

# Infrastructure Systems Business Strategy

Hitachi IR Day 2014

Infrastructure Systems Company Hitachi Industrial Equipment Systems Co., Ltd.

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## **Infrastructure Systems Business Strategy**

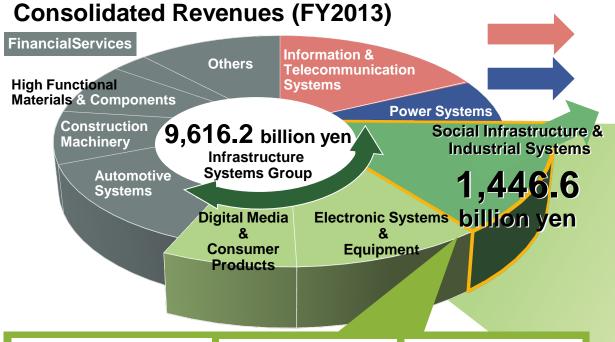
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- 2. Market Environment
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## 1-1. Position of Infrastructure Systems Business



# Drive the social infrastructure business, centered on Social Infrastructure & Industrial Systems



Infrastructure Systems Business





Urban Planning and Development Systems Business



Rail Systems Business



Systems and components for information, power and transportation fields

178.1 billion yen



Infrastructure business centered on the Social Infrastructure & Industrial Systems Segment

641.6 billion yen



Infrastructure Systems
Company Hitachi Industrial
Equipment Systems Co., Ltd.

819.7 billion yen

### 1-2. Business Activities and Portfolio



# Become the best solutions partner by providing answers to business challenges faced by global customers

- Reorganize operations into four business domains in order to respond swiftly to market conditions and accelerate global business expansion
- Provide one-stop, total solutions ranging from components, systems, EPC and services

34% FY2013
Components Consolidated Revenues 819.7
billion yen lndustrial plant solutions

\*Figures for the four business domains represent ratios before deducting inter-business sales

#### **Urban & Energy solutions**



#### **Water & Environment solutions**

Monitoring and control



Seawater desalination plants



Water treatment plants

#### **Industrial plant solutions**

Production control systems



Chemicals and pharmaceuticals plants





Air conditioning and industrial facilities

#### Components





UPS



Inverters





Motors Large-sized components

EPC: Engineering, Procurement and Construction UPS: Uninterruptible Power Supply



## Infrastructure Systems Business Strategy

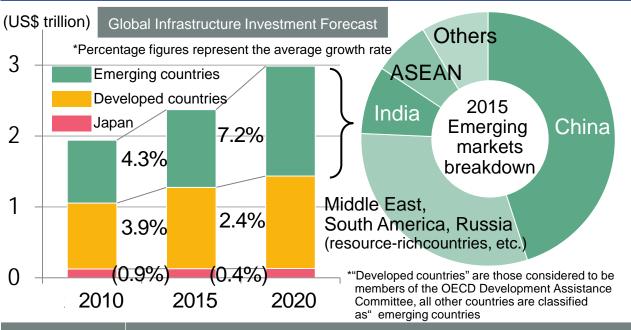
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### 2-1. Market Trends



### The infrastructure market is expanding globally, mainly driven by emerging countries



e growt	h rate
2010 ~ 2015	2015~ 2020
3.7%	8.2%
5.7%	4.6%
3.7%	13.5%
5.9%	4.9%
2.6%	5.9%
	2010 ~ 2015 3.7% 5.7% 3.7% 5.9%

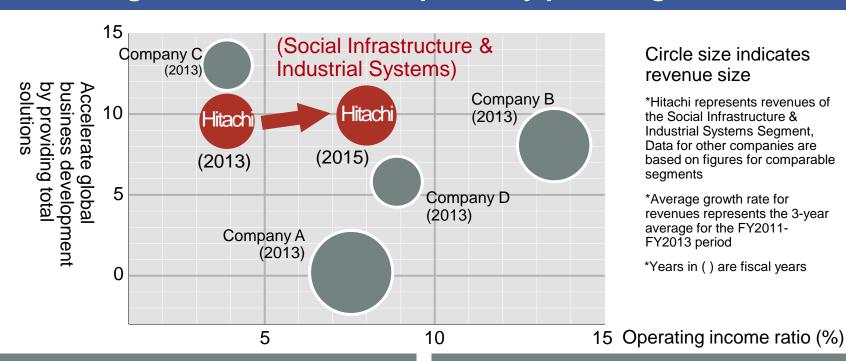
Source: Prepared by Hitachi based on GLOBAL INSIGHT data

Location	Business Opportunities
Emerging countries	<ul> <li>Resource-rich countries: Oil &amp; gas and mining markets</li> <li>Asia (ASEAN), India, and China: Energy, water and industrial infrastructure markets in step with economic development</li> </ul>
Developed countries	Energy saving and highly efficient products and solutions in response to the low-carbon society and environmental consideration
Japan	<ul> <li>IT and capital investment in line with the introduction of new energy and electricity reforms</li> <li>Measures against aging infrastructure and disaster preparedness based on Japan's National Resilience Plan</li> </ul>

## 2-2. Competitive Environment



### Accelerate global business development by providing total solutions



#### Circle size indicates revenue size

\*Hitachi represents revenues of the Social Infrastructure & Industrial Systems Segment, Data for other companies are based on figures for comparable seaments

\*Average growth rate for revenues represents the 3-year average for the FY2011-FY2013 period

\*Years in ( ) are fiscal years

#### Strengths

- Providing total solutions ranging from components, systems, EPC and services
- n Covering a broad range of infrastructure business domains through cooperation with Hitachi Group companies

#### **Initiatives**

- **n** Expand the service business and realize high profitability structure
- n Strengthen the global supply chain to expand in emerging countries



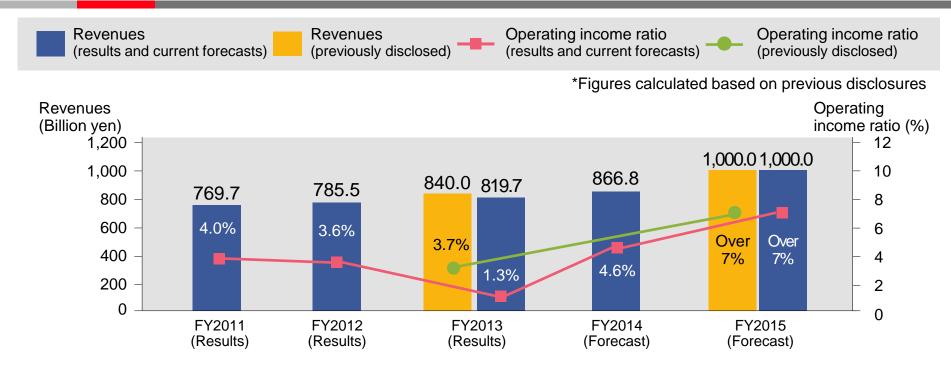
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## 3-1. Differences between Forecasts and Actual Results





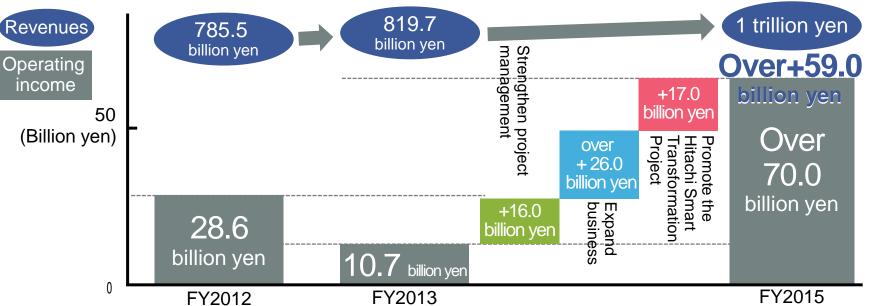
#### <Main reasons for differences>

- In FY2013, revenues and the operating income ratio were below target mainly due to a decline in project profitability
- In FY2015, we aim to achieve our targets by developing business globally and expanding the service business, as we realize the benefits of the structural reforms carried out

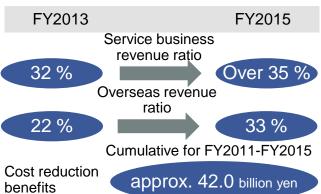
# 3-2. Strategies for Achieving the 2015 Mid-term Management Plan Targets











## 3-3. Reduce the risk of a decline in profitability by strengthening project management



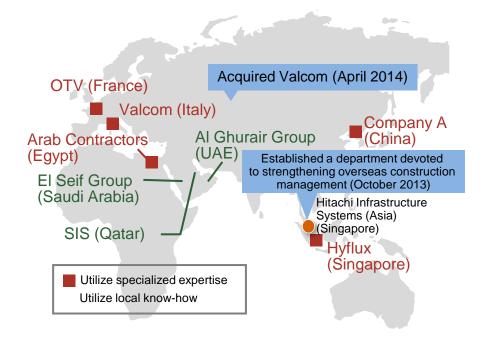
## Remove risk by strengthening organizational capabilities and partnerships

## Enhance the capabilities of project management organizations

- nEstablished a department devoted to project management (under the company president & CEO, August 2013)
- nRigorously implement "cold eye reviews" prior to accepting orders
  - Evaluate projects from a third-party (expert) perspective (estimated cost, risk, and profitability)
- nStrengthen phase gate management by appointing phase progress managers
- nEncourage the use of best practices internally and Strengthen the development of project management personnel (Project management tool, EPC know-how, project manager training programs, etc.)

#### **Enhance the overseas EPC business platform**

- nEstablished a department devoted to strengthening overseas construction management (October 2013 · located in Hitachi Infrastructure Systems (Asia), Singapore)
- Utilize specialized expertise and local know-how through investments and partnerships



## 3-4. Business Expansion Measures



## Increase value added of solutions and accelerate global expansion

increase value added of solutions and accelerate global expansion		
Urban & Energy solutions	nExpand business in the power system reforms market nCapture a greater share of new markets for urban solutions	
Water & Environment solutions	nCapture a greater share of the domestic water and sewage market and improve earnings n Promote large overseas projects and enter the oil and gas field	
Industrial plant solutions	nExpand the EPC business in growing Asian markets nTotal engineering centered on IT and core technologies	
Expand highly profitable businesses around strong components and services		
Components	<ul> <li>nDevelop markets for large components in resource-rich countries by tracking big accounts closely</li> <li>nCapture a greater share of small and medium-sized products that cater to high efficiency and energy savings</li> <li>nInternational business expansion of power electronics products across overseas locations</li> </ul>	
Services	nStrengthen the lifecycle support business based on "IT combined with Infrastructure" technology nExpand service businesses that provide solutions for problems of customers	

## 3-4-1. Urban & Energy Solutions Business



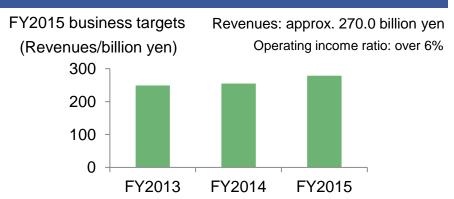
# Expand technologies developed in the power and transportation infrastructures into new markets

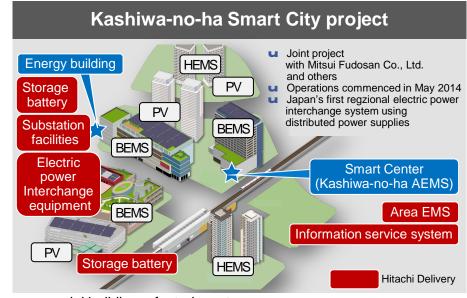
## Expand business in the power system reforms market

- nFocus on core systems
  - Wide area system operation, Power trading, Grid stabilization systems
  - Total solutions for gas and new energy
- Utilize "Control combined with IT" developed through largescale systems in the power, transportation and finance fields
- Promote demonstration tests of grid stabilization systems in North America

## Capture a greater share of new marketsa for urban solutions

- nCombine Kashiwa-no-ha's achievements and know-how to expand sales (community-wide, town-wide energy management)
- nBring cloud-based integrated EMS "EMilia"\* to market (October 2014)
- **n**Expand the gas cogeneration business to the growing Chinese market through collaboration
  - Mitsubishi Heavy Industries, Ltd.: Supply gas engines
  - Hitachi: Provide EPC and various services





<sup>\*</sup>EMilia: Energy and Facilities Management Services such as Offices, commercial buildings, factories, etc. (Emilia the name of the EMS service by Hitachi to provide)

PV: Photo Voltaic EMS: Energy Management System

## 3-4-2. Water & Environment Solutions Business



# Building a solid domestic business base and take challenges to become a global water major

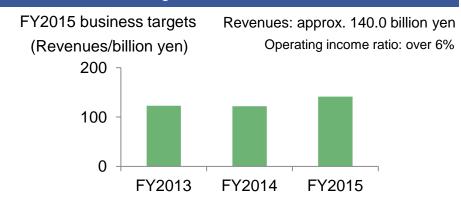
## Increase domestic market share and enhance earnings

- nIncrease market share and enhance earnings in the water and sewage treatment fields
  - Turnkey proposals combining electrical facilities and machinery
  - Upgrade existing facilities, PFIs and expand the comprehensive maintenance and management services business
- n Promote businesses which address Japan's National Resilience Plan

#### **Expand overseas business**

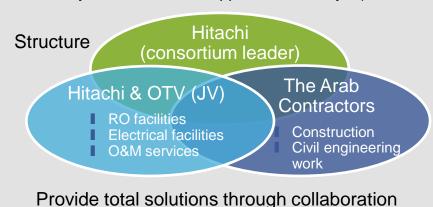
- **n**Win large ODA and PPP projects(Seawater desalination, water and sewage treatment, and service business, etc.)
  - Cooperate with specialized manufacturers and partners
  - Apply "Remix Water," an outstanding seawater desalination technology
- nEnter the oil and gas field
  - Rapidly bring differentiated products to market (treatment equipment for oil field-produced water, RO equipment, injection pumps)
- Expand sales channels (strengthen collaboration with trading companies, etc.)

PFI:Private Finance Initiative PPP : Public-private partnership RO: Reverse Osmosis O&M : Operation & Maintenance



#### Basrah water supply improvement project, in Iraq

(Approx. 200,000 m³/day, scheduled to begin service in 2016, O&M for 5 years, order value approx. 25 billion yen)



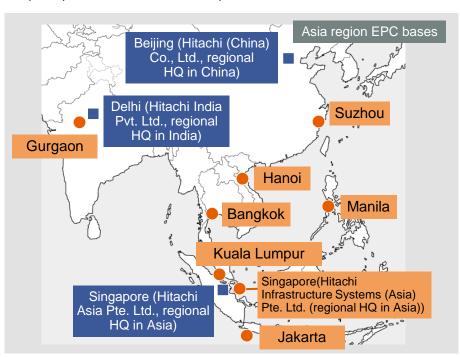
### 3-4-3. Industrial Plant Solution Business

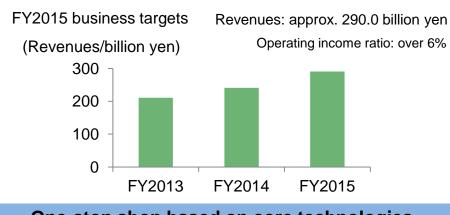


## **Expand the total solutions business of industrial plant**

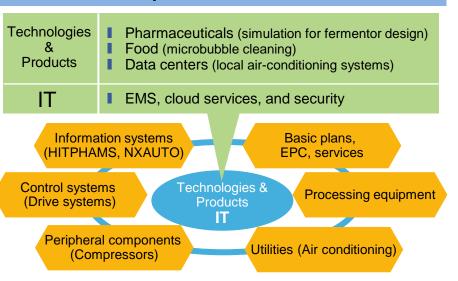
#### **Expand the EPC business in growing Asian markets**

- Make customer-centric proposals in growth fields (Chemicals, pharmaceuticals, food, automobiles, data centers, etc.)
- nLocally-led business development by regional headquarters(April 2014: Hitachi Infrastructure Systems (Asia) Pte. Ltd. Established)





## One-stop shop based on core technologies, products and IT



## 3-4-4. Components Business(1)



# Expand into markets for large components in resource-rich countries by tracking big accounts closely

#### **Initiatives with Saudi Aramco**

nSolve issues related to equipment reliability and maintenance costs



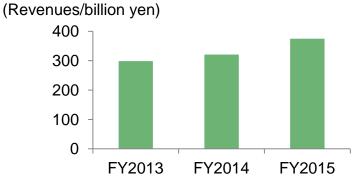
- Received first order for compressors (February 2001)
- Signed comprehensive agreement for the supply of compressors with Saudi Aramco (June 2011)
- Established maintenance service company (June 2012)

**n**Expanded the scope of maintenance services to third-party products (Canned motor pumps, May 2014)

FY2015 business targets

Revenues: approx. 370.0 billion yen

Operating income ratio: over 8%



#### **Initiatives with Petrobras of Brazil**

- nSupported expansion of the offshore resource development business by providing solutions for floating operations(Small, lightweight package solutions, vibration resistance, environment resistance)
  - Received first order for installing compressors and a water treatment system for a FPSO unit (September 2011, for a private-sector oil company)
  - Established maintenance service company (December 2012)
  - Received an order for six compressors for a FPSO unit (January 2013)







FPSO: Floating Production Storage and Offloading FLNG: Floating Liquefied Natural Gas

## 3-4-4. Components Business(2)



# Increase share of small and medium-sized products serving needs for high efficiency and energy savings

#### Globally expand key products

Maintain top domestic share and globally expand business by launching a new compressor model

"Single Stage DSP Next Series" (commenced sales in February 2014)



nAccelerate expansion in China and Asia by strengthening local sales channels for ultra-highefficiency transformers

"Super Amorphous Zero" (commenced sales in April 2014)



nTackle the challenges of capturing the world's top share of the ink jet printer market (Accelerate expansion in Europe and the U.S. by acquiring distributors and establishing a supply chain)

"Next-generation core IJP UX Series" (commence sales in the second half of 2014)

PCS: Power Conditioning System

# Address new environmental regulations

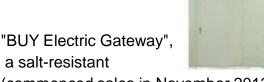
**n**Expand sales by satisfying the Top Runner Energy Efficiency Standards for highly efficient motors

"The Motor Neo100 Premium" (commenced sales in January 2013)

#### **Bring packaged products to market**

nStrengthen one-stop responses to the growing new energy market

Cubicle-integrated PCS for new energy solutions





## 3-4-4. Components Business(3)



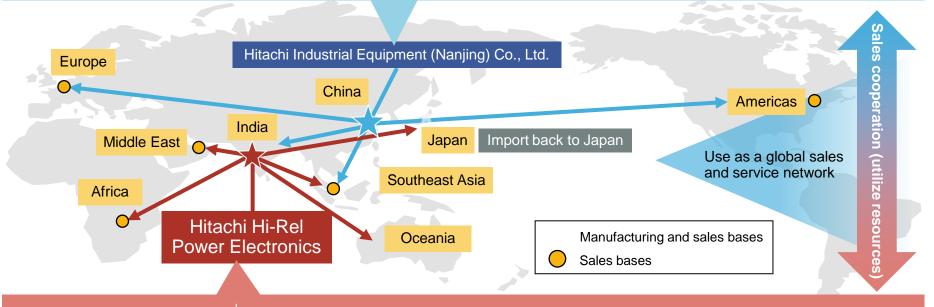
# International business expansion of power electronics products from overseas locations

#### China/

Small and medium-sized inverters

- Transfer and centralize manufacturing base to China for products shipped to European, African and Asian markets
- Strengthen sales capabilities and expand the service business (Sales Agent:(approx. 300 distributors (FY2012) → approx. 380 distributors (FY2015))\*
- Expand business in India and Asia through sales cooperation with Hitachi Hi-Rel

\*Total for Hitachi Industrial Equipment Systems Co., Ltd., including products other than inverters



#### India/

Large inverters, UPS and PCS

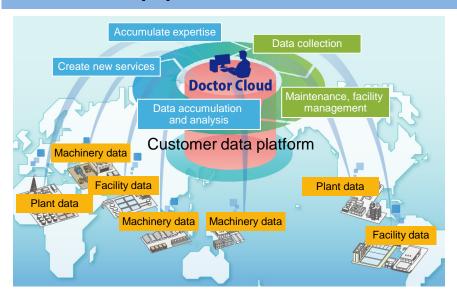
- India: Develop into a manufacturing, customization, and local procurement base for the Indian market and surrounding regions
- Singapore: Expand UPS lineup to serve needs for developing data centers
- Middle East: Expand sales of drive systems by selling them in combination with large compressors
- Oceania & Africa: Enter the drive systems market in the mining field

### 3-4-5. Service Business



# Strengthen the lifecycle support business based on "IT combined with Infrastructure" technology

#### Plant equipment maintenance and facility management service "Doctor Cloud"



- **n**Shift from a facility and equipment supplier to a partner that solves issues facing customers
- nEnable total maintenance services according to the characteristics of a given plant
- nCreate new businesses and reduce lifecycle costs through the use of Big Data

#### **Applications**

- Cranes
- Air compressors
- Water treatment plants and facilities
- Air conditioning facilities
- Plant equipment
- Urban and transportation infrastructure (planned)

#### Cloud-based integrated EMS service "EMilia"

- Unified management of Energy and Facility Information of varying formats and scales, such as for buildings, plants, multiple sites and town blocks
- nBig data analysis and diagnosis by partners
- Realizing the total operational optimization of energy, including the proposal of the equipment replacement

BCP: Business Continuity Plan OPEX: Operating Expense

#### Services for solving customer issues

**n**Expand profits and recover investments by participating in management



- Acquire business management expertise through partnerships
   Introduce "IT combined with Infrastructure"
- with Infrastructure" technology (economy simulator)



### Promote continuous cost structure reform

- n Establish manufacturing, EPC and service bases to build a global supply chain
- n Expand overseas procurement and centralized purchasing, strengthen engineered sourcing
- n Standardize workflow and promote the use of shared services



### Concentrate resources and expedite management through business structure reforms

- n Reorganized operations into four business domains (April 2014)
- n Realigned and integrated business into Group companies (October 2013 and April 2014)
- n Established overseas regional companies (April 2014)

### **Strengthening Cash Flow Management**

- Implement total value chain operational reforms (end to end), ranging from estimates to services
  - Closely examine and improve contracts and business conditions via dedicated project management divisions
  - Improve number of days of working capital by reducing lead times (promote modular design and cellular manufacturing)
- n Improve investment efficiency (prioritize investment and utilize Hitachi Capital to invest long-term in the service business)

(Benefits) FY2011-FY2015 (cumulative): 42.0 billion yen

## 3-6. Strategic Investments for Growth



### Make strategic investments in key fields to achieve growth

## Investments and loans

- n Strengthen engineering capabilities to expand the EPC business (partnerships and M&As with local and specialized companies)
- n Establish infrastructure operation service business companies to expand the global water business (establish a seawater desalination SPC in Dahej, India, etc.)
- n Strengthen overseas sales channels for small and medium-sized products (Europe, the U.S. and Asia) and implement other measures

# Capital expenditures

- Increase production facilities for key products (large compressors at Tsuchiura Works, etc.)
- n Strengthen the service business base (increase maintenance service facilities at Hitachi Saihati Engineering Services Co., Ltd. in Saudi Arabia, etc.)

Investment scale in FY2013-FY2015 (including capital expenditures) Approx. 80.0 billion yen

SPC: Specific Purpose Company



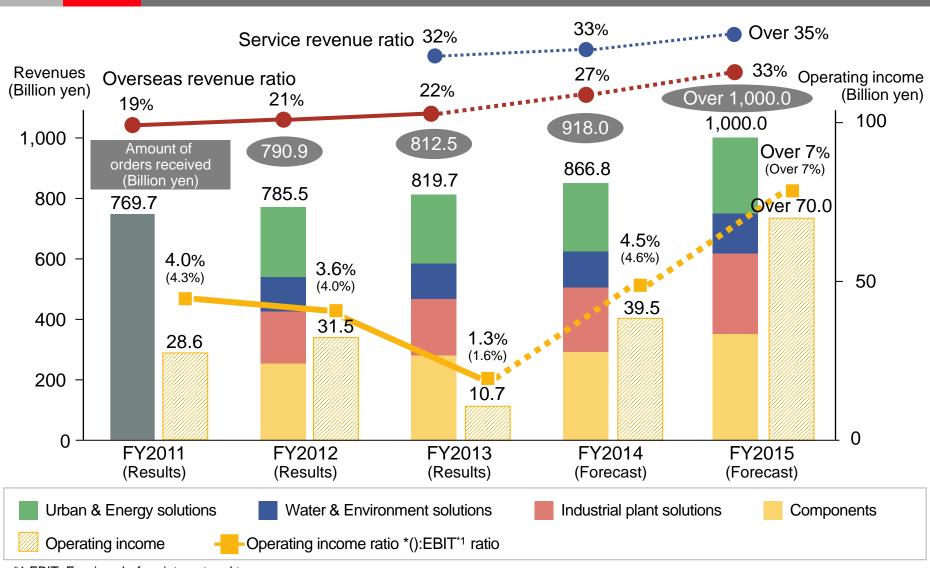
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### 4-1. Business Performance Trends





<sup>\*1</sup> EBIT: Earnings before interest and taxes

<sup>\*2</sup> A certain amount of orders received, revenues, EBIT and operating income of the Infrastructure Systems Company are included in the Information & Telecommunication Systems Company, the Power Systems Company and the Rail Systems Company

<sup>\*3</sup> Figures for the four business domains represent ratios before deducting inter-business sales



## FY2015 Targets

- nRevenues: 1 trillion yen (overseas revenue ratio: 33%)
- nOperating income (EBIT) ratio: over 7%
- nGross margin: 1.7 point improvement (vs. FY2012)
- nSG&A expenses ratio: 1.8 point improvement (vs. FY2012)

Become the best solutions partner by providing answers to business challenges faced by global customers

## **Cautionary Statement**



Certain statements found in this document may constitute "forward-looking statements" as defined in the U.S. Private Securities Litigation Reform Act of 1995. Such "forward-looking statements" reflect management's current views with respect to certain future events and financial performance and include any statement that does not directly relate to any historical or current fact. Words such as "anticipate," "believe," "expect," "estimate," "forecast," "intend," "plan," "project" and similar expressions which indicate future events and trends may identify "forward-looking statements." Such statements are based on currently available information and are subject to various risks and uncertainties that could cause actual results to differ materially from those projected or implied in the "forward-looking statements" and from historical trends. Certain "forward-looking statements" are based upon current assumptions of future events which may not prove to be accurate. Undue reliance should not be placed on "forward-looking statements," as such statements speak only as of the date of this document.

Factors that could cause actual results to differ materially from those projected or implied in any "forward-looking statement" and from historical trends include, but are not limited to:

- n economic conditions, including consumer spending and plant and equipment investment in Hitachi's major markets, particularly Japan, Asia, the United States and Europe, as well as levels of demand in the major industrial sectors Hitachi serves, including, without limitation, the information, electronics, automotive, construction and financial sectors:
- n exchange rate fluctuations of the yen against other currencies in which Hitachi makes significant sales or in which Hitachi's assets and liabilities are denominated, particularly against the U.S. dollar and the euro;
- n uncertainty as to Hitachi's ability to access, or access on favorable terms, liquidity or long-term financing;
- n uncertainty as to general market price levels for equity securities, declines in which may require Hitachi to write down equity securities that it holds;
- n uncertainty as to Hitachi's ability to continue to develop and market products that incorporate new technologies on a timely and cost-effective basis and to achieve market acceptance for such products;
- **n** rapid technological innovation;
- n the possibility of cost fluctuations during the lifetime of, or cancellation of, long-term contracts for which Hitachi uses the percentage-of-completion method to recognize revenue from sales;
- n fluctuations in the price of raw materials including, without limitation, petroleum and other materials, such as copper, steel, aluminum, synthetic resins, rare metals and rare-earth minerals, or shortages of materials, parts and components;
- **n** fluctuations in product demand and industry capacity;
- n uncertainty as to Hitachi's ability to implement measures to reduce the potential negative impact of fluctuations in product demand, exchange rates and/or price of raw materials or shortages of materials, parts and components;
- n increased commoditization of information technology products and digital media-related products and intensifying price competition for such products;
- n uncertainty as to Hitachi's ability to achieve the anticipated benefits of its strategy to strengthen its Social Innovation Business:
- n uncertainty as to the success of restructuring efforts to improve management efficiency by divesting or otherwise exiting underperforming businesses and to strengthen competitiveness;
- **n** uncertainty as to the success of cost reduction measures:
- n general socioeconomic and political conditions and the regulatory and trade environment of countries where Hitachi conducts business, particularly Japan, Asia, the United States and Europe, including, without limitation, direct or indirect restrictions by other nations on imports and differences in commercial and business customs including, without limitation, contract terms and conditions and labor relations;
- n uncertainty as to the success of alliances upon which Hitachi depends, some of which Hitachi may not control, with other corporations in the design and development of certain key products;
- n uncertainty as to Hitachi's access to, or ability to protect, certain intellectual property rights, particularly those related to electronics and data processing technologies;
- n uncertainty as to the outcome of litigation, regulatory investigations and other legal proceedings of which the Company, its subsidiaries or its equity method affiliates have become or may become parties;
- **n** the possibility of incurring expenses resulting from any defects in products or services of Hitachi:
- **n** the potential for significant losses on Hitachi's investments in equity method affiliates;
- **n** the possibility of disruption of Hitachi's operations by earthquakes, tsunamis or other natural disasters;
- n uncertainty as to Hitachi's ability to maintain the integrity of its information systems, as well as Hitachi's ability to protect its confidential information or that of its customers;
- n uncertainty as to the accuracy of key assumptions Hitachi uses to evaluate its significant employee benefit-related costs; and
- n uncertainty as to Hitachi's ability to attract and retain skilled personnel.

The factors listed above are not all-inclusive and are in addition to other factors contained in other materials published by Hitachi.

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