a strong energy industry cluster.

Wärtsilä has gone from being a traditional local company led by iconic captains of industry to being an enterprise with a global presence. Today, the company has about 19,000 employees in nearly 90 countries. The company's impact has been immense, especially in the developing world. For example, Wärtsilä has built over 5,000 power plants in 177 countries. Wärtsilians joke that it's hard to find a salesperson who wouldn't have met a head of state.

**They don't get electricity into their homes. They get Wärtsilä. Unfortunately, a power outage is a Wärtsilä outage and if someone is hit with an electric shock, they get a Wärtsilä shock.**

In the Caribbean, where the company brought electricity in the late 1980s by building power plants and the necessary infrastructure, Wärtsilä is synonymous with electricity. In the Dominican Republic, for example, people don't talk about electricity. They talk about Wärtsilä. They don't get electricity into their homes. They get Wärtsilä. Unfortunately, a power outage

is a Wärtsilä outage and if someone is hit with an electric shock, they get a Wärtsilä shock.

Identity is like the national pension system: it consists of a basic component and a supplementary component. A component that was created in the past and another component that changes with the times. An identity not only defines the foundation for a thing's existence, but it also gives it direction.

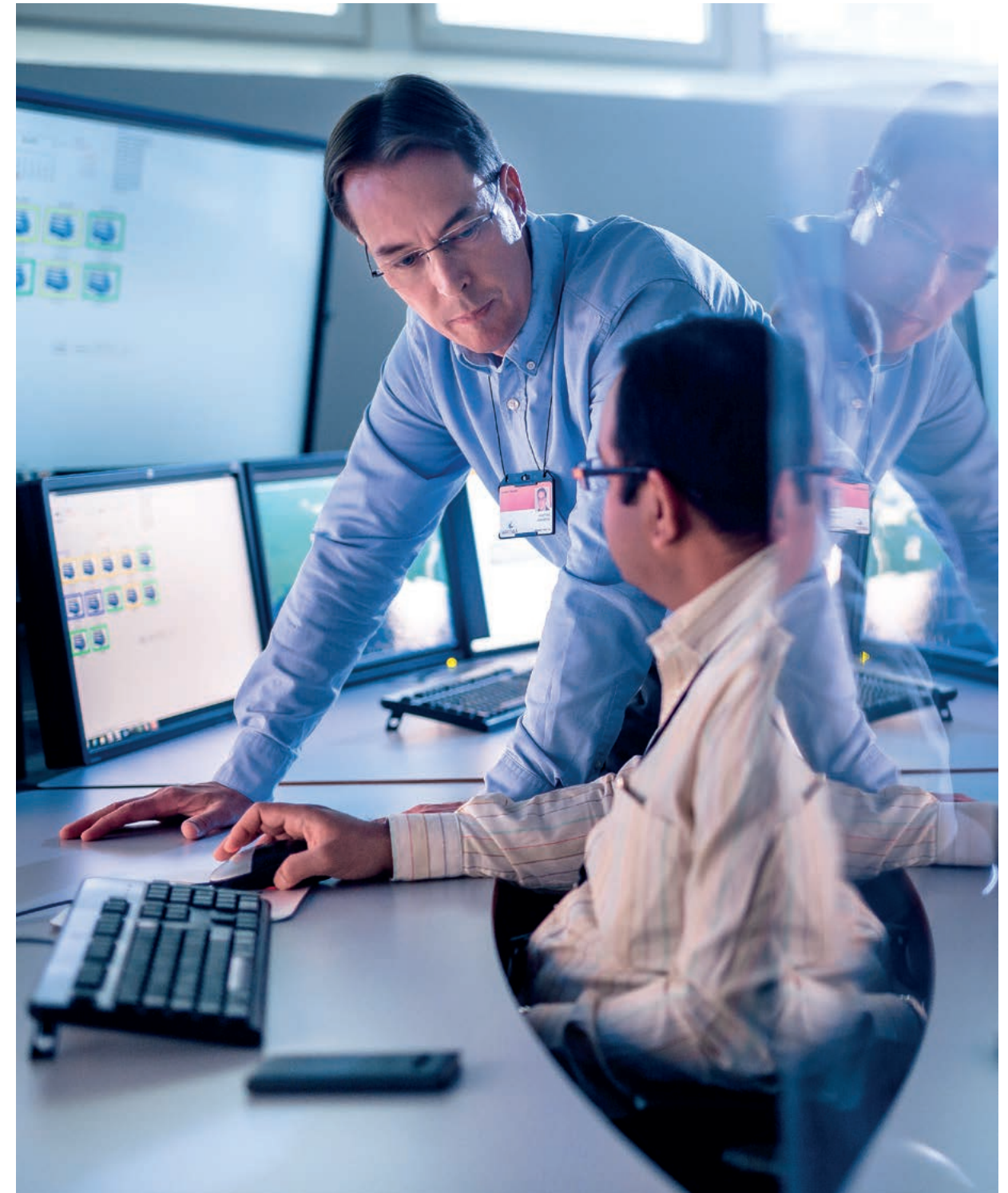
Companies often summarise their identity in a slogan. Wärtsilä's purpose is summarised as Enabling Sustainable Societies with Smart Technology.

It is an elegant statement of the world-embracing ambition of creating a better future. **Maarit Aarni-Sirviö**, a member of the Board of Directors, says the company can "provide people with a good quality of life through much more sustainable solutions".

For Chairman of the Board of Directors **Mikael Lilius**, the Wärtsilä Purpose is a signpost and a launch pad.

"It's a good statement that has a visionary quality to it, but no statement can take root overnight. It is a guideline and a declaration of direction that we must learn to live with. No one can say what it will bring. It's something we think about all the time. We also need to see it as part of a process of change that reshapes our thinking. It needs to be more than a mere catchphrase. It has to mean something. Will it still hold true 50 years from now? It's hard to say, considering how quickly the world is changing."

Taken in isolation, the words in the Wärtsilä Purpose are big and heavy. Societies. Sustainable. Smart technology. Enabling. The essence of the Purpose is the combination of these big words: it's all interconnected. And if we take the Purpose as a process, as Lilius suggests, the question is: what are the ways in which Wärtsilä justifies its existence and builds its future?



Atte Palomäki



President and CEO Eskola  
launching the Energy Up vision.

**A** business enterprise is self-interested. It must be profitable to survive. Nevertheless, the relationship between a business enterprise and society is becoming increasingly symbiotic, and this trend will only grow stronger in the future. This is a point that is emphasised by Wärtsilä's current President and CEO **Jaakko Eskola**.

"A company can't operate by only thinking about itself. Of course, you have to think about your shareholders and employees, but you also have to consider the broader society around you."

**“  
The solutions we  
deliver must make  
life better.”**

**Jaakko Eskola**

In that, I would include not only our subcontractors, customers and business partners, but also the wider infrastructure: where we operate, cities, other enterprises, universities, our customers' areas of activity. Wärtsilä's future is inextricably linked to the future of society and its other members. If we don't think about these things, who will? The solutions we deliver must make life better."

Making life better usually refers to environmental issues and the broader development of society.

In a way, Wärtsilä has, throughout its history, played a role in promoting solutions that are in line with sustainable development. For a long time, however, the perspective was primarily an economic one. Last century, except for its final decade, most issues in society were not extensively viewed through the environmental lens.

A 1994 book on the future of the environment in Finland ranked Finland's 10 worst enterprises in terms of air and water pollution. Metra took the top spot, with the Imatra Steel mill highlighted as the single worst polluter. At the time, the company was already in the process of investing EUR 150 million in modernising steel production at the mill. The improvements helped minimise the flue gas emissions from production, for example.

In general, nature values were not a consideration of primary importance in those days. The first environmental report connected with the Annual Report was published in the early 2000s. It has been a gradual change. Today, environmental issues are given equal importance to other factors in all decisions.

**Sven Bertlin**, who retired in 2004 after more than 30 years at Wärtsilä, witnessed the change in priorities in the diesel engine business.

“**Sustainable development as a concept in itself emerged in the 1990s. For the past 20 years, efforts have been made to achieve a radical reduction in emissions.**”

**Sven Bertlin**

“In the 1970s, the focus was on making good products that worked well. The decade after that, a lot of the talk was about cost efficiency. Products had to be competitive. This also involved technical attributes that are significant from the perspective of sustainable development, such as dual fuel engines that can run on both oil and gas. Sustainable development as a concept in itself emerged in the 1990s. For the past 20 years, efforts have been made to achieve a radical reduction in emissions.”

One particularly significant initiative in this area was the Hercules research programme launched by CTO Matti Kleimola in 2002. It was an EU project that lasted approximately 15 years and produced good results. Wärtsilä worked together with competitors and research institutes with a focus on engines, fuels and emissions.

**T**he basic dilemma has not changed since those days: many of Wärtsilä's products and solutions are still based on the consumption of fossil fuels: oil and gas. The question is how to use them in the cleanest possible way. Wärtsilä is not alone in facing these questions. One of the biggest issues is – and will be – to convince the International Maritime Organization (IMO), the UN's climate negotiators and customers of the industry's targets and Wärtsilä's efforts to implement increasingly sustainable and environmentally sound solutions.

In response to this challenge, Wärtsilä has adopted a holistic business philosophy in the 2010s. In both energy production and the marine industry, individual products are increasingly combined to create solutions with a pre-determined life span. Instead of just selling a propeller, the company provides packages ranging from naval engineering to fuel solutions and management systems. On the power plant side, Wärtsilä creates integrated solutions that combine wind and solar power with engines and provide comprehensive tools for managing the system.

It is a matter of creating an ecosystem and taking control of the big picture. Within the system, you can be flexible and build various solutions using state-of-the-art

technology – and maybe even create new business models along the way. This is what Wärtsilä means by including the word “enabling” in its purpose. It enables customers to be more productive, successful, energy efficient and capable of adhering to the principles of sustainable development.

It's not a simple task, as the two legs Wärtsilä stands on – energy and the marine industry – are both in different stages of transformative changes.



Many of Wärtsilä's power plants now operate under the hybrid principle, which means they use different energy sources based on availability.

**W**ärtsilä's strategies emerge from the needs of the marine and energy markets. Problems arising from climate change and pollution are significant factors in both areas.

Finding solutions is essential. For the marine industry, Wärtsilä's solutions are based on its strategy, which is referred to as the Smart Marine Vision.

The marine sector is lagging behind on making changes. In the large container ship segment, in particular, there has been excess capacity since 2012. Many of the companies in the industry are underperforming. Only a few decades ago, no one would bat an eyelid when a ship came to port spewing black smoke.

While environmental awareness in general has increased since those days, the need to protect the world's oceans is only now beginning to attract the attention it deserves. Regulations and monitoring mechanisms have been lax. The negative ecosystem impacts of ballast water and the related spread of invasive species,

**Only a few decades ago, no one would bat an eyelid when a ship came to port spewing black smoke.**

for example, have not been recognised as seriously as they should. The same goes for other waste water and exhaust emissions from maritime activity.

International agreements have set a goal of reducing marine emissions by 50 per cent by 2050, using 2008 as the baseline, but the methods for achieving this target are yet to be specified. Customers haven't fully realised their needs yet either.



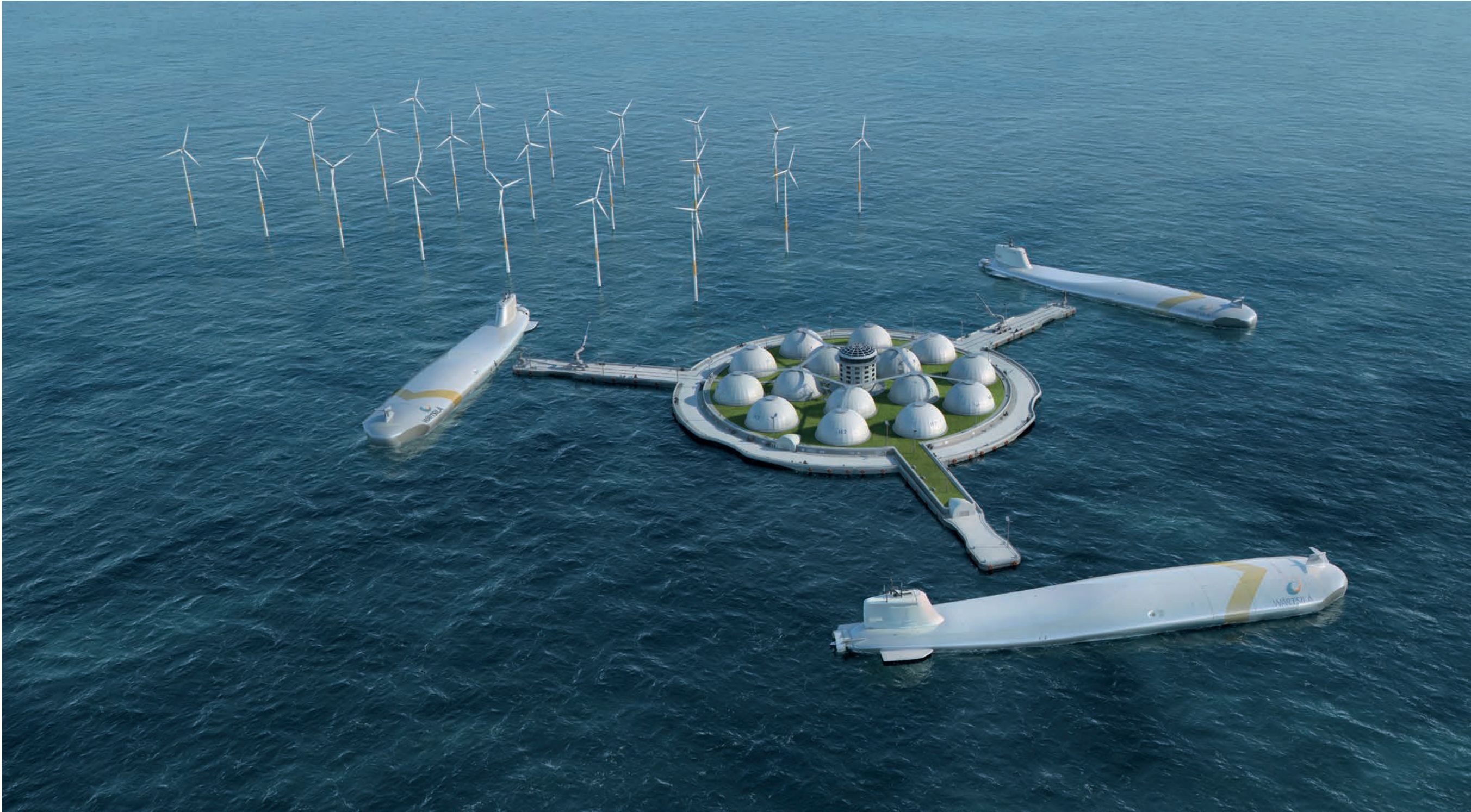
Does the port of the future have to be on land? This is the question posed by Wärtsilä's Smart Marine Vision. Ships are charged for the next leg of their journey using electricity produced from renewable energy sources.



Buying and owning ships may become a thing of the past, replaced by leasing. Ships make their journeys using rechargeable battery technology, with zero emissions.



The fleets of the future are likely to be controlled remotely or even navigate autonomously. Artificial intelligence also makes it possible to perform maintenance en route.



Floating ocean ports, or hubs, could serve as charging stations for cargo-carrying submarines.

**Today, Wärtsilä's technological solutions can account for as much as 60% of a ship's total value.**



One small but significant initiative towards reducing environmental emissions in the EU is the Baltic Sea Sulphur Directive, which is set for global implementation from the beginning of 2019. There is a need for much more legislation and more directives, but also for new technology. Wärtsilä's strategy gives the company a strong advantage in providing, delivering and creating that new technology.

Wärtsilä's technological solutions can already account for as much as 60 per cent of a ship's total value. Half of the ships sailing the world's seas use the company's spare parts and maintenance services. The current situation gives Wärtsilä a springboard for reaching even higher.

The company wants to be a driver of clean shipping.

“Increasing efficiency is very significant in itself. Fuel can represent as much as half of the operating costs of a container ship. Consumption can be substantially decreased, which also reduces the environmental footprint. We have the necessary knowledge and expertise. Our goal now is to link data from individual vessels in real time with ports, shipping companies and logistics operators. Creating those connections would have tremendous



Wärtsilä successfully tested its innovative autodocking technology in 2018 on the Folgefonn ferry owned by the Norwegian operator Norled, marking the world's first successful installation of autodocking technology on a car ferry.

environmental potential,” says **Atte Palomäki**, Executive Vice President, Communications & Branding and a member of Wärtsilä’s Board of Management.

Wärtsilä’s goal for the future is to take responsibility for the ship as a whole, from each individual propeller blade to the engine room and the bridge. While the company is best known for its engines, it has introduced a wide range of innovations in recent years to take advantage of state-of-the-art technology: propulsion systems, electronics, automation, radar systems and naval

## One important focus area in future development is measurability and the development of various monitoring systems.

engineering. In line with the life cycle philosophy, the company would act as the customer’s partner from the drawing board all the way to the ship breaking yard.

This is a strategy that Wärtsilä has also supported by making acquisitions. Most recently, in March 2018, Wärtsilä acquired Transas, a leading provider of marine navigation solutions based in the UK, for just over EUR 200 million.

Wärtsilä also intends to jump from ships to docks. The company wants to take on responsibility for a growing share of the entire marine logistics process; in ports, for example. To this end, it looks for partners – such as container shipping companies – with whom to develop entirely new operating models.

One important focus area in future development is measurability and the development of various monitoring systems. Measurement-based data helps Wärtsilä understand how its products are used, how they behave in different situations and how to develop them further. Quantitative indicators will also have a direct impact on the Service business.

“Real-time monitoring means we know exactly how efficiently the equipment is working at all times. We can provide the customer with up-to-date information on maintenance requirements, for example, and cooperate on making decisions on whether the engine should be serviced at the next port of call or the one after that. This extends the maintenance interval, reduces risks and improves the predictability and efficiency of operations,” Palomäki explains.

**W**ärtsilä’s other major avenue of future development is the company’s energy-related expertise. The objective is clear. Wärtsilä aims to make its energy production a zero-emission solution. The company’s Smart Energy Vision establishes the guidelines for how Wärtsilä intends to thrive against the intense competition in the energy sector.

To realise the vision, Wärtsilä will build its business with a strong focus on renewable energy and reducing fossil dependence. Wärtsilä already has the ability to deliver hybrid power plants where solar and wind power are complemented by balancing power generated by a gas engine and battery technology. This is referred to as flexible and decentralised energy production.

Among renewable fuels, wind and solar power, for example, are characterised by the fact that their availability can’t be accurately predicted or modelled. Wind can suddenly die down or the solar intensity may be lower than expected.

“Our dual fuel engines solve this problem. They operate like a modern car: idling is minimised, they turn themselves off when power is not needed and they can quickly change from one



Wärtsilä was a pioneer in liquefied natural gas (LNG) transport. At the place of use, the liquefied natural gas is vaporised into gas.



Wärtsilä is building large solar farms across Africa.



energy source to another. Shutting down a traditional power plant takes an entire day for a coal plant and tens of minutes for a natural gas plant. Every time the plant is shut down, the parts are worn down. Dual fuel engines offer superior flexibility compared to these traditional options. They can bring an alternative fuel into play at very short notice,” Palomäki explains.

In addition to the problems arising from unpredictability, the energy sector faces challenges related to energy storage. One solution for improving the efficiency of capturing energy is battery technology, which is a field in which Wärtsilä aims to achieve a leading position in cooperation with partners.

As in the marine industry, Wärtsilä’s interest in the energy sector is related to comprehensive solutions and their management. The company would be eager to take on the challenge of building and managing the energy system of an entire city, state or country.

“  
**You have to make it possible  
 to get development started.  
 There has to be some source  
 of energy.”**

**Atte Palomäki**

Wärtsilä already has a strong foothold in this area. In Bangladesh, for example, 10 per cent of the national energy generation capacity is produced by Wärtsilä. The company has also been involved in building solar farms next to an engine power plant in Africa.

The world’s most talked-about energy company, Tesla, has become not only a competitor for Wärtsilä, but also a potential partner. This reflects the way Wärtsilä has positioned itself on the leading edge of the energy sector.

In spite of the promising developments, it is important to keep in mind that the production and consumption of energy is an area where there are many realities. In some parts of the developing world, energy is still produced by open fires or small-scale generators. In many cases, heavy fuel oil is still the only available energy source.

The role of a responsible supplier is to build the cleanest and most functional system possible in the conditions given.

“You have to first enable the creation of a functional power system to get development started. There has to be some source of energy for people to use. In this scenario, our responsibility takes the form of supplying an engine that can be used – without additional work – when the location in question eventually has a gas pipeline built or the option of using liquefied natural gas or biofuels becomes available,” Palomäki says.

**A**ccording to President and CEO Jaakko Eskola, Wärtsilä’s strategies should be focused on going deeper into the current main businesses – Marine and Energy – rather than expanding into other areas. At least for now.

“We have discussed whether Wärtsilä should have an additional leg to stand on, a business area that would somehow support the company’s future. What could that business be? Then again, if you think of today’s major corporations, many of them are moving towards a sharper focus.

Right now, I would agree with that: when you decide to do something, do it as well as you possibly can and become a global leader in your field. At the same time, you have to ensure that what you do is meaningful and significant from society’s perspective.”

Eskola’s emphasis on this being his view right now is telling. Temporal caution is warranted. For a company like Wärtsilä, the future is now. It is always changing and you have to actively shape it yourself.

In the past, a strategy was created for a period of five or 10 years. Today, a company must examine, test and update its strategy continuously and from multiple perspectives: the environment, competition, technology and geography.

Everything is in flux and the magnitude and rate of change is higher than ever before. Technology is advancing in leaps and bounds while competition is intensifying. Everything can be copied and someone, somewhere, always does things cheaper than you.

These factors are reflected in the ongoing work on strategy.

It is a process that increases the significance of the company's Board of Directors. While the executive management is ultimately accountable, the insights, experience and knowhow available outside the organisation – and even from other sectors – is increasing in value.

“

**What we do also needs to be meaningful and significant from society's perspective.”**

**Jaakko Eskola**

What might an outsider think about Wärtsilä's future?

Wärtsilä's purpose is better integrated into its strategy than that of many other companies. It has become the core of the strategy. You could even say it has become the strategy itself.

Admittedly, the environmental perspective is heavily emphasised in the purpose. This is due to customer needs.

Unlike many other global enterprises, Wärtsilä's history means it continues to have a strong and dynamic presence in the developing countries. It is part of the structures of local societies. This gives Wärtsilä the opportunity to have a deep impact on many countries' development in areas that are part of the company's own DNA: environmental awareness as well as ethical issues, such as multicultural working communities, good governance and the fair treatment of employees. Wärtsilä can demonstrate that successful business can be conducted in a most ethical way. In today's world, this can generate new openings for business and profitability.

During its history, Wärtsilä has exhibited a chameleon-like adaptability. It has gone from an industrial manufacturer to a provider of solutions for new sectors in a fairly short time. This process has not only been one of adapting to changes, but also driving changes through state-of-the-art technology and competence.

**P**ractically all forecasts of the future point to an unparalleled rate of change. It is unlikely that anyone can reliably tell today's students what jobs they will have after graduation. And no one can provide a very concrete forecast of what the world will look like in 15 years when Wärtsilä celebrates its 200th anniversary.

With this in mind, the makers of the future must be taught not only basic knowledge, but also innovation and the creation of new kinds of solutions. The current organisation and employees must be taught to learn new things at an increasingly rapid rate.

In a global enterprise, competence can be elevated to a new level through crowdsourced innovation. A systematic process has been established for collecting ideas, commenting on them and developing them further. The collection and collaborative reviewing of ideas ensures that they don't get buried and forgotten about. Wärtsilä's new electronic idea management system collects ideas along with related opinions, likes and comments from other participants. The ideas are then refined further as necessary.



Atte Palomäki

Wärtsilä is involved in international peace-building efforts by supporting the Crisis Management Initiative (CMI). Nobel Peace Prize laureate and former President of Finland **Martti Ahtisaari** being interviewed for a podcast.



Atte Palomäki

**Richard Branson's** Virgin Voyages is one of Wärtsilä's highest-profile customers. Three Virgin Voyages cruise ships are powered by Wärtsilä 46F engines. Wärtsilä also provides exhaust gas cleaning and navigation systems for the ships to help reduce their environmental impact. Branson (shown here with **Atte Palomäki**, Executive Vice President, Communications & Branding) has a strong personal interest in the latest advances in environmental technology in the maritime sector.

New initiatives are also supported by the newly established Wärtsilä Acceleration Centres, the first two of which are located in Helsinki and Singapore. They have already attracted the interest of leading global enterprises. At the Wärtsilä Acceleration Centres, idea generation is supported by methods such as instructor-led group work and the use of the latest innovation tools. The company is making systematic investments in innovation. In 2016, Wärtsilä launched its first Growth Lab, an annual training programme for “future leaders” with an unequivocal directive: develop visions of new business areas.

Wärtsilä also systematically collects ideas from the startup world by organising pitching events and competitions. One product of this type of cooperation with startups is a smart sensor that monitors the progress of a shipping container and reports on conditions en route. The product underwent concept development, validation and implementation on a collaborative basis and Wärtsilä was the first customer. The startup in question benefited from the cooperation by having a commercial product it can sell to the market.

**“F**inland has everything it takes to become a leader in battery technology. We have the raw materials, cobalt enrichment capacity and an energy cluster,” stated Jaakko Eskola in an interview with Talouselämä magazine in summer 2018.

A hub is currently in the works, not only for Wärtsilä, but for an entire cluster of enterprises, schools and startups. Vaasa is increasingly becoming a secret weapon for Wärtsilä, one that its competitors can't easily get their hands on.

In late summer 2018, Wärtsilä announced it will build a partner campus called the Smart Technology Hub in Vaasa's Vaskiluoto district to serve as a centre of research and product development in collaboration with customers, suppliers, startups and universities. The campus will replace Wärtsilä's Vaasa production plant, which was originally built in the 1930s and renovated several

times since then. The Smart Technology Hub – and the new production plant included in it – are set to be completed in 2020.

The Vaasa region is a leading Nordic hub of energy technology, with dozens of companies located in the area. The development of Vaskiluoto is aimed at strengthening the region's significance and potential as a global trendsetter for the industry. With approximately 3,000 employees, Wärtsilä is the largest private employer in Vaasa. The Vaasa unit is Wärtsilä's largest operating location. The goal of the Smart Technology Hub is to improve collaboration throughout Vaasa's energy cluster and create comprehensive solutions that are more energy efficient, and therefore more competitive, in the global market.

## The partner campus in Vaasa serves as a centre of research and product development in collaboration with customers, suppliers, startups and universities.

The total investment in Vaskiluoto is estimated at EUR 200 million, comprising the Smart Technology Hub's modern testing and production technology, office and production buildings, logistics and infrastructure. The change will not only bring investments in smart technology, but also a carefully thought out process as well as new working methods – in line with the principles of sustainable development – throughout the organisation.

Vaasa has traditionally been the cradle of Wärtsilä's engine development. The investment in the new hub reflects an increasingly decisive move towards being a technology services company.



Smart devices are tools that are used in a growing number of jobs in the field.

The Smart Technology Hub will be a concrete manifestation of Wärtsilä's Smart Marine Vision and Smart Energy Vision. The work will focus on complete processes and their lead times, with efficiency improvements sought not only through the smart use of data and simulation technology, but also through robotics. The hub will improve the testing and product development of the solutions and systems created by Wärtsilä and its partners.

“The hub in Vaasa will enable us to broaden the scale of operations to include business innovation. Technology, simulation tools, modelling and mathematical processes have come a very long way. They will make it possible for us to ensure that our ideas genuinely work before we start to physically test them.

When we get to the concrete testing stage, we will be several steps further ahead than we used to be,” Palomäki explains.

The Smart Technology Hub in Vaasa is intended to be the first of many. The goal is to establish a global network of Wärtsilä centres of excellence.

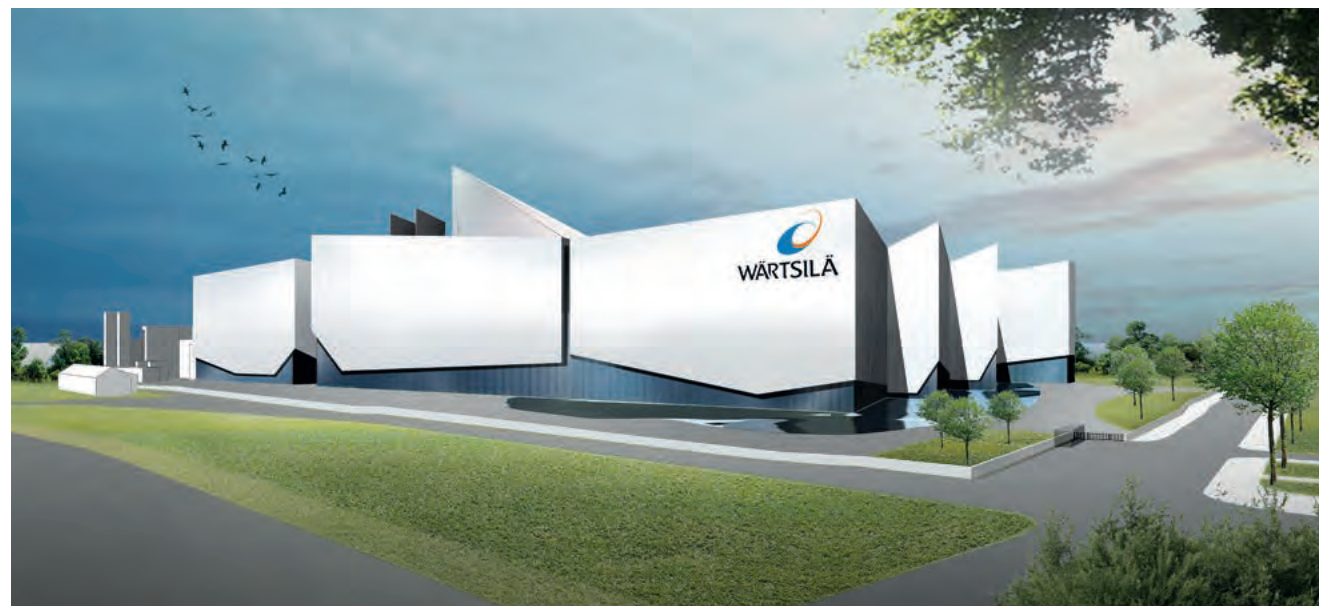
In late 2018, the company commissioned the Wärtsilä Helsinki Campus in Helsinki's Salmisaari district. The campus provides Wärtsilä's head office with modern facilities and the oppor-

tunity to take advantage of the latest technologies and working methods.

In the future, Wärtsilä's history may also be the history of the company's partners. There is a great deal of wisdom and brilliant ideas outside the boundaries of any organisation. Today's companies must open themselves up to the outside world and establish mutually advantageous partnerships. In a broader sense, it is an updated form of social responsibility and a modern way of looking after the company's mental and geographical neighbourhood. The well-being, tolerance and attractiveness of a region go hand in hand with the interests of the company and its employees.

This is how Wärtsilä operates. It promotes the renewal of its industry, itself and its sphere of operations. While staying true to its rich heritage. Successfully and in a way that also produces new business.

**W**ärtsilä is increasingly moving from being a producer to being a partner, from being the one that implements to the one that coordinates the bigger picture. This change is driven by digital solutions.



“**The biggest threat is not seeing what's around the corner. That can happen if you allow yourself to become self-contained, if you think you know everything there is to know.**”

**Mikael Lilius**

(Left) The partner campus being developed in Vaasa's Vaskiluoto district brings the region's energy sector R&D activities under one roof.

Building the future – modernisation – is closely linked to the digital transformation, which is something Wärtsilä is committed to throughout the organisation, from product development to support functions, sales to marketing and, most importantly, customer solutions. This means acquiring new competencies, investing in technology and forming partnerships with progressive partners.

Digitisation is a tool. It connects devices and generates data, but that's not enough. The data must be used appropriately, which also enables the creation of new devices. Devices also have to be managed to optimise the way they work together. The digital transformation is already proving to be a revolutionary change. In the business model of the future, the customer may manufacture or print spare parts based on licensed designs. Instead of selling spare parts, Wärtsilä could sell licences for their production. Or perhaps the customer of the future will pay for the use of a machine instead of paying for the machine itself?

While the ultimate possibilities are not yet fully known to anyone, Wärtsilä is currently well equipped to take advantage of them. The company has the open-mindedness to look at things from new perspectives. It has the right mentality. It has dialogue and trust between management and employees.

Even for the well equipped explorer, the journey may turn out to be difficult. You need to have a great deal of endurance. You will experience mistakes, disruptions and losses. Changes in the business model can alienate part of the old structure and reduce profits, even for an extended period of time.

As daunting as that may sound, there are no other alternatives. Staying put is not an option. Mikael Lilius, the Chairman of Wärtsilä's Board of Directors, puts it succinctly.

“Your partner today can be your competitor tomorrow, and vice versa. The biggest threat is not seeing what's around the corner. That can happen if you allow yourself to become self-contained, if you think you know everything there is to know.”

The history of Finnish industry certainly holds a few of those stories.

## The focus remains on people

The renowned American futurist **Alvin Toffler** visited Wärtsilä and the Helsinki shipyard in 1983. Toffler rose to prominence for his predictions regarding the megatrends of post-industrial society and future changes such as the rapid rise of the Internet. "He also advised Wärtsilä's executives about the changes taking place in our world," recalls **Eeva Artimo**, who was Wärtsilä's Vice President of Communications and had the opportunity to interview Toffler during his visit.

Even as far back as in 1983, Toffler was able to predict how digital technology and computers would change the world and how computerisation would lead to the increased significance of information in the workplace, even in heavy industries such as those in which Wärtsilä operates. Toffler also emphasised that, in spite of rapid technological progress, the key factor in and the central focus of this process of transformation is not micro-chips and robots, but people. This is a view that Wärtsilä still holds to this day.



## Our thanks

This book is based on interviews with 59 individuals who have played various roles in and around the company over the years. They include people of all stripes, from industrialists to salesmen and chauffeurs; what they have in common is that they have all been part of creating the new Wärtsilä. Their recollections paint a picture of a company whose secret weapon is its attitude.

**“I’ve seen a major change in Wärtsilä’s management and the business environment. The organisation had the traditional structure: production and sales. The customer was not the focal point like they are now.”**

**AARNI-SIRVIÖ MAARIT**

Member of Wärtsilä’s Board of Directors 2007–

**“In the Caribbean, there’s a Wärtsilä power plant on nearly every island. We are synonymous with power plants.”**

**AHLQVIST PEKKA**

President, Wärtsilä Finland 1998–2002,  
Group Vice President, Power Plants 2002–2006

**“I couldn’t have imagined the services we offer today. To think that an old machine shop can do all this!”**

**AHLSTRÖM KRISTER**

at Wärtsilä 1966–1981, Vice President and member of the Board of Management, in charge of internationalisation

**“People would call me and one of my colleagues the Fighting Toshibas because we had laptop computers.”**

**ALLONEN HEIKKI**

Senior Vice President of Corporate Planning at Metra and later at Wärtsilä 1990–2001 (at Lohja Corporation 1980–1989)

**“Wärtsilä has enriched Finnish society by bringing in a lot of people with international experience as well as spin-off companies established by old Wärtsilians in the Vaasa region, for example.”**

**ANDERSSON CHRISTIAN**

at Wärtsilä 1984–2006,  
Group Vice President, Wärtsilä Diesel



**“With the growth of the cruise market the Wärtsilä four stroke brand and the Trieste factory started a period of development and success.”**

**ANTONINI CORRADO**

(deceased 7/2018) CEO and President of the Board, Fincantieri; Executive Vice President, Wärtsilä NSD 2000–2012

**“History writing is interesting because it usually only shows what one has achieved. But in order to succeed, a lot of failure is needed.”**

**BERGH KAJ-GUSTAF**

Member of Wärtsilä’s Board of Directors 2008–

**“There’s been revolution as well as evolution: business operations have been adapted, developed and sharpened. What doesn’t fit has been let go.”**

**BERTLIN SVEN**

at Wärtsilä 1970–2004, President, Wärtsilä Diesel and Executive Vice President, Group Vice President

**“During the 11 years I handled services, we went from 3,000 in 15 countries to 11,000 in 70 countries.”**

**BLOMBERG TAGE**

at Wärtsilä 1975–2009 in positions including Group Vice President, Services

**“Fair but strict rules that are the same for everyone. That’s Wärtsilä’s culture and DNA.”**

**BRUNOW BERNDT**

at Wärtsilä 1999–2002, President of Sanitec

**“Wärtsilä’s technology has had a very significant impact on world trade as a Finnish company that is perceived as a neutral operator.”**

**EHRNROOTH ALEXANDER**

Member of Wärtsilä’s Board of Directors 2010–2015, representative of Fiskars, a significant shareholder

**“The most important thing is to keep a close eye on the world around you, to understand how it is changing and to have the courage to change the company accordingly.”**

**EHRNROOTH GEORG L.**

at Oy Wärtsilä Ab 1965–1979, President of Oy Lohja Ab 1979–1991 and President and CEO of Metra Oyj Abp 1991–2000

**“The merger went through because Wärtsilä was facing an urgent situation, Lohja had the desire, and Fiskars and its main shareholders were available – Metra was created.”**

**EHRNROOTH GÖRAN J.**

Member of Wärtsilä’s Board of Directors 1989–2008, representative of Fiskars, a significant shareholder

**“It’s good that we haven’t staked everything on one card. There’s solar and batteries. There’s combinations.”**

**EHRNROOTH PAUL**

Member of Wärtsilä’s Board of Directors 2010–2015, representative of Fiskars, a significant shareholder

**“Wärtsilä has waved the Finnish flag so to speak.”**

**EHRNROOTH ROBERT**

1989–2003 first the Chairman of the Board of Directors of Lohja Corporation, later member and Chairman of Wärtsilä’s Board of Directors

**“There have been good people and good leaders, otherwise the company would never have survived!”**

**EK MAJ-LEN**

in Wärtsilä’s financial management function 1974–2011, in positions including Vice President, Group Control

**“You have to believe in what you do and in the people who make it all happen.”**

**EKLUND HENRIK**

CEO of Sanitec 1990–2001

**“If we don’t think about what is important for society now and in the future, who will?”**

**ESKOLA JAAKKO**

at Wärtsilä since 1998, initially in customer finance, Wärtsilä’s President and CEO 2015–

**“Digitisation and automation create a new ecosystem and cohesion between suppliers, customers and other participants.”**

**FALK KARIN**

Member of Wärtsilä’s Board of Directors 2017–

**“You constantly work with ‘there is always a better way’ and that the world is changing.”**

**FORSSELL JOHAN**

Member of Wärtsilä’s Board of Directors 2017–

**“One of the highlights of my career was Finnish companies getting listed on foreign stock exchanges. We were the first to be listed in London in 1984.”**

**GRÖNBÄRJ KLAUS**

at Wärtsilä 1972–1994, CFO and in charge of international investor relations, President and CEO in 1989

**“During one particular period, a service company was bought almost once a week or month. It took a lot of time to start creating one’s own service workshops around the world.”**

**HELLBERG LARS**

at Wärtsilä 2004–2013, President of Wärtsilä Industrial Operations division

**“Internationalisation? You have to keep moving ahead fast. You have to find foreign partners, not just Finnish partners. You can get started with representatives but you need your own people.”**

**HINTIKKA PENTTI-JUHANI**

at Wärtsilä 1988–1999, President of Wärtsilä Diesel and CEO of Wärtsilä NSD

**“Friendships and relations played a big part, more so for us than for other Finnish companies.”**

**HORN TANKMAR**

(deceased 3/2018) President of Wärtsilä 1970–1976, Chairman of the Board of Management and the Board of Directors and a member of the Board of Directors of Metra –1995

**“When you went to Russia for negotiations, you had to spend a week or two. You needed a visa to get in and a visa to get out.”**

**JAKOBSSON LARS**

at Wärtsilä 1958–1998, including a long period of time as the head of the representative office in Moscow



**“Finland was a country under construction. It was taken for granted that the executives of major enterprises had good relationships with the country’s leadership.”**

**JOHANSSON OLE**

at Wärtsilä 1975–2011, President and CEO 2000–2011

**“Our operating environment is currently changing at a greater magnitude and rate than ever before.”**

**JOHNSTONE TOM**

Member and Vice Chairman of Wärtsilä’s Board of Directors 2015–2018

**“I spent 23 years at Wärtsilä, but occasionally I felt like I had moved to a new company because there were always changes.”**

**KAINULAINEN EEVA**

at Wärtsilä 1988–2011, Vice President of Global Communications

**“If there’s something I can do for the boss, I’m happy to do it. So I’m not just there to drive.”**

**KALLINEN ILKKA**

at Wärtsilä since 1977, at the Helsinki shipyard and as a company driver

**“In the 1970s–80s it was hard to find a Finnish engineer who didn’t have Wärtsilä on his résumé. Wärtsilä’s production plants and divisions were a great learning environment. The company was an educator of young engineers.”**

**KLEIMOLA MATTI**

at Wärtsilä initially from 1974 to 1983, in positions including Head of Product Development in the diesel engine division, and 2000–2006 as CTO and member of the Board of Management

**“Getting the deals done was very demanding. There were millions at play and you always had to write the numbers down to be sure.”**

**KULIKOFF ALEKSEI**

at Wärtsilä 1973–1999, Russian language interpreter

**“You’ll run out of skills and energy if you try to juggle too many balls at once.”**

**LAGERROOS ANTTI**

Chairman of Wärtsilä’s Board of Directors 2002–2011

**“That was the name of the game in 1989. It was a condition of war of everyone against everyone.”**

**LAINEN PEKKA**

CEO of Wärtsilä Marine 1987–88, President and CEO 1989

**“The biggest lesson is that you have to keep up with your time and calculations.”**

**LANDTMAN CHRISTIAN**

the head of the shipyard business 1954–1984

**“You have to keep up with fast-moving customers. That’s essential for your image as well as your profitability.”**

**LANGENSKIÖLD BERTEL**

Member of Wärtsilä’s Board of Directors 2002–2011

**“We were the first big machine shop that gave up the idea of piecework and having someone behind you cracking the proverbial whip.”**

**LEINO SEPPO**

at Wärtsilä 1967–2004, long-time shop steward at the Wärtsilä Diesel plant in Turku

**“The biggest threat is that we won’t see what’s around the corner, that we allow ourselves to become self-contained.”**

**LILIUS MIKAEL**

Chairman of Wärtsilä’s Board of Directors 2011–

**“In the 1970s, it would have been hard to believe the company will have a foreign primary shareholder and – for a while – a Swedish President and CEO.”**

**LIND RAIMO**

at Wärtsilä 1976–2013 (with a nine-year spell at Tamrock), Group CFO and Executive Vice President, worked in Asia and was in charge of e.g. the Singapore diesel factory and sales in the area

**“One of the keys to success was making maintenance a local activity and training people to do it. You didn’t have to spend all your time sitting on a plane flying here and there.”**

**LINDROOS HARRY**

at Wärtsilä 1980–2011, in positions including Director of Product Development and Regional Director

**“On my first visit to Finland in 1988, one Wärtsilä executive invited me to his summer house and of course we ended up in the sauna. He insisted that I jump in the lake, saying ‘Let’s see if you’ve got what it takes to be a Diesel man!’**

**MALLICK PRADEEP**

Managing Director of Wärtsilä India 1988–2003

**“Wärtsilä is in a good position to take advantage of transforming value chains: it already has a presence in the countries where there’s a lot of sunlight.”**

**MURTO RISTO**

Member of Wärtsilä’s Board of Directors 2014–

**“We never discussed who will pay with customers, we settle the matter first. One became known for fixing everything and not complaining.”**

**MÄKINEN MIKAEL**

at Wärtsilä 1981–2005, in charge of the marine engine business in different parts of Asia

**“Vaasa is Wärtsilä’s secret weapon.”**

**PALOMÄKI ATTE**

Executive Vice President, Communications and Branding, member of Wärtsilä Board of Management 2008 –

**“But in the beginning, were I to have said that we would have been the best in the world, they would have called for an ambulance.”**

**PARO DANIEL**

Vice President of Research and Development, Wärtsilä Diesel 1980–2006

**“In the future, the customer might pay for availability rather than the engine itself.”**

**RAURAMO MARKUS**

Member of Wärtsilä’s Board of Directors 2011–

**“You shouldn’t waste a good recession. It’s an opportunity for renewal and adaptation.”**

**ROSENGREN BJÖRN**

Wärtsilä’s President and CEO 2011–2015

**“I went to Moscow every week for two years.”**

**SAARIKANGAS MARTIN**

at Wärtsilä 1959–1989, head of the shipyard industry, also in charge of the Eastern trade

**“My record was eight times in the sauna in one week.”**

**SELHO IGOR**

at Wärtsilä 1980–2000, e.g. head of Wärtsilä’s Moscow office

**“We were the only company in the world which could deliver engines from order to delivery in five months, when others took a year or at best maybe ten months.”**

**STOOR JOHAN**

at Wärtsilä 1961–2001, in positions including Director, Wärtsilä Diesel

**“Feelings are part of doing business. Things have to feel right.”**

**STRAND CLAS-EIRIK**

at Wärtsilä 1975–2010, one of the founders of Wärtsilä Diesel, spent time in charge of the operations of Wärtsilä China, Southeast Asia and the Americas

**“The level of engineering competence in the development of new engines – also from an environmental perspective – has been admirable.”**

**SULZER PETER**

Executive Chairman of New Sulzer Diesel 1990–1997, Member of the Board of Directors of Wärtsilä NSD

**“In any case, we were able to reduce the state’s losses by the actions we took.”**

**SUOMINEN ILKKA**

career politician representing the National Coalition Party, party chairman 1979–1991 and Finnish Minister of Trade and Industry 1987–1991

**“We had the drive to change. We recognised how important development is.”**

**TÄHTINEN KARI**

at Wärtsilä 1974–2005, President of Imatra Steel

**“Wärtsilä’s unusual solution was effective: communication, employment-related issues and personnel management were all combined in the same unit.”**

**VALJAKKA ARI**

at Wärtsilä 1977–1988, Vice President, Personnel and Communications

**“It was a process of building the culture and strategy: you needed to establish a common language and concepts for what we’re trying to accomplish.”**

**VALPOLA ANNELI**

training manager at the Helsinki shipyard, in Group management in positions including Vice President, Personnel 1980–1990

**“We sold an icebreaker to Argentina in 1975 and had to leave in a hurry after Isabel Perón left the country and the admirals seized power.”**

**VIRTANEN PEKKA**

at Wärtsilä 1970–2002 as legal counsel, Senior Vice President and General Counsel

**“The power plant business began in the mid-1980s when a group of clever engineers realised you could use marine engines to produce electricity on land.”**

**VITZTHUM CHRISTOPH**

at Wärtsilä 1994–2013 in positions including Executive Vice President in charge of the power plant business as well as the service business

**“Sulzer was an expensive acquisition, but you could argue that Wärtsilä would not exist in its current form if it weren’t for the Sulzer deal.”**

**WAHLROOS BJÖRN**

banker, involved in Wärtsilä’s corporate transactions through SYP Bank and later through Mandatum, from 1985 to approximately 2000

**“During the negotiations, Wahlforss decided to send my wife to Moscow!”**

**WOLFRAM ÅKE**

at Wärtsilä 1949–1985, shipbuilder

Edited by  
Editor-in-Chief  
Project Manager

Wärtsilä  
Atte Palomäki  
Amos Ahola

Editor

Pekka Vanttinen

Execution  
Managing Editor  
Project Coordinator  
Concept and layout  
Graphic designers

Miltton  
Teija Laakso  
Tiina Haimi  
Sampsa Voutilainen  
Kari Hyötyläinen  
Henriikka Iivanainen

Interviews

Teija Laakso  
Eveliina Mikkonen  
Tiina Haimi  
Alice Ahlström

Photos

Lehtikuva  
Indav Oy  
Wärtsilä archives  
Private archives

Distribution  
Printing

Alma Talent  
Öhring Oy

Thank you to everyone who contributed to this project and everyone who played a role in Wärtsilä's story over the past five decades!

Give feedback on the book: [wartsilahistorybook@miltton.fi](mailto:wartsilahistorybook@miltton.fi)

ISBN 978-952-68866-6-4  
Copyright © 2018 Wärtsilä

“  
Vaasa is  
Wärtsilä's secret  
weapon.”

**Atte Palomäki**

“  
One of the highlights of my career was  
Finnish companies getting listed on foreign  
stock exchanges. We were the first to be  
listed in London in 1984.”

**Klaus Grönbärj**

“  
In the Caribbean, there's a Wärtsilä power  
plant on nearly every island. We are synon-  
ymous with power plants.”

**Pekka Ahlqvist**

“  
It was around 1980 that we went to the U.S.  
to present our shipbuilding operations —  
but all of our ships were emblazoned with  
hammers and sickles.”

**Krister Ahlström**

“  
You constantly work  
with 'there is always a  
better way' and that the  
world is changing.”

**Johan Forssell**

“  
The biggest lesson is  
that you have to keep  
up with your time and  
calculations.”

**Christian Landtman**

“  
It's good that we haven't  
staked everything on  
one card. There's solar  
and batteries. There's  
combinations.”

**Paul Ehrnrooth**

“  
You shouldn't waste  
a good recession.  
It's an opportunity  
for renewal and  
adaptation.”

**Björn Rosengren**

“

Finlandia wasn't just a car ferry, it was the first vessel to have a waste management system. Nothing was released into the sea. Before that, even cardboard and glass was dumped overboard.”

**Martin Saarikangas**

“

In the 1970s–80s it was hard to find a Finnish engineer who didn't have Wärtsilä on his résumé. Wärtsilä's production plants and divisions were a great learning environment. The company was an educator of young engineers.”

**Matti Kleimola**

“

In the future, the customer might pay for availability rather than the engine itself.”

**Markus Rauramo**

“

The level of engineering competence in the development of new engines — also from an environmental perspective — has been admirable.”

**Peter Sulzer**

“

Wärtsilä's unusual solution was effective: communication, employment-related issues and personnel management were all combined in the same unit.”

**Ari Valjakka**

“

Wärtsilä has enriched Finnish society by bringing in a lot of people with international experience as well as spin-off companies established by old Wärtsilians in the Vaasa region, for example.”

**Christian Andersson**

“

History writing is interesting because it usually only shows what one has achieved. But in order to succeed, a lot of failure is needed.”

**Kaj-Gustaf Bergh**

“

The power plant business began in the mid-1980s when a group of clever engineers realised you could use marine engines to produce electricity on land.”

**Christoph Vitzthum**

”

On my first visit to Finland in 1988, one Wärtsilä executive invited me to his summer house and of course we ended up in the sauna. He insisted that I jump in the lake, saying 'Let's see if you've got what it takes to be a Diesel man!'

**Pradeep Mallick**

“

You have to put all the wood behind one arrow.”

**Georg L. Ehrnrooth**

“

That was the name of the game in 1989. It was a condition of war of everyone against everyone.”

**Pekka Laine**

“

But in the beginning, were I to have said that we would have been the best in the world, they would have called for an ambulance.”

**Daniel Paro**

“

In any case, we were able to reduce the state's losses by the actions we took.”

**Ilkka Suominen**

“

Friendships and relations played a big part, more so for us than for other Finnish companies.”

**Tankmar Horn**

“

We renovated Yeltsin's yacht. "Champagne for everyone," said Yeltsin.”

**Igor Selho**

## Enabling sustainable societies with smart technology

This is Wärtsilä's official statement of purpose. Wärtsilä today is something altogether different compared to what the company was 50 years ago: in addition to machines and state-of-the-art technology, it is increasingly about people and their expertise. No longer only in Finland, but in the global arena.

This book celebrating Wärtsilä's 185th anniversary is based on interviews with 59 individuals who have played various roles in and around the company over the past five decades. They include people of all stripes, from industrialists to chauffeurs and engineers to salesmen; what they have in common is that they have all been part of creating the new Wärtsilä. Their recollections paint a picture of an adaptable company whose secret ingredient is its attitude.



ISBN 978-952-68866-6-4  
69.1