

# Wärtsilä

Shaping the decarbonisation of marine and energy  
Roadshow presentation

September 2023

# Wärtsilä – Shaping the decarbonisation of marine and energy

Wärtsilä businesses: Marine Power, Marine Systems, Energy, and Portfolio Business

A global leader in innovative technologies and lifecycle solutions in marine and energy

Emphasise innovation in sustainable technology and services to help customers continuously improve their environmental and economic performance

## Key growth opportunities

- ⊕ ⊕ ⊕ **Storage** : Fast growing demand for energy storage and power system optimisation solutions
- ⊕ ⊕ **Services**: Increased share of wallet from existing customers, deeper penetration of installed base, decarbonisation retrofits, new business models
- ⊕ ⊕ **Thermal balancing**: Increased demand due to coal shut-downs, thermal balancing power complementing energy storage
- ⊕ **Marine new build market recovery**: Cruise & Ferry and Special Vessel segments

## Committed to financial targets

### Net sales

5% annual organic growth

### Profitability

12% operating margin

### Capital structure

Gearing below 0.50

### Dividend

Distribute a dividend of at least 50% of earnings

## Strong track record in innovations

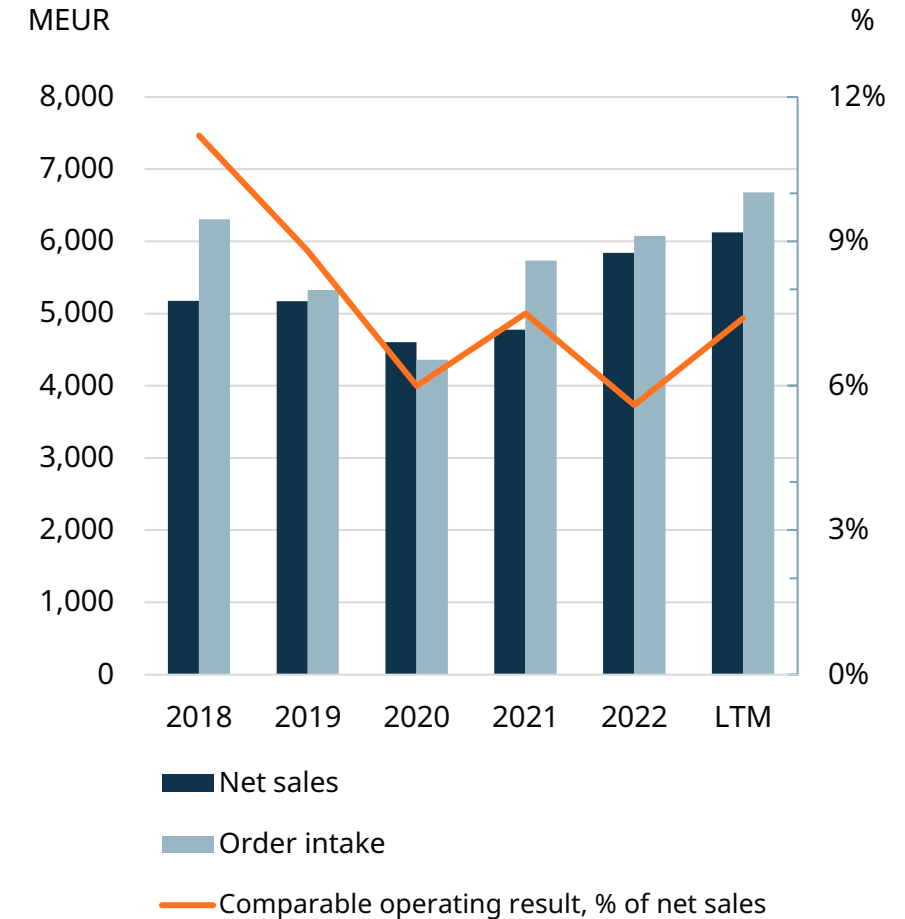
Investing ~3% of net sales on R&D yearly

**Today:** engines run on biofuels, methanol, up to 25% hydrogen blends

**By 2023:** pure ammonia fuel engine concept ready

**By 2025:** pure hydrogen fuel engine concept ready

## Key figures





# Market fundamentals

## MARINE will move with unprecedented speed towards decarbonisation

### Policies & regulations

- IMO target
- Access to capital
- Cost of carbon
- Demand for green sea transport

### Technology

- Carbon neutral and zero carbon fuels
- Carbon fuels for many years, still
- Abatement technologies
- Battery systems, hybrids & energy saving devices
- Fuel efficiency & flexibility

### Connectivity & data

- Vessels as data pools
- Optimisation solutions
- Performance-based agreements
- Cyber security
- Autonomous operations



## ENERGY is moving towards a 100% renewables future

### Policies & regulations

- EU: Carbon neutral by 2050
- USA: carbon free electricity production by 2035, net zero emissions by 2050
- China: Carbon neutral by 2060
- RePower EU, Inflation Reduction Act

### Technology

- Wind and solar growing rapidly
- Intermittent sources requiring balancing power
- Sustainable fuels for thermal balancing
- Digitalisation and cyber security

### Growing ENERGY demand

- By 2050, electricity generation needs to grow by 3X, renewables by 8X to reach Net Zero targets <sup>1)</sup>
- Gradual replacement of coal
- Renewables expected to become the largest source of global electricity by early 2025 <sup>2)</sup>
- Power systems becoming increasingly complex



**Our value creation potential is based  
on two strategic themes**

# 1 TRANSFORM

Decarbonisation creates  
new business opportunities

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# 2 PERFORM

On a path to deliver the  
set targets

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# Transform

Decarbonisation creates new business opportunities

- Maritime is going through an unprecedented rate of change, which is accelerated by regulations and the demand for green transport.
- Also, the energy sector is undergoing a massive transformation as decarbonisation and renewables are fundamentally going to change the way energy is generated.
- We are set for performance and have significant value creation potential to drive this transformation as a technology leader.



**3** Launch of the new Wärtsilä 32 methanol engine



**6** Successful hydrogen blending tests in a power plant

**1** Gas fuelled engines to provide balancing power for a new 100 MW power plant in Japan



**2** Supplying the world's largest solar-plus storage project portfolio in the US



**4** Digitalising 21 ports in the United Kingdom



**5** Wärtsilä builds major plant for the production of REEFUEL, climate-neutral Bio-LNG



**7** Hybrid propulsion systems for world's largest hybrid vessels

# Perform

On a path to deliver the set targets

## #1-3 in global markets

### FINANCIAL TARGETS:

- 5% annual organic growth
- 12% operating margin

## "SET FOR 30"

### DECARBONISATION TARGETS:

- carbon neutral in our own operations by 2030
- a product portfolio ready for zero carbon fuels by 2030



Clear financial targets and strong commitment to realise them



Robust capital allocation principles and active portfolio management



Notable opportunity in retrofits and conversions



Extensive service network, positioned for growth both in transactional services and performance-based agreements

### Focus on:

- High performing teams
- Performance excellence and robust execution
- Continuous improvement
- Cost structure – actions taken whenever and wherever necessary



# Wärtsilä key figures by reporting segments

## Marine Power

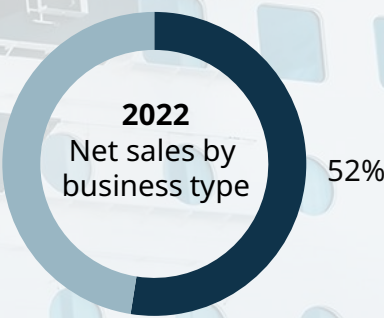
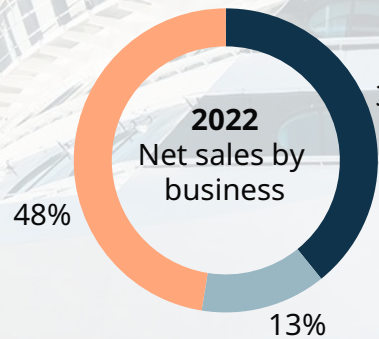
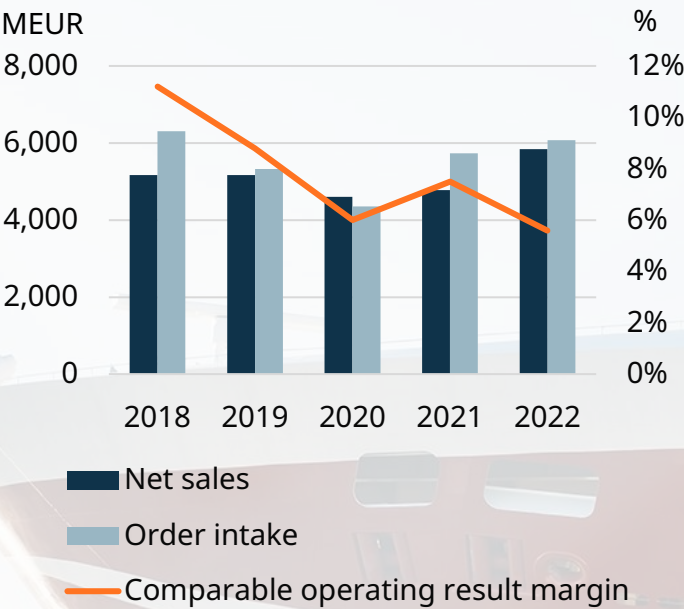
Our offering of engines, propulsion systems, hybrid technologies and integrated power transmission systems and related services support our customers in moving towards carbon neutrality.

## Marine Systems

We offer our customers high quality products and lifecycle services related to the gas value chain, exhaust treatment, shaft line, underwater repair and electrical integrations.

## Energy

We support the change towards a future where electricity is produced with 100% renewable energy by offering grid-balancing power plants, hybrid solutions, energy storage and optimisation technology.

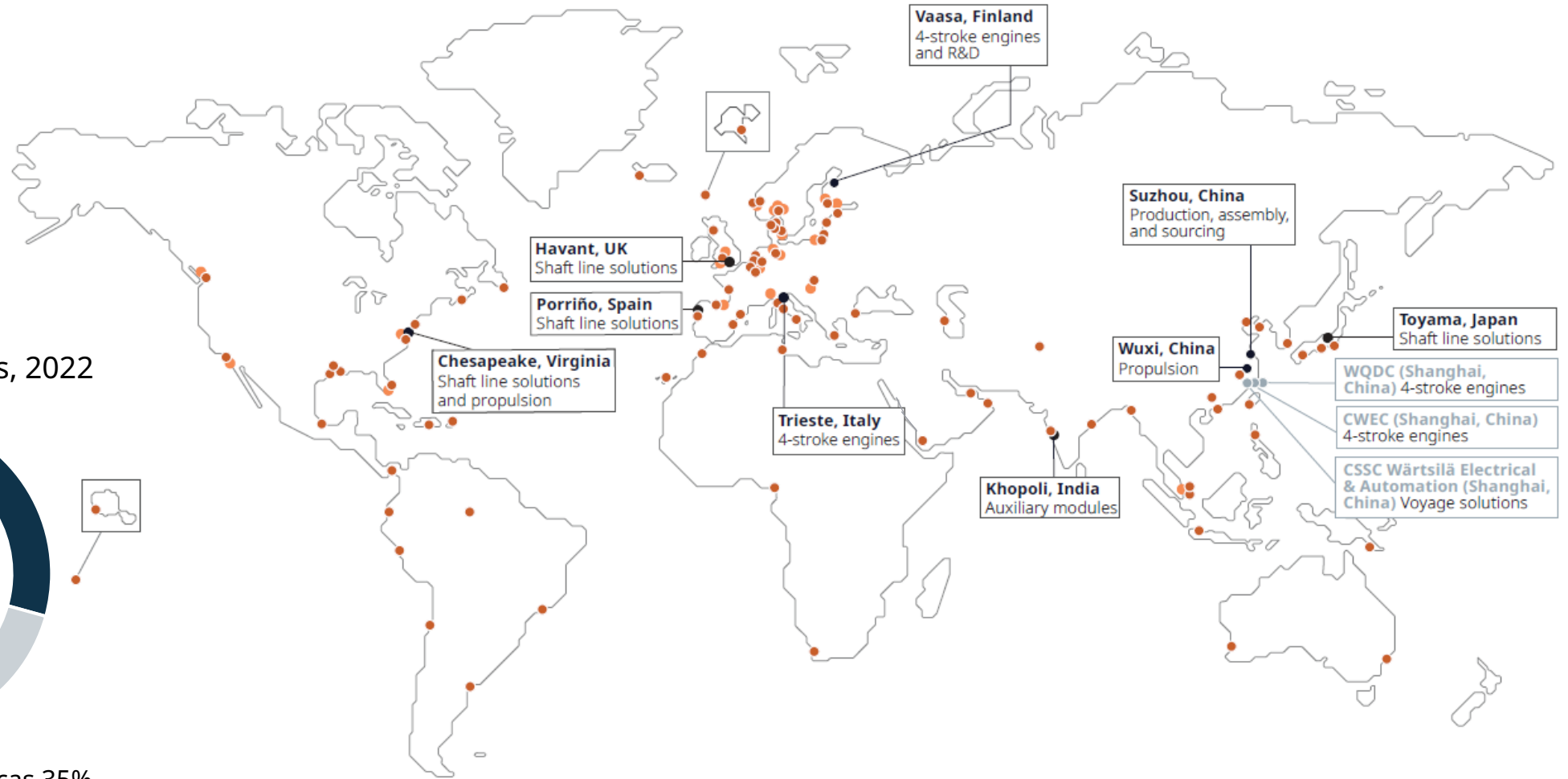


# Wärtsilä's position as a global company is reflected in the geographical breakdown of our net sales

Geographical net sales, 2022



■ Europe 29% ■ Americas 35%  
■ Asia 25% ■ Other 10%



● Sites with engineering, R&D (fully owned) ● Sites with sizeable manufacturing (fully owned) ● Joint venture sites ● Service locations



# Financials



## Financial targets reflect growth opportunities and increased profitability

### Targets

<b>Net sales</b>	<b>5%</b> annual organic growth
<b>Profitability</b>	<b>12%</b> operating margin
<b>Capital structure</b>	Gearing <b>below 0.50</b>
<b>Dividend</b>	<b>At least 50%</b> of earnings





# Good growth opportunities in services, energy, and marine new build recovery. Our installed base provides a strong foundation for services growth

Starting point:  
Net sales 4,401 MEUR  
(LTM Q3/2021)

## Key drivers

### Storage



- Fast growing demand for energy storage and power system optimisation solutions

### Services



- Increased share of wallet from existing customers
- Deeper penetration of installed base
- Decarbonisation retrofits
- New business models

### Thermal balancing



- Increased demand due to coal shut-downs
- Thermal balancing power complementing energy storage

### Marine new build market recovery



- Cruise & Ferry and Special Vessel segments in particular

**Target:**  
**5% annual organic growth**

Limited additional CAPEX needed to facilitate the growth

Source: CMD 2021

# We will reach our profitability target while maintaining R&D investments at ~3% of net sales

Starting point:  
Operating margin 5.9%  
(LTM Q3/2021)

## Key drivers

- Marine and Energy Services growth
- Thermal balancing power growth
- Storage growth
- Voyage turnaround and digital growth
- Pricing
- Continuous improvement
- Cost inflation

⊕ ⊕ ⊕

⊕ ⊕

⊕

⊕

>0%

⊕

⊕

⊖

**Target:  
12% operating margin**

Limited additional CAPEX needed to facilitate the growth

Source: CMD 2021



# Profitability drivers for 2023

## + Supporting drivers

- Growth of service business
- Continued decarbonisation push in both the energy and marine markets
- Profitability improvements in Energy Storage and Voyage Business
- Continued cost optimisation
- Strong order book both in new equipment and services
- Lower value of new equipment orders sold with "pre-war" prices

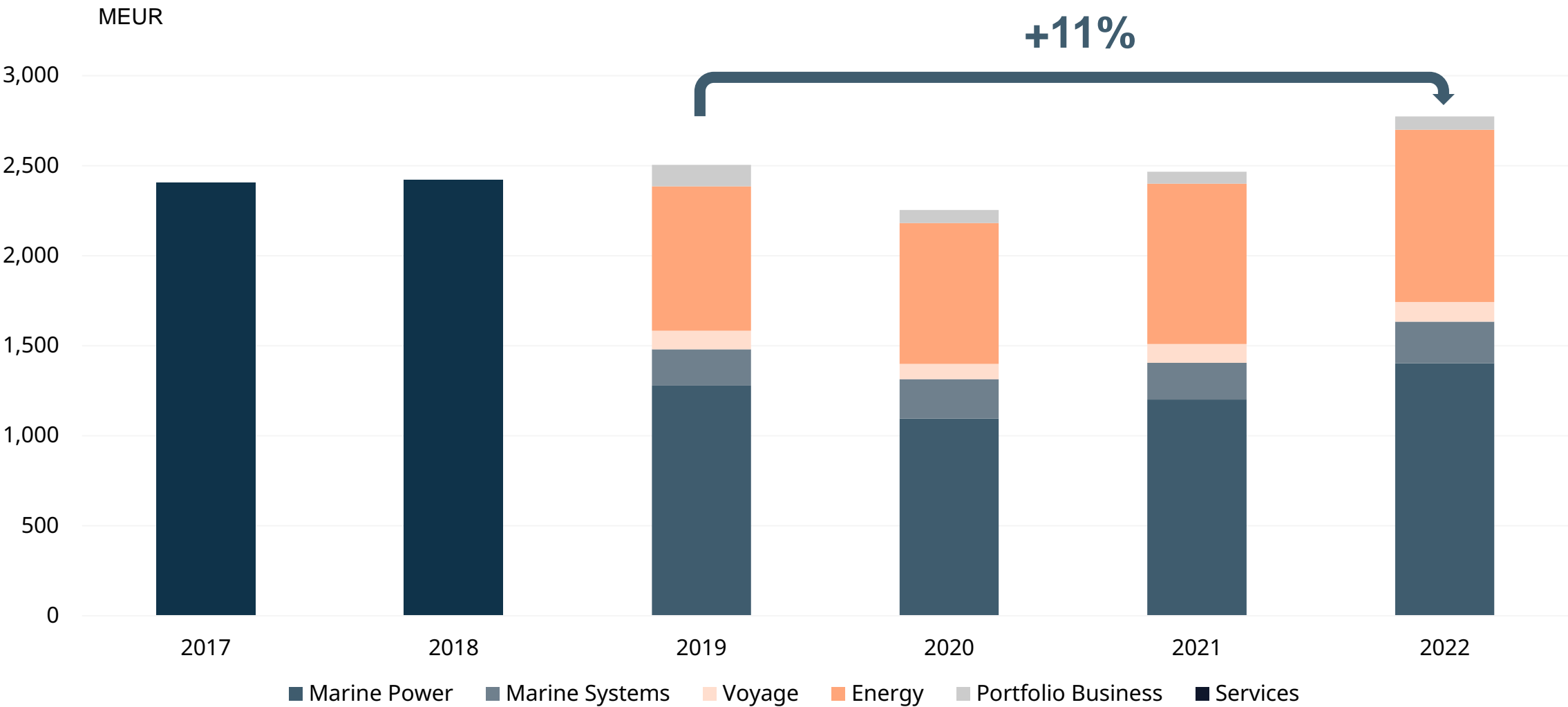
## + / - Uncertainties

- Geopolitical tensions
- Potential trade restrictions / trade wars
- Recession risk

## - Negative factors

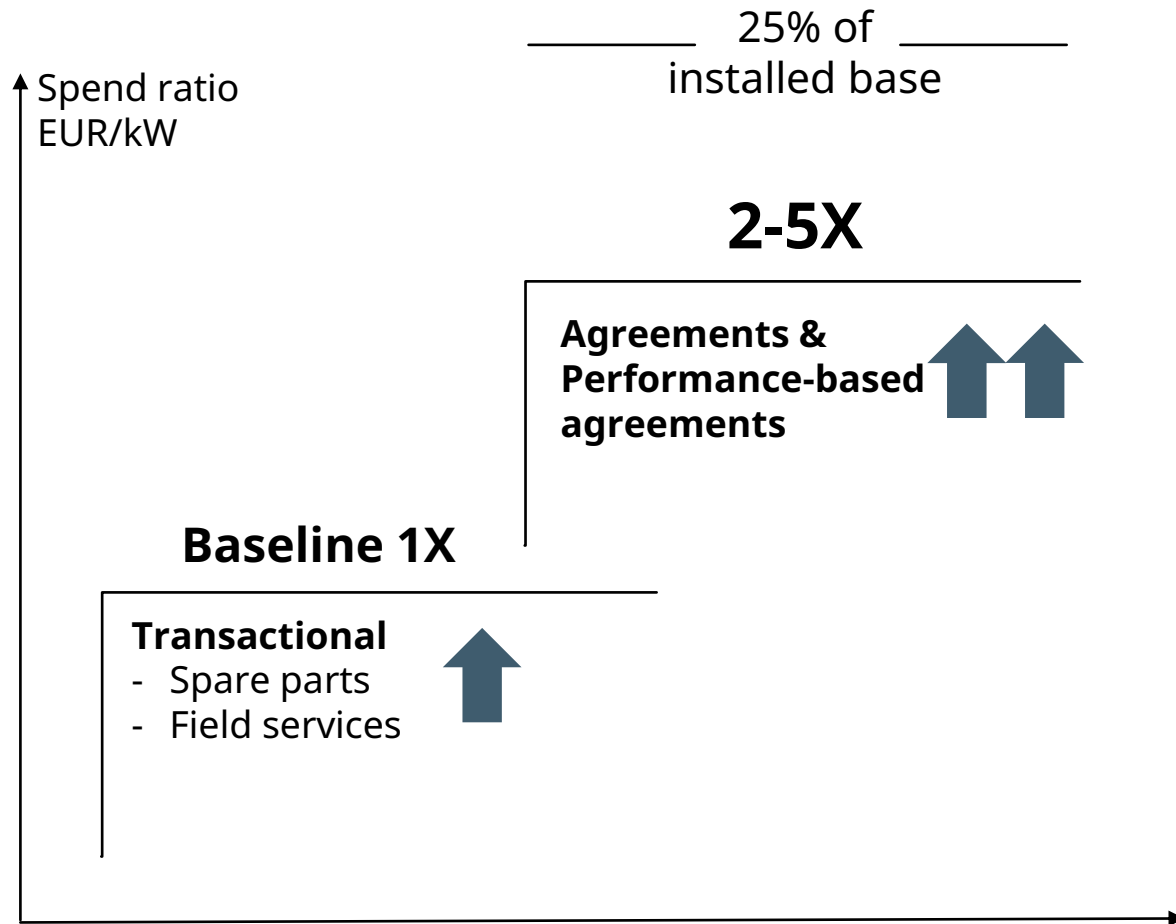
- Wage inflation
- Lower engine production volumes for Energy due to delays in order intake

# Service net sales by business





# Performance-based agreements have significant growth potential, both in Marine and Energy



## Enablers for growth

- Optimised asset performance for our customers
- Leveraging connectivity, big data, machine learning and extensive service network
- Successful experience from several projects in Marine and Energy

Moving up the service value ladder

↑ Growth potential

# Marine highlights



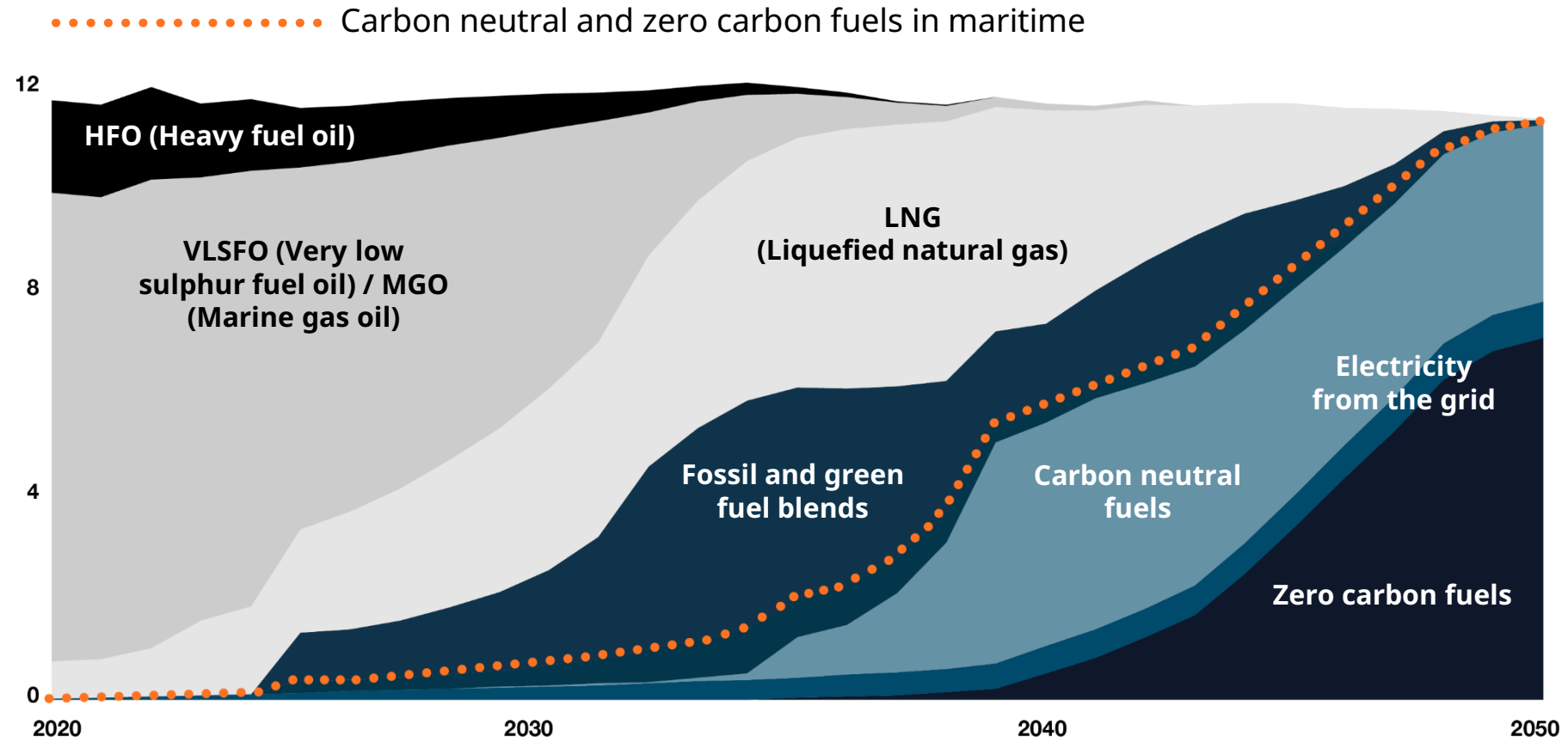
# Supporting decarbonisation in marine

## Owners will decide on technology partners now:

- Vessel life is 25-30 years
- Critical decision criteria:
  - Multifuel capabilities for blending with green fuels
  - Conversion capabilities for future fuels

## Move from a single-fuel industry to a multi-fuel one


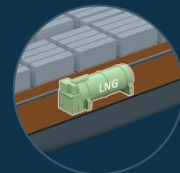
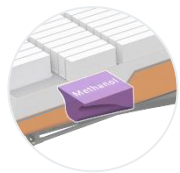
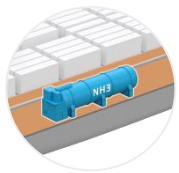
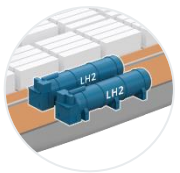


Distribution of fuel types for Decarbonisation 2050 (1.5°C scenario), exajoule



Source: DNV Maritime Forecast 2050 model, Wärtsilä internal estimates



# Fuel conversions will play a vital role in the fuel transition for both existing and new vessels built during this and next decade. Fuel selection impacts the vessel structure

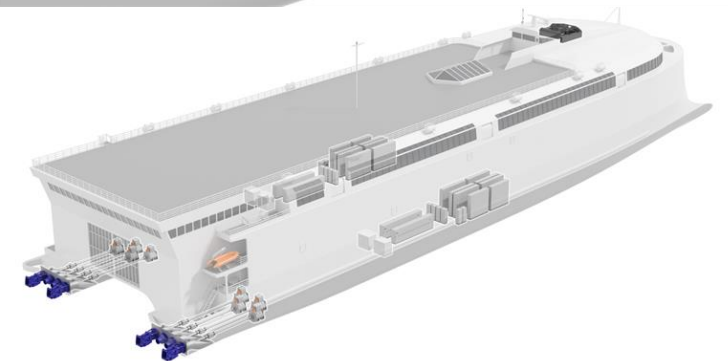
Fuel type	 <b>Heavy Fuel Oil</b> @ 20°C	 <b>Liquefied Natural Gas</b> @ -162°C	 <b>Methanol</b> @ 20°C	 <b>Ammonia</b> @ -33°C	 <b>Liquid Hydrogen</b> @ -253°C	 <b>Compressed Hydrogen</b> @350bar	 <b>Marine Battery Rack</b>
Key considerations	<ul style="list-style-type: none"> <li>Standard tank arrangement</li> </ul>	<ul style="list-style-type: none"> <li>Cryogenic system</li> </ul>	<ul style="list-style-type: none"> <li>Mildly toxic</li> <li>Flexible tank arrangement</li> </ul>	<ul style="list-style-type: none"> <li>Toxic</li> <li>Corrosive</li> </ul>	<ul style="list-style-type: none"> <li>Highly reactive</li> <li>Cryo system</li> </ul>	<ul style="list-style-type: none"> <li>High pressure</li> <li>Multiple tanks arrangement</li> </ul>	<ul style="list-style-type: none"> <li>Marine adaptation reduces density</li> </ul>
Fuel price factor (per GJ)	1X	0.7X	2.2X-5.4X <sup>2)</sup>	2.2X-4.5X <sup>3)</sup>	2.7X-4.5X <sup>3)</sup>	1.6X-2.6X <sup>3)</sup>	1.3X-2.3X
<i>Production cost estimate 2025 <sup>1)</sup></i>							
Gross tank size factor	1X <sup>4)</sup>	2.4X	1.7X	3.9X	7.3X	19.5X	~40X (future potential ~20X)

1) Sources: Maersk Mc-Kinney Møller Center for Zero Carbon Shipping – Industry transition strategy 2021, Wärtsilä-DNV collaboration; 2) fuel price for e-methane is expected to be in a range similar to e-methanol; 3) fuel price range spans across blue, bio and green-electro equivalent; 4) gross tank estimations based on Wärtsilä experience

# Wärtsilä Hybrid Market Position

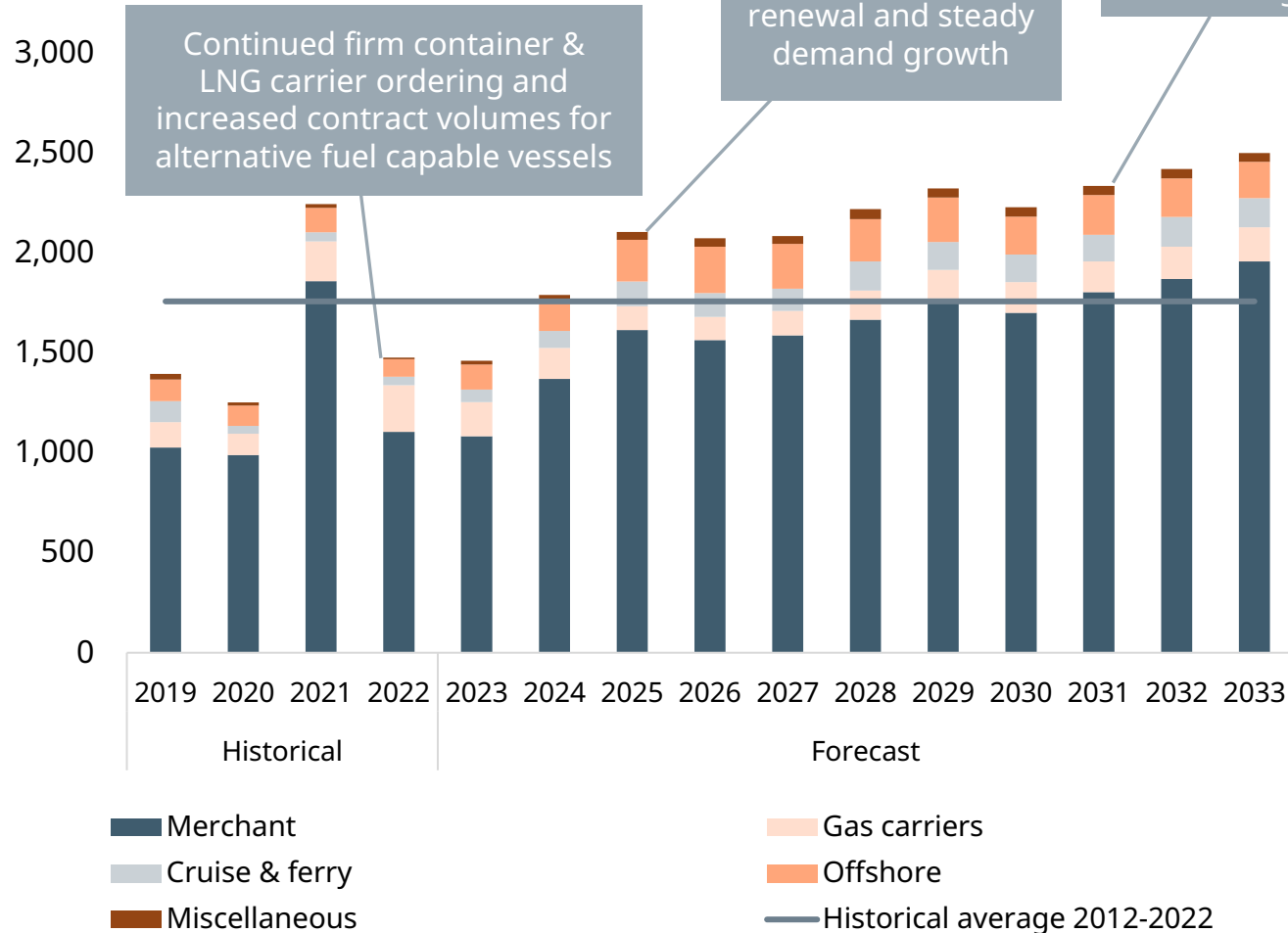
We are maintaining our market leadership in Hybrid Systems

- Number of hybrid vessels on order and in operation is ~81 vessels with 115MWh batteries
- Our current market share is 26% for engine-battery hybrid marine projects
- Further growth expected in future years as hybridisation is seen as key enabler for marine decarbonisation
- One proof point of our ability to support our customers' environmental targets is the announced order for Wärtsilä to power the biggest battery electric ship ever built with its battery electric propulsion system and waterjets
  - The vessel is a new ferry being built by Incat Tasmania and has been ordered by Incat's long-term South American customer, Buquebús
  - With an overall length of 130 metres, the ferry will be the largest ever vessel of its type. It will also be the world's first zero emissions, lightweight catamaran
  - The vessel will be fully battery powered, with e-motor driven Wärtsilä waterjets as the main propulsors. The battery modules and energy storage system package is four times larger than on any electric/hybrid ship currently operating
  - The order with Wärtsilä was booked in July 2023

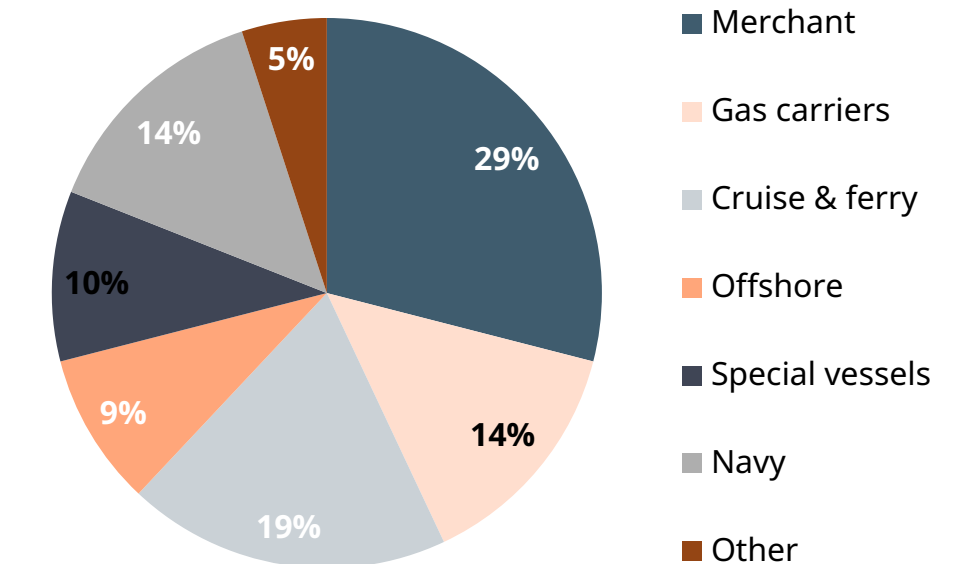


# Vessel contracting forecast

No of ships, 2,000+ dwt/GT,  
Ship-shaped mobile offshore vessels only.



## Wärtsilä's order intake in Marine businesses by customer segment in 2022



Includes both orders for equipment and services. The vessel types included in Merchant segment are bulk carriers, cargo-, container-, and RoRo vessels as well as tankers. The vessel types included in Special vessel segment are dredgers, fishing-, inland-, and service vessels as well as tugs.

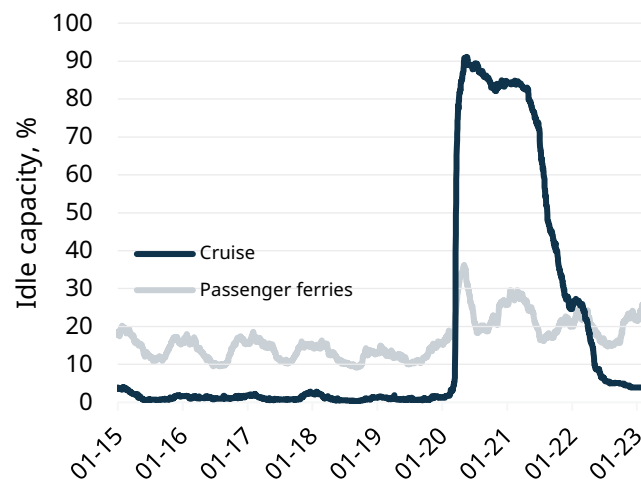
Source: Clarksons Research, March 2023



# Vessel utilisation rates driving Wärtsilä's service business

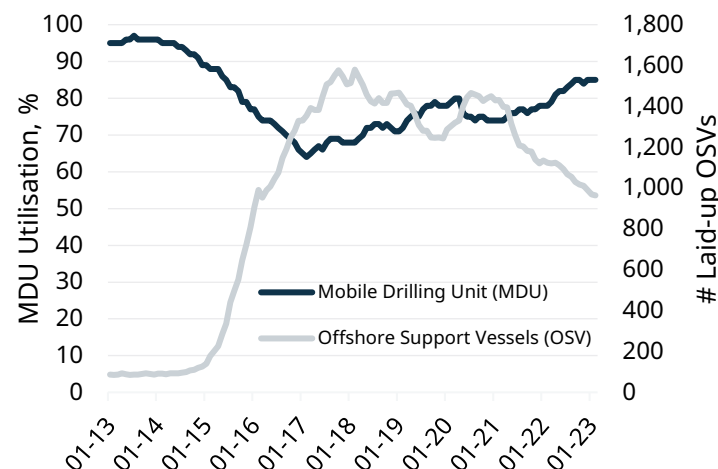
Typically there is some delay between changes in utilisation rate and Wärtsilä service net sales

## Cruise and passenger ferries



- Cruise capacity has almost recovered to pre-Covid, passenger volumes have increased heavily from H2/2022 onwards
- Passenger ferry capacity has not yet fully recovered to pre-Covid, but passenger volumes have increased heavily from H2/2022 onwards

## Offshore

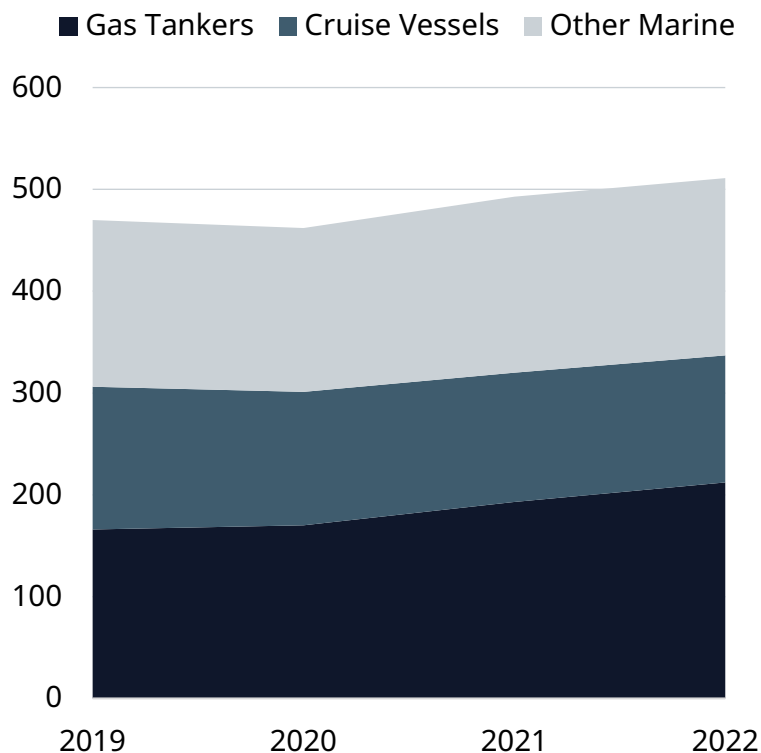


- Mobile drilling unit (MDU) utilisation rate expected to grow by 6.4% in 2023
- Number of active offshore support vessels expected to rise by 11% in 2023

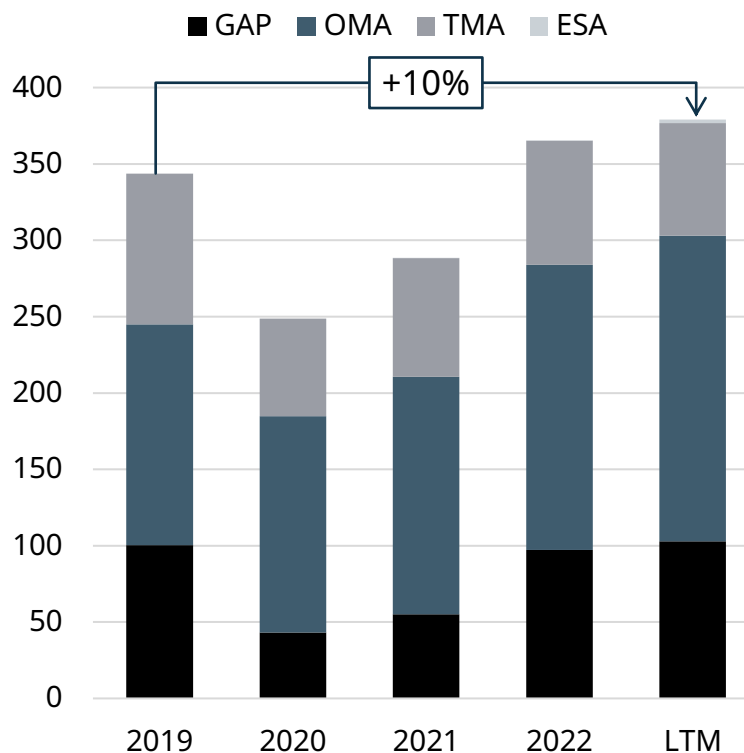
Increasing slow steaming will require driving up the utilisation rate of existing fleet and eventually lead to demand for further vessel capacity, leading to higher demand for services

# The share of installations under agreement is expanding faster than the installed base organic growth rate

## Number of vessels under agreement



## 2022 sales to vessels under agreement, MEUR<sup>1)</sup>



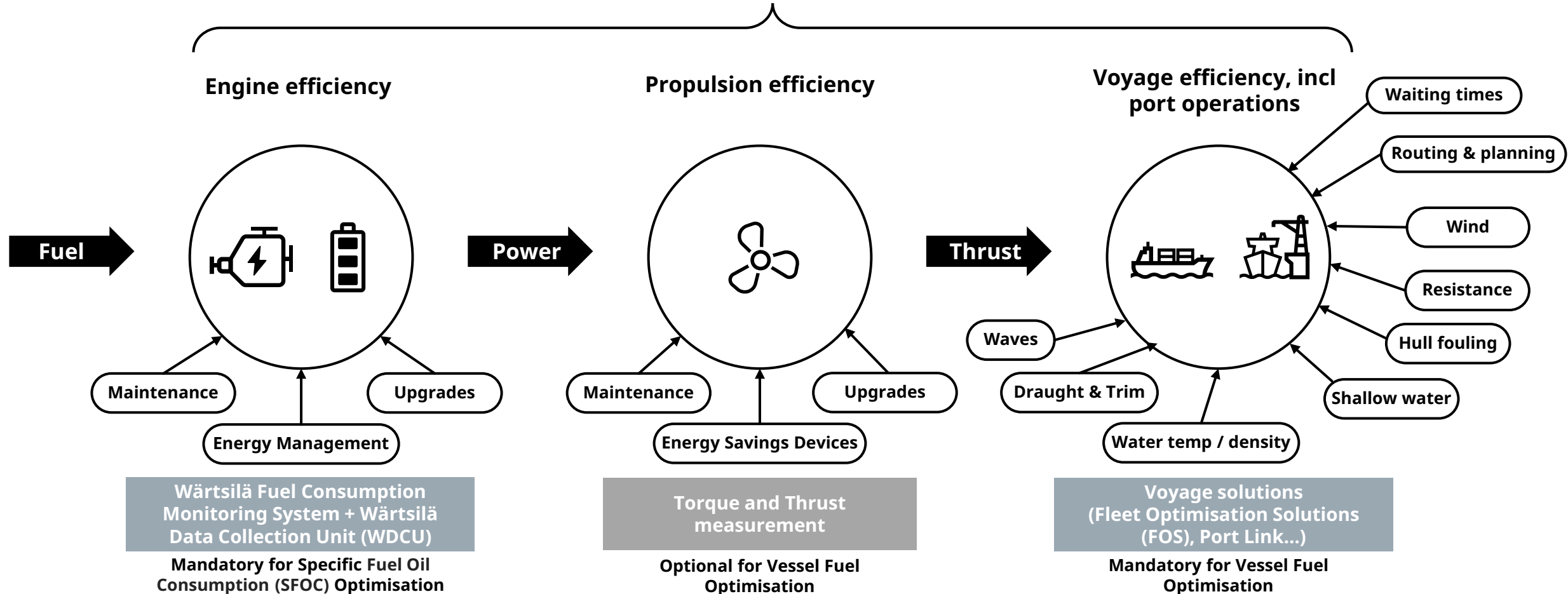
## Key considerations

- 29% of our engine installed base is under agreement<sup>2)</sup>
- Sales to agreement installations grew by 10% compared to pre-Covid levels
- 27% of sales to installations under agreement in 2022 were linked to guaranteed asset performance agreements
- Agreements are signed across multiple segments; LNG carriers fleet under agreement grew by 28% in past 4 years, while cruise slightly declined due to Covid-driven scrapping and ownership changes

1) Only 4-stroke service sales to engines under agreement considered, including field services and spare parts out of the agreement scope; ESA = Enhanced support agreement, TMA = Technical management agreement, OMA = Optimised maintenance agreement, GAP = Guaranteed Asset Performance agreement; 2) Defined as Wärtsilä 4-stroke engine MW under agreement

# Together we can create unique customer value and drive decarbonisation of marine

## VESSEL AND TRANSPORT EFFICIENCY





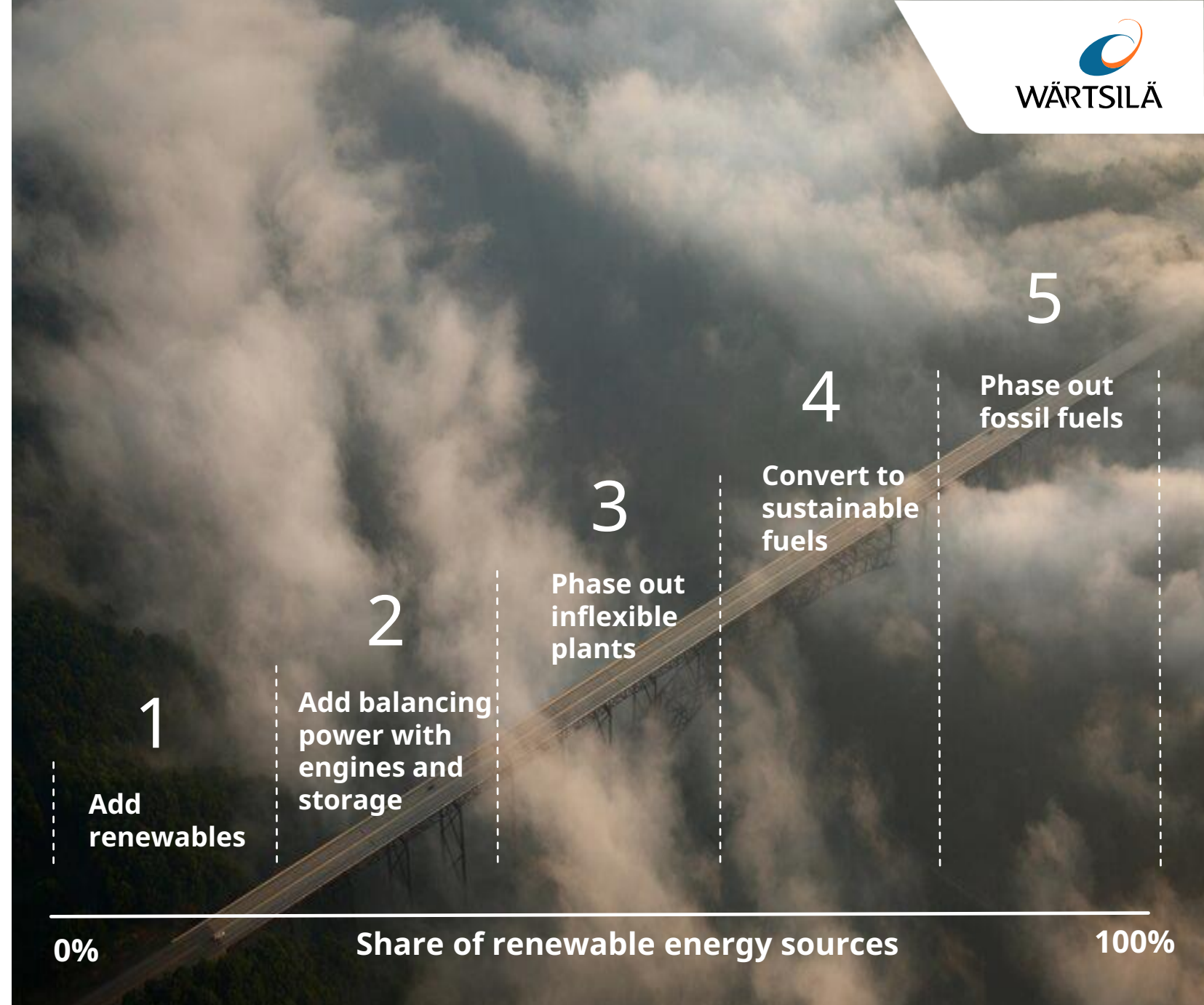
# Energy highlights



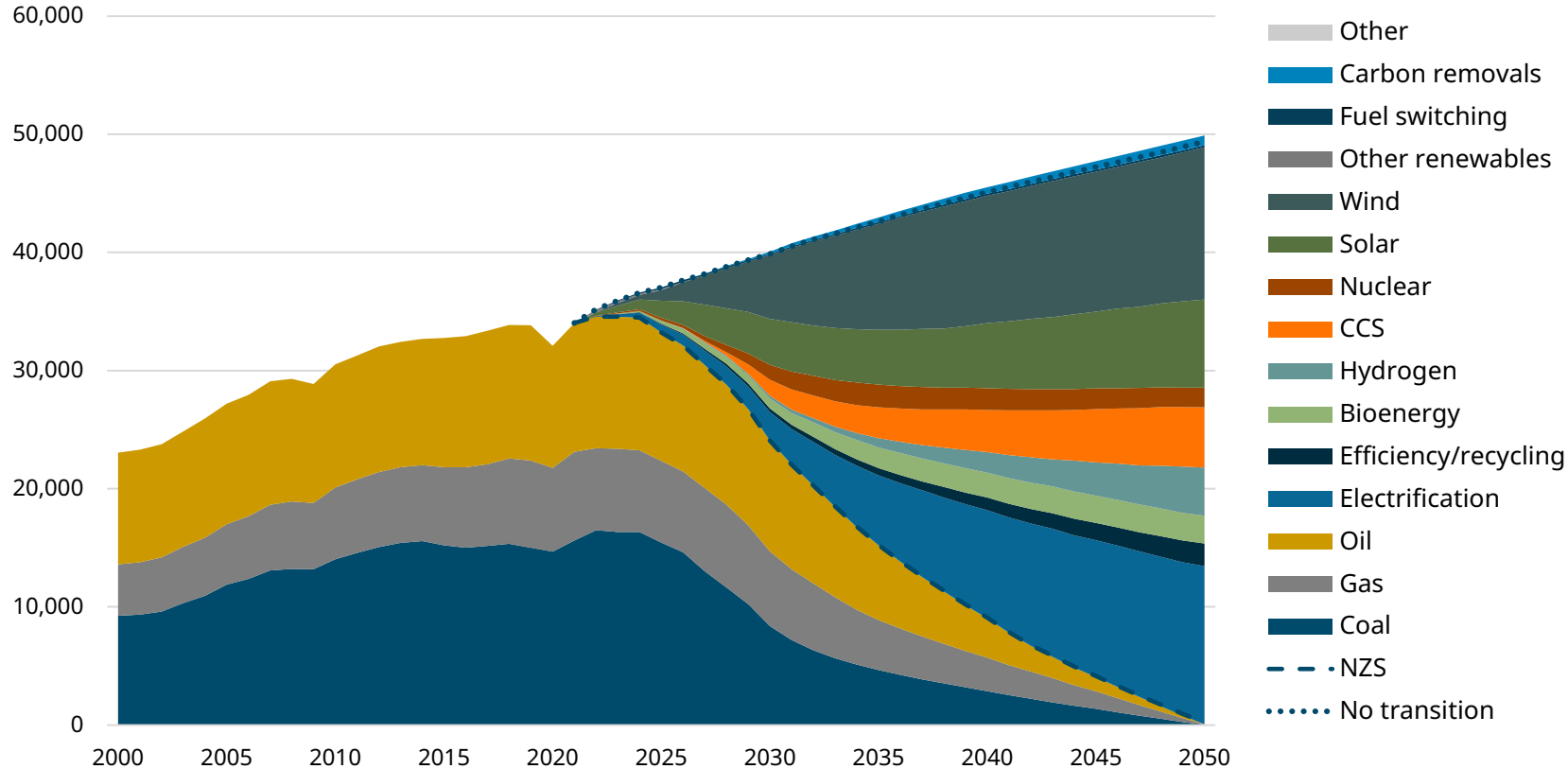
## Supporting decarbonisation in Energy

- Wind and solar are intermittent power sources
- Flexible balancing power needed to stabilize the power system: balancing power market expected to grow by 10X <sup>1)</sup>
- Reciprocating engines ideally suited to provide balancing power
  - Energy efficient
  - Fast ramp up/ramp down
  - Fuel flexible
- Today running on gas, tomorrow on green fuels

1) by 2030. Source: Bloomberg New Energy Outlook 2020, Wärtsilä estimates



# Renewable energy plays a key role in energy sector emissions abatement



Source: BloombergNEF New Energy Outlook 2022

Source: BloombergNEF New Energy Outlook 2022,  
Wärtsilä estimates at Capital Markets Day 2021



# Wärtsilä Energy Storage competitive advantages

## Our key differentiators

- **Integration and scalability:** Wärtsilä's GridSolv Quantum is a fully-integrated energy storage solution. Its modular and scalable design enables ease of deployment and optimisation. It integrates storage to other energy assets and to the electricity grid to ensure full utilisation of storage benefits.
- **Reliability and maturity:** Wärtsilä combines 15+ years of proprietary software leadership, top-tier battery energy storage systems, and extensive power sector experience in project execution in all key markets. We are a leading player in storage integrator space globally, with a wide services network and +3.6 GW/+9.1 GWh of deployed and contracted projects to-date.
- **Safety:** Wärtsilä's ESS is designed to meet stringent safety and quality standards (including UL certification for fire safety)
- **GEMS and bankability:** With smart optimisation software and complex renewables and grid integration capabilities, our solution ensures the lowest lifecycle costs, the smallest system footprint and new revenue opportunities for our customers – to fully optimise on industry price volatility and demanding transitions in energy.



# Wärtsilä Energy Storage offering

## Our role in the value chain

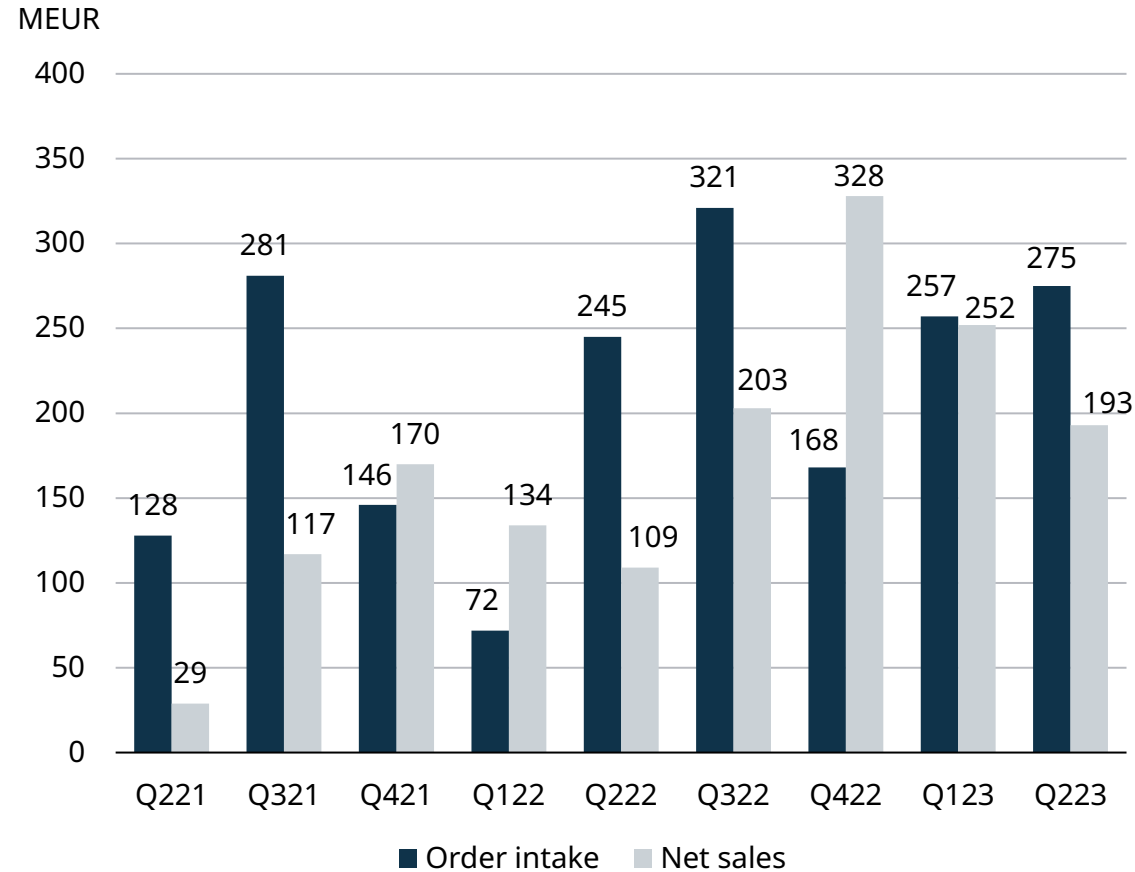
- Our **core offering** consists of 1) battery energy storage hardware, 2) GEMS Digital Energy Platform, and 3) lifecycle services,
- We are an energy storage **system integrator**, adding value to our customers by providing fully-engineered, end-to-end storage solutions:

- 1 **Wärtsilä's energy storage hardware** integrates battery modules, Battery Management System and Power Conversion System to a Wärtsilä-designed GridSolv enclosure to offer a complete energy storage system (ESS) to our customers.
- 2 Our project execution team manages **full installation and integration** at the customer's site(s).
- 3 Wärtsilä's **GEMS Digital Energy Platform** monitors, controls and optimises storage and other energy assets in the system
- 4 Our **Service+ lifecycle solutions** include Expertise Center support, planned maintenance, performance guarantees and software maintenance

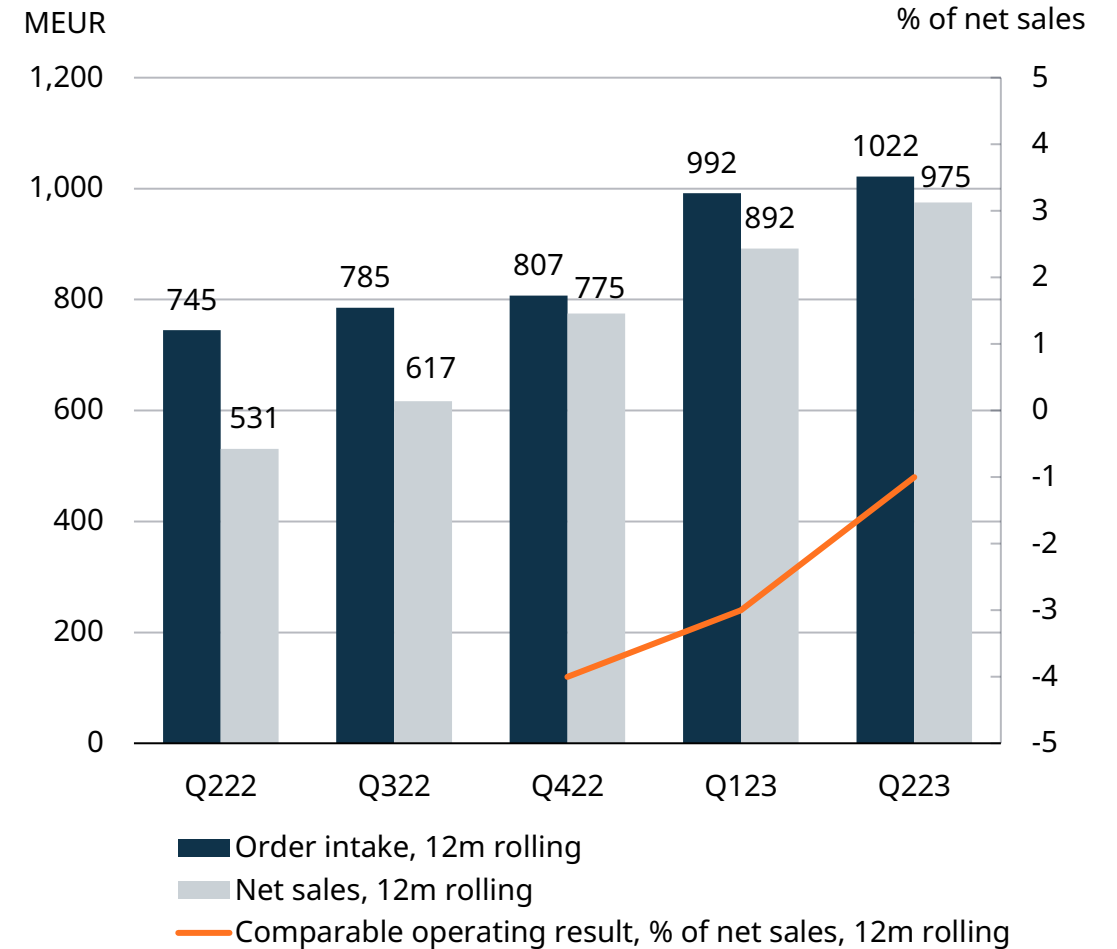


# Good development in energy storage

## Quarterly development



## Rolling 12 months development





## Wärtsilä Energy Storage's direction

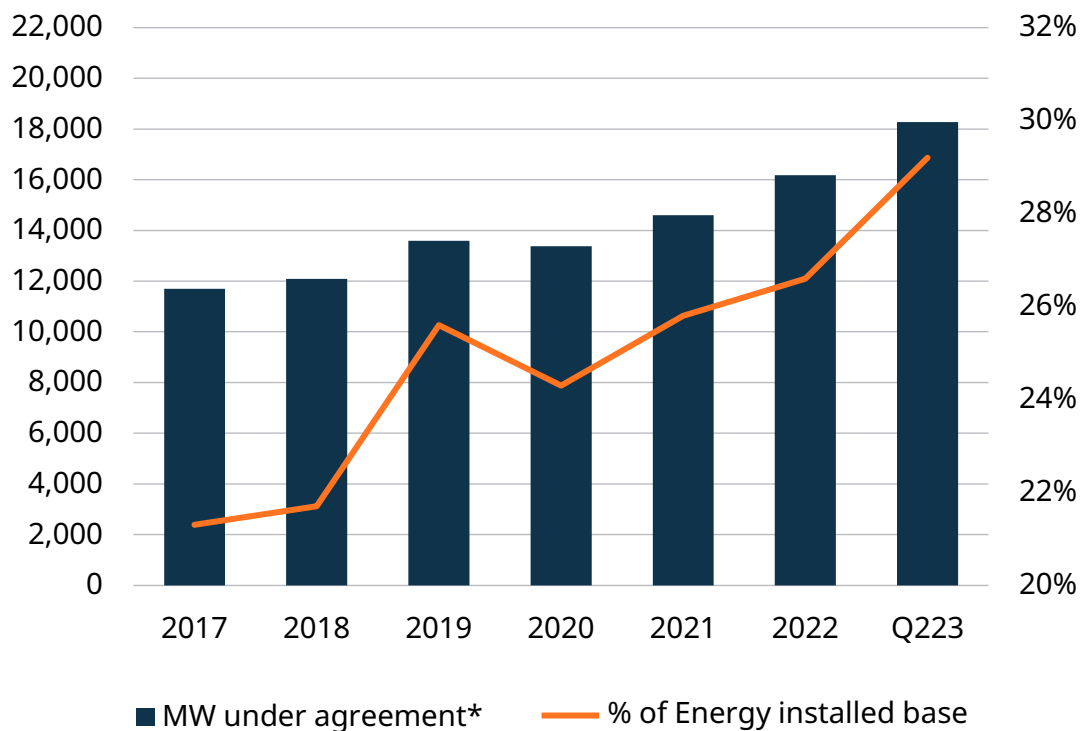
Key drivers towards higher profitability

1. Selective approach in project acceptance
2. Value differentiation
3. Volume growth supporting better cost leverage and better economics of scale in procurement and assembly
4. Continuous R&D to secure latest technology and competitive product cost
5. Software monetisation
6. Synergies with thermal energy business





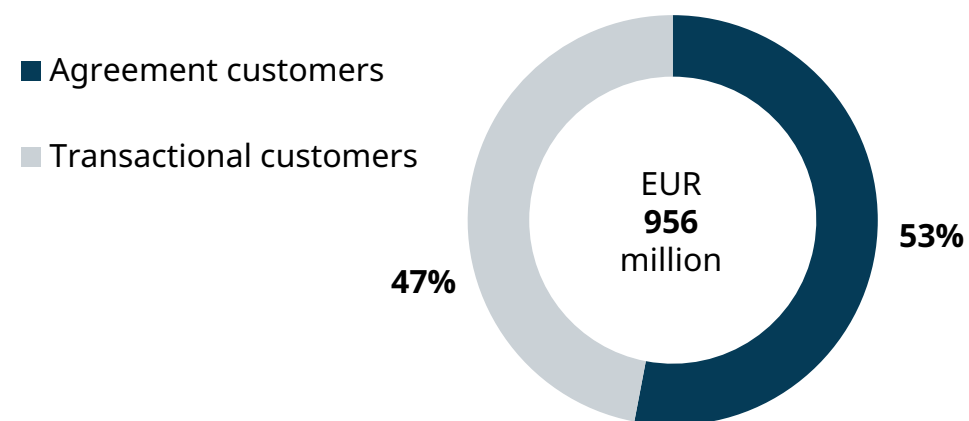
# Strategic focus in energy long-term service agreements is resulting in strong agreement coverage growth



\* Includes agreements covering both installed assets and assets to be installed in the future

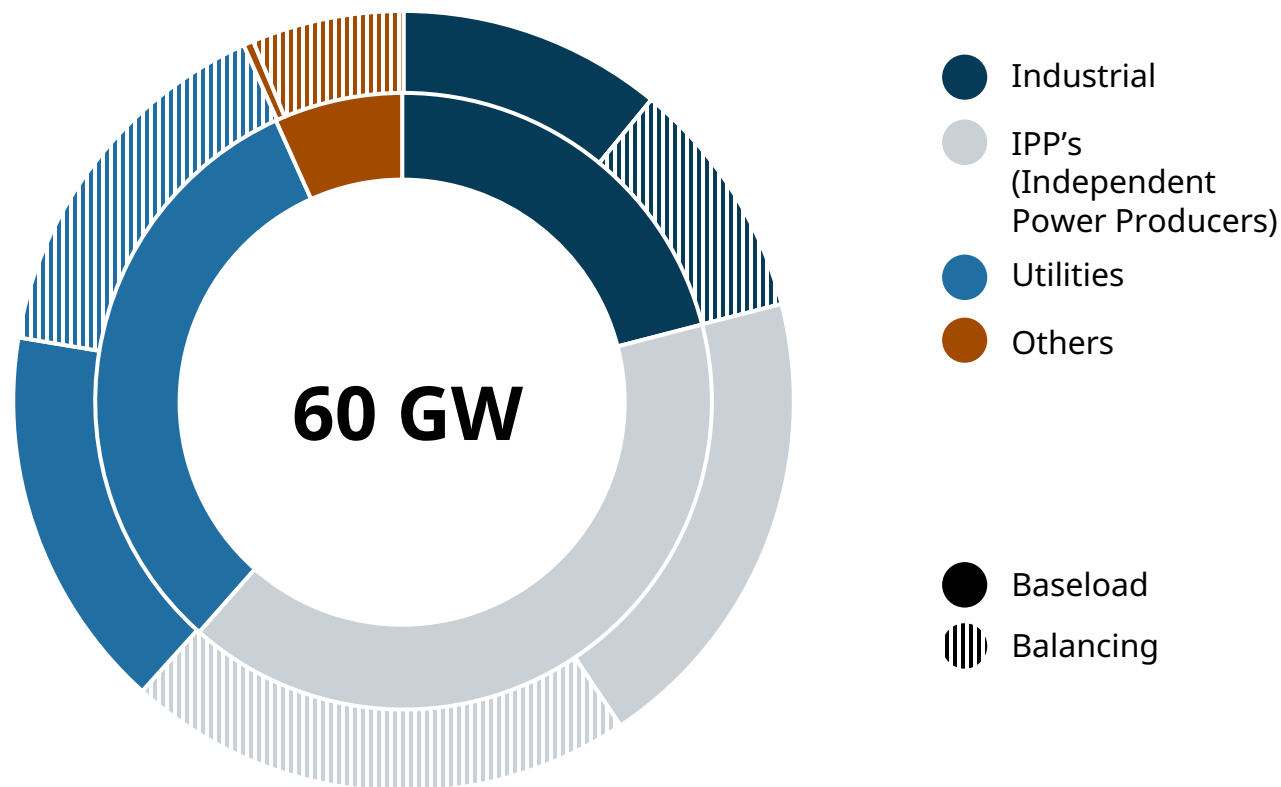
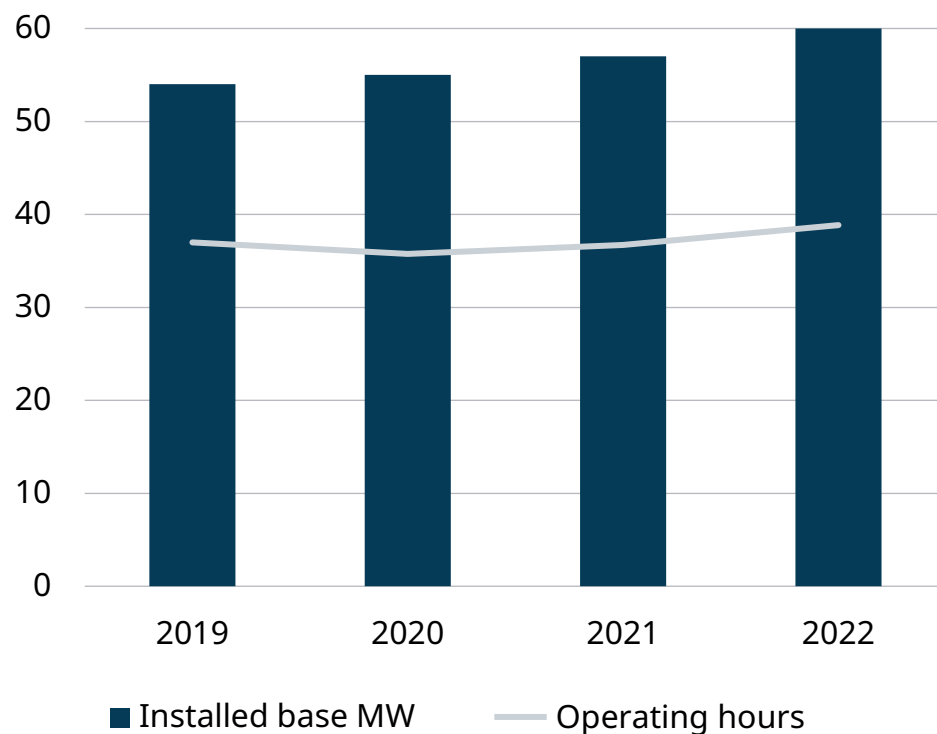
## Significant growth in agreement coverage during 2021 and 2022

- Converting non-agreement customers to agreement customers resulted in an agreement coverage addition of **>2 GW** during 2020-2022
- High customer satisfaction shown in increasing agreement renewal rates (**>90%**)
- Increased agreement coverage rate on newbuild projects



# Operating installed base is growing and operating hours are anticipated to remain stable driven by growth in certain customer segments

## Current running profile of installed base



Inner circle: division by customer segments  
Outer circle: division by baseload and balancing power within each customer segment

# Advantages of Wärtsilä power plants over combined cycle gas turbines

## Faster startup time

- Combined cycle gas turbines can take over 30 minutes to start, whereas combustion engine power plants can start and reach full load in less than 5 minutes

## Advantages of modularity

- Combustion engine power plants are comprised of multiple generating units

## Better part-load efficiency and flexibility

- Unlike gas turbines, Wärtsilä engine power plants have near full range capability of emissions-compliant turndown

## Better pulse-load efficiency and profitability

- Combustion engine power plants are dispatchable and can adjust load daily, ramping up and down with demand

## Higher ramp rate

- Ramp rate = the rate at which a power plant can increase or decrease output
- Wärtsilä engines can ramp at over 100%/minute. For combined cycle gas turbines, typical ramp rates are around 10%/minute.

## Derating due to ambient temperature

- Combustion engines are less sensible to temperature and humidity

## Fuel flexibility

- Gas turbines have reduced availability and output when running on fuel oils

## Lower water consumption

- A combined cycle gas turbine power plant (CCGT) with a recirculating system = 780 liters/MWh.
- Wärtsilä combustion engine power plant operating in simple cycle on natural gas = 3 liters/MWh.



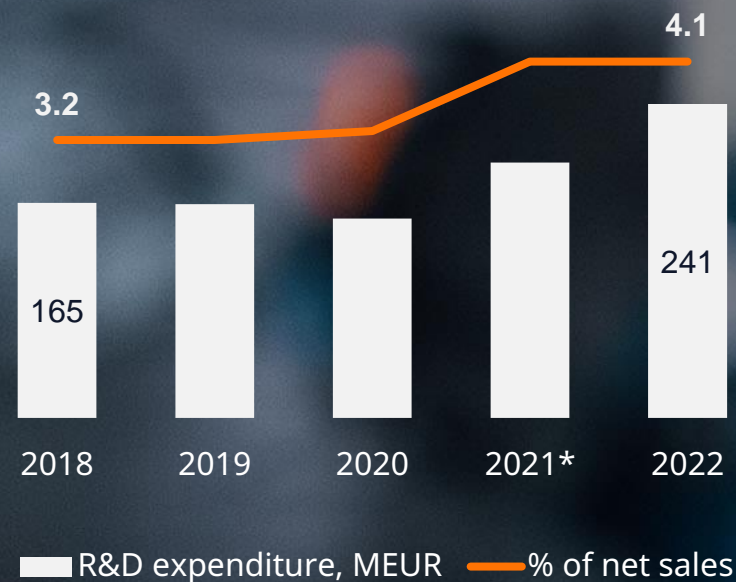
# R&D





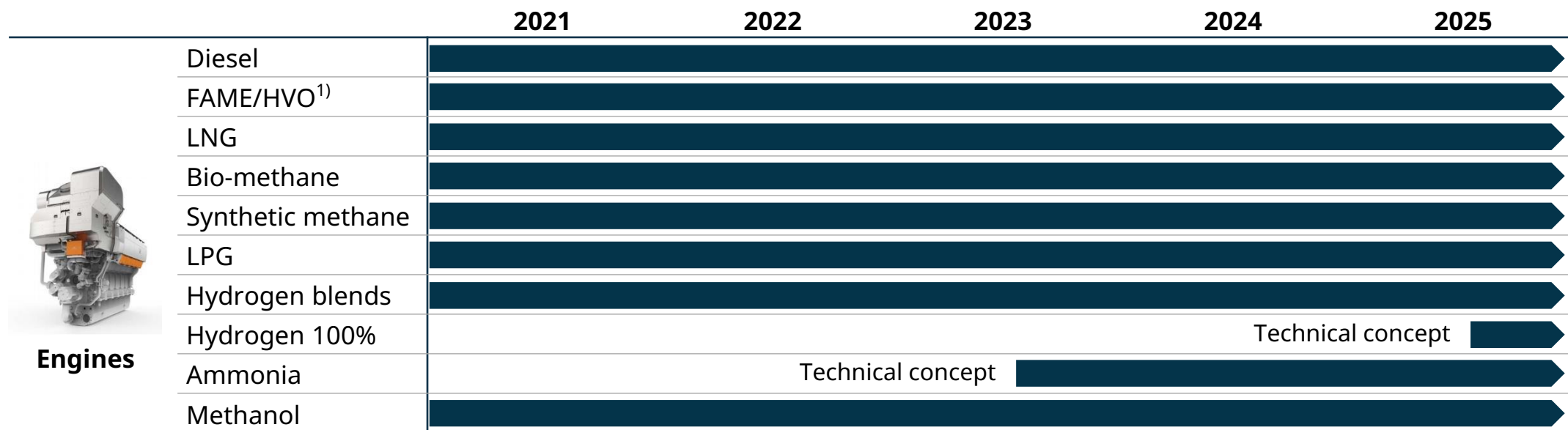
AMMONIA  $\text{NH}_3$  WÄRTSILÄ

We continue investing in innovation to ensure a broad, industry-leading solution offering



\* Figure in the comparison period 2021 has been restated to reflect a change in the definition of research and development expenditure.

# Front-runner in alternative fuel engine technology



1) FAME, HVO: biodiesel



## Q2 development



## Improved profitability and continued growth in services

- Order intake increased by 17%
- Net sales increased by 3%
- Good progress in services continued:
  - Service order intake increased by 13%
  - Service net sales increased by 16%
- The comparable operating result increased by 26%
  - Supported by good development in services and energy storage
  - In Marine Systems, a 19 MEUR provision was taken for a single sizable turnkey project in Gas Solutions that suffered from combination of supplier quality issues and cost inflation
- Cash flow from operating activities improved





## Good development in key figures

MEUR	4-6/2023	4-6/2022	CHANGE	1-6/2023	1-6/2022	CHANGE
<b>Order intake</b>	<b>1,687</b>	1,440	17%	3,427	2,820	22%
of which services	<b>913</b>	811	13%	1,802	1,543	17%
of which equipment	<b>774</b>	629	23%	1,625	1,277	27%
<b>Order book</b>				6,249	5,936	5%
of which current year deliveries				2,589	2,732	
<b>Net sales</b>	<b>1,454</b>	1,407	3%	2,919	2,639	11%
of which services	<b>807</b>	696	16%	1,543	1,327	16%
of which equipment	<b>647</b>	712	-9%	1,376	1,312	5%
<b>Book-to-bill</b>	<b>1.16</b>	1.02		1.17	1.07	
<b>Operating result</b>	<b>66</b>	75	-12%	158	-72	320%
% of net sales	<b>4.5</b>	5.3		5.4	-2.7	
<b>Comparable operating result</b>	<b>108</b>	85	26%	196	151	30%
% of net sales	<b>7.4</b>	6.1		6.7	5.7	

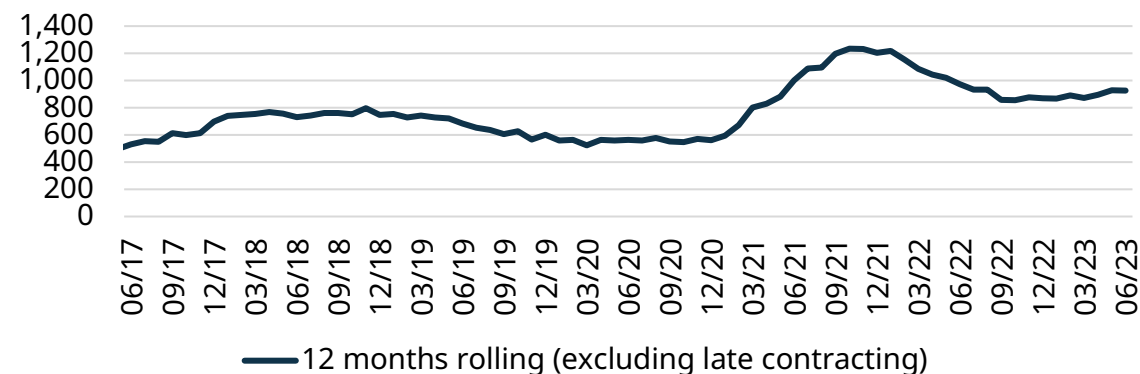
# Market sentiment remained positive for Wärtsilä's key segments

Higher prices of new ships and available capacity at shipyards limited growth in newbuild investments

- The number of vessels ordered in the review period increased to 773 (701 in the corresponding period in 2022, excluding late reporting of contracts).
- Mostly driven by the changed mix of contracted vessels, the uptake of alternative fuels remained more limited with 187 orders reported, representing 24% (34%) of all contracted vessels and 43% (61%) of vessel capacity.
- Further investments into LNG liquefaction capacity continued to drive demand for LNG carriers, despite activity easing off from the record levels seen in 2022.
- Demand for new cruise ship capacity remained limited as cruise lines are focused on managing the current order book and deleveraging their debt levels.
- Service demand was supported by increased active capacity in the key vessel sectors.

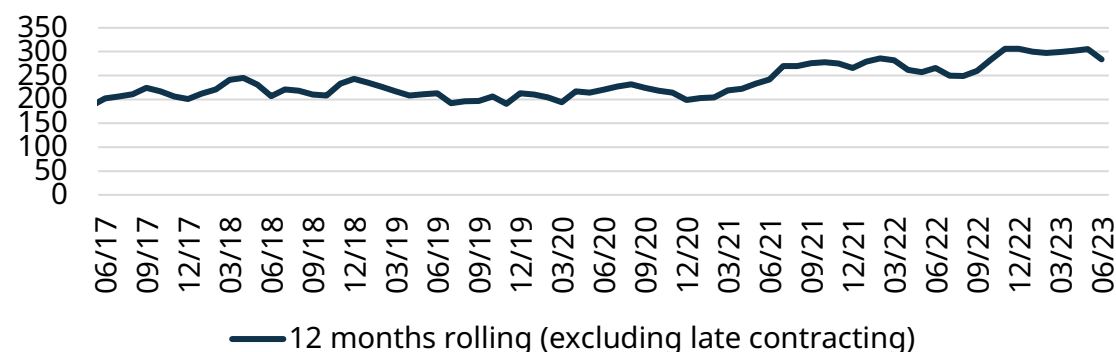
## Total vessel contracting

Number of vessels



## Specialised vessels

Number of vessels



Source: Clarksons Research, 12m rolling contracting as per 5th of July 2023 (+100 gt, excluding late reporting of contracts)  
Specialised vessels include LNG carriers, LPG carriers, cruise & ferry, offshore, and special vessels.

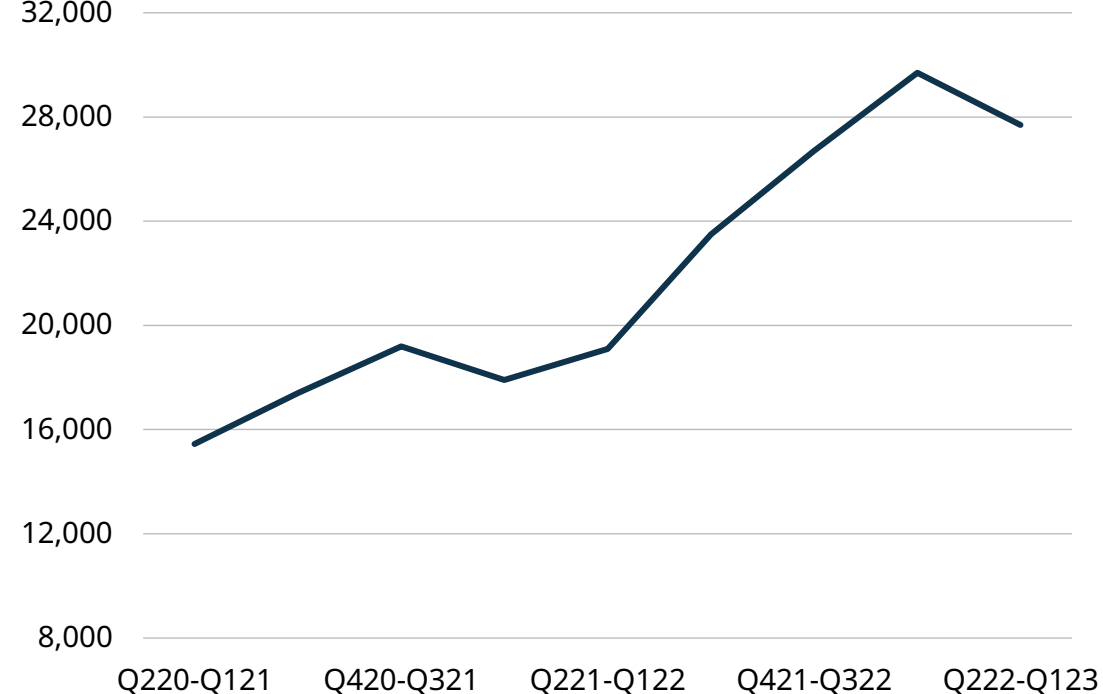
# Energy market outlook – solid long-term opportunities

Commodity markets ease while interest rates rise

- H1/2023 has brought relief in some commodity prices, especially in battery raw materials, while rising interest rates increased uncertainty.
- Global natural gas prices continued declining despite a slight price rebound in June, but prices are still above historical levels.
- The trend in transition to renewable energy sources continues, being a key driver in the development of battery energy storage and thermal balancing technologies.
- There is good market activity and outlook in leading energy storage and thermal balancing markets, such as the U.S., U.K., and Australia.

## Contracting for gas and liquid fuelled power plants <500 MW

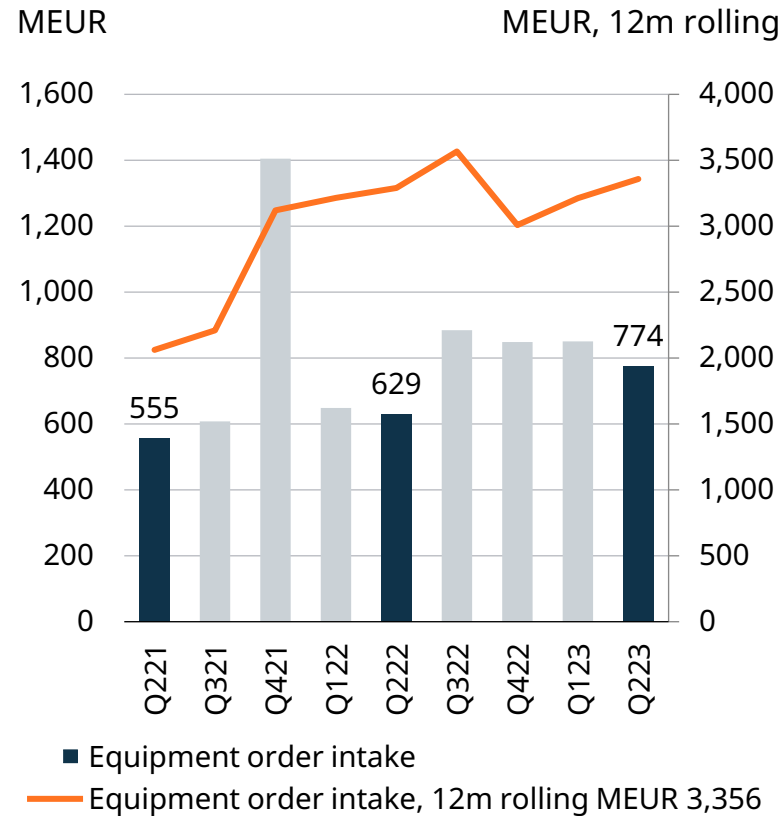
MW, 12m rolling  
32,000



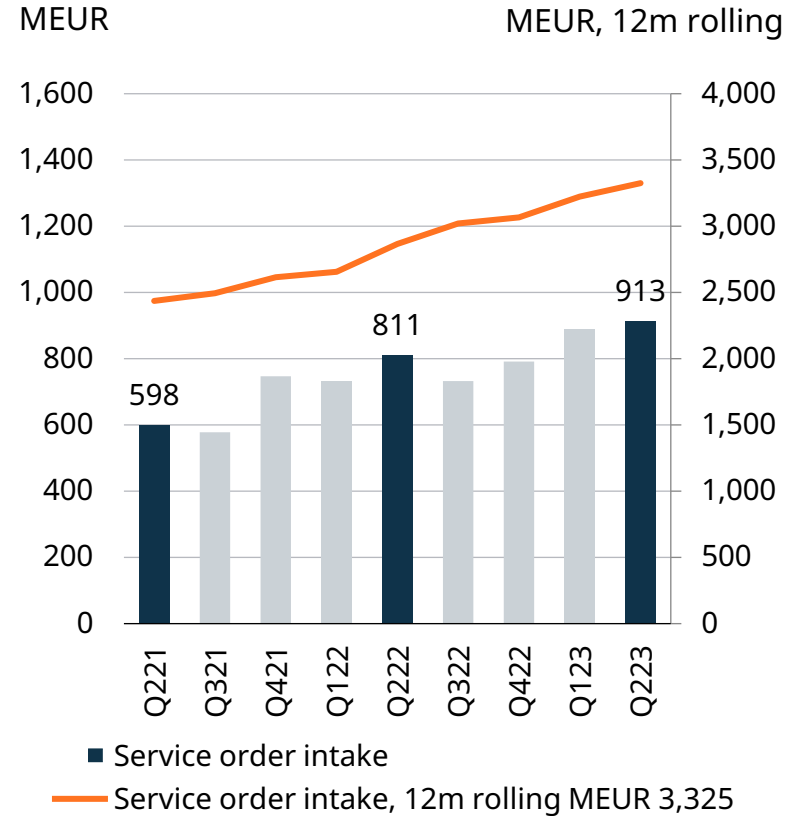
The total market, including also power plants with prime movers above 500 MW, increased by 5% to 68.3 GW during the twelve-month period ending in March 2023 (65.2 at the end of December). The market data includes all Wärtsilä power plants and other manufacturers' gas and liquid fuelled gas turbine based power plants with prime movers below 500 MW, as well as the estimated output of steam turbines for combined cycles. The data is gathered from the McCoy Power Report. The main gas turbine competitors are GE, Siemens, Mitsubishi, and Ansaldo. Other combustion engines are not included.

# Order intake increased by 17%

## Equipment



## Services



Equipment order intake increased by 23%

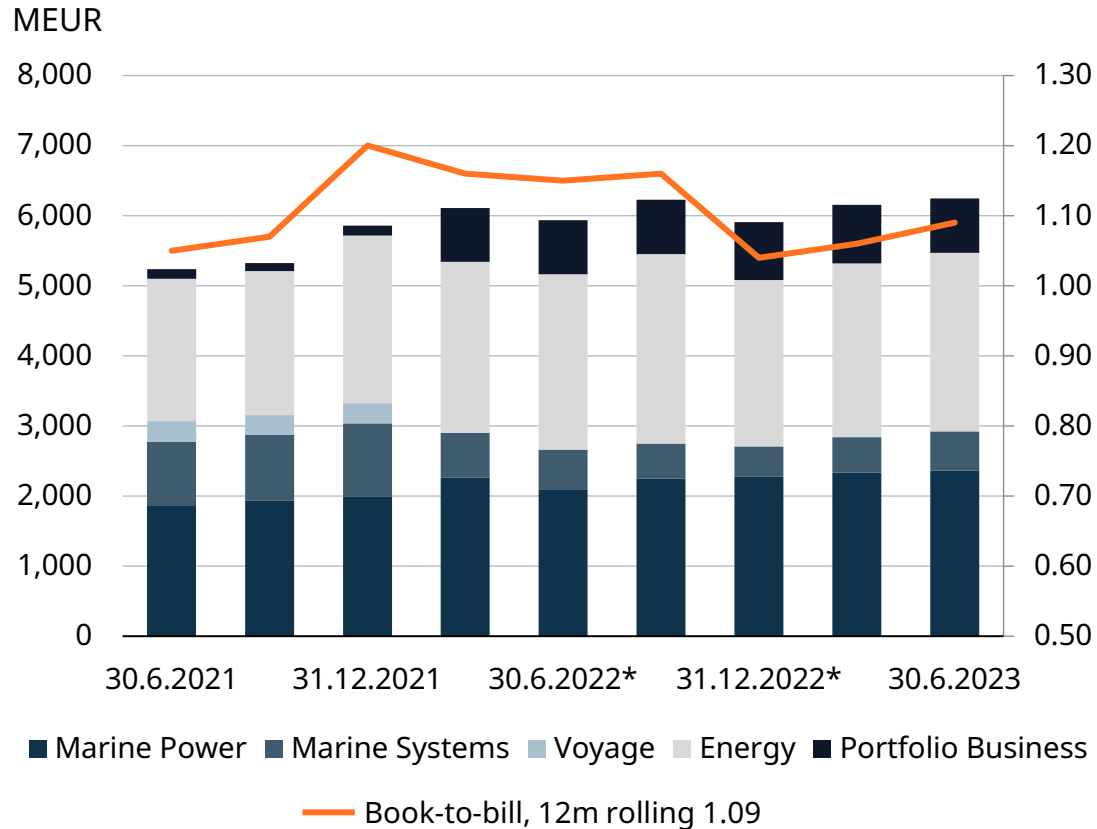
Service order intake increased by 13%



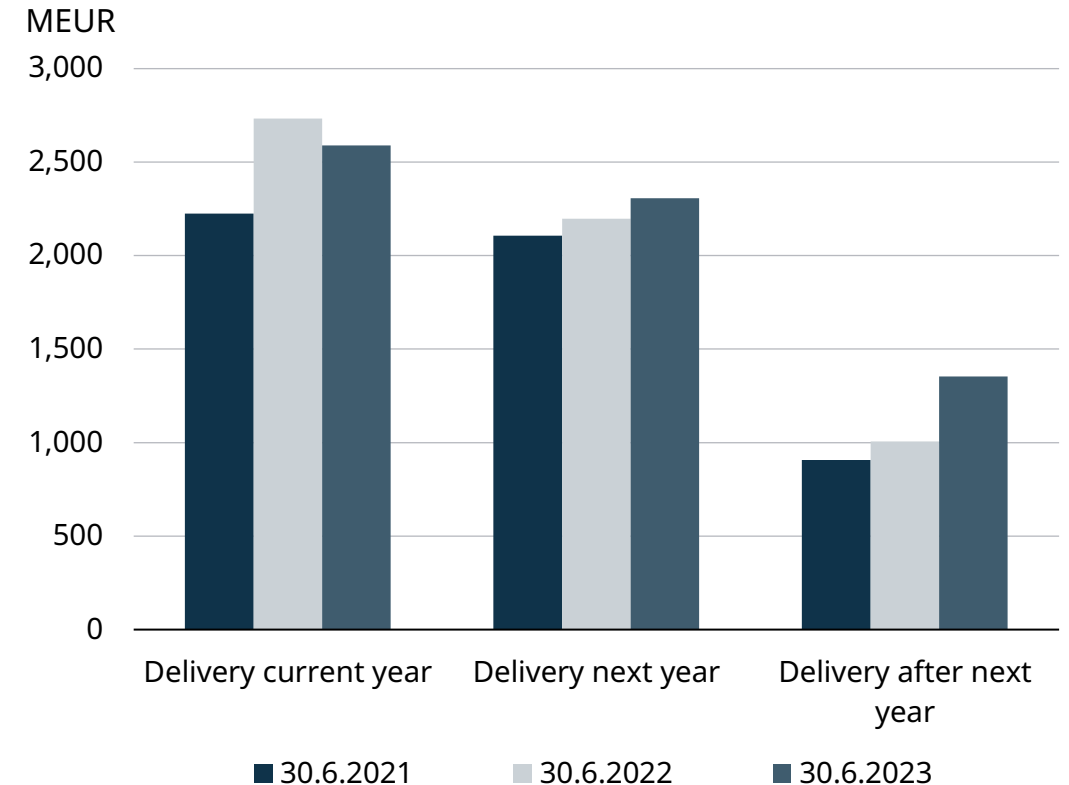
# Strong order book, rolling book-to-bill continues above 1

Remaining order book for the current year lower than last year

## Order book by business



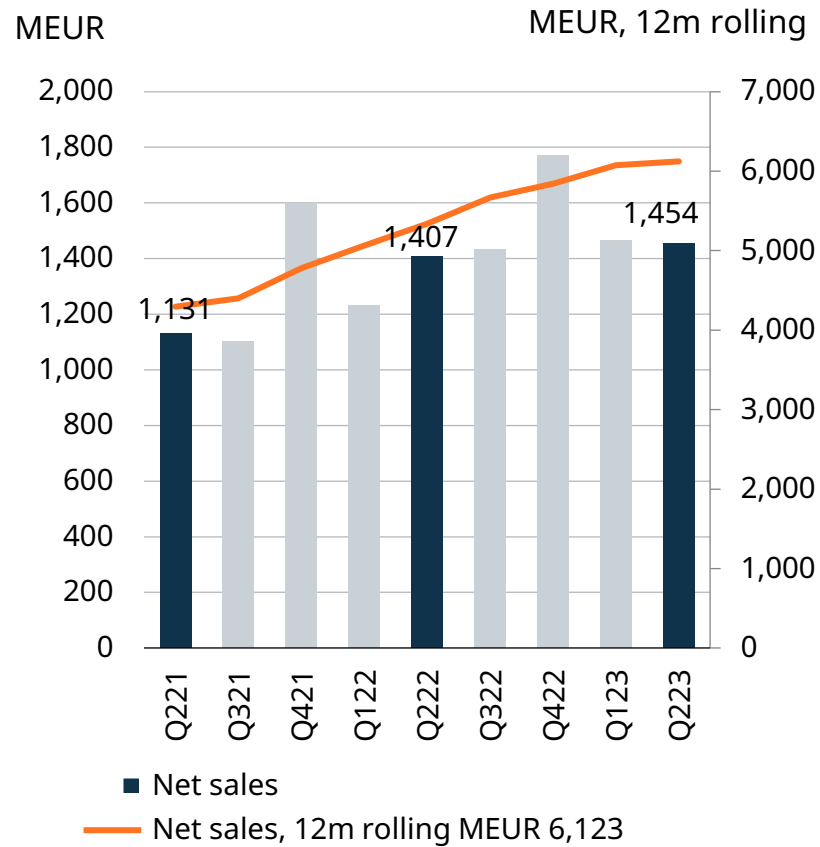
## Order book delivery schedule



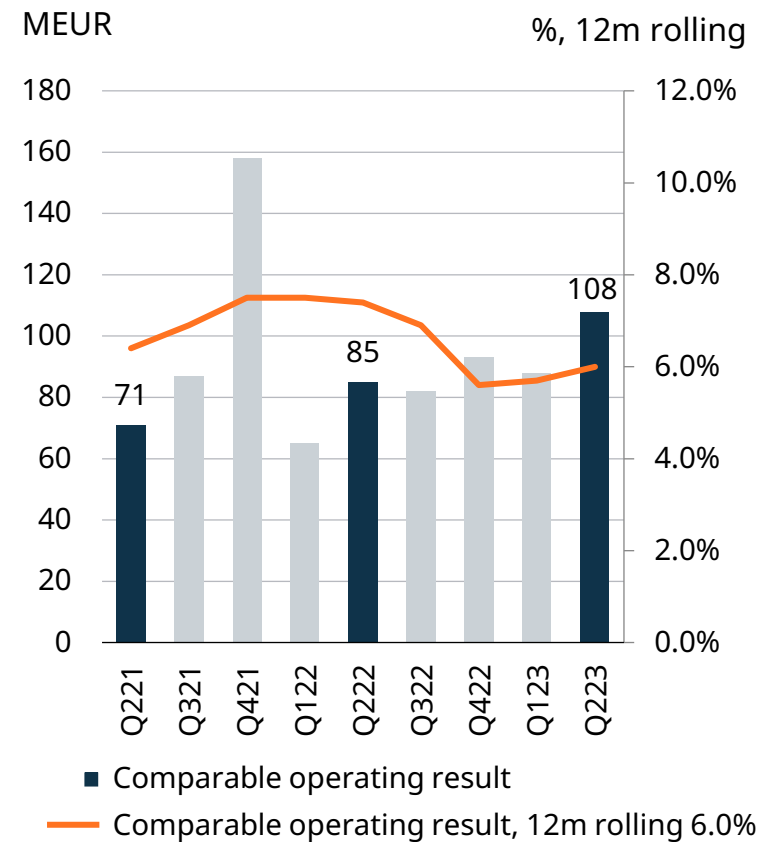
\*As of 1 January 2023, Voyage has been integrated with Marine Power. During the second quarter of 2023, further organisational changes have been implemented: a part of Marine Power, as well as a part of Marine Systems, have been moved to Portfolio Business. The segment related comparison figures for 1-3/2023 and 2022 have been restated to reflect the current organisational structure. The segment related comparison figures for 2021 have not been restated accordingly.

## Second quarter highlights

### Net sales



### Comparable operating result



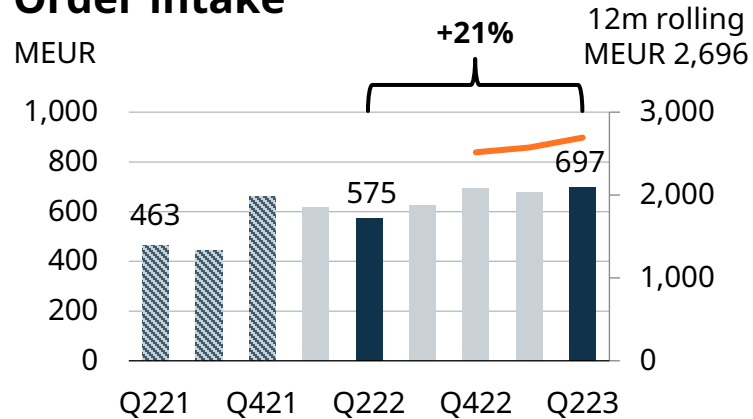
Net sales increased by 3%

Comparable operating result increased by 26%

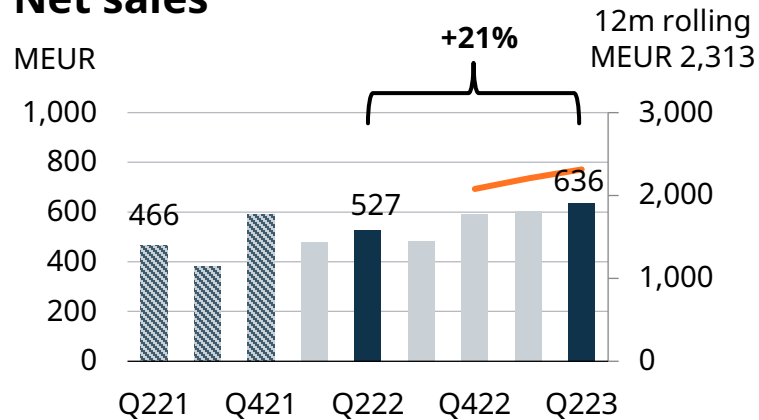
# Marine Power: good development in comparable operating result

Good service performance continued

## Order intake



## Net sales



## Comparable operating result

MEUR



+ Good service performance



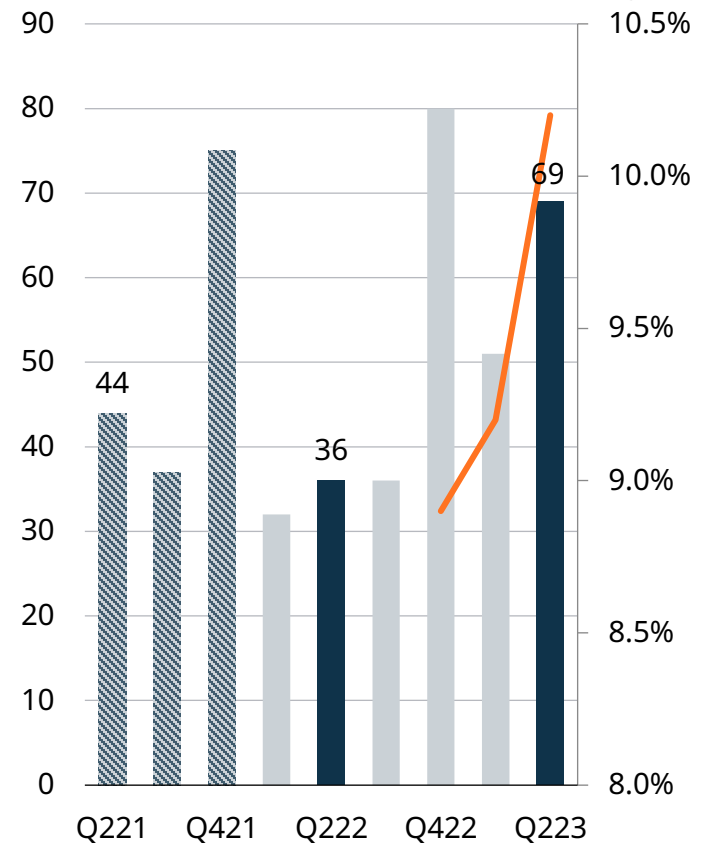
- Transformation of manufacturing footprint



## Comparable operating result

MEUR

12m rolling 10.2%

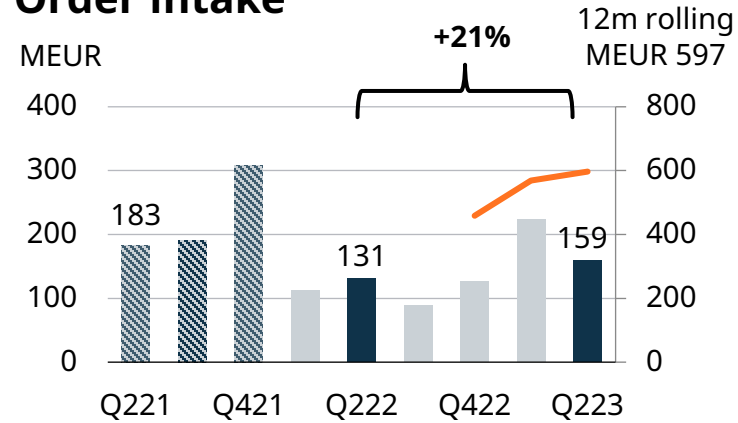


The 2022 and Q1 2023 figures have been restated to reflect the redefined organisational change considering integration of Voyage to Marine Power and moving part of the Voyage business to Portfolio Business (after integration into a new business unit)

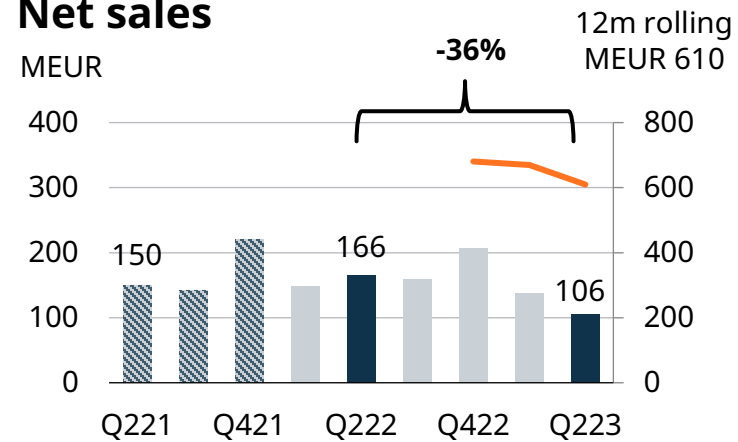
# Marine Systems: order intake increased

Comparable operating result declined due a provision taken for a single sizable turnkey project in Gas Solutions

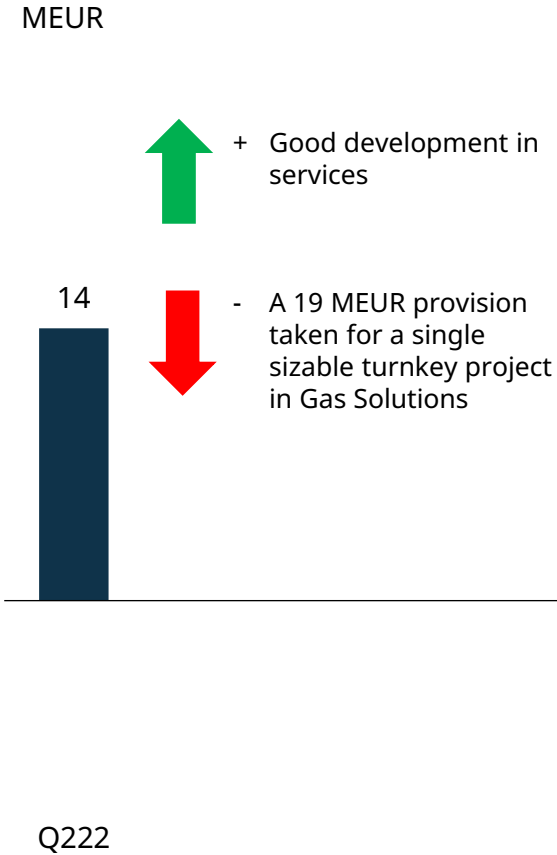
## Order intake



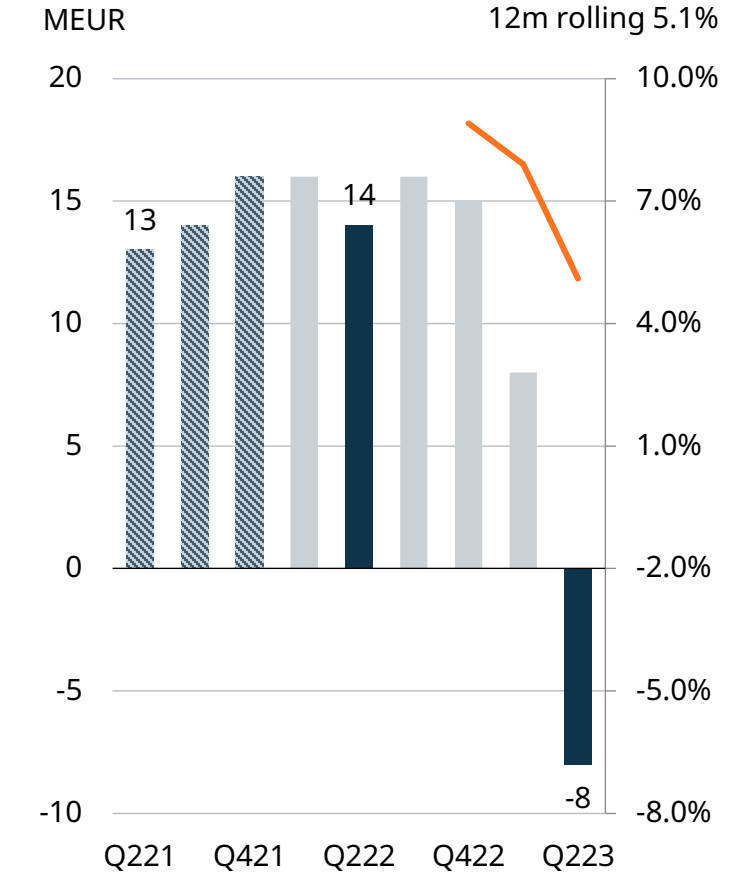
## Net sales



## Comparable operating result



## Comparable operating result



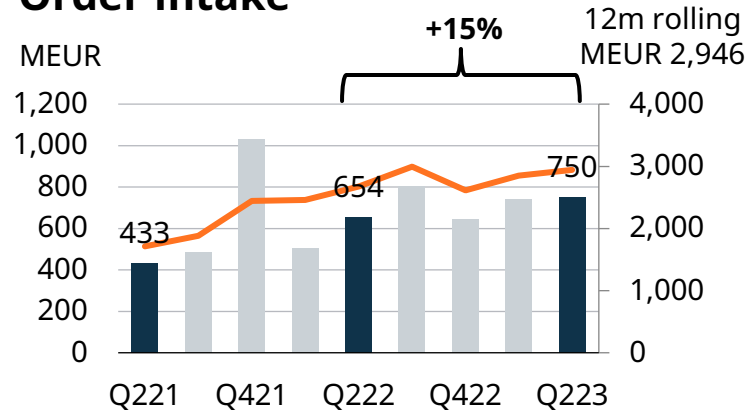
The 2022 and Q1 2023 figures have been restated to reflect the move of Marine Electrical Systems business unit to Portfolio Business



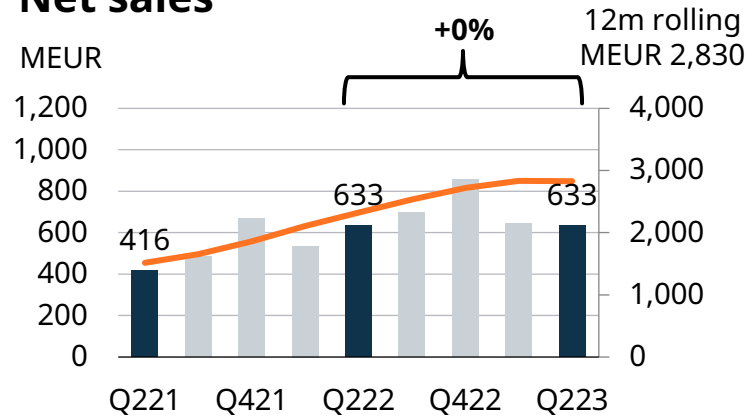
# Energy: order intake and comparable operating result increased

Good development in service continued

## Order intake

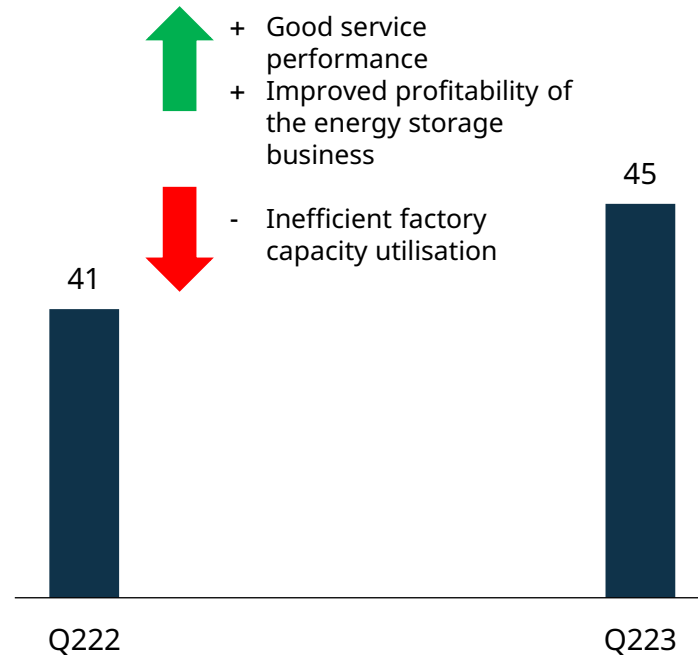


## Net sales



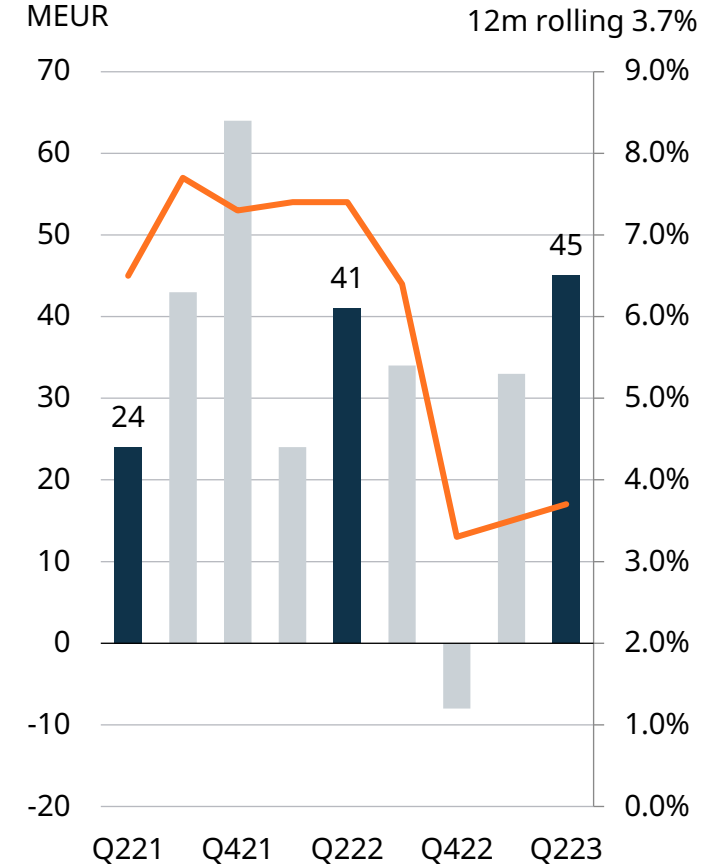
## Comparable operating result

MEUR



## Comparable operating result

MEUR





## Prospects

### Marine

- Wärtsilä expects the demand environment for the next 12 months (Q3/2023-Q2/2024) to be similar to that of the comparison period.

### Energy

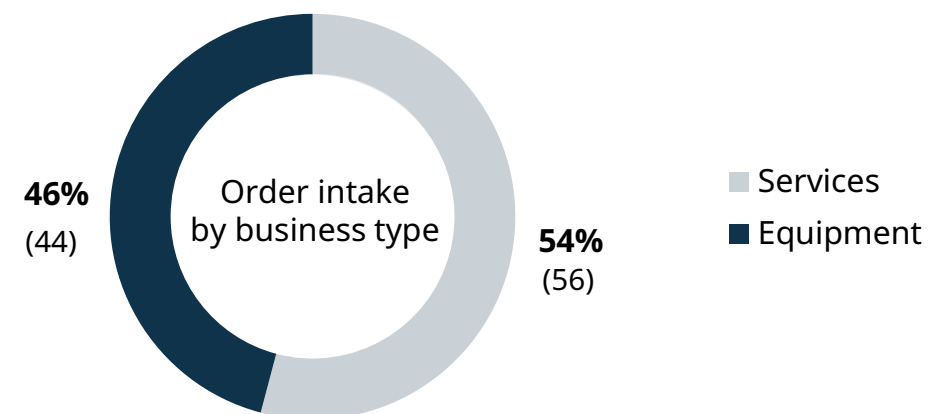
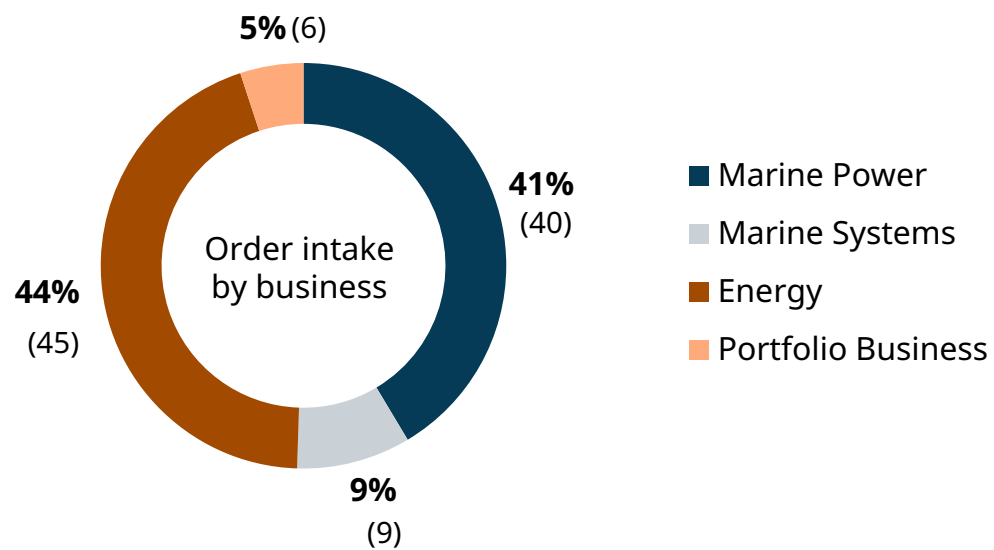
- Wärtsilä expects the demand environment for the next 12 months (Q3/2023-Q2/2024) to be similar to that of the comparison period.

# January-June order intake by customer segment

Marine Businesses	Gas carriers	Cruise & ferry	Offshore	Navy	Special vessels	Merchant	Other
<b>Marine Power</b>							
Equipment	9% (18)	24% (22)	5% (3)	13% (1)	5% (15)	41% (36)	3% (4)
Services	16% (17)	23% (22)	18% (14)	6% (7)	11% (11)	24% (27)	1% (2)
<b>Marine Systems</b>							
Equipment	63% (54)	1% (4)	14% (1)	1% (3)	0% (0)	21% (13)	0% (24)
Services	4% (2)	9% (8)	5% (8)	18% (22)	8% (8)	51% (50)	6% (3)
<b>Marine businesses, in total</b>	21% (6)	19% (9)	13% (7)	8% (8)	8% (57)	30% (9)	2% (3)
Equipment	28% (11)	16% (11)	8% (1)	8% (11)	3% (53)	34% (4)	2% (8)
Services	15% (4)	22% (8)	16% (10)	8% (6)	11% (60)	27% (12)	2% (1)
Energy	Utilities		Independent Power Producers		Industrials		Other
Equipment	74% (41)		24% (40)		2% (18)		0% (0)
Services	33% (34)		33% (29)		22% (28)		13% (10)

# Order intake

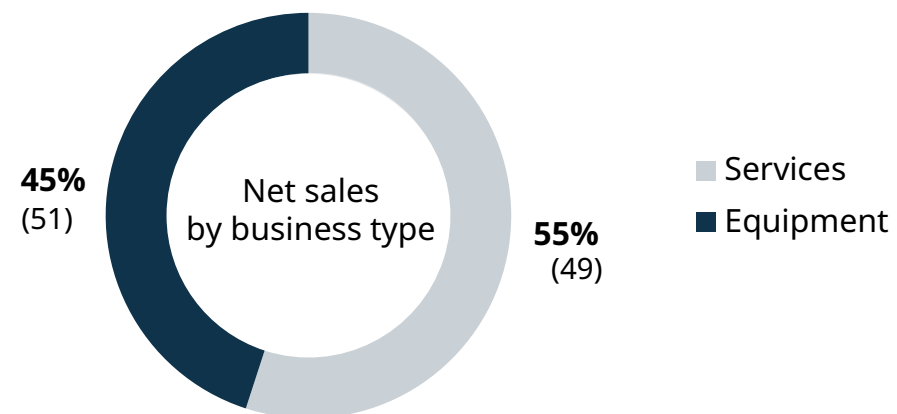
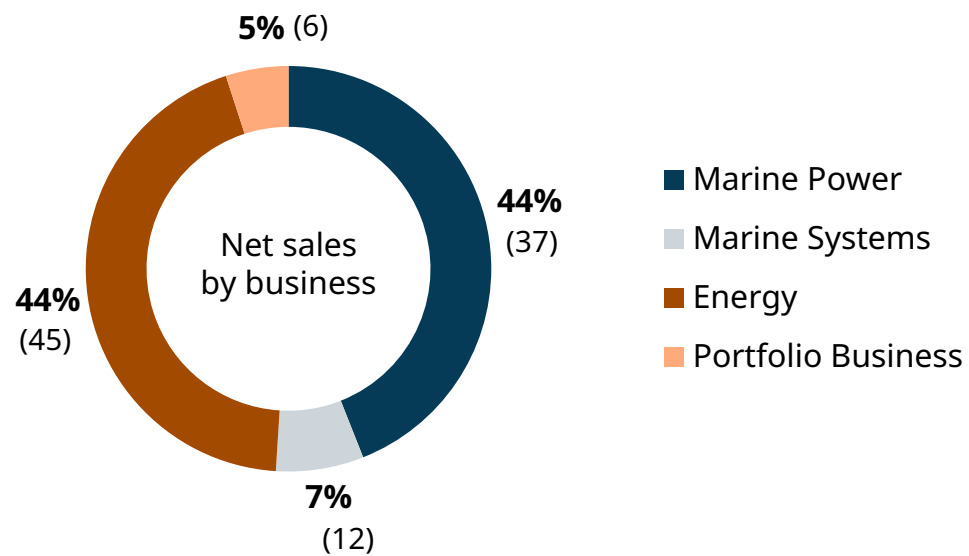
Second quarter development





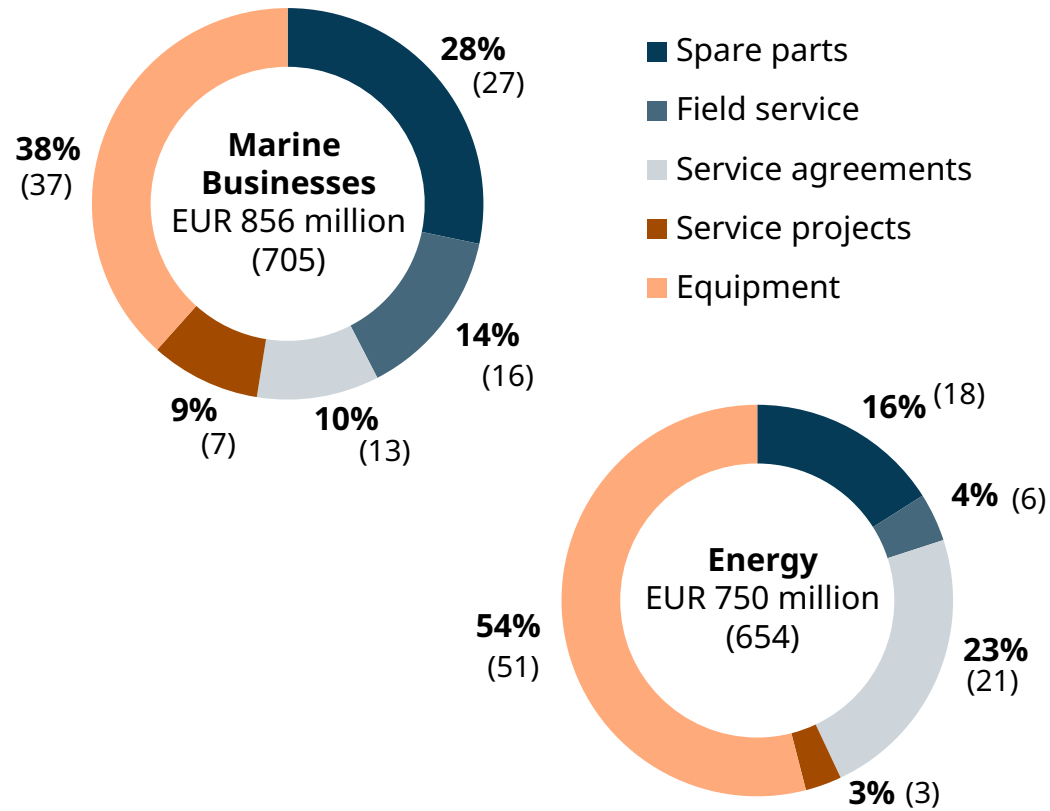
# Net sales

## Second quarter development

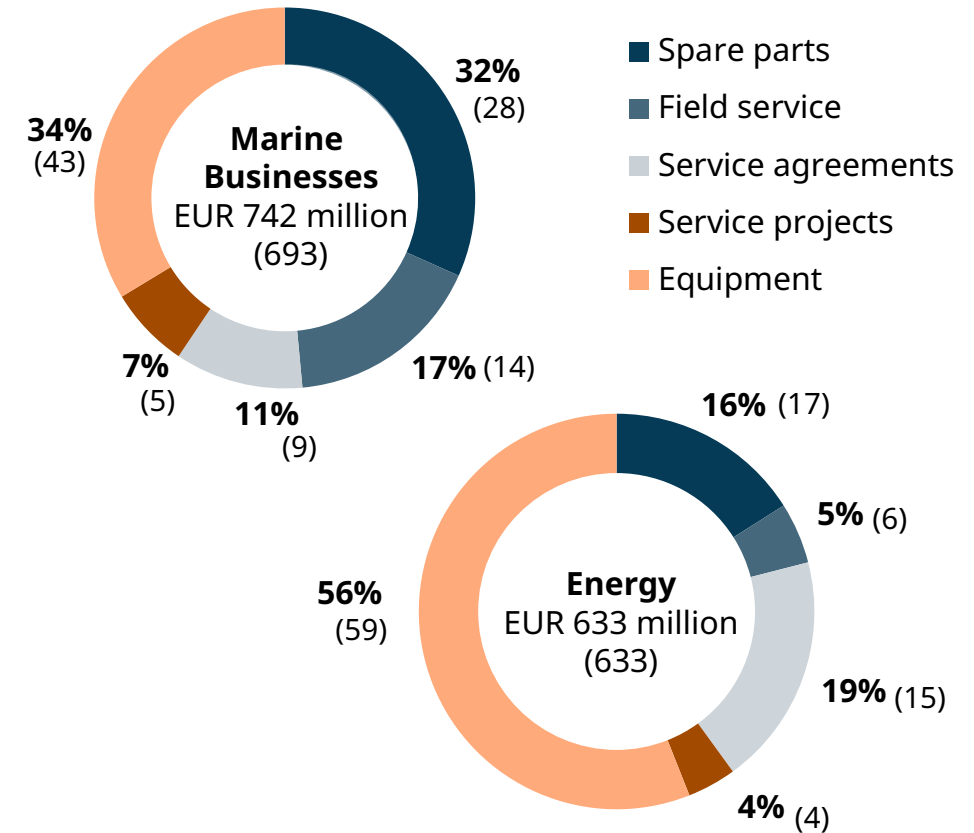


## Second quarter development by business type

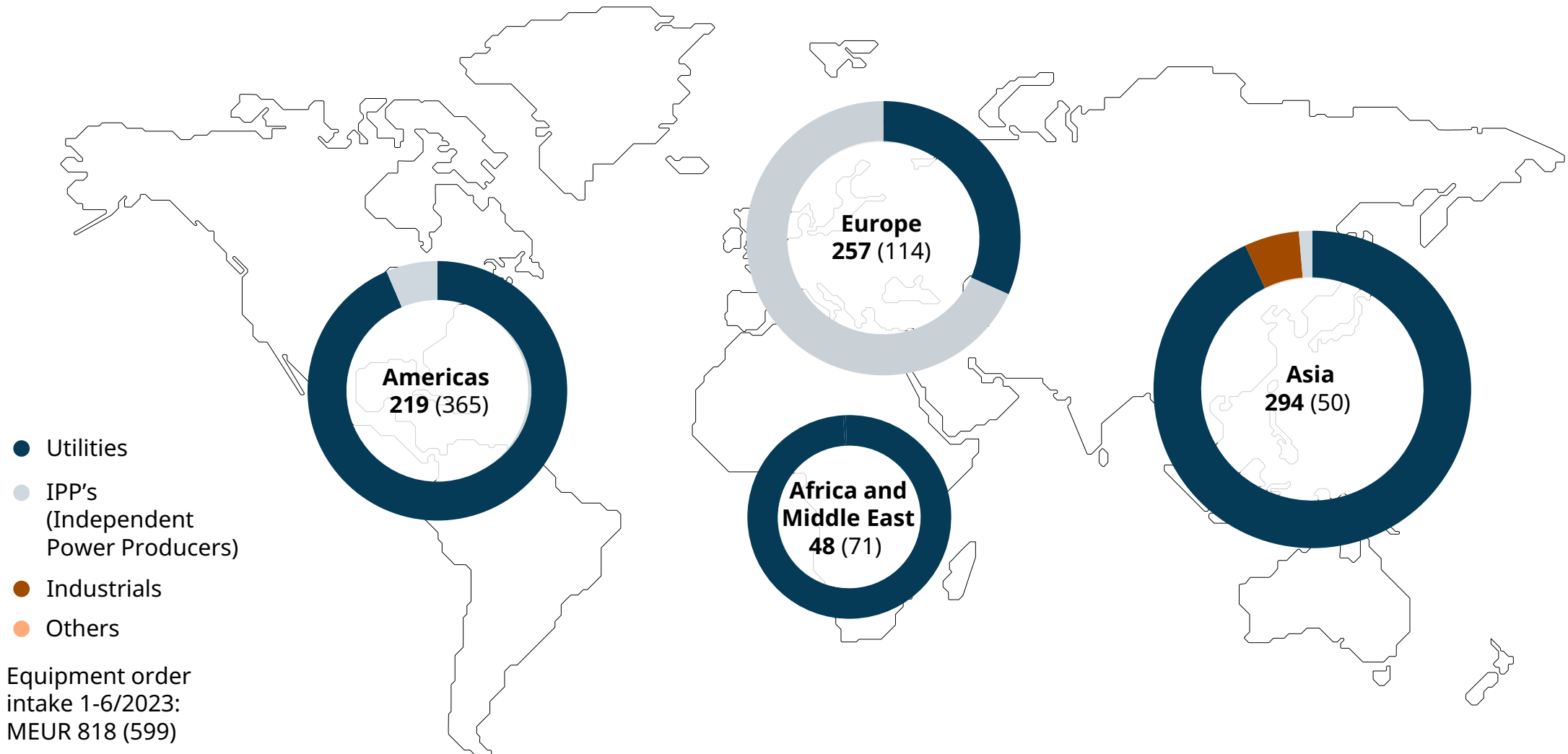
### Order intake



### Net sales



## Orders received for Energy equipment globally





# Sustainability



## Ambitious decarbonisation targets for 2030

Provide a product portfolio which will be ready for zero carbon fuels

Become carbon neutral in our own operations

# Strong presence in sustainable development indices

Member of  
**Dow Jones Sustainability Indices**  
 Powered by the S&P Global CSA



**Sustainability Yearbook**  
 Member 2021  
**S&P Global**



FTSE4Good



S&P Europe 350 ESG Index










# Decarbonising our own operations requires a wide range of actions

## "SET FOR 30"

### OUR MAIN DECARBONISATION INITIATIVES

2021

2030

-  Energy efficiency measures +/-€
-  Low emission company vehicles +/-€
-  Heat pumps in heating +/-€€
-  R&D and factory engine testings – reduced time +/-€
-  Self-generation and green electricity +++/€€
-  Simulations and other technologies +/-€
-  Replacing fossil fuels with alternative fuels +++/€€€

+ GHG reduction potential    € Cost to reduce



# Wärtsilä “Set for 30” is progressing well

Variety of concrete actions have been taken – some examples



Green electricity  
purchasing fully in  
use in Finland



Solar panel  
investment in  
Bermeo Spain



Environmental  
standards for  
selecting new  
facilities in use



Electric Vehicle  
policy defined and  
being rolled out



Heat pumps  
installed in server  
room in Norway



Intelligent energy  
meters installed in  
Norway - leakages  
detected



Electric Forklift  
policy defined and  
being rolled out



Variety of actions  
identified to reduce  
engine testing time

# Set for 30



## Wärtsilä's ESG Agenda in brief

# E

### **Ambitious decarbonisation targets for 2030**

- Portfolio ready for zero carbon fuels
- Carbon neutrality in own operations

# S

### **Good Corporate Citizen and Responsible Employer**

- High ethical standards
- Diversity in focus
- Strive for safety

# G

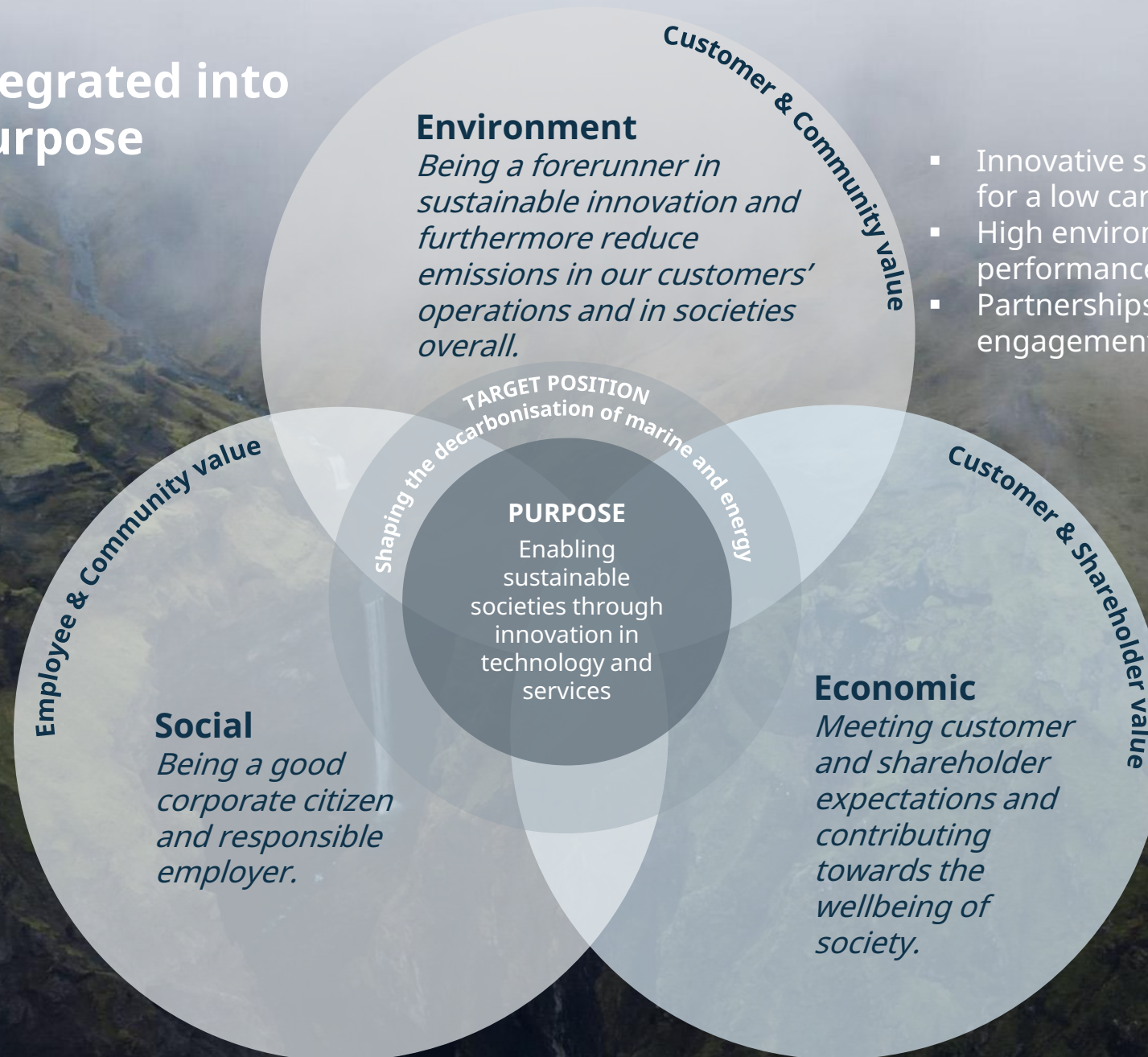
### **Effective Governance model**

- Sustainability matters embedded



# Sustainability is integrated into our strategy and purpose

- High ethical standards
- Responsible employer offering, interesting and exciting workplace
- Equal opportunities and diversity
- Hazard free working environment



- Innovative solutions for a low carbon economy
- High environmental performance and efficiency
- Partnerships and active engagement in ecosystems

- Efficient, profitable, and competitive company operations

## Wärtsilä's focus on social responsibility

### Strong ethical culture



Fair competition  
Trade compliance  
Anti-corruption  
Human and Labour Rights

- Clear policies and instructions
- Ethical training programmes and transparent communication
- Effective compliance programmes

### A responsible employer



Equal opportunities and diversity  
Fair employment practices  
Well-being of our employees  
Talent and leadership development

- Global policies and processes
- Training programmes and effective communication
- Co-operation and consultation with our employees

### A Safe place to work



Strong safety culture  
Providing means for safe work  
Product design principles

- Employee and leadership engagement
- Consistent safety competencies
- High quality tools and protective equipment
- Robust risk assessment practices
- Incident reporting and investigation
- Emergency preparedness
- Clear supplier requirements
- Supplier assessment process
- Setting contractual obligations
- Monitoring the supplier performance
- Taking necessary actions in case of non-compliance

### Responsible value chain



Human and Labour Rights  
Compliance  
Anti-corruption



# Governance



# Board of Management



**Håkan Agnevall,**  
President & CEO



**Arjen Berends,**  
Chief Financial Officer



**Tamara de Gruyter,** President,  
Wärtsilä Marine Systems



**Kari Hietanen,** Corporate  
Relations and Legal Affairs



**Roger Holm,** President,  
Wärtsilä Marine Power



**Anders Lindberg,** President,  
Wärtsilä Energy



**Teija Sarajärvi,**  
Human Resources



**Saara Tahvanainen,**  
Marketing and Communications

## Board of Directors



**Tom Johnstone CBE**, Chair of the Board, President and CEO of AB SKF 2003–2014



**Mika Vehviläinen**, Deputy Chair of the Board, President & CEO of Cargotec Oyj 2013–2023



**Karen Bomba**, President of Smiths Interconnect 2017–2020



**Morten H. Engelstoft**, CEO & EVP of A.P. Møller - Mærsk A/S, APM Terminals 2016–2022



**Karin Falk**, President, Husqvarna Construction Division



**Johan Forssell**, President and CEO of Investor AB



**Mats Rahmström**, President & CEO of Atlas Copco AB



**Tiina Tuomela**, CFO, Uniper SE

## Largest shareholders 28 August 2023 (Euroclear)

#	Name	Shares	Share %
1	Invaw Invest AB	104,711,363	17.70%
2	Varma Mutual Pension Insurance Company	31,768,252	5.37%
3	Ilmarinen Mutual Pension Insurance Company	13,641,503	2.31%
4	Keskinäinen Työeläkevakuutusyhtiö Elo	7,667,000	1.30%
5	The Social Insurance Institution of Finland	5,517,730	0.93%
6	State Pension Fund	4,700,000	0.79%
7	Svenska Litteratur-sällskapet i Finland Rf	4,671,277	0.79%
8	Holdix Oy Ab	4,139,400	0.70%
9	Jenny and Antti Wihuri Foundation	2,700,000	0.46%
10	Samfundet Folkhälsan i Svenska Finland rf	2,458,200	0.42%
	Nominee registered	204,267,508	34.52%
<b>Total</b>		<b>591,723,390</b>	<b>100.00%</b>



# Appendix

# Main competitors

## Engines

MAN  
Himsen  
Rolls-Royce

## Other marine solutions

Kongsberg  
Alfa Laval  
GE  
Siemens  
Schottel

## Other energy solutions

GE  
Siemens  
Tesla  
Fluence

# Customer base

## Marine businesses

Ship owners  
Ship operators  
Ship management  
companies  
Charterers  
Shipyards  
Port authorities

## Energy

Utilities  
Independent Power Producers  
(IPPs)  
Industrial customers



## For more information, call us or visit our [Investors page](#)

### Next upcoming IR events

- 12 September, CEO Call
- 19 September, Inderes Investors' day (In Finnish)
- 5 October, Pre-silent call Q3
- 9 November, Capital Markets Day

### Wärtsilä Investor Relations

**Hanna-Maria Heikkinen, Vice President, Investor Relations**  
tel. +358 10 709 1461, email: [hanna-maria.heikkinen@wartsila.com](mailto:hanna-maria.heikkinen@wartsila.com)

**Lotta Martikainen, Manager, Investor Relations**  
tel. +358 40 561 7697, email: [lotta.martikainen@wartsila.com](mailto:lotta.martikainen@wartsila.com)

### Meeting requests

**Janine Tourneur, Executive Assistant**  
tel. +358 10 709 5645, e-mail: [janine.tourneur@wartsila.com](mailto:janine.tourneur@wartsila.com)

# Key figures in 2022





# KEY FIGURES 2022

Order intake  
**6,074 MEUR**

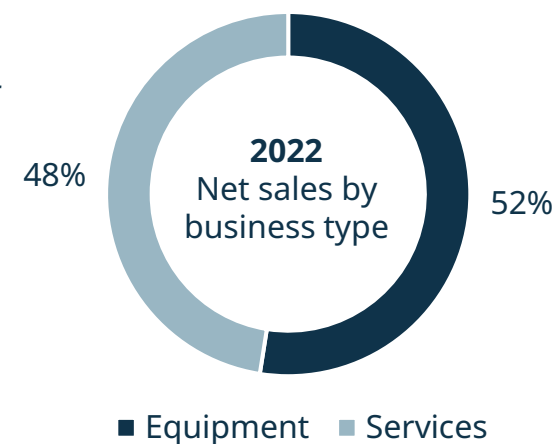
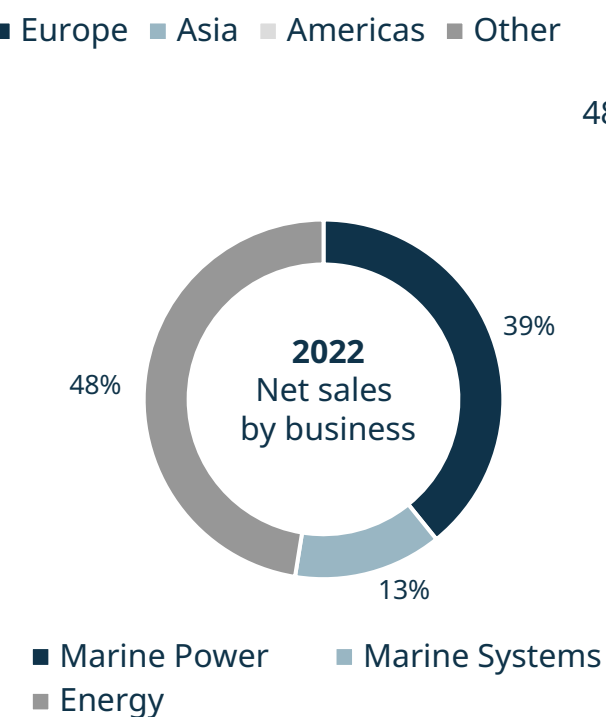
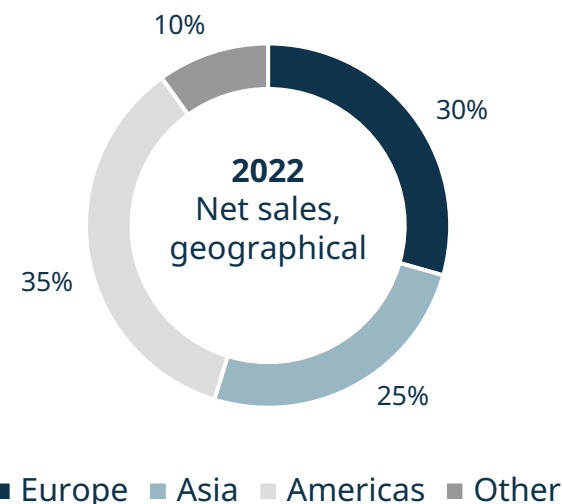
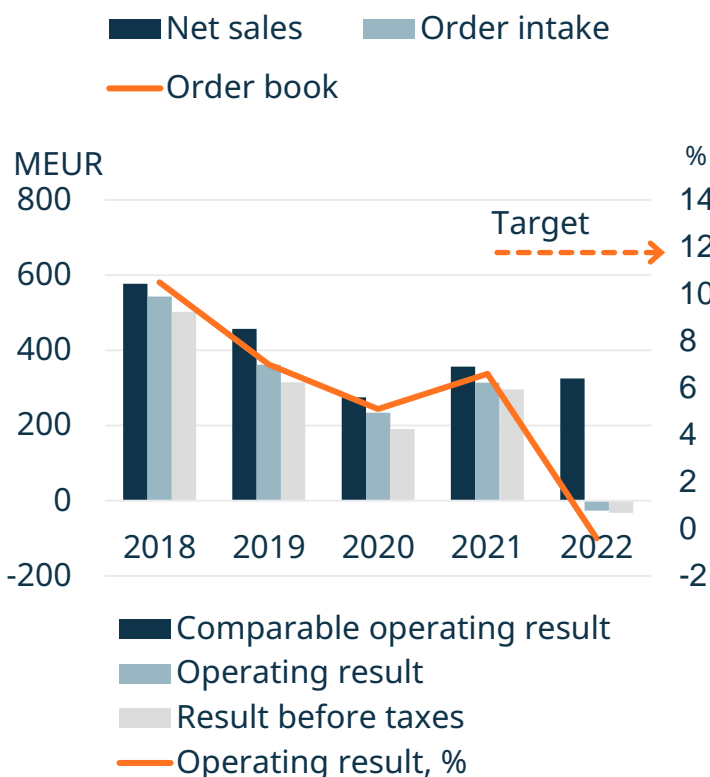
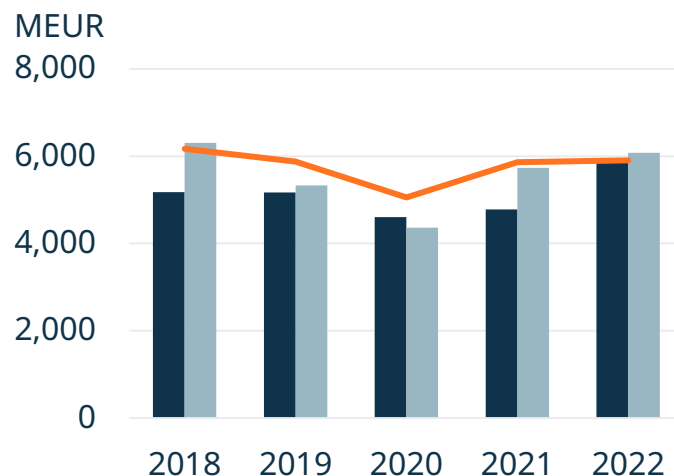
Net sales  
**5,842 MEUR**

Comparable operating result  
**325 MEUR**  
**5.6% of net sales**

Operating result  
**-26 MEUR**  
**-0.4% of net sales**

Cash flow from operating activities  
**-62 MEUR**

Personnel  
**17,500**



# Wärtsilä Marine Power – Leading the path towards decarbonisation by developing state of the art technology and enabling adoption of clean fuels

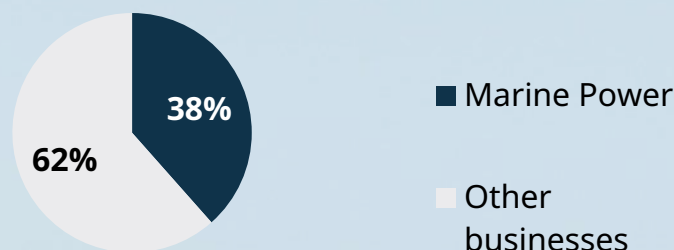
## Key figures in 2022

Order intake  
**2,707 MEUR**

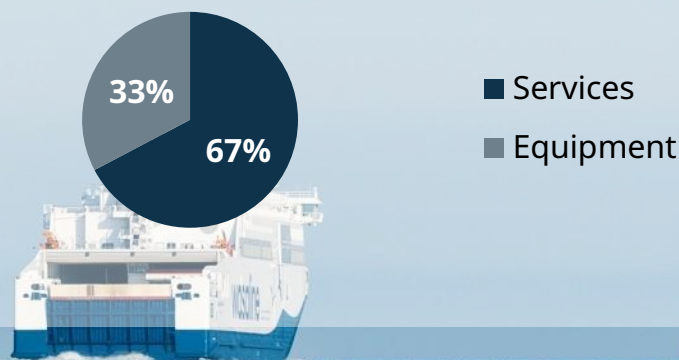
Net sales  
**2,247 MEUR**

Comparable operating profit  
**179 MEUR**  
**8.0% of net sales**

## Share of total net sales in 2022



## Net sales by business type in 2022



## Offering

- Multi-fuel 4-stroke engines
- Propulsion systems
- Catalyst systems
- Fuel gas supply systems
- Hybrid and electrification solutions
- Voyage and fleet optimisation
- Services
  - Spare parts and maintenance services
  - Performance based agreements
  - Retrofits and upgrades

## Key customer segments

- Gas carriers
- Cruise & ferry
- Offshore
- Navy
- Special vessels
- Merchant



# Wärtsilä Marine Systems – Solutions for our customers decarbonisation and optimisation journey

## Key figures in 2022

Order intake

**654 MEUR**

Net sales

**765 MEUR**

Comparable operating profit

**56 MEUR**

**7.3% of net sales**

## Share of total net sales in 2022



## Net sales by business type in 2022



## Offering

- Gas solutions
  - Cargo handling systems for gas carriers
  - Liquefaction and gasification systems for various applications
  - Fuel systems and biogas solutions
- Exhaust treatment
- Shaft line solutions

## Key customer segments

- Cruise & ferry
- Gas carriers
- Offshore
- Merchant
- Navy
- Special vessels



# Wärtsilä Energy – Towards a 100% renewable energy future

## Key figures in 2022

Order intake  
**2,612 MEUR**

Net sales  
**2,721 MEUR**

Comparable operating profit  
**91 MEUR**  
**3.3% of net sales**

## Share of total net sales in 2022



## Net sales by business type in 2022



## Offering

- Future-fuel enabled grid balancing power plants
- Hybrid solutions
- Energy storage and optimisation technology, including the GEMS Digital Energy Platform
- Lifecycle services

## Key customer segments

- Utilities
- Independent Power Producers (IPPs)
- Industrial customers





**WÄRTSILÄ**