



# Industry & Distribution Business Strategy

Hitachi IR Day 2017

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CEO of Industry & Distribution Business Unit  
Hitachi, Ltd.**

# Industry & Distribution Business Strategy

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- 1. Business Overview**
2. Market Environment
3. Growth Strategy
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# 1-1. Business Overview

Create new value with customers as "An Innovation Partner for the IoT Era"  
- Provide digital solutions by integrating IT and OT operations -

## Digital solutions business

### Business support solutions\*1

- Digital supply chain solutions

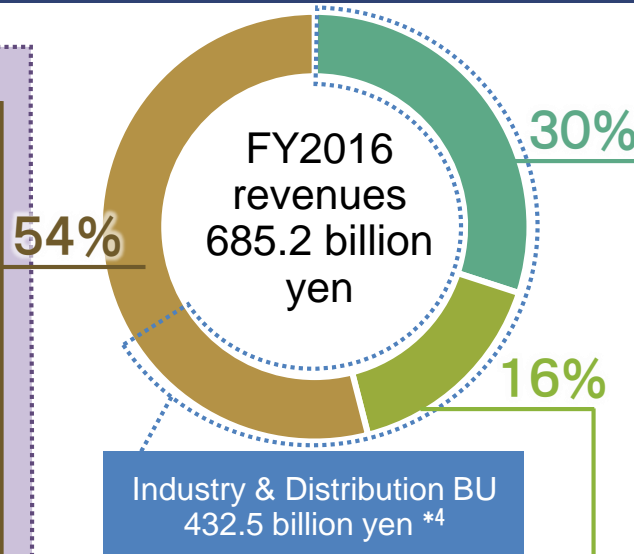


- ERP solutions



Top level in Japan for SAP® related business\*2,3

- Logistics solutions
- Outsourcing services



## Industrial equipment solutions

- Design, installation
- Maintenance services



Leading domestic market share for bio-plant cultivation equipment\*2

## Control solutions

- Operating/management systems



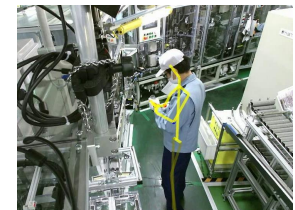
"Doctor Cloud"  
Cloud-based device maintenance & equipment management service

- Manufacturing Execution Systems (MES)



"HITPHAMS" (MES for pharmaceutical industry)  
Top share in the market segment in Japan\*2

- Optimized factories



\*1: Business support solutions include Hitachi Solutions. \*2: Hitachi Estimation \*3: SAP and SAP logos are registered trademarks of SAP SE in Germany and other countries.

\*4: Including figures of Hitachi Plant Construction. FY2016 result except for Hitachi Plant Construction is 376.2 billion yen.

# 1-2. Review of FY2016

	FY2016 results	Previous forecast*1	Difference	FY2016*2
Revenues (billion yen)	685.2	690.0	(4.8)	628.9
Adjusted operating income ratio	0.1%	3.6%	(3.5) points	(0.2)%
EBIT ratio	(0.3)%	2.5%	(2.8) points	(0.6)%

## Reasons for difference

Re-estimation of risk of a major construction project in the Middle East

## Achievements

- Promotion of collaborative creation of the digital solutions business with advanced customers worldwide
- Completion of measures including withdrawal from low-profit businesses

## Transforming our portfolio into high-profit business

- Growing needs for usage of IoT to improve management efficiency
- Strength by integrating IT, OT and products



Changing gear to the growth phase by expanding digital solution business as a driving force

\*1: As of June 1, 2016 \*2: Figures of Hitachi Plant Construction, Ltd., which was transferred to the Nuclear Energy Business Unit in April 2017, were corrected retroactively.  
EBIT: Earnings Before Interest and Taxes

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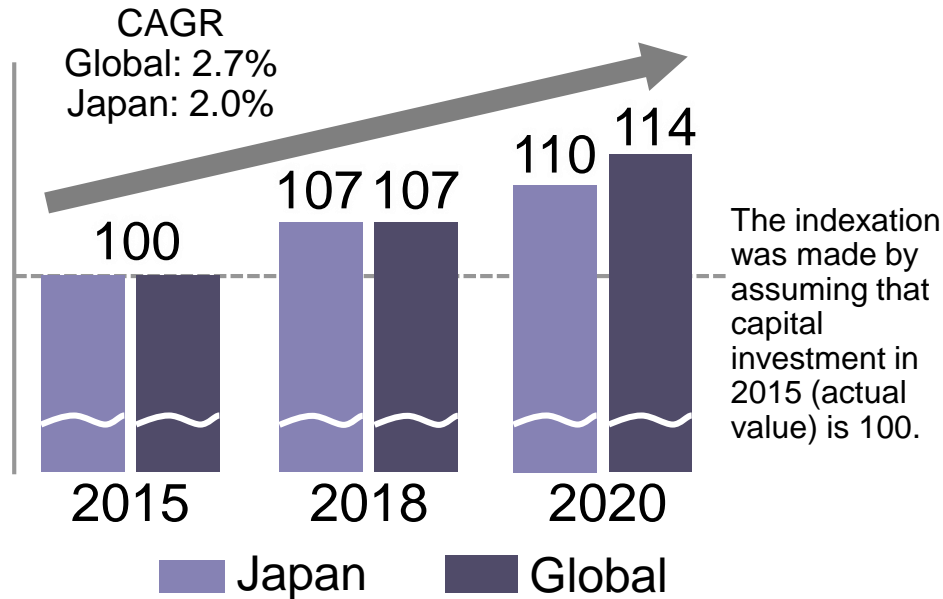
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## Continuous expansion of investment on the manufacturing and distribution industries toward advancing business

### ● Projected capital investment\*1 (industry and distribution sectors\*2)



- Increasing capital investment due to increase of use of IoT (improving productivity and quality)
- Expanding investment for advanced marketing and distribution (due to the expansion of e-commerce and collaboration between manufacturers and retailers)

### ● Customers

- Advancing design, production and distribution toward various needs
- Securing quality in global production
- Quicker decision-making process in complex and sophisticated business management

### ● Hitachi's response

Make use of digital technologies and share, visualize, and optimize information in total value chain, in order to help customers resolve issues and contribute to their growth

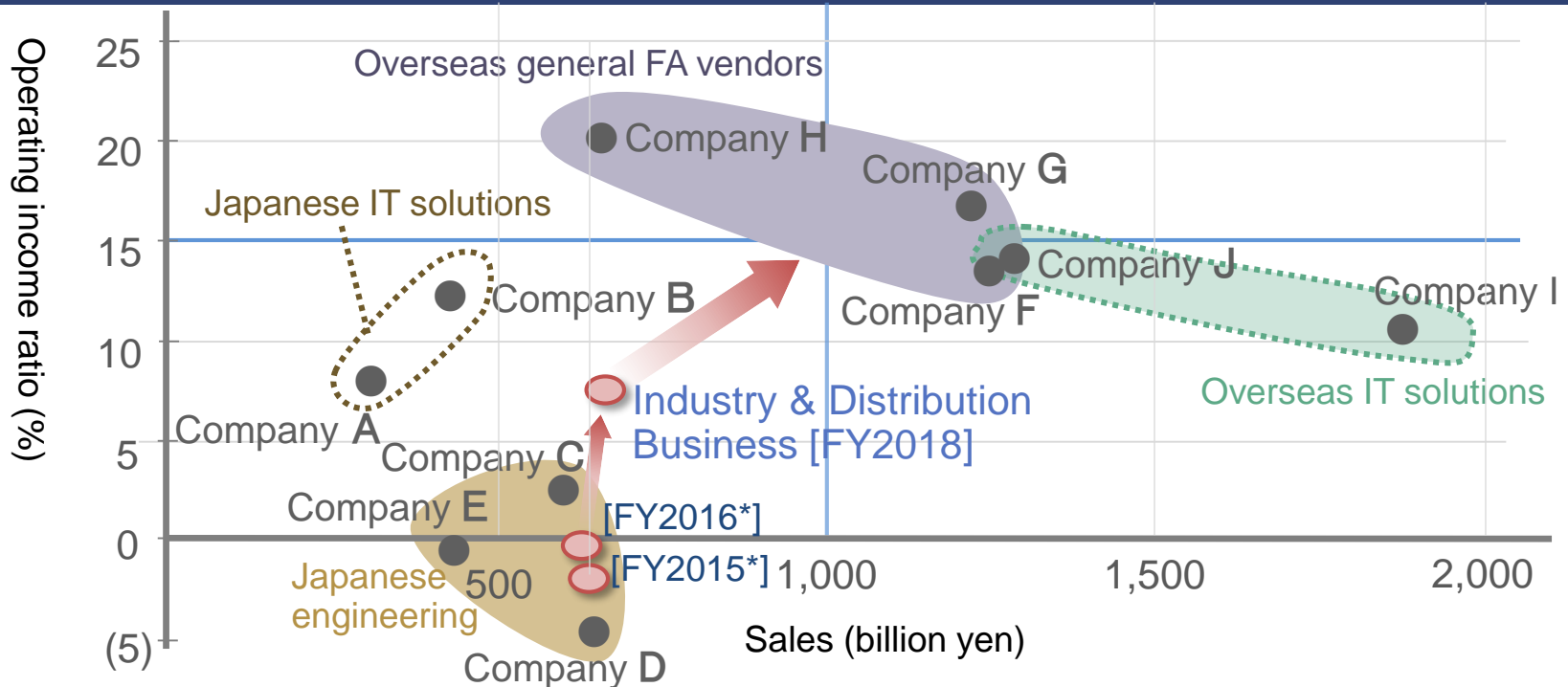
\*1: Source: Compiled by Hitachi based on IHS Markit, World Industry Service Rev. 4 [April, 2017]

\*2: Industry and distribution divisions include manufacturing industry, wholesale/retailing industry, and transportation industry.

CAGR: Compound Annual Growth Rate

# 2-2. Target Position

Establish a globally competitive position with digital solutions as a core competence



## Competitors' trends

- FA vendors strengthening IT functions through acquisition, etc.
- IT companies seeking to alliance with device manufacturers

## Hitachi's strengths

- Provide digital solutions by integrating IT and control technologies
- Relationship for Collaborative Creation with advanced customers in Japan and overseas, and achievements made through that relationship

\* Figures of Hitachi Plant Construction, Ltd., which was transferred to the Nuclear Energy Business Unit in April 2017, were corrected retroactively.  
Compiled by Hitachi based on figures published by individual companies

# Industry & Distribution Business Strategy

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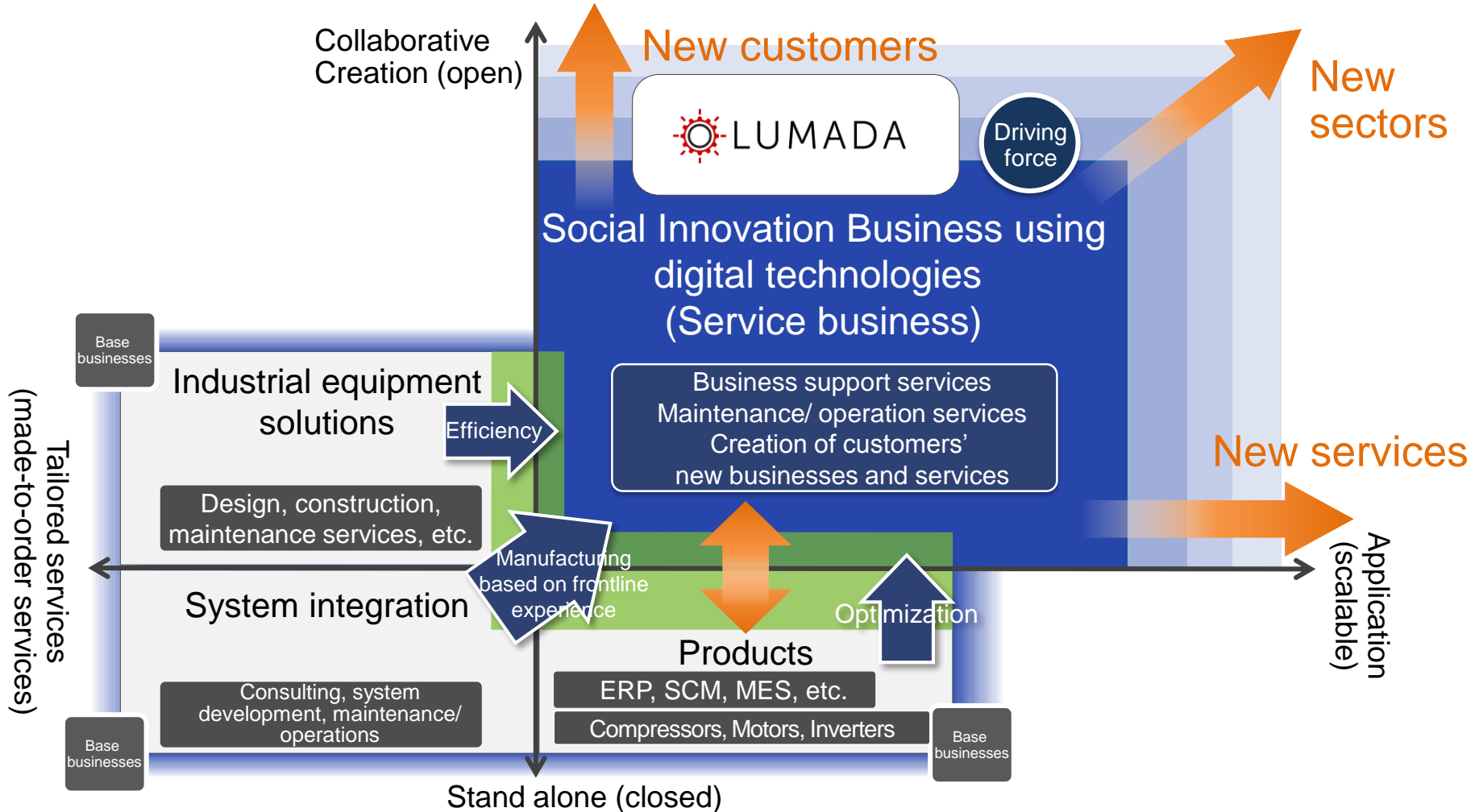
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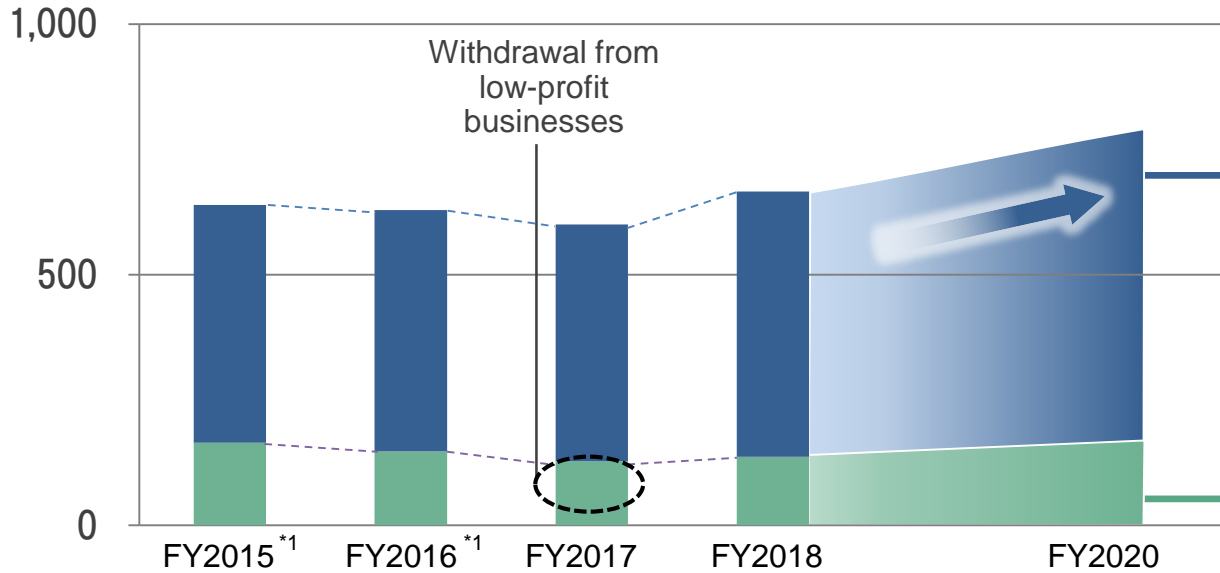
# 3-1-1. Direction

Provide Hitachi's unique services by utilizing its strengths from existing businesses and experience in customers' work site



# 3-1-2. Transformation to a High-profit Business Portfolio

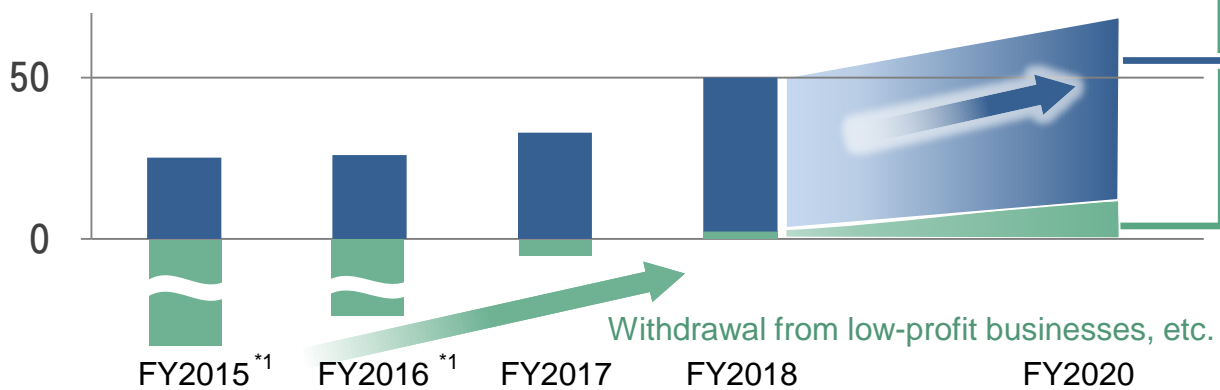
**Revenues** (Unit: Billion yen)



**Digital solutions**  
(Business support + Information control solutions)  
Focusing resources on to make it a growth driver

Percentage of revenues from digital solution business  
74% → 80%<sup>\*2</sup>

**Adjusted operating income ratio** (Unit: Billion yen)



**Industrial equipment solutions**

On-site capability and customer base that support digital solutions

<sup>\*1</sup> Figures of Hitachi Plant Construction, Ltd., which was transferred to the Nuclear Energy Business Unit in April 2017, were corrected retroactively.

<sup>\*2</sup> Comparison between FY2015 and FY2018

## Expansion of digital solutions business

- Use “Lumada” to develop new customers and sectors and to establish new service business (Use big data, AI, and robotics to increase the investment effect and ensure that management decisions are made more quickly)
- Shift human resources to digital solutions with integrated operation of IT and OT
- Accelerate global expansion of new solutions in industry & distribution business sectors



### ■ Revenues from Lumada (billion yen)

	FY2018 Industry and distribution business / Overall company
Lumada business	Approx. 440.0 / 1,050.0
(Lumada core business included in the above)	Approx. 42.0 / 290.0

### ■ Number of Lumada use cases

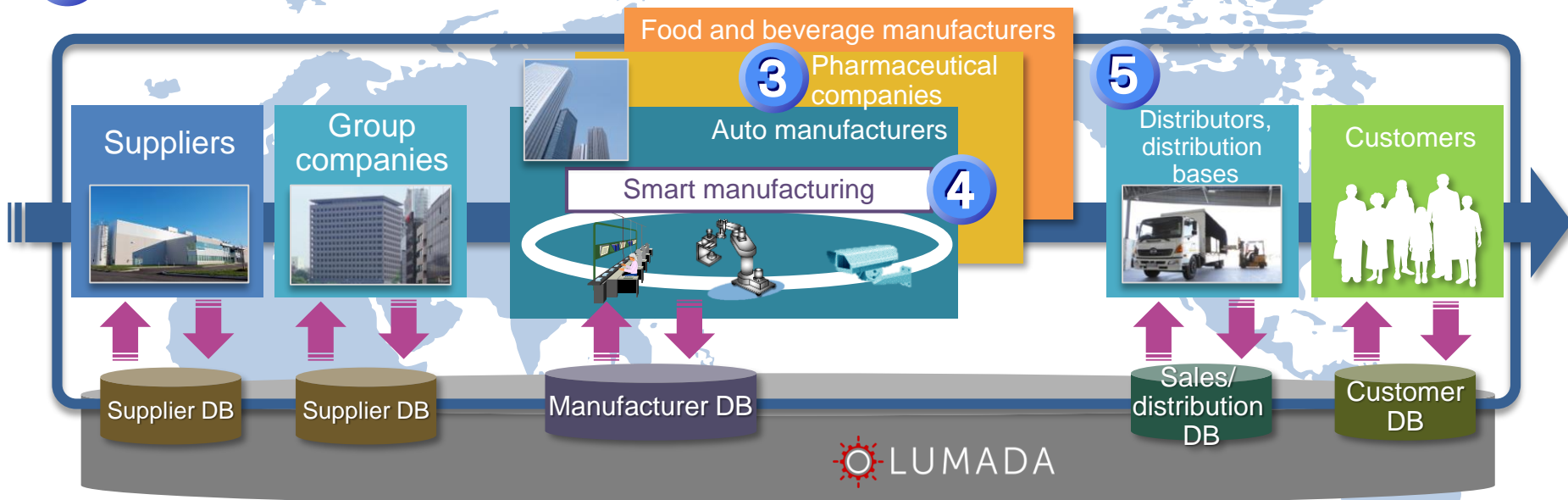
FY2016 Industry and distribution business / Overall company
57 / 203

# 3-2-1. Expansion of Digital Solutions Business

Make use of digital technologies with Lumada to provide and expand various services in customers' total value chain

Needs	<ul style="list-style-type: none"> <li>●Management: Achievement of management indicators responding to the stakeholders' expectations (ROE, CCC, Investment efficiency, etc.)</li> <li>●Front line: Improvement of productivity (lead time reduction, quality assurance, etc.)</li> </ul>		Measures	Create new value that contributes to management and operational innovations with digital solutions
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Design / Procurement	Manufacturing / Distribution	Sales / Maintenance / Services
<b>1</b> Business support (ERP, SCM, MES, quality control, sales management, maintenance)		
<b>2</b> Support for design (3D-CAD, CAE automation)	Connected (remote monitoring, maintenance)	



ROE: Return On Equity  
 CCC: Cash Conversion Cycle  
 CAD: Computer Aided Design  
 CAE: Computer Aided Engineering

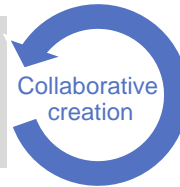
Big data processing	Analytics	AI
Real-time control	Security	Robotics

# 3-2-2. ① Business Support Solutions

## Creating new value by linking sensor data (using SAP S/4 HANA)

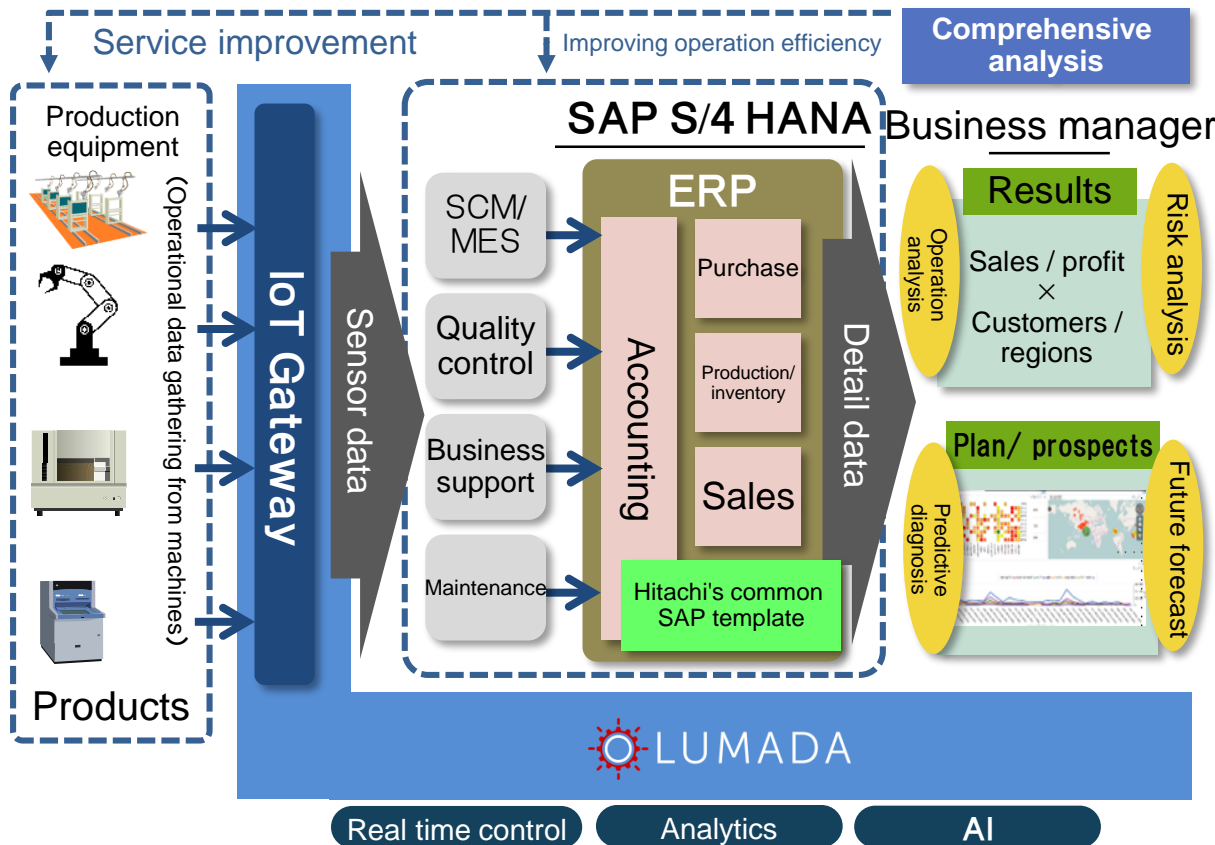
Needs

- Accelerate management decisions (management indicators such as profits, inventories)
- Accelerate planning/executing of management strategies (understand various market needs)



Measures

Using data accumulated in the company and reflecting it quickly in management / business strategies



### Hitachi's strengths

- Use of expertise that is applied in Hitachi group\*
- Capability to provide Hitachi's various common SAP template for each industries

### Effect

- Acceleration of management decisions
- Speed up of creating new business opportunities

\* Introduced to 400 companies (612 bases) in 32 countries

# 3-2-3. ②Support Solutions for Design Work (3D-CAD, CAE automation)

Contributing to development efficiency and security improvement  
by sharing design data and expertise

Needs

- Improving the efficiency of design work and shortening the development period
- Responding to diverse needs in each country/region



Measures

Improving operation efficiency between domestic and overseas sites by consolidating and unifying design-related data on the cloud

## Global collaborative design



## Hitachi's strengths

Advanced design work by AI (shape similarity search, correlation analysis)

## Effects

- [Hitachi Building Systems] Standardization and global integration of design environment (Construction estimation work: Approx. 50% reduction)
- [Omika Works] Standardization of the design work operation process and consolidation of the systems (Reduction of time consumed for design and case research)

## Promote collaborative creation by transforming data to value to realize innovation for drug discovery

Needs

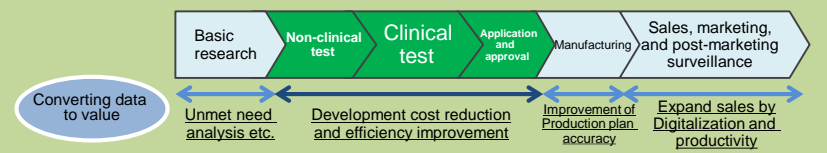
- Developing new drugs and expanding sales of them
- Improving operational efficiency in the process from drug development to sales



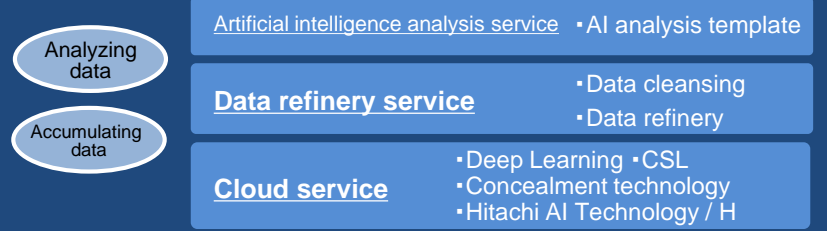
Measures

Providing efficiency improvement and added value enabled by AI through combining open data, real world data, and in-house data

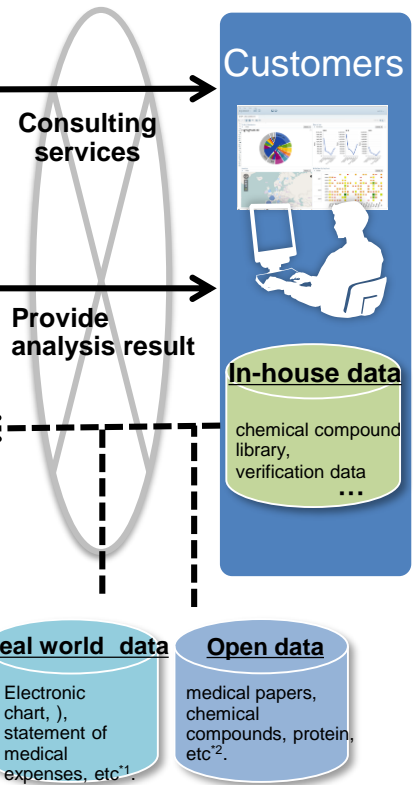
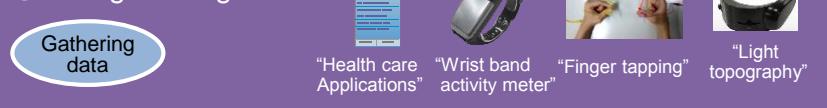
### ① Consulting service



### ③ Platform providing service



### ② Data gathering service



### Hitachi's strengths

- Hitachi AI Technology / H
- Technologies for structuring clinical data

### Effects

- Shorten period for approval for new drugs
- Develop unmet medical needs

\*1 E.g., MID-NET (medical information database) containing data from about 4.0 million people (Operation planned to begin in 2018)

\*2 E.g., ChEMBL (database on bioactive small molecules) 606,590 chemical compounds, etc

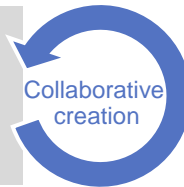


# 3-2-5. ④ Smart Manufacturing Solutions

## Securing quality and digitalizing on-site expertise by using image analysis system / AI

Needs

- Globally productivity and securing quality globally
- Improving worker's field operation



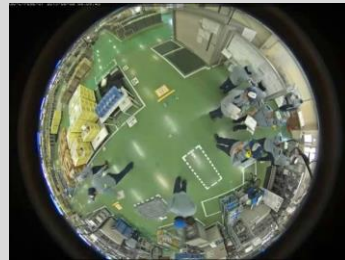
Measures

Digitalizing processes and skills by linking image analysis systems and manufacturing execution management systems

### Daicel Corporation



Based on 3M data in the manufacturing site, detecting deviated motions of worker activities and signs of facilities failures



### Hitachi's strengths

- Field know-how(manufacturing execution system)
- Advanced image analysis and AI (Machine learning) technologies

### Effect

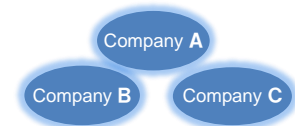
- Reduction of in-process defective product rate
- Improvement of utilization rate
- Improvement of inventory and working capital

Deepening collaborative creation



Application to other processes/sites

Experience and know-how



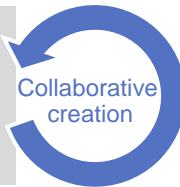
- Expansion to other industries
- Making use of AI and robots



## Providing distribution data platform that solves issues of cold chain

Needs

- Safe and secure food delivery
- Sophisticated logistics operation



Measures

Realizing efficient logistics operation using IoT and optimization technologies

### Conceptual rendering of cold chain distribution data platform

End customers

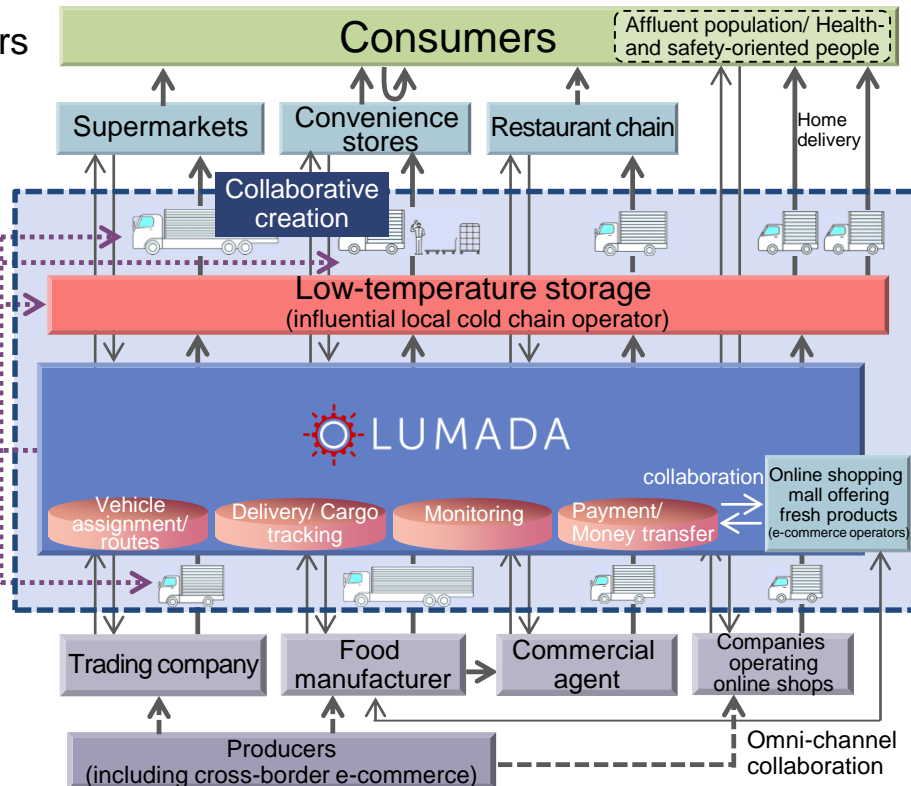
**Customers**

<Issue> Food disposal in the distribution process

Cold chain distribution data platform

<Issue> Efficiency of cold chain distribution

**Cargo owners**



- Cargo (refrigerated)
- Data on transaction/ Cargo tracking
- Data for operation

### Hitachi's strengths

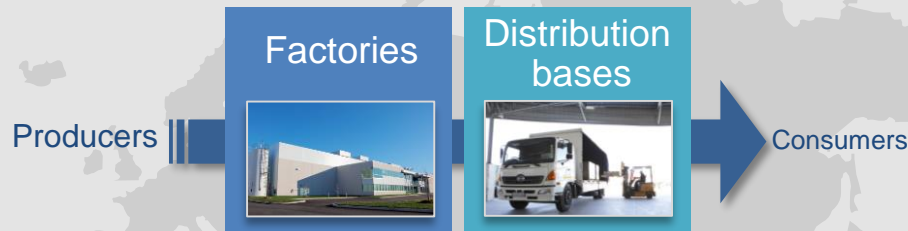
Comprehensive analyses of diverse data including optimization of delivery route, cargo tracking function and temperature monitoring function

### Effect

- Realize regular delivery
- Guarantee the temperature and quality control

## Focusing on Asia and North America

### Asia



① Industrial equipment

② Expand the business area

③ Total value chain

<Applicable solutions>

- Smart manufacturing
- Logistics
- Block chain for industrial sector



- “industrial equipment + digital solution” business  
(Japanese / local companies, global major companies)
- Reinforce the cooperation with Hitachi Group local subsidiaries  
(Develop customers, Select delivery partners)

### North America

Entering digital solution business by using the customer base of Sullair, an air compressor manufacturer in North America that Hitachi will acquire

#### Sullair's network in North America

- Dealers: Approx. 200
- Corporate customers: Approx. 4,000



Digital provision of solutions on plant optimization and supply chain reconstruction



# 3-3. Cost Strategy and Strengthening of Cash Generation

Evolution of the Hitachi Smart Transformation and benefitting from the effects of integration into business units

SG&A

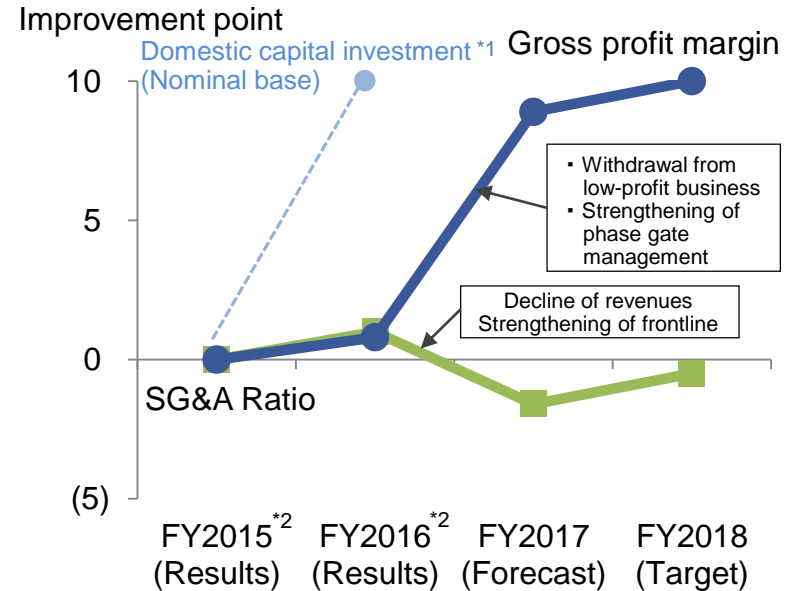
- Reinforce the frontline to expand the digital solutions business
- Improving business efficiency by setting pipeline management of total value chain

Gross profit

- Improving projects and reducing loss cost through phase gate operation
- Expanding the digital solution business to add value and achieve horizontal application

Cash creation

- Strengthening the management of cash flow in major domestic and overseas projects
- Promoting payment and liquidating receivables through contract splitting, advance receipt, and other means.



	FY2015 <sup>*2</sup> (Result)	FY2016 <sup>*2</sup> (Result)	FY2017 (Forecast)	FY2018 (Forecast)
CCC	55.4 days	61.1 days	69.5 <sup>*3</sup> days	65.0 <sup>*3</sup> days

\*1: Source: Compiled by Hitachi based on IHS Markit, World Industry Service Rev. 4 [April 2017]

\*2 Figures of Hitachi Plant Construction, Ltd., which was transferred to the Nuclear Energy Business Unit in April 2017, were corrected retroactively.

\*3 Figures except major construction project in the Middle East

CCC: Cash Conversion Cycle

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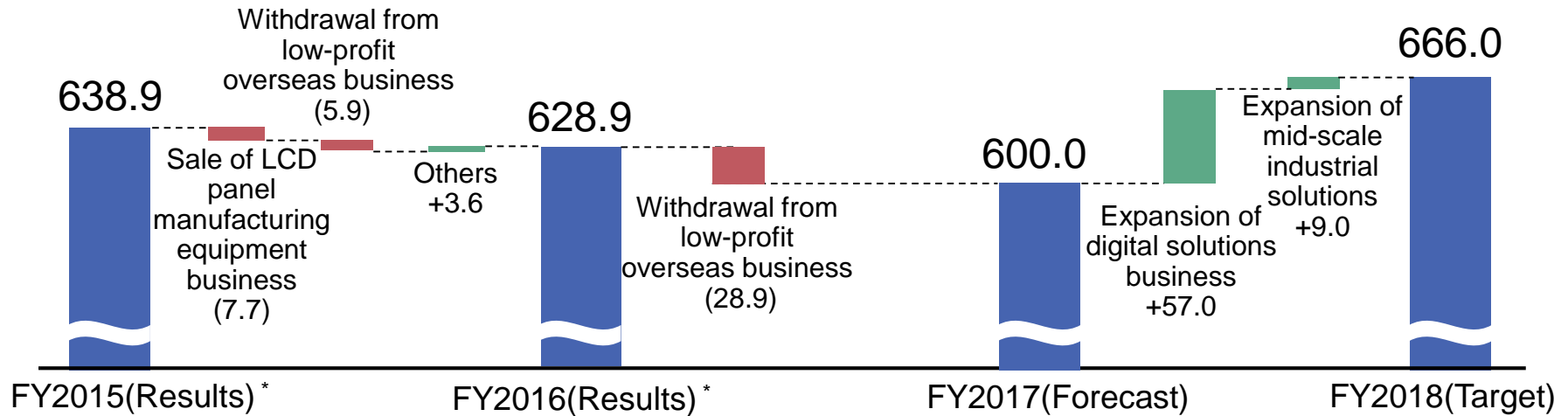
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# 4-1. Factors of Increase / Decrease of Revenues, Adjusted Operating Income / Loss

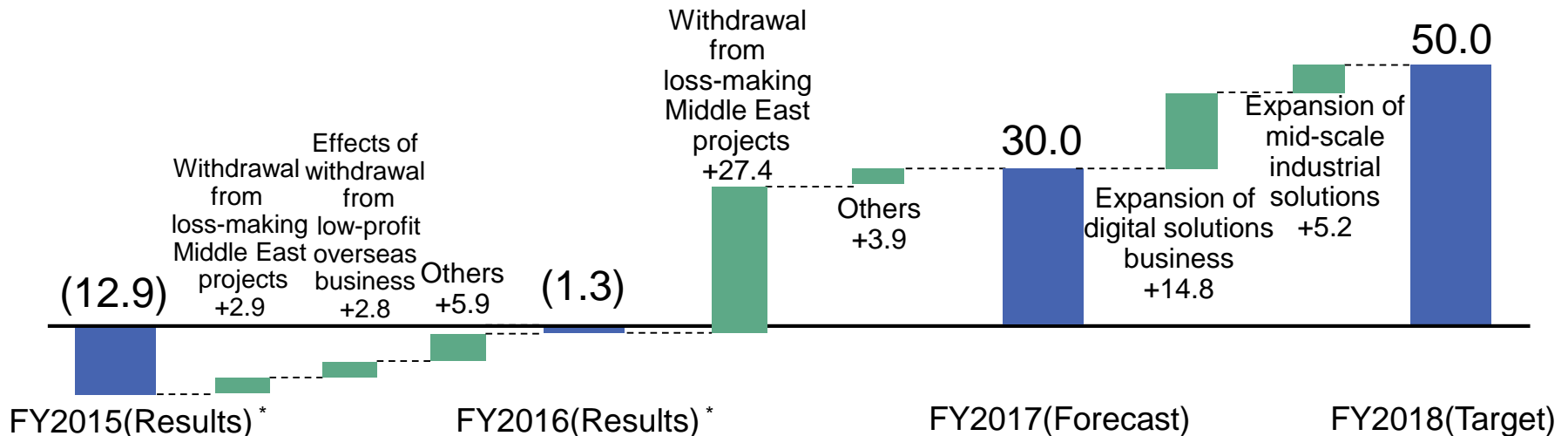
## Revenues

(Unit: Billion yen)



## Adjusted operating income/ loss

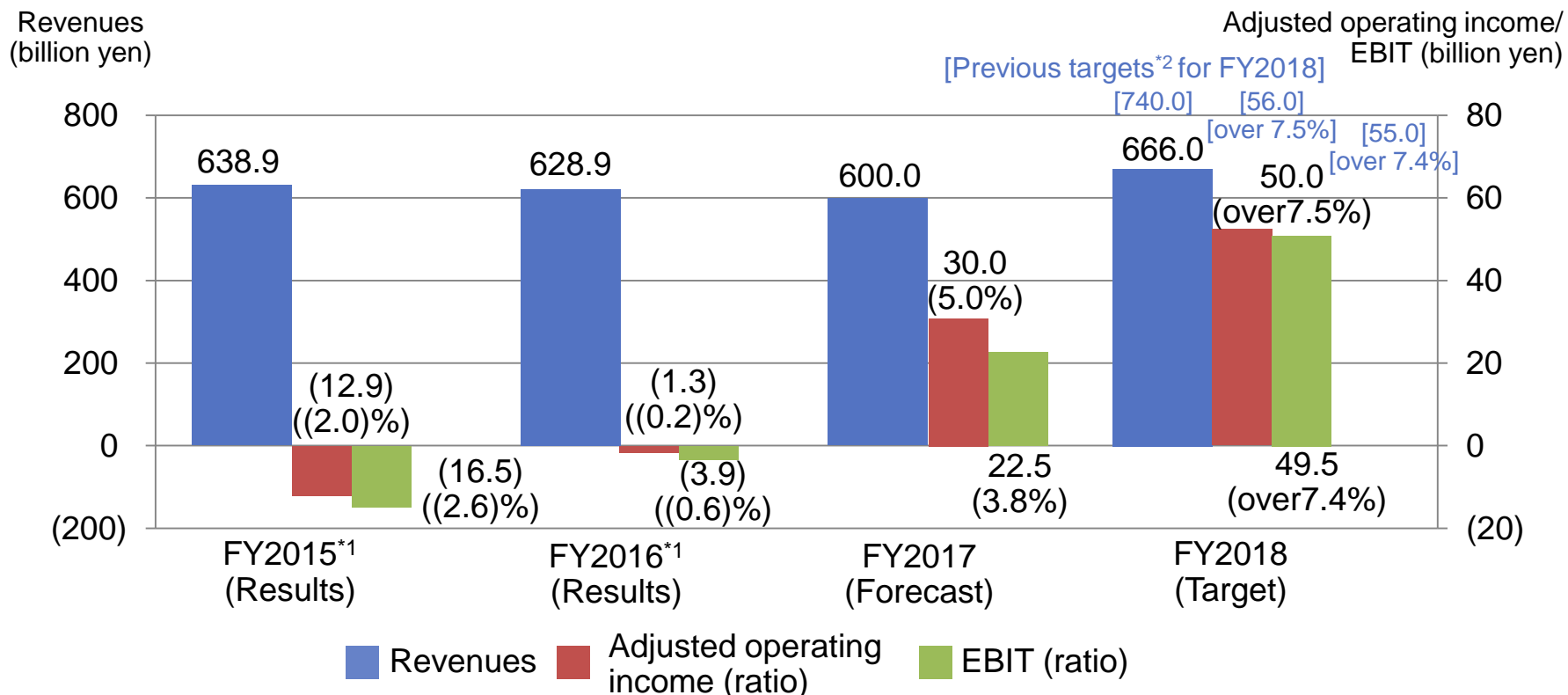
(Unit: Billion yen)



\* Figures of Hitachi Plant Construction, Ltd., which was transferred to the Nuclear Energy Business Unit in April 2017, were corrected retroactively.

# 4-2. Business Performance Trends

	FY2015 (Results)	FY2016 (Results)	FY2017 (Forecast)	FY2018 (Target)
Orders received (billion yen)	700.6	600.4	640.0	-
Overseas revenue ratio	16%	12%	11%	12%



\*1 Figures of Hitachi Plant Construction, Ltd., which was transferred to the Nuclear Energy Business Unit in April 2017, were corrected retroactively.

\*2 As of June 1, 2016 (including figures of Hitachi Plant Construction)

### FY2018 Target

- Revenues: 666.0 billion yen  
(Increase of 4.2% on FY2015\*)
- Adjusted operating income ratio: over 7.5%  
(Improvement of 9.5 points from FY2015\*)
- EBIT ratio: over 7.4%  
(Improvement of 10.0 points from FY2015\*)

Create new value with customers as  
"An Innovation Partner for the IoT Era"

# 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:

- 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;
- 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;
- uncertainty as to Hitachi’s ability to access, or access on favorable terms, liquidity or long-term financing;
- uncertainty as to general market price levels for equity securities, declines in which may require Hitachi to write down equity securities that it holds;
- 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;
- 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;
- credit conditions of Hitachi’s customers and suppliers;
- fluctuations in product demand and industry capacity;
- 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;
- 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;
- increased commoditization of and intensifying price competition for products;
- uncertainty as to Hitachi’s ability to achieve the anticipated benefits of its strategy to strengthen its Social Innovation Business;
- uncertainty as to the success of acquisitions of other companies, joint ventures and strategic alliances and the possibility of incurring related expenses;
- uncertainty as to the success of restructuring efforts to improve management efficiency by divesting or otherwise exiting underperforming businesses and to strengthen competitiveness;
- the potential for significant losses on Hitachi’s investments in equity-method associates and joint ventures;
- 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;
- uncertainty as to the success of cost structure overhaul;
- uncertainty as to Hitachi’s ability to attract and retain skilled personnel;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property rights;
- uncertainty as to the outcome of litigation, regulatory investigations and other legal proceedings of which the Company, its subsidiaries or its equity-method associates and joint ventures have become or may become parties;
- the possibility of incurring expenses resulting from any defects in products or services of Hitachi;
- the possibility of disruption of Hitachi’s operations by natural disasters such as earthquakes and tsunamis, the spread of infectious diseases, and geopolitical and social instability such as terrorism and conflict;
- 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; and
- uncertainty as to the accuracy of key assumptions Hitachi uses to evaluate its employee benefit-related costs.

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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