

Mid-Term Business Plan 2023



May 13, 2022

Mitsui E&S Holdings Co., Ltd.



Mitsui E&S Holdings Co., Ltd.

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1. Mid-Term Business Plan 2023 Framework

1.1. Mitsui E&S Group Strategic Goals

➤ Our mission

We build trust and contribute to society through our engineering and services

Implement resolute management in core business domains

➤ Vision in 2030

In the marine domain, we create a carbon-free society and resolve challenges induced by depopulation

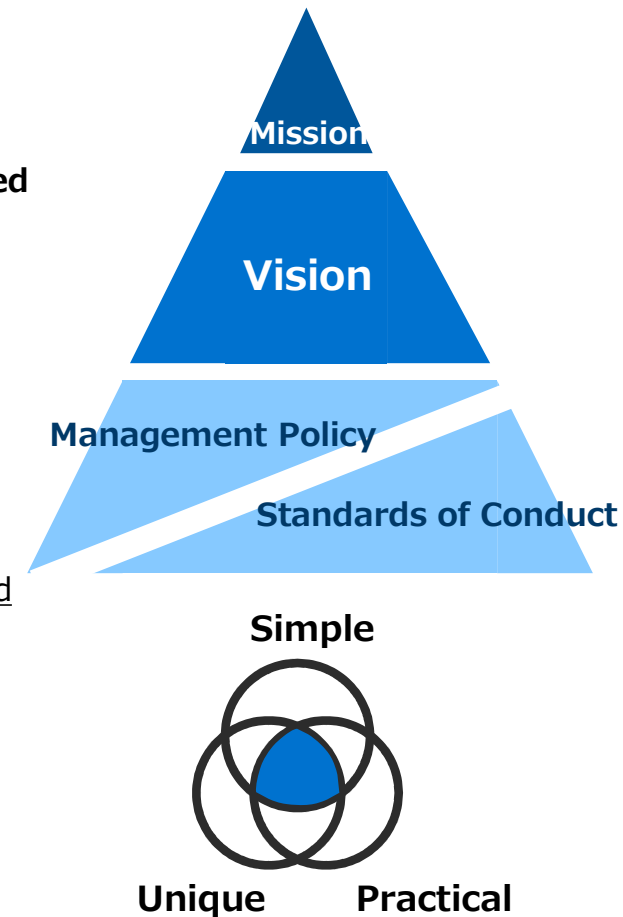
➤ Management Policy

- **Create new value together with customers** ⇒ Business development
(Commitment to customers and suppliers)
Conduct business through needs-oriented marketing and innovation in relevant technologies
- **Seek a sound financial structure and steady profit** ⇒ Finance & Corporate Planning
(Commitment to shareholders and financial institutions)
Manage and operate our group through the timely evaluation of marginal profit and fixed costs
- **Accelerate the resolution of sustainability issues** ⇒ Personnel and general affairs
(Commitment to employees and society)
Address climate change, population decline and diversity in consideration of employees' health and safety

➤ Standards of Conduct

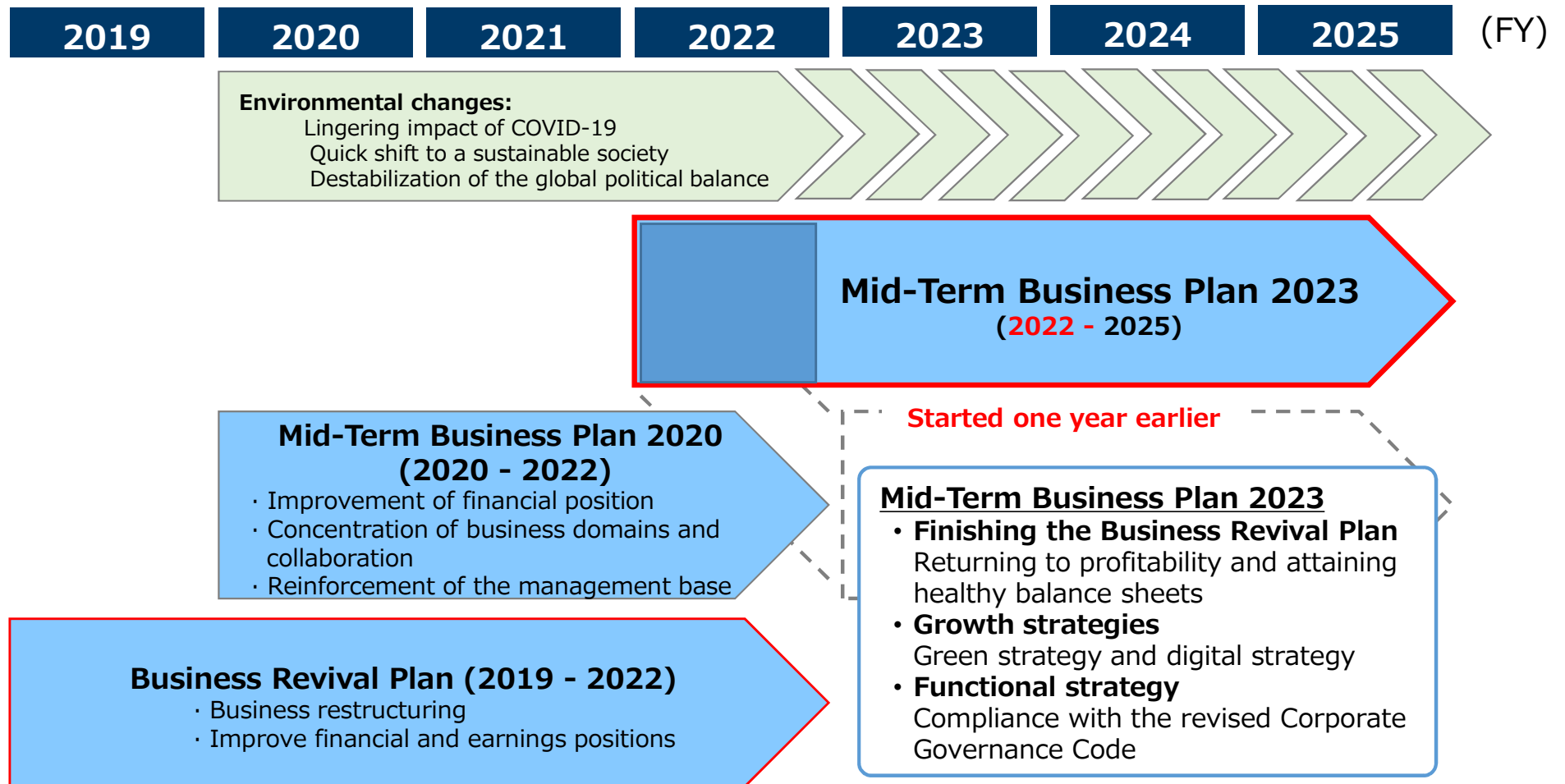
Endeavor to provide simple, unique and practical products and services

We always focus on customer-centric products and services that fulfill three kinds of value, develop healthy businesses and bring them into the world to serve society



Redefine the Group's Mission and Vision in accordance with the quick shift to a sustainable society and other environmental changes.

1.2. Mid-Term Business Plan Strategies



While the completion of the Business Revival Plan is now in sight, our business circumstances have drastically changed. In FY2022, we will finalize the Business Revival Plan and strengthen our foundation for carrying out the growth strategy.

1.3. Review of Business Revival Plan

Business Revival Subject	Initiatives	Achievements
Implement business restructuring	Liquidate and withdraw unprofitable businesses	<ul style="list-style-type: none"> Naval Ship Business: All shares were transferred to Mitsubishi Heavy Industries (October 2021). Merchant Ship Business: 49% of the shares of the company were transferred to Tsuneishi Shipbuilding to begin fables operations.
	Control the Engineering Business	<ul style="list-style-type: none"> Governance strengthened through Engineering Business Management Department Loss on Power plant civil engineering construction projects confined within the provisions (excluding FX impact)
	Focus resources on growing businesses	<ul style="list-style-type: none"> Broadened product and service lineups mainly in marine engines and port cranes Concluded MOU with IHI Power Systems to take over the large marine engine business
Improve financial and earning structure	Sell off assets	<ul style="list-style-type: none"> Sales of 20 assets worth 120 billion yen were finished.
	Reduce fixed costs (personnel and other expenses)	<ul style="list-style-type: none"> No. of employees (consolidated): 13,000 (FY2019) -> 6,000* (planned for FY2022) Estimated labor costs: 110 billion yen (FY2019) -> 47 billion yen* (planned for FY2022)
	Implement Capital measures	<ul style="list-style-type: none"> Warrants worth around 8 billion yen issued in April 2022 Class A preferred stock worth 9 billion yen issued in June 2022

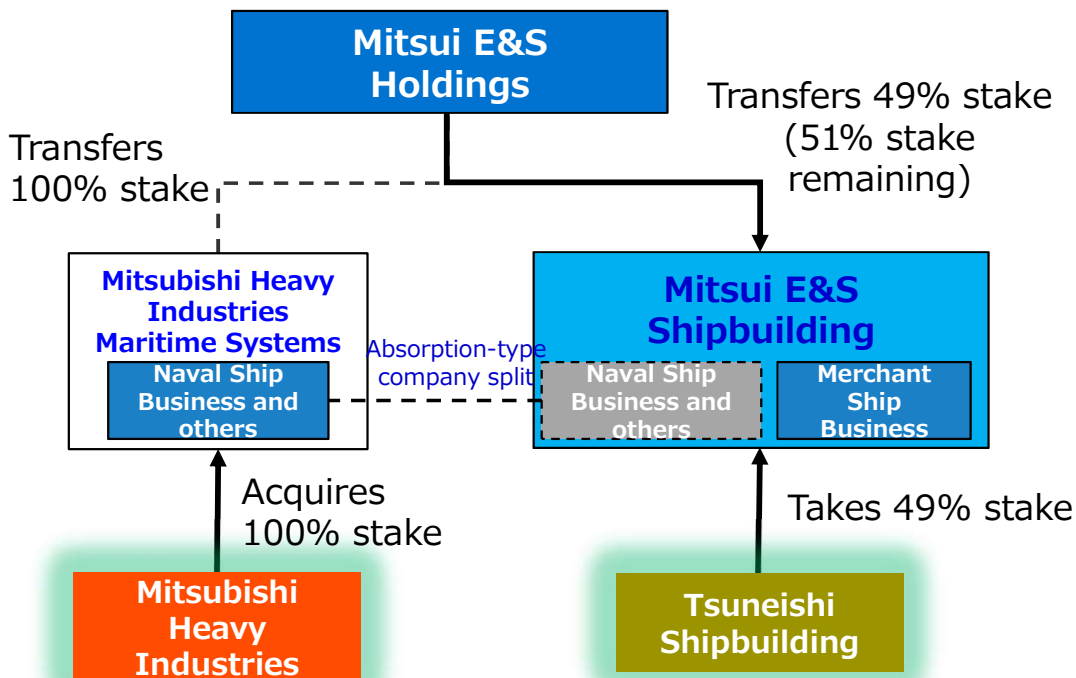
• **Equity ratio: 8% (FY2019) -> 17%* (planned for FY2022)**

Completion of the Business Revival Plan (FY2019-FY2022) is now in sight.
 In FY2022, implementation of capital measures totaling approximately 17 billion yen strengthens our financial foundation

*Figures for FY2022 represent values after deconsolidation of the Ocean Development business, which took place in November 2021.

1.4. Reorganization of Shipbuilding Businesses and Control of Engineering Business

Reorganize shipbuilding businesses



Details of reorganization

- The Naval Ship Business and others were split from Mitsui E&S Shipbuilding and transferred to Mitsubishi Heavy Industries.
- The Merchant Ship Business transitioned to fables operations following the acceptance of the investment from Tsuneishi Shipbuilding.

The Company withdraws from the shipbuilding business.

Control the Engineering Business

Project	Region	Project achievement rate	
		End of FY2018 (At the start of the Business Revival Plan)	End of FY2021
1	Indonesia	Approx. 67%	Approx. 90%
2	Indonesia	Approx. 71%	Approx. 100%
3	Vietnam	Approx. 98%	Completion

Progress of these projects

1. Profit and loss is within the scope of the provision for additional loss recorded in 2Q of FYE March 2020 (excluding the effects of foreign exchange rate fluctuations).
2. Some remaining processes are progressing toward completion.
3. Completed in July 2020 and the plant was handed over.

Two of the three power plant civil engineering construction projects are almost complete. Risk has decreased.



2. Outline of Mid-Term Business Plan 2023

2.1 Mid-Term Business Plan Summary

Outline		Contents
Business revival	Returning to profitability	<p>(FY2019) (FY2021) (FY2022) (FY2025)</p> <ul style="list-style-type: none"> Operating Income: -62 ⇒ -10 ⇒ 5 ⇒ 19 billion yen A positive bottom line of 100 million yen achieved in FY2020.
	Attaining healthy balance sheets	<p>(FY2019) (FY2021) (FY2022) (FY2025)</p> <ul style="list-style-type: none"> Capital-to-asset ratio: 8% ⇒ 14% ⇒ 17% ⇒ 26%
Growth strategy	Green strategy (GX)	<ul style="list-style-type: none"> Increase development and production capacity through M&A activities and broaden the product lineup Develop engines for new fuels (LNG → ammonia) and hydrogen fuel cranes
	Digital strategy (DX)	<ul style="list-style-type: none"> Provide remote maintenance and checkup services (for marine engines and port cranes) Optimize ship operations and automate port cranes
	Growth investment	<ul style="list-style-type: none"> Invest 30 billion yen for growth in the four years from FY2022 to FY2025 to implement the measures above
Functional strategies	Compliance with the revised Corporate Governance Code	<ul style="list-style-type: none"> Pursue the realization of a carbon-free society and the resolution of challenges related to the shrinking population as material issues Focus on GX and DX as growth strategies to address these issues

The Completion of the Business Revival Plan (FY2019-FY2022) is now in sight.
We will carry out the Mid-Term Business Plan 2023 (FY2022-FY2025) to accelerate growth.

2.2 Mid-Term Business Plan 2023 Numerical Targets

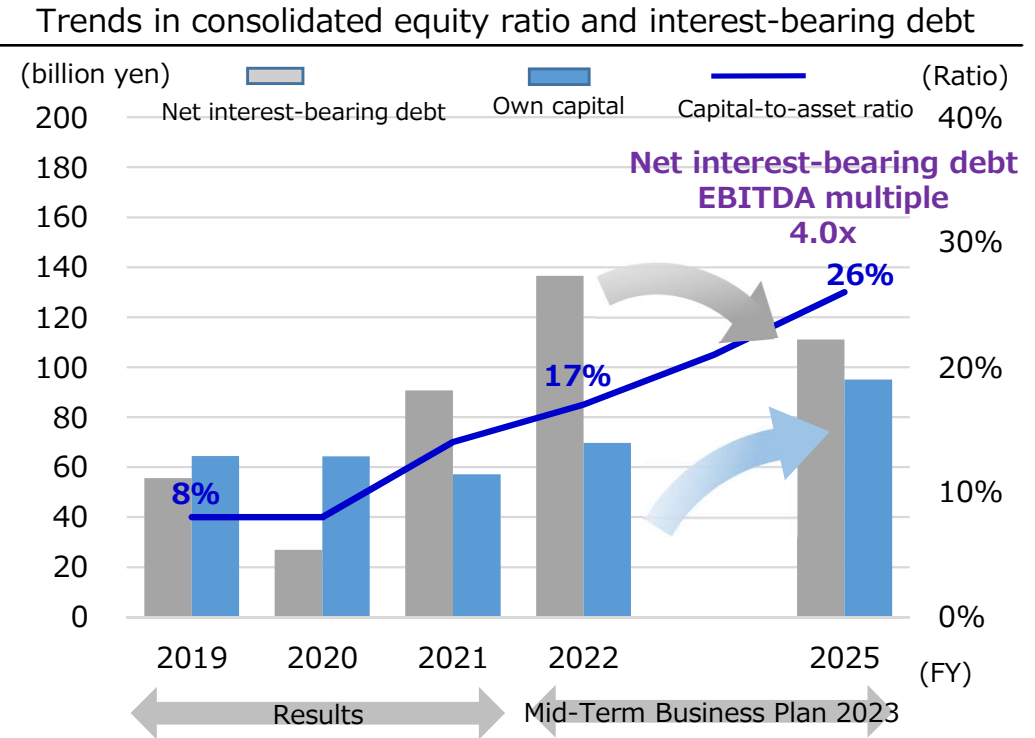
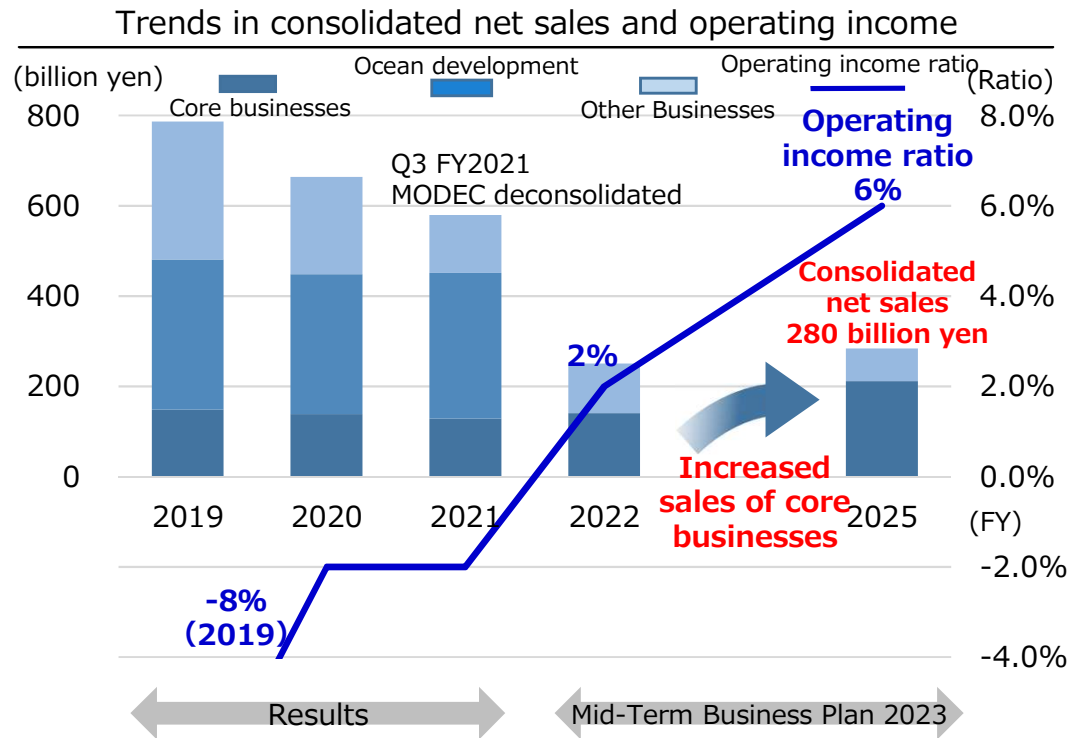
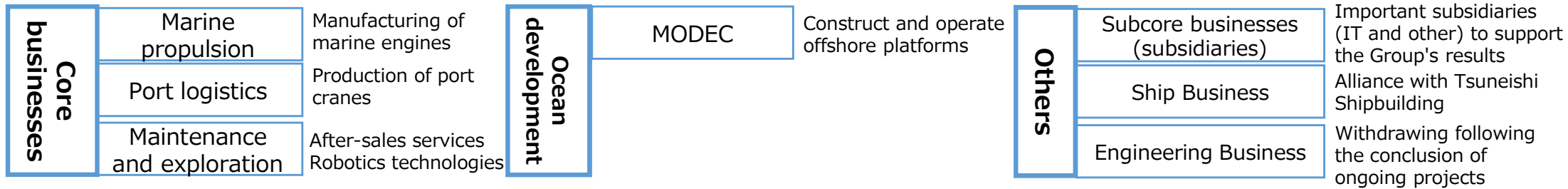
Item	Targets (FY2025)	Concept
Consolidated net sales	280 billion yen	<ul style="list-style-type: none"> Expand core businesses through growth investments and M&A activities Capture market share in GX products
Consolidated operating income ratio	6%	<ul style="list-style-type: none"> Focus resources on core businesses and reduce fixed costs Build a new profit model using DX
Capital-to-asset ratio	26%	<ul style="list-style-type: none"> Enhance the financial foundation through capital measures and the accumulation of profits Complete overseas engineering projects to reduce risks
Net interest-bearing debt EBITDA multiple	5.0	<ul style="list-style-type: none"> Reduce interest-bearing debt with created cash flows
CAPEX, R&D Financial investments	30 billion yen*	<ul style="list-style-type: none"> Take capital measures to procure funds for growth Allocate investments to core businesses

Restore the financial foundation and get the Group back on track through growth investment

*Total amount in the period of the Mid-Term Business Plan 2023 (FY2022-FY2025)

2.3. Mid-Term Business Plan 2023 Financial Outlook

Clarify the positions of individual businesses and expand sales and income mainly in core businesses



Shift the interest-bearing debt to a reduction phase. With capital measures and the accumulation of profits, set a target equity ratio of 26% at the end of FY2025.



3. Growth Strategy

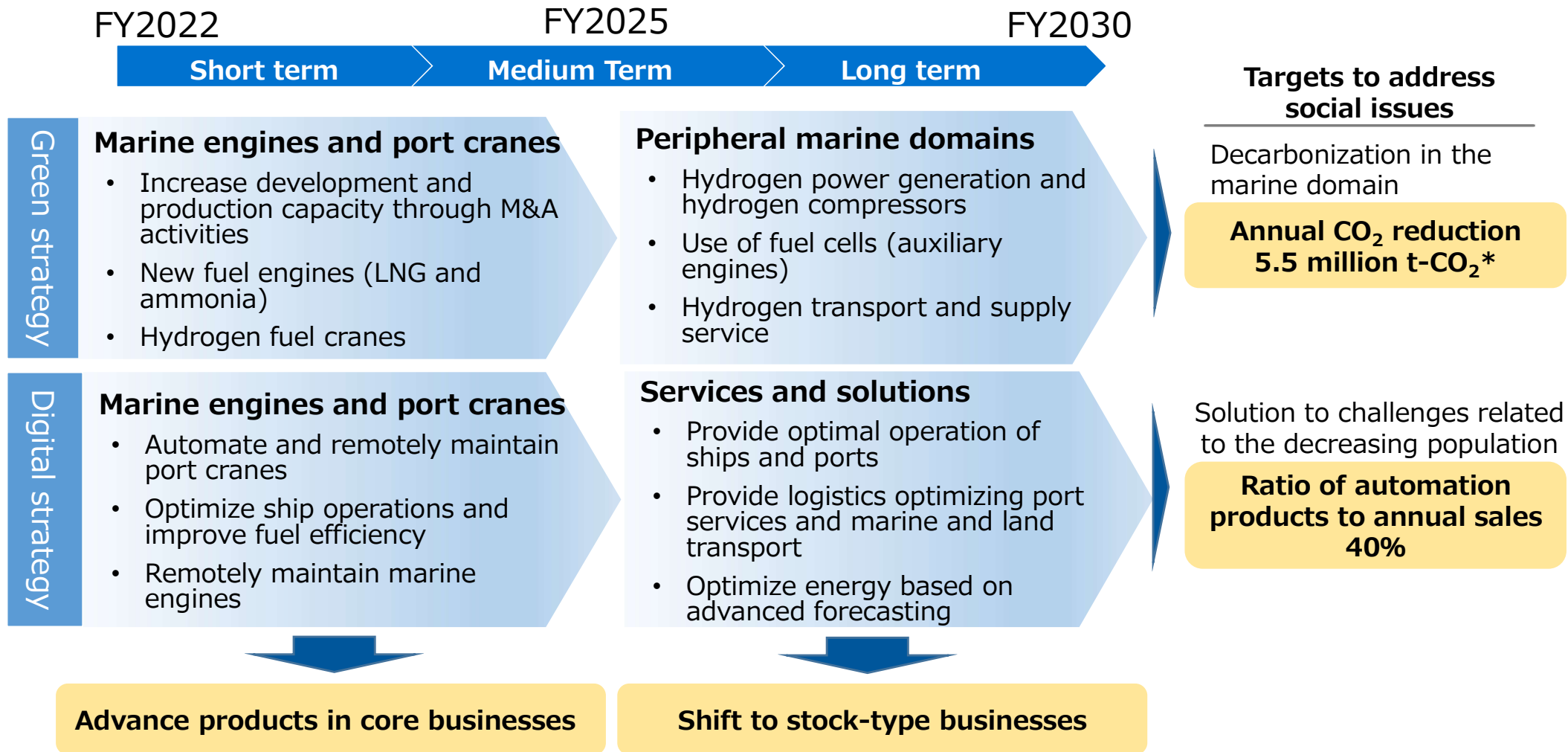
3.1. Outline of Growth Strategy

Policy Expand the core businesses of marine propulsion and port logistics in the marine domain through green and digital strategies

Growth strategy	Value provided	Direction of business expansion
Green strategy	Provide products for the realization of a carbon-neutral society	<ul style="list-style-type: none"> • Focus on the engineering of our environmental products <ul style="list-style-type: none"> - Large low-speed marine engines: From heavy oil to gas (LNG), ammonia and dual fuel engines - Medium- and small-sized marine engine generators: From heavy oil to fuel cells (FC) Expand to port crane power, onshore power generators and ship-mount generators
Digital strategy	Offer services using digital technologies that are necessary to address a society with a shrinking population	<ul style="list-style-type: none"> • Combine our service network with digital technologies for developing services <ul style="list-style-type: none"> - Link marine transport to port services - Offer cargo handling services and various support services when a ship calls

Implement green strategy for increasing sales and digital strategy for stabilizing profit

3.2. Growth Strategy Roadmap



Increase the advantages of marine engines and port cranes, accelerate the shift to green solutions, and expand the services and solutions domain over the medium and long terms

*Total reduction of CO₂ emissions attributable to products shipped in 2030 replacing heavy oil fuel products

3.3. Enhancement of Development and Production Structure for Marine Engines and Widening of Product Lineup

Increase development and production capacity through M&A activities and broaden the product lineup

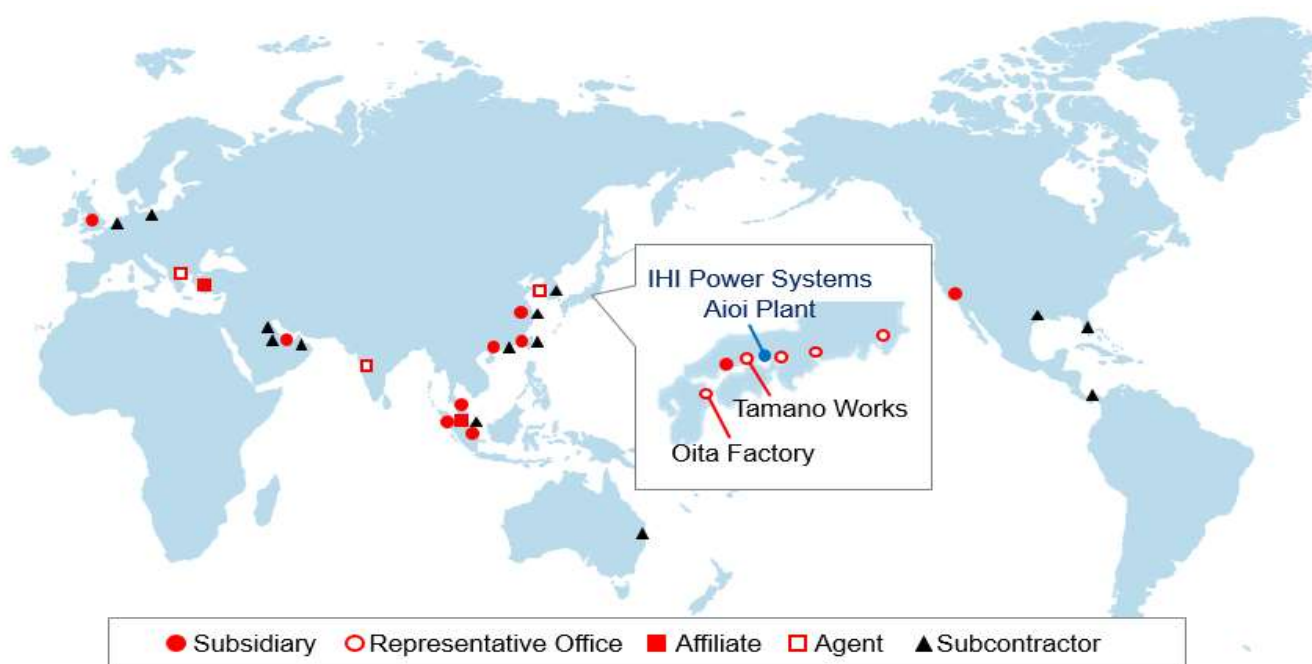
- **MOU signed regarding the succession of business related to marine large bore engines and its incidental business with IHI Power Systems Co., Ltd.**
 - ✓ Increase development and production capacity through M&A activities to increase market share in Japan and strengthen the marine propulsion business as a core business of the Group
 - ✓ Establish a double-license system for MAN-ES¹ and Win-GD²
 - ✓ Increase resources for the production of large marine engines and enhance after-sales services to increase competitiveness and continuously expand the two companies' businesses



MAN B&W 8S70ME-C8.2-GI
LNG-fueled diesel engine



MAN B&W 7S50ME-B9.3-LGIM
methanol-burning diesel engine



Mitsui E&S Machinery's after-sales service bases



WinGD 6X72DF
dual fuel engine



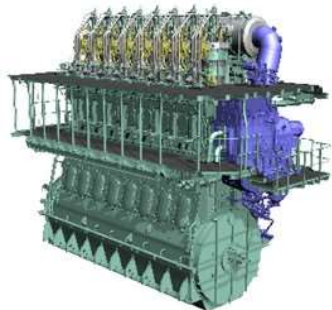
S.E.M.T. 12PC2.6BV
medium-speed four-stroke
engine

Increase development and production capacity for marine engines and focus on commercialization of new fuel engines under the green strategy

¹ MAN-ES: MAN Energy Solutions
² Win-GD: Winterthur Gas & Diesel

3.4. Growth Strategy Based on Marine Engines

Core products



Marine engine



e-GICS series remote monitoring and performance analysis service

- Strategic investment
- Expansion of production facilities

Advancement of products

Green strategy

- Develop technologies for hydrogen fuel propulsion systems
- Develop ammonia fuel engines
- Develop an ammonia fuel tank and supply system

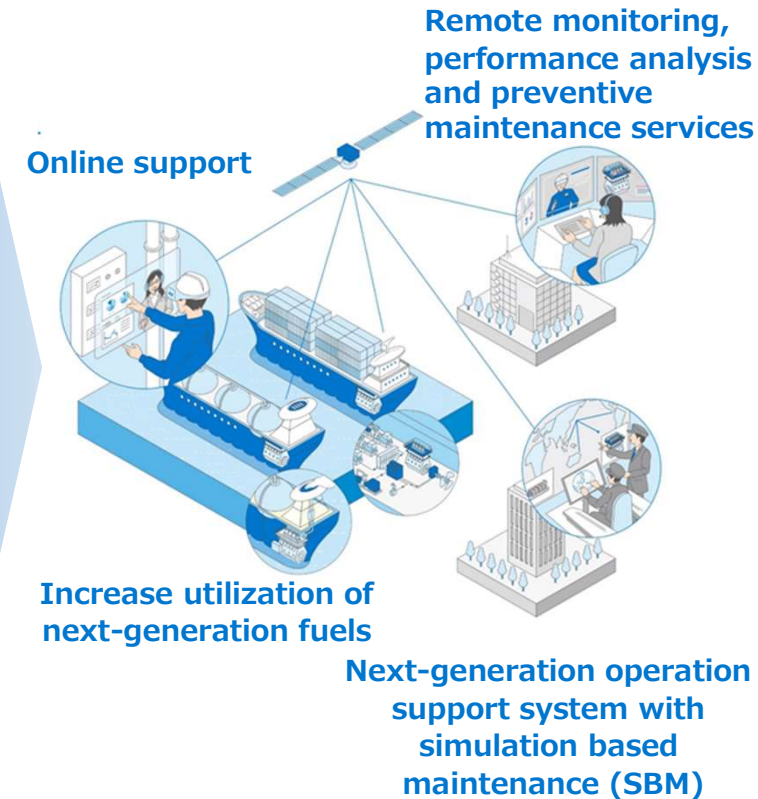
Advancement of services

- Collaborate with the industrial machinery field

Digital strategy

- Provide remote maintenance and performance analysis service
- Optimize ship operations and improve fuel efficiency

- Provide performance analysis and preventive maintenance services
- Establish connection to automated ship operations and operation support services
- Collaborate with ship-related fields



Increase advantages mainly in marine engines by developing engines for new fuels and enhance production capacity
 In addition, step into incidental services and peripheral areas to enlarge business domains

3.5. Growth Strategy Based on Port Cranes

Core products



Portainer®*



Transtainer®*



CTMS
Container Terminal Management System



Crane Advanced Remote Monitoring System

Advancement of products

Green strategy

- Zero-emission Transtainers
- Active use of fuel cells
- Active use of hydrogen
- Active use of energy conservation technologies

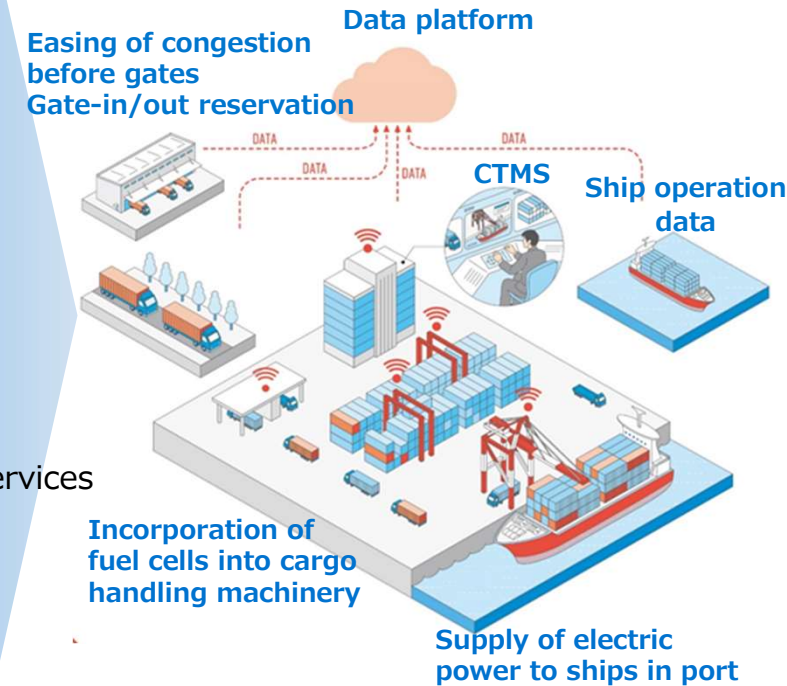
Digital strategy

- Remote and automated Transtainers

Advancement of services

- Hydrogen supply-related services
- Collaboration with the industrial machinery field

- Performance analysis and preventive maintenance services
- Advance CTMS



Step up advantages mainly in port cranes by addressing zero emissions and automation. In addition, develop and offer products using next-generation fuels to enlarge business domains.

*Registered trademark of PACECO® Corporation, a U.S.-based subsidiary of the Company

3.6 Growth Investments

Investments for growth during the period of Mid-Term Business Plan 2023 (FY2022-FY2025)

Use of funds	Associated businesses	Financing method	Investment amount
<ul style="list-style-type: none"> Research and development of ammonia fuel ships 	<ul style="list-style-type: none"> MLIT¹ R&D project NEDO² Green Innovation Fund project 	Type A preferred shares ³	Approx. 9 billion yen
<ul style="list-style-type: none"> Research and development of zero emission (hydrogen) Transtainers 	<ul style="list-style-type: none"> NEDO subsidized project 		
<ul style="list-style-type: none"> Development of digital services in the domain where marine engines and port services are connected 	-		
<ul style="list-style-type: none"> Reinforcement of fuel supply equipment for trial operation of ammonia/LNG fuel engines 	-		
<ul style="list-style-type: none"> Reinforcement of manufacturing facilities for large LNG fuel engines 	-	Warrants ³	Approx. 4 billion yen
<ul style="list-style-type: none"> Introduction of manufacturing facilities for engines for new fuels (LPG and methanol) 	-		
<ul style="list-style-type: none"> Introduction of facilities for the development of hydrogen fuel engine technologies 	<ul style="list-style-type: none"> MLIT¹ subsidized project 		
<ul style="list-style-type: none"> Reinforcement of other manufacturing facilities for new fuel engines 	-	Own funds Borrowings	Approx. 17 billion yen
<ul style="list-style-type: none"> Development of other services using DX 	-		
Total			Approx. 30 billion yen

Growth investment of around 30 billion yen in the marine propulsion and port logistics businesses to expand the scale of these businesses by 2025.

¹ The Ministry of Land, Infrastructure, Transport and Tourism
² New Energy and Industrial Technology Development Organization
³ See our press release on March 31, 2022



4. Functional Strategies

4.1. Initiatives on Sustainability Issues

Material issues should be defined in light of the risks and opportunities in our business circumstances with a growing awareness of issues including climate change and population decline.

Material issues	Value to customers and society	FY2025 Forecast	FY2030 Target	Related SDGs	
Creating a decarbonized society	<p>Reducing Environmental Impact</p> <p>Excellent technologies and services</p>	<ul style="list-style-type: none"> CO₂ emissions from heavy oil fired marine engines (8.34 million t-CO₂/year)¹ CO₂ emissions from conventional Transtainers (4,000 t-CO₂/year)¹ CO₂ emissions from the production activities of group companies (54,000 t-CO₂/year)^{1, 2} 	<ul style="list-style-type: none"> CO₂ emissions reductions through green fuel marine engines and zero emissions Transtainers: 0.9 million t-CO₂/year (-11%)³ Product life cycle total⁴ 18 million t-CO₂ <p>CO₂ Emissions² 6,000 t-CO₂/year (-11%)³</p>	<ul style="list-style-type: none"> CO₂ emissions reductions: 5.5 million t-CO₂/year (-66%)³ Product life cycle total: 110 million t-CO₂ <p>Reference: National CO₂ emissions for FY2030</p> <ul style="list-style-type: none"> Japan: 760 million t-CO₂/year Germany: 440 million t-CO₂/year <p>CO₂ Emissions² 9,000 t-CO₂/year (-17%)³</p>	
		<p>Labor-saving and economic reasonableness</p> <p>Efficient and effective services</p>	<ul style="list-style-type: none"> Aim to develop and popularize digital technologies and services in individual domains <ul style="list-style-type: none"> - Real time monitoring of the operations of marine engines and port cranes - Support for the operation and maintenance of individual devices - Stock-type digital services linking marine engines and port services 	<ul style="list-style-type: none"> Annual sales of Transtainers <ul style="list-style-type: none"> - Percentage of automated Transtainers: 40% 	

Set medium- and long-term goals for the creation of a decarbonized society and the resolution of issues of a society with a decreasing population and work to achieve the goals.

¹ FY2019 CO₂ emissions

² Scope 1 and 2 emissions from the Machinery business have been calculated.

³ Compared to FY2019

⁴ Product life cycle :20 years

4.2. Personnel Development and Diversity

	Current	Vision
Organizational climate	<ul style="list-style-type: none"> A strong sense of sectionalism and an insufficient sense of ownership regarding companywide problems Orientation toward improvement based on relative evaluation in comparison with the past Emphasis on manufacturing based on our own perspective 	<ul style="list-style-type: none"> A sense of unity and a perspective for the spread of comprehensive optimization across the organization Orientation toward reforms based on an absolute evaluation with the future vision as a goal Emphasis on the close monitoring of customers' needs and on swiftly responding to them
Personality	<ul style="list-style-type: none"> Respond to explicit requests from customers within the existing scope of duties Act only to acquire the knowledge and experience necessary to fulfill the duties assigned Interested only in things related to one's own duties and business 	<ul style="list-style-type: none"> Respond beyond the existing framework to customers' latent needs Continuously learn new things and gain experience that will lead to the growth of the company Interested extensively in social trends to properly understand changes in the environment

		Current ¹		Goals for FY2030	
		Percentages of female employees	Percentages of foreign national employees	Percentages of female employees	Percentages of foreign national employees
Diversity	Managers²	3.1%	0.0%	5%	3%
	Employees²	6.8%	2.6%	10%	5%
	New graduates for technical Positions³	4.1%	18.5%	10%	20%

Press ahead with the diversification of personnel, change the organizational culture and accelerate the reform of thinking among employees with a view towards growth.

¹ Figures of the three companies set to be integrated in April 2023: Mitsui E&S Holdings, Mitsui E&S Machinery and Mitsui E&S Business Service.
² Figure as of April 2022
³ Average in the period from FY2018 to FY2022

4.3. Overview of Management Base Reform

Item	Goals
Organizational structure	<ul style="list-style-type: none"> • Abolish the holding company structure • Build a compact management system • Accelerate decision-making (by removing dual management)
Governance	<ul style="list-style-type: none"> • Implement groupwide risk management and the growth strategy instead of passive management • Bring into view the future revision of the organization's design
Finance and accounting	<ul style="list-style-type: none"> • Promptly evaluate marginal profit and fixed costs • Understand management-level information on each products in real time • Firmly manage and operate businesses and subsidiaries
Personnel system	<ul style="list-style-type: none"> • Partly introduce a merit system (to abolish the seniority system) and job-based employment, provide flexible career paths and construct a system to ensure diversity • Add English language skills, accounting and IT literacy to the evaluation of all employees • Appoint outside advanced professionals in business administration, financial affairs, contracts, legal affairs and other specializations • Develop future managers (by job rotation)
IT system	<ul style="list-style-type: none"> • Eliminate sectionalism and isolationism in the IT organization • Integrate multiple systems in the Group to increase efficiency • Introduce simple and efficient systems matched to the scale of business

Change the management foundation to put the company on a growth track for sustainable development and improved corporate value

Continuously seek simple, unique and practical mechanisms as reform goals

Changing the Company Name

E&S stands for **Engineering & Services for Evolution & Sustainability**.

We will focus on Engineering and Services with a view toward the evolution and sustainability of society and the sustainable improvement of corporate value.

New company name: MITSUI E&S Co., Ltd.



Engineering & Services for Evolution & Sustainability

In April 2023, we will cease to be a pure holding company and make a fresh start as MITSUI E&S towards our evolution into a growing company.