

This is Wärtsilä

Shaping the decarbonisation
of marine and energy





190 years of innovation

1834

Our story begins when a sawmill is established in a Finnish village, Wärtsilä.

1995

Our pioneering dual-fuel engine can switch between fuels during operation.

2015

Guinness World Records names Wärtsilä 31 as the most efficient 4-stroke diesel engine in the world.

First engines of a customer are converted to run on methanol.

2023

As we stand among TIME's 100 most influential companies, our story continues with world's firsts:

- 4-stroke engine-based ammonia solution for marine.
- Wärtsilä engine runs on 25 vol% hydrogen blend.

1950s

Our first marine engines.

1970s

The first-ever 4-stroke engine operating on heavy fuel oil.

We enter the energy sector.

2012

World's first hybrid system on-board a vessel.

2022

Our first newbuild methanol engines.

Our purpose

Enabling sustainable societies through innovation in technology and services

We are shaping the green transition in marine and energy with our advanced technologies, expertise in sustainable fuels and lifecycle service offering.

Uniquely positioned to drive global transformation in our industries

1 in 3 of the world's vessels

are equipped with Wärtsilä solutions. That's over 30,000 ships.

Over 180 countries

where Wärtsilä energy installations provide reliable power.

50% of sales come from services

and 90% of our lifecycle customers renew their service agreement.

A global team of experts fuelling change since 1834



17,800
people



280+
locations



130
nationalities



79
countries



6,015
net sales, MEUR



52%
service sales
of total



Figures from 2023

Our decarbonisation targets for 2030

- | Provide a product portfolio which will be ready for zero-carbon fuels
- | Become carbon neutral in our own operations



Håkan Agnevall,
President & CEO

The decarbonisation of marine and energy industries is accelerating



Market forces speeding up decarbonisation of marine and energy



Growing recognition of need for sustainability

- Maritime transports 80% of global trade
- Growing energy demand
- New policies & regulations



Technology development

- Rapid growth of renewables
- Fuel-flexible technologies and sustainable fuels
- Other solutions cutting emissions, such as abatement and battery technology



Increased connectivity & data

- Installations and systems grow in data and complexity
- Holistic optimisation of each system

Decarbonising the marine ecosystem requires collaboration and connectivity



Fuel distributors
Fuel producers
OEMs
Ports
Regulators
Shipyards
Ship financing
Ship operators
Ship owners

Decarbonising the energy industry with renewables and balancing power

Decrease running hours of inflexible power plants.

1

Adding more renewables into the power mix.

2

Adding flexible engine power plants & storage to balance the intermittency of renewables.

Continue adding renewables supported by flexibility.

3

Phasing out inflexible power plants running on coal.

Utilise Power-to-X and flexible balancing engine power plants to provide carbon-neutral long-term storage.

4

Accessing sustainable fuels and converting all remaining power plants to run on them.

5

A 100% renewable energy future is here

It is based on renewables, energy storage, and balancing engine power plants running on sustainable fuels.

Our solutions and know-how enabling the transition



We offer technologies and services for decarbonising marine and energy



Fuel-flexible engine technology



Industry-leading fuel research



Hybrid, battery, and energy storage solutions



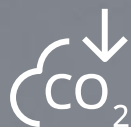
Digital solutions to optimise and secure operations and service



Energy-saving technologies



Services: broadest network and lifetime support, Decarbonisation services



Emission-abatement technologies



Industry know-how and modelling of power systems

Wärtsilä Marine: the right combination of solutions for each vessel and fleet



Engine optimisation & fuel flexibility



Electrification & hybrid systems



Energy-saving solutions



Abatement systems & carbon capture



Lifecycle solutions & services

Wärtsilä Energy: towards a 100% renewable energy future

We accelerate decarbonisation with our market-leading flexible technologies and power system expertise.



Balancing renewables



Engine power plants



Energy storage and
optimisation



Lifecycle services

Helping our customers decarbonise with new partnership models

Agreements & performance-based agreements

Retrofits and upgrades

Optimised maintenance

Transactional spare parts & field services

Value to the customer

| Our strategy drives change



Our strategy

THE WÄRTSILÄ WAY

● Purpose

Enabling sustainable societies through innovation in technology and services

● Target position

Shaping the decarbonisation of marine and energy

● Strategic priorities

Roadmap to improve performance and reach the target position

● Execution plan

What to do – tactics & operations, updates yearly

● Values, leadership and continuous improvement

Our beliefs and behaviour

Innovation and R&D investments as change drivers

260 MEUR R&D investment
representing 4.3% of our net sales.

2,900 patents & applications
of which 43% are classified as technologies that reduce or eliminate GHG emissions (since 2013).

> 1,000 ideas & inventions
from our colleagues through the internal innovation program.



Our fuel research and fuel-flexible technology are enabling the transition to sustainable fuels

- The decarbonised future will still involve multiple fuels.
- Fuel-flexible technology is the most future-proof solution.
- The preferred fuel will vary between industries and companies, depending on changing costs, availability and storage needs.
- Engines and systems operating on sustainable fuels are already being developed and demonstrated.

Our engines can run on a diverse range of fuels:

Today	Diesel Biodiesel E-diesel LNG Bio-methane e-methane LPG Methanol Ammonia Hydrogen blends
2025	100% hydrogen

Leading the way with our customers

Selected references and partnership cases



Wasaline's

CO₂ emissions could be reduced by 50% with the upgrade to Wärtsilä 31 dual-fuel engines, able to run on LNG and biogas. With our latest solutions, Wasaline has been able to further reduce their methane emissions by 10%.



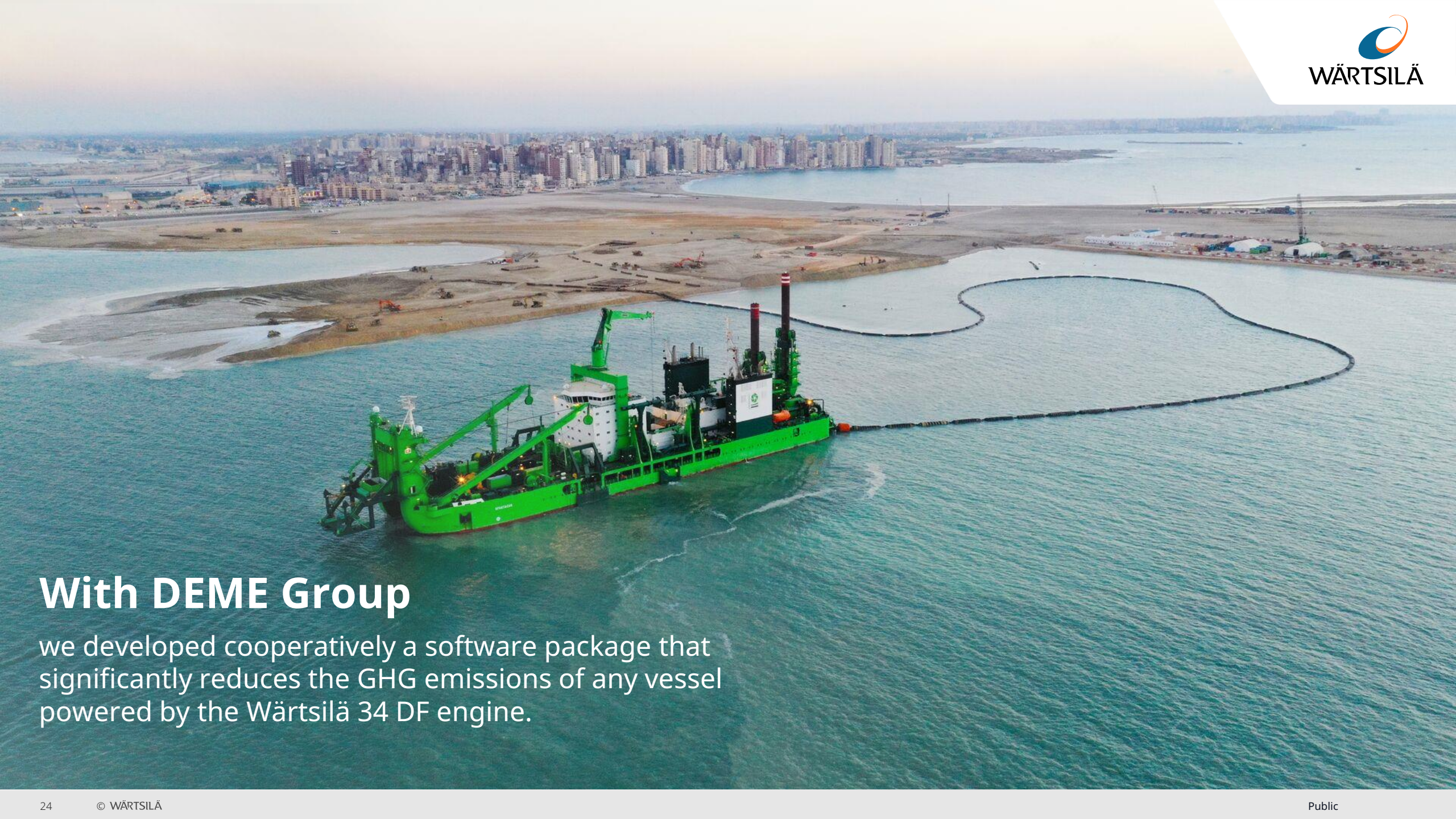
With Carnival Corporation

our long-term partnership enables emission and fuel cost savings, measured in tens of millions of dollars per year.



Incat Tasmania

chose our electrification solution and waterjets for the world's first zero-emissions, lightweight catamaran, the largest ever battery electric vessel.



With DEME Group

we developed cooperatively a software package that significantly reduces the GHG emissions of any vessel powered by the Wärtsilä 34 DF engine.

With Centrica

we were able to tackle the issues created by intermittent renewables, providing flexible balancing power with engines and stability to the system.



Origin Energy

chose us to deliver a 460 MW storage installation in one of Australia's largest energy storage projects.



With Omaha Public Power District

we landed a 10-year performance agreement for a 150 MW power plant that offers balancing power to ensure reliability of supply as the utility increases the share of solar and natural gas.

Accelerating Brazil's decarbonisation

Our three power plant conversion projects will reduce 105,000 Metric Tons of Carbon Dioxide Equivalent (MTCDE) per year and sulphur oxides (SOx) by 75%.



Wärtsilä to lead a 200 MEUR collaboration ecosystem: WISE

The Wide & Intelligent Sustainable Energy project aims to develop autonomous zero-emission energy concepts. This five-year collaboration involves over 200 Finnish companies, industrial organisations, research institutes, and universities – and is funded by Business Finland.

| Financial performance



Financial highlights 2023

Order intake

7,070 MEUR

Net sales

6,015 MEUR

Comparable operating result

497 MEUR

Comparable operating result, % of net sales

8.3%

Order book at the end of the period

6,694 MEUR

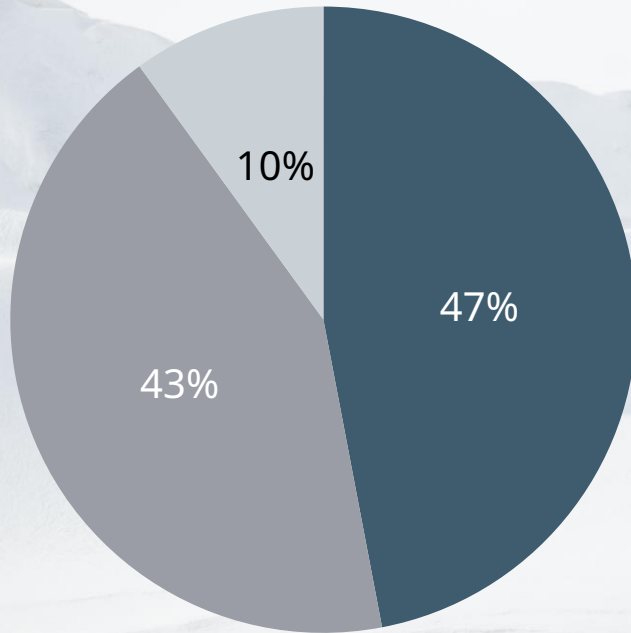
Basic earnings/share, EUR

0.44



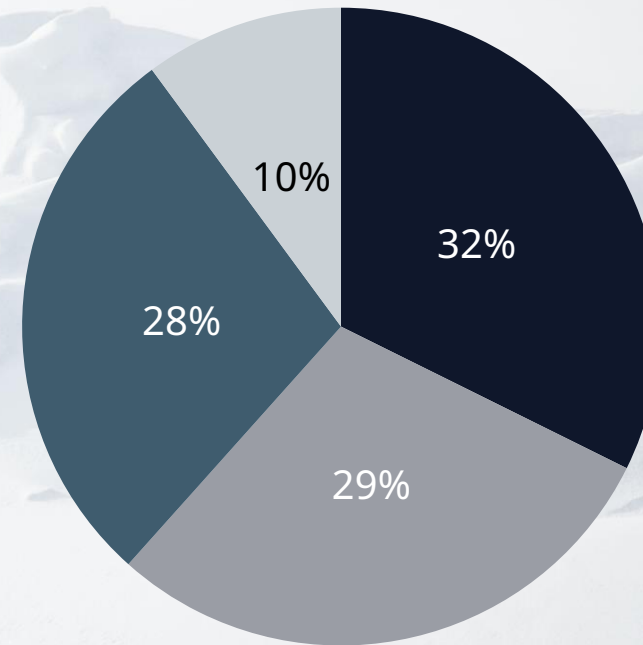
Sales by businesses and geographical areas in 2023

6,015 MEUR net sales per business



■ Wärtsilä Marine ■ Wärtsilä Energy ■ Other

Geographical net sales



■ Europe ■ Americas ■ Asia ■ Other

52% of our net sales came from services.

We are 17,800 Wärtsilians

Driven by our purpose of enabling sustainable societies through innovation in technology and services.

Our target is shaping the decarbonisation of marine and energy.

By 2030, we will have a product portfolio that is ready for zero-carbon fuels, and we will be carbon neutral in our own operations.



One of every three vessels are equipped with our marine products.



In over 180 countries, our energy solutions are providing reliable power.

Wärtsilä is a global leader in innovative
technologies and lifecycle solutions for the
energy markets

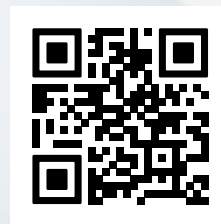


Get to know our people and our
190-year story on social media.



www.wartsila.com/about/190

Find out more about us in our company brochure.



Use the QR code or click [this link](#).



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