2024 Medium-Term Business Plan Progress

Achievements and Path to Attaining Strategic Goals in Final Year

May 27, 2026

Eisaku Ito, President and CEO

Mitsubishi Heavy Industries, Ltd.

2024 MTBP[1] Progress Update

Overview of FY2025

- Order intake, business profit, net income, and free cash flow reached **record highs** in FY2025
- Order intake grew primarily in Growing Core Businesses – Energy Systems and Defense – and **order backlog exceeded ¥13 trillion**
- Under ITO initiative, working to build **highly profitable** business structure. Through various initiatives, **achieved business profit margin and ROE** targets one year ahead of schedule.

Changes in Business Environment

- **Global political instability** intensifying

  Heightened awareness of not only **national security**, but also **economic security**

  Rising risk of **supply-chain disruptions** as economic blocs continue to solidify

- Long-standing globalization prioritizing economic efficiency has led to **weakening of manufacturing bases** worldwide
- **Challenges threatening functioning of society emerging**

  Including: intensifying natural disasters, labor shortages, cybersecurity risks, and aging infrastructure

- **Technological innovation accelerating**

  In particular, generative AI evolving into autonomous operational agents (**AI agents**), driving increased adoption in automated manufacturing (**physical AI**)

- **Carbon Neutrality** initiatives transitioning to pragmatic approach reflecting concerns over energy security and maintaining industrial competitiveness
- Changes in business environment expanding MHI's potential contributions to solving societal issues

  Potential opportunities in the following areas:

  "Resilience" is common thread connecting them

  (1) Providing safety and security, (2) Ensuring stable energy supplies, (3) Rebuilding manufacturing bases, (4) Enhancing BCM[2], (5) Diversifying infrastructure needs, and (6) Balancing economy and environment

1 MTBP: Medium-Term Business Plan 2 BCM: Business Continuity Management

2024 MTBP Progress Update

Initiatives to Achieve 2024 MTBP (FY2026)

- **Increase profitability by ensuring steady execution of order backlog**

  Specifically:

  - Enhance **execution capabilities** to deliver products and services reliably and on time
  - Transform company into **highly profitable business structure** by implementing **Group-Wide Optimization**
- **Allocate generated cash to continuous growth investments**
  - Accelerate realization of **Reach Expansion**

2024 MTBP Progress (FY2026)

		Initial Plan	Forecast
Business Profit		≥¥450.0 bn	¥540.0 bn
Business Profit Margin		≥8%	10%
ROE		≥12%	12%
Capital Allocation (FY24-26)	Cash Inflows	¥1.5 tr	¥2.6 tr
	Investment	¥1.2 tr	¥1.2 tr
	Shareholder Returns	¥0.3 tr	¥0.3 tr

Set Stage for Long-Term Growth (Direction for Next MTBP)

- Enhance corporate value by achieving **virtuous cycle of high profitability and growth investments** – a key management goal
  - **Accelerate business execution capabilities to stay ahead of continued revenue expansion**
  - By implementing **vertical Group-Wide Optimization, reduce lead times and increase throughput** across all businesses.
    To that end – as part of **horizontal Group-Wide Optimization** – strengthen both quality and scale of shared infrastructure platform, and further increase resource utilization.
    Enable earlier risk detection and faster issue resolution by sharing specialized technologies and expertise across businesses.
  - Changes in business environment expanding MHI's potential contributions to solving societal issues.
    Seize these opportunities, achieving **Reach Expansion** through **synergies leveraging MHI's shared infrastructure platform.**
    This will be critical factor in portfolio management.
    - Deploy **growth investments** with long-term outlook
- Next medium-term business plan to lay out specific numerical targets and financial strategy aligned with this corporate strategy

May 27, 2026

伊藤栄作

Eisaku Ito

Innovative Total Optimization

Agenda

1. Business Environment
2. Virtuous Cycle of High Profitability and Growth Investments
3. 2024 MTBP Progress Update
4. Summary

1. Business Environment

1. Business Environment

- **More business opportunities emerging where MHI can contribute to solving societal issues, such as providing safety and security, as well as ensuring stable energy supplies**

Changes in External Business Environment		Areas with Emerging Business Opportunities
International political instability	Increasing awareness of national security Heightened risk of supply chain disruptions	Resilience Providing safety and security
Challenges arising from years of globalization	Weakening of manufacturing bases	Ensuring stable energy supplies Rebuilding manufacturing bases
Emergence of societal issues	Including cyber incidents, labor shortages, and ageing infrastructure	Diversifying infrastructure needs
Progress in technological innovation	Increased adoption of AI agents and physical AI	Enhancing BCM[2]
Progress in pragmatic approach to Energy Transition conscious of S+3E[1]		Balancing economy and environment

1 Safety, Energy Security, Economic Efficiency, and Environment 2 BCM: Business Continuity Management

2. Virtuous Cycle of High Profitability and Growth Investments

Innovative Total Optimization（ITO）

- Enhance productivity and profitability by strengthening inter-organizational collaboration, achieving Group-Wide Optimization
- Provide new value to more geographies and customers with sense of speed, expanding reach
- Realize virtuous cycle of high profitability and growth investments

Innovative Total Optimization

Group-Wide Optimization

Slim Operations (vertical)
- Streamline business processes
- Accelerate R&D
- Halve lead times

Functional Interconnection (horizontal)
- Experience, technologies, IT
- Cross-organizational task force (focused resource deployment)

Reach Expansion

Exponential Scaling
- Licensing (increase number of customers)
- Strategic partners (expand geographies)
- IT (improve quality of services)

New Value Creation
- ΣSynX*
- Smart connections between disparate areas
- Foresight and speed

Synergy

Vision for MHI

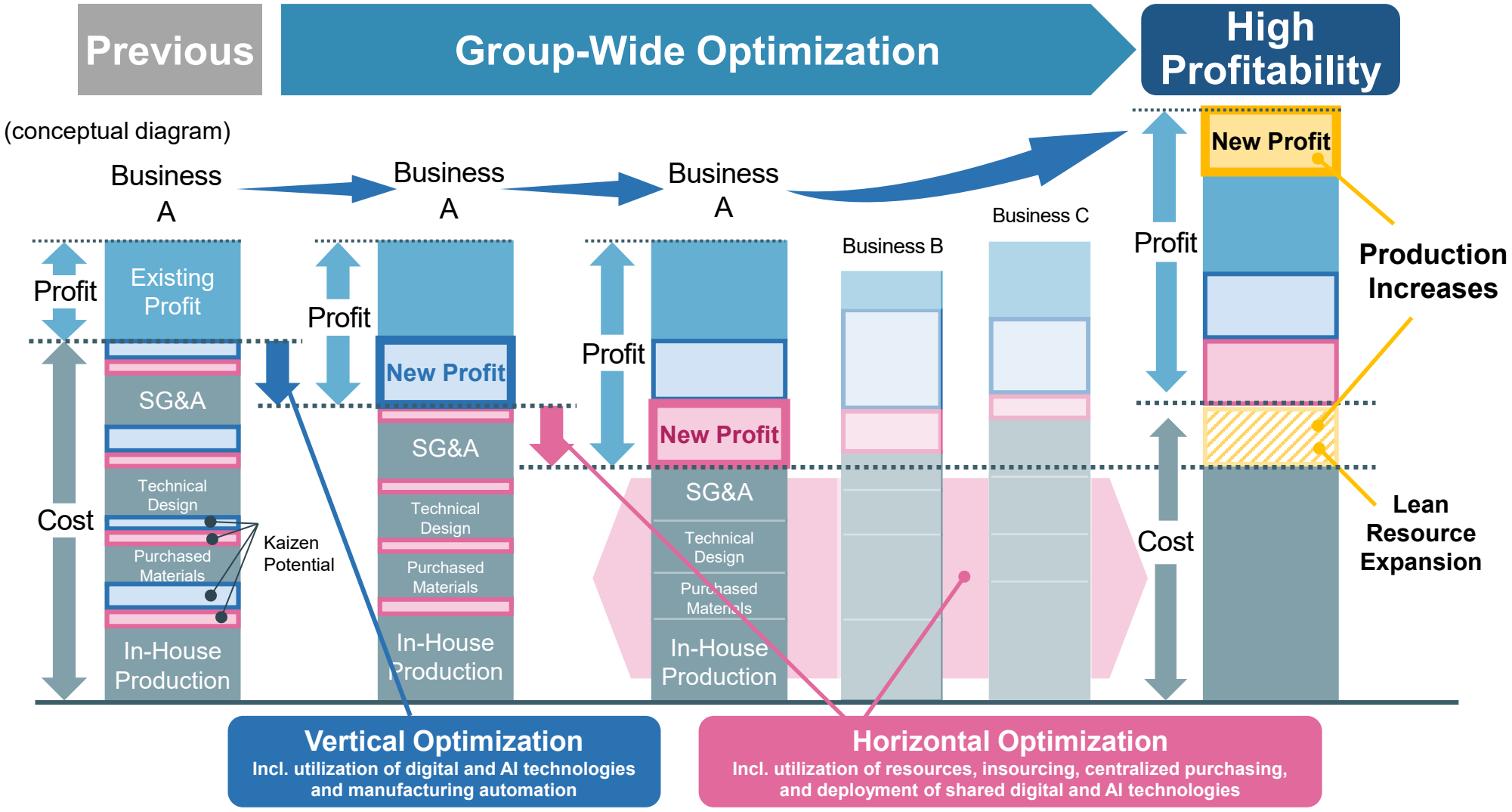
High Profitability

Growth Investments

*Read as “Sigma Syncs”

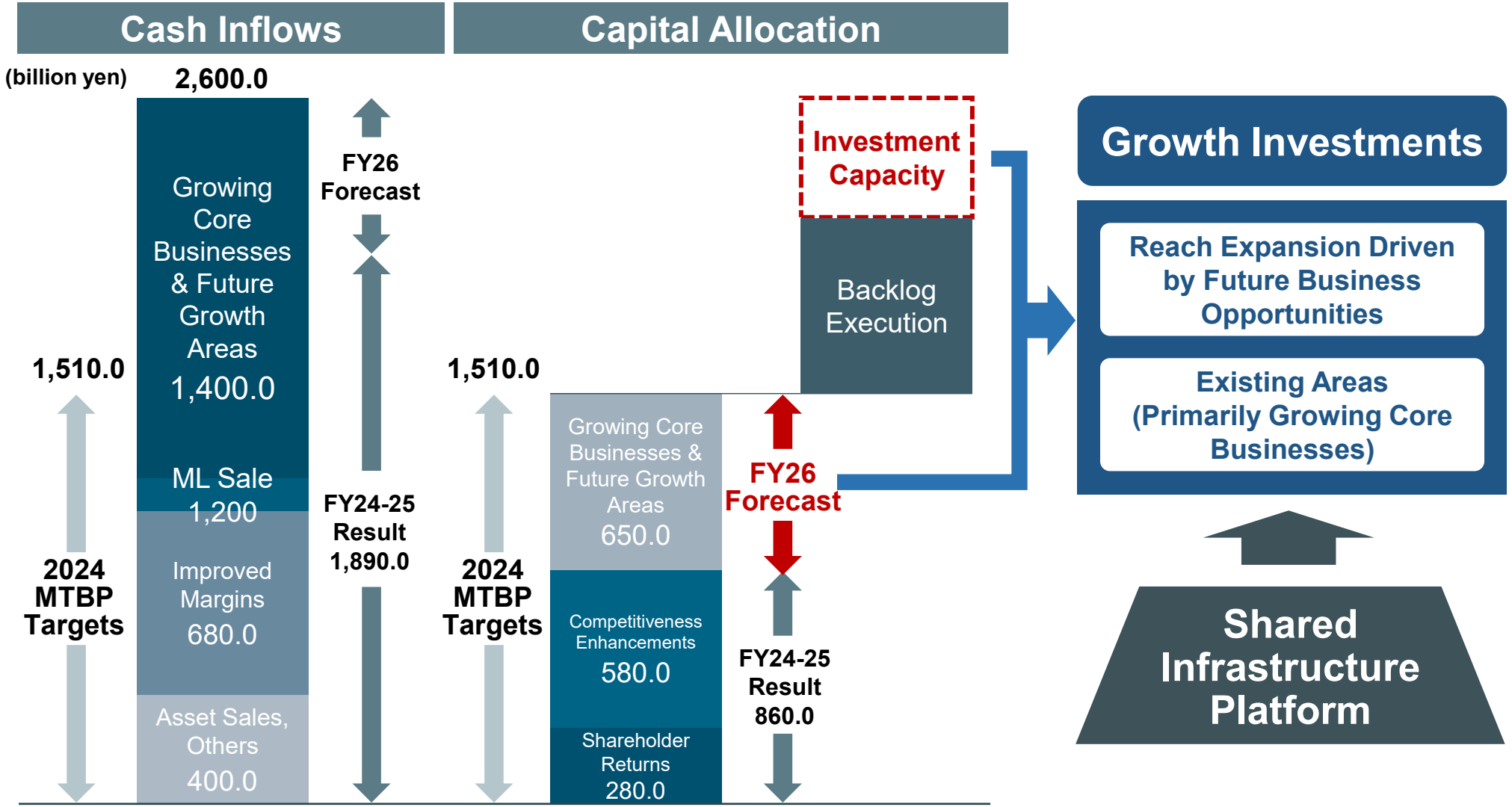
Aim of Group-Wide Optimization

■ **Unlock new profit with slim business operations (vertical) and synergies among businesses (horizontal)**

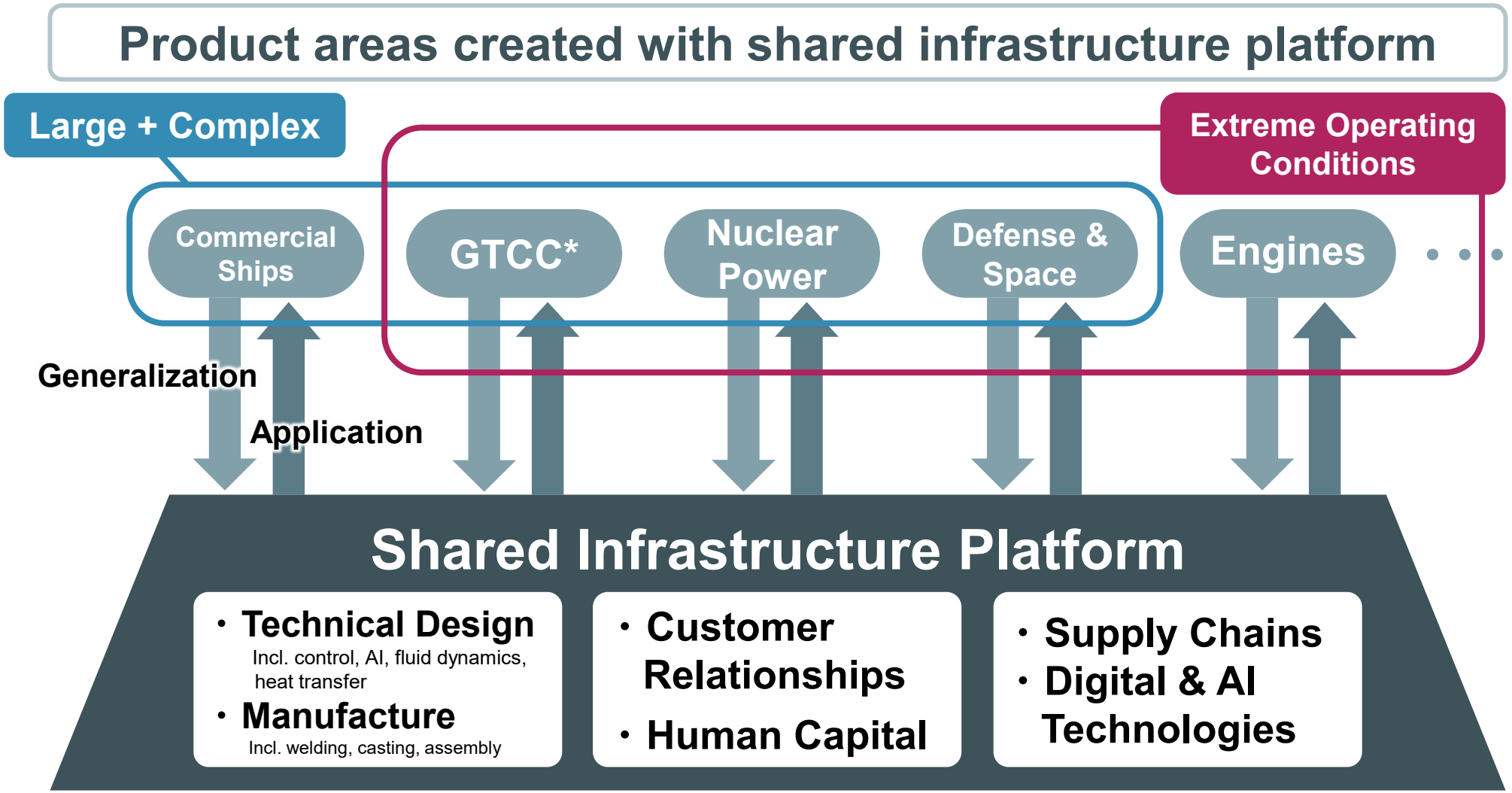


Strengthen Growth Investments

Allocate unlocked profit to growth investments, establishing virtuous cycle



- Leverage shared infrastructure platform to drive growth while creating synergies among businesses



*GTCC: Gas Turbine Combined Cycle

Areas of Growth Investment

MITSUBISHI HEAVY INDUSTRIES

- **Proactively expand reach into new business areas leveraging shared infrastructure platform**

Examples of Reach Expansion

Direction of Reach Expansion

Counter Drone

- Developed production prototype in 3 months

Advanced GTCC

Fast Reactors

Unmanned Systems (Air, Land, and Sea)

Hypersonic Defense

Combined CO_2 Capture Systems

Resilience

Edge Data Centers

Defense Logistics

Hydrogen Production

Spent Fuel Casks

Waste-Heat Recovery Heat Pumps

Energy Storage/ Cooling Modules

Communications Networks

Satellites

Existing Business Areas

GTCC

Nuclear Power

Engines/ HVAC

Data Centers

Machinery Systems

Defense

Space

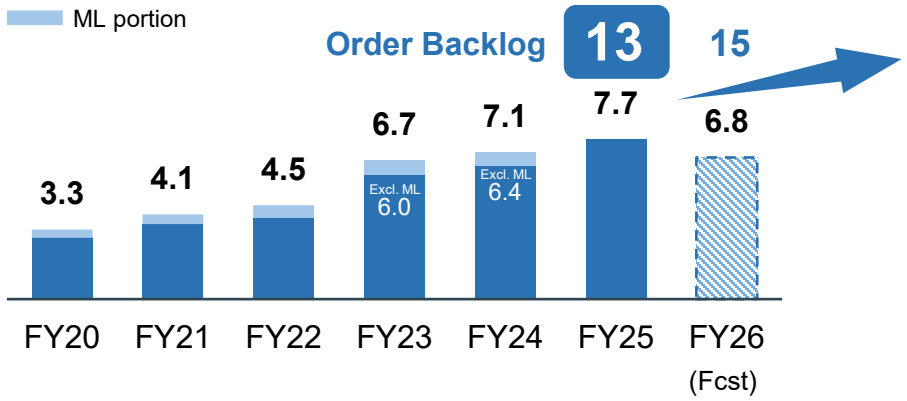
Shared Infrastructure Platform + Open Innovation

3. 2024 MTBP Progress Update

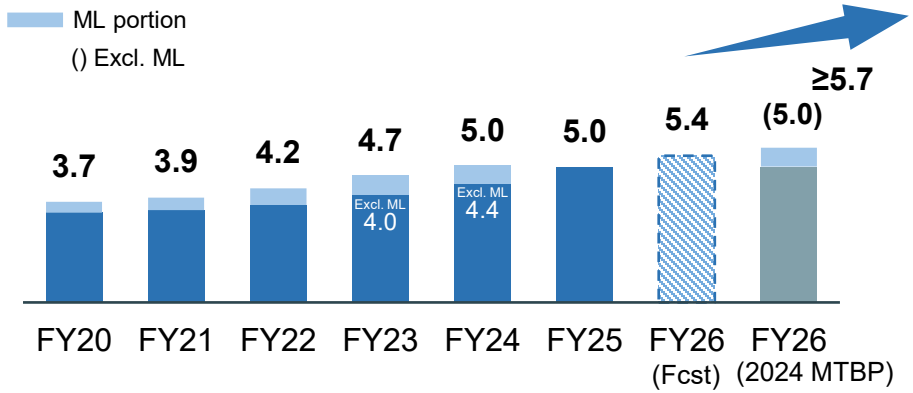
3. 2024 MTBP Progress Update

- Achieved 2024 MTBP business profit margin and ROE targets one year ahead of schedule
- Aiming to reach even higher profit levels than original 2024 MTBP targets in FY26

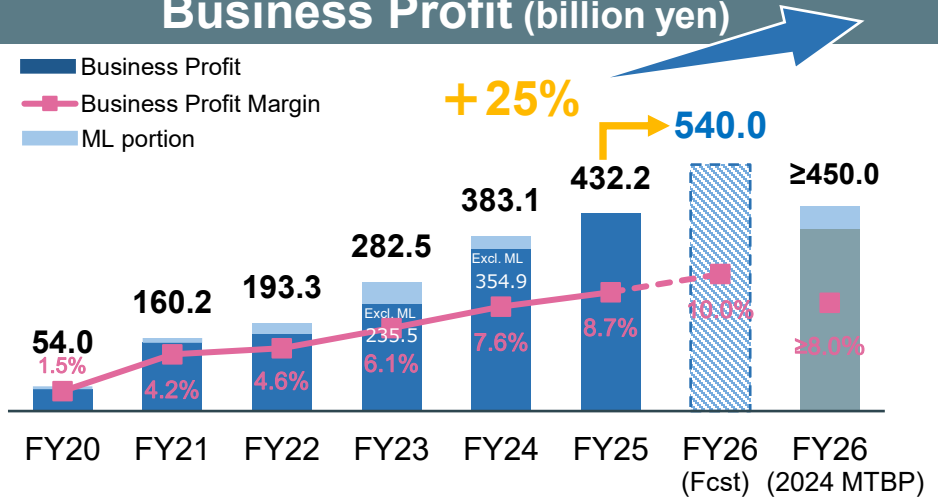
Order Intake (trillion yen)



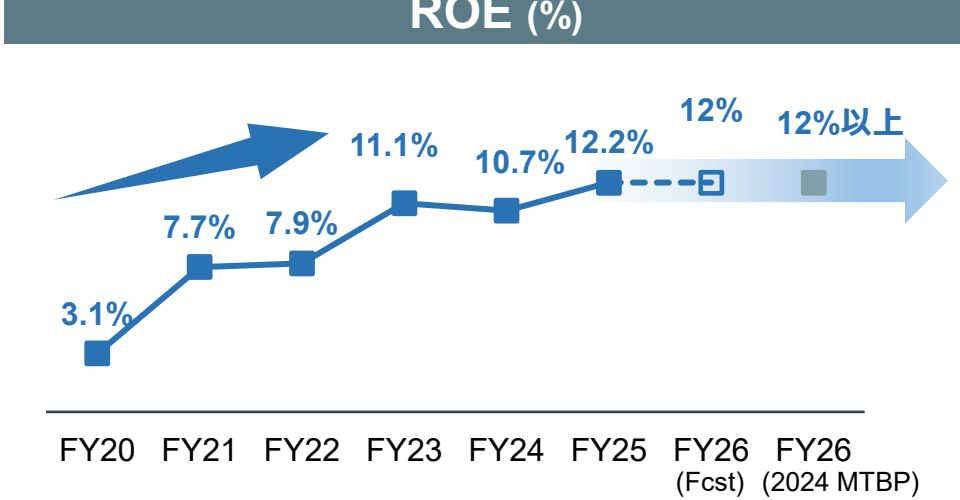
Revenue (trillion)



Business Profit (billion yen)



ROE (%)



*ML: (former) Mitsubishi Logisnext

Strengthen Portfolio Management

- Focus on steady execution of order backlog in Growing Core Businesses
- Shift efforts in Future Growth Areas to reflect market needs

Initiatives to Achieve 2024 MTBP	Businesses	Main Actions
Focus Areas		
(1) Ensure Steady Performance and Achieve High Profitability in Growing Core Businesses	GTCC Nuclear Power Defense	・Establish FIC[1] ・Enhance productivity ・Deploy capital investments ・Expand and develop human capital
(2) Commercialize Future Growth Areas	Data Centers Resilience Infrastructure	・Commercialize new businesses ・Address needs for high-level security measures ・Achieve S+3E[2]
(3) Enhance Businesses' Competitiveness	Energy Systems[3] Plants & Infrastructure Systems Industrial Solutions[3] Aircraft, Defense & Space[3]	・Increase profitability and create synergies ・Enhance after-sales services

1 Factory Innovation Center 2 Safety, Energy Security, Economic Efficiency, and Environment 3 Businesses other than those in sections (1) and (2)

Growing Core Businesses: Establish Factory Innovation Center

- **Drive Group-Wide Optimization in both vertical and horizonal directions, with production capacity expansion as sole focus**

Lead Time Reduction (increase throughput)

GTCC | **Nuclear Power** | **Defense**

Vertical

Sales → Technical Design → Purchasing → Manufacturing → AS[1]

Horizontal

Sales → Technical Design → Purchasing → Manufacturing → AS

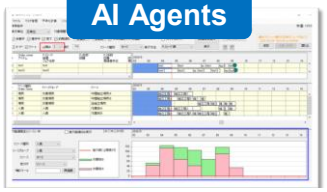
Sales → Technical Design → Purchasing → Manufacturing → AS

Resource Sharing, Insourcing (increase profitability)

Factory Innovation Center

Optimized Production Plans (facilities, personnel, materials)

AI Agents

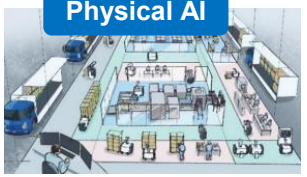


Consolidate all information in value chain

Automated Manufacturing

Collaborative Robots

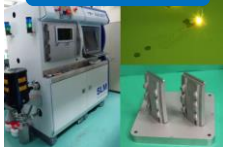
Physical AI



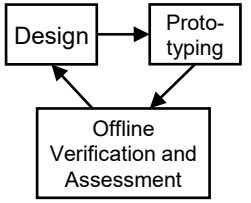
Automation of In-Factory Logistics

Validation and Deployment of Latest Technologies

AM[2] Tech



In-Process QA

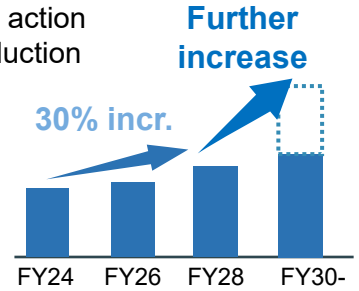


1 AS: After-Sales Services 2 AM: Additive Manufacturing

Optimize entire process while deploying capital investments in core parts manufacture

Gas Turbine Production Capacity Expansion

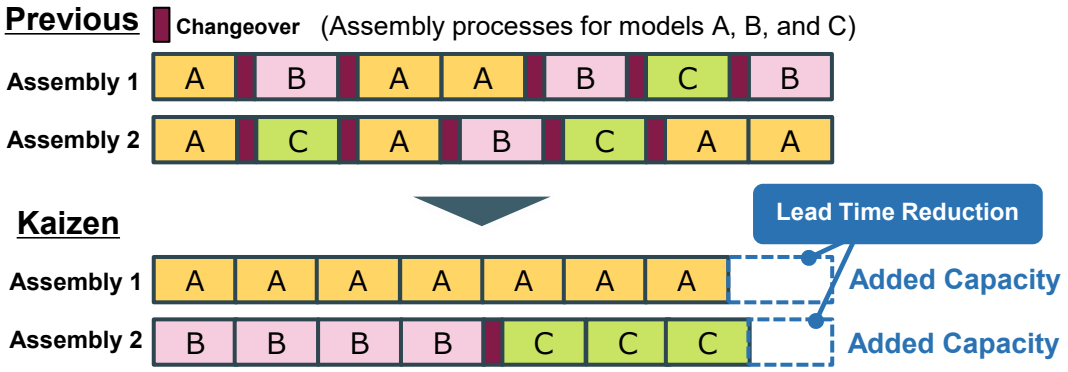
- By implementing more than 1,000 kaizen action items, gained line of sight to expand production capacity by 30%
- Further expansion in progress

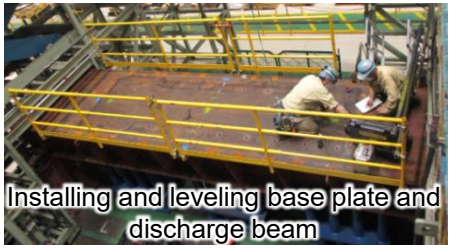


Gas Turbine Production Capacity

Reduction of Changeover Time

- Continuous manufacturing of same models





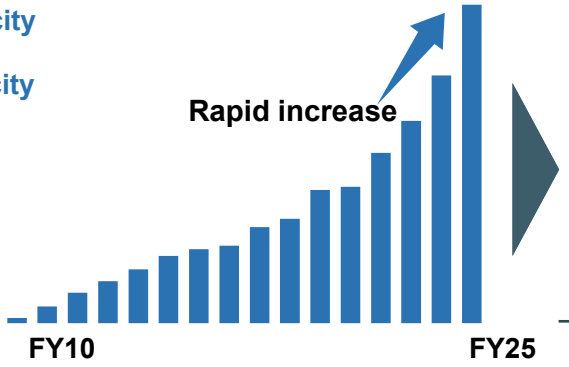
Photos of Changeover Process

Upgrades to Core Part Manufacturing Facilities

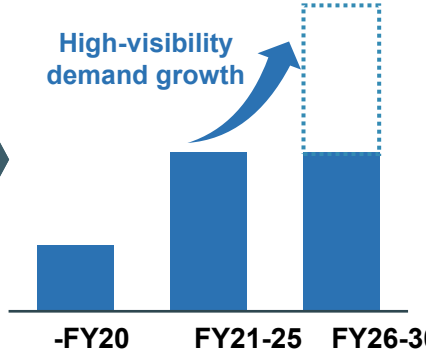
- Demand to increase for after-sales services due to high volume of original equipment orders
- Upgrading precision casting facility

Precision Casting Facility

Total J-Series Unit Orders



J-Class Units Covered by AS

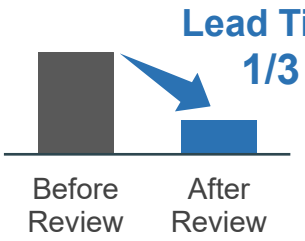


Improve business execution capabilities with shared infrastructure platform

Missile System Production Increase

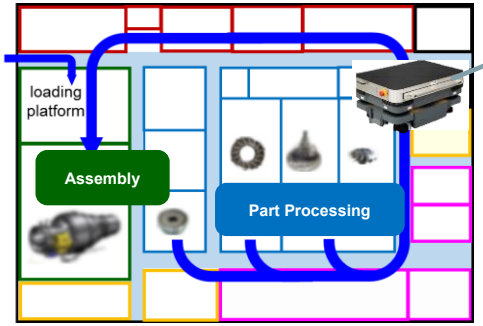
- Utilizing IT and AI to enhance productivity
- Reduced lead time to 1/3 previous

New Factory in Nagoya Area

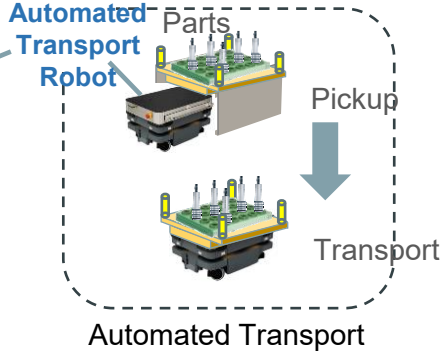


Streamline Flow of Materials

- Optimize production process using simulations
- Use robots to reduce changeover time for machining and assembly



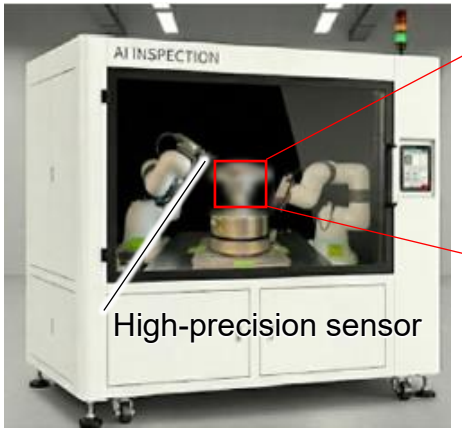
Layout

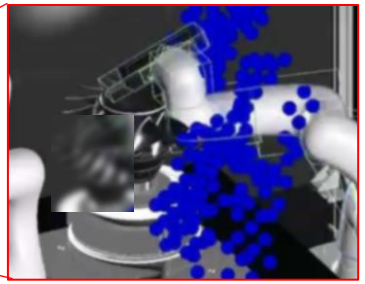


Automated Transport

Automated In-Process Inspection of Critical Parts

- Automated detection of defects with physical AI





Automated detection of inspection targets

Conceptual Diagram of Inspection System
(Scheduled to begin operation in FY27)

Automated anomaly detection with AI

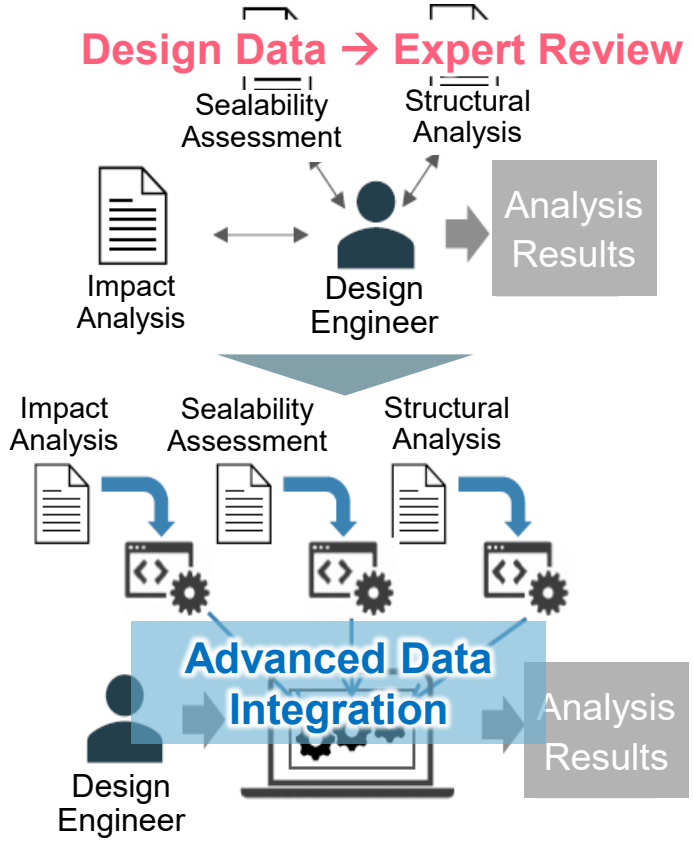
Sensing data

- **Enhancing business execution capabilities with digital technologies and manufacturing process kaizen**

Spent Fuel Cask* Production Increase

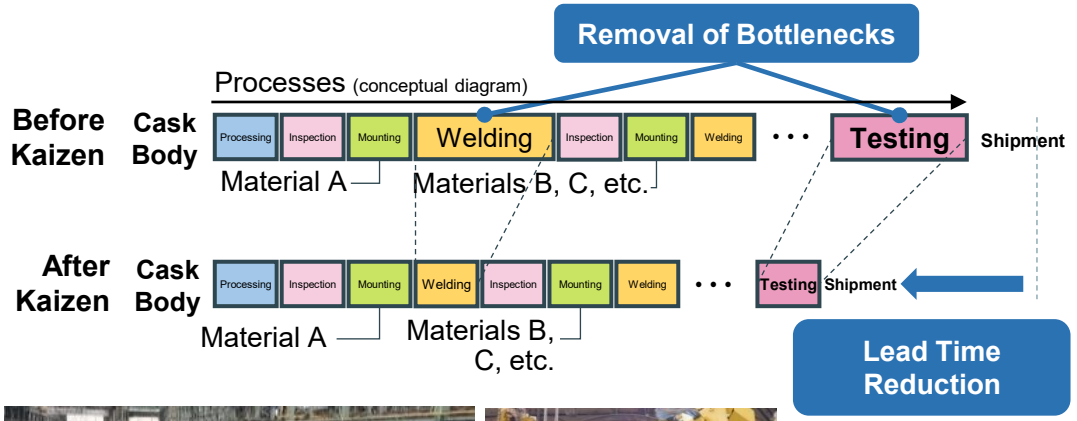
Reduce Engineering Process Time

- 30% reduction through standardization of technical design tools

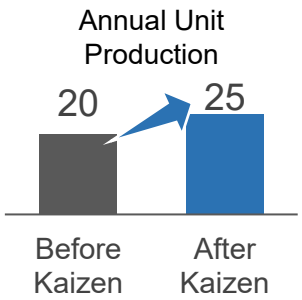


Production Capacity Expansion

- Align takt time to expand production capacity by 25%
  - Welding method kaizen
  - Upgrades to testing equipment



Cask Production Line

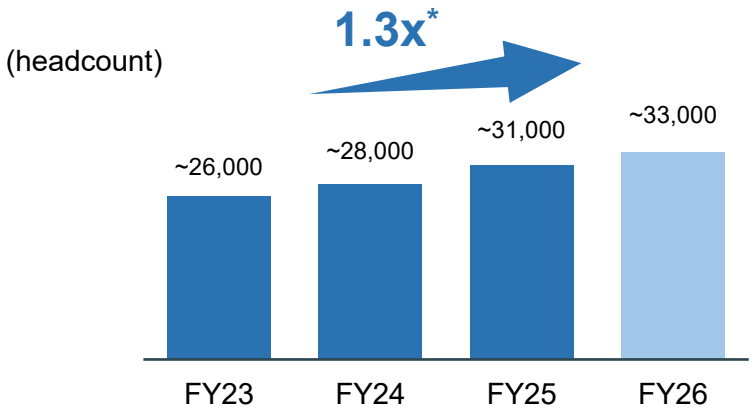


*Containers to temporarily store spent fuel before reprocessing. Equipment for which high reliability is essential and which requires type certification from the Japan Nuclear Regulation Authority. To date, only two Japanese companies have received certification.

Growing Core Businesses: Expand and Develop Human Capital

- **Increase personnel levels in anticipation of production increases, and deploy comprehensive education programs**

Personnel in Growing Core Businesses



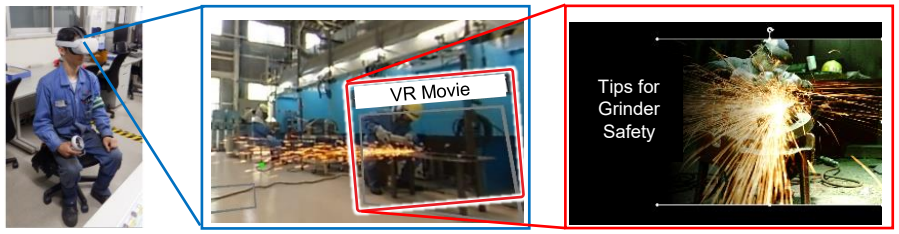
GTCC: Maintenance Personnel

- Develop skills by leveraging Global Training Center expansion
- Enhance OJT with remote-monitoring tools

GT maintenance instruction

Nuclear Power: Technical Personnel

- Early competency development through comprehensive courses in nuclear engineering and VR training for factory tasks



Factory task training with VR

Defense: Mid-Career Hires

- Launched Technical Skill Development Center
- Ensure rapid readiness of additional hires by identifying pre-assignment skill levels and supporting skill development

Technical Skill Development Center

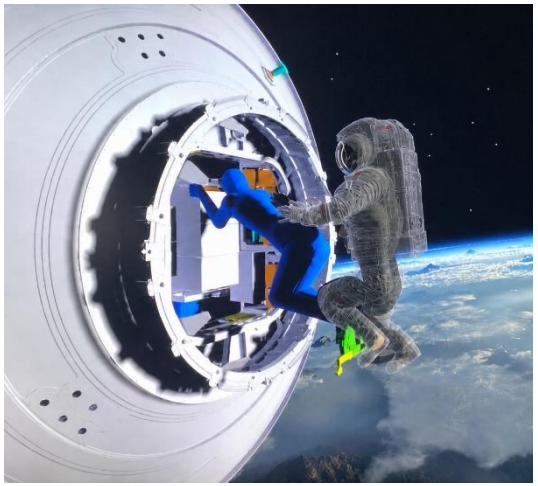
*FY23 actual → FY26 forecast

Growing Core Businesses: Transfer Manufacturing Technologies & Skills

- **Supplement knowledge and experience with AI and digital technologies to streamline transfer of manufacturing technologies and skills**

Technical Design

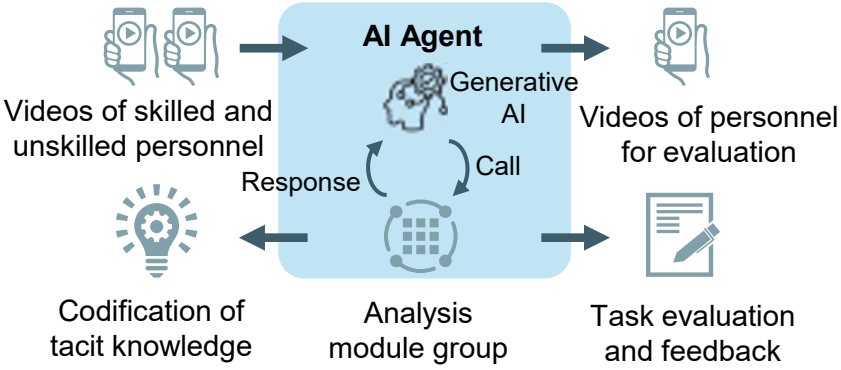
- Apply VR[1] to design tasks reliant on seasoned expertise
- Streamline drawing and workability reviews through full-scale VR visualization



VR visualization of next-generation transfer vehicle

Manufacturing

- Codify tacit skills into explicit knowledge with AI
- Enable self-driven learning with AI-based evaluation of junior personnel's task execution
- Reduce training time by 30%



AI-enabled codification of welding expertise

- Guide personnel to correct position using AR[2] glasses
- Eliminate manual dimension measurement at work site

AR visualization of casting models

AR glasses utilization during task

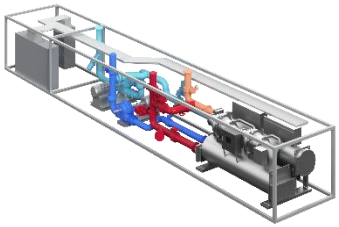
1 VR: Virtual Reality 2 AR: Augmented Reality

Future Growth Areas

- **Ramping up efforts to seize new business opportunities improving resilience and stability of infrastructure**

Commercialize Products for Data Centers

Modularization



Cooling module

High-Level Security Needs

DIAVAULT

High-security compliant edge data center

User

Large Cloud System

- Convenience
- Centralized, high-speed computation
- Information utilization

Combined Use

Distributed System

- Highly customizable
- Low latency
- High security
- High resilience

Resilience Infrastructure Initiatives

Achieve S+3E

Significant Cost Reductions in CO_2 Capture Systems

- Leverage modularization to optimize entire value chain, primarily manufacturing, transport, and construction

Supply ORC[2] Systems for Next-Generation Geothermal Projects

- Provide ORC systems to Fervo Energy – Next-Generation Geothermal Projects
- Reliably provide economical renewable energy

Geothermal power plant site in U.S.

1 Safety, Energy Security, Economic Efficiency, and Environment 2 Organic Rankine Cycle

Competitiveness Enhancements: Increase Profitability and Create Synergies

Increase profitability while generating synergies among business units

Utilize Human Resources across MHI Group

GTCC
Enhance engineering capacity for large projects

Nuclear Power
Expand large-component machining capacity

Defense
Risk management for Australian frigate program

Develop New Business Areas

Growth Strategy Office
Waste-Heat Recovery Heat Pump
(under development)

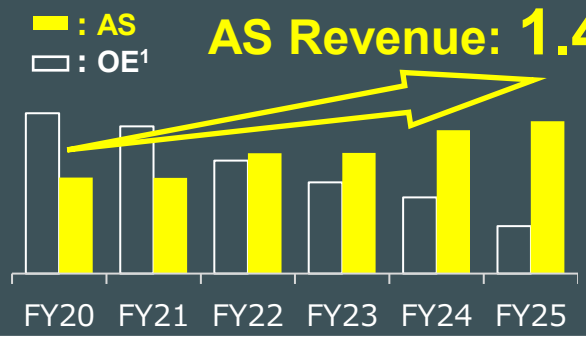
Plant Engineers

Manufacturing Skills

Experience & Know-How

Steam Power

Transition to AS-Centric Business Model
Increase Profitability



Steam Systems

Turbo Compressors

Heat Pumps

Turbochargers

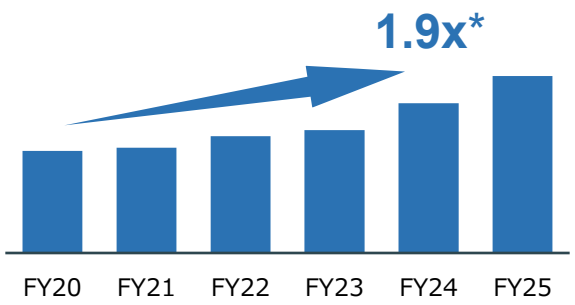
HVAC[3]

1 OE: Original Equipment 2 FY20 actual → FY25 actual 3 HVAC: Heating, Cooling & Air Conditioning

Competitiveness Enhancements

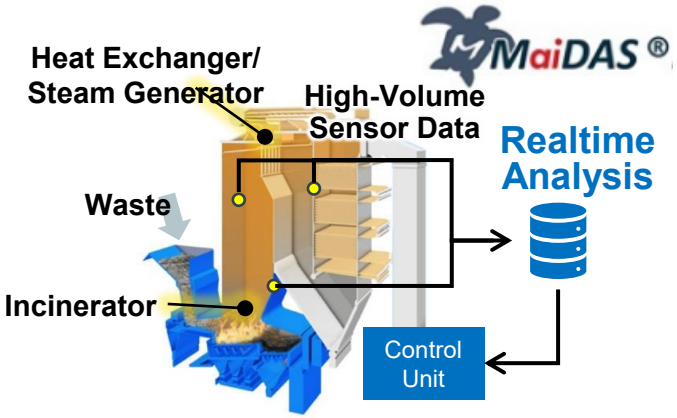
Enhance after-sales services leveraging digital technologies

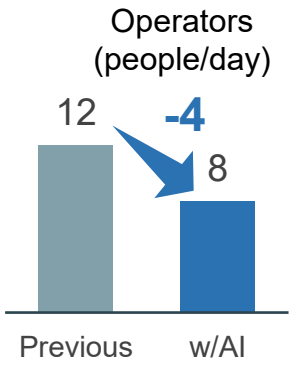
After-Sales Services Revenue



Automated Operation of Waste-to-Energy Plants

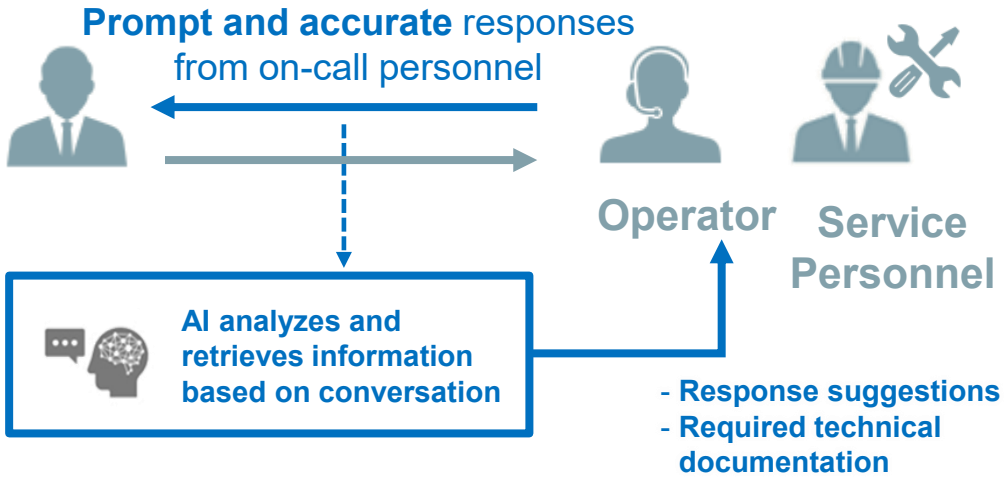
- Integrated plant operation system MaiDAS®
- Automated operation integrating combustion, AI, and control technologies



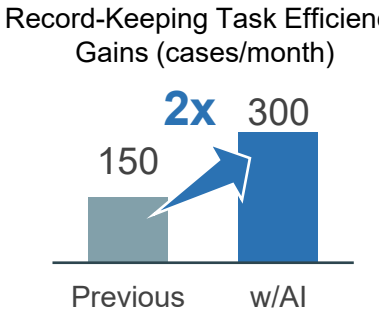


Efficiency Gains in On-Call Response for Box Making Machines

- Utilize generative AI and voice recognition to automate and improve quality & speed of inquiry response



EVOL Corrugating Machine



*FY20 actual → FY25 actual

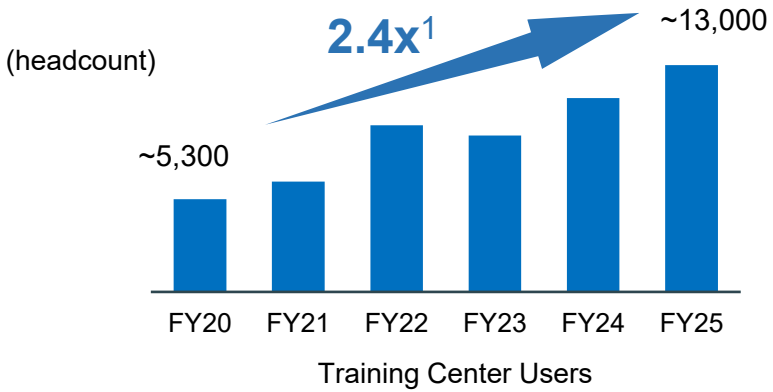
Strengthen Human Capital

- **Increase manufacturing and Digital Innovation (DI)-proficient personnel's skill levels to address changing societal and customer needs**

Transfer Manufacturing Technologies & Skills

Develop and Enhance Human Resources

- Launch new educational programs
- Transform junior staff and mid-career hires into immediate contributors

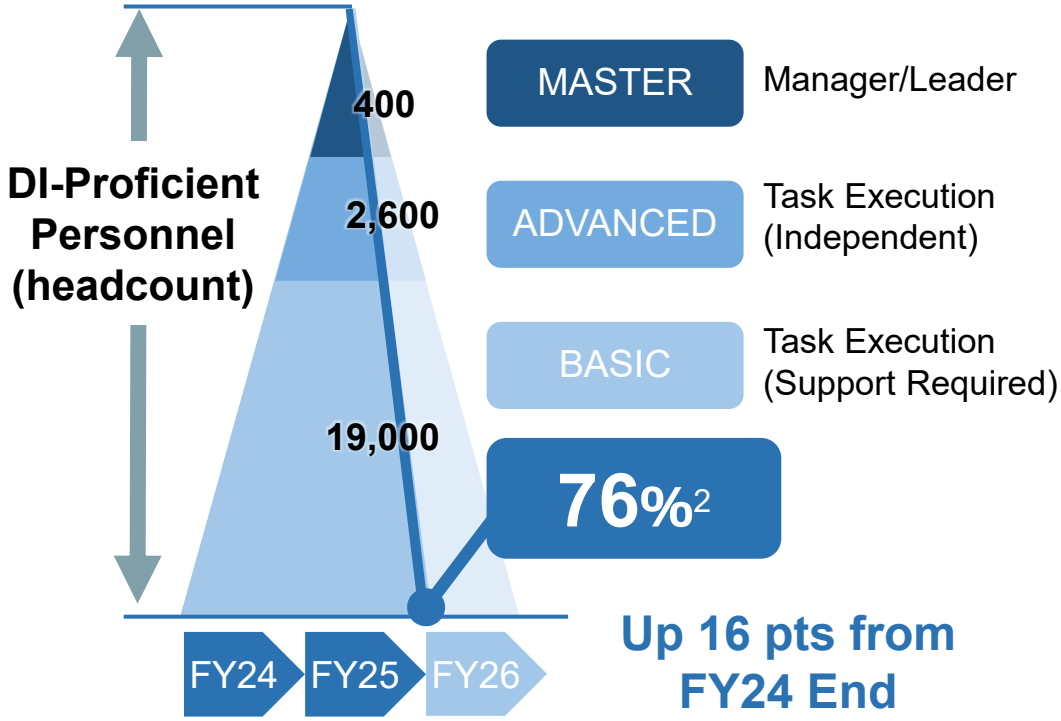


Increase Sharing between Technical Areas

- Establish community of welding, processing, and assembly specialists
- Create and share ideas about problem solving

Develop DI-Proficient Personnel

- In parallel with development of DI-proficient personnel, make digital and AI technologies easier to use, and increase operational efficiency
- Operational efficiency gains: ¥15 bn in FY25



1 FY20 actual → FY25 actual 2 FY25 end: 16,622 / 22,000

4. Summary

4. Summary

Initiatives to Achieve 2024 MTBP

- During FY2026, strengthen execution capabilities to **reliably manage high order backlog**
- In parallel, **transform company into highly profitable business structure** by implementing Group-Wide Optimization

Set Stage for Long-Term Growth (Direction for Next MTBP)

- Achieve **virtuous cycle of high profitability and growth investments – a key management goal**
- In addition to Group-Wide Optimization, deploy **growth investments** aimed at long-term customer value creation beyond existing frameworks, as part of Reach Expansion initiative
- Aim to **achieve step-change growth** by cultivating new business opportunities while leveraging shared infrastructure platform to expand our reach to new areas

Appendix

Financial Indicators

	FY2024	FY2025	FY2026
Revenue	¥5.0 tr	¥5.0 tr	**¥5.4 tr**
Business Profit (%)	¥383.1 bn (7.6%)	¥432.2 bn (8.7%)	**¥540.0 bn (10.0%)**
ROE	10.7%	12.2%	**12%**
Total Asset Turnover	0.78	0.67	**0.7**
Debt/EBITDA Ratio	1.2x	0.9x	**0.7x**
Dividend per Share*	¥23	¥25	**¥29**

*Adopted dividend on equity ratio (DOE) has shareholder return policy aiming to achieve progressive dividend in medium to long term (announced May 28, 2024)

Business Highlights (1/4)

Energy Systems

Booked Large-Scale GTCC Project for Taiwan's Tung Hsiao Power Plant

- Booked large-scale GTCC power plant with total generation capacity of 2.8 GW using state-of-the-art JAC (J-Series Air-Cooled) gas turbines
- Project will upgrade existing facilities and increase output while reducing environmental impact

Successfully Completed 50% Hydrogen Blend Test with Georgia Power

- Successfully completed 50% hydrogen blend testing on large frame M501GAC natural gas turbine at Georgia Power's Plant McDonough-Atkinson
- CO_2 emissions reduced by approximately 22% compared to 100% natural gas
- Helped Georgia Power reduce carbon emissions

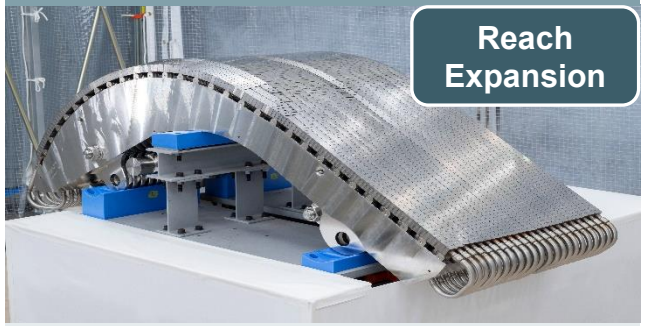
Booked Boiler Equipment Upgrade at O Mon 1 Thermal Power Plant in Vietnam

- Leveraged technical capabilities as boiler OEM to book project converting fuel from oil to natural gas
- In addition to reducing CO_2 emissioans, additional installation of SCR system will reduce NOX

MET Supercharger Production at Licensee Mitsui E&S Reached Total of 100 Units

- Licensed production of MET superchargers at Mitsui E&S reached total of 100 units
- Gradually expanding licensed production to include other MET models. Planning to extend support to broader product lineup.

Completed First Outer Vertical Target for ITER Project Divertor



- Completed manufacturing of first Outer Vertical Target (OVT), a key component of divertor for ITER experimental fusion reactor
- Contributed to progress of ITER project by manufacturing targets, which require high precision fabrication and processing technology

Booked Pumps for Sizewell C Nuclear Power Station in UK

- Booked order for 5 pump models – totaling 34 units – for Sizewell C Nuclear Power Station Units 1 and 2
- Contributing to safe and reliable operation of nuclear power plants around world through supply of equipment

Business Highlights (2/4)

Plants & Infrastructure Systems

Expanding Sales through Strategic Partnerships: Booked Fertilizer Plant in Turkmenistan

Strategic Partnership

- Jointly booked order for largest fertilizer plant in Turkmenistan through partnership with Turkish company, Çalık Group.
- Project will decrease environmental impact while increasing production of urea fertilizer by installing CO2 capture system at plant

Construction Began on Hydrogen-Based Ironmaking Plant Targeting Net-Zero CO2 Emissions

Energy Transition

- Construction began on hydrogen-based industrial-scale demonstration plant in Linz, Austria
- Plant will contribute to decarbonization with MHI proprietary Hydrogen-based Fine-Ore Reduction (HYFOR®) process and smelter technology

Booked UK's First Carbon Capture Facility for Cement Plant

Energy Transition

- Plant will be first in Europe to deploy proprietary Advanced KM CDR Process™ CO2 capture technology
- Contributing to UK government's carbon capture, usage, and storage (CCUS) cluster program*

*Captured CO2 to be permanently stored in depleted gas fields under Liverpool Bay

Booked Consecutive Orders for Overseas Waste-to-Energy Facilities

Reach Expansion

- Booked consecutive orders for key equipment for Taichung Wenshan Waste-to-Energy Plant (Taiwan) and boiler retrofit for Tuas South Incineration Plant (Singapore)
- Leveraging technical design, construction, and after-sales services know-how acquired at existing facilities to stabilize operations at these plants

New Train with Superior Design and Environmental Performance Began Commercial Operation

Competitiveness Enhancement

- New L00 Series train manufactured at Mihara Machinery Works in Hiroshima for Seibu Railway's Yamaguchi Line began commercial operation
- Contributing to enhancement of public transportation, which supports people's daily lives, with new train featuring superior design and environmental performance

EVOL Corrugating Machine Reached 700 Units Sold, After-Sales Services for Box Making Machines Grow in North America

After-Sales Services

- EVOL corrugating machine – which boasts some of world's fastest production speeds (400 sheets/minute) – reached 700 units sold around world
- Leveraging augmented reality (AR) and digital transformation (DX) to grow after-sales services in North America

Business Highlights (3/4)

Industrial Solutions

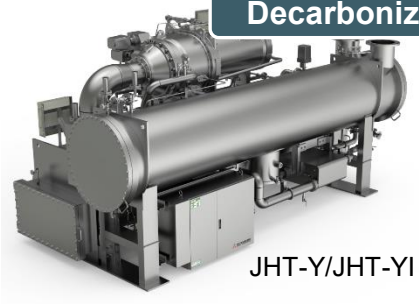
Exhibited at Supercomputing2025 in US in First for Data Center Business

Data Centers

- Exhibited for first time at international conference on high-performance computing that attracts more than 18,000 participants from around world
- Showed range of MHI solutions for data centers, including cooling and power generation systems

Large-Capacity Centrifugal Chiller Won "Minister of Economy, Trade and Industry Award" at 2025 Energy Conservation Grand Prize Awards

Decarbonization



JHT-Y/JHT-YI Series

- System utilizes refrigerant HFO-1234yf, which has low environmental impact
- Reduces electricity consumption and CO2 emissions by approximately 20% per year (compared to conventional models)
- Significantly reduces environmental impact aiming to support achievement of Carbon Neutrality

Launched 450 kW Gas Cogeneration System Capable of Hydrogen Co-Firing

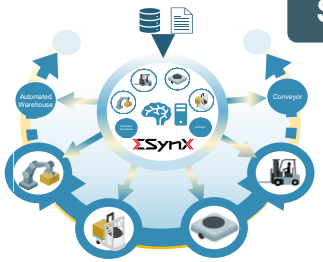
Energy Transition

SGP M450

- System jointly developed with Toho Gas
- Allows for switch to hydrogen co-firing with minimal on-site modifications

Logistics Solutions

Smart Connections



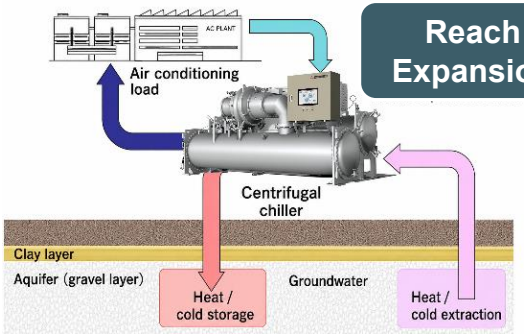
ΣSynX concept

manned forklift

- Developing defense logistics solutions as part of automated and intelligent logistics solutions efforts
- Proposing a wide range of solutions contributing to automation and work safety during cargo loading and unloading

Aquifer Thermal Energy Storage System Began Operation in Japan's Tokai Region, Following Kansai Region

Reach Expansion



- System uses gravel and groundwater stored in aquifers deep underground as large heat storage tank
- Effectively utilizes energy by enabling circulation of heat across seasons

Established Manufacturing Facility with Sales Partner in India, A Rapidly Growing Market for HVAC Systems

Strategic Partnership

- Established local supply chain serving local markets, further accelerating business expansion in India, where demand for HVAC systems is growing
- New subsidiary will strengthen sales network and production, provide regular after-sales services, and expand supply

Business Highlights (4/4)

Aircraft, Defense & Space

Missile Systems Business

Production Increase

Type 25 Surface-to-Ship Guided Missile

Type 25 Hyper Velocity Gliding Projectile

- Made steady progress on projects such as Stand-Off Missile Capabilities Program
- Deployed Type 25 Surface-to-Ship Guided Missile and Type 25 Hyper Velocity Gliding Projectile

Image prepared by MHI based on launch test photo available on Japan Ministry of Defense website

Japan, UK, and Italy Jointly Developing Next-Generation Fighter Aircraft

Reach Expansion

- Edgewing Systems Limited, a joint venture* among Japan, UK, and Italy was established, setting up framework for international joint development

*Investors: BAE Systems, Leonardo, and Japan Aircraft Industrial Enhancement

Image from "Progress and Budgets for Fundamental Reinforcement of Japan's Defense Capabilities (2025 version), Japan Ministry of Defense

41 Seat Configuration Upgrade Contributing to Sustainable Development of Regional Aviation

After-Sales Services

- CRJ450 offers premium services with enhanced cabin comfort
- United Airlines to deploy new model

Naval Ship Business

Production Increase

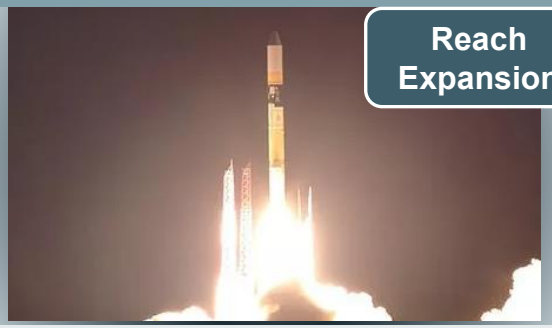
Submarine "Chogei"

Frigate "Yubetsu"

- Delivered Mogami class frigates "Niyodo" and "Yubetsu"
- Delivered Taigei class submarine "Chogei"
- Making steady progress in construction of subsequent naval ships

Launch Vehicle Business

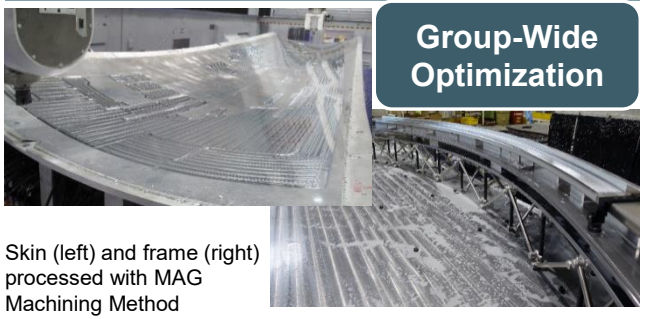
Reach Expansion



- Successfully launched H-IIA Unit 50
- Transitioned to H3, Japan's new mainstay, large launch vehicle and successor to H-IIA
- Aiming to offer launch services offering high reliability, payload capacity, and cost competitiveness

Reduced Cost and Environmental Impact of Aircraft Skin Panel Manufacturing

Group-Wide Optimization



Skin (left) and frame (right) processed with MAG Machining Method

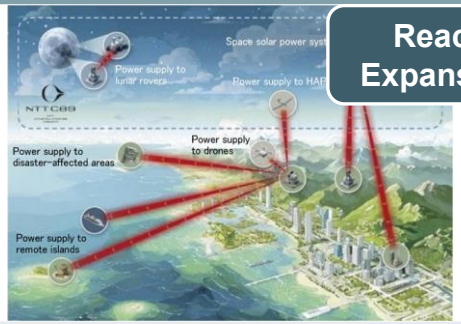
- Developed MAG* Machining Method, which controls machining and automatically rectifies machining paths using ultrasonic measurement
- Balances environmental impact reduction with cost reductions (approx. 30% reduction) vs. conventional chemical milling methods

*MAG: Mitsubishi Advanced Green

Technology Development Highlights

Developed Laser Wireless Power Transmission System Stably Transmitting Power over Distances Exceeding 1 km in Outdoor Environments

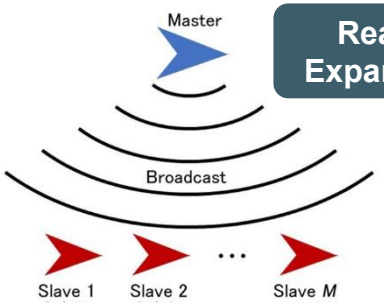
Reach Expansion



- Developed laser power transmission method reducing atmospheric turbulence
- Using near-infrared laser, successfully transmitted 1 kW and received 152 W over distance of 1 km in outdoor environment

Developed Navigation and Formation Control of Multiple Autonomous Vehicles Based on Broadcast Control

Reach Expansion



- Developed swarm control system that assigns role of base station to one vehicle, which transmits communications to all other vehicles
- Achieved communication system adaptable to changes in number of vehicles

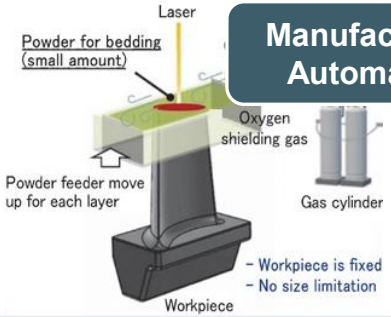
Developed Immersive Experience Technology Using XR (Cross Experience) Techniques

AI & Digital Technologies

- Simulates experience of boarding and piloting an aircraft using VR and small-motion systems
- Enables physical experience of product value at the product/service planning stage

High-Accuracy Hybrid Printing on Large Structures Enabled by Chamber-Free Additive Manufacturing

Manufacturing Automation

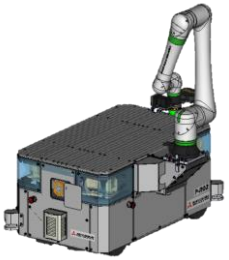


- Developed PBF-based AM process enabling formation of large components free of chamber size restrictions
- Capable of direct lamination of microstructures onto curved product surfaces

AM: Additive Manufacturing
PBF: Powder Bed Fusion

Developed Autonomous Mobile Collaborative Robots, Automating and Reducing Process Times in Manufacturing

Manufacturing Automation



- Development robots capable of moving flexibly and autonomously through factories while collaborating with personnel
- To be implemented principally at MHI Group manufacturing sites for welding, assembly, and other processes

Developed Ultrasonic Testing to Significantly Reduce Inspection Lead Times

After-Sales Services Enhancement

- Self-propelled system climbs vertical piping and performs automated laser-based outer-diameter measurement and continuous wall-thickness measurement using ultrasonic wheel probe
- Enables creep evaluation along entire pipe length and efficient remaining-life assessment


MITSUBISHI
HEAVY INDUSTRIES