



# Water Business Unit Business Strategy

Hitachi IR Day 2016

**June 1, 2016**

**Kunizo Sakai**

Vice President and Executive Officer  
CEO of Water Business Unit, Hitachi, Ltd.

# Water Business Unit Business Strategy

---

## [Contents]

- 1. Business Overview**
2. Market Environment
3. Business Strategy
4. Business Performance Trends
5. Conclusion

## A Comprehensive Water Service Provider that Responds to Market and Customer Needs

### Water Solutions

#### Water BU

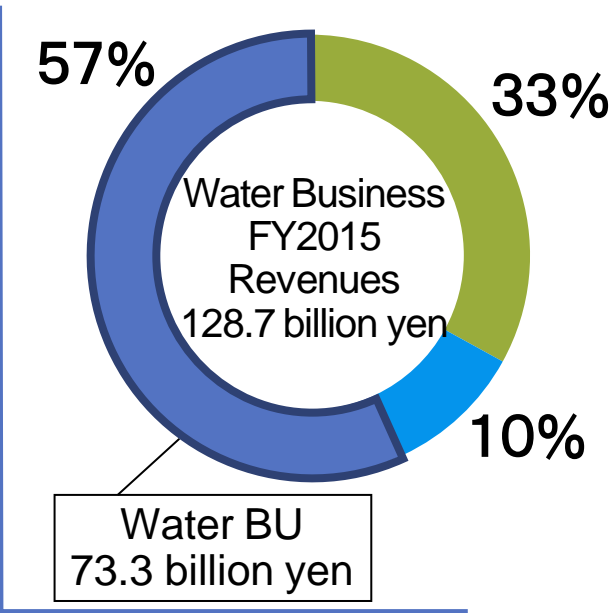
- Business Management / Operation and Maintenance
- Monitoring and Control Systems
- Plant Facilities Design and Construction

**Leading Domestic Group\***





Water Treatment Plant



Desalination Facilities

### Products

#### Industrial Products BU

- Large pumps
- Blowers

**Leading Domestic Group\***




#### Industrial Water Treatment and Maintenance

#### Industry & Distribution BU

**Domestic** Extensive delivery results  
Approx. 700 water purification plants  
Approx. 900 sewage treatment plants

**Overseas** Delivery results at over 200 sites in 40 countries and regions around the world

\*Hitachi estimate value (as of 2015) BU: Business Unit

# Water Business Unit Business Strategy

---

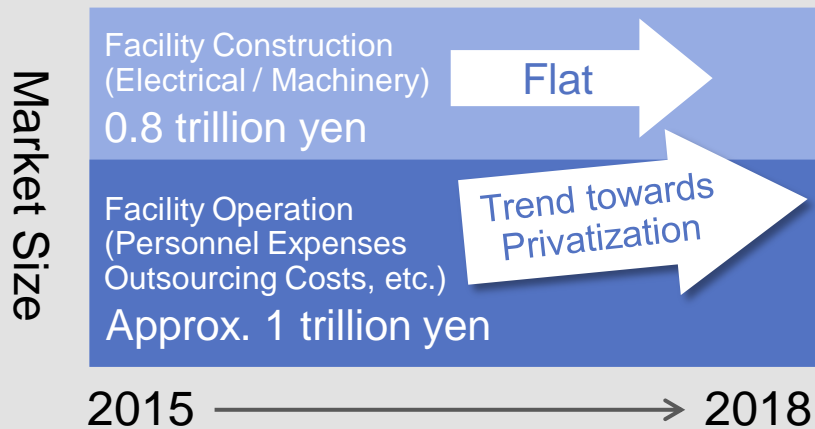
## [Contents]

1. Business Overview
- 2. Market Environment**
3. Business Strategy
4. Business Performance Trends
5. Conclusion

**Domestic Market will Remain Flat, Global Market will Continue Strong Growth Moving Forward**

## Domestic

- Facility construction will remain flat, primarily on replacement demand
- Market will become wider and increasingly privatized due to difficulties with local government finance and human resource

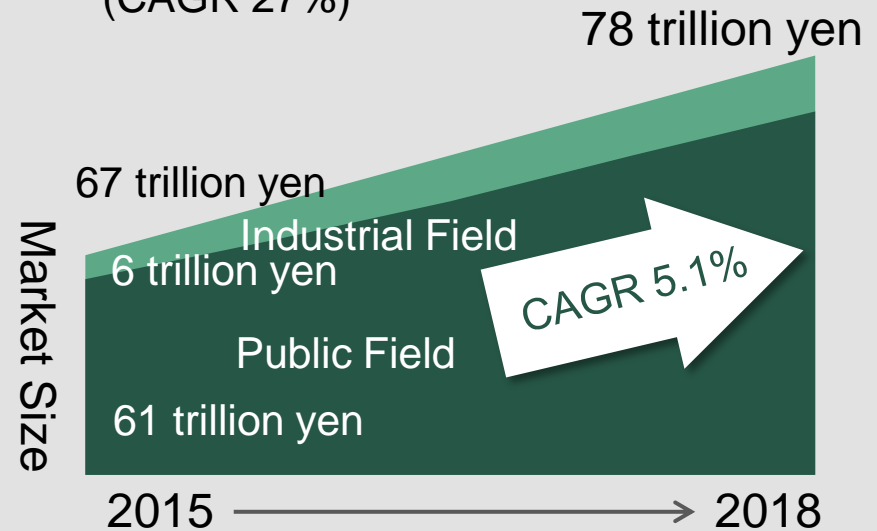


Source: 2013 Local Public Enterprise Yearbook (Ministry of Internal Affairs and Communications)

CAGR: Compound Average Growth Rate

## Overseas

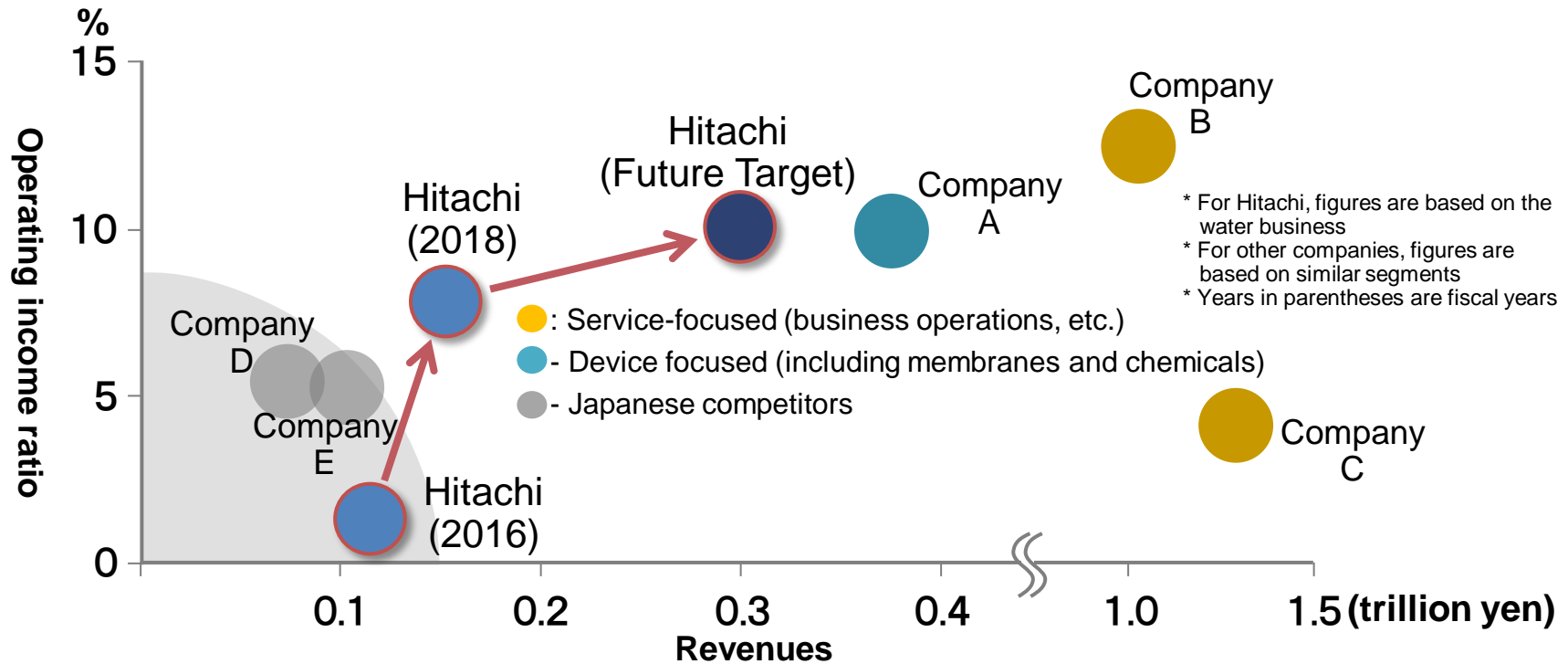
- Water shortage will manifest on a global scale and the water market will expand towards the future
- Particular growth will be seen in the desalination field (CAGR 27%)



Source: GLOBAL WATER MARKET 2015, Global Water Intelligence

# 2-2. Target Position

Leverage strengths to improve profitability, and aim to become a top global Group



## Trends of Competitors

- Overseas Companies: 2 type of companies, one is operator, the others are more component supply-side, more active M&A activities
- Domestic Companies: Main business is domestic projects, accelerating global expansion

## Hitachi's Strengths

- Extensive track record and expertise with infrastructure projects
- Ability to provide total solutions
- Differentiating system technologies, advanced IoT technologies, highly reliable and efficient products

# Water Business Unit Business Strategy

---

## [Contents]

1. Business Overview
2. Market Environment
- 3. Business Strategy**
4. Business Performance Trends
5. Conclusion

# 3-1. Review of 2015 Mid-Term Management Plan

	FY2015 Results	Previous Forecast <sup>*1</sup>	Deviation	(Reference) 2015 Mid-term Management Plan Initial Target <sup>*2</sup>
Revenues	73.3 billion yen	73.7 billion yen	(0.4) billion yen	77.1 billion yen
Adjusted Operating Income Ratio	4.7%	5.8%	(1.1) points	4.5%
EBIT Ratio	5.8%	6.1%	(0.3) points	5.2%

## Main Reasons for Deviation

- Due to the impact from factors such as the deterioration of the oil and gas market environment, adjusted operating income for overseas businesses fell slightly short of the previous forecast.

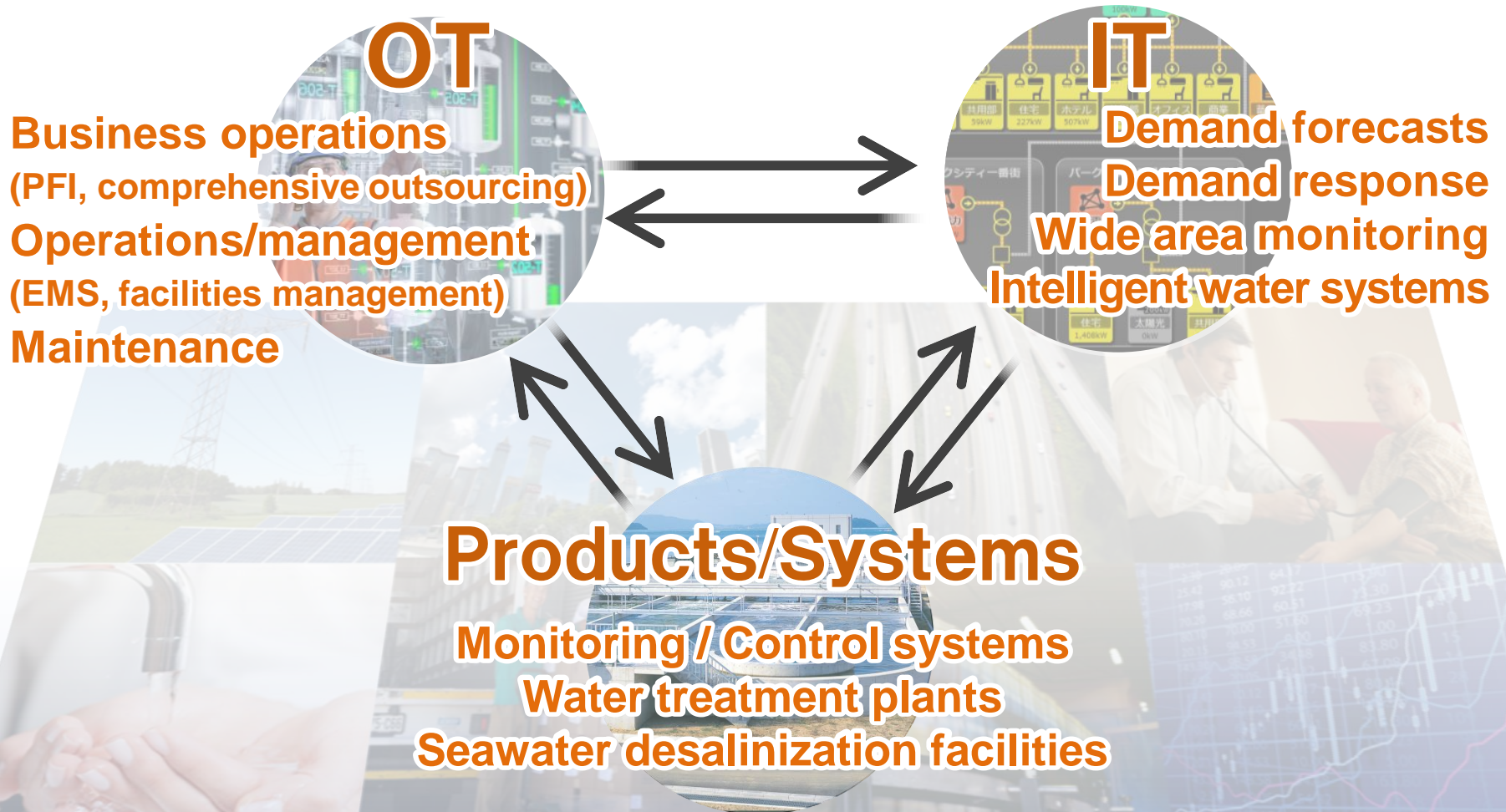
## Accomplishments

- The income target set in the 2015 Mid-Term Management Plan was attained.
- Strengthened foundations of overseas business structure (cooperation with Veolia, etc.)



# 3-2. Ideal Directions

Provide new solutions and services that leverage IT and the strengths of existing businesses



# 3-3. Business Strategy

## Leverage Advanced Technologies and Partnering to Lead Next-Generation Water Infrastructure

### Maintain and expand high share in water supply and sewage market

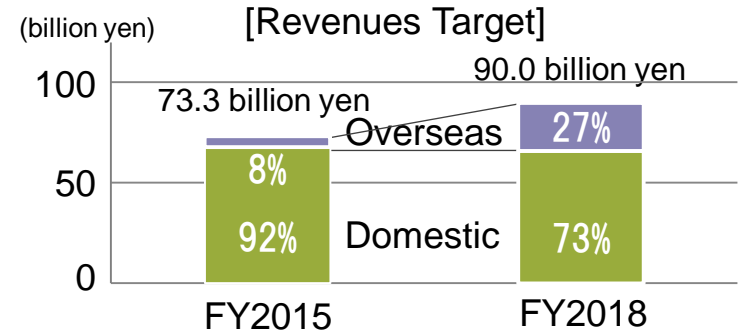
- Proposals that combine mechanical and electrical systems
- Expand business in facility replacement market

### Establish high profitable business and expand scale in overseas business

- Steadily promote and expand large-scale projects
- Expand seawater desalinization plant business
- Strengthen Front Engineering  
(Increase current number of engineers by 40%)

### Expand service business

- Create and expand service businesses through IoT utilization
- Consider taking part in overseas concession\*1 projects



## Hitachi's Strengths

### ■ Water BU

- Monitoring and control systems, desalination plants

**Differentiating System Technologies**

### ■ Services & Platforms BU

- Big data utilization - Artificial intelligence  
- Security - Control platforms

**Advanced IoT Technologies**

### ■ Industrial Products BU

**High-reliability,  
High-performance Products**

\* Figures for Water BU only

\*1 Concession: Comprehensive private consignment of project, which gives business operation rights to private sector while ownership of business property belongs to public sector in the field of construction of public facilities or services.

## Business rollout in keeping with regional needs

● ODA projects    ★ Seawater desalinization projects    ■ Engineering bases

### [Activities]

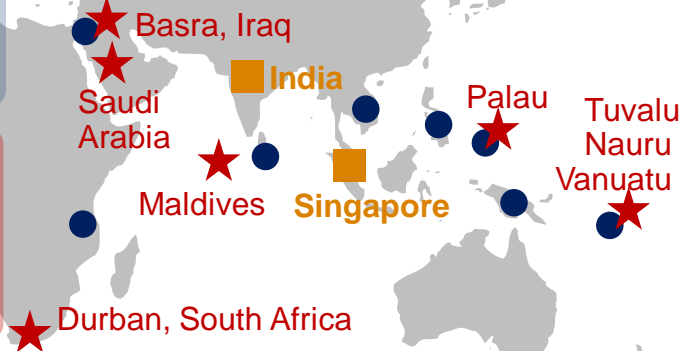
■ Steadily promote and expand large-scale projects (ODA projects, partnerships)

■ Expand business in the seawater desalinization field (Respond to needs through differentiation technologies)

■ Roll out business with close ties to the community, by strengthening Front Engineering (Singapore, U.S., India)

### Developing countries/ emerging countries

- Urbanization, population growth
- Putting in place large-scale infrastructures
- Financial challenges, business customs



### North America

- Droughts (Western, Southern regions)
- Large-scale desalination

■ U.S.

### Shipboard plants

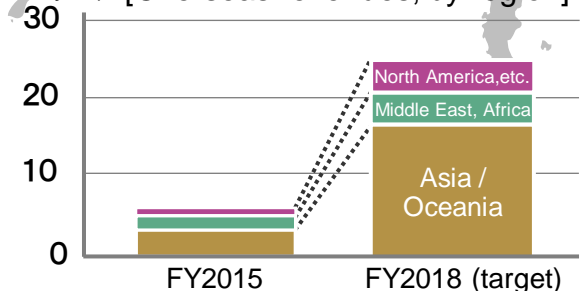
- Small, compact
- Environment resistant (vibration, salt damage)

★ Brazil/  
FPSO

### Island countries, resorts

- Small, compact
- Package proposals (e.g., water landscape facilities, pools)

(billion yen) [Overseas revenues, by region]



\*Figures for Water BU only    FPSO: Floating Production Storage and Offloading

## Leverage “differentiation technologies” to expand business in growth markets

### Desalination Plants for Large Cities: Mega-ton Water System

Using high-efficiency two-stage RO membrane systems (developed by Hitachi)

Energy savings of up to 15%\*1

Demonstration Project in Saudi Arabia\*2

Hitachi (system engineering)  
Toray (water treatment membranes)



SWCC\*3 and others  
(operational expertise, local construction)



### Energy-saving Desalination Plants: Remix Water



Using treated sewage as dilution water for desalination

Energy savings of 30%\*4 /  
Reduced environmental impact

Demonstration Project in South Africa\*5

Hitachi (System Engineering)



City of Durban  
(Operational Expertise)



## Compact Desalination Facilities

Providing highly cost-effective facilities including design, assembly and after-sale services  
<Hitachi Aqua-Tech (Singapore)>

Strengthen comprehensive proposal capabilities through merger  
with water landscape and pool facilities engineering subsidiary (April 2016)

\*1 Compared with 100,000m<sup>3</sup> / day desalination systems (Hitachi / Toray estimate figures)

\*2 Study conducted prior to demonstration (April 2015 – March 2016) through subsidization from New Energy and Industrial Technology Development Organization (NEDO)

\*3 Saudi Arabia-based Saline Water Conversion Corporation \*4 Comparison of Desalination Systems

\*5 Study conducted prior to demonstration (April 2015 – March 2016) through NEDO subsidization RO: Reverse Osmosis

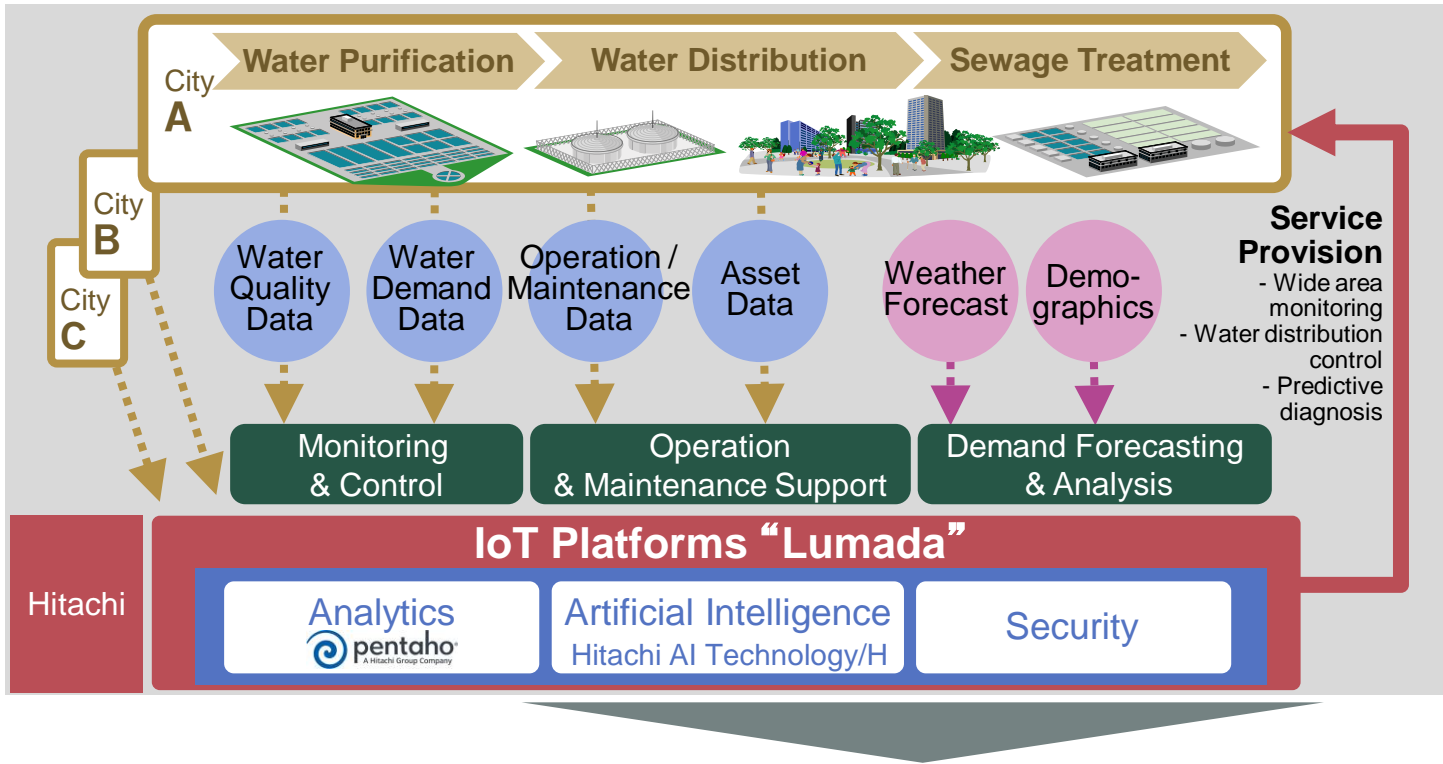
# 3-4-3. Create and expand service businesses through IoT utilization

Establish high profitable service business models by leveraging the strengths of “IT x OT”

**Needs**

- Reduce CAPEX, OPEX
- Engineering support, remote maintenance support
- Respond to privatization / wide area operations

Provide services using IoT platforms and expertise in high-efficiency operations



Example of utilizing AR technology for inspection work



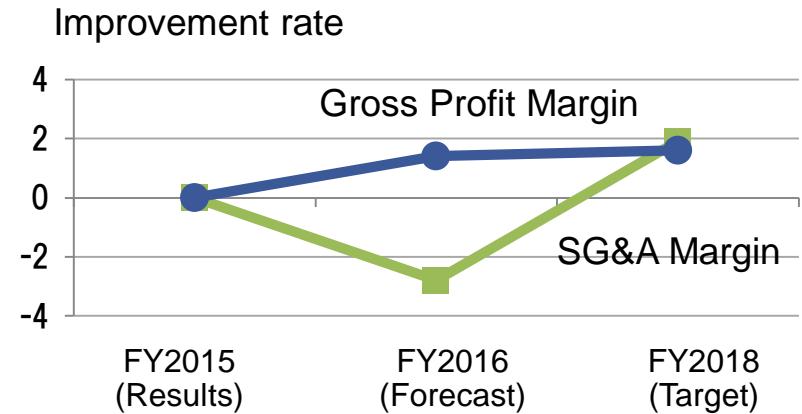
Task navigation display on mobile terminal through AR technology

Collaborative creation with partner companies and existing operating organizations

# 3-5. Reduce Costs, and Strengthen Ability to Generate Cash

## Reduce costs and generate cash through the Hitachi Smart Transformation Project

SG&A	<ul style="list-style-type: none"> <li>Strengthen solution proposal capabilities by strengthening front structures</li> <li>Increase efficiency and added value by strengthening pipeline management throughout the entire value chain</li> </ul>
Gross Profit	<ul style="list-style-type: none"> <li>Reduce manufacturing costs through production reforms</li> <li>Reduce direct material costs through overseas procurement and aggregated purchasing, and by strengthening procurement engineering</li> </ul>
Cash Generation	<ul style="list-style-type: none"> <li>Seamlessly increase efficiency in end-to-end operation processes, from quotations to service</li> <li>Improve asset efficiency by shortening lead times</li> <li>Select and concentrate investments</li> </ul>



	FY2015 (Results)	FY2016 (Forecast)	FY2018 (Target)
CCC	22 days	22 days	30 days
Operating cash flow rate	6.1%	4.1%	6.7%

\*Figures for Water BU only  
SG&A: Selling, general and administrative expenses  
CCC: Cash Conversion Cycle

# Water Business Unit Business Strategy

---

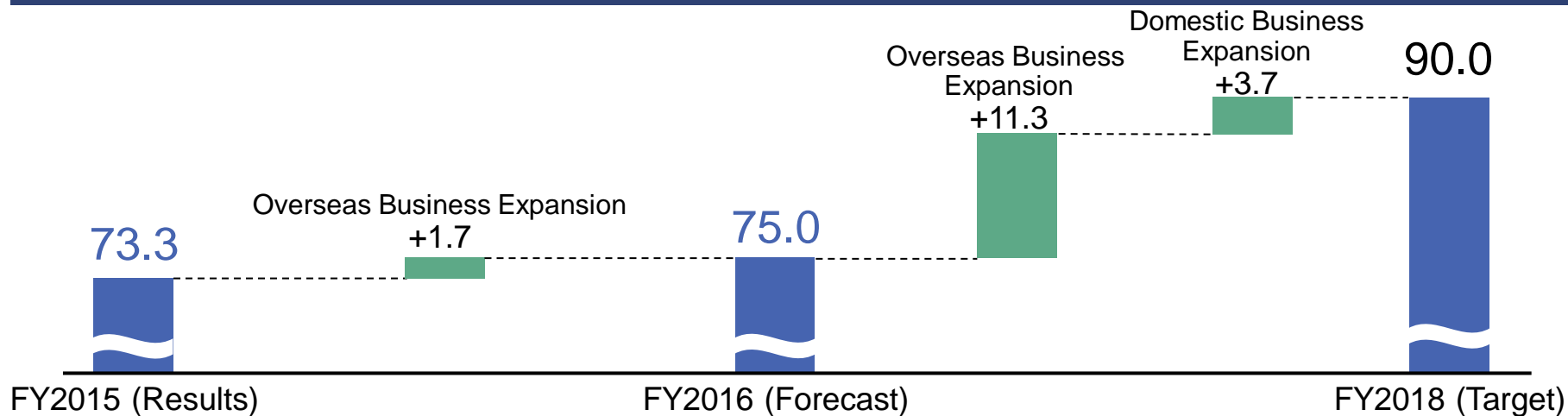
## [Contents]

1. Business Overview
2. Market Environment
3. Business Strategy
- 4. Business Performance Trends**
5. Conclusion

# 4-1. Business Performance Trends

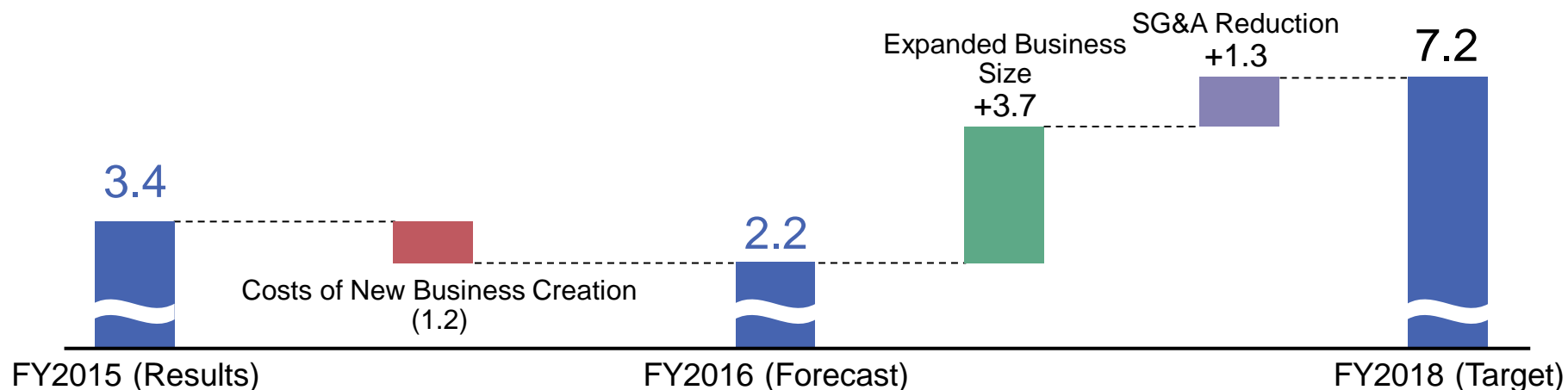
## [Revenues]

(Unit: Billion yen)



## [Adjusted Operating Income]

(Unit: Billion yen)

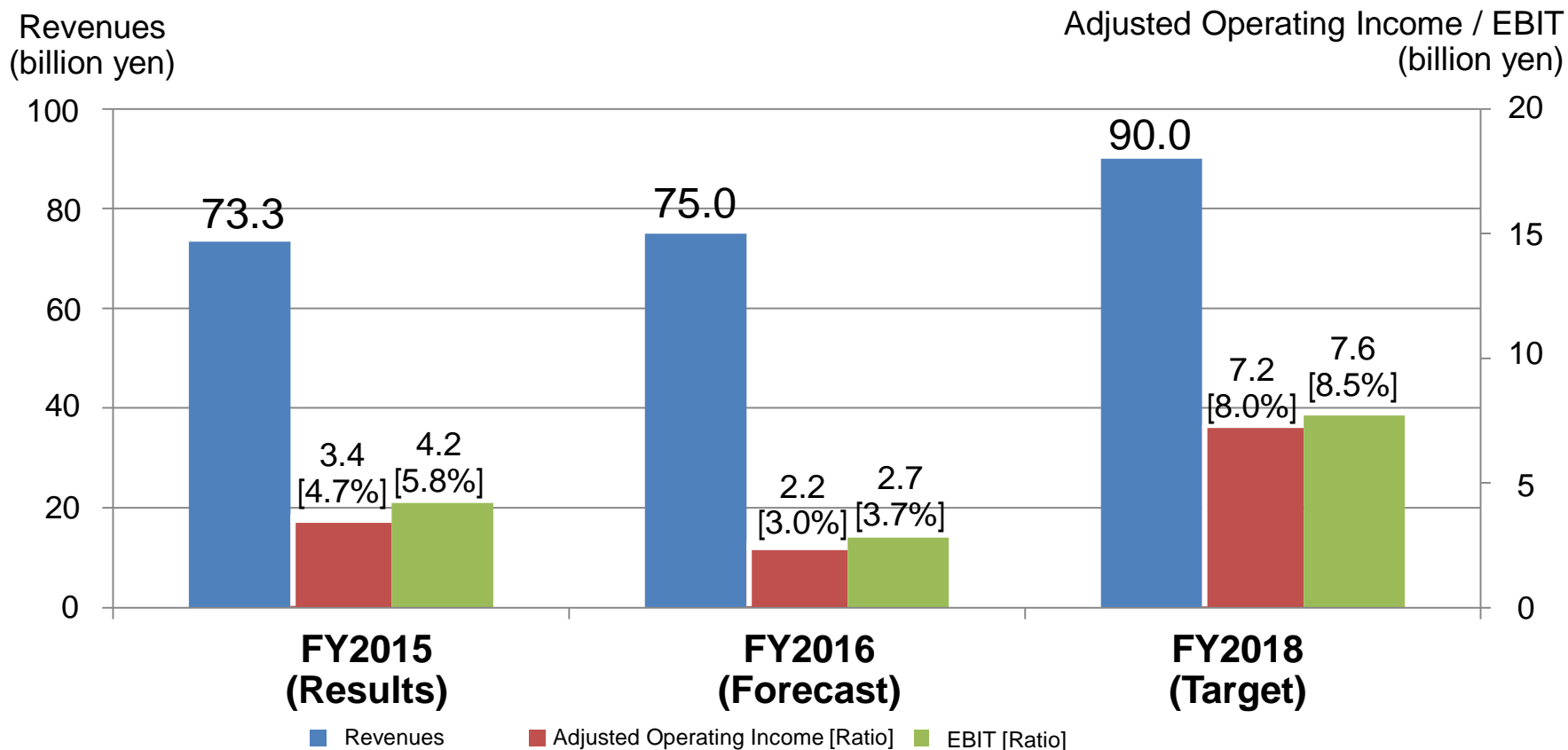


\* Figures for Water BU only



## 4-2. Business Performance Trends

	FY2015 (Results)	FY2016 (Forecast)	FY2018 (Target)
Amount of orders received (billion yen)	74.0	75.0	—
Overseas revenue ratio	8%	17%	27%



# Water Business Unit Business Strategy

---

## [Contents]

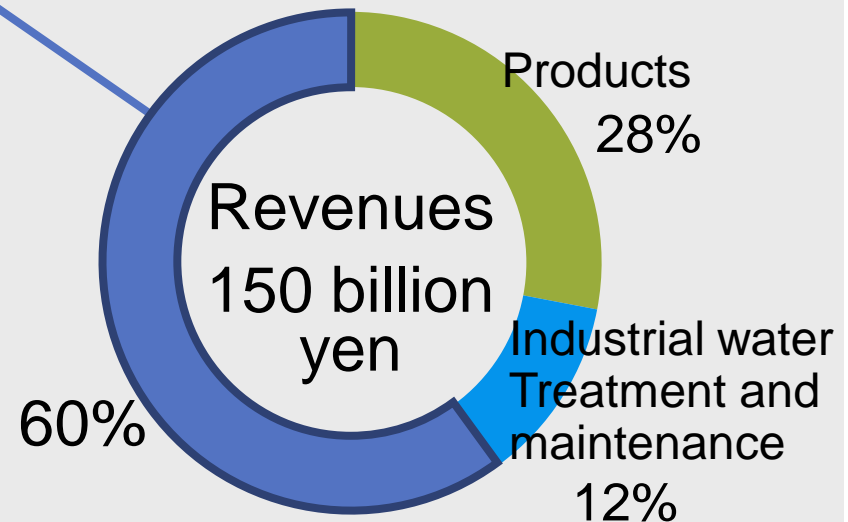
1. Business Overview
2. Market Environment
3. Business Strategy
4. Business Performance Trends
- 5. Conclusion**

## FY2018 Target

### Water BU : Water Solutions

- Revenues: 90.0 billion yen  
(Increase by 22.8% over FY2015)
- Adjusted operating income ratio: 8.0%  
(Improve by 3.3 points over FY2015)
- EBIT ratio: 8.5%  
(Improve by 2.7 points over FY2015)

[Scale of water business in FY2018]



**Become a Comprehensive Water Service Provider that Responds to Market and Customer Needs**

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, including, without limitation, the information, electronics, automotive, construction and financial sectors;
- 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;
- 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;
- 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 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;
- 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;
- 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;
- uncertainty as to the success of cost reduction measures;
- 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 alliances upon which Hitachi depends, some of which Hitachi may not control, with other corporations in the design and development of certain key products;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property rights, particularly those related to electronics and data processing technologies;
- 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 potential for significant losses on Hitachi’s investments in equity-method associates and joint ventures;
- 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;
- uncertainty as to the accuracy of key assumptions Hitachi uses to evaluate its significant employee benefit-related costs; and
- 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.

**HITACHI**  
**Inspire the Next**