

Status of 2015 Medium-Term Business Plan

February 2, 2017

Mitsubishi Heavy Industries, Ltd.

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I. FY2016 Forecast

I. FY2016 Forecast – Overview

- Orders received, net sales and operating income may drop somewhat due to booking delays and other factors.
- The outlook for net income, FCF, etc. remains unchanged from when 1H results were announced, due primarily to asset management impact. (However, SONGS continues to be a variable factor.)

	FY2015 Actual	FY2016 Forecast (billions of yen)		
		Previous*		Current
Orders received	4,485.5	4,800.0	} Possible fluctuation by approx. 100 billion yen due to booking delay ↓	4,800.0
Net sales	4,046.8	4,000.0		4,000.0
Operating income (Margin)	309.5 (7.6%)	240.0 (6.0%)	Risk of weakening due to sales fluctuations and other factors	240.0 (6.0%)
Net income	63.8	100.0	} Excluding SONGS, nearly unchanged	100.0
FCF	7.5	100.0		100.0
ROE	3.7%	5.8%		5.8%

Foreign exchange rates 119.7 yen/\$
132.6 yen/€

100 yen/\$
115 yen/€

* Upon release of FY2016 2Q results (October 2016)

110 yen/\$
120 yen/€

I. FY2016 Forecast: Net Sales and Operating Income by Segment

(in billion yen)

	FY2015		FY2016						Status of domains
	Net sales	Operating income	Current forecast (A)		1Q-3Q Result (B)		A-B		
			Net sales	Operating income	Net sales	Operating income	Net sales	Operating income	
Energy & Environment	1,542.7	154.6	1,550.0	160.0	993.2	44.5	556.8	115.5	Energy & Environment Slight risk of change in operating income due to booking of service-related construction, etc.
Commercial Aviation & Transportation Systems	548.5	54.5	500.0	-25.0	360.5	-28.3	139.5	3.3	Commercial Aviation & Transportation Systems Overall level unchanged from when 1H results were announced, although forex fluctuations, etc. may affect some businesses.
Integrated Defense & Space Systems	485.0	25.7	450.0	28.0	310.1	19.1	139.9	8.9	Integrated Defense & Space Systems Unchanged from when 1H results were announced.
Machinery, Equipment & Infrastructure	1,432.3	80.0	1,450.0	85.0	1,015.4	37.8	434.6	47.2	Machinery, Equipment & Infrastructure Net sales and operating income may still decline in tandem with booking delays to next fiscal year.
Others	177.3	12.6	160.0	12.0	119.7	6.5	40.3	5.5	
Eliminations or Corporate	-139.2	-18.1	-110.0	-20.0	-104.8	-11.3	-5.2	-8.7	
Total	4,046.8	309.5	4,000.0	240.0	2,694.2	68.4	1,305.8	171.6	

II. Progress of Main Measures

1. Overall Evaluation
2. Reorganization of Domains
3. Commercial Aircraft Business
4. Radical Reform of Commercial Ship Business
5. Three Major Joint-Venture Businesses

II. 1. Overall Evaluation -1

	Results	Challenges
Business scale	<ul style="list-style-type: none"> From original 3 trillion yen, expanded beyond 4 trillion yen thanks to proactive M&A initiatives 	<ul style="list-style-type: none"> Some uncertainty around achieving 5 trillion yen scale <ul style="list-style-type: none"> Delayed growth in core businesses owing to market sluggishness Accelerating declines in orders for commercial aircraft (Tier1) and commercial ships
Earning capacity	<ul style="list-style-type: none"> Operating income/EBITDA have been lifted through structural reforms and advances in portfolio management <p>Operating income: 2012 5.8% → 2015 7.6%</p> <p>EBITDA margin: 2012 10.0% → 2015 11.9%</p>	<ul style="list-style-type: none"> Slow growth in operating income ratio (FY2016 forecast: 6% [vs. 8.0% target]) <ul style="list-style-type: none"> Deterioration in earnings of Commercial Aviation & Transportation Systems domain, etc. Delayed growth in earnings from core products (power generation systems, etc.)
Financial foundation	<ul style="list-style-type: none"> Decreases in interest-bearing debt and D/E ratio, from thorough cash flow management and asset management (liquidation of non-core assets) 	<ul style="list-style-type: none"> Challenges for achieving targeted increase in equity capital <ul style="list-style-type: none"> Deterioration exceeding factored-in cruise ship losses, MRJ development, etc. (recovery to require approx. 2 years)
Organizational efficiency	<ul style="list-style-type: none"> Promotion of BPO of service operations Printing & copying (FXSVL), Overseas salary/attendance management (IBM) 17 business transfers completed (including minority investment JVs) (2013 through FY2016-3Q) <p style="text-align: right;">* See p.25-26</p>	<ul style="list-style-type: none"> Delayed efficiency improvements in indirect management sectors <ul style="list-style-type: none"> One reason for delayed achievement of earning capacity enhancement target Insufficient strengthening of global response capability in tandem with clarification of local functions

External factors

- Political/economic uncertainty worldwide (reaction against globalism, etc.) and increasing opacity of future prospects
 - Risk management and agile response to business opportunities are needed.
- Declining investment along with slump in prices of oil and other resources
- Falling demand for aircraft, commercial ships, etc.

Internal factors

- Insufficient ability to adapt to changes in market structure and rapid economic fluctuations
 - Delayed organizational efficiency enhancement
 - Insufficient production elasticity and human resources liquidity
- Delayed PMI at major JVs
- Insufficient ability to develop and maintain overseas markets

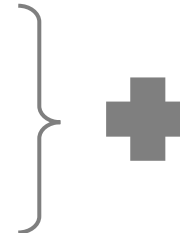


- **2015 Business Plan will be difficult to achieve in FY2016 based on current measures alone**
- **MHI currently focusing on additional measures described below; organization and systems for promoting those measures are now being considered**

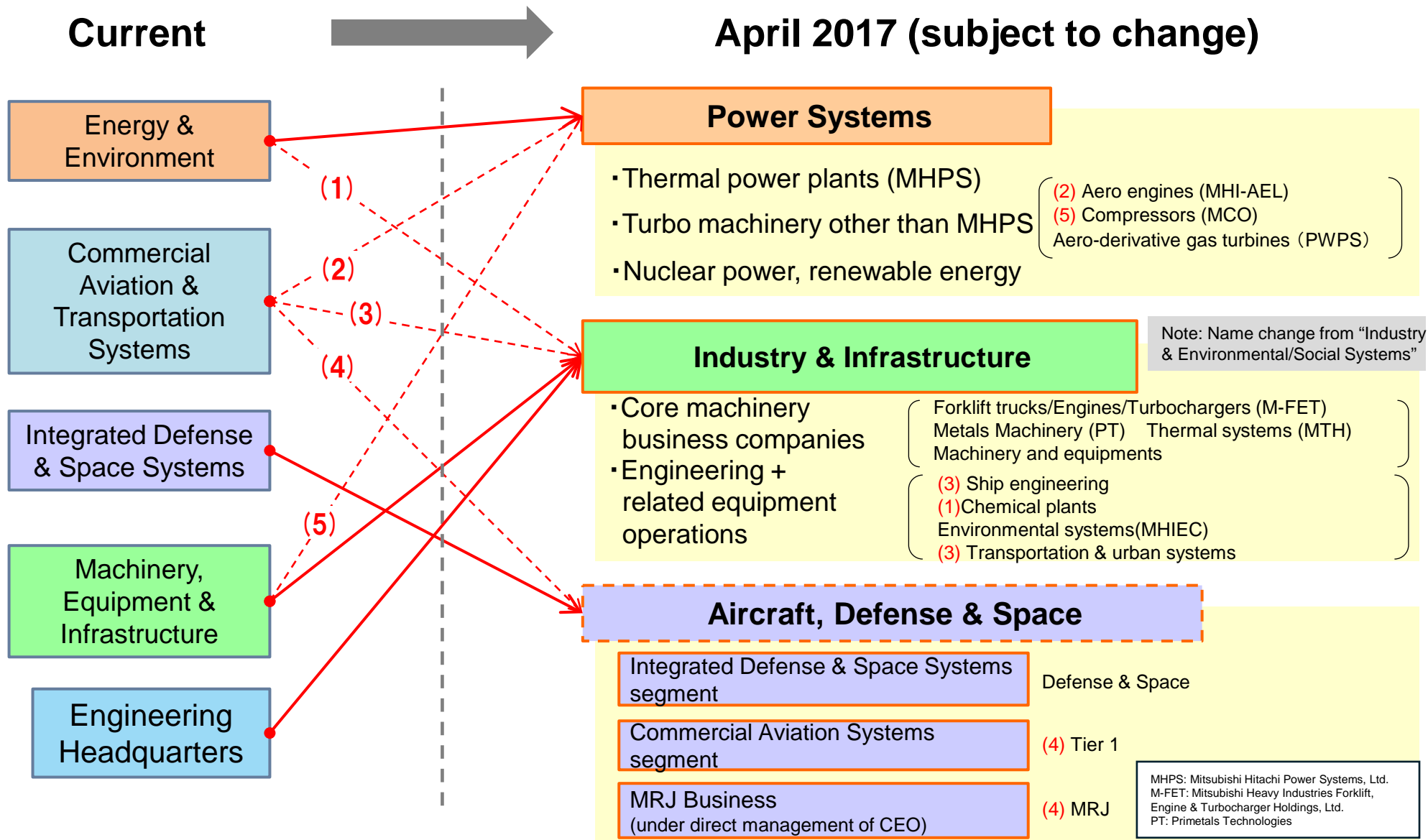


Additional measures

- Reorganization of domains (rearrangement of SBUs)
- Promotion of radical reforms in commercial aircraft and commercial ship businesses
- Further acceleration of PMI of major JV businesses



Organization and systems for promoting these additional measures are under consideration (p.21-22)



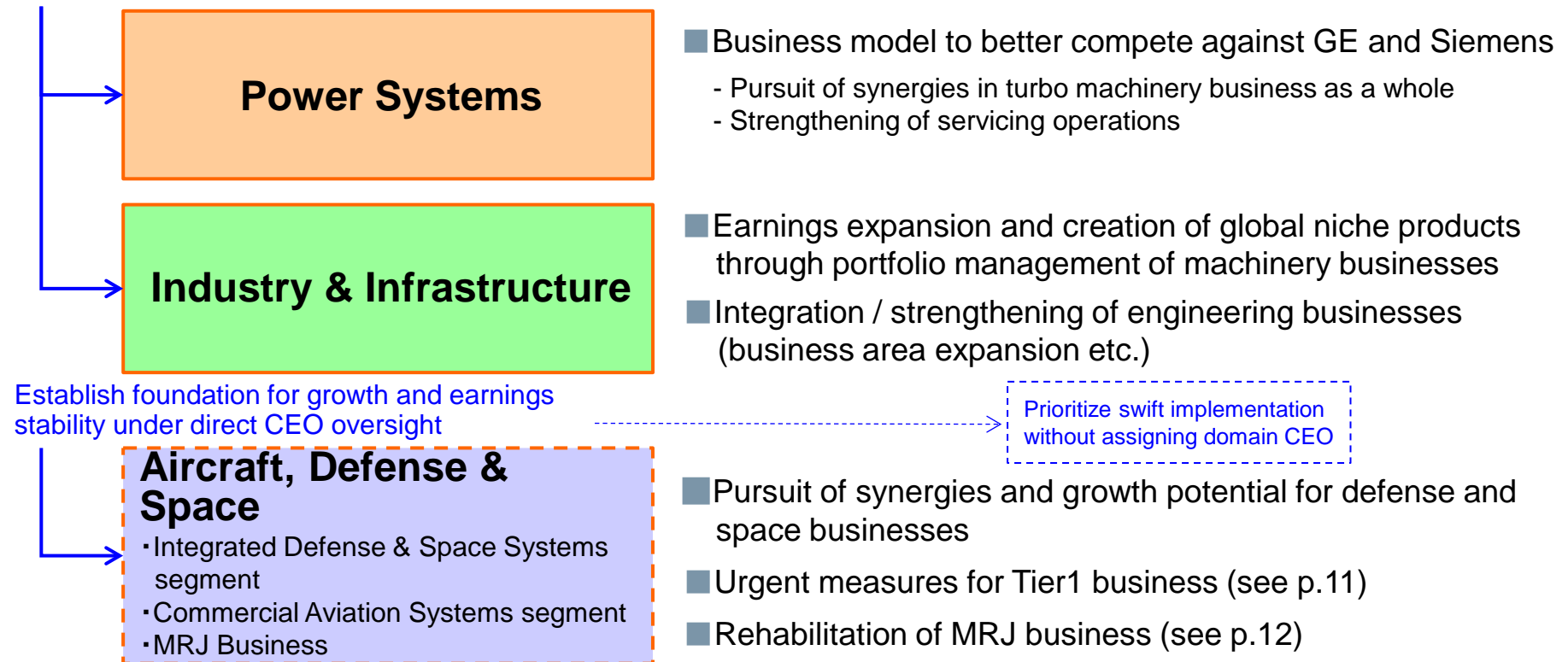
Reasons for Reorganization

- Maintain goals of current 4-domain system
- Domain configuration helps clarify management concepts and roles in MHI Group's growth

→ Customer/market oriented + Minimize top-down business operation

Roles and management concepts of each domain

Sustained contribution to earnings / stable growth (autonomous management in line with domain's unique characteristics)



(1) Tier 1 business

→ Production volumes are projected to continue declining through the near term. The following radical emergency measures are being implemented.

Major improvement of production lines

- Accelerate actions against aging of Oye parts factory
 - Modernization of equipment / Formation of integrated production lines
 - Includes reconfiguration to Kobe/Hiroshima areas
 - Introduction of robotics, AI technology, etc.

Consideration of utilizing redundant personnel

- Strengthen production elasticity
- Improve fluidity of overall Group human resources

Specific measures now being formulated

Review supply chain and reinforce business structure

- Reform procurement processes through transfer of procurement functions (supplier concentration, etc.)

Current

Commercial Aircraft & Transportation Systems domain
Commercial Airplanes Division,
Procurement Dept.

After review

Value Chain Headquarters
Commercial Aircraft Procurement Center (new)
[Organizational restructuring to be carried out in April 2017]

- Strengthen cost competitiveness (target: 20% reduction)
- Further improve quality and delivery aspects through modernization of equipment, etc.
- Secure elastic production and procurement response capability

(2) MRJ Business (Outline announced on January 23)

- Changes to delivery schedule of first aircraft
 - Target: end-2019 Outlook: mid-2020 (previous outlook: mid-2018)
- Complete the development of the world's most sophisticated regional jet by strengthening business promotion structure
 - Under direct management of CEO, expand use of international experts, innovate production processes, create specialized development teams and implement future differentiation technologies
- Strengthen relations (customer, partner, relevant institutions), marketing strategies and market responses
- Building sufficient response capability as a Group to increasing development costs and longer investment return periods
- Determination to undertake commercial aircraft business as a Group

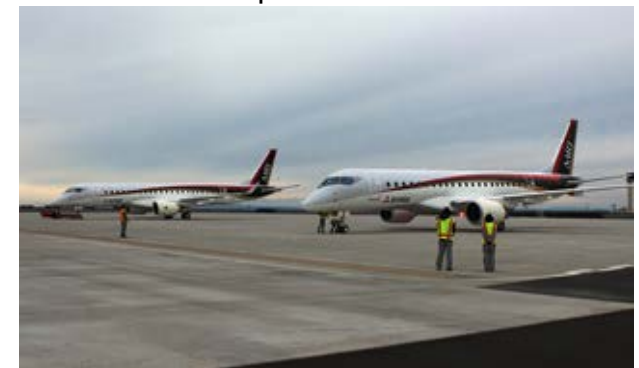
Airframe in final assembly stage



Flight test in Japan



Test aircraft parked at Moses Lake

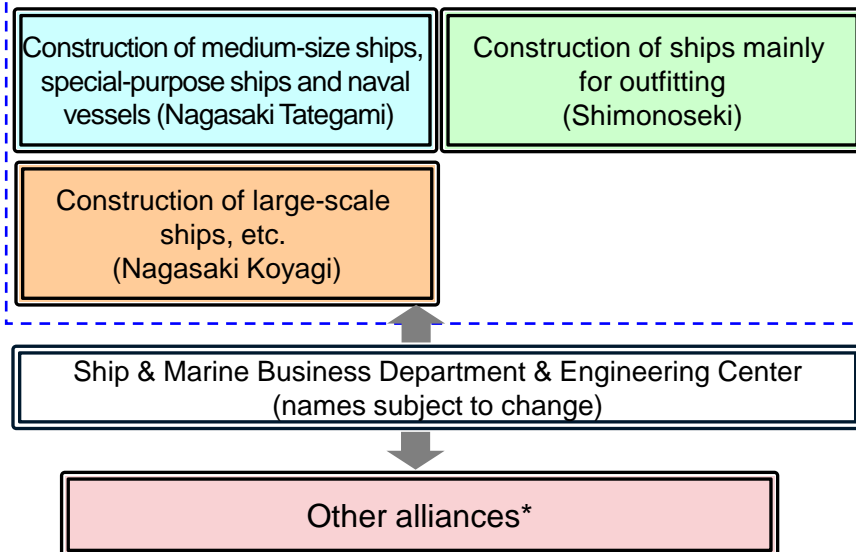


II. 4. Radical Reform of Commercial Ship Business (1)

(1) Aims of new structure

- Specialized management by spinning off businesses (now in planning)
(→ Agile organization, swift decision-making, clarification of responsibility for securing profits, etc.)
- Cost reductions through alliances with other companies
→ Effective production methods and joint purchasing / commonization of purchased items
- Near-term targets:
 - FY2020 Business scale: 150 billion yen Operating margin: 6%
 - Address low activity level at Nagasaki in FY2018-20

Ships & Marine-related Business Structure



Nagasaki district

Construction of: medium-size ships, special-purpose ships, naval vessels, large-scale ships*, steel structures and other valued added structures, etc.

* Production efficiency enhanced through alliances

Shimonoseki district

Construction of: publicly owned ships, cargo-passenger ships, and other ships primarily involving outfitting work

In charge of: business strategies, sales & marketing, development*, procurement, basic design, detailed design

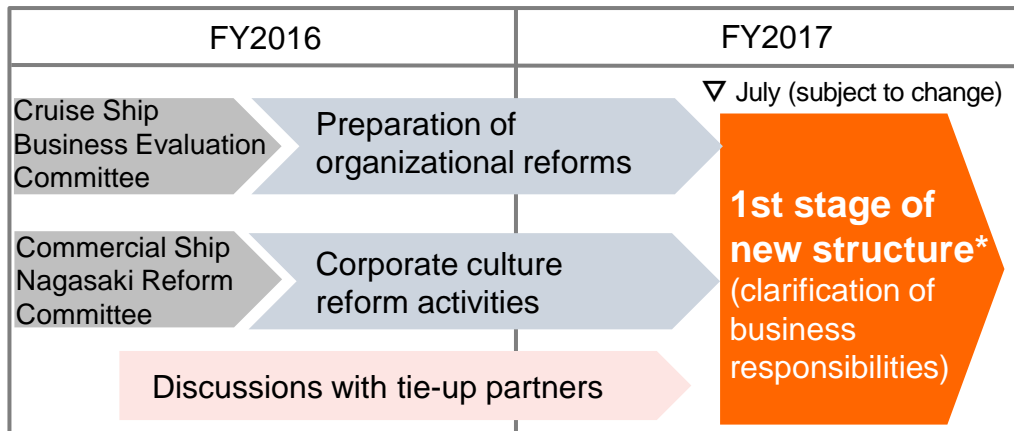
* Tie-ups with allied partners in development of eco-ships, environment-friendly technologies, etc.

* Imabari Shipbuilding Co., Ltd., Oshima Shipbuilding Co., Ltd. Namura Shipbuilding Co., Ltd.

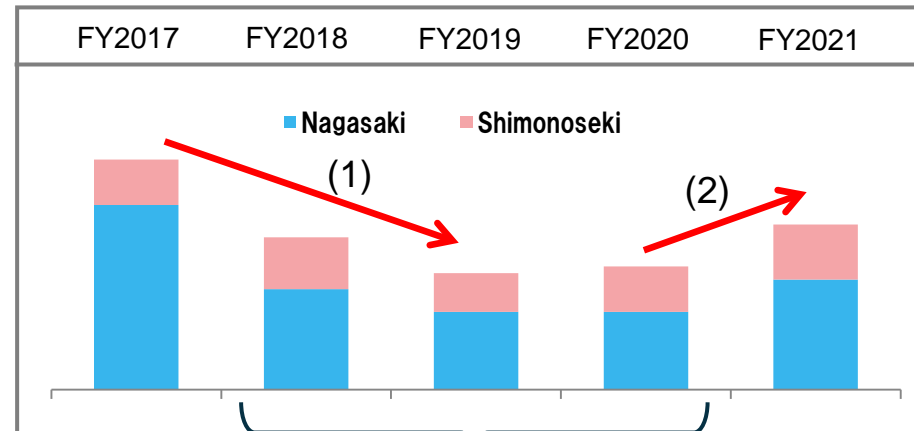
II. 4. Radical Reform of Commercial Ship Business (2)

(2) Overall schedule, operation and sales forecasts, etc.

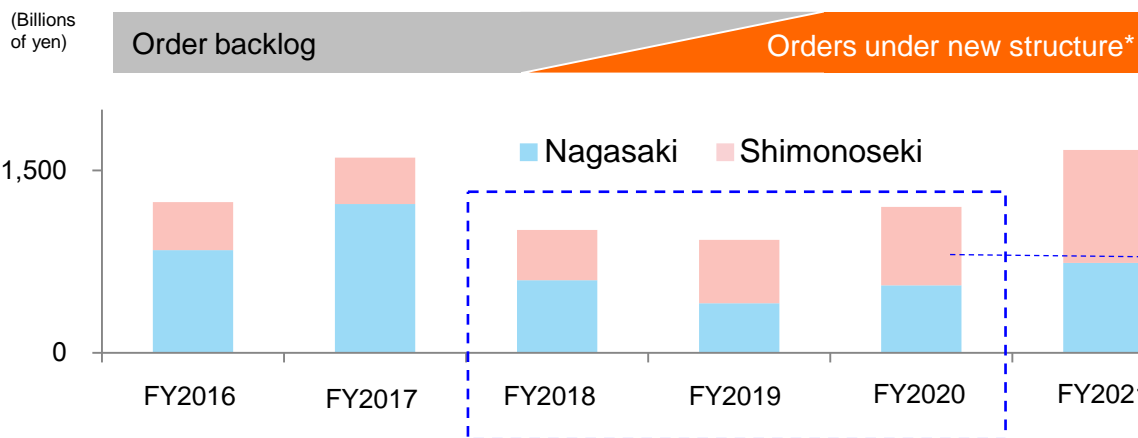
Operations forecast from FY2017 (manufacturing division)



*2nd Step scheduled for FY2018



Net sales forecast



*Including construction tie-ups

Measures to deal with declining operations in Nagasaki and maintaining business

- (1) Accelerate preparation of personnel and production facilities
- (2) Collaborate with alliance partners

Strengthen earning capacity of Shimonoseki Shipyard operations

Ensure soundness of overall business

(1) MHPS (1/2)

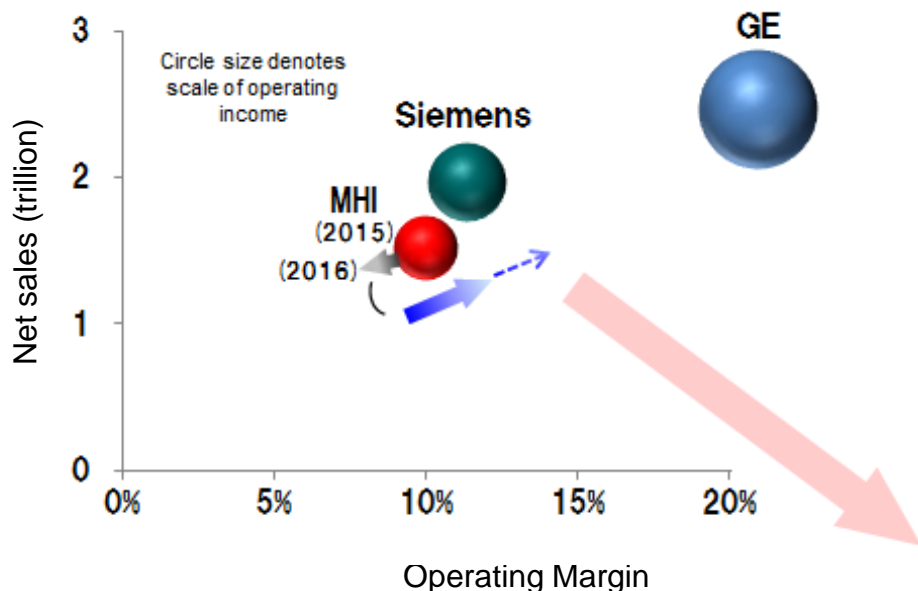
Comparisons with power divisions of competing companies (net sales, earning capacity)



MHI (Power Systems business + MHPS) continues to lag behind GE and Siemens in business scale and earning capacity



Areas in which MHI should learn from competitors, to be improved and strengthened



- Management that enables sustained growth, even while focusing on short-term profits
 - Consider examples from GE
- Diversified and dynamic local sales strength
 - Especially servicing operations
- Highly efficient global production and procurement systems
 - Response measures described on next page

Numerical targets for improvement (MHPS)

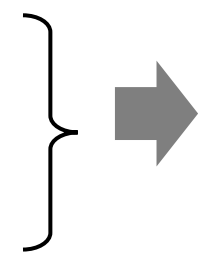
	MHI	Siemens	GE
Period	Apr 2015-Mar 2016	Oct 2015-Sep 2016	Jan-Dec 2015
Exchange rate	—	¥120/€	¥115/\$

	2016 outlook	2018 target	2020 target
Net sales (trillion)	1.1	1.3	Over 1.5
Operating income (margin) (billion)	100 (9%)	150 (12%)	200 (14%)

(2) MHPS (2/2)

Consider accelerating reorganization of domestic production bases

- Improve productivity and promote utilization of assets by consolidating production lines and facilities by product
- Reduce costs by streamlining supply chain



Target set at cost improvement of 30 billion yen / year
 (equivalent to 2.5% of operating income)

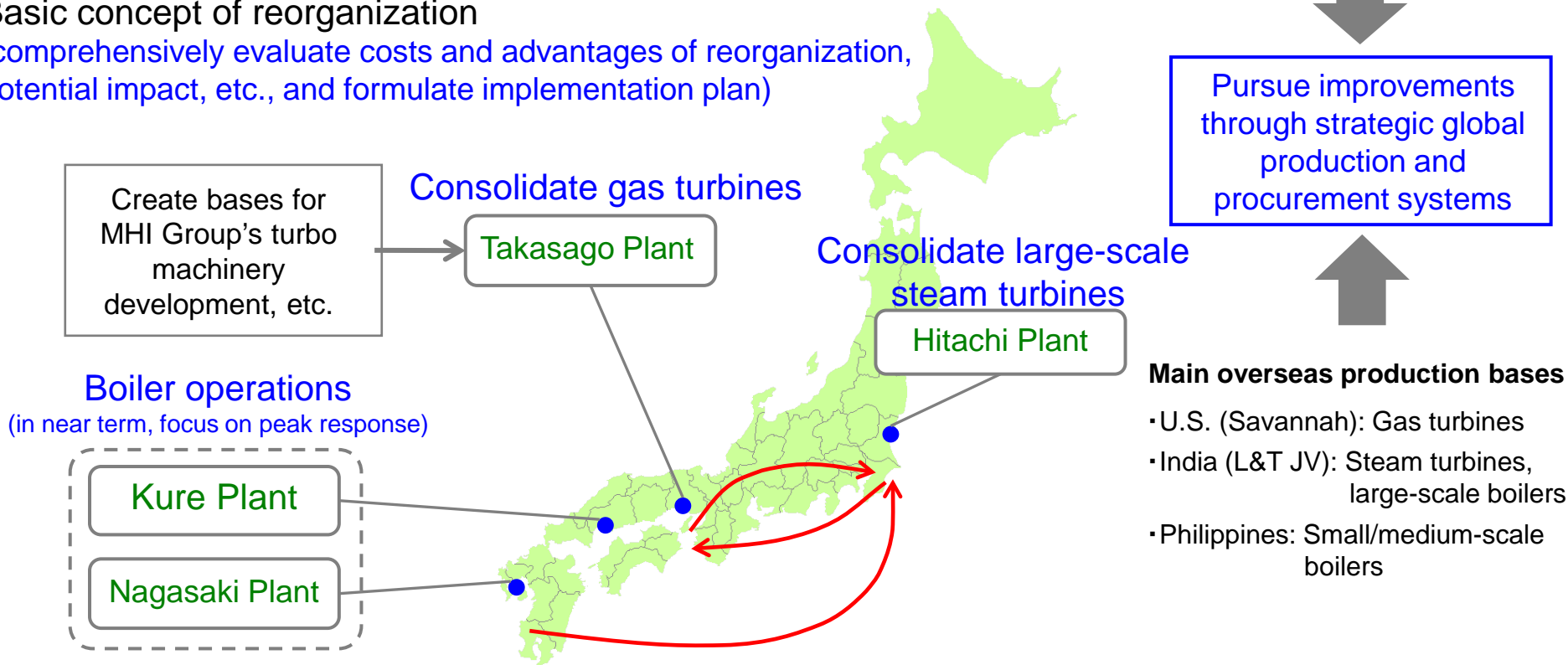


Pursue improvements through strategic global production and procurement systems



Basic concept of reorganization

(comprehensively evaluate costs and advantages of reorganization, potential impact, etc., and formulate implementation plan)



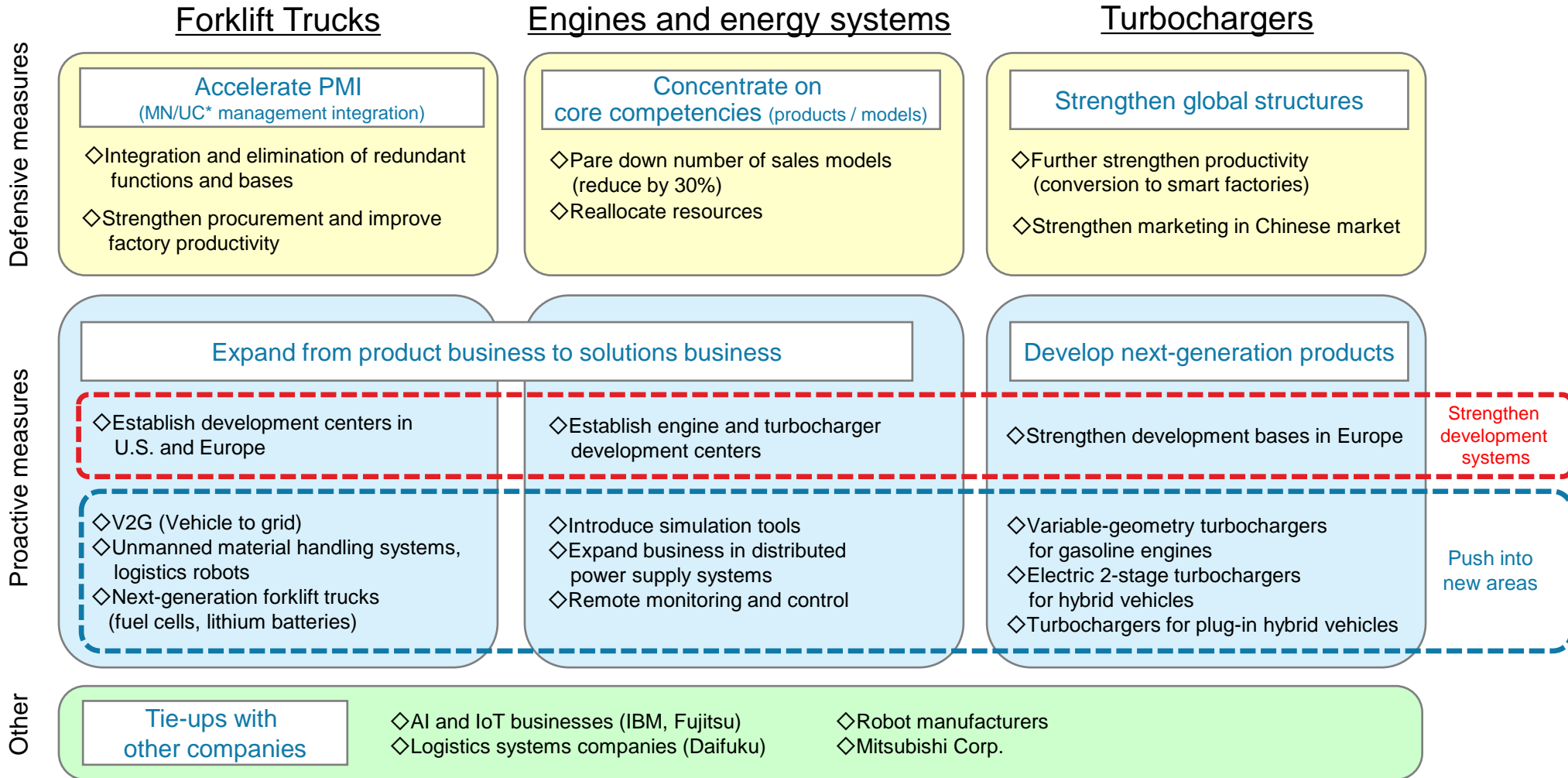
Main overseas production bases

- U.S. (Savannah): Gas turbines
- India (L&T JV): Steam turbines, large-scale boilers
- Philippines: Small/medium-scale boilers

II. 5. Three Major Joint-Venture Businesses (2) – M-FET

(2) Mitsubishi Forklift, Engine & Turbocharger Holdings

Now processing current PMI plan ahead of schedule (actions applying lessons learned from delayed PMI at MHPS and PT)



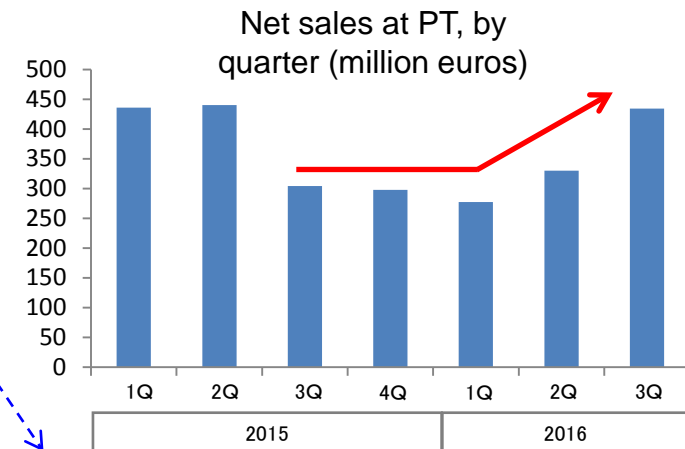
(3) Primetals Technologies

Market situation and response status

- After market deterioration that exceeded expectations, signs of bottoming-out in some areas (see graph)
- Gradual expansion of market for remodeling/maintenance services
 - Providing customer-oriented lifecycle services through establishment of JVs, etc.

Further acceleration of PMI

- Realize organization that generates profits even at the current business scale (1.5 billion euros)
 - Consolidation of global corporate divisions and organization (from 26 to 9) (completed)
 - Consolidation of business segments (from 10 to 7) (completed)
 - Enhance efficiency of production bases (reorganization, etc. now in progress)
- Establishment of electric control JV by MHI and PT
 - Effective use of MHI network



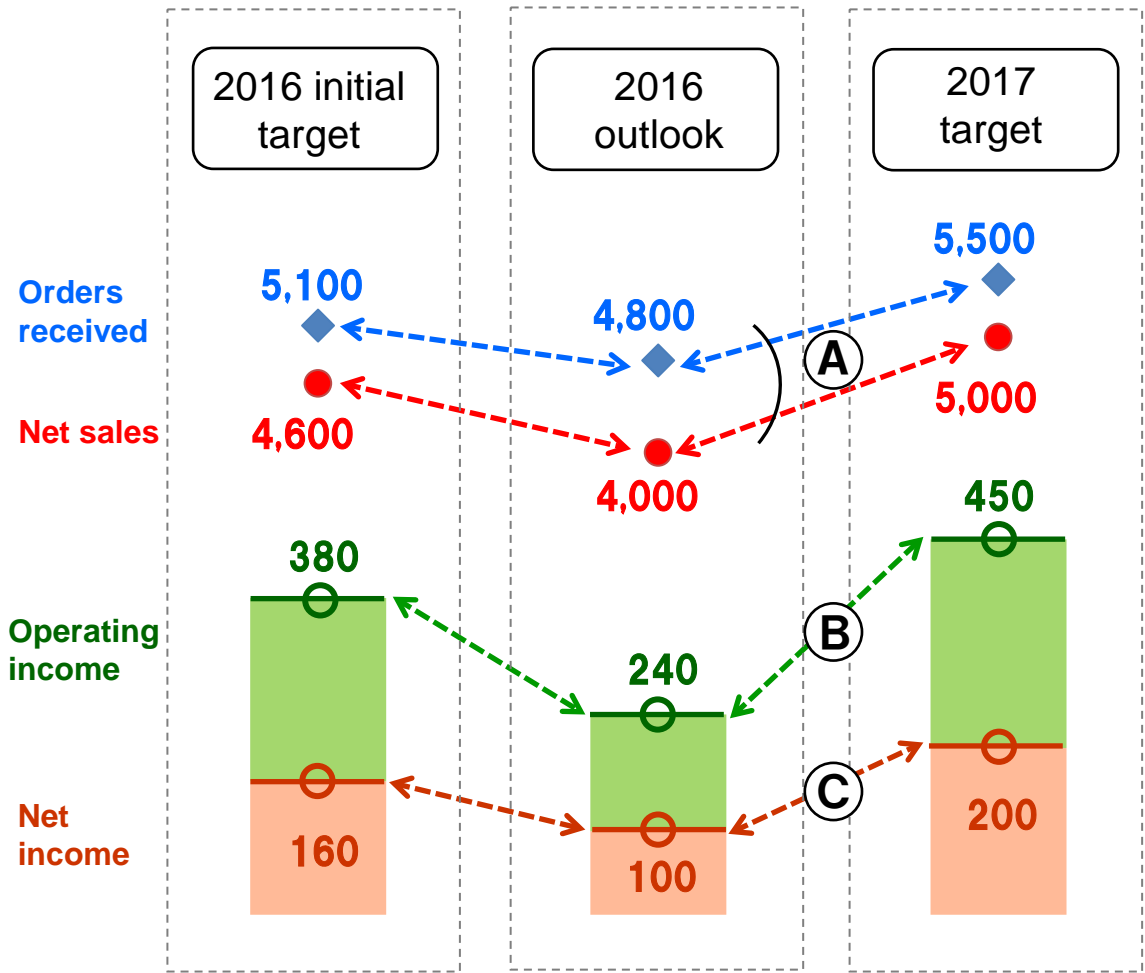
*[Major orders received in 3rd quarter of 2016]

- Bangladesh/GPH Ispat: minimill (electric furnace + continuous rolling line)
- India/JSW Steel: Remodeling of continuous process of acid cleaning and cold rolling equipment
- Poland/Arcelor Mittal: top gas pressure recovery turbine plant

**Earnings improvement target:
100 million euros / year**

(1) Gaps between 2016 outlook and 2017 targets

Response to gaps



A) 5 trillion yen business scale

- Booking of sales from increased orders received since FY2015
- Expansion of services business in Power Systems and engineering business in Industry & Infrastructure, etc.

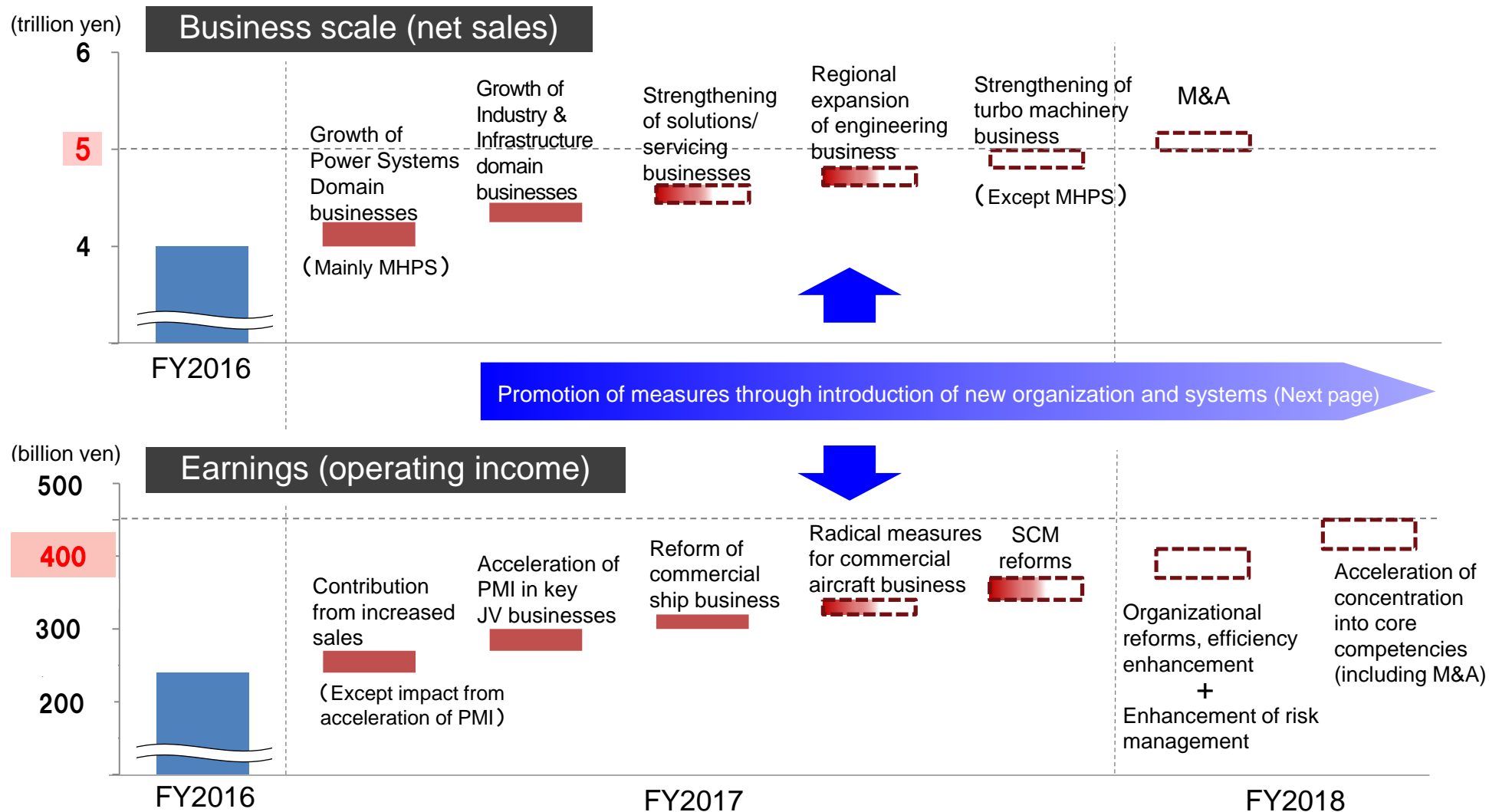
B) Operating income

- Raise earnings through commercial ship business reforms, measures for commercial aircraft business and PMI results
- Increased income in tandem with increased sales
- SCM reforms, efficiency enhancement, etc.

C) Net income (non-operating and extraordinary profit/loss)

- Downsizing of extraordinary losses from end of cruise ship construction, etc.
- Expansion of operating income
- Recovery from temporary non-operating losses (Mitsubishi Motors)

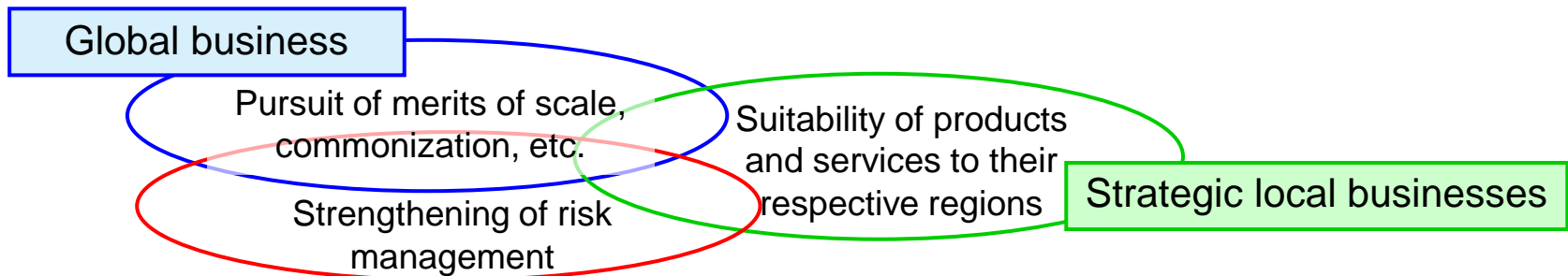
(2) Progression of Business Plan implementation (outlook)



(3) Considering introduction of new organizations, systems, etc. as “total reforms”

→ Move from reform to action in times of major external change and intensifying competition

- Organization geared to dealing with economic and social changes (e.g. globalization and anti-globalization trends), and grows through resilient and steady management

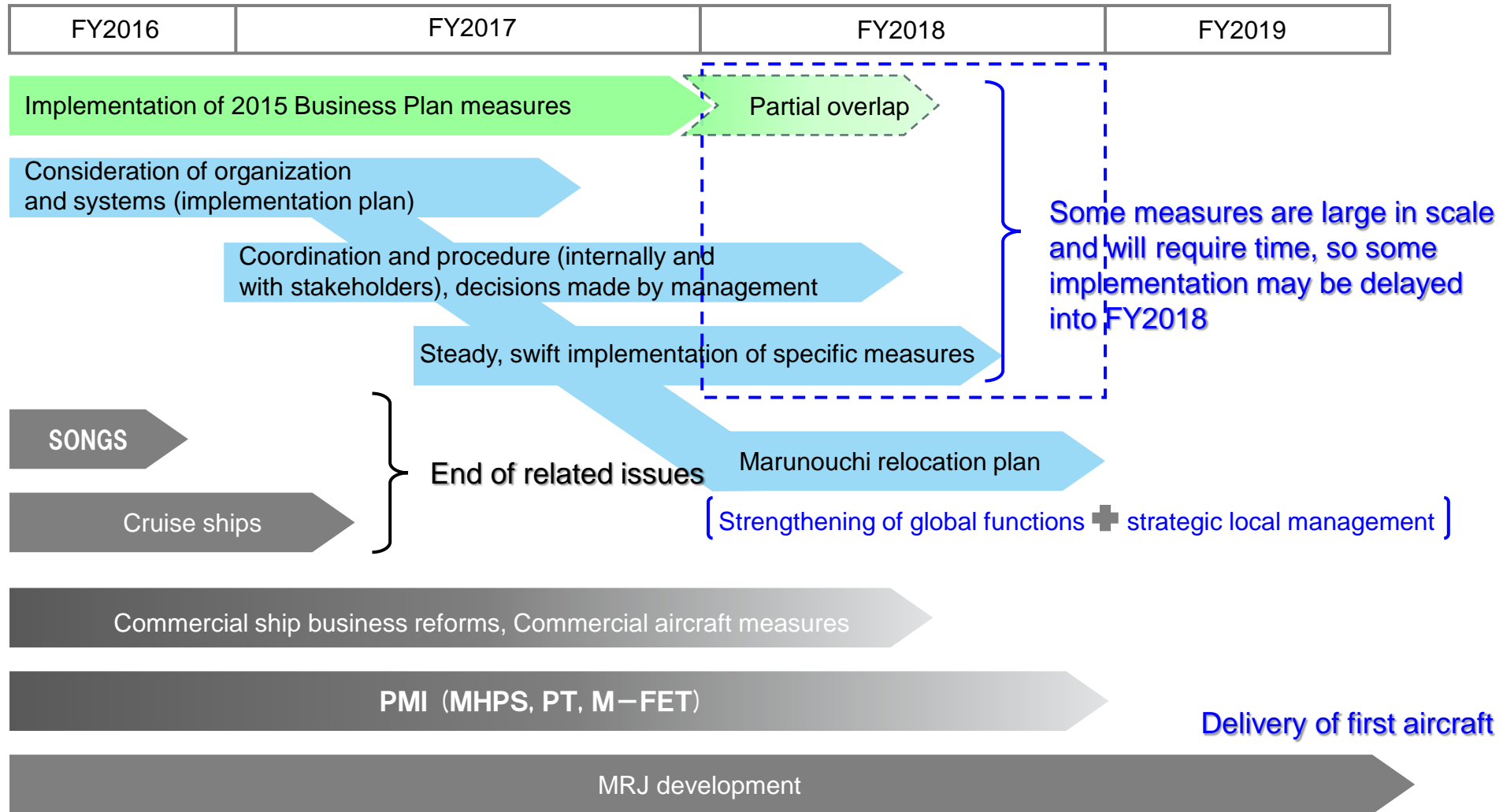


- Systems promoting human resources fluidity and stronger adaptability to external changes
- Systems of evaluation suited to management harmoniously integrating global and local aspects



Basic scheme to be announced in early May 2017

(4) Implementation schedule and major events



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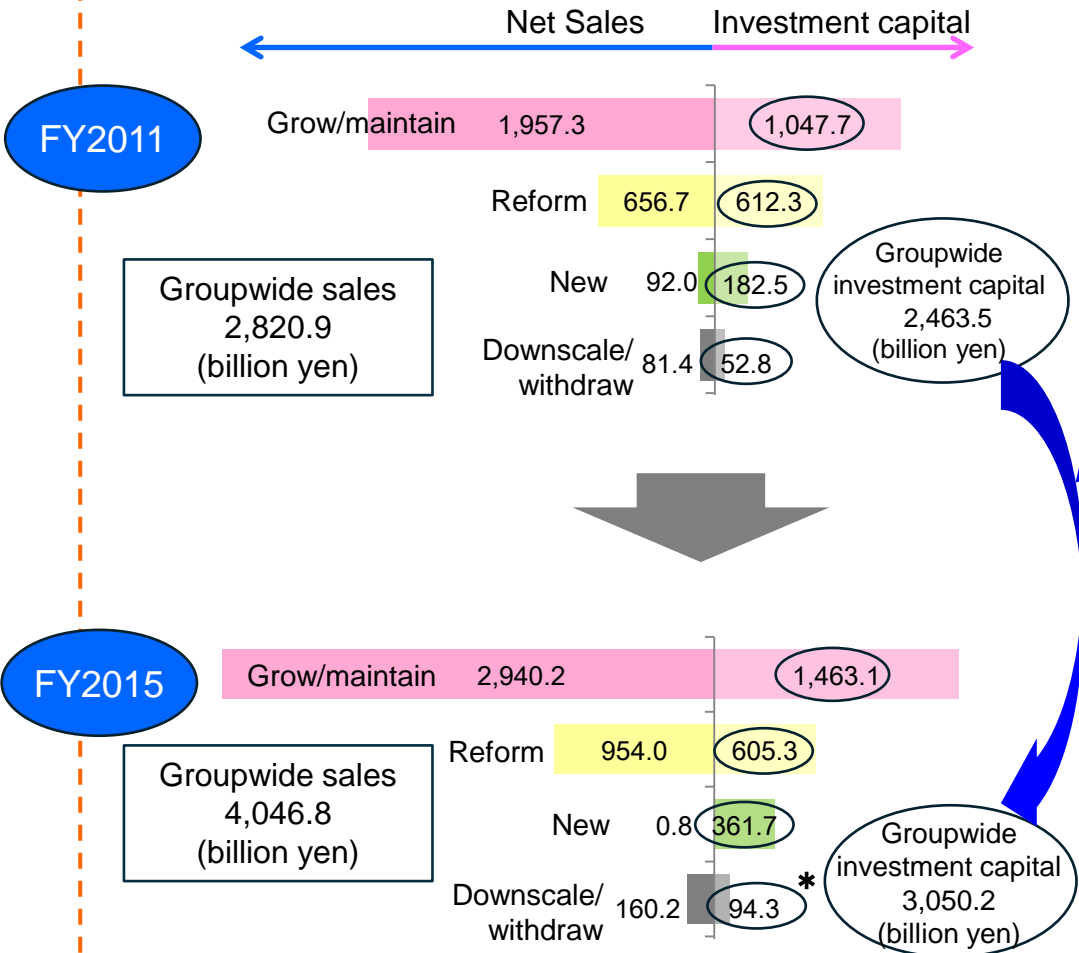
MOVE THE WORLD FORWARD

Reference Materials

1. Accelerate Concentration into Core Competencies – **P.25**
2. Target Scope of Engineering Business, etc. – **P.27**

[Reference] 1. Accelerate Concentration into Core Competencies (1)
- Changes to business portfolio

Net Sales and investment capital by position (Actual)



Major M&A (2012-2015)

Position	Product / Business	Sales increase
Grow/maintain	Hitachi (thermal power systems) Siemens (metals machinery) Toyo Engineering Works (A/C & refrigeration)	Approx. 500 (billion yen)
Reform	PWPS/Turboden (GT) Nichiyu / UniCarriers (forklift trucks) Federal Broach(machine tools)	Approx. 300 (billion yen)
New	Vestas (offshore wind turbines)	(equity method)
Downscale/Withdraw	Lithium-ion batteries, Industrial cranes Ship stabilizer control systems	(business transfer)

M&A in FY2016

	Company	Product/Business
JV (led by partner)	Ube Industries	Injection molding machines
JV (led by partner)	JR West	Real estate
Business transfer	Sato Tekko	Sluices
Business transfer	Hitachi	X-ray medical equipment
Business transfer	Kobe Diesel	Marine diesel engines
Business transfer	Furuno Electric	ETC onboard devices

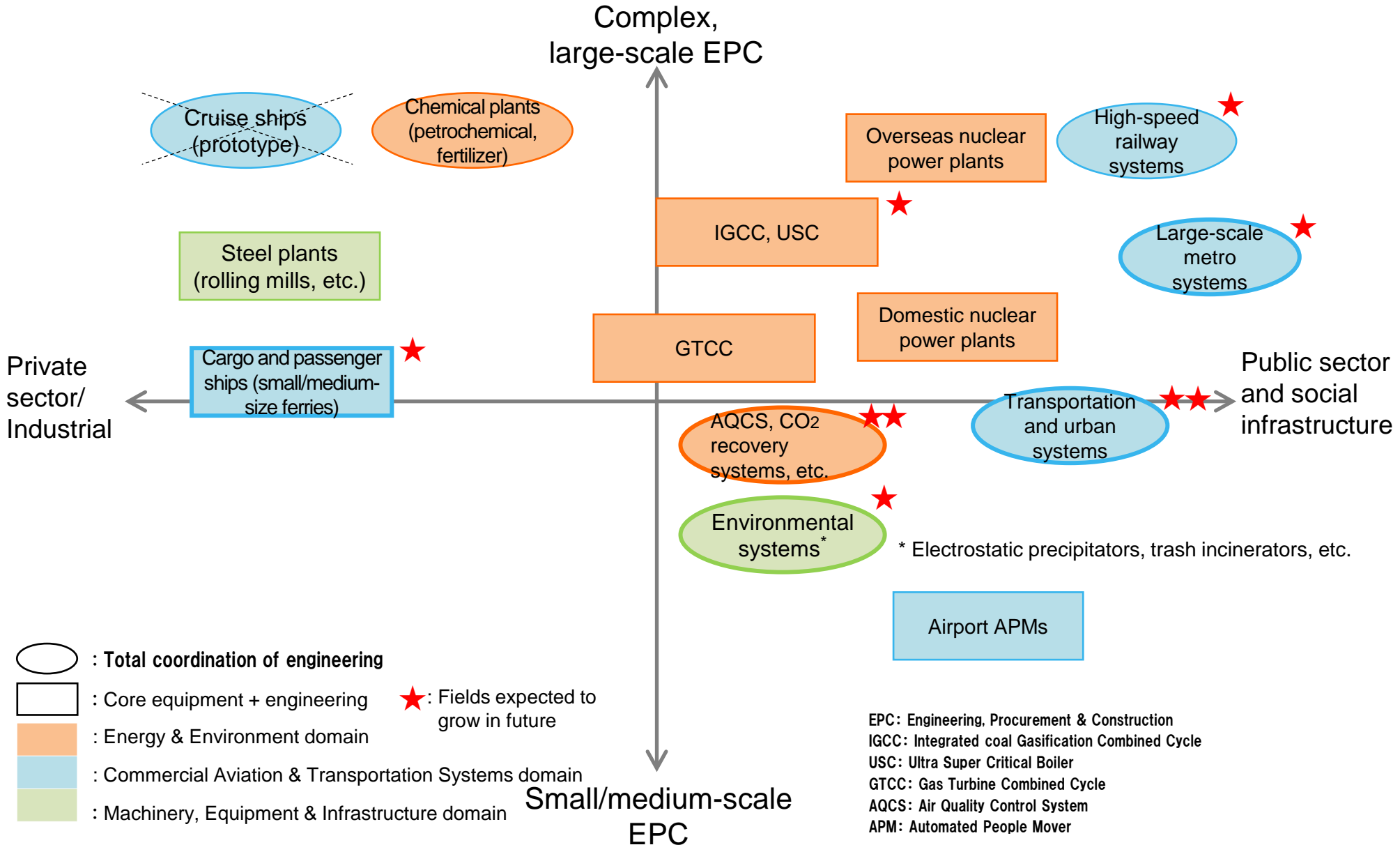
* Reduction through transfers/divestments (see right)

[Reference] 1. Acceleration of Concentration into Core Competencies (2)

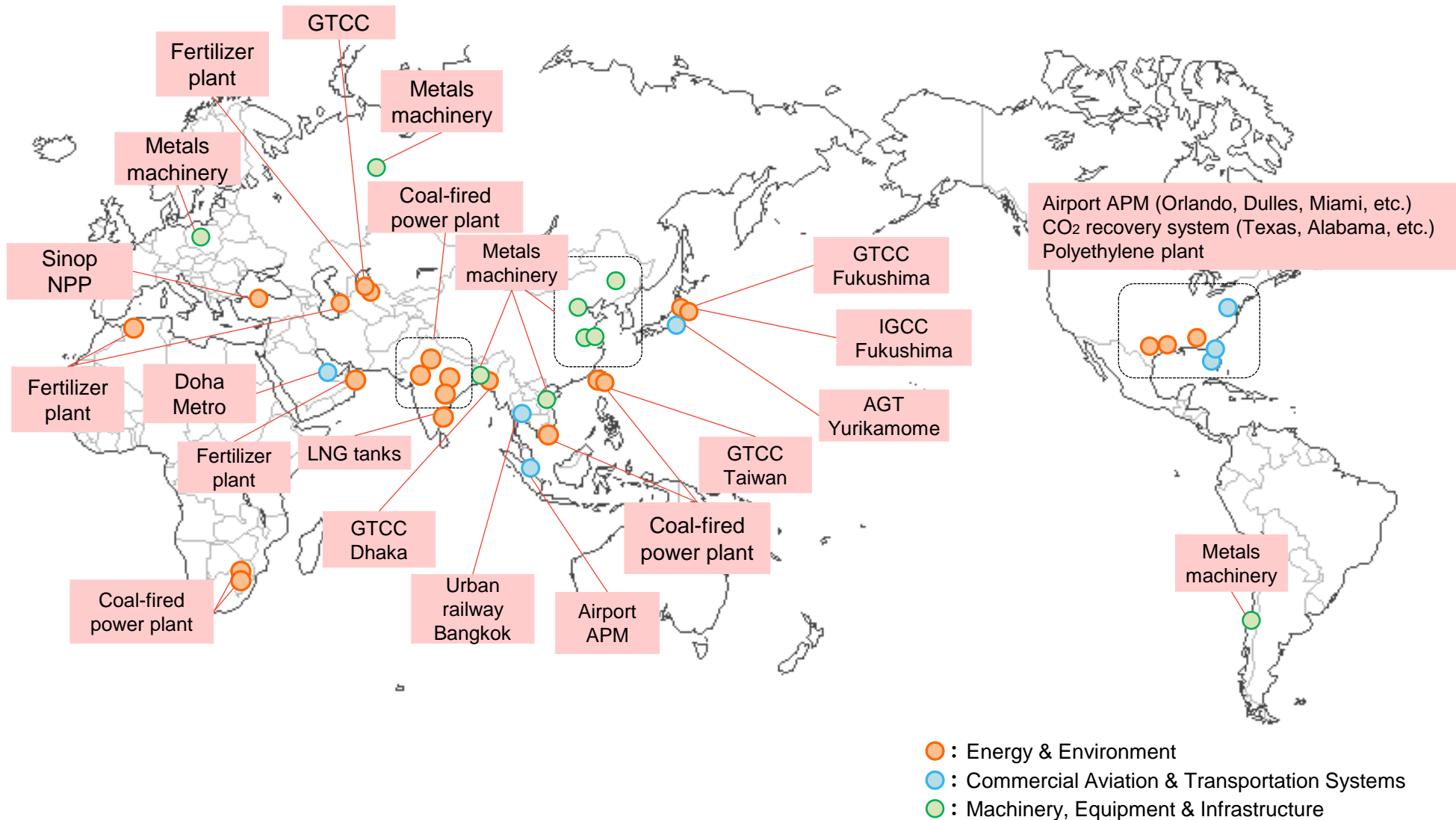
- M&As

		Company	Product/Business	PMI Status and Results to Date		
				Agreement date	Net sales contribution	Other results, etc.
Acquisition		Federal Broach (USA)	Machine tools	Apr 2012	Approx. JPY 5.0bn	Business expansion and stabilization from lineup integration
		PWPS(USA) , Turboden(Italy)	Gas turbines	Dec 2012	Approx. JPY 80bn	Business expansion from added lineup in small/medium GT
		Daily Equipment (USA)	Forklift trucks	Jan 2012	Approx. JPY 1.5bn	Expansion of after-sale servicing business
		Concast (India)	Metals machinery	Jun 2012	Approx. JPY 2.5bn	Strengthening of upstream product lineup
		Toyo Engineering Works	Refrigeration systems	Jan 2014	Approx. JPY 16bn	Strengthening of engineering business
		UniCarriers Holdings	Forklift trucks	Jul 2015	Approx. JPY 185bn	Further business scale growth and expanded global market share
JV	MHI-led	Nippon Yusoki	Forklift trucks	Nov 2012	Approx. JPY 130bn	Business expansion from achievement of full lineup
		Hitachi	Thermal power generation systems	Nov 2012	Approx. JPY 300bn	Business expansion from full GT lineup (small to large), expansion of unique technologies
		Siemens (Germany)	Metals machinery	May 2014	Approx. JPY 150bn	Business expansion from achievement of full lineup
		IHI Metaltech	Metals machinery	Jul 2013	Approx. JPY 10bn	Strengthened lineups of aluminum rolling mills, etc.
		Mahindra & Mahindra (India)	Agricultural machinery	May 2015	(equity-based)	Stronger competitiveness in domestic and global markets
	Equal	Vestas (Denmark)	Wind turbines	Sep 2013	(equity-based)	Early achievement of strategic model (8MW) development and order receipt targets
	partner-led	Ryobi	Commercial printing machinery	Jun 2013	(equity-based)	Business strengthening from product lineup and production integration
		Fuji Xerox	Document-related	Oct 2013	-	Reductions in direct/indirect costs from standardization and effective document-related processes
		Miyaji Engineering	Bridges	Nov 2014	(equity-based)	Scale merits, Market share increase
		Japan Tunnel Systems	Tunneling shield machine	May 2015	(equity-based)	Assured capture of domestic demand and accelerate business expansion overseas
		Fuji Oozx	Automobile engine valves	Jan 2016	(equity-based)	Market share expansion and enhanced market presence
		Ube Machinery	Injection molding machines	Jul 2016	-	Expansion of product lineup and sales network, reductions in production costs
JR West		Real estate	Oct 2016	(equity-based)	Boost corporate value through partnership with JR West	
Transfer	HIDROMEK (Turkey)	Motor graders	Nov 2013	-	Promotion of business concentration into core competence	
	Delta Electronics (Taiwan)	Lithium rechargeable batteries	Apr 2014	-	Promotion of business concentration into core competence	
	Sumitomo Heavy Industries Material Handling Systems	Industrial cranes	May 2015	-	Promotion of business concentration into core competence	
	Michinori Holdings	Shonan Monorail	May 2015	-	Promotion of business concentration into core competence	
	Tohmei Industries	Ship stabilizers	Mar 2016	-	Promotion of business concentration into core competence	
	Sato Tekko	Sluice gates	May 2016	-	Promotion of business concentration into core competence	
	Hitachi	X-ray medical equipment	Aug 2016	-	Promotion of business concentration into core competence	
	Kobe Diesel	Marine diesel engines	Dec 2016	-	Promotion of business concentration into core competence	
Furuno Electric	ETC onboard devices	Jan 2017	-	Promotion of business concentration into core competence		
Withdrawal	Ecovix (Brazil)	Shipbuilding	Jan 2016	(equity-based)	Promotion of business concentration into core competence	

Reference 2. Target scope of engineering business, etc. (1)



[Reference] 2. Target scope of engineering business, etc. (2)



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