# 2021 Medium-Term Business Plan Progress (FY2021-2023)

# October 29, 2021 Seiji Izumisawa, President & CEO





- 2021 Medium-Term Business Plan is progressing smoothly
- Business environment recovering. Continuing efforts to improve profitability.
- Accelerating growth area initiatives:
  - Working to meet diverse regional needs in the Energy Transition space
  - Making steady progress toward launching New Mobility & Logistics businesses
- MHI Group is proud to declare our commitment to achieve Carbon Neutrality by 2040



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# I. 2021 MTBP Overview

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2021 MTBP (FY21-23)		
Strengthen profitability	Develop growth areas	

### **Profitability** Business profit margin 7% ROE 12%

**Growth** -New business revenue-100 billion yen by FY23 1 trillion yen by FY30

### **Financial stability**

Total assets turnover 0.9 Maintain current level of interest-bearing debt

### **Dividends** Record-high dividend per share

# **II. Strengthening Profitability**

### **Progress Toward FY2023 Targets**



- Making good progress in line with plan toward achievement of FY2023 targets [(1) through (4) in the chart below]
- Implement new profitability improvements to compensate for delayed recovery in Commercial Aviation Aero Structures [(5) in the chart below]

Busi	iness Profit (bn yen)		Path to FY2023 Target Achievement
160.0	(1) Decreased profit in Aero Structures (3) (4)	<ul><li>(1) COVID-19 recovery</li><li>(2) Existing business growth</li></ul>	<ul> <li>Logistics, Thermal &amp; Drive Systems:</li> <li>Expecting return to pre-COVID levels during FY21</li> <li>Aiming for growth outpacing market recovery in growth areas (Logistics Systems and HVAC) by strengthening sales networks, expanding solutions portfolio, and innovating products</li> <li>Aero Engines:</li> <li>Recovering gradually. Increase in-house manufacturing capability with new Nagasaki Plant.</li> <li>Commercial Aviation Aero Structures:</li> <li>Recovery delayed. Continue fixed cost level optimization.</li> </ul>
Busines	Business profit s margin 7%	(3) Profitability improvements & organizational transformation	<ul> <li>Reorganize business organizations. Optimize business portfolio.</li> <li>Grow after-sales service business through such efforts as DX utilization and resource reallocation</li> </ul>
margin 4%		(4) SG&A reductions	<ul> <li>Streamline corporate functions through integration with Mitsubishi Power</li> <li>Continue asset management efforts</li> </ul>
FY2021 Forecas	FY2023 St Target	(5) New profitability improvements	<ul> <li>Capture new demand arising from changing markets (Metals Machinery, Machinery Systems, and others)</li> <li>Expand business opportunities through businesses acquired through M&amp;A (Naval &amp; Governmental Ships, CRJ)</li> </ul>

- Aero Engines and Logistics, Thermal & Drive Systems recovering. Implementing profitability improvements in line with recovery.
- Aero Structures recovery delayed. Continue shoring up business fundamentals in anticipation of future recovery.



### (2) Existing Business Growth



Top-line already returning to pre-COVID levels. Aiming for growth in FY2023 outpacing market recovery.

Business		Key Initiatives	1H FY21 Actions	Actions in 2H & Beyond
Log Revenue 500	gistics Systems (bn yen)	Reinforce sales networks	<ul> <li>Deployed EQD<sup>1</sup> sales methodology to existing networks</li> <li>Grew equipment rental business</li> </ul>	<ul> <li>Increase market coverage by expanding direct sales networks</li> <li>Increase lease and rental market share</li> </ul>
400 300	FY21 FY23	Expand solutions portfolio	<ul> <li>Launched high-efficiency AGF to high customer interest</li> <li>Developed AGF for refrigerated warehouses</li> <li>Launched AI-based human detection systems for large forklifts to high customer interest</li> </ul>	<ul> <li>Expand application of AGV and AGF<sup>2</sup></li> <li>Introduce intelligent and Alenabled components</li> <li>Equipment Depot became a subsidiary of MHI in 2019 ided Vehicle (AGV), Automated Guided Forklift (AGF)</li> </ul>
Revenue	HVAC e (bn yen)	Reinforce sales networks	<ul> <li>Strengthened large centrifugal chiller after-sales service organization in Dubai</li> </ul>	<ul> <li>Expand sales networks in Europe and other regions</li> </ul>
400 300 200		Innovate products	<ul> <li>Launched new VRF<sup>3</sup> to high customer interest</li> <li>Recognized as the Best Brand of Air Conditioners and received award for most satisfied customers in Australia</li> </ul>	<ul> <li>Grow new VRF<sup>3</sup> sales</li> <li>Develop new room and package air conditioners</li> </ul>
100	FY21 FY23		<ul> <li>Heat pump chiller product awarded Grand Prize at Protect the Ozone Layer, Prevent Global Warming Awards. Strong customer interest in Europe.</li> </ul>	3 Variable Refrigerant Flow

# (3) Profitability Improvements and Organizational Transformation(4) SG&A Reductions

### Efforts to achieve FY2023 targets progressing in line with plan

Business	21 MTBP Initiatives	Progress	& Beyond
Steam Power Environmental Plants	<ul> <li>Large shift to after-sales service</li> <li>Fixed cost reductions</li> <li>Reorganize business organizations</li> </ul>	<ul> <li>Transformed into after-sales service- focused organization (Oct 2021)</li> <li>Consolidating boiler manufacturing at Nagasaki Machinery Works (end FY2022)</li> </ul>	<ul> <li>Specialize in services for decarbonization</li> <li>Optimize manufacturing capacity</li> </ul>
Metals Machinery	. Stabiliza profitability by abifting	<ul> <li>Strengthened project management and consolidated organizations and locations. Divestiture of French operations completed.</li> </ul>	
Engineering	<ul> <li>Stabilize promability by shifting to after-sales service</li> <li>Eliminate loss-making EPC projects</li> </ul>	<ul> <li>Stabilizing business structure including by participating in Dubai Metro O&amp;M business</li> </ul>	<ul> <li>Accelerate deployment of decarbonization businesses and shift to after-sales service</li> </ul>
Commercial Ships	<ul> <li>Strengthen shipbuilding engineering</li> </ul>	<ul> <li>Received multiple orders for LNG Gas Fuel Supply Systems</li> </ul>	
Machine Tools		<ul> <li>Completed divestment to Nidec Group (Aug 2021)</li> </ul>	
SG&A	<ul> <li>Targeting 20% reduction</li> <li>Pursue business process optimization, organizational consolidation, and restructuring</li> </ul>	<ul> <li>Streamlined corporate functions through integration with Mitsubishi Power</li> <li>Increased liquidity through asset management initiatives</li> </ul>	<ul> <li>Leverage DX to achieve further optimization</li> <li>Continue asset management efforts</li> </ul>



Actions in 2H



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- Leverage MHI Group's strengths to capture new demand in wake of COVID-19 and drive toward decarbonization
- Grow business opportunities through synergies with businesses acquired through M&A

Business	1H FY21 Order Intake (vs. 1H FY19)	<b>Business Environment</b>	New Initiatives
Metals Machinery	120%	<ul> <li>Rebound in capital investment. Increasing investment in solutions that reduce environmental impact.</li> </ul>	<ul> <li>Reduce CO<sub>2</sub> emissions and expand sales of high-efficiency production facilities</li> <li>Grow after-sales service with such tools as digitalization and predictive maintenance</li> </ul>
Machinery Systems	110%	<ul> <li>Volume of logistics increasing due to economic recovery in U.S. Demand for cardboard increasing</li> </ul>	<ul> <li>Increase sales of high-speed, high-volume box making machine EVOL in U.S. and expand into Japanese and European markets</li> </ul>
Engines	110%	<ul> <li>Demand recovering in emergency power generators for global manufacturers and data centers especially in China</li> </ul>	<ul> <li>Expand bidding targets by obtaining TLC certification<sup>1</sup></li> <li>Expand sales network in China and increase productivity of MHI Group manufacturing facilities</li> </ul>
Naval & Governmental Ships	_	<ul> <li>Mitsubishi Heavy Industries Maritime Systems, Ltd. began operation</li> <li>Demand increasing for minimally-manned and automated technologies including unmanned surface vehicles</li> </ul>	<ul> <li>Expand product lineup (auxiliary naval ships)</li> <li>Increase productivity by promoting PMI</li> <li>Develop next-generation ships and unmanned marine systems with cross-organizational team</li> </ul>
CRJ	_	<ul> <li>Demand for CRJ maintenance strong due to rapid recovery of domestic air travel in U.S., a major market</li> </ul>	<ul> <li>Expand West Virginia Service Center</li> <li>Fill out CRJ after-sales service lineup with Regional One partnership in U.S.</li> </ul>

# **III. Developing Growth Areas**

# **III-1. Energy Transition**

### **Major Market Trends and MHI Group Actions**



	Major Market Trends
U.S.	<ul> <li>Abundant renewable and fossil fuel resources</li> <li>Energy storage demand increasing with growing share of renewables</li> <li>Large enterprise activities stimulated by tax credits</li> <li>Decarbonization tech startups also active</li> </ul>
Europe	<ul> <li>Increasing demand for decarbonization solutions in industrial sectors in EU and surrounding countries</li> <li>U.K. leads with CCS and hydrogen projects utilizing the North Sea</li> </ul>
Asia (excl. Japan)	<ul> <li>Shift from coal to natural gas in short term</li> <li>Renewables, CCS, and low carbon fuel conversion in medium to long term</li> </ul>
Japan	<ul> <li>Large expansion of renewables; sustainable utilization of nuclear power; CO<sub>2</sub> emissions reductions in thermal power (including hydrogen/ammonia mixed firing and CCUS)</li> <li>Government formulated Green Growth Strategy and kicked off 2 tr yen Green</li> </ul>

### **MHI Group Actions**

Drive technology development toward commercialization

Invest broadly to build hydrogen & CO<sub>2</sub> solutions ecosystems

Contribute to decarbonization in all industries with a tailored approach addressing regional needs



# Build an innovative solutions ecosystem to realize a carbon neutral future



### **Energy Transition Initiatives**



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#### Progress of Projects in which MHI is Participating

- <u>Customer needs increasing for</u> <u>decarbonization of existing thermal</u> <u>power plants</u>
- Needs for upstream oil & gas customers increasing as well
- <u>Completed first restart of nuclear power</u> <u>plant in operation for over 40 years</u> (Mihama Nuclear Power Plant Unit 3)
- <u>Multiple energy storage projects in</u> <u>development in U.S. showing progress</u>
- <u>FEED<sup>1</sup> studies in U.K., Germany, and</u> <u>Australia also progressing</u>
- Inquiries increasing for hydrogen compressors and liquid hydrogen booster pumps

MHI Technology Development Progress

- Developing ammonia combustor (for Thermal Power)
- Successfully tested 35% hydrogen mixed combustion in small and mid-sized engines
- <u>Developing next-generation light</u> <u>water nuclear reactor and small</u> <u>modular reactor technology</u>
- Validating hydrogen power generation systems at in-house facilities

Pages 20-21

1 Front End Engineering Design, a precursor to EPC during which technical issues and cost estimates are considered



Build a hydrogen

solutions ecosystem

Decarbonize existing

infrastructure

Build a CO₂ solutions ecosystem

- Inquiries for carbon capture increasing in U.S. and Europe
- <u>New CCUS projects started with</u> <u>TotalEnergies and Suez</u>
- Kicked off CO2NNEX<sup>™</sup> Proof of Concept working group

- Completed validation of KS-21<sup>™</sup> carbon capture absorbent
- Successfully tested offshore CO<sub>2</sub> capture



 Obtained AiP (Approval in Principle) for liquefied CO<sub>2</sub> carrier cargo tank

#### Decarbonizing Existing Infrastructure (1/3) Global Market Overview



Offering a diverse portfolio of CO<sub>2</sub> reduction solutions, including fuel conversion and digital solutions (TOMONI<sup>™</sup>) in order to meet the immediate needs of each country



### Decarbonizing Existing Infrastructure (2/3) Decarbonization of Industrial In-House Power Generation



- In hard to abate industries (including petrochemicals, pulp & paper, steelmaking, and cement), which contribute 1/4 of all CO<sub>2</sub> emissions within Japan, many companies operate in-house power generation systems. Most of these systems use a boiler which produces electricity, heat, and steam.
- Simply replacing a factory's boiler with a renewable power source would remove an important source of heat and steam, which is a critical problem



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1: Source: Japan Agency for Natural Resources and Energy survey data (FY2020)

### Decarbonizing Existing Infrastructure (3/3) Nuclear Power's Contributions to Decarbonization



- Actively supporting the restart of existing plants, building Specialized Security Facilities<sup>1</sup>, and working to complete the nuclear fuel cycle in order to achieve the Japanese government's energy policy, which calls for 20-22% of the country's energy to be generated by nuclear power by 2030.
- Working to develop and commercialize a next-generation light water reactor and small modular reactors in the leadup to 2050
- Also pursuing development of high temperature gas-cooled reactors, fast reactors, and fusion reactors to satisfy the future's diverse energy needs



#### **Initiatives through 2030**

Restarts and Specialized Security Facilities



 Completed first restart of Japan's first nuclear power plant to remain in service over 40 years

#### Completing the Nuclear Fuel Cycle



 Working to complete construction of nuclear fuel reprocessing and MOX<sup>2</sup> processing plants Initiatives through 2050

Further Safety Improvements



 Targeting commercialization of world's safest nuclear reactor in mid-2030s



 Completed concept design of integrated small modular reactor

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1 Specialized Security Facilities: Isolated facilities used to safely shut down a reactor during a security incident such as an airplane strike or terrorist attack 2 MOX: Mixed oxide fuel containing uranium and plutonium

#### Building a Hydrogen Solutions Ecosystem Projects under Development in U.S.



- Need for energy storage needed to ensure reliable power supply increasing as renewable energy share grows
- Participating in both short-term (battery) and long-term (hydrogen storage) energy storage projects with the goal of contributing to creation of a hydrogen solutions ecosystem



#### Building a Hydrogen/CO<sub>2</sub> Solutions Ecosystem Progress on Global Projects



Started new liquefied CO<sub>2</sub> carrier project with TotalEnergies and joint study with Suez for industrial use CCUS



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1 HYFOR: Hydrogen-based fine-ore reduction

2 Front End Engineering Design, a precursor to EPC during which technical issues and cost estimates are considered

# **III-2. New Mobility & Logistics**

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### **New Mobility & Logistics Positioning**

- Energy supply and use are two halves of the whole when it comes to achieving Carbon Neutrality
- Contributing to realizing a safe, secure, and comfortable world by developing intelligent machine systems in the energy use space



### **Approach to Commercialization**

Developing automation, energy conservation, and decarbonization solutions together with our customers by integrating a variety of machinery systems over a common platform

#### (1) Enhance components

- Achieve automation and energy conservation
   through autonomous components
- Decarbonize components
- Promote shift from proprietary tech to open innovation



Applus<sup>⊕</sup>

Start-up developing high-efficiency gallium oxide semiconductors

Engineering company based in Spain providing design, testing, and certification services to the automotive industry

#### (2) Develop intelligent machinery systems

- Connect groups of machinery systems over a common platform
- Leverage individual component characteristics to create intelligent systems
- Optimize operation of complex machinery systems and decrease operators and energy consumption



# Expand value and business scope (3) Collaborate with the customer Mutomation Energy Conservation Decarbonization Identify customers' pain points Accelerate concept validation with agile development



## **Σ**SynX: Intelligent Machinery Systems Platform

ΣSynX<sup>1</sup> is MHI's common platform designed to synchronize and coordinate between a variety of machinery components, transforming them into a single, intelligent system



Connect	<ul> <li>✓ Synchronize and coordinate a variety of machinery systems</li> <li>✓ Remotely supervise groups of intelligent machines</li> <li>✓ Provide customer with maintenance and consumables replenishment</li> </ul>	Remote Control
Intelligently Automate	<ul> <li>✓ Achieve automation leveraging individual component characteristics</li> <li>✓ Ensure worker safety with smooth coordination between humans and machines</li> <li>✓ Rapidly test concepts in virtual environments</li> </ul>	Human- Machine Coordination
Optimize	<ul> <li>✓ Utilize Digital Twin modeling, which is based on knowledge about a variety of machinery systems</li> <li>✓ Achieve comprehensive solutions with composite machinery systems</li> </ul>	Automation Decarbonization Energy Conservation

### **Automated Logistics & Cold Chain Initiatives**



Solve labor shortages with automation and conserve energy by combining HVAC and power supply systems





Conserve space and energy while reducing CO<sub>2</sub> emissions by integrating HVAC and power supply systems and increasing efficiency with semiconductor technology acquired through open innovation



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1 Battery Energy Storage System 2 When supplying 20 MW base load power supply with 100% hydrogen

### Infrastructure to Support CASE Mobility: Initiatives for Autonomous Driving Systems Validation Services



Develop testing and verification services for autonomous driving systems by combining complementary physical testing and high-fidelity simulations





Efforts underway to decarbonize, automate, and conserve energy in energy-using businesses with high growth potential

	Market Trends	Examples of New Solutions	FY26 Market Size
Automated Logistics & Cold Chain Decarbonization Automation Energy Conservation	<ul> <li>Automation</li> <li>Energy conservation</li> <li>Ensure safety of food and medicine</li> </ul>	<ul> <li>Intelligent logistics</li> <li>Refrigerated warehousing</li> <li>Carbon neutral port <ul> <li>:</li> </ul> </li> </ul>	Approx. 2 tr yen (AGF Industrial chiller)
Electrification Components Decarbonization Automation Energy Conservation	<ul> <li>Promote electrification</li> <li>Miniaturization of equipment &amp; systems</li> <li>Energy conservation</li> </ul>	• Data centers	Approx. 5 tr yen (data centers)
Infrastructure to Support CASE Mobility Automation Energy Conservation	<ul> <li>C: Connected</li> <li>A: Autonomous</li> <li>S: Shared</li> <li>E: Electric</li> </ul>	<ul> <li>Autonomous driving systems validation support services</li> <li>Automated transport services for vehicle shipment</li> <li>Automated valet parking <ol> <li></li> </ol> </li> </ul>	Approx. 1 tr yen (Autonomous driving systems validation)

# **IV. Carbon Neutrality Declaration**

### **2040 Carbon Neutrality Declaration**



# **MISSION NET ZERO**

Through our group products, technologies, and services that help reduce CO<sub>2</sub> emissions, as well as new solutions and innovations to be developed with partners around the world, Mitsubishi Heavy Industries Group will contribute to realizing "Net Zero" emissions for the world as a whole.

To this end, each and every one of our employees is embracing and internalizing "Mission Net Zero" and will act to implement a "Net Zero" future.



Target Year	Reduce CO <sub>2</sub> emissions across MHI Group Scope 1&2	Reduce CO <sub>2</sub> emissions across MHI's value chain Scope 3 + reductions from CCUS
2030	-50% (compared to 2014)	-50% (compared to 2019)
2040	Net Zero	Net Zero

Scope 1&2: The calculation standard is based on the GHG Protocol.

Scope 3: The calculation standard is based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index.

GHG: Greenhouse Gas CCUS: Carbon dioxide Capture, Utilization and Storage

### **Roadmap to Achieve Carbon Neutrality (1/2)**











- Contribute to our customers' Scope 1&2 reduction efforts in addition to our own Scope 1, 2, and 3 reductions
- Offer a variety of solutions to reduce CO<sub>2</sub> emissions from our customers' existing facilities



MHI Group is contributing to the realization of a Carbon Neutral world, and through technology we will reduce the cost of this critical transition.

# V. Appendix

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### 1H FY2021 Highlights (1/4): Energy Systems



#### Grew high-efficiency GTCC business



- Received order for 1.5 GW-class GTCC in Uzbekistan
- Contributing to CO<sub>2</sub> reductions with M701JAC, the latest model of high-efficiency GTCC

#### Solar power project in U.S.



• Acquisition and operation of a solar power project in U.S. with Osaka Gas

# Completed reactor structure replacement work



- Improved safety of KEPCO Mihama Nuclear Power Plant Unit 3 in accordance with new safety standards
- Contributed to safe operation of Japan's first nuclear reactor to remain in service for over 40 years

#### Completed TF coils for ITER in Southern France



 Manufactured the fourth toroidal field (TF) coil, the world's largest toroidal superconducting coil, for experimental fusion reactor ITER

#### Developing ammonia combustor for thermal power plant boilers



- Contributing to CO<sub>2</sub> emissions reduction with ammonia fuel
- Pursuing 100% ammonia combustion utilizing existing facilities

# Implemented intelligent solutions product TOMONI<sup>™</sup>



- Implemented TOMONI<sup>TM</sup> at a geothermal power plant in Mexico
- Improved performance and reliability of distributed power sources

### 1H FY2021 Highlights (2/4): Plants & Infrastructure Systems



Enhancing transportation systems after-sales service business



 Participating for the first time in international urban rail transportation operation businesses: Dubai Metro: Operation & maintenance Dubai Tram: Operation services

# CO<sub>2</sub> capture and storage business



- Executed framework agreement for CCS system at an LNG plant in Texas, U.S.
- Progress toward the world's first system to capture CO<sub>2</sub> from an LNG liquefication plant's exhaust
   Source: NextDecade Corporation

#### Developing liquefied CO<sub>2</sub> carrier



- Began study on LCO<sub>2</sub> carrier with TotalEnergies (France)
- Accelerating CCUS value chain technology and market development to contribute to CO<sub>2</sub> emissions reduction

# Expanding box making machine sales



 Demand for cardboard is increasing in line with growing distribution volume in the manufacturing sector as a whole. Increasing sales of one of the world's fastest (400 sheets/min) box making machines (EVOL) mainly in North America

# Contributing to CO<sub>2</sub> reduction in steelmaking



- HYFOR pilot plant began operation
- Achieved the world's first fine ore direct reduction process using hydrogen and reduced capital investment amount and operating costs

HYFOR: Hydrogen-based fine-ore reduction

# Contributing to environmentally friendly cities



- Supplied incinerators to the first non-industrial waste-to-energy plant in Xiaogan City, Hubei Province, China
- The two incinerators were the latest stoker-type with a capacity of 750 tons/day each

### 1H FY2021 Highlights (3/4): Logistics, Thermal & Drive Systems 🚣 MITSUBISH

# Contributing to realization of the carbon neutral port

Tire-type gantry crane



Fuel cell forklift

 Contributing to realization of the carbon neutral port (CNP) through development of new models of cargo handling equipment as well as conversion of existing equipment to hydrogen fuel cells

## Laser-guided autonomous forklift for refrigerated warehouses (Japan first)



- Developed Japan's first laser-guided autonomous forklift for use in refrigerated warehouses in collaboration with Nichirei Logistics Group Inc.
- This product aims to reduce the burden on workers in low-temperature environments and eliminate chronic labor shortages

Recognized as Best Brand of Air Conditioners and ranked #1 in customer satisfaction in Australia



 Named 2021 Best Brand of Air Conditioners by Australian consumer advocacy group CHOICE for fourth year running. Received 2021 Most Satisfied Customer Award in air conditioners category from consumer trends research agency Canstar Blue for third year in a row.

Heat pump chiller awarded Protect the Ozone Layer, Prevent Global Warming Grand Prize



 An air-source circulation heat pump jointly developed with Chubu Electric Power Co., Inc., Q-ton Circulation received Grand Prize at the 24<sup>th</sup> Protect the Ozone Layer, Prevent Global Warming Awards sponsored by Nikkan Kogyo Shimbun Ltd. The product was praised for its environmentally friendly, energy conserving technology.

#### Municipal gas + hydrogen combustion test



- Successfully performed municipal gas + hydrogen mixed combustion test using commercial gas engine for cogeneration system use (joint effort with Toho Gas)
- This was the first time that rated power output was produced with 35% mixed hydrogen combustion in Japan

#### Developed electric compressor for fuel cell vehicles



- Developed products for electric vehicles which will also contribute to decarbonization
- Started testing compressors for fuel cell vehicles

### 1H FY2021 Highlights (4/4): Aircraft, Defense & Space



#### Launched frigate "Noshiro"



 Launched new 3,900-ton-class frigate at Nagasaki Shipyard on contract from Japan Ministry of Defense

H-IIA launch vehicle

#### Delivered two prototypes of multirole naval helicopter (upgraded variant)



- Cutting-edge naval helicopter with performance upgrades to on-board systems and flight capabilities
- Delivered two prototypes to Japan Ministry of Defense

#### Next-generation fighter jet



- Successfully launched new replacement quasizenith satellite with H-IIA Launch Vehicle No. 44
- Launch of H-IIA Launch Vehicle No. 45 planned in 2H FY2021



- Executed contract with Japan Ministry of Defense in 2020
- Developing with other leading Japanese companies

Image source: Defense White Paper 2020

# New naval & governmental ships subsidiary starts business



 Mitsubishi Heavy Industries Maritime Systems, which continues the former Mitsui E&S Holding naval & governmental ships businesses, officially started business on Oct 1

# Expanded CRJ after-sales service business



- Expanding West Virginia Service Center (contract signed in June)
- Executed CRJ after-sales service partnership agreement with Regional One (U.S.) (contract signed in Sep)



• Scope 1 represents CO<sub>2</sub> emissions arising directly from MHI Group's operations (fuel combustion and industrial processes). Scope 2 represents indirect CO<sub>2</sub> emissions, mainly from electricity consumption. **Reduce CO**<sub>2</sub> · Calculations are based on the GHG Protocol. However, emissions from our combined cycle emissions across demonstration plant (Takasago Machinery Works) and Nakoso and Hirono IGCC plants are included in Scope 3 **MHI Group** • Main assumptions include reduction in electricity emissions in accordance with Japan's CO<sub>2</sub> **Scope 1&2** emissions reduction targets and some degree of hydrogen and CO<sub>2</sub> solutions ecosystems development • Scope 3 represents indirect CO<sub>2</sub> emissions arising from other companies across our value chain excluding that covered by Scope 1 & 2. This Scope includes 15 categories, approximately 99% of which comprise CO<sub>2</sub> emissions arising from the use of MHI Group products, which are targets for reduction **Reduce CO**<sub>2</sub> efforts.

• Calculations are based on the GHG Protocol. However, we also account for reductions achieved by CCUS as an MHI original index.

- Based on the GHG Protocol, total CO<sub>2</sub> emissions expected over a product's lifetime are recorded during the year in which it was sold
- Main assumptions include the active adoption of carbon-free products by each company in accordance with each country's CO<sub>2</sub> reduction goals as well as some degree of hydrogen and CO<sub>2</sub> solutions ecosystems development

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emissions across MHI's value chain Scope 3 + reductions from CCUS



- Transformed the former CSR Committee into the Sustainability Committee and further strengthen our ESG efforts
- The Sustainability Relations Department was established to oversee administration of these efforts as we seek to achieve a sustainable world while increasing corporate value in the medium to long term



# MOVE THE WORLD FORW>RD

