MOVE THE WORLD FORWARD MITSUBISHI HEAVY INDUSTRIES GROUP

Transition to Global Group Management

October 31, 2018
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Here, we will explain the measures we are taking to launch a new growth phase following completion of our structure reform agenda.

Contents

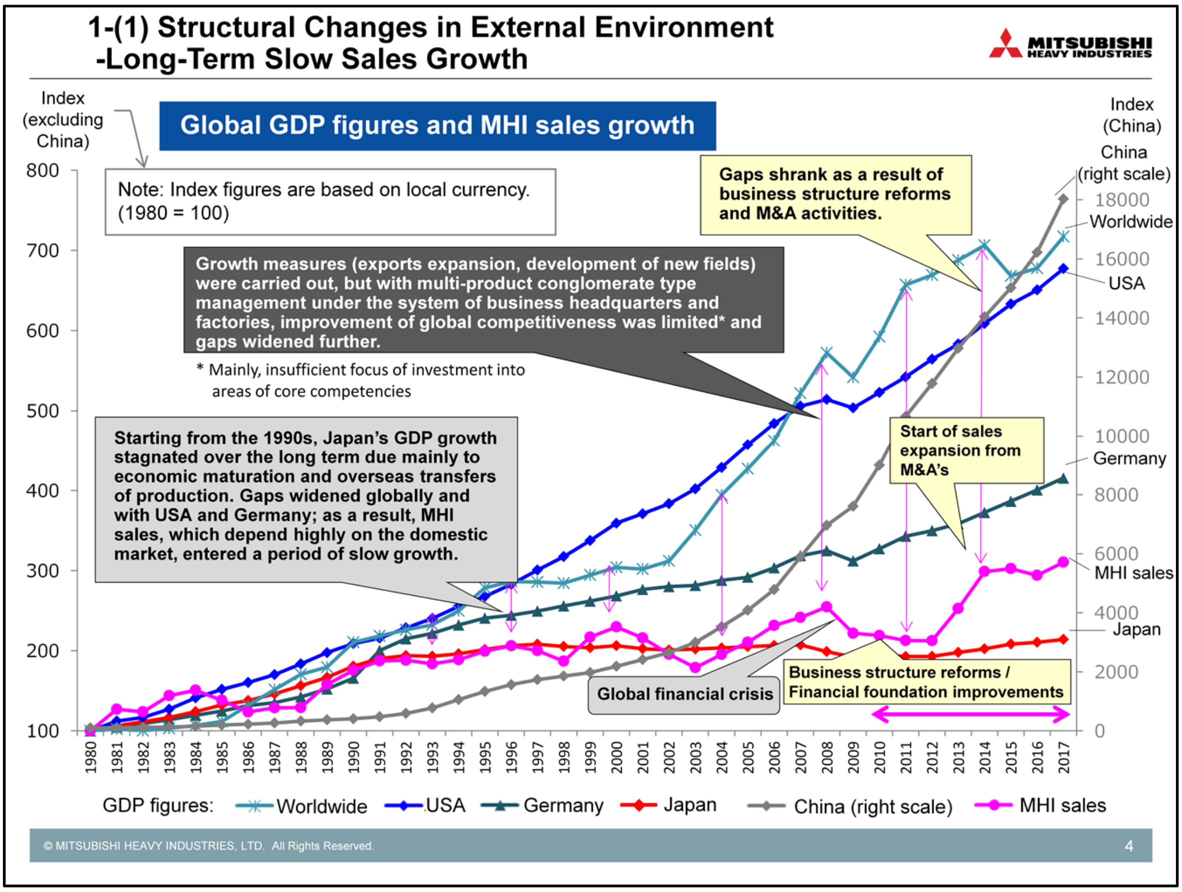
 2

In Part 1, we explain the background to our business structure reform initiatives. In Part 2, we will describe what we are doing in fiscal 2018, and within the parameters of our 2018 Medium-Term Business Plan, toward entering a new growth trajectory. In Part 3, we will focus in particular on how we aim to transition to global group management.

1. Medium- and Long-Term Challenges to Achieving Growth

 3

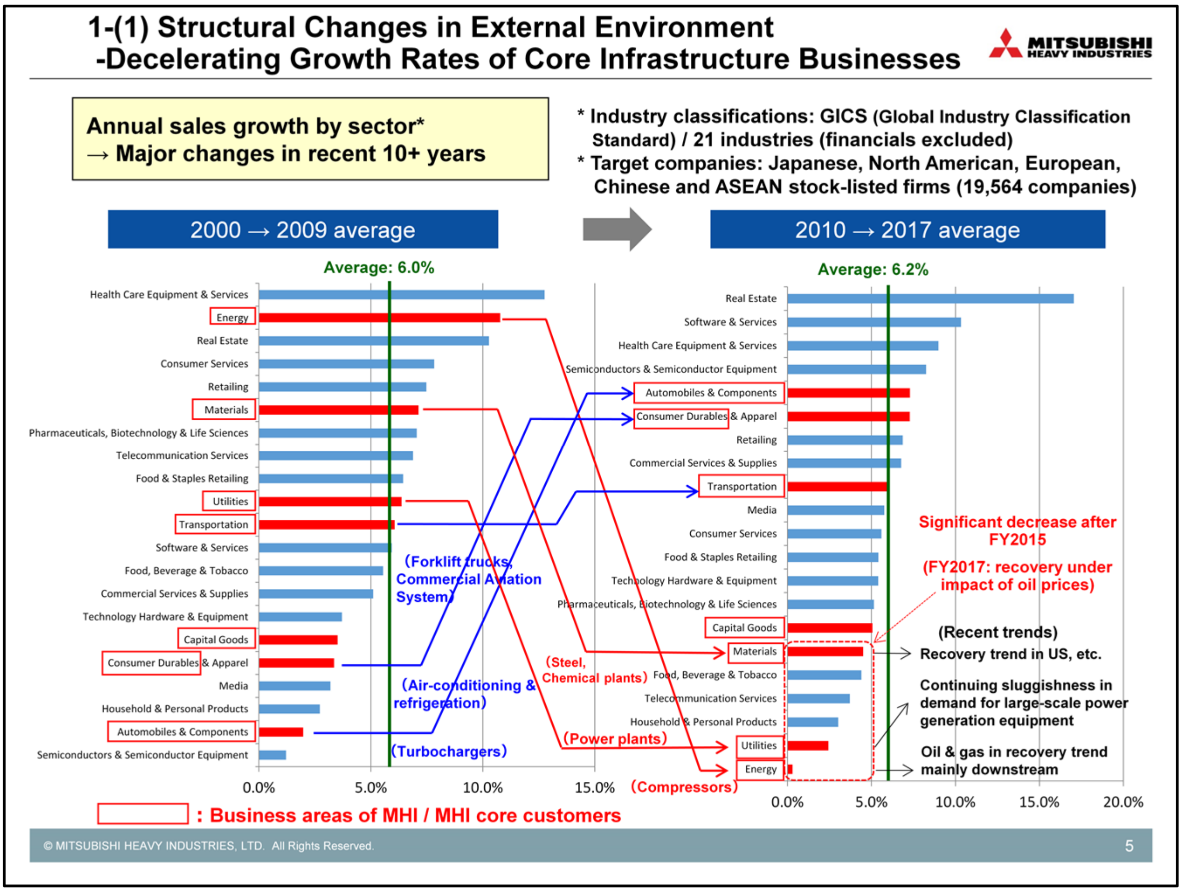
To begin, here we will explain the medium- and long-term challenges we face to achieving growth.



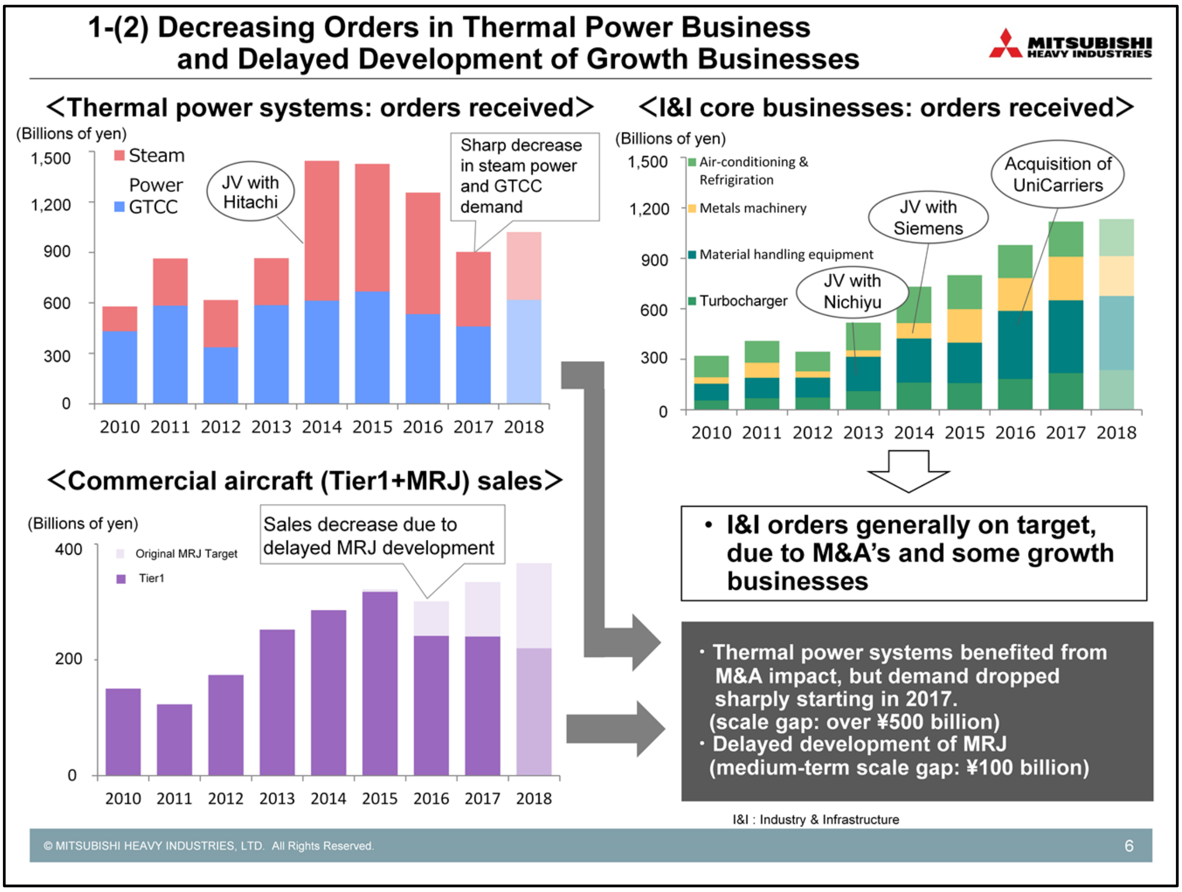
From the 1960s through to around 1985, we undertook conglomerate type management geared toward the Japanese market, and during this period our sales growth exceeded global GDP growth rates. Subsequently, however, the nation's infrastructure became well-developed and the economic growth rate slowed; and as a result, MHI's sales, which depended heavily on the domestic market, began to stagnate. Then in the 1990s, when the so-called "bubble economy" collapsed, MHI entered a period of prolonged stagnation.

Earlier, we had taken various steps to expand our exports and develop new fields of business as new growth drivers. But under the multi-product conglomerate type management system in place at the time, which was based on a corporate structure consisting of business headquarters and factories—a system that had been viable in Japan up to a certain time—our investment into areas of core competency was insufficient and our global competitiveness was limited—and gaps widened globally, and with the United States and Germany.

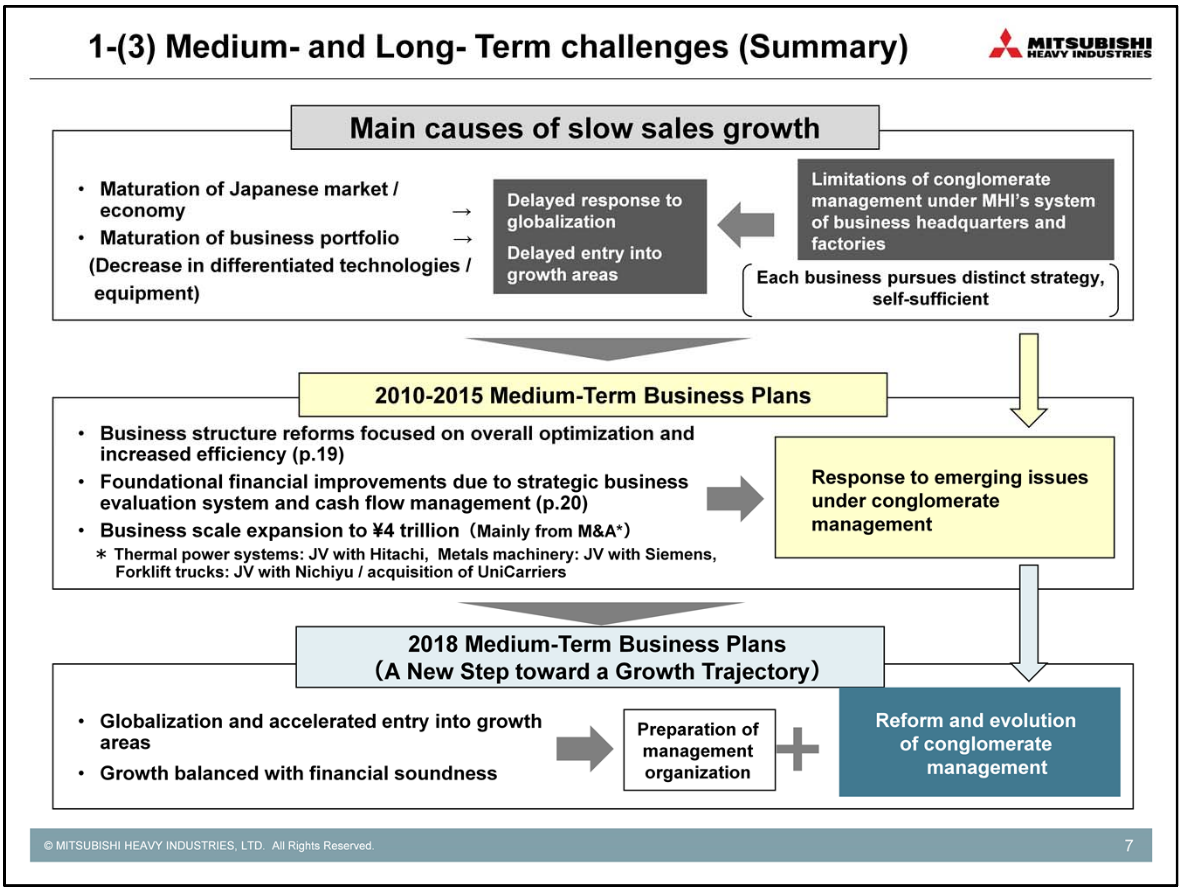
After the global financial crisis of 2008, impact on our earnings became severe. We then launched various business structure reforms and pursued effective use of our management resources, with a focus on improving our management efficiency and strengthening our financial foundation. Once results began emerging, we next determined that we needed to expand our business scale, at which point we began taking steps to expand our sales through M&A activities. As a result, the gaps between our sales growth rate and global GDP growth rates began shrinking—a trend that continues today.



During the first decade of the new millennium, MHI posted sales growth on the strength of its core infrastructure businesses: metals machinery, chemical plants, power plants, compressors, and so forth. But after 2010, sales growth in these areas decelerated while, by contrast, sales grew in areas such as forklift trucks, commercial aviation systems, air-conditioning & refrigeration, and turbochargers. As this demonstrates, vast changes have taken place during the past 10 years.



Among the various measures we have taken to date—including reform of our business structure and reinforcement of our financial foundation—we have sought expansion of our business scale through M&A's. With Hitachi, we formed a joint venture in thermal power systems: Mitsubishi Hitachi Power Systems, or "MHPS," a move that significantly contributed to sales expansion. Subsequently, however, as global efforts to cope with climate change and reduce CO_2 emissions have gathered momentum, interest in renewable energies has emerged. As a consequence, demand for steam power plants and GTCC—gas turbine combined cycle—systems dropped sharply. This has caused sales to decrease toward levels recorded prior to MHPS's establishment, and resulted in a greater than 500-billion-yen shortfall in business scale compared to our initial target. Meanwhile, delayed development of the MRJ has resulted in a business scale gap of around 100 billion yen in the medium term. Together, these two factors have produced a near-600-billion-yen gap in business scale compared to the 5 trillion yen we had targeted in our 2015 Medium-Term Business Plan.



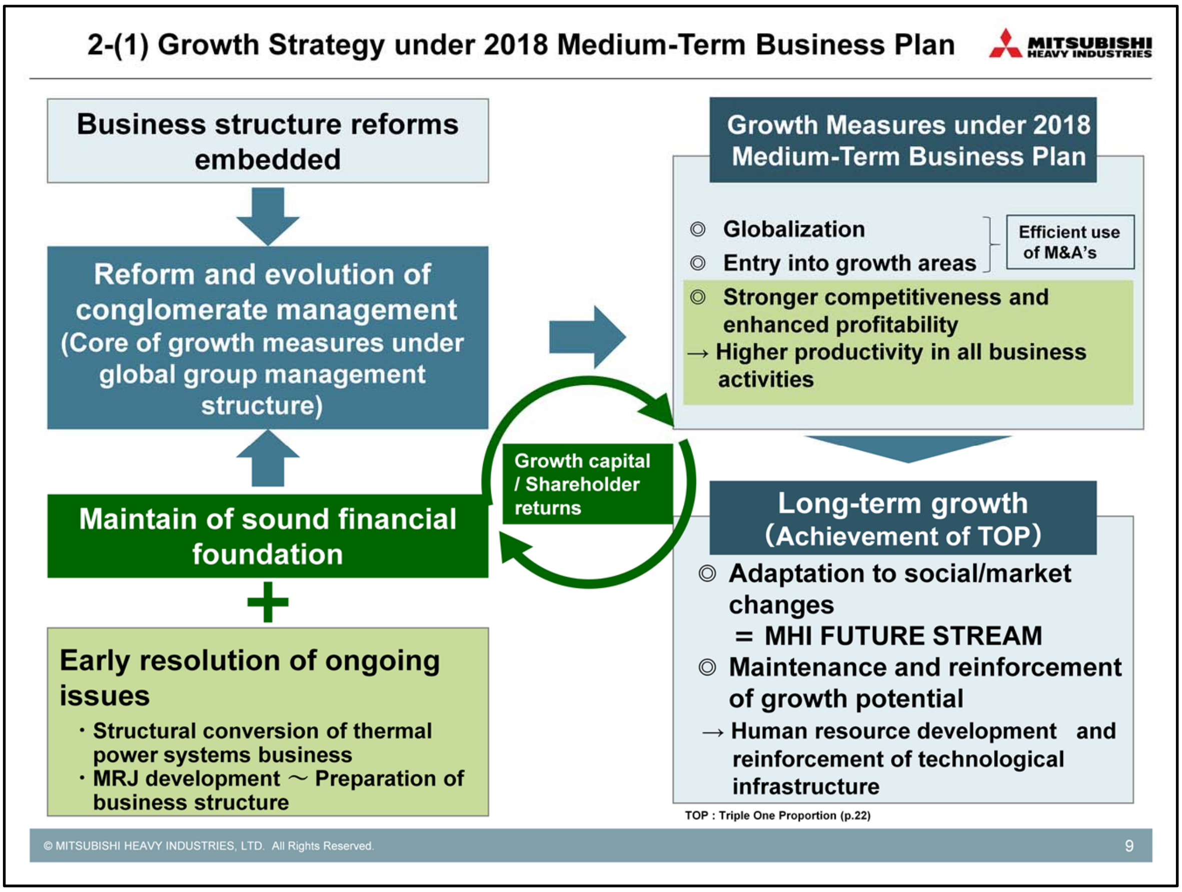
Two main factors contributed to MHI's entrenched slow sales growth: a portfolio continuously encompassing an extremely large number of products and businesses, and the overarching tendencies of each business to pursue its own distinct strategies and self-sufficiency under the system of business headquarters and factories. We believe these factors prevented us from responding adeptly with new products and overseas business.

To address these challenges, under our 2010, 2012 and 2015 Medium-Term Business Plans we carried out business structure reforms focused on overall optimization and increased management efficiency, and we launched a new system of business domains. Meanwhile, in pursuit of concentration into our core competencies, we inaugurated a strategic business evaluation system and strived for optimal cash flow management. Through these efforts, we sought to improve our financial foundation even as we developed new products such as the MRJ. As a result of these measures as well as M&A activities, our business scale grew from less than 3 trillion yen to 4 trillion yen.

Now, to seek further growth in the years ahead, in place of our earlier type of conglomerate management system, we believe we need to skillfully recalibrate our product portfolio in order to shift to a new type of conglomerate management system that will enable us to maintain stable growth within global markets.

2. A New Step toward a Growth Trajectory

In Part 2, “A New Step toward a Growth Trajectory,” we explain our growth strategy under our 2018 Medium-Term Business Plan.

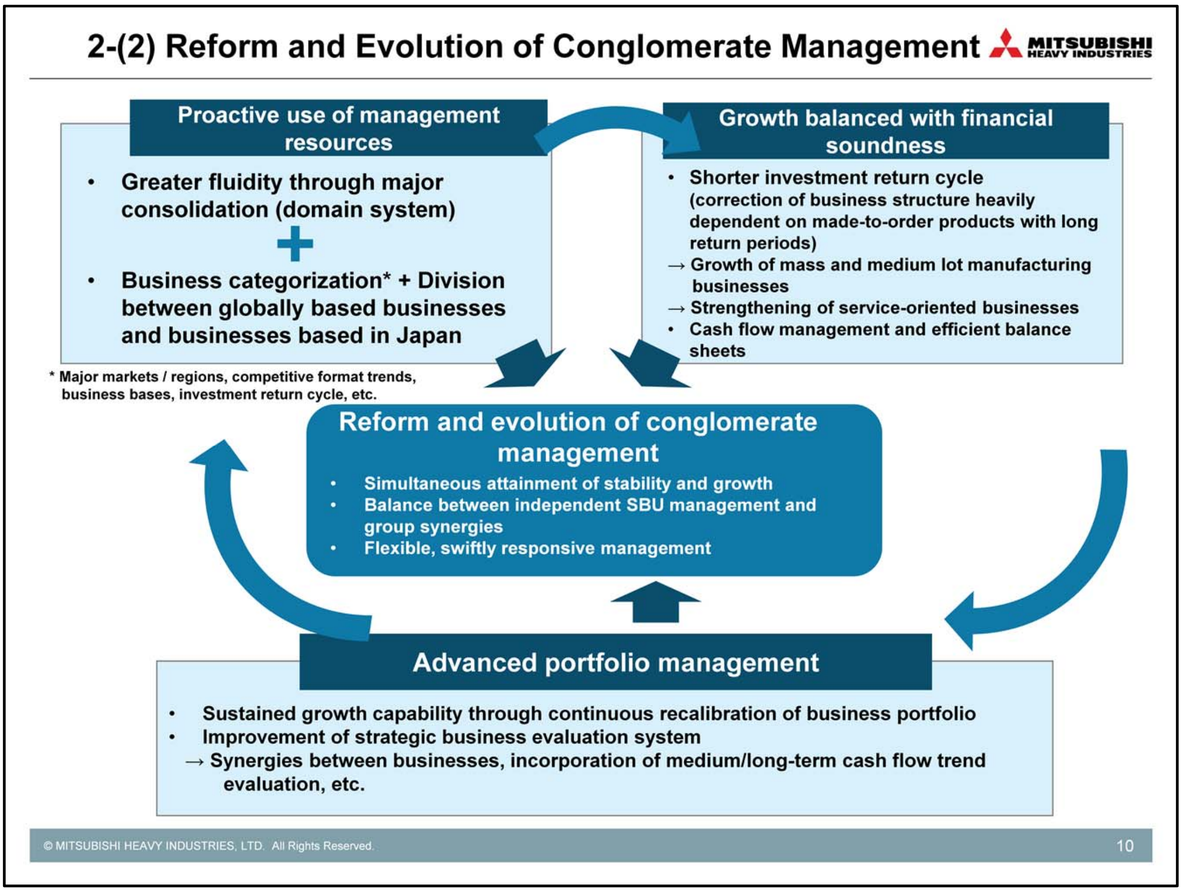


Under the growth strategy incorporated into our 2018 Medium-Term Business Plan, we aim to reform and evolve our conglomerate management system by embedding the business structure reforms we have implemented until now and maintaining a sound financial foundation. To achieve this, we must swiftly resolve ongoing issues: specifically, structure conversion of our thermal power systems business, and proceeding beyond the MRJ's development phase to preparation of the necessary business structure.

Concerning our thermal power systems business, we currently have substantially more work volume than our competitors, so we expect to sustain a stable earnings structure through fiscal 2019 and 2020. For the years beyond that, however, we need to undertake structure conversion in preparation for the possibility of a slump in new orders.

In terms of the MRJ, it will be important to complete development as early as possible and proceed to preparing the necessary business structure—and this is our intention.

Growth measures under our 2018 Business Plan focus on two targets: globalization and entry into new growth areas through efficient use of M&A's, and stronger competitiveness and enhanced profitability through higher productivity in all business activities. Through these measures, we will strive toward achievement of 5 trillion yen in business scale, i.e. net sales, as well as achievement of TOP—"Triple One Proportion"—as a way of securing continuous long-term growth.



First, with regard to proactive use of management resources, under the domain system we launched under our 2012 Business Plan, we formed a system facilitating fluidity of those resources. Going forward, we will undertake business categorization according to each business's major markets or regions, competitive format trends, business bases, investment return cycle, and so forth—and allocate resources accordingly. While businesses based in Japan are stable, their growth potential is limited; so we recognized a need to focus on globally based businesses that offer high growth potential. We therefore divided between globally based businesses and businesses based in Japan, and going forward we will undertake management clearly divided in sense of purpose.

Next, with respect to growth balanced with financial soundness, investments up to now have been heavily oriented toward made-to-order products with long return periods. This business structure will now be corrected, and initiatives will be taken to shorten investment return cycles. Specifically, we will grow our mass and medium-lot manufacturing businesses—material handling equipment, for example—and strengthen our service-oriented businesses. We will also pursue thorough cash flow management and strive for efficient balance sheets.

Concerning advanced portfolio management, we intend to sustain growth capability through continuous recalibration of our business portfolio. Up to now, our strategic business evaluation system has marked good results in concentration into our core competencies. Going forward, the system will be improved through synergies between businesses, incorporation of medium and long-term cash flow trend evaluations, and so on.

By reforming and evolving our conglomerate management system in these various ways, we believe we can attain stability and growth simultaneously, maintain a good balance between independent SBU management and group synergies, and achieve flexible, swiftly responsive management.

2-(3) Categorization Based on Business Characteristics (Applied to years of 2018-2021 Business Plans)

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Business type	Domestically based businesses (approx. ¥1.7 trillion)			Globally based businesses (approx. ¥2.4 trillion)		
	Ⅰ - 1 Regulated/ cutting-edge	Ⅰ - 2 Mature & niche/ Reform	Ⅰ - 3 Export/Reform	Ⅱ - 1 Developing/ expanding	Ⅱ - 2 Mature/mid-tier	Ⅲ Large-scale/ Reform
Component businesses (: Power Systems; : Industry & Infrastructure; : Aircraft, Defense & Space)	Defense, space; Nuclear power	Machinery systems; Machine tools※; Commercial ships; Marine machinery※	Aero engines; Engineering (EPC); Commercial Aviation※	Material Handling Equipment; Engines; Compressors	Air-conditioning & refrigeration; Metals machinery; Turbochargers	Thermal power systems
Total business scale (Medium-term trend, 3-6 years)	¥680bn (stable or slight increase)	¥390bn (nearly flat)	¥650bn (gradual expansion)	¥600bn (recovery or gradual increase)	¥670bn (recovery or gradual increase)	¥1,150bn (stagnation or Settled at a given level)
Overseas sales ratio	3~4%	5~40※%	75~100%	55~90%	60~90%	60%
Overseas personnel ratio	0%	0~30%	0~25※%	15~30%	70~90%	25%
Business characteristics	·Oriented to Specific customers: government agencies and power companies ·Long-term recovery type businesses	· Mainly domestic market · Mature & niche business · Wide fluctuations in demand	·Oriented to specific customers · Export businesses · Established business model	· Oriented to global markets · High-volume or made-to-order production (standardized products)	· Oriented to global markets · Mainly overseas production, established business model · Portfolio contains differentiated products	· Oriented to global markets · Large-scale development by major manufacturer /Long-term recovery type businesses
Challenges and solutions	· Expansion of security / space-related businesses · Steady exports expansion ·French-Japanese collaboration in nuclear power	· Significant productivity improvement · Business model reform	· Preparation of business structure after MRJ development · Structure conversion of engineering business	· Increased overseas production and business expansion through alliances	· Stronger human resources for global management · Early action aimed at next growth area / technology	· Structural market change resulting from CO_2 issues and renewable energies
	Steady growth measures	Acceleration of profitability improvement activities		Steady pursuit of growth and profit		Radical measures (business structure conversion)

 11

Here, we see how we have categorized our group businesses—the core of our new approach to conglomerate management. Specifically, there are 2 basic categories: domestically based businesses and globally based businesses, divided according to their respective main markets, regions and business bases. These 2 broad categories are then subdivided into a total of 6 subcategories according to business characteristics, challenges, and so on.
Among businesses based in Japan, “regulated and cutting-edge” businesses—category I-1—include defense & space, and nuclear power. These are stable businesses targeted at the highly regulated domestic market. Going forward, we will implement steady growth measures such as expansion of security and space-related businesses, and French-Japanese collaboration in nuclear power.
Category I-2 is mature & niche businesses and related reform businesses. Included here are machinery systems, machine tools, commercial ships and marine machinery. Mainly serving the domestic and niche markets, these businesses are stable, and if any of these areas were to grow in particular, we would then pursue global expansion. But fundamentally, we intend to pursue profitability improvement according to established Japanese management practices.
Category I-3 consists of export and related reform businesses, including aero engines, engineering, and commercial aviation. These businesses are Japan-based export businesses oriented to specific customers. Challenges and solutions in this category include the preparation of a business structure to follow completion of the MRJ’s development, and structure conversion of the engineering business.

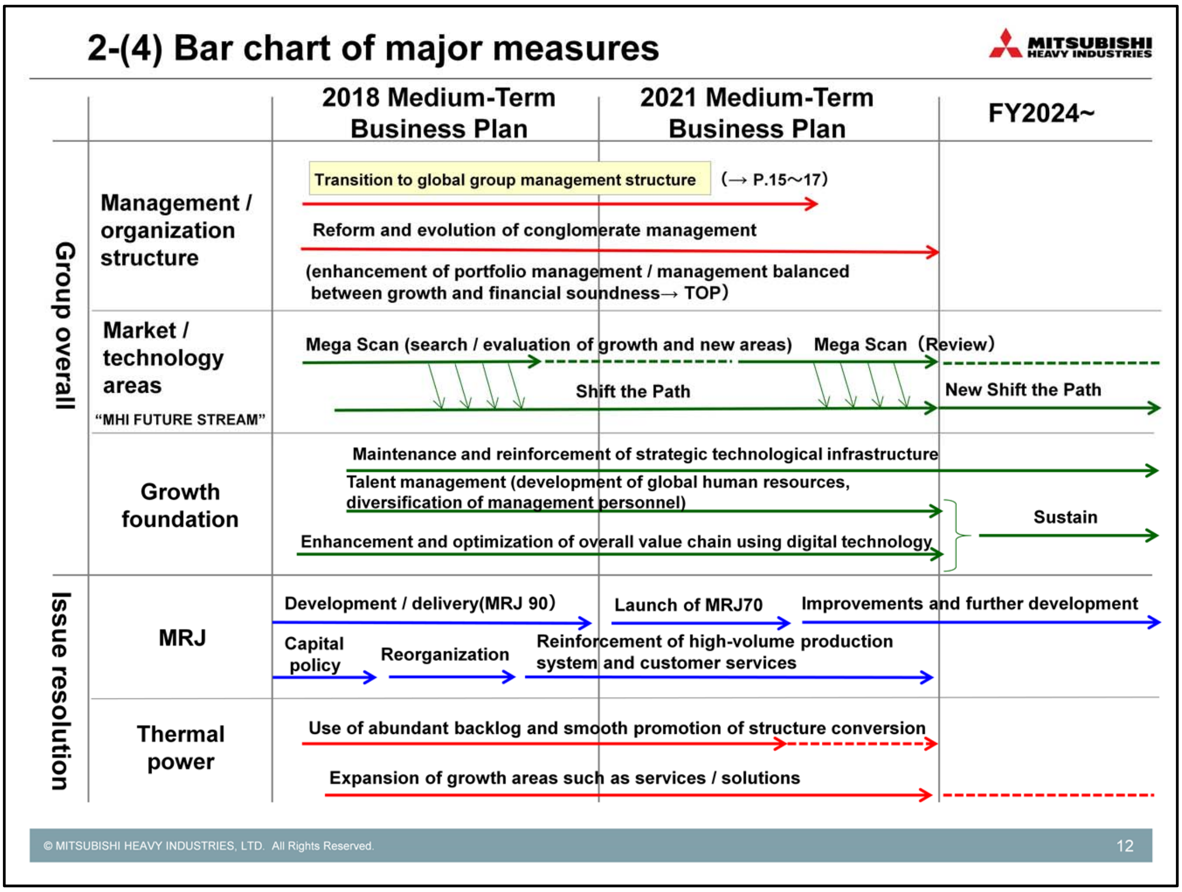
Among globally based businesses, category II-1 consists of developing or expanding businesses. These include businesses such as those dealing in material handling equipment, engines, and compressors. Because it is extremely likely these business areas will continue to expand overseas in the future, we will pursue growth and profit in these areas by increasing overseas production and expanding alliance partnerships.

Category II-2 is mature and mid-tier businesses. Included here are metals machinery, air-conditioning & refrigeration, and turbochargers. In metals machinery, we have established a joint venture with Siemens. Development is carried out at various locations including Japan, Austria and the United States, depending on each base's respective strengths. Production too is performed worldwide, and the business model here is well established. In the coming years, we will pursue further growth by strengthening human resources for global management, and by taking early actions aimed at next growth areas and technology.

Category II-3 consists of large-scale and related reform businesses—presently including thermal power systems alone. Today, thermal power systems are a core business in terms of our overall sales and profits, but the environment for capturing new orders is severe. Owing to CO_2 issues and the emergence of renewable energies, the market structure is changing, making radical response measures necessary. Today we are undertaking business structure conversion.

With categorization based on business characteristics as just described, the challenges and solutions needing to be addressed in each subcategory become clear. By carrying out specific measures, in combination with the new strategic business evaluation system, we aim to usher in further growth for MHI Group as a whole.

As a footnote, I should add that the various categories just described are based on current situations, and they are not intended to be permanent. In the future, we will review our categorization framework in light of changes in the business environment et cetera.

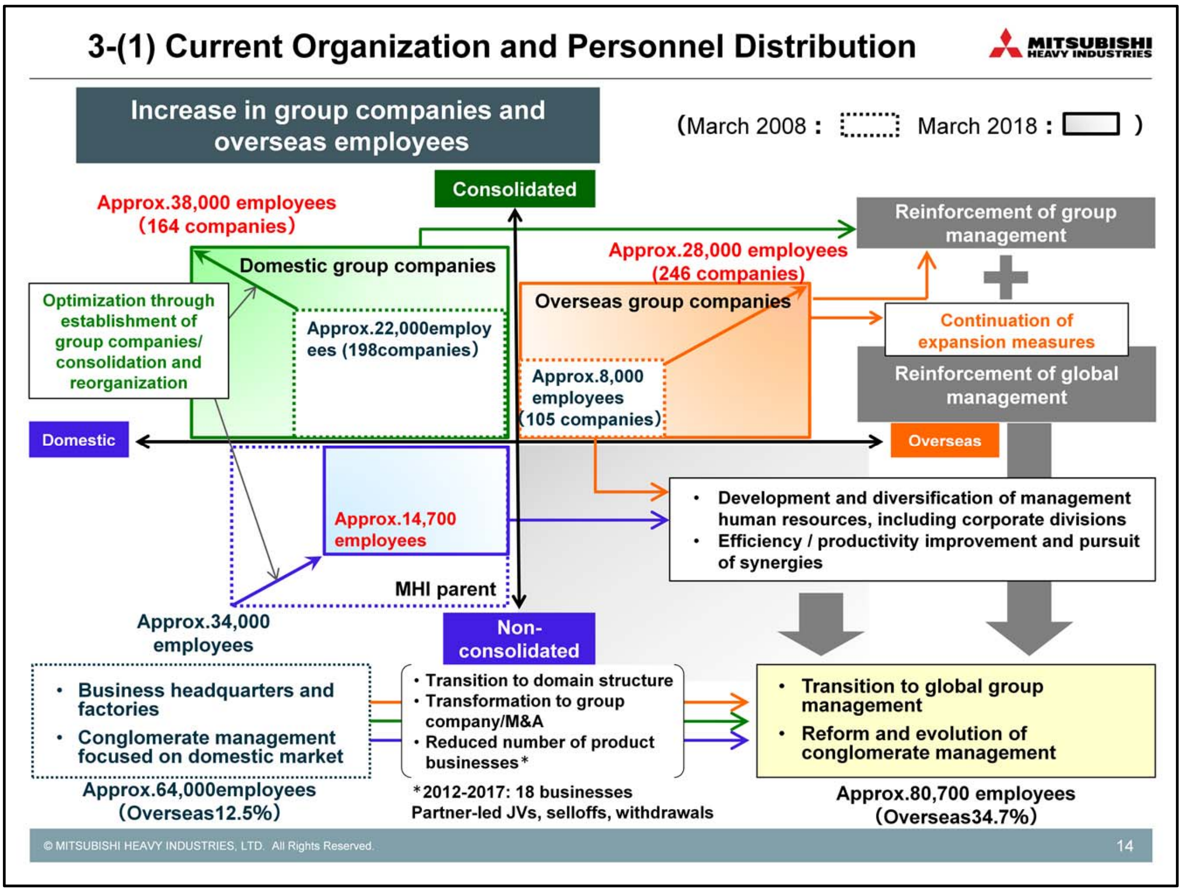


This is a bar chart showing the major measures I have explained thus far. We hope to follow up the first step toward achieving a growth trajectory under our 2018 Medium-Term Business Plan with robust growth under our 2021 Medium-Term Business Plan.

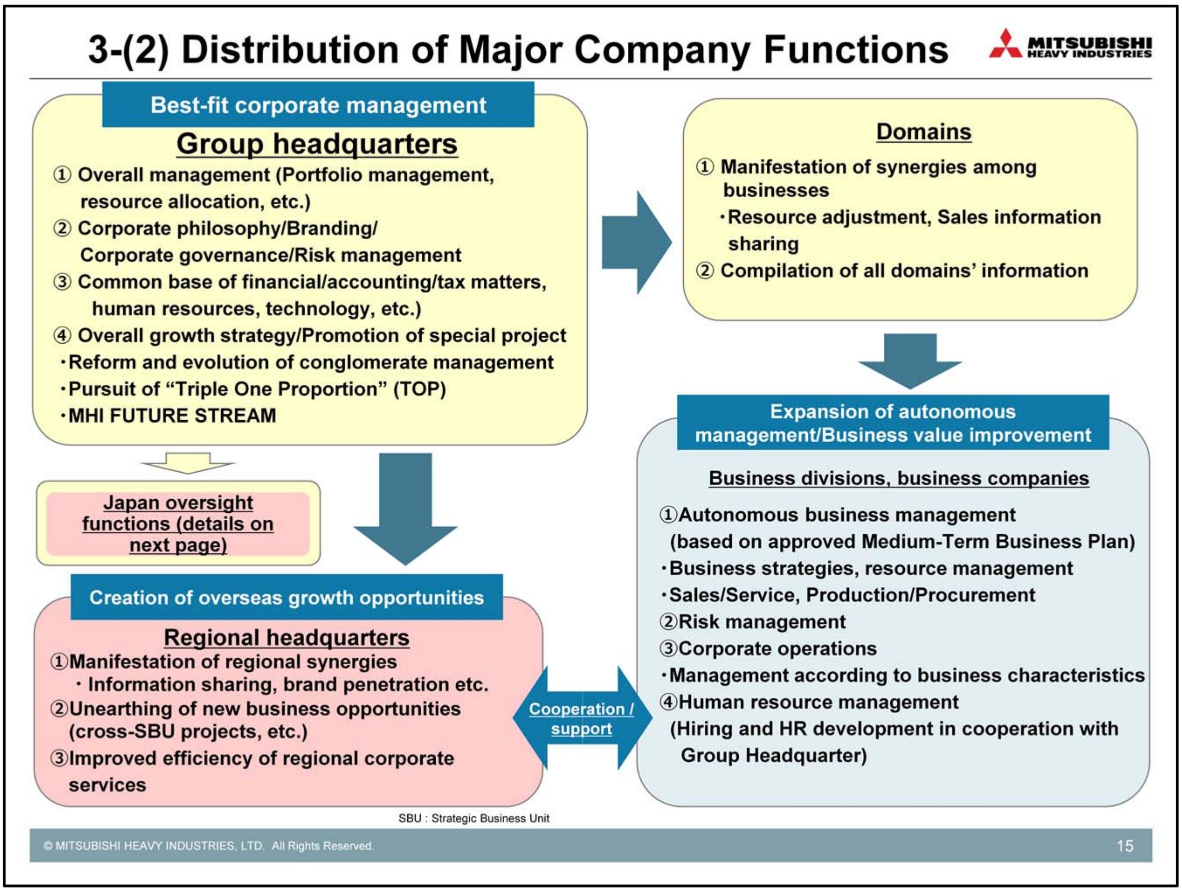
3. Transition to Global Group Management

 13

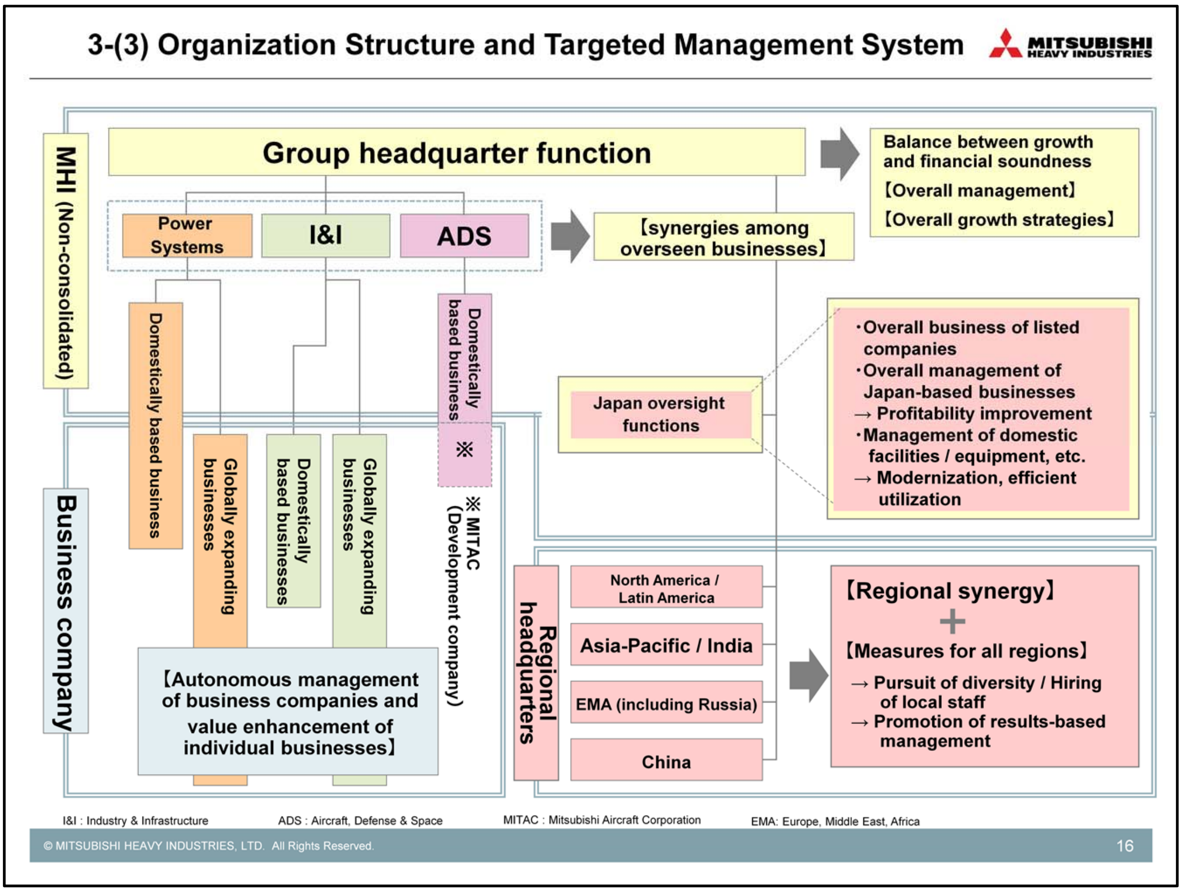
Now, in Part 3, I will explain our transition to global group management.



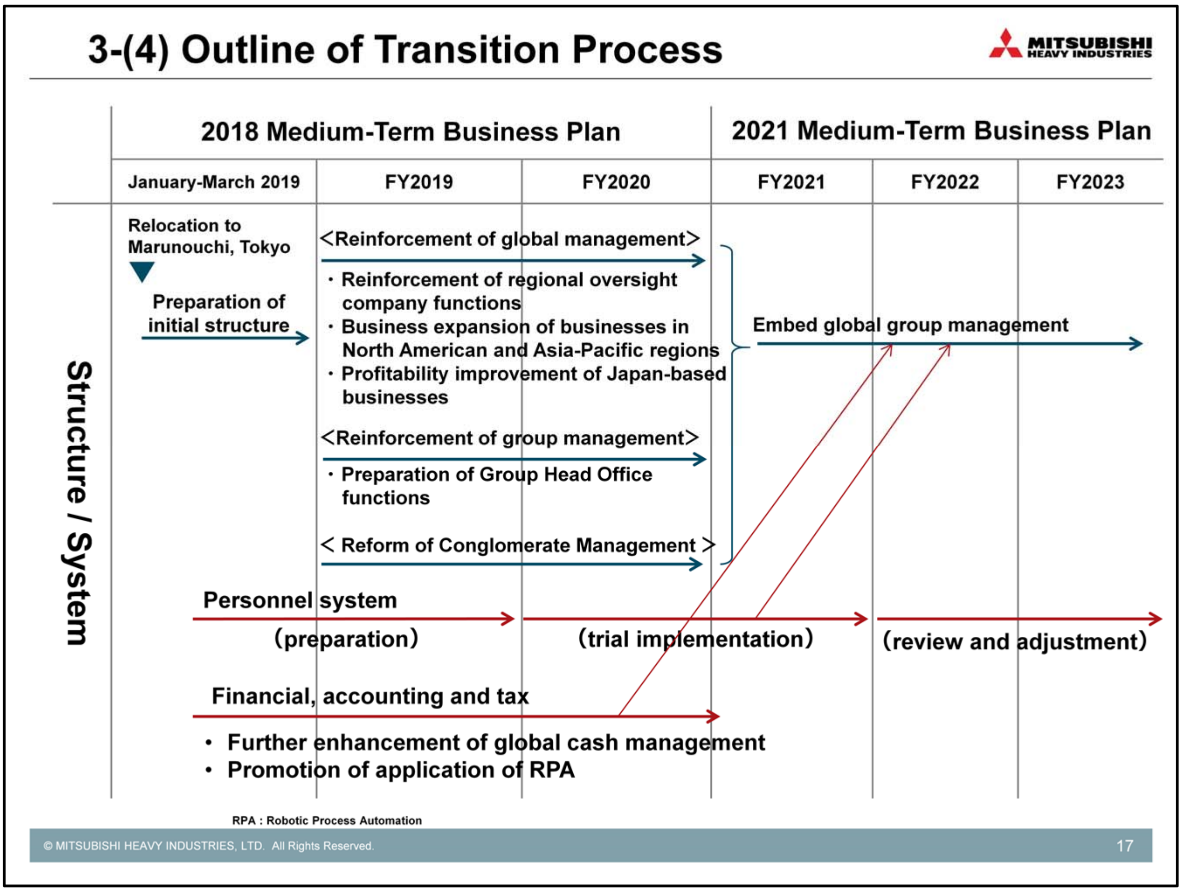
MHI Group’s organization and personnel distribution have changed greatly during the past 10 years. Ten years ago, our management structure centered on our business headquarters and factories, and our principal focus was on the domestic market. At the same time, we had a strong tendency toward self-sufficiency. As a result, of a total of approximately 64,000 group-wide employees, roughly 34,000 were employed at MHI itself, another 22,000 or so worked at domestic group companies, and about 8,000 were working at overseas group companies.
Subsequently, as a result of spinning off various businesses and consolidation and reorganization carried out domestically, the scale of MHI’s parent operations grew smaller and that of domestic group companies grew larger. Overseas, the scale of our overseas group companies expanded sharply as our business became increasingly globalized, and the ratio of overseas employees increased from 12.5% ten years ago, to 34.7% today. Going forward, because globalization will continue at an accelerating pace, this ratio is expected to expand further.
In light of the foregoing circumstances, even more than before, in the coming years it will be vital for us to strive for “group management” and “global management” encompassing the development of human resources in management—including corporate positions—as well as the pursuit of diversity, greater efficiency and productivity, and synergies. The necessary structures will be put in place to achieve those aims.



In transitioning to global group management, the new group headquarters we are establishing will take charge of overall optimal management and common bases of various areas, to achieve synergies and a unifying force. Meanwhile, greater authority will be transferred to business companies and business divisions in order to expand autonomous management and improve their respective business value.
At MHI, many businesses—with the exception of thermal power systems—are of medium scale. For these businesses to mark sustained growth, their current business scale is insufficient, so it will be necessary to achieve a good balance with overall group synergies. Within the domains, synergies among businesses will be manifested. Overseas growth will be managed and supported by the regional headquarters.



Up to now our Head Office performed two sets of functions: group headquarters functions and Japan oversight functions. From now on, these functions will be clearly divided.
As group headquarters functions, overall management and overall growth strategy functions will be strengthened. Concerning Japan oversight functions, we intend to focus specifically on general business duties required of listed companies, profitability improvement of domestically based businesses, and modernization and efficient utilization of domestic facilities, equipment, and so on.
At overseas regional headquarters, through implementation of regional synergies and measures common to all regions, we will pursue diversity, hiring of local staff, and the promotion of results-based management.



During fiscal 2018, we will prepare the initial structures, including relocation of our Head Office to Marunouchi in January 2019. Then, in fiscal 2019 and 2020, we will reinforce our global management framework by strengthening the functions of the regional headquarters, expanding business in North America and the Asia-Pacific region, and by improving profitability of Japan-based businesses. We will also take steps to reinforce group management through preparation of group headquarters functions. And, together with reform and evolution of conglomerate management as I described earlier, we will pursue embedding of global group management.

This completes my presentation. Thank you for your kind attention.

Reference

Reference #1 Roadmap to Completion of Business Structure Reforms

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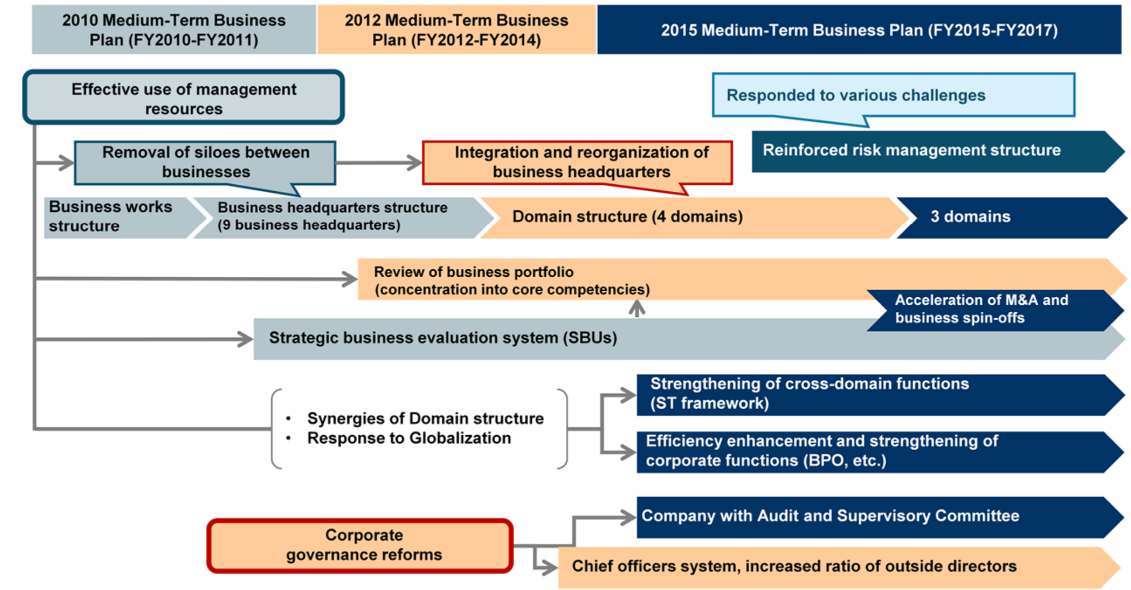
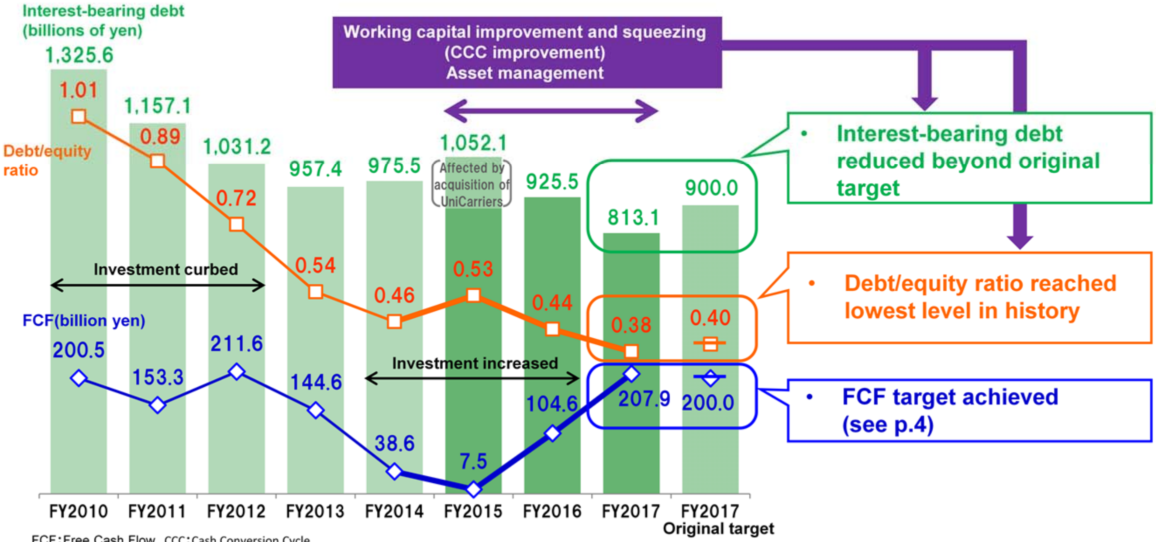
- **Completed organizational/structural reforms over 8 years, starting from 2010 Business Plan.**
- **Almost completed corporate governance reforms launched in 2012 Medium-Term Business Plan.**



SBU : Strategic Business Unit ST : Shared Technology BPO : Business Process Outsourcing

Reference #2 Improvement of Financial Foundation

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



FCF：Free Cash Flow CCC：Cash Conversion Cycle

Reference #3 Improvement of Business Process through Business Structure Reforms

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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	○	○	

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

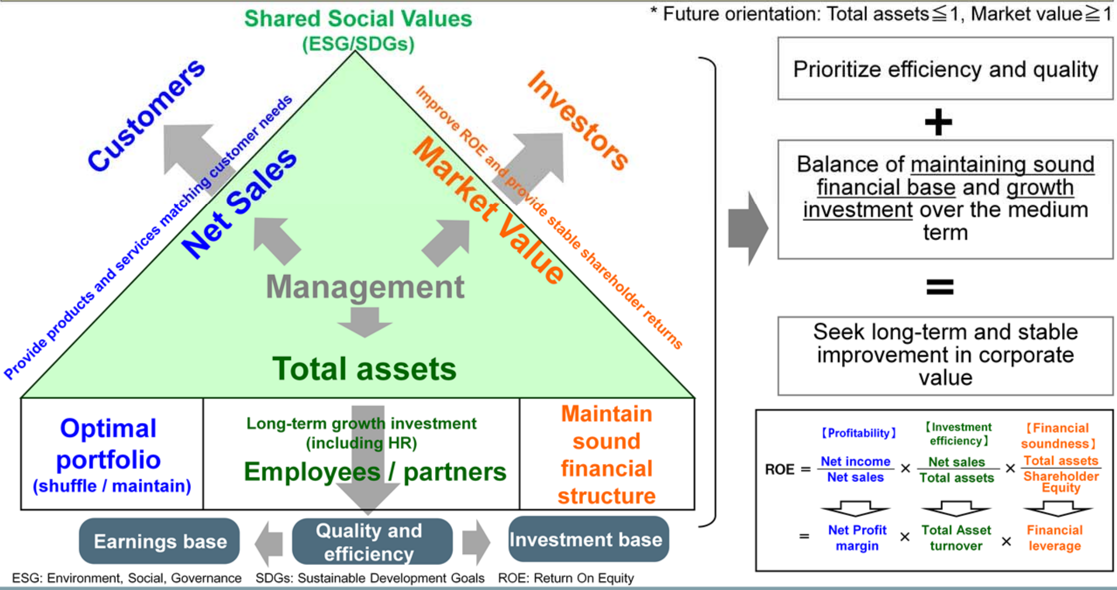
Reference #4 TOP（Triple One Proportion）

TOP (Triple One Proportion) Concept

Serving the needs of stakeholders and society in a sustainable and harmonious way

Managerial goal (proportion) Net sales : Total assets : Market value = 1 : 1 : 1*

* Future orientation: Total assets≦1, Market value≧1



ESG: Environment, Social, Governance SDGs: Sustainable Development Goals ROE: Return On Equity

Reference #5 MHI FUTURE STREAM

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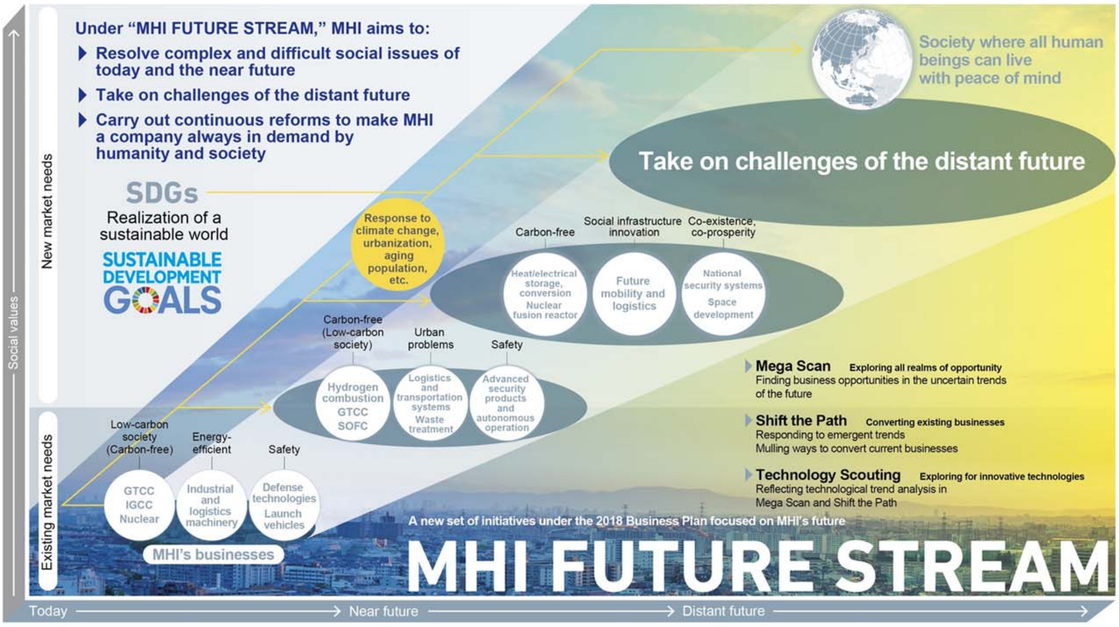
MHI FUTURE STREAM In step with social evolution



GTCC: Gas Turbine Combined Cycle Power Plant IGCC: Integrated coal Gasification Combined Cycle Power Plant SOFC: Solid oxide fuel cell

Reference #6 New Business Areas in the Energy Field (examples under consideration)

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Promotion of business structure conversions toward the realization of carbon-free society, responding to megatrends, ESG and SDGs.

Megatrends surrounding energy business

Curbing of CO2 emissions toward 2℃ target
- Possibility of CO2 emissions staying flat by 2030
- 2℃ target difficult to achieve with continuation of current technologies

Global slowing of growth in demand for primary energies
- Slowing of GDP growth
- Unbundling of GDP and energy consumption

Increasing power demand from electrification progress
- Demand growing at quadruple the speed of demand for fossil fuels, etc.
- Increasing demand for improved services

Accelerating adoption of renewable energies amid cost reductions
- Cases already exist where costs are on par with those of new thermal plants
- Costs to become even with those of existing plants within 5-10 years

Slowing and peaking of fossil fuel demand
- Coal demand to peak in 10 years
- Oil demand to peak in 20 years
- Gas demand to continue gradual increase

New business areas in the energy field (examples under consideration)

Energy management
- Optimized energy operation services making use of digital technologies
- Asset management services to maximize value of electric power in deregulated markets

Carbon-free energy chain
- CO2 recovery, storage and utilization plants, toward carbon-free society
- Plants spanning from carbon-free fuel (hydrogen, ammonia, etc.) production to power generation
- Achievement and sales expansion of hydrogen gas turbines

Response to increased renewable energy usage
- Gas turbines that respond quickly to renewable energy output fluctuations
- System integration, including energy storage

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