MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

2018 Medium-Term Business Plan

(FY2018—FY2020)

May 8, 2018

Mitsubishi Heavy Industries, Ltd.

Shunichi Miyanaga, President and CEO

MITSUBISHI HEAVY INDUSTRIES

As President and CEO, I am pleased to present this overview of our 2018 Medium-Term Business Plan.

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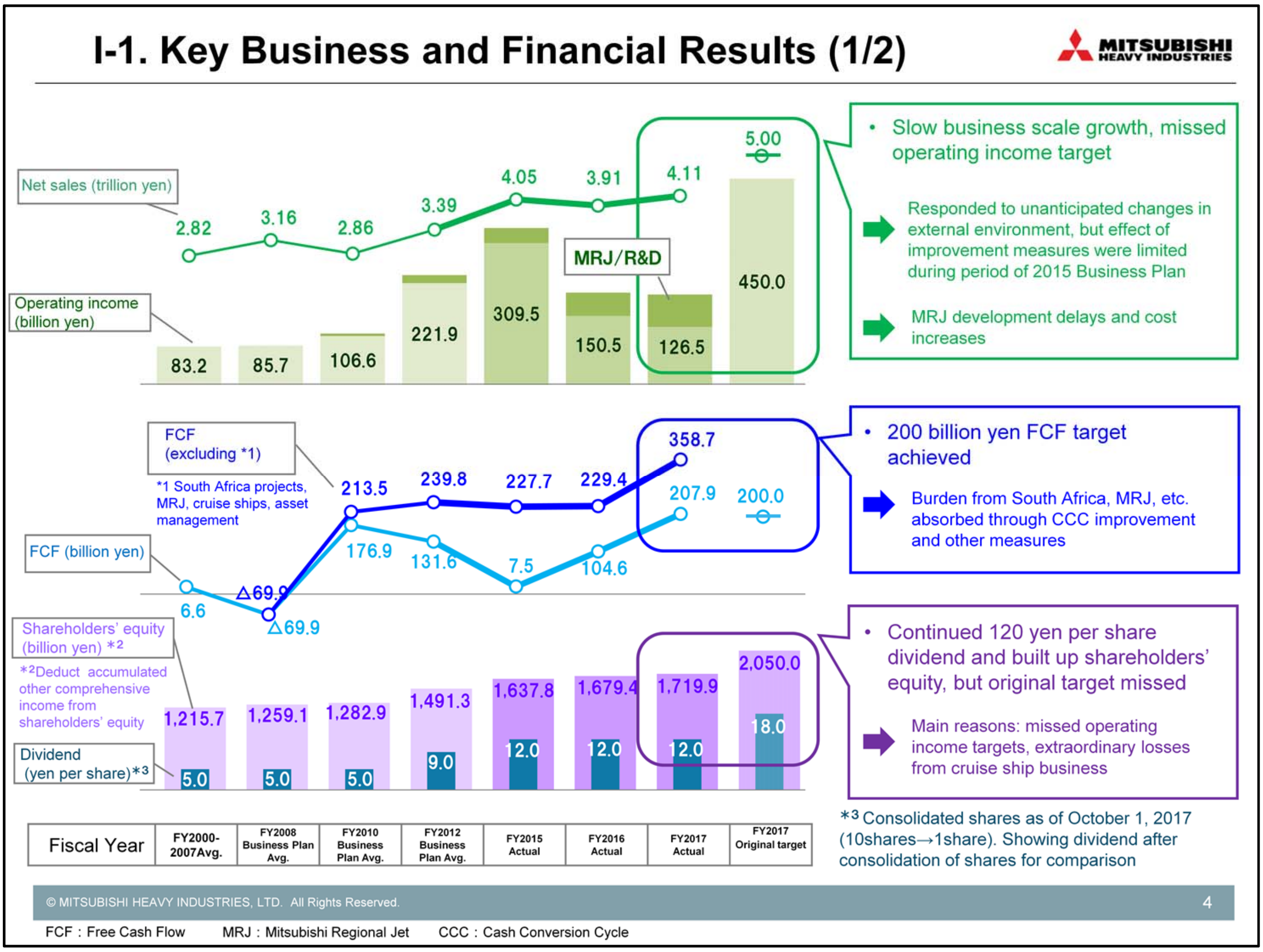
I. Review of 2015 Medium-Term Business Plan

II. 2018 Medium-Term Business Plan

I. Review of 2015 Medium-Term Business Plan

First, I would like to review the results of our 2015 Business Plan.



Here we see an overview of our key business and financial results.

The results gave us reason for reflection in two respects: business scale – net sales – grew too slowly; and we missed our operating income target by a significant margin. These outcomes were both linked directly to a deterioration in our business environment—marked by a sharp, unanticipated downturn in the thermal power systems market, as well as sluggishness in the steel and oil & gas markets. Results were also impacted by MRJ development delays and cost increases. In response we implemented a variety of measures; but improvement during the period of the 2015 Business Plan was limited. Going forward, we intend to prepare better for potential challenges.

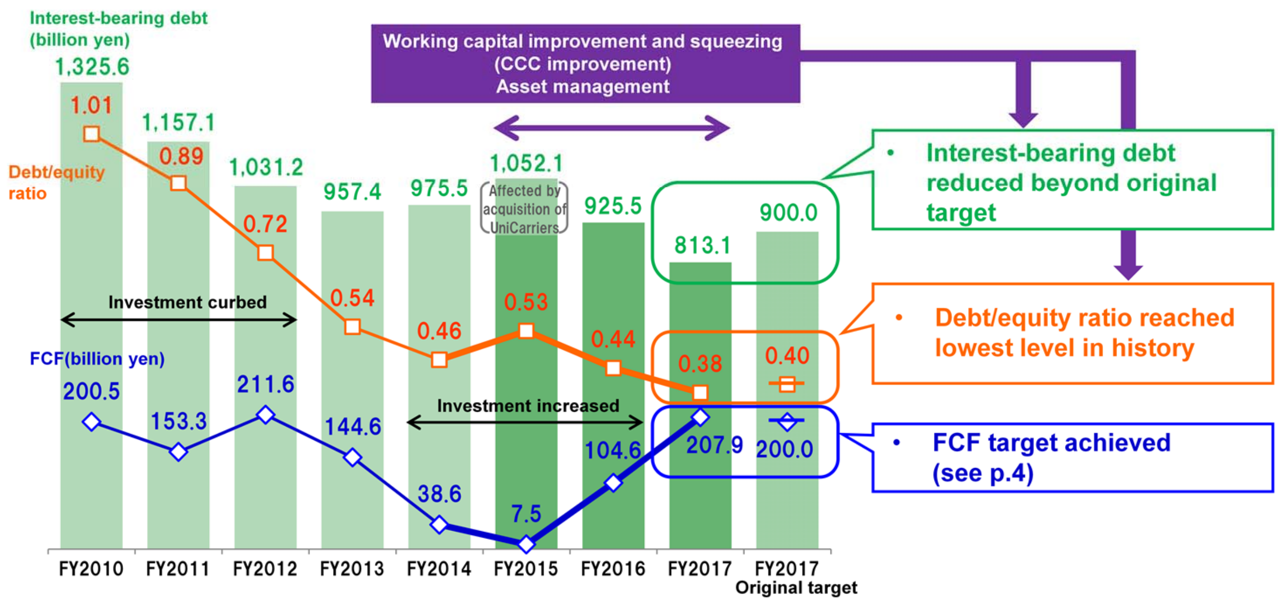
With respect to free cash flow, by implementing a number of measures, including improvement of our cash conversion cycle, we were able to absorb the financial impact of the South Africa project, the MRJ and so on. We succeeded in achieving our FCF target of 200 billion yen.

In terms of shareholder equity, although we made progress, we did not reach our original target of 2,050 billion yen, due largely to missing our operating income target, and extraordinary losses from the cruise ship business.
As to dividends, although we undershot our income target, we were able to maintain an annual dividend of 120 yen per share during the three years of the 2015 Business Plan.

I-1. Key Business and Financial Results (2/2)

MITSUBISHI HEAVY INDUSTRIES

- **Financial foundation strengthened beyond target, reaching a healthy level through measures including cash flow management, asset management, etc.**



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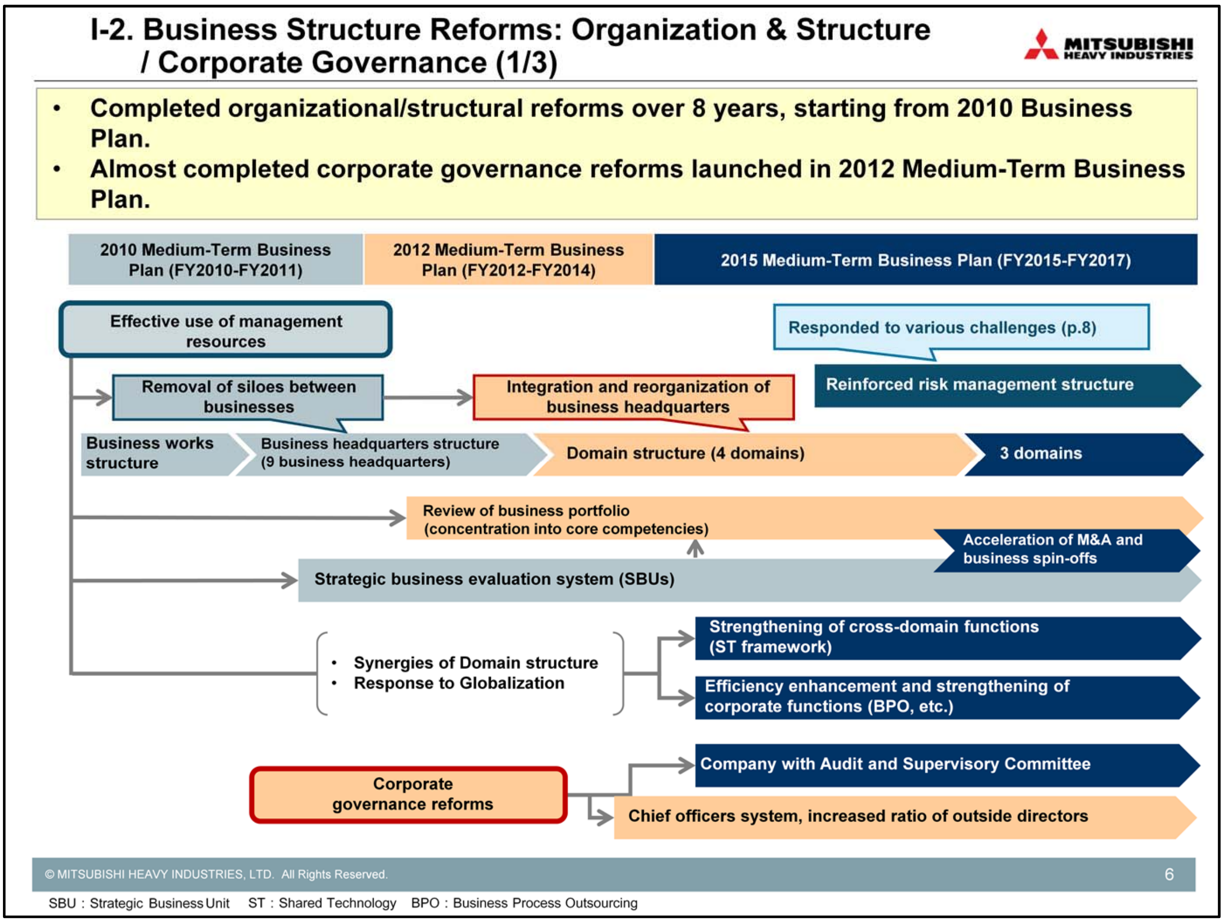
FCF: Free Cash Flow　CCC: Cash Conversion Cycle

Our financial foundation is sound – stronger than targeted – thanks to initiatives taken particularly with respect to cash flow management and asset management.

Interest-bearing debt was reduced beyond our original target: the combined result of improved working capital efficiency, cash conversion cycle improvement from squeezing working capital, and robust asset management. Our debt/equity ratio reached the lowest level in our history.



Next, I will turn to our business structure reforms and corporate governance initiatives.

Starting with our 2010 Medium-Term Business Plan, we took a number of steps to make effective use of our management resources, including the introduction of a strategic business evaluation system, the launch of new domain structures, and a review of our business portfolio – organizational, structural and systemic reforms that stand very near completion. With respect to corporate governance, we set up an Audit and Supervisory Committee, introduced a chief officers system, and increased the ratio of our outside directors. However, we also faced a number of challenges, and by way of response we carried out additional measures to reinforce our risk management structure.

I-2. Business Structure Reforms: Business Process Improvements (2/3)

MITSUBISHI HEAVY INDUSTRIES

Structural and directional improvements / activities

Business Area	Achievements	Globalization, outside collaboration	Increased productivity IoT / AI	Future Direction
Marketing	Development of cross-SBU projects overseas	○		• Operationalize and enhance process improvement outcomes • Nurture global managers • Strengthen new business creativity and integrate state-of-the-art technologies • Broad application of digitalization
	Achievement of advanced customer services (O&M support system, etc.)	○	○	
	Long-Term Growth Vision (future stream) activities (p.27)	○		
	Improvement of companywide sales and service education systems	○		
Technology	Expanded open innovation with global CoEs	○		
	Engineering talent management system	○		
	Digitalization of production processes	○	○	
	Configuration of common component code system		○	
Finance	Introduction of global financial and accounting policies	○		
	Expanded operation of global cash management	○	○	
	Introduction of IT/automation of monitoring of business status, enhanced business process efficiency through RPA		○	
HR HR:Human Resources	Configuration of HR data base and use in planning successors	○	○	
	Unification of business processes and systems		○	
Procurement	Consolidation of suppliers, introduction of management tools		○	
	Reconfiguration of commercial aircraft SCM, Reform of procurement processes	○	○	

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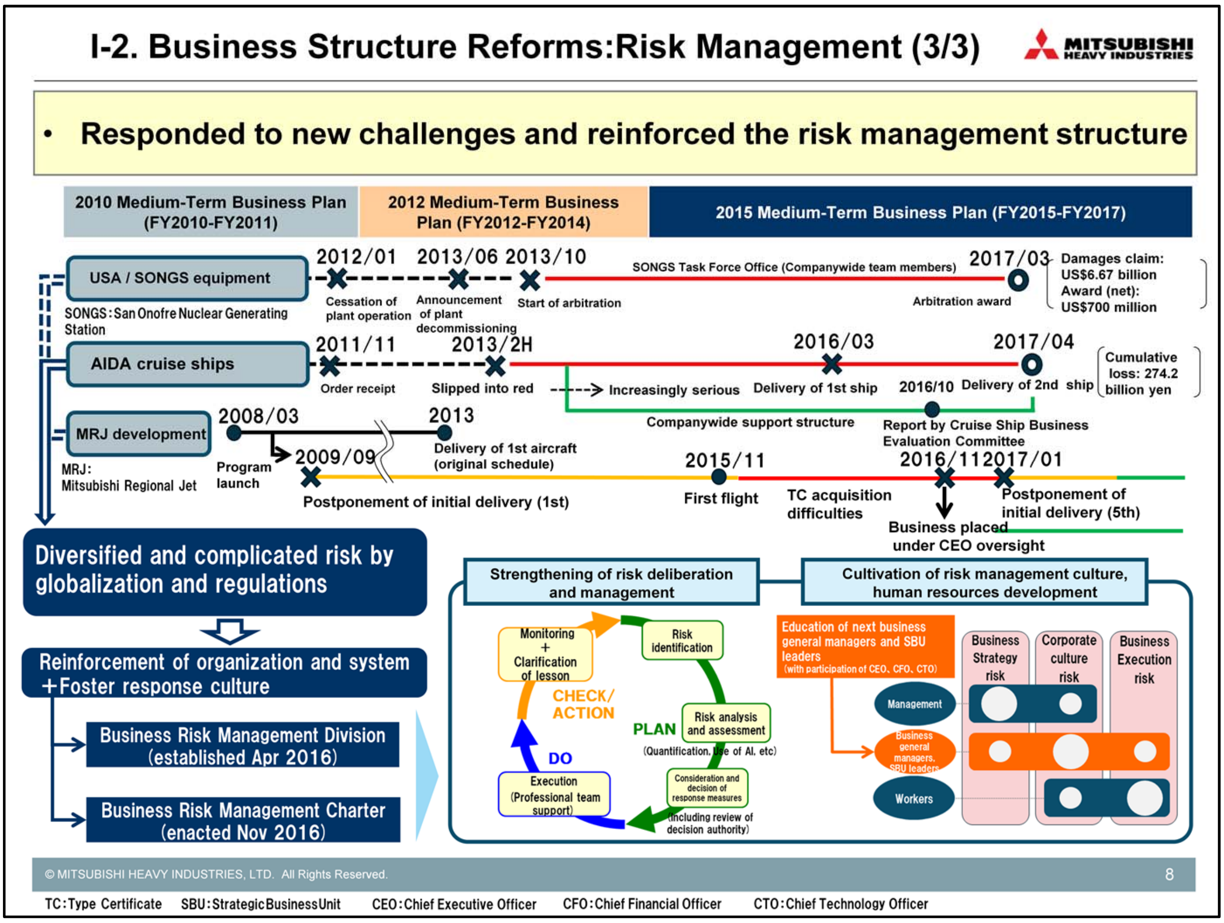
SBU: Strategic Business Unit O&M: Operation & Maintenance COE: Center of Excellence RPA: Robotic Process Automation SCM: Supply Chain Management IoT: Internet of Things AI: Artificial Intelligence

We also took steps to improve our business processes, and in various areas we made structural and directional improvements – activities which will continue going forward.

As for our future direction, we will further apply and expand on the improvements already achieved, develop globally capable managers, strengthen our ability to create new businesses and to integrate state-of-the-art technologies, and apply digitalization over an ever-wider range of areas.



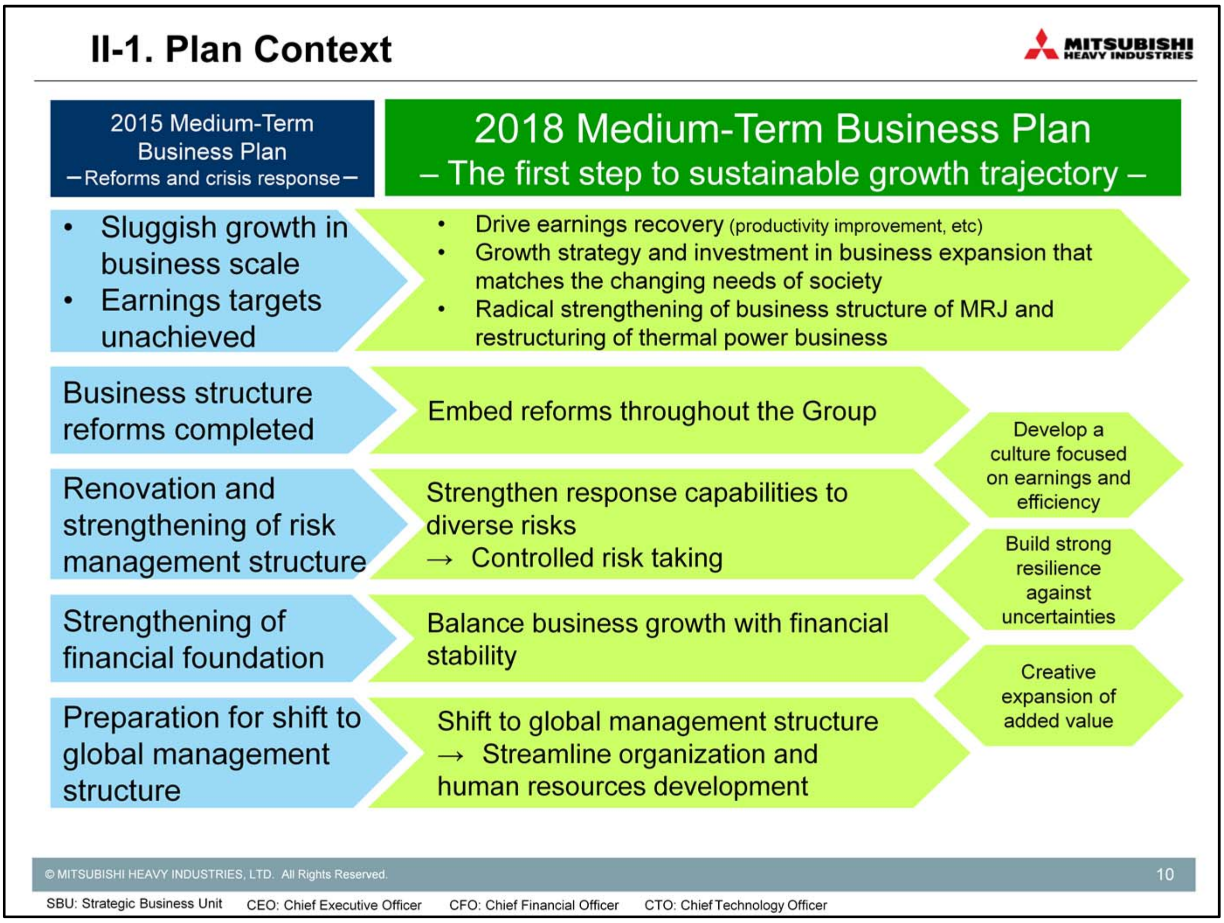
To respond to various challenges that came up during the period of the 2015 Business Plan, we took steps to reinforce our risk management structure.

Because risks are becoming increasingly diversified and complicated as a result of globalization and new regulations, in order to reinforce our organization and systems as well as to foster a culture responsive to risk, in fiscal 2016 we established a Business Risk Management Division and drew up a Business Risk Management Charter. Going forward, we will continue to strengthen our risk analysis and response capabilities, cultivate a risk management culture, and develop risk-responsive human resources.

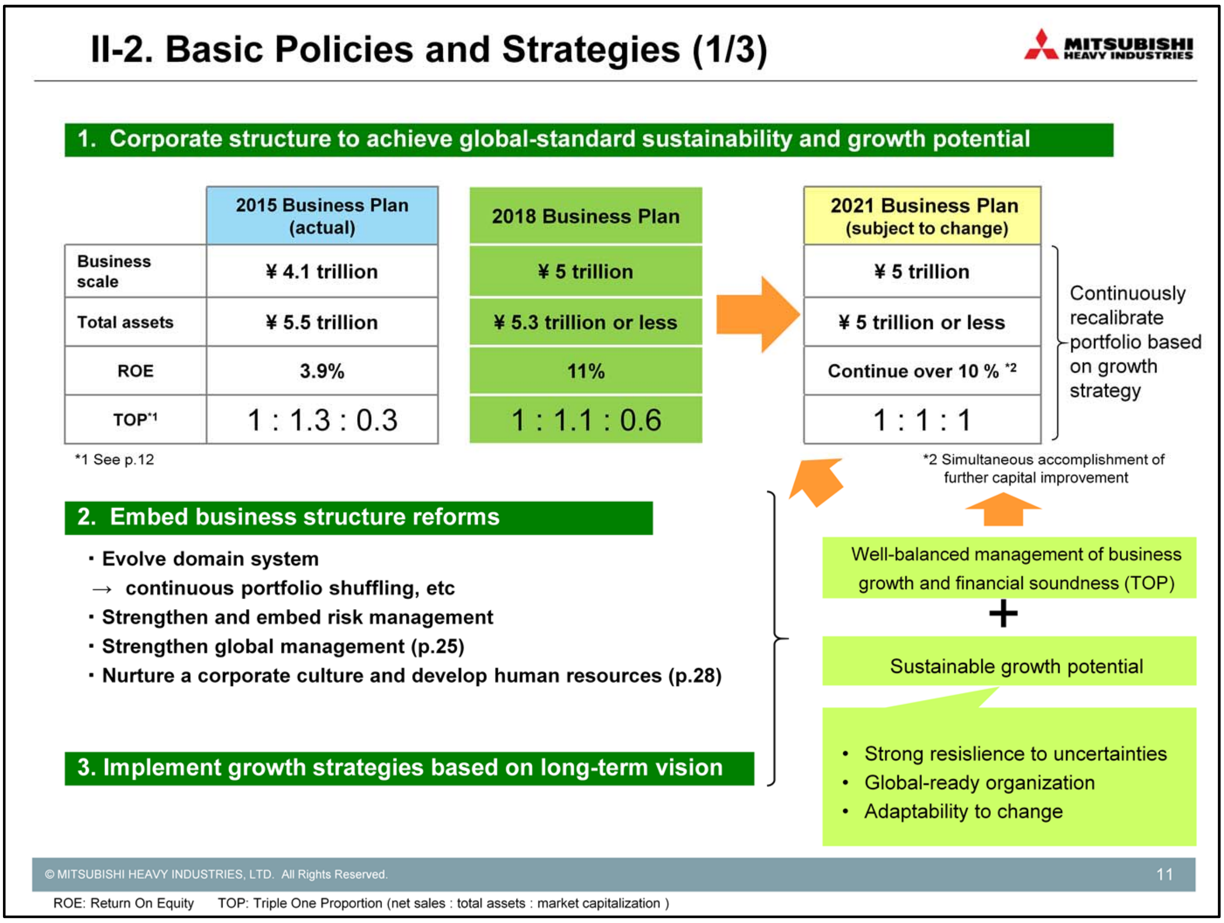
II. 2018 Medium-Term Business Plan

MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

Next, I will present an overview of our 2018 Medium-Term Business Plan.

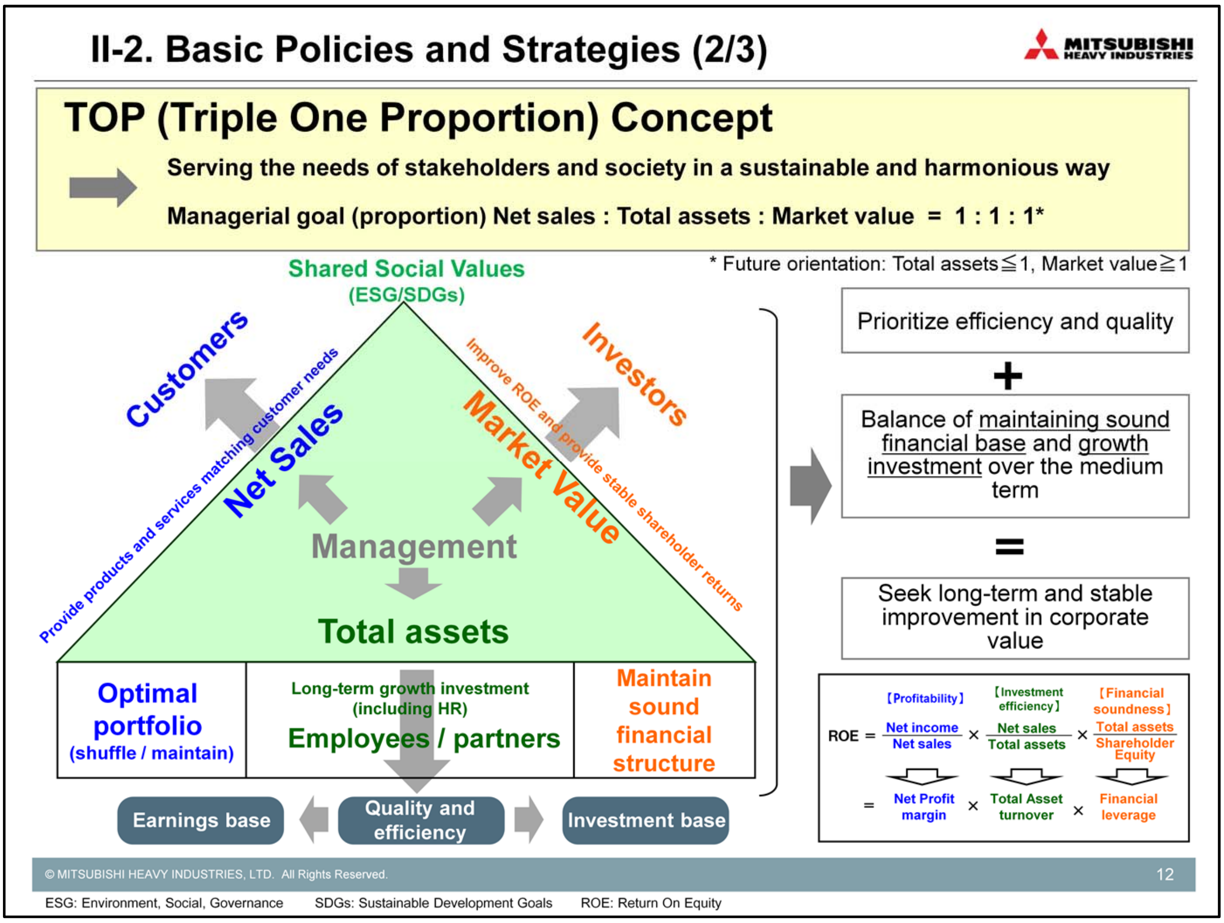


During the three years of our 2015 Medium-Term Business Plan, we focused on various reforms and crisis response. We see our 2018 Business Plan as the first step toward achieving a sustainable growth trajectory. In addition to thoroughly driving earnings recovery and taking steps to achieve growth strategies that match social change, over the next three years we will invest in businesses that will immediately contribute to business expansion. We will also radically strengthen the business structure of the MRJ and restructure our thermal power systems business. We believe that firmly carrying out these plans will lead to our further growth.



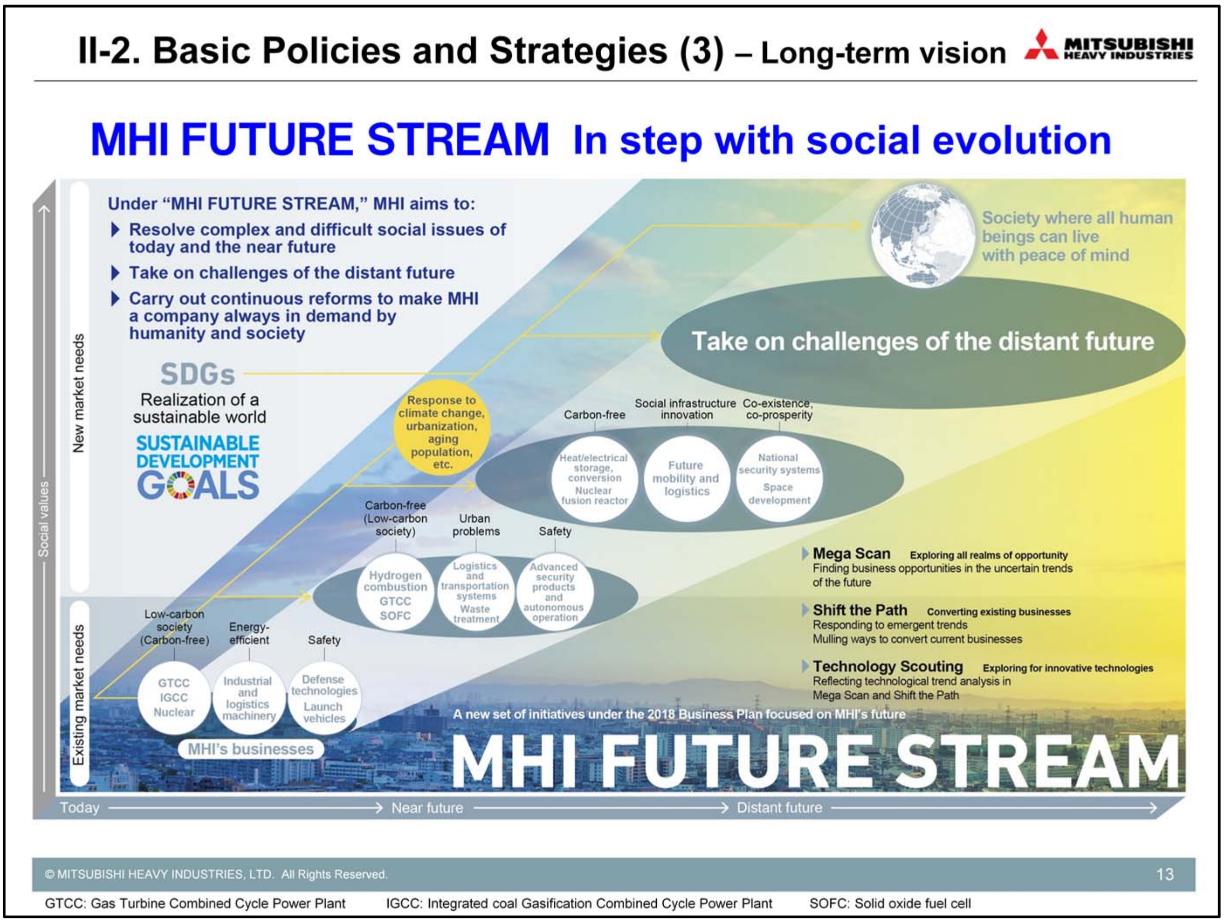
Under our 2018 Business Plan, we will once again take up the challenge of achieving a business scale of 5 trillion yen—a target that went unachieved during our 2015 Business Plan. In addition, we will proceed with making our balance sheets more efficient, striving to achieve as close to 5 trillion yen in total assets as possible. We have set our ROE target at 11%. By improving our profitability, we aim to improve our market value. Once we reach the targets of our 2018 Business Plan, we aim to achieve a Triple One Proportion: equal ratios between net sales, total assets and market value. We will also make further capital improvements and reach higher profitability.

Embedding business structure reforms is a foundational step for achieving our targets. This means strengthening our domain system, while continually optimizing our product portfolio to match the needs of the time. We will also strengthen and embed risk management, strengthen our global management capabilities, and nurture the development of a globally attuned corporate culture and human resources. By implementing growth strategies based on our Long-Term Vision, we will strive to achieve management that is well balanced between business growth and financial soundness, enabling us to grow into a global company with sustained growth potential.



As a managerial goal that will enable us to respond to the needs of all stakeholders and society in a sustained and harmonious way, we launched the “Triple One Proportion” or “TOP” concept. This calls for equal ratios between net sales, total assets and market value. Although these ratios vary depending on a company’s type and growth phase, given MHI’s business format and total assets position, we are pursuing the ideal balance: 1 to 1 to 1, as our near-term managerial goal.

While targeting 5 trillion yen in net sales, we will pursue portfolio optimization through continual shuffling; and while aiming for effective use of our total assets, we will carry out efficient, high-quality business activities. As a result, while maintaining a sound financial structure as our investment base, over the medium term we will pursue balanced growth investment, in a quest for long-term, stable improvement in our corporate value.



Up to now, we long assumed that if we made good products, they would definitely sell well; and as a natural progression, we first made products and conducted business in the Japanese market, and then proceeded to expand overseas in areas in which we excel. Today, however, at a time of dramatic changes in the social and industrial structures, we believe we must set our future direction and gradually shift to adapting our technologies to the needs of the near and distant future.

Our Long-Term Vision is what we call "MHI FUTURE STREAM," a new set of initiatives for evolving in step with society. First, we aim to resolve complex and difficult issues of today and the near future, and then take on challenges of the distant future. We will continuously change, to remain a company that is always in demand by humanity and society.

II-3. Overall Numerical Targets (1/3): After Application of IFRS

MITSUBISHI HEAVY INDUSTRIES

	2015 Medium-Term Business Plan		2018 Medium-Term Business Plan			
	J-GAAP			IFRS		
	2015 Business Plan 3-year average	FY2017 111.1yen/$ 129.9yen/€	FY2018 110yen/$ 130yen/€	FY2018 110yen/$ 130yen/€	FY2020 targets 110yen/$ 130yen/€	Notes
Orders received	4,212.3	3,875.7	4,100.0	4,100.0	*2 5,000.0	*2 Including 400 billion yen in non-organic growth
Net sales	4,023.9	4,110.8	4,200.0	4,200.0	*2 5,000.0	
Operating income (EBIT) *1	195.5 (4.9%)	126.5 (3.1%)	175.0 (4.2%)	160.0 (3.8%)	340.0 (6.8%)	Refer to the Reference 1 for the factor of increase in profit from FY2018 to FY2020
Net income	74.0	70.4	80.0	80.0	170.0	
R O E	4.2%	3.9%	4%	*3 6%	11%	
F C F	106.6	207.9	50.0	50.0	200.0	
Debt/equity ratio	0.45	0.38	0.4	*3 0.4	0.4	*3 Reviewed total assets and shareholder equity in accordance with change in valuation method of long term receivable assets (see p.15)
Equity ratio	32.1%	33.3%	35%	*3 28%	31%	
Interest-bearing debt	930.2	813.1	770.0	770.0	760.0	
Total assets	5,490.1	5,487.6	5,300.0	*3 5,100.0	5,300.0	
Dividend per share	120yen	120yen	130yen	130yen	180yen	

*1 Before Application of IFRS→Operating income, After Application of IFRS→EBIT(Including non-operating income and loss and extraordinary income and loss other than net financial revenue)

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J-GAAP:Japanese Generally Accepted Accounting Principles IFRS:International Financial Reporting Standards EBIT:Earnings Before Interest and Tax ROE:Return On Equity FCF:Free Cash Flow

Here we see the numerical targets set under our 2018 Medium-Term Business Plan, applying both J-GAAP and IFRS parameters. In fiscal 2020 we are targeting 5,000 billion yen in both orders received and net sales. With respect to net sales, already 4,600 billion yen is in sight, given the construction progress being made on previously received orders and increased sales of turbochargers and logistics equipment. Added to this, by concentrating capital into growth investments and striving for 400 billion yen scale expansion as non-organic growth, we are aiming for our 5,000 billion yen target.

We have set our EBIT target at 340 billion yen in fiscal 2020. MRJ development costs will peak in fiscal 2018 and are expected to decrease thereafter. These costs will still be booked in fiscal 2020—and the figures shown here factor them in.

II-3. Overall Numerical Targets (2/3):
Income Comparisons before/after Application of IFRS

MITSUBISHI HEAVY INDUSTRIES

		2015 Medium-Term Business Plan		2018 Medium-Term Business Plan	
		2015 Business Plan 3-year average	FY2017 111.1yen/$ 129.9yen/€	FY2018 110yen/$ 130yen/€	FY2020 targets 110yen/$ 130yen/€
Net sales		4,023.9	4,110.8	4,200.0	5,000.0
Before IFRS (J-GAAP)	Operating income (Margin)	195.5 (4.9%)	126.5 (3.1%)	175.0 (4.2%)	330.0 (6.6%)
	Net income	74.0	70.4	80.0	170.0
	Net worth	1,761.3	1,824.7	1,850.0	2,050.0
	Total assets	5,490.1	5,487.6	5,300.0	5,500.0
	Equity ratio	32.1%	33.3%	35%	37%
	ROE	4.2%	3.9%	4%	9%
After IFRS	EBIT (Margin)			*2 160.0 (3.8%)	*2 340.0 (6.8%)
	Net income			80.0	170.0
	Net worth *1			1,450.0	1,650.0
	Total assets *1			5,100.0	5,300.0
	Equity ratio *1			28%	31%
	ROE			6%	11%

*1 Financial soundness is maintained despite decreased shareholder equity, owing to changes in how depreciable assets (MRJ, etc.) are measured with application of IFRS.

*2 Reflectes evaluation of the development costs of MRJ for each fiscal year (Refer to *1) ⇒ Development costs will hit a peak by FY2018 and decrease toward FY2020

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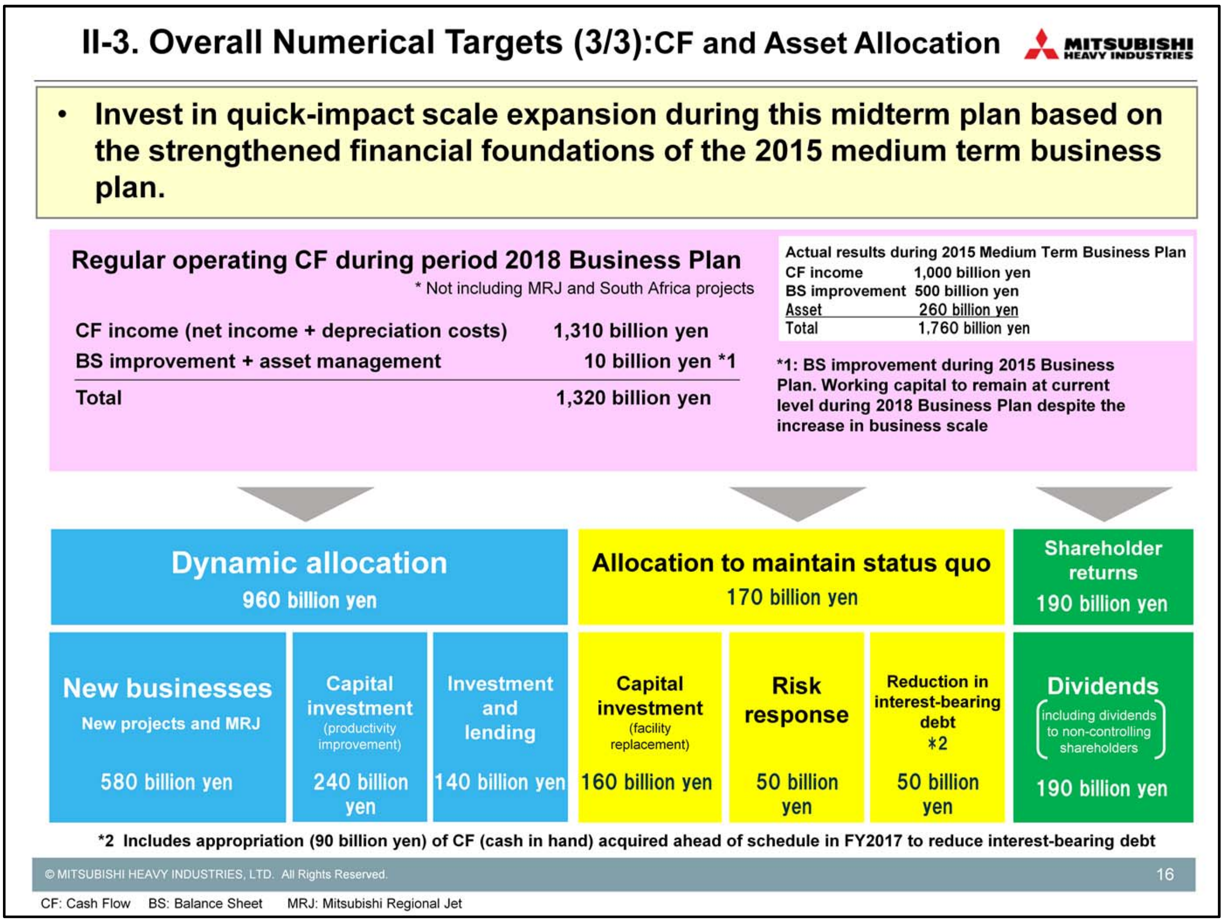
J-GAAP:Japanese Generally Accepted Accounting Principles IFRS:International Financial Reporting Standards ROE:Return On Equity EBIT:Earnings Before Interest and Tax

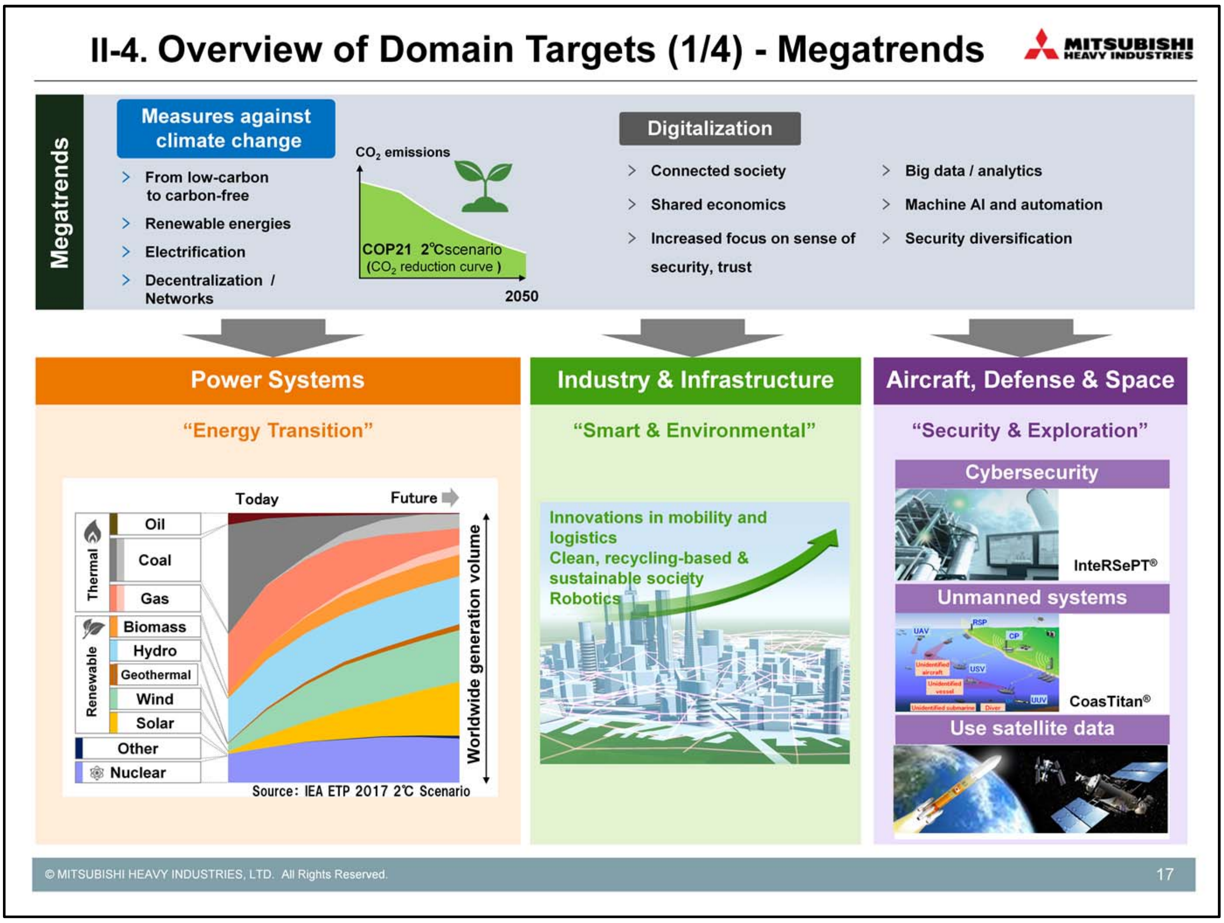
Concerning fiscal 2018, before IFRS, operating income is targeted at 175 billion yen; after IFRS, the EBIT target is 160 billion yen. The reason for this gap is a change in the evaluation of MRJ development costs after application of IFRS. Under the MRJ program, we are aiming for investment return in the 2030s. Since we changed the development schedule in January 2017, development is proceeding smoothly. No change has been made in terms of long-term cost recovery; but with application of IFRS, what until now had been booked as assets will instead be booked as costs, thereby impacting income. As the MRJ's development costs gradually decrease, in fiscal 2020 we look for EBIT after application of IFRS to be 340 billion yen, versus 330 billion yen in operating income prior to IFRS application. So income will actually improve after the switch to international reporting standards.



Under the 2018 Business Plan, based on the strengthened financial foundations achieved under the 2015 Medium-Term Business Plan, we intend to allocate capital into quick-impact, growth investments targeted at scale expansion.

Up to now, we actively engaged in capital investment and M&A from a medium-to-long-range view. Going forward, we intend to shift to investments that will primarily reap swift rewards, as a way of expanding our business scale and increasing income.

The regular operating cash flow generated during the three years of the 2018 Business Plan—with the exception of the negative impact from MRJ development costs and temporary reimbursed expenses relating to the South Africa project—will increasingly be directed into dynamic allocations. Among them, we will allocate large sums into quick-impact new investment projects, as well as to the MRJ program.



Next, I will present an overview of our individual domain targets.

In the 2018 Business Plan, we have drawn up business plans with the intention of providing solutions to the megatrends I touched on earlier in explaining "MHI FUTURE STREAM"—namely measures against climate change, and digitalization—within the domains closest to each respective area, as a way of driving the Company's growth.

In Power Systems, the issue revolves around how we can provide solutions amid the ongoing global energy transition. In Industry & Infrastructure, the question hinges on our ability to provide innovation in mobility and logistics that match environmental demands and help enable a smart society.

In the Aircraft, Defense & Space, the theme will be how to contribute to society through developments in security and new fields.

The details of the initiatives to be taken within each domain are explained by the heads of the various domains and segments at the Business Strategy Presentation Meetings. Accordingly, here I will omit explanations of pages 18 through 20.

II-4. Overview of Domain Targets (2/4) - Power Systems

Mitsubishi Hitachi Power Systems
MHPS
- Efficient completion of current large-scale orders, earnings recovery
- Begin large-scale transformation of business structure

(P.23-24)

Nuclear Energy Systems Division
- Support plant restarts and mid- to long-term maintenace projects
- Expand overseas equipment exports, fuel cycle and other businesses
- Increase involvement in next-generation technologies

Mitsubishi Heavy Industries Aero Engines, Ltd.
- Respond to increasing long-term demand
→ Increase new production capacity, expand repair and servicing business

Mitsubishi Heavy Industries Compressor Corporation
- Undertake full-scale entry into recovering oil & gas business

Turboden S.p.A.
- Expand business in growing geothermal market

Mitsubishi Heavy Industries Marine Machinery & Equipment Co., Ltd.
- Expand MET turbocharger business
- Strengthen solutions business

MHI Vestas Offshore Wind A/S
- Respond to intensifying price competition, improve productivity, curb fixed costs

II-4. Overview of Domain Targets (3/4)
- Industry & Infrastructure

Mass and Medium lot manufacturing

Mitsubishi Heavy Industries Forklift, Engine & Turbocharger Holdings, Ltd.
- Improve earnings through thorough PMI/ productivity improvement
- Devote resources to growth fields/areas

Mitsubishi Heavy Industries Thermal Systems, Ltd.
- Market share expansion matching regional needs (Launch new products/Sales channel)
- Expand solution business with low environmental impact refrigerants

Mass and medium lot manufacturing + Build to order

Mitsubishi Heavy Industries Machinery Systems, Ltd.
- Strengthen earning capacity through resource sharing and active use of HR
- Expand business in the growing market for paper converting machinery

Build to order products (engineering + manufacturing)

Mitsubishi Shipbuilding Co., Ltd./ Mitsubishi Heavy Industries Marine Structure Co.,Ltd.
- Expand business in areas of specialty
  → ferries / government ships / engineering
- Improve productivity and earnings of LNG carriers, etc.

Mitsubishi Heavy Industries Engineering, Ltd.
- Make dynamic use of resources in response to market environment
- Expand added-value businesses such as EPC upstream, downstream

Primetals Technologies, Limited
- Expand market share by strengthen servicing and digital technologies, taking advantage of market recovery
- Implementation of PMI through consolidation of locations, optimization of work force scale, etc.

PMI: Post Merger Integration LNG: liquefied natural gas EPC: Engineering, Procurement & Construction

II-4. Overview of Domain Targets (4/4) - Aircraft, Defense & Space

FY2017 net sales (actual) — 722.9 billion yen

FY2020 net sales (target) — 720.0 billion yen

MRJ

Defense & Space segment

Advanced Technology Demonstrator

Launching ceremony of Destroyer "SHIRANUI"

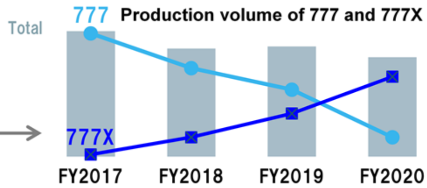
- Continue strengthening existing businesses
- Expand business through acceleration of growth strategies

→ Overseas expansion, dual use, domestic MRO business
→ Expansion of overseas commercial satellite launch services by H3 launch vehicles

H-ⅡA #37 launch

Commercial Aircraft segment

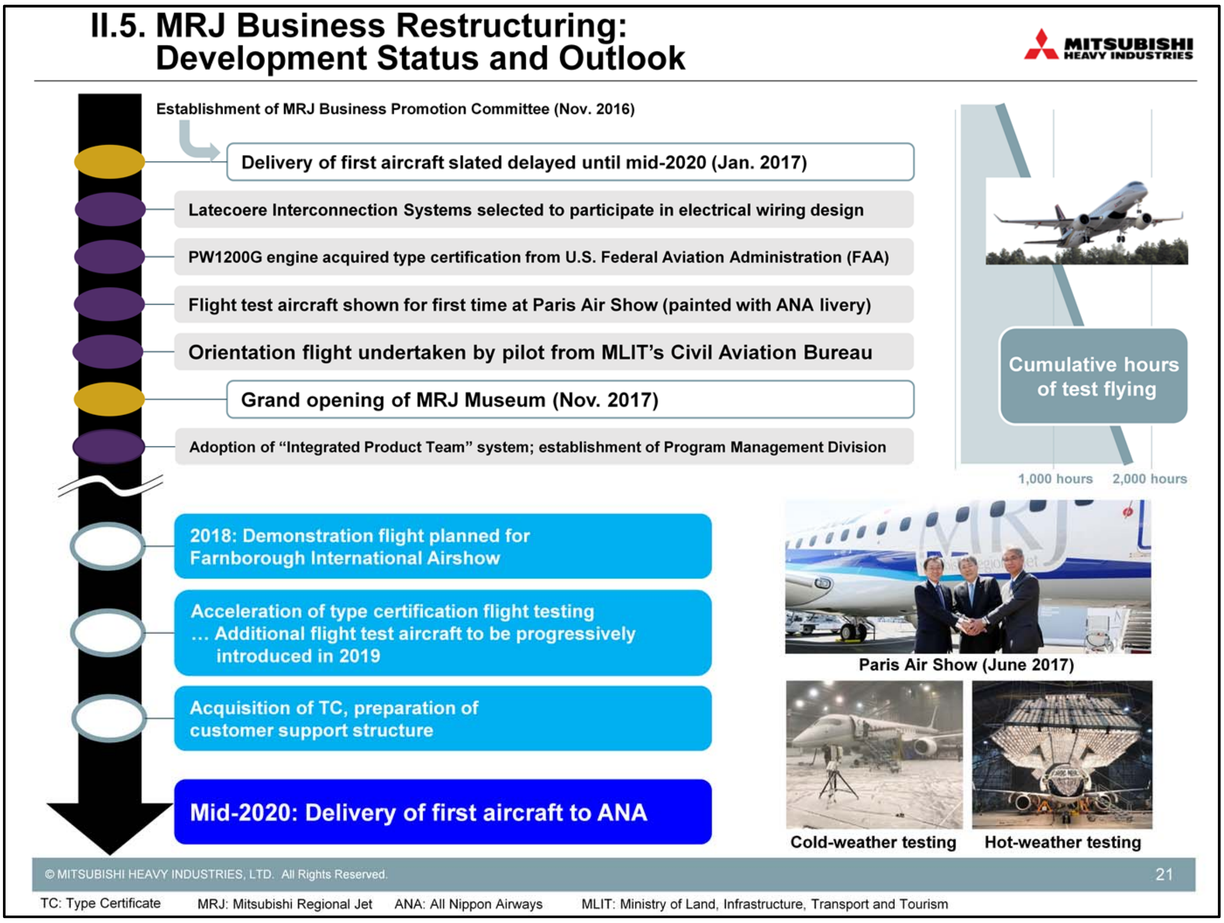
- Establish Boeing 787 business as highly stable
- Transitional period between Boeing 777 and 777X



- ■ Maintain earnings by improving productivity, reducing fixed costs, etc.
- ■ Pursue differentiation with competitors (radical improvement in production technologies, etc.)

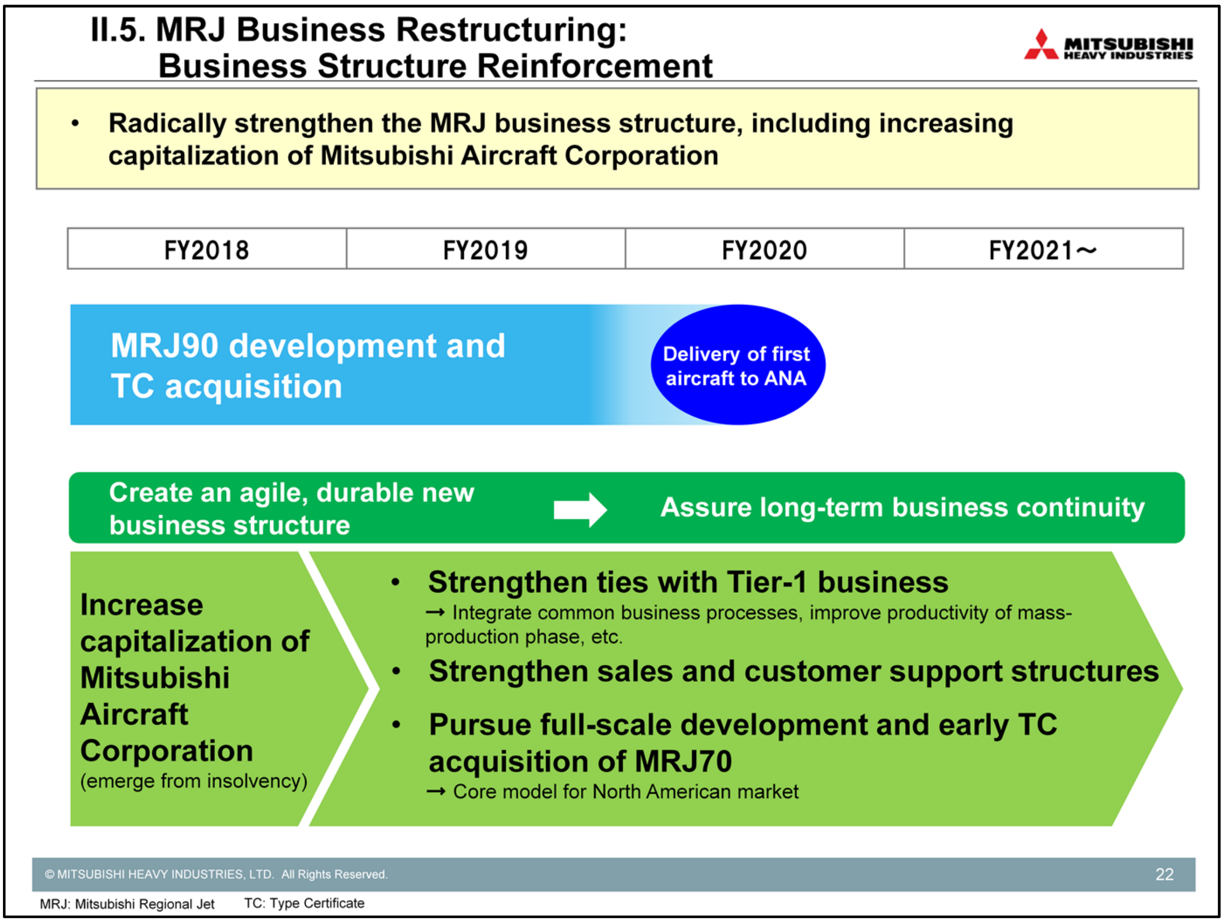
777X automated assembly equipment

MRO：Maintenance, Repair & Operations

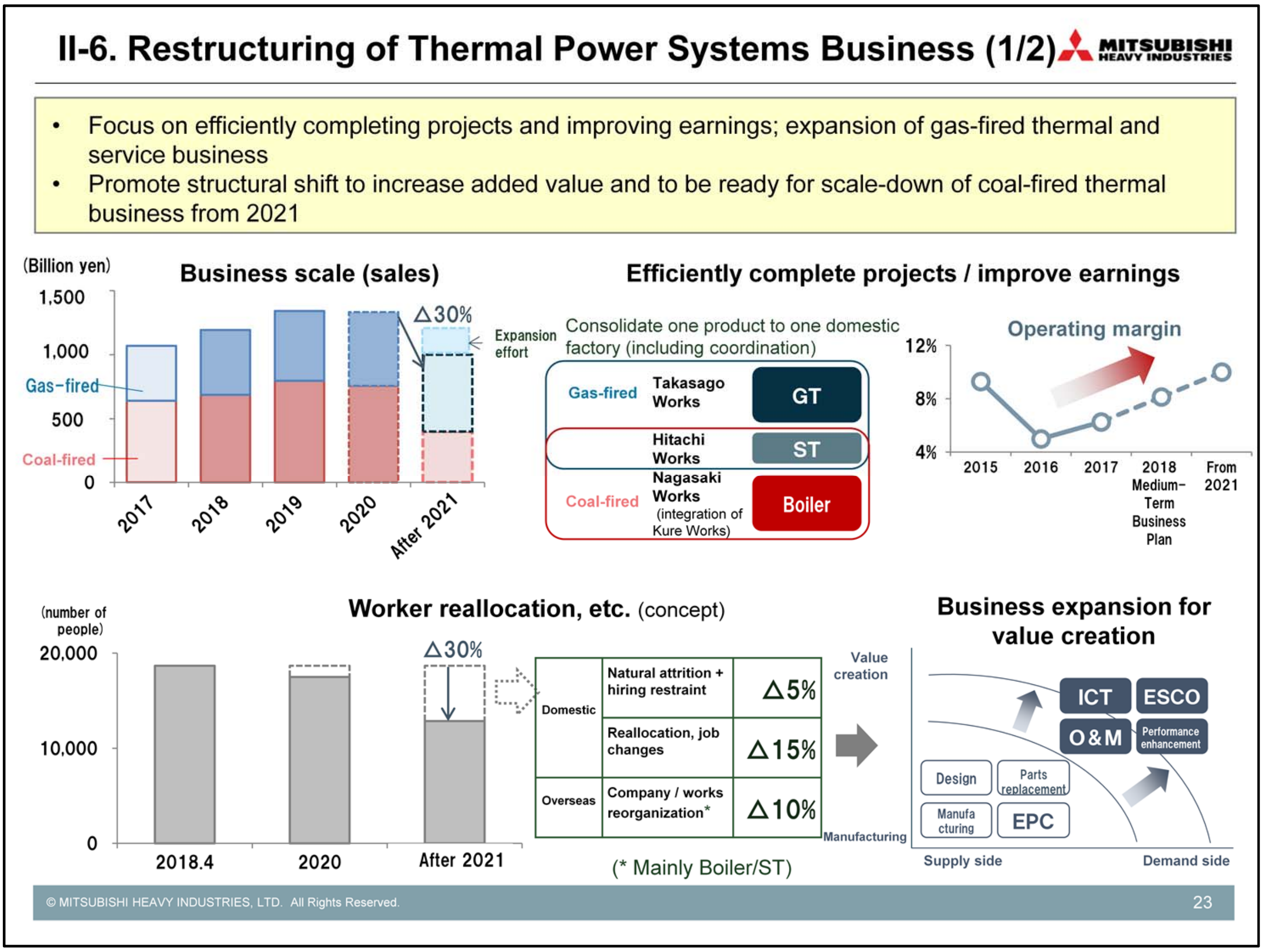


Here, I will explain the current status of the MRJ development program.

In November 2016, we established the MRJ Business Promotion Committee and the MRJ program was placed under direct management of the President and CEO of Mitsubishi Heavy Industries. In January 2017, we announced changes to the development timetable. Here we see the status of the MRJ's development after those events. Subsequent development of the MRJ has proceeded smoothly, and this July the MRJ will take part in its first ever flight display at a major airshow – Farnborough International Airshow. We continue to work day and night toward acquiring type certification, and plans call for flight testing in 2019 of a test aircraft featuring a re-designed electrical wiring system. Delivery of the first commercial aircraft to All Nippon Airways is now scheduled for mid-2020.



No change has been made to our assessment of the recoverability of the capital we have thus far invested into the MRJ; but with application of IFRS, we have squeezed our balance sheets with regard to MRJ-related assets which until now had been booked as assets. As a result, we believe the situation surrounding the MRJ's future business viability has been cleared of obstacles. We will also increase Mitsubishi Aircraft Corporation's capitalization within the current fiscal year to enable it to emerge from insolvency and create an agile, durable new business structure. In addition, by strengthening ties with Tier-1 business, reinforcing sales and customer support structures, and pursuing full-scale development and early acquisition of type certification of the MRJ70, we will radically strengthen the MRJ's business structure, assuring the new aircraft's long-term viability.



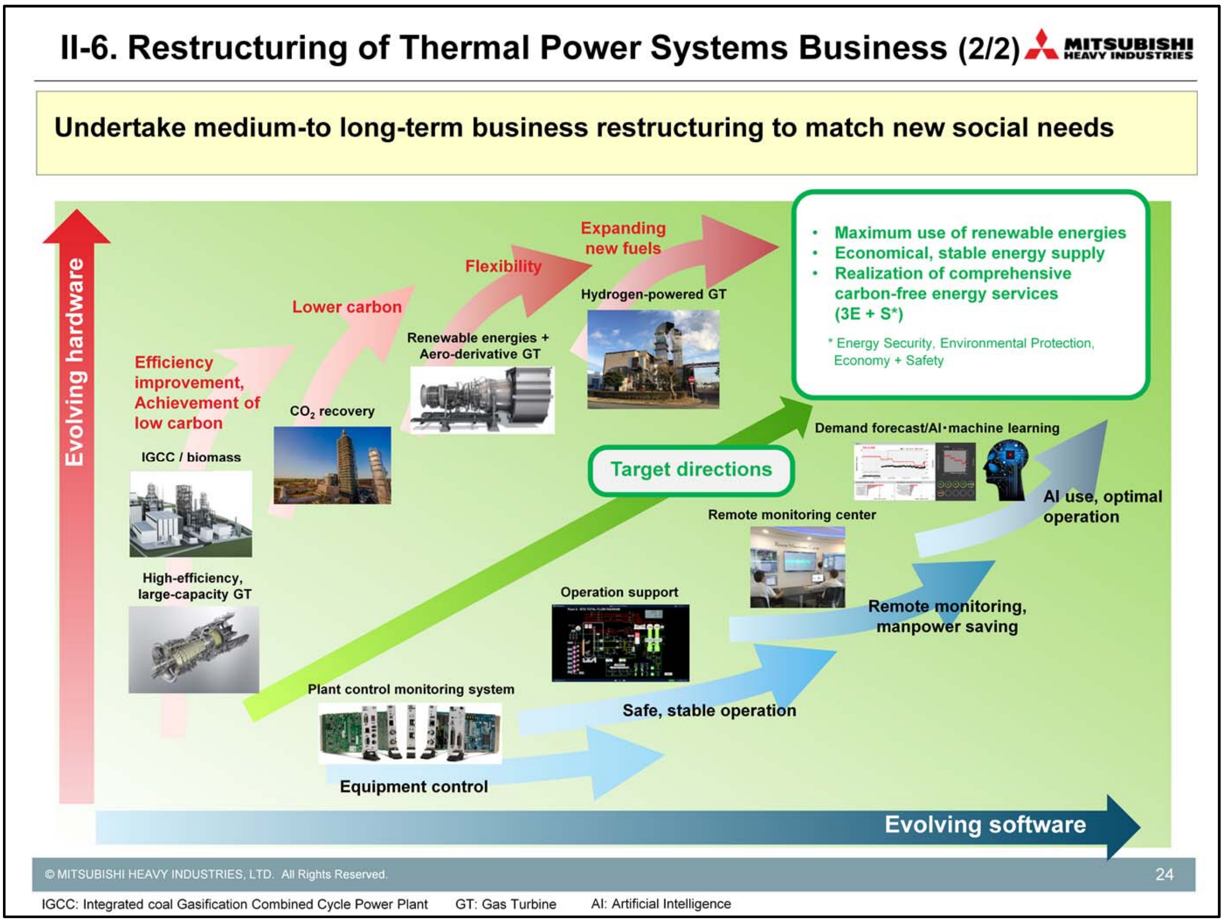
Next, I will explain how we are restructuring our thermal power systems business.

The thermal power systems business comprises of two main areas: gas-powered systems fueled by natural gas, and coal-powered systems. Construction work on systems already ordered will peak between fiscal 2018 and fiscal 2020, so we will strive to complete those projects efficiently and improve related earnings.

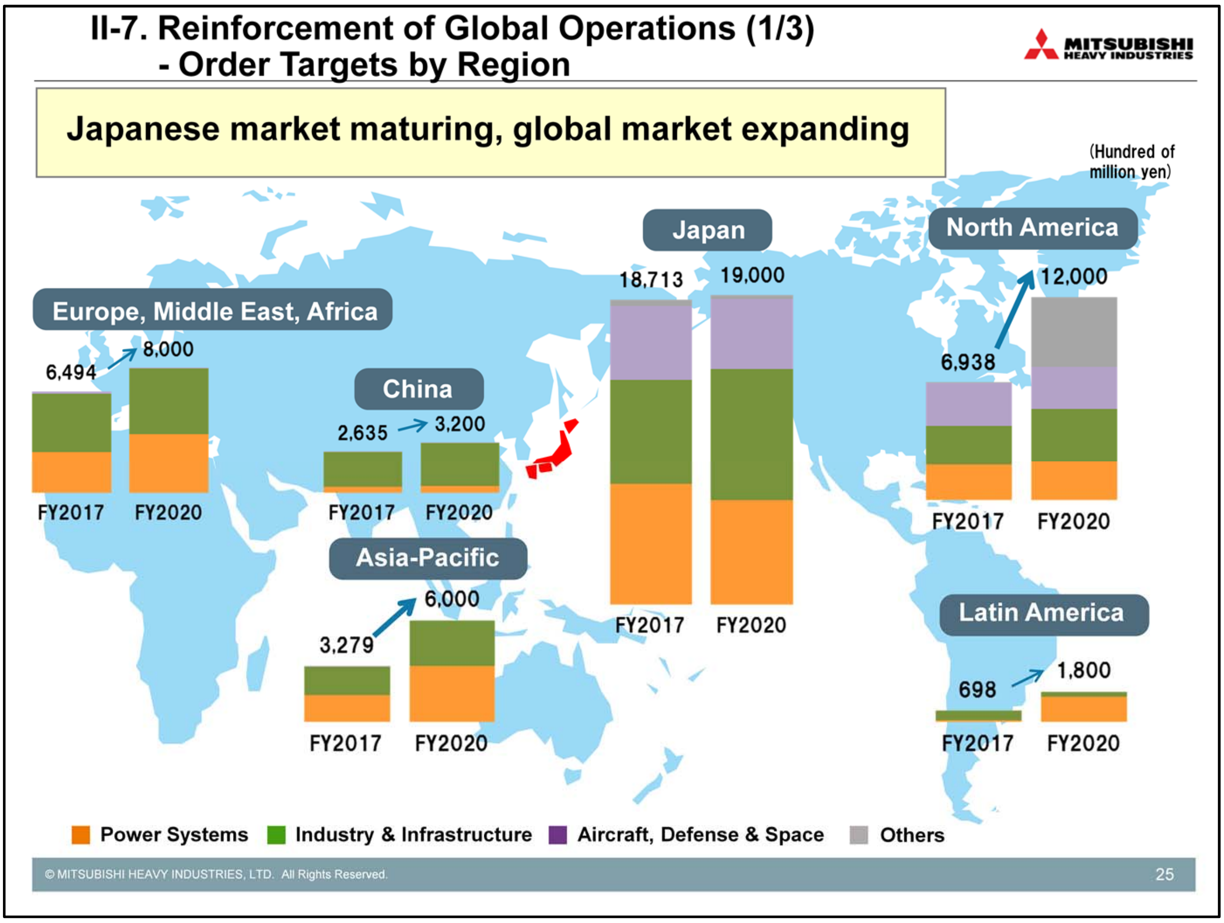
We project that it will take two to three years for recovery to take place in the business environment in order to receive new orders for gas-powered systems. During that period, we will focus on expanding our after-sales servicing operations.
The market environment for coal-powered systems meanwhile is severe; and although we have contracts for our servicing business, recovery going forward is unlikely, so we are

projecting a significant drop in sales starting in fiscal 2021. Given these circumstances, in preparation for this scale-down in sales, we will proceed with restructuring—for example, by consolidating our production bases and reallocating our workers.

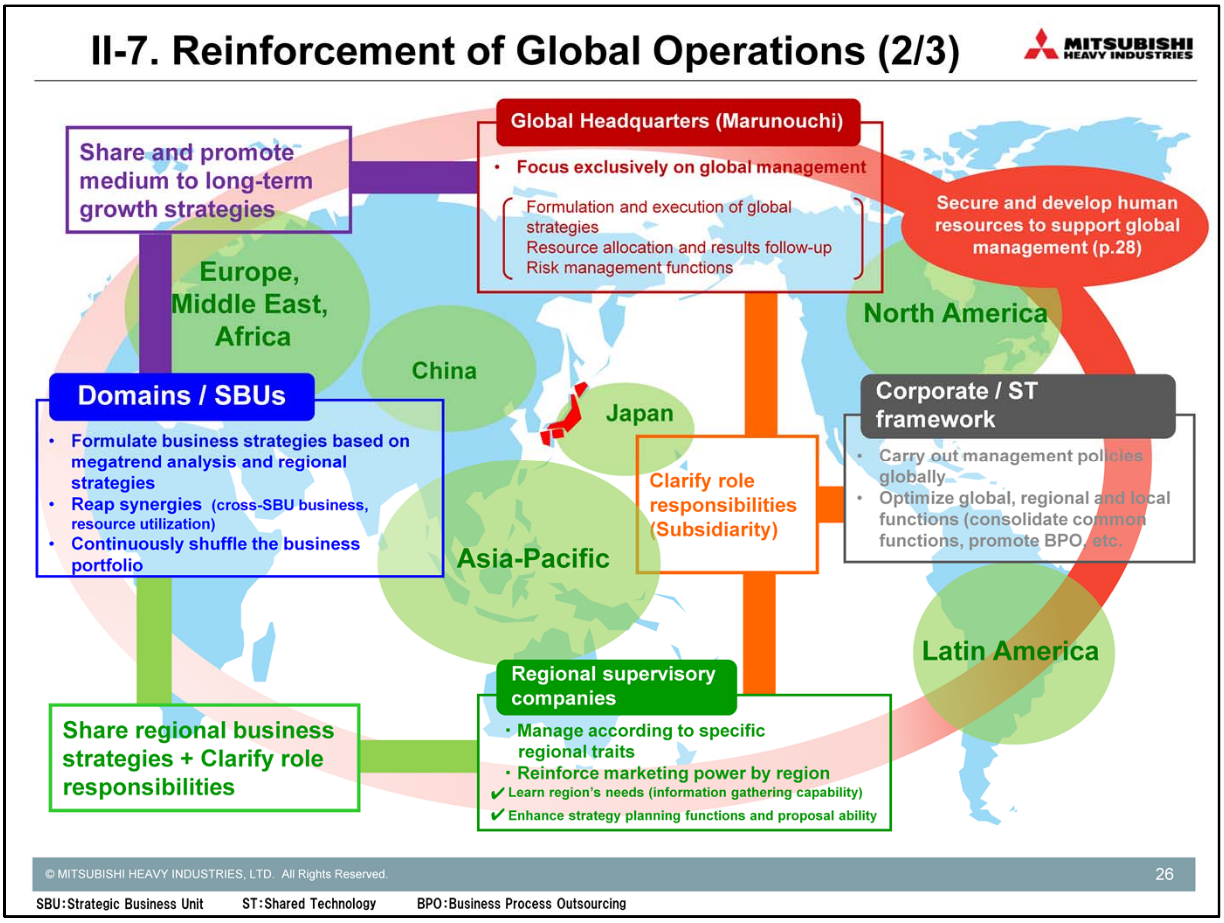
Also, in the long-term view, given the projected ongoing shift from low-carbon to carbon-free systems, we will expand operations in new business areas that offer higher added value—such as developing new hydrogen-powered gas turbines that emit zero carbon dioxide, and making use of digitalization and artificial intelligence.



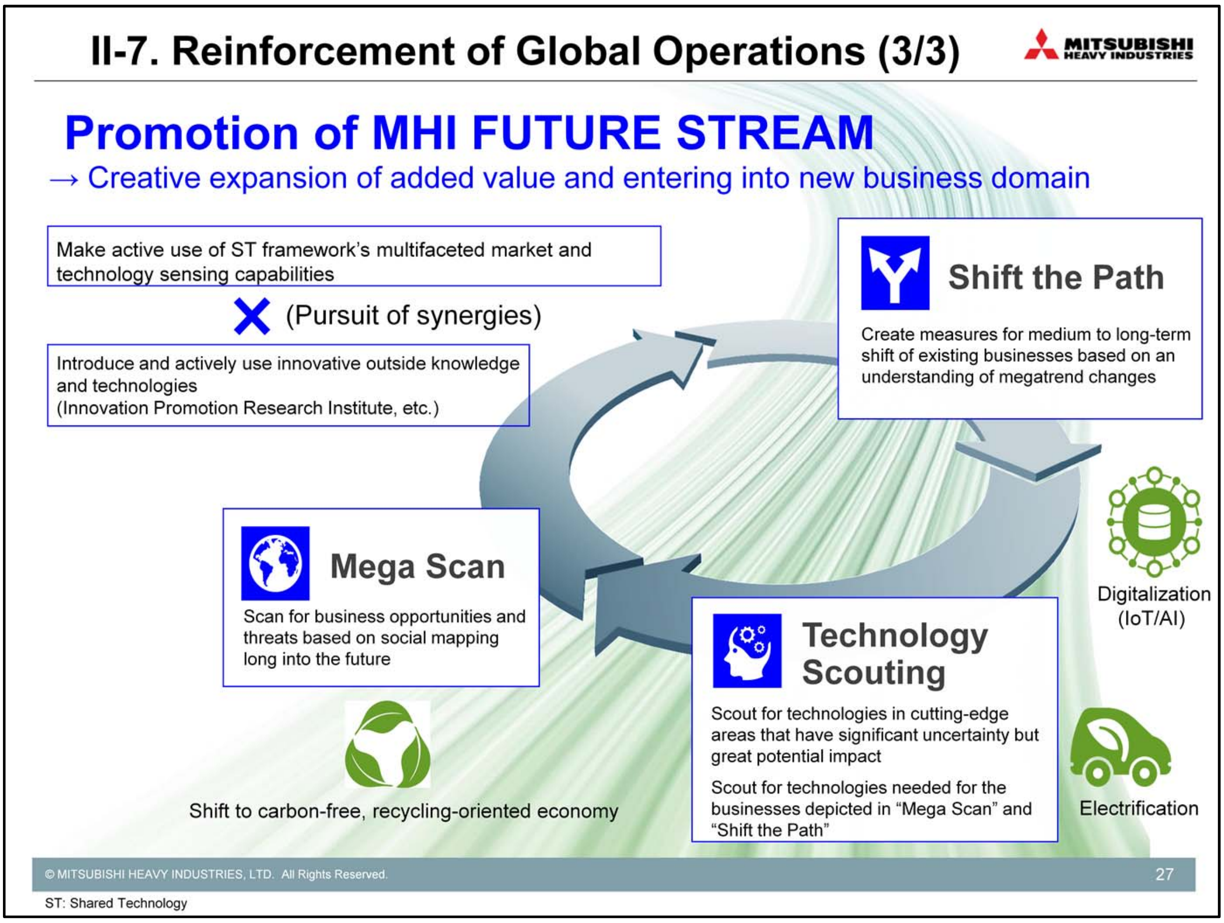
The thermal power systems business today demands medium-to-long-term restructuring to match new social needs. At MHI, while on the one hand we will pursue evolution in hardware—for example, in gas turbines, distributed power systems, CO2 recovery systems, and hydrogen-powered gas turbines—we believe it will be important to increase business in servicing operations, for example by ensuring optimal operation through operation support, remote monitoring, manpower saving, and use of AI.



Because the Japanese market is now maturing, under our 2018 Medium-Term Business Plan we will reinforce our global operations. Up to now, we concentrated on the domestic market; but as we target a business scale of 5 trillion yen, we will strive to attract more orders from the global markets: especially those where growth can be anticipated—for example, North America and the Asia-Pacific regions.



In order to attract more orders within the global markets, it will be necessary to reconfigure our organization in ways that will enable us to carry out global management. For this reason, today we are making preparations to establish a new Global Headquarters in January 2019. Here we see an overview of our new global operations structure. Details will be explained at the presentation in which we will review our fiscal 2018 interim results.



As we roll out the "MHI FUTURE STREAM" concept in order to better compete in global markets, we will make active use of the multifaceted market and technology analysis tools within our shared technology framework—a structure for sharing companywide technologies, supply chains, value chains, and so on. Also, by introducing and actively using innovative outside knowledge and technologies, we will pursue synergies, creative expansion of added value, and expansion into new business areas.

Today, when we are close to achieving the structural reforms implemented to date, we believe that in order to drive business forward based on our Long-Term Vision, we will need to improve our organizational strength by promoting employee engagement, and use that strength as a driving force for our future growth. As a global company based in Japan, in order to burnish our global point of view while also retaining what is good about being a Japanese company, we hope to nurture a management with diverse backgrounds, while also hiring from outside our own company.

We will also undertake initiatives needed to develop human resources capable of serving in positions of leadership in regional management all around the world.

By carrying out the initiatives I have introduced today, under our 2018 Medium-Term Business Plan we hope, while solidifying our foundations, to shift to a growth trajectory for tomorrow.

This completes my presentation. Thank you for your attention.

Reference Materials

Reference 1: Numerical Targets by Domain

MITSUBISHI HEAVY INDUSTRIES

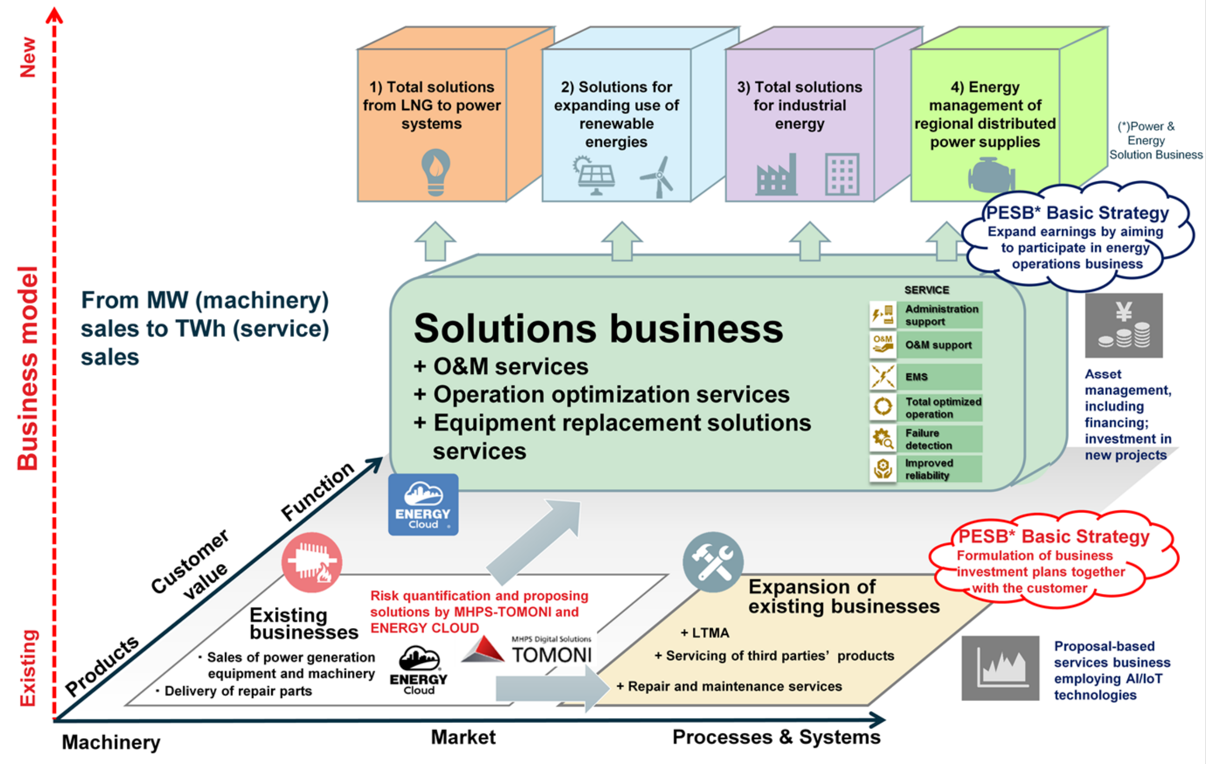
After IFRS

Domain	Orders received			Net sales			Operating income		EBIT	
	FY2017	FY2018	FY2020 Target	FY201	FY2018	FY2020 Target	FY2017	FY2018 (Reference)	FY2018	FY2020 Target
Power Systems	1,437.5	1,500.0	1,800.0	1,493.9	1,600.0	1,900.0	108.9	125.0	135.0	190.0
							・Sales increase in thermal power systems and cost reduction ・Expansion of aero engine business			
Industry & Infrastructure	1,711.3	1,950.0	2,100.0	1,898.9	1,900.0	2,000.0	40.8	75.0	80.0	160.0
							・Restore revenue of commercial ship and metals machinery ・Expansion of medium mass-produced product			
Aircraft, Defense & Space	721.5	650.0	700.0	722.9	700.0	720.0	△ 15.1	△ 15.0	△ 45.0	0.0
							・Decrease in development cost for MRJ ・Improvement of productivity of Tier 1 business			
Other(including non-organic growth)	113.5	100.0	500.0	120.8	120.0	500.0	5.0	5.0	5.0	15.0
Eliminations or Corporate	△ 108.3	△ 100.0	△ 100.0	△ 125.9	△ 120.0	△ 120.0	△ 13.2	△ 15.0	△ 15.0	△ 25.0
Total	3,875.7	4,100.0	5,000.0	4,110.8	4,200.0	5,000.0	126.5	175.0	160.0	340.0

EBIT：Earnings Before Interest and Tax

Reference 2: Power Systems Strategy(1) ; From selling MW to selling TWh

MITSUBISHI HEAVY INDUSTRIES



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MW:Mega Watt TWh:Terra Watt Hour LTMA:Long Term Maintenance Agreement AI:Artificial Intelligence IoT:Internet of Things

Reference 2: Power Systems Strategy(2) ; Turbomachinery Synergies

MITSUBISHI HEAVY INDUSTRIES

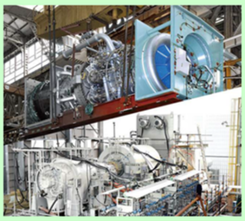
Pursue synergies integrating turbomachinery products and technologies

MHPS × **Mitsubishi Heavy Industries Aero Engines, Ltd.** ‖ **Flexible power generation accommodating renewable energies**

Aero-derivative GTs

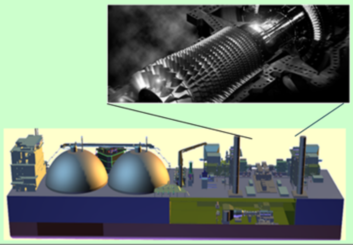
Mitsubishi Heavy Industries Compressor Corporation × **MHPS** ‖ **LNG production solutions**

H-100 GT-driven LNG compressor train



Oil & gas related products business × **MHPS** ‖ **LNG to Power**

Powership equipped with H-25 GTs

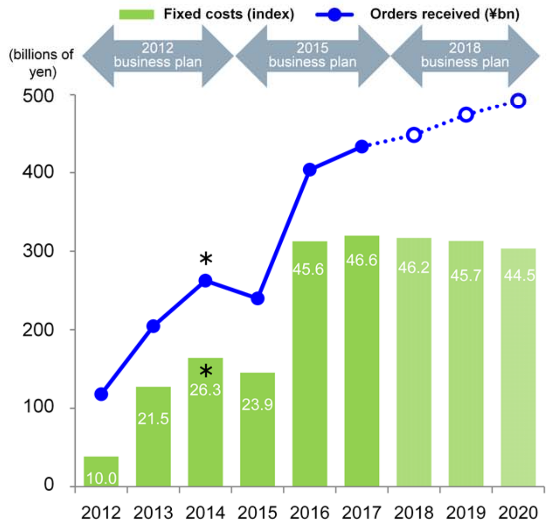


GT: Gas Turbine LNG: liquefied natural gas

Reference 3: Mass and Medium Lot Manufacturing Strategy(1) ; Forklift Trucks

Business model shift

- Response to e-commerce
- Development into logistic solutions



Logistic solutions

[Image of fully automated warehouse]

WMS — Warehouse Management System

Storage (automated warehouses)

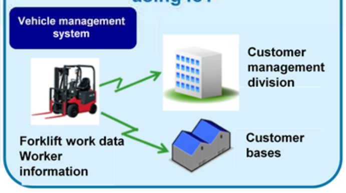
Material handling (AGV)

Automated Guided Vehicle

1. Response to unmanned operations

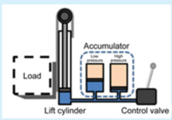

Laser-guided AGF (Automated Guided Forklift)

2. Vehicle management using IoT



3. Safety differentiation technologies

360° monitoring



Vibration / shock absorbing equipment

4. Response to environmental issues

Lithium-ion battery-powered vehicle

Fuel cell-powered vehicle

＊:Affected by the change of accounting dates of part of consolidated subsidiaries(End of December→End of March), making accounting period 15 months

Reference 3: Mass and Medium Lot Manufacturing Strategy(2) ; Turbochargers

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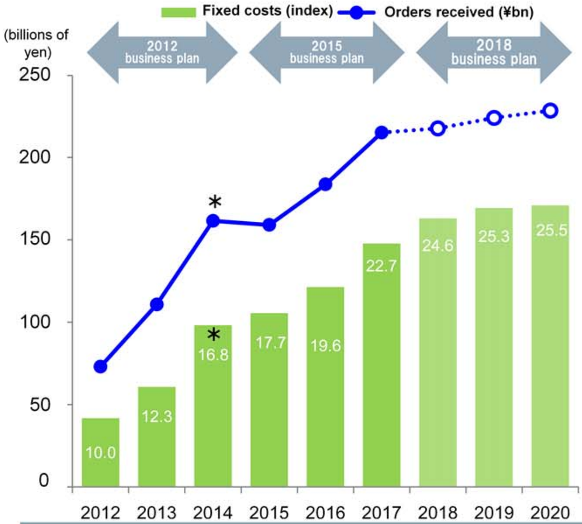
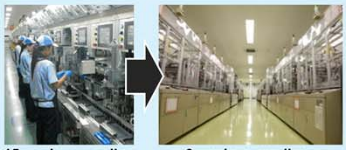
Further reinforcement of earning capacity

- More advanced levels of production and development
- Entry into heavy-duty market (commercial vehicles)



More advanced production: target set on totally unmanned operation

- ◆ Automated inspection
  - ··· Image processing technology and AI
- ◆ Automated parts supply
  - ··· Robots and AI
- ◆ Automated monitoring
  - ··· IoT technologies



15 workers per line (originally) — 3 workers per line aiming for 0 (today)

More advanced development

◆Reinforcement of European development bases

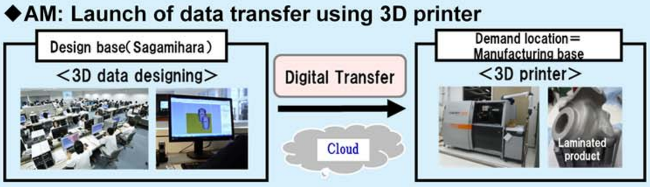
⇒ Focus on Europe, as largest market and with leading edge technology

European Development Center (Netherlands)

Imperial College London / UNIVERSITY OF CAMBRIDGE / Von Karman Institute

Ties with European universities

◆AM: Launch of data transfer using 3D printer



AM：Additive Manufacturing

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＊:Affected by the change of accounting dates of part of consolidated subsidiaries (End of December→End of March), making accounting period 15 months

Reference 3: Mass and Medium Lot Manufacturing Strategy(3) ; Air Conditioning and Refrigeration

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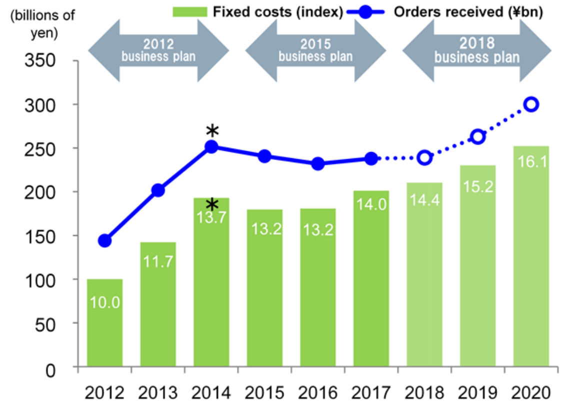
- **Thermal solutions business**
  - → Business scale expansion through low environmental impact refrigerants
- **Products for EVs**
  - → Global sales expansion by strengthening technology synergies
- **Air-conditioning business**
  - → Market share expansion by launching products matching regional needs and reinforcing marketing capability



Thermal solutions business

Received many awards for energy saving from peerlessly efficient heat pump and rotor technologies

Centrifugal Chiller adopting low environmental impact refrigerant

- ･Condensing unit using natural refrigerant refrigerant
- ･High-efficiency Air to Air Heat Pump type Hot Wind Generator

Global sales expansion of EV products

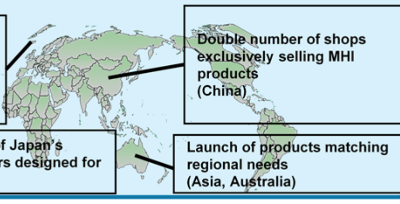
Electric compressor and heat pump technology synergies

Electric driven compressor for EV

All-Electric Refrigeration Unit for truck

Air-conditioning business market share expansion

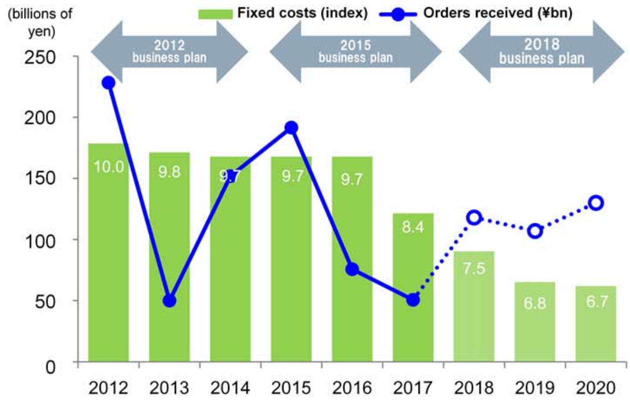
Expansion of global sales network



＊:Affected by the change of accounting dates of part of consolidated subsidiaries (End of December→End of March), making accounting period 15 months

Reference 4: Commercial Ships Strategy

- January 2018: spin-off of shipbuilding and marine structure businesses into 2 companies
- Mitsubishi Shipbuilding
  → Expand business in ferries, government ships, and marine engineering, responding to environmental regulations
- MHI Marine Structure
  → Reduce fixed costs and achieve solid operations
- Eventually, target business scale exceeding 200 billion yen



Scale expansion in ferries, patrol vessel, research vessels, etc.


Ferry

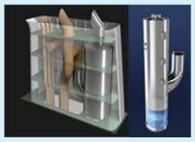

Patrol vessel

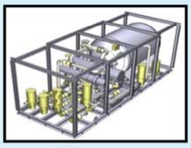

Research vessel

Business expansion in marine engineering

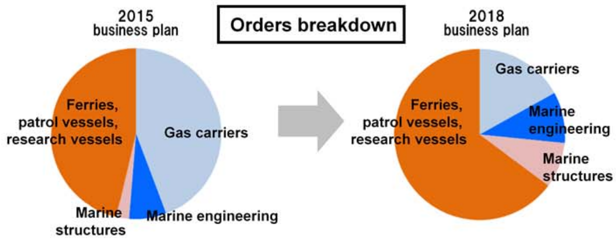
Business development based on environmental solutions, etc.


Hull form development


SOx scrubber


FGSS module

Orders breakdown



FGSS: Fuel Gas Supply System

Reference 5: Commercial Aircraft Tier1 Strategy

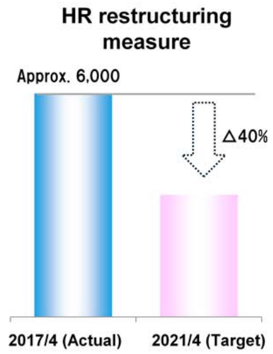
- **During 2015 Business Plan years**
  - → **Deterioration in earnings from insufficient response to sharp drop in sales**
  - → **Measures taken relating to HR restructuring personnel, productivity enhancement, etc.**
- **Further productivity improvement**
  - → **Adoption of automated equipment, application of AI/IoT in indirect business processes**
- **Review of procurement processes, reduction in working capital**
  - → **Curbing of external expenses, shortening of procurement LT, minimization of inventories**

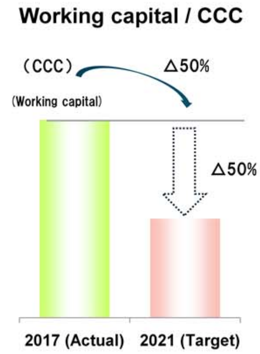
Productivity enhancement through robotics

- **Automation of Boeing 777X assembly**
- **Automation using Boeing 787 paint robot**

Automation of auxiliary work processes

- **Automation of material handling, assembly kits**
- **Adoption of work support tools**
  (Strengthening productivity through AI)





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AI: Artificial Intelligence IoT: Internet of Things LT: Lead Time CCC: Cash Conversion Cycle

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Development of dual uses in security field

→ **Develop technologies during 2018 Business Plan, and target business development during 2021 Business Plan**

Unnamed systems

Defense

Unmanned command and control system

Security

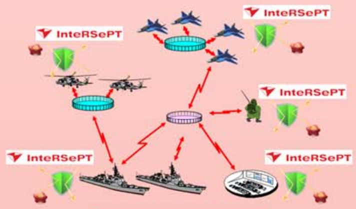
Networked coast security system using unmanned vehicles

CoasTitan®

Cybersecurity

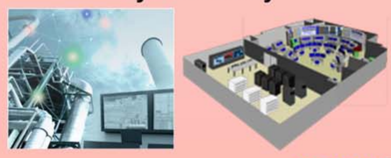
Defense

Control system cybersecurity



Security

Industrial infrastructure cybersecurity



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