

# Status of 2010 Medium-Term Business Plan

April 28, 2011



Hideaki Omiya, President

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We extend our heartfelt sympathies to the people affected by the earthquake that struck eastern Japan.

To restore promptly infrastructure, including the nuclear power plant, that was damaged by the earthquake, we have dispatched about 200 members of our staff to stricken areas and have given aid, including the shipment of critical materials using our helicopters and airplanes.

We are providing as much aid as possible. We have given assistance in response to power shortage, including support to Tokyo Electric Power in moving gas turbine electric power facilities that the Thai government offered to lend without charge and the emergency delivery of small and midsize power-generating facilities, which can be used as emergency power-generating facilities.

We modified a megafloat that will be used to store contaminated water, including radioactive materials from the Fukushima Daiichi power plant.

We have begun to consider providing support, jointly with Hitachi.

To contribute to relief activities and the reconstruction of devastated areas, we have decided to donate 500 million yen and are collecting contributions from employees at our works.

The reconstruction of stricken areas is expected to take a long time. As an organization playing a major role in developing social infrastructure, the entire Company will continue to help restore affected areas as quickly as possible.

# 1. FY2010 Business Summary

- ◆ The strategies in the 2010 Business Plan made good progress overall.  
(Operating income exceeded the plan.)
- ◆ Shifted to a business headquarters system completely to move ahead of the global competition.
- ◆ Introduced business grading to increase ROE.  
(It will be fully introduced in a 2012 Business Plan.)

## 2. Strategies in 2010 Business Plan

### Exercise truly comprehensive strengths

#### Strategies 1

#### Transform business models from customer perspectives

- 1 Strengthen the core businesses further
- 2 Expand the solution business
- 3 Expand business areas
- 4 Expand businesses primarily in a new market (emerging nations)

#### Strategies 2

#### Transform business processes for a strengthened structure

- 1 Commoditize/standardize and sophisticate the business processes
  - 2 Globally optimize the business process allocation
- Departure from vertical integration-

### Establish a system that enables to exercise comprehensive strengths

#### Strategies 3

#### Establish a flexible and agile management system

- Clarify the structure and responsibility-
- Enhance horizontal cross-divisional functions-

#### Strategies 4

Introduce management indicators  
for increased corporate value

#### Strategies 5

Enhance human resources

Enhance the intellectual  
property (IP) strategies

# 3. Progress of Strategies (1)

## Strategy 1 Transform business models from customer perspectives

### (1) Strengthen the core businesses further

- The J-Series gas turbine, a system featuring the world's largest power generation capacity and highest thermal efficiency, will be commercially available.
- MRJ assembly work commenced.
- The world's first engine/battery hybrid forklift (equipped with a lithium-ion secondary battery) was launched.
- The development of floating production, storage, and offloading units for liquefied natural gas (LNG-FPSO) was completed.
- A heat pump water heater, featuring a CO<sub>2</sub> compressor, for commercial use was developed.

### (2) Expanding the solution business

- Agreed with Scottish and Southern Energy of the U.K. to develop low-carbon energy.
- Received an order from E.ON UK plc, a U.K. electric power company, for a preliminary design of a carbon dioxide capture and storage facility for coal-fired power station.
- Signed a memorandum of understanding with a state government of India on the creation of a Smart Community (environmentally friendly community).
- Signed an agreement with the city of Kyoto on demonstration experiments of electric buses and a Next-Generation Electric Vehicle Kyoto Project.

### (3) Expanding business areas

- Completed a commercial production verification plant for lithium-ion secondary batteries.
- Enhanced the after-sales service system.
  - Acquired equity in ATLA, an Italian gas turbine parts manufacturing and repair company.
  - Established a subsidiary that will handle the machinery and steel structures business in Singapore.

# 3. Progress of Strategies (2)

## Strategy 1 Transform business models from customer perspectives

### (4) Expand businesses primarily in new markets (emerging nations)

#### ◆ Business development in emerging countries

##### India

- Plants of joint ventures of MHI and L&T launched full-scale operation, producing supercritical-pressure boilers and steam turbines/generators.
- Licensed carbon dioxide recovery technology to a state fertilizer company in India.
- Licensed crane and heavy-duty material handling equipment technology for large-scale ports for Anupam Heavy Industries.

##### China

- Licensed marine boiler manufacturing and marketing to state-owned Jiujiang Haitian Equipment Manufacture.
- Provided 2.5MW wind turbine technology to Ningxia Yinxing Energy.
- Established a subsidiary to comprehensively oversee MHI's air-conditioning and refrigeration system business and a nationwide network of K-POINT dedicated stores (119 stores at the end of March 2011).

#### ◆ Expand manufacturing bases overseas

##### United States

- Built a gas turbine assembly plant in Georgia.
- Built a windmill nacelle assembly plant in Arkansas.

##### China

- Launched production of gear cutting machines in Changshu, Jiangsu Province, applying a shared factory (producing multiple types of products) scheme.

# 3. Progress of Strategies (3)

## Strategy 2 Transform business processes for a stronger structure

### (1) Commoditize/standardize and sophisticate the business processes

- The Technical Headquarters and the Production Systems Innovation Department promoted a modular design project and cut costs.
- Carried out a value chain reform, involving a marketing support system, prototype-less system, and service support system through enhanced IT.

### (2) Globally optimize the business process allocation

#### ◆ Departure from vertical integration

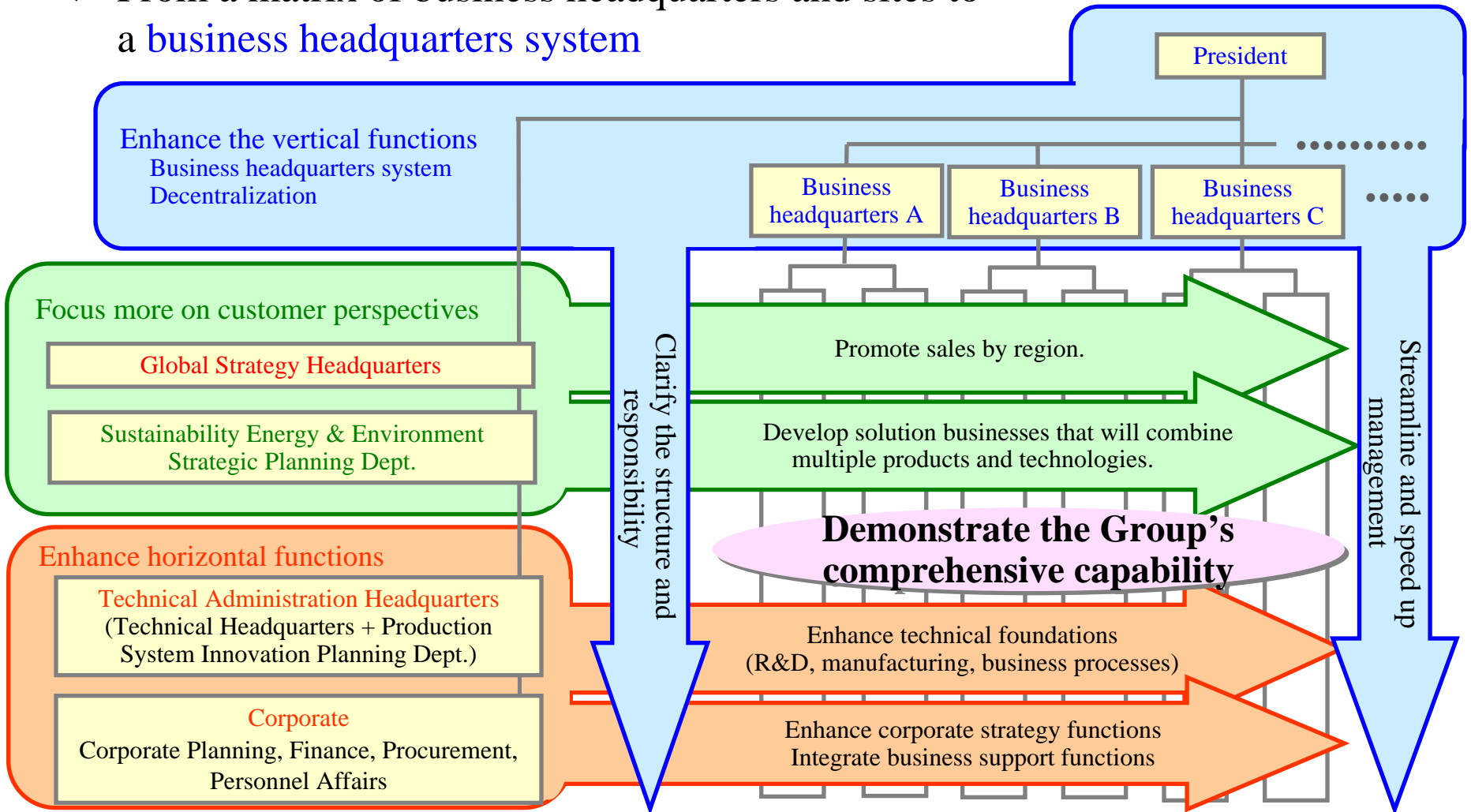
- Began discussions on the details of a photovoltaic module business tie-up with Auria Solar of Taiwan.
- Acquired Artemis Intelligent Power, a UK venture company (applied a wind turbine hydraulic power drive technology to products of MHI).
- Cooperated with Hitachi in railway systems for overseas markets.
- Consolidated the hydroelectric power generation system businesses with Hitachi and Mitsubishi Electric.
- Established new subsidiaries manufacturing compressors and printing machinery.
- Reorganized the production system of the Shipbuilding and Ocean Development Business (consolidated the merchant vessel building yards into the Nagasaki Shipyard & Machinery Works and Shimonoseki Shipyard & Machinery Works).



# 3. Progress of Strategies (4)

## Strategy 3 Establish a flexible and agile management system

- ◆ From a matrix of business headquarters and sites to a business headquarters system



# 3. Progress of Strategies (5)

## Strategy 4 Introduce management indicators for increased corporate value

In the 2010 business plan,  
**we positioned ROE as a  
management indicator.**

Emphasizing investment efficiency

### **Introduction of a business grading system**

Evaluating the profitability and  
efficiency of each SBU

Considering a business portfolio that will  
maximize added value, using limited  
management resources

(to be introduced fully  
in a 2012 business plan)

SBU: Strategic Business Unit



## **A big step forward for new business management**

Accelerating our focus on select businesses

# 4. Changes in Business Environment

## Our understanding until recently

- ◆ The focus of attention in markets is shifting from Japan, the United States, and Europe to emerging countries.
  - Intensifying competition in emerging countries
  - Low-priced products offered by manufacturers in emerging countries
- ◆ The yen will remain strong, and materials costs will continue to rise.
- ◆ Global environmental initiatives will be sluggish.

## Changes in environment

- ◆ Political uncertainty in the Middle East and North Africa
- ◆ Great Eastern Japan Earthquake

### Effects on MHI's businesses

- ◆ Negotiations on certain projects are delayed.
- ◆ The progress of projects is delayed.

### Countermeasures

- ◆ Expanding orders in other promising areas

### Expected changes

- ◆ Power outages in Japan
- ◆ Reviews of energy policies in Japan and abroad
- ◆ Enhancement of the safety of nuclear energy facilities
- ◆ Paradigm shift

### Reaction of MHI

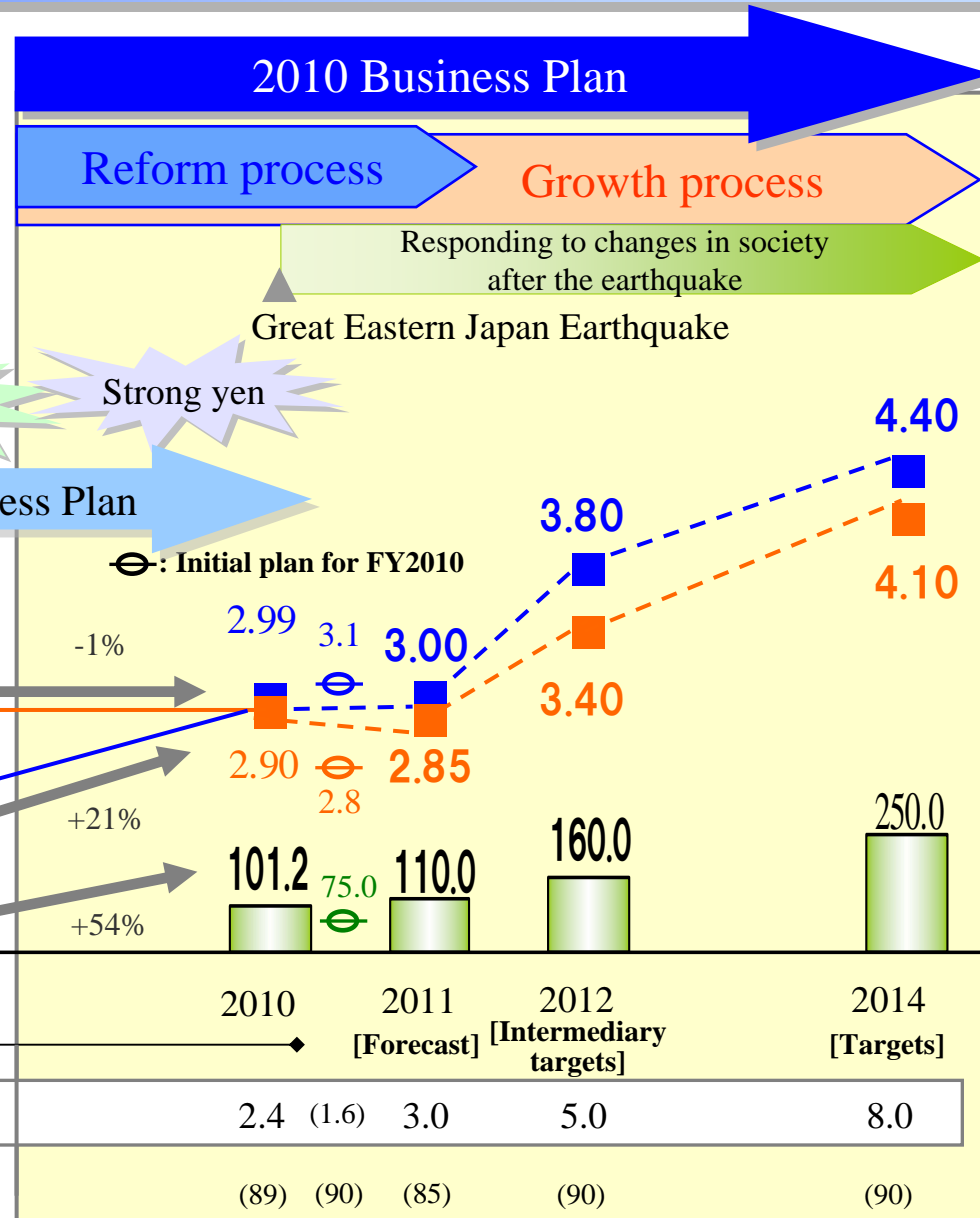
- ◆ Help reconstructing affected areas.
- ◆ Cooperate in rolling outages.
- ◆ Offer our wide range of energy products in accordance with new energy policies in Japan and abroad.
- ◆ Support actions at the Fukushima Daiichi nuclear power plant.
- ◆ Enhance the safety of nuclear (PWR, nuclear fuel cycle) facilities.

# 5. FY2010 Business Summary and FY2011 Plan (1)

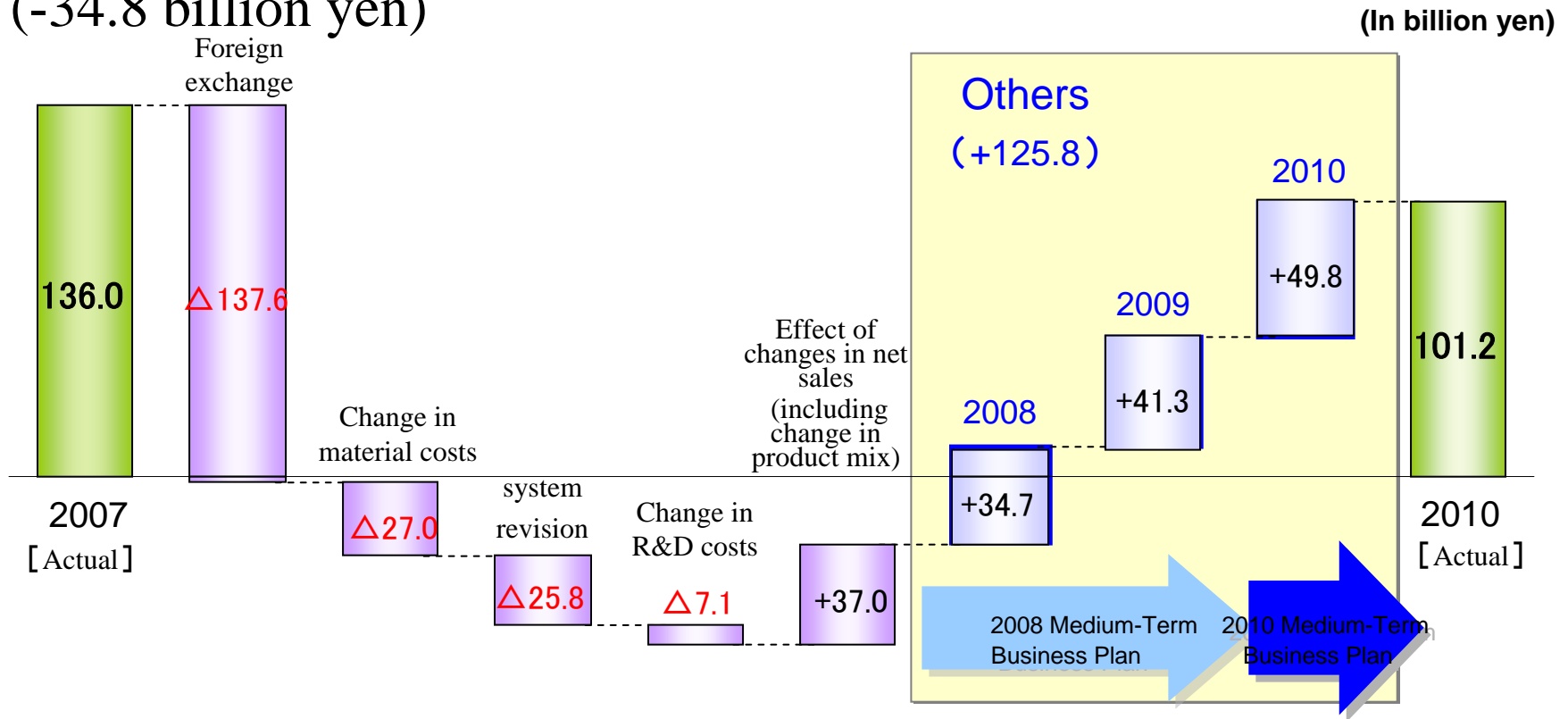
## 2010 Business Plan making good progress

**FY2010** Operating income exceeded the initial plan.

**FY2011** Completing the **reform process** and accelerating the implementation of the growth process (anticipating needs in earthquake reconstruction and in society after the earthquake)



## Analysis of change in operating income from FY2007 to FY2010 (-34.8 billion yen)



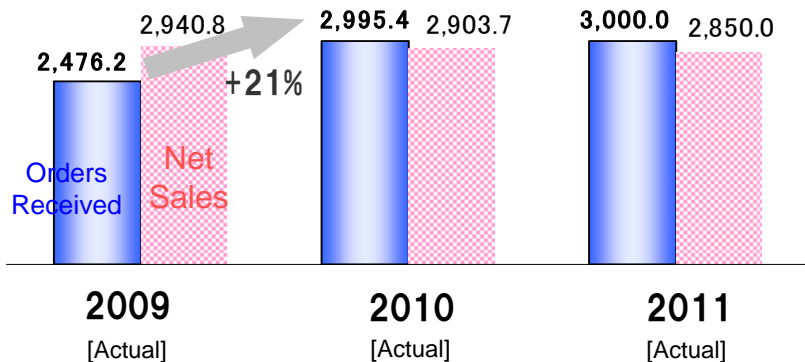
Despite the adverse effect of exchange rates, there were improvements in FY2010, reflecting the continuation and deepening of business process reform, an initiative in the 2008 Medium-Term Business Plan.

system revision: Lower-of-cost- or-market method and depreciation

# FY2010 Business Summary and FY2011 Plan (3)

## Orders Received / Net Sales

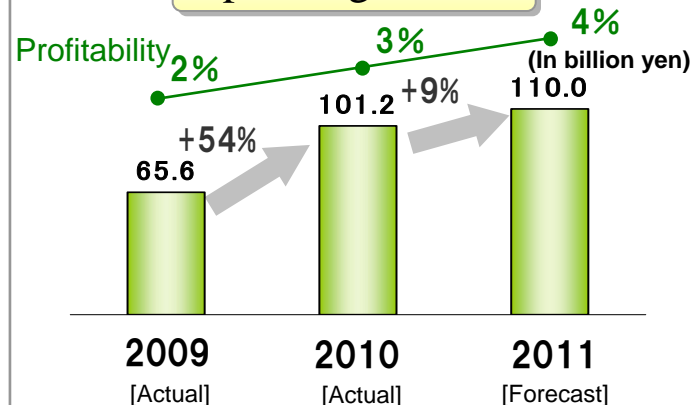
(In billion yen)



Orders declined in FY2009 because of the global economic downturn, but recovered from FY2010.

## Operating Income

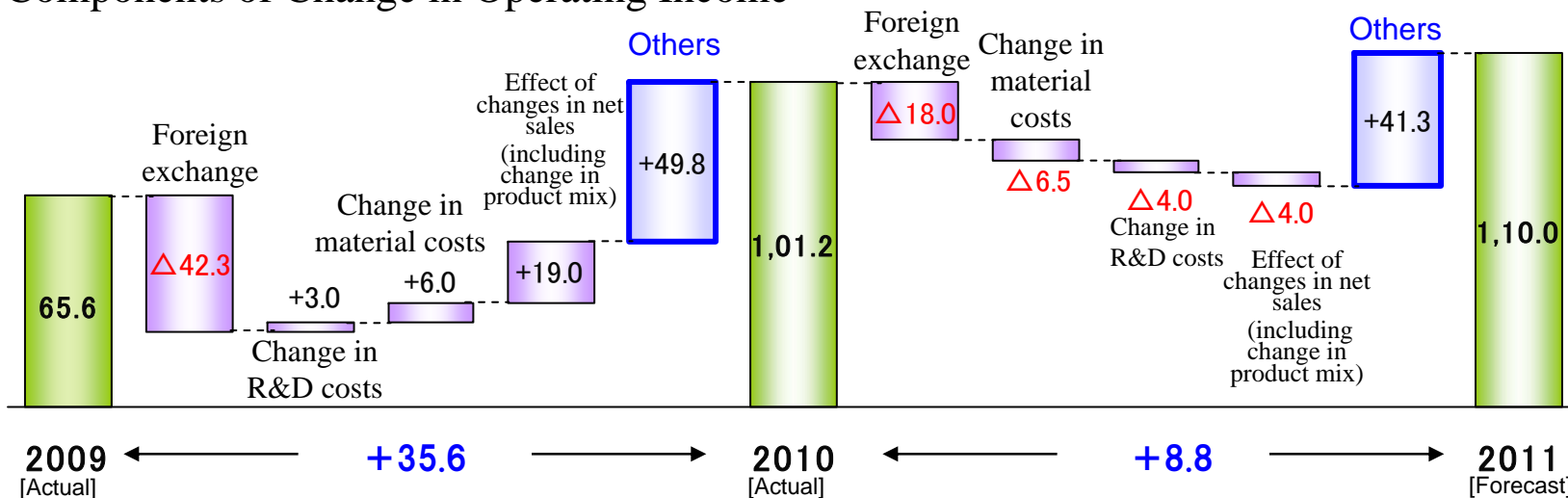
(In billion yen)



Although net sales declined, operating income improved steadily.

## Components of Change in Operating Income

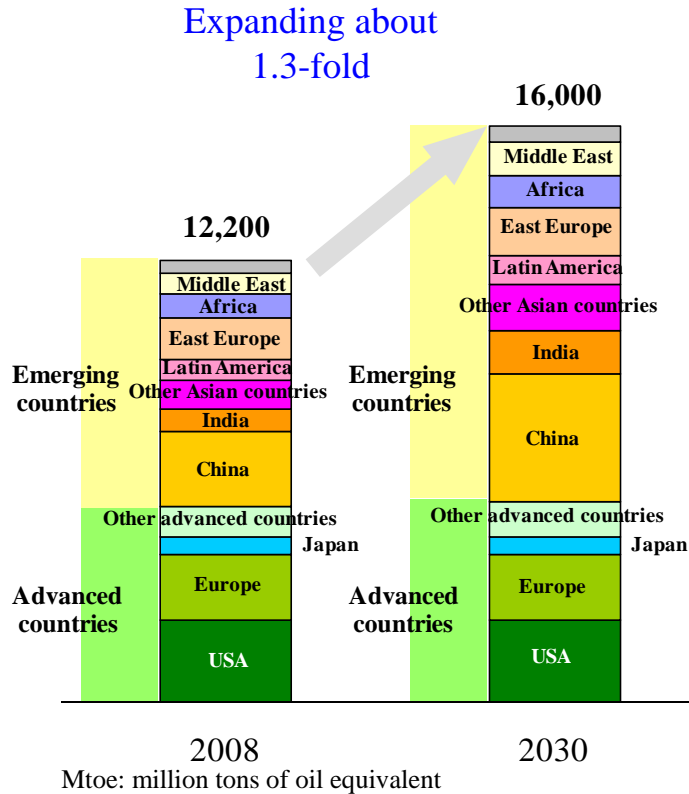
(In billion yen)



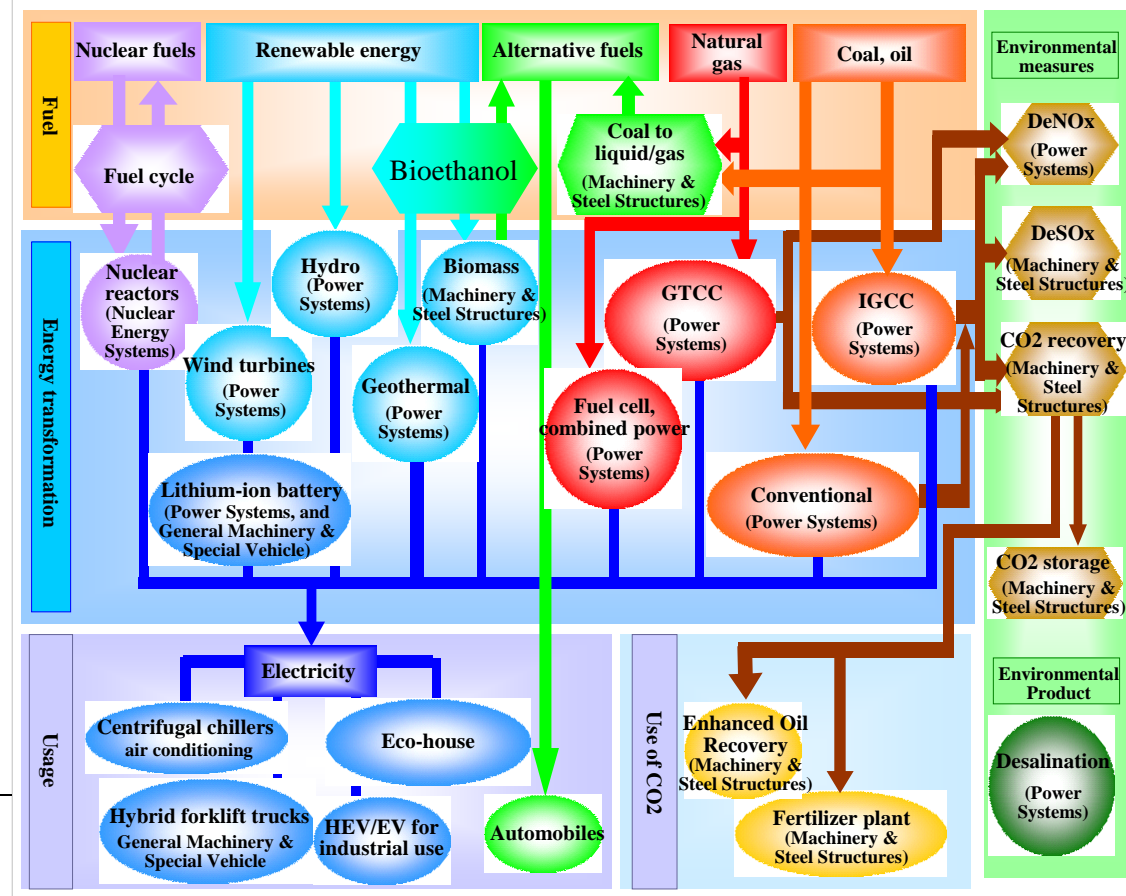
# 6. MHI's Energy Products

## Expected global energy demand

Source: IEA's demand forecast (FY2010 New Policies Scenario)



## MHI's products



CTL: Coal to liquid, GTL: Gas to liquid, GTCC: Gas turbine combined cycle, IGCC: integrated gasification combined cycle, EOR: Enhanced oil recovery

Meet the diversified needs of customers, using our strength, namely our broad range of energy products.

# 7. MHI's Nuclear Power Business

- Position nuclear power generation as an important business in our energy policy in the medium to long term.
- Take the accident at the Fukushima I Nuclear Power Plant seriously and dedicate all our strength to a recovery in confidence in nuclear power.
- Have begun to consider providing support to actions at the Fukushima Daiichi nuclear power plant, jointly with Hitachi.
- Improve the safety of the PWR further.
- A U.S. customer of a project has indicated its intention to continue with the project, and it is being implemented as planned.

Continue to provide safe and reliable products that will contribute to stable power supply.









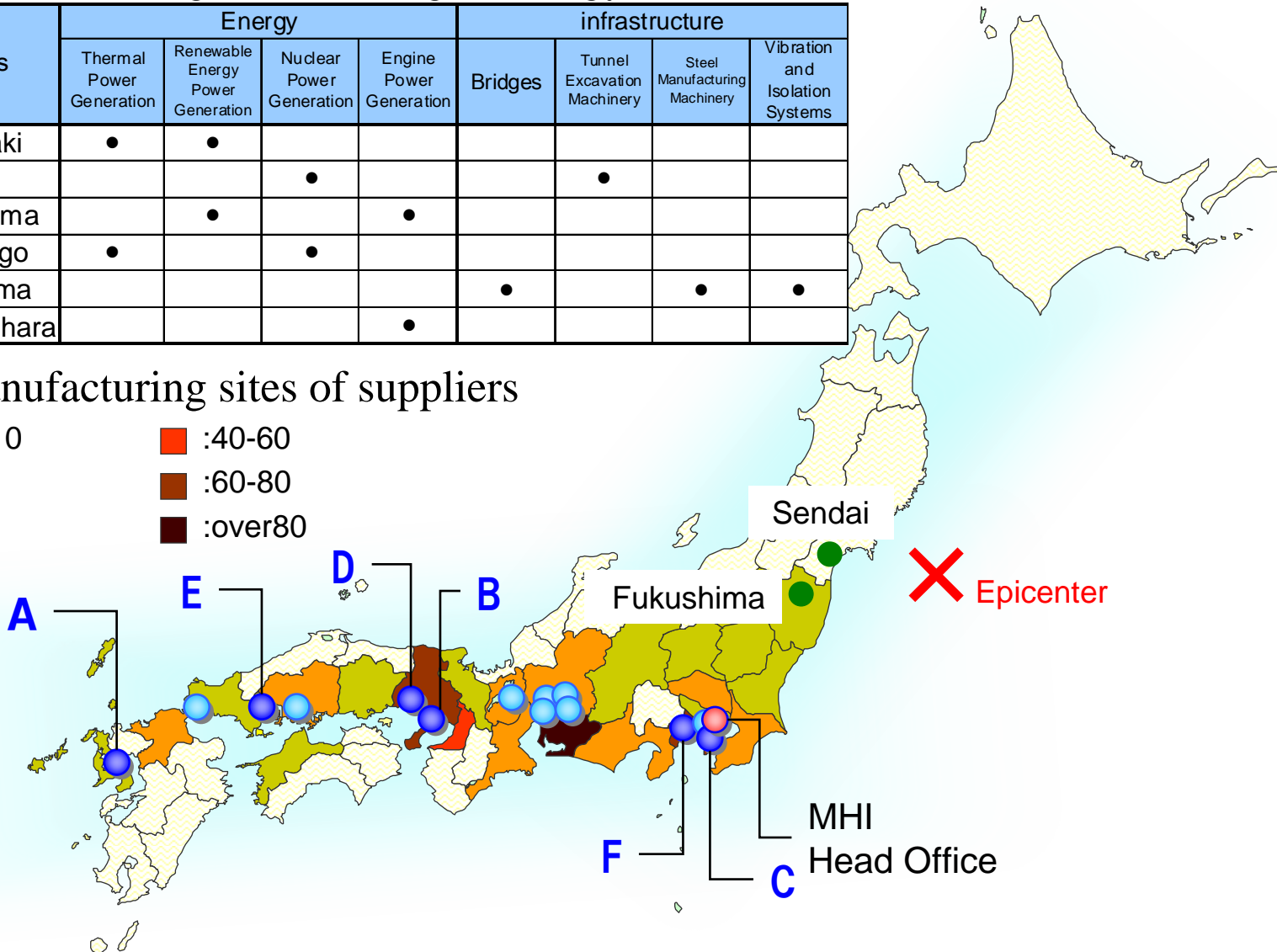
# 8.MHI's Manufacturing Sites -Japan

## Major manufacturing sites relating to energy and infrastructure

	Sites	Energy				Infrastructure			
		Thermal Power Generation	Renewable Energy Power Generation	Nuclear Power Generation	Engine Power Generation	Bridges	Tunnel Excavation Machinery	Steel Manufacturing Machinery	Vibration and Isolation Systems
A	Nagasaki	•	•						
B	Kobe			•			•		
C	Yokohama		•		•				
D	Takasago	•		•					
E	Hiroshima					•		•	•
F	Sagamihara				•				

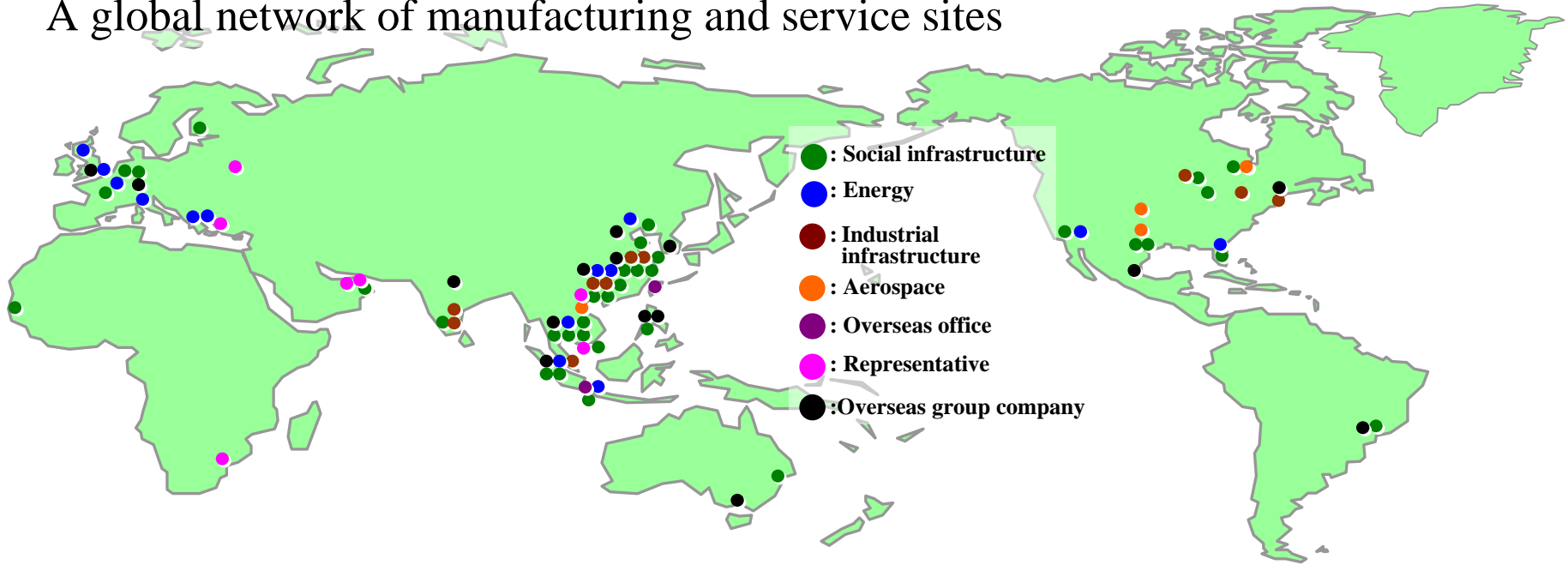
## Major manufacturing sites of suppliers

-  :under10
-  :10-20
-  :20-40
-  :40-60
-  :60-80
-  :over80



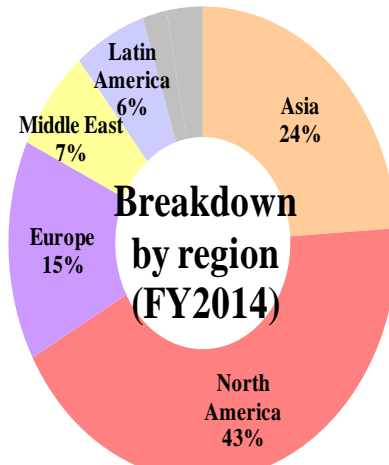
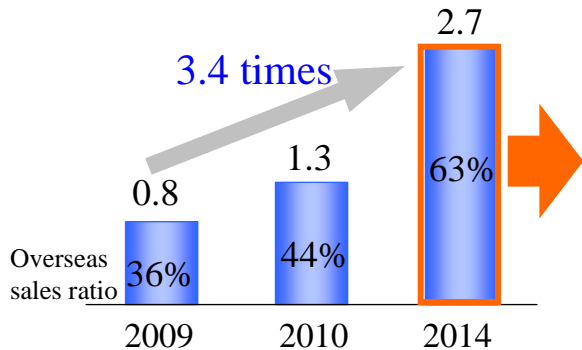
# 8. MHI's Manufacturing Sites (2)—Overseas

A global network of manufacturing and service sites

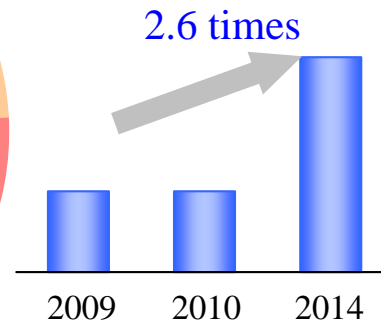


**Overseas Orders**

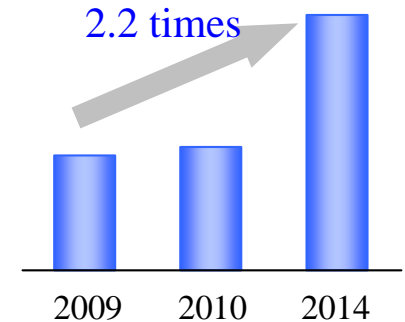
(Trillion yen)



**Overseas procurement**



**Overseas manufacturing**



Continue worldwide optimal distribution of management resources.

# 9. MHI's Role in Reconstruction (1)

## Company creed

**We strongly believe that the customer comes first and that we are obliged to be an innovative partner to society.**

As a company playing a major role in infrastructure building in Japan and with a broad range of products and technologies for stable energy supply, the entire Company will support people's lives and economic activities.



Thermal power plants



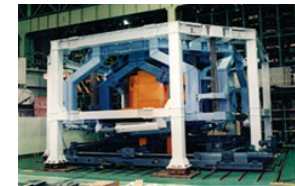
Renewable energy



Emergency power  
generating systems



Construction  
machinery



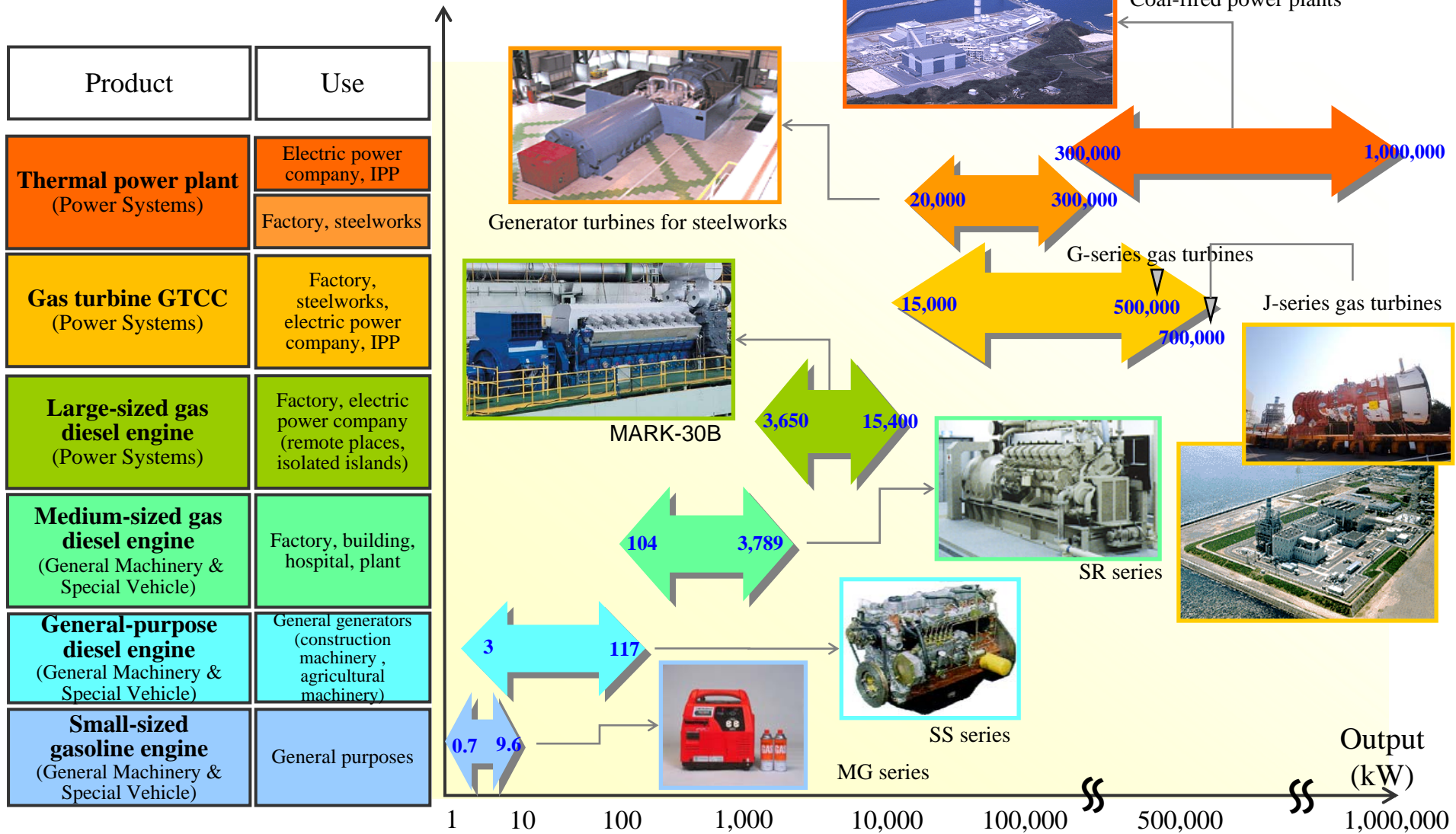
Seismic isolation and  
vibration control  
equipment

## ◆ Future action

- To eliminate power outages in the Tohoku and Kanto regions as quickly as possible, we will provide as much aid as we can, including technical assistance, checking and repairs, along with the prompt supply of equipment for the restoration of thermal power plants and other facilities.

# 9. MHI's Role in Reconstruction (2)

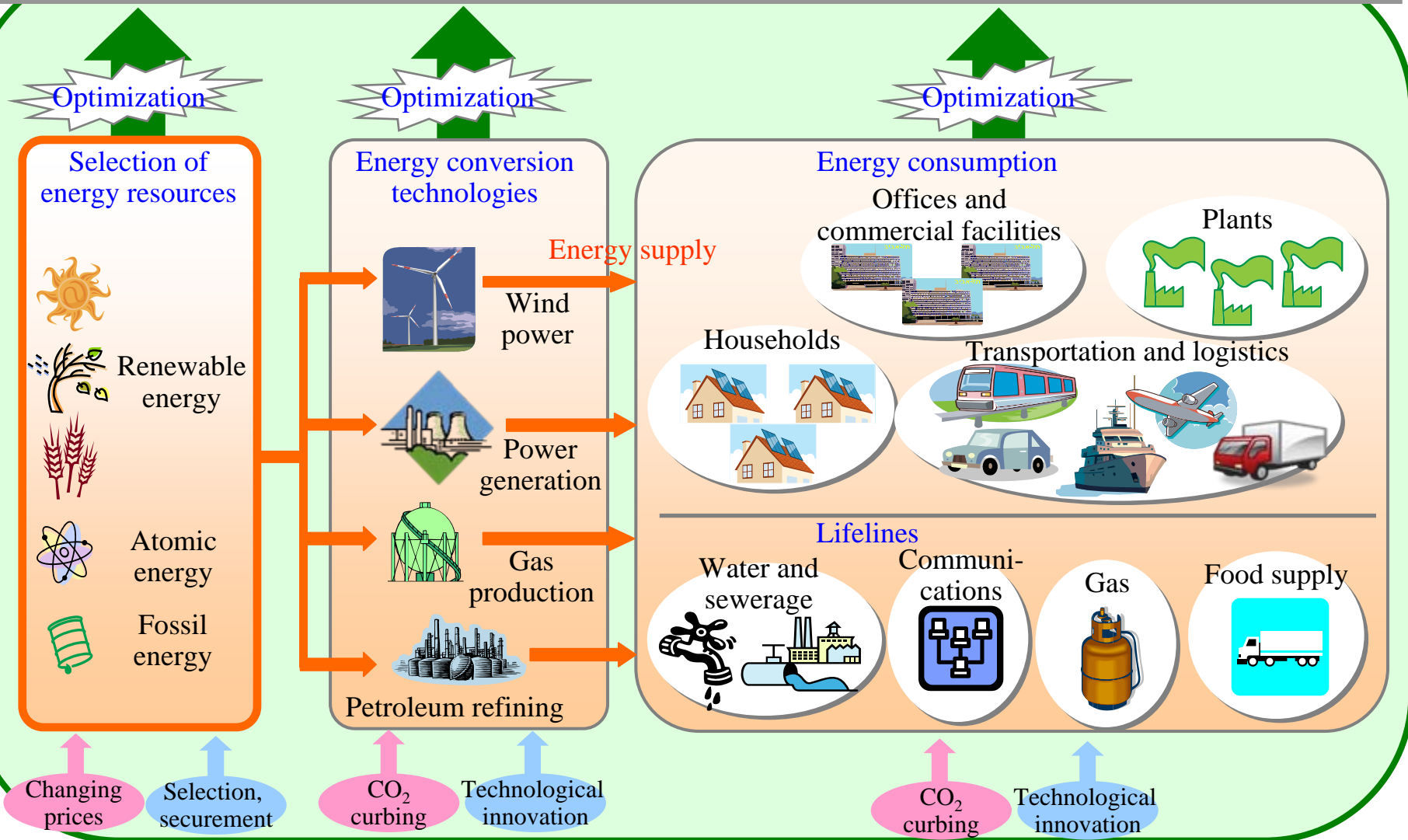
## MHI's lineup of electric power facilities



IPP: Independent Power Producer, GTCC: Gas Turbine Combined Cycle power plant

# 9. MHI's Role in Reconstruction (3)

Helping to create a smart, safe and secure, and sustainable society, using MHI's wide range of products and technologies



# 9. MHI's Role in Reconstruction (4)

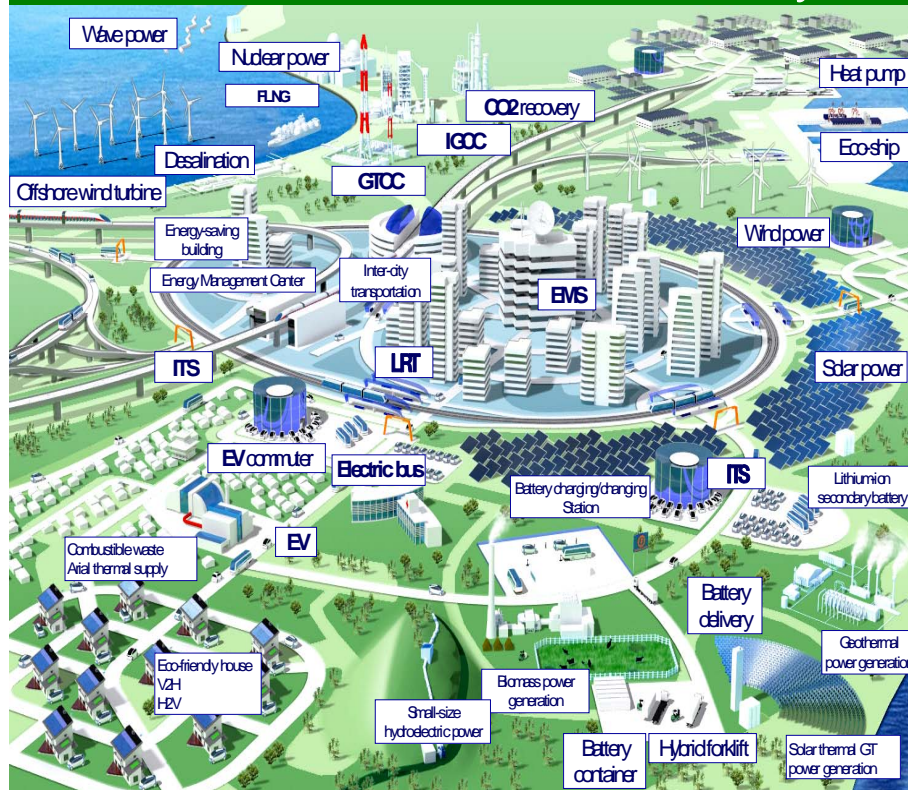
Helping realize advanced smart community resistant to disasters

Normal Operation: Low Carbon Emission Mode

Switch

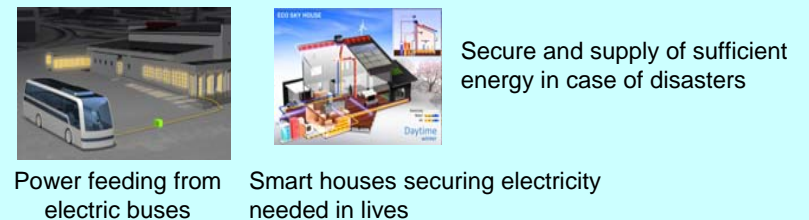
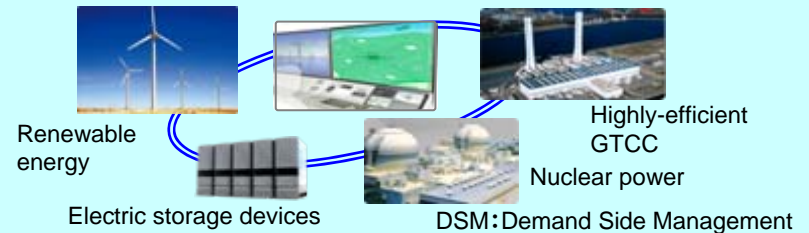
Emergency Operation: Stable and Safety Mode

Current smart community aiming at low carbon emission society



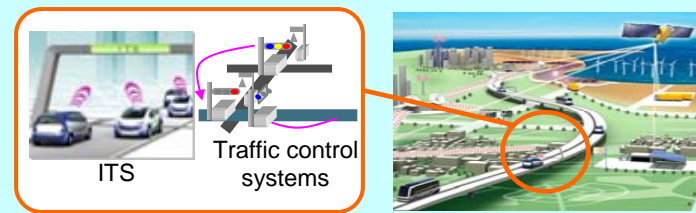
Supply

Integrated energy management with distributed and multiple power supply and DSM



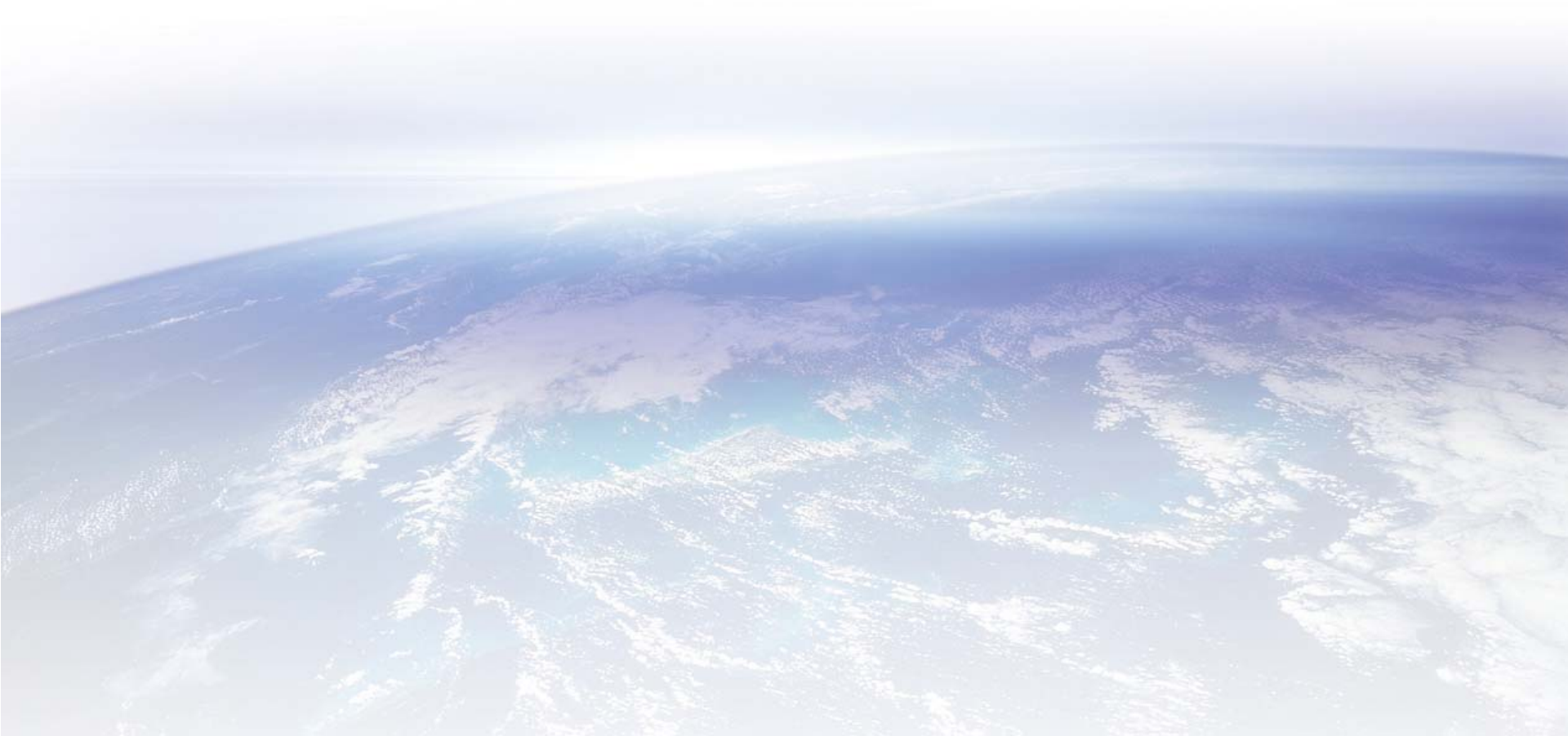
Consumption

Transportation System providing with traffic information and emergency vehicles in case of disasters





Our Technologies, Your Tomorrow

A red swoosh underline that starts under the text and extends to the right, ending in a pointed arrowhead.

# (Supplementary Information) Numerical Targets

(In billion yen)

	2009 Actual	2010 Actual	2011 Forecast	2010 Business Plan	
				2012 Target	2014 Target
Orders received ( shares of overseas sales )	2,476.2 ( 38% )	2,995.4 ( 44% )	3,000.0 ( 56% )	3,800.0 ( 61% )	4,400.0 ( 63% )
Net sales	2,940.8	2,903.7	2,850.0	3,400.0	4,100.0
Operating income	65.6	101.2	110.0	160.0	250.0
Ordinary income	24.0	68.1	70.0	110.0	200.0
ROE	1.1%	2.4%	3.0%	5%	8%
ROIC	1.0%	1.5%	2.0%	3%	5%
D/E ratio	1.1	1.0	1.0	0.9	0.8
Interest-bearing debt	1,495.3	1,325.6	1,300.0	1,300.0	1,200.0
Dividend per share	4JPY	4JPY	6JPY	6JPY	10JPY



# (Supplementary Information) Numerical Targets

(In billion yen)

Segment	Orders Received					Net Sales					Operating Income					
	2009 Actual	2010 Actual	2011 Target	2012 Target	2014 Target	2009 Actual	2010 Actual	2011 Target	2012 Target	2014 Target	2009 Actual	2010 Actual	2011 Target	2012 Target	2014 Target	
Growth Business	Power Systems	982.2	1,022.8	1,100.0	1,680.0	1,920.0	1,066.1	996.9	1,000.0	1,350.0	1,700.0	82.6	83.0	80.0	95.0	125.0
	Machinery & Steel Structures	404.3	492.6	610.0	640.0	810.0	625.7	557.5	460.0	600.0	730.0	3.0	27.0	25.0	32.0	40.0
	Aerospace	435.5	708.1	470.0	510.0	590.0	500.2	472.2	490.0	500.0	650.0	△ 6.4	△ 3.4	△ 10.0	0.0	17.0
	Total	1,822.0	2,223.5	2,180.0	2,830.0	3,320.0	2,192.0	2,026.6	1,950.0	2,450.0	3,080.0	79.2	106.6	95.0	127.0	182.0
Reform Business	Shipbuilding & Ocean Development	150.8	173.2	210.0	230.0	230.0	230.6	302.4	300.0	220.0	210.0	14.5	1.8	5.0	5.0	7.0
	GM & SV	291.0	344.1	360.0	450.0	520.0	286.8	343.0	360.0	450.0	520.0	△ 23.2	△ 16.6	0.0	13.0	35.0
	Air-Con	138.4	159.1	170.0	200.0	240.0	137.4	158.1	170.0	200.0	240.0	△ 9.9	△ 2.3	2.0	4.0	11.0
	Machine Tool·Others	113.4	128.8	125.0	150.0	160.0	146.8	124.6	120.0	130.0	140.0	5.1	11.6	8.0	11.0	15.0
	Total	693.6	805.2	865.0	1,030.0	1,150.0	801.6	928.1	950.0	1,000.0	1,110.0	△ 13.5	△ 5.5	15.0	33.0	68.0
Inter-group consolidation adjustments	△ 39.7	△ 33.6	△ 45.0	△ 60.0	△ 70.0	△ 53.2	△ 51.2	△ 50.0	△ 50.0	△ 90.0	0.0	0.0	0.0	0.0	0.0	
<b>Total</b>	<b>2,476.2</b>	<b>2,995.4</b>	<b>3,000.0</b>	<b>3,800.0</b>	<b>4,400.0</b>	<b>2,940.8</b>	<b>2,903.7</b>	<b>2,850.0</b>	<b>3,400.0</b>	<b>4,100.0</b>	<b>65.6</b>	<b>101.2</b>	<b>110.0</b>	<b>160.0</b>	<b>250.0</b>	