
Government, Public Corporation & Social Infrastructure Business Unit Business Strategy

Hitachi IR Day 2017

June 8, 2017

Katsuya Nagano

**Vice President and Executive Officer,
CEO of Government, Public Corporation &
Social Infrastructure Business Unit
Hitachi, Ltd.**

Government, Public Corporation & Social Infrastructure Business Unit Business Strategy

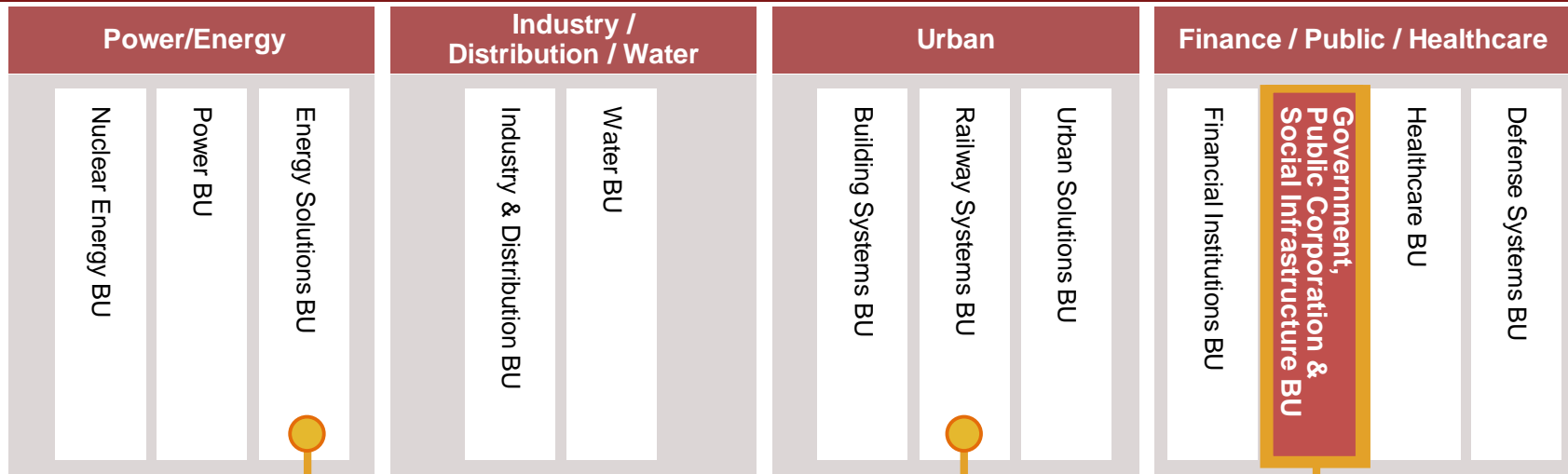
[Contents]

- 1. Positioning of Government, Public Corporation &
Social Infrastructure Business Unit**
2. Business Overview and Analysis of Current Status
3. Business Strategy
4. Business Performance Trends
5. Conclusion

1. Positioning of Government, Public Corporation & Social Infrastructure Business Unit

Consolidated the system integration function for the social infrastructure into the Government & Public Corporation BU, to reinforce the structure of IoT-related businesses, including the energy and railway fields

Front



Common IT Functions Application development, engineering, maintenance & operation, project management and quality assurance

Platform

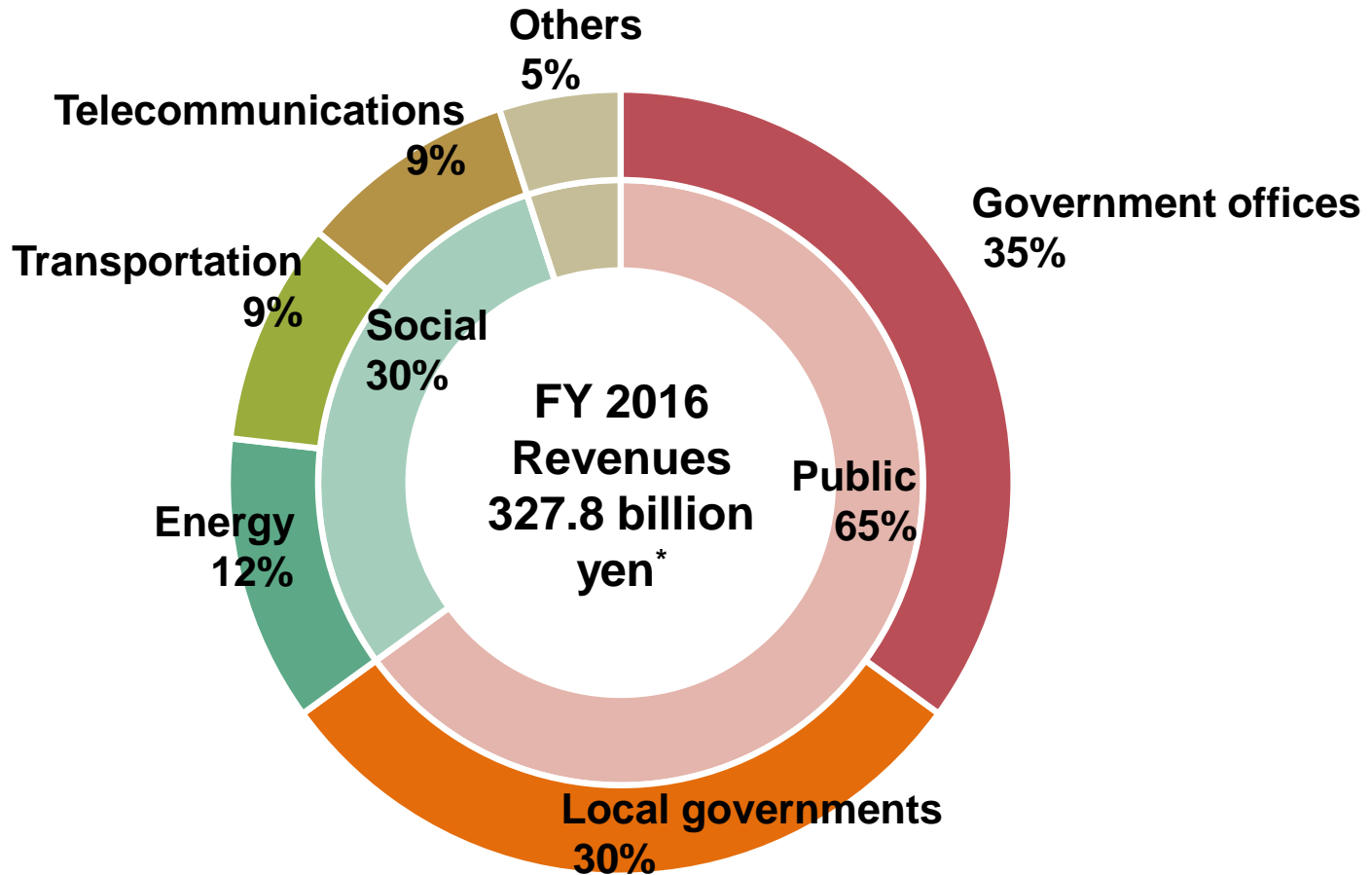
Products

Government, Public Corporation & Social Infrastructure Business Unit Business Strategy

[Contents]

1. Positioning of Government, Public Corporation &
Social Infrastructure Business Unit
- 2. Business Overview and Analysis of Current Status**
3. Business Strategy
4. Business Performance Trends
5. Conclusion

Provide IT services that support social systems and infrastructures, including energy and transportation



* From April 1, 2017, system integration businesses for the social infrastructure are classified as the Government, Public Corporation & Social Infrastructure Business Unit. The numerical values for FY2016 are shown in the new classification.

- Revenues in FY2016 increased year over year and achieved the previous forecast
- Promote the expansion of the digital solutions businesses, including IoT

		FY2015 (Results)	FY2016 (Results)		FY2017 (Forecast)	FY2018 (Target)	
				Compared with previous forecast*2			Compared with FY2016
Old Government & Public Corporation BU	Revenues	218.9 billion yen	220.5 billion yen	+5%	-	-	-
Government, Public Corporation & Social Infrastructure BU	Revenues	-	327.8 billion yen	-	335.0 billion yen	350.0 billion yen	+7%

Achievements in FY2016

- Revenues increased year over year due to significant deals in the government offices field
- A lot of PoC were implemented for digital solutions and the actualization of businesses through co-creation with customers was promoted

Issues

- Develop services anticipating the need for the digitalization of customers' business
- Develop human resources who will lead the utilization of advanced IT, including IoT, big data and artificial intelligence

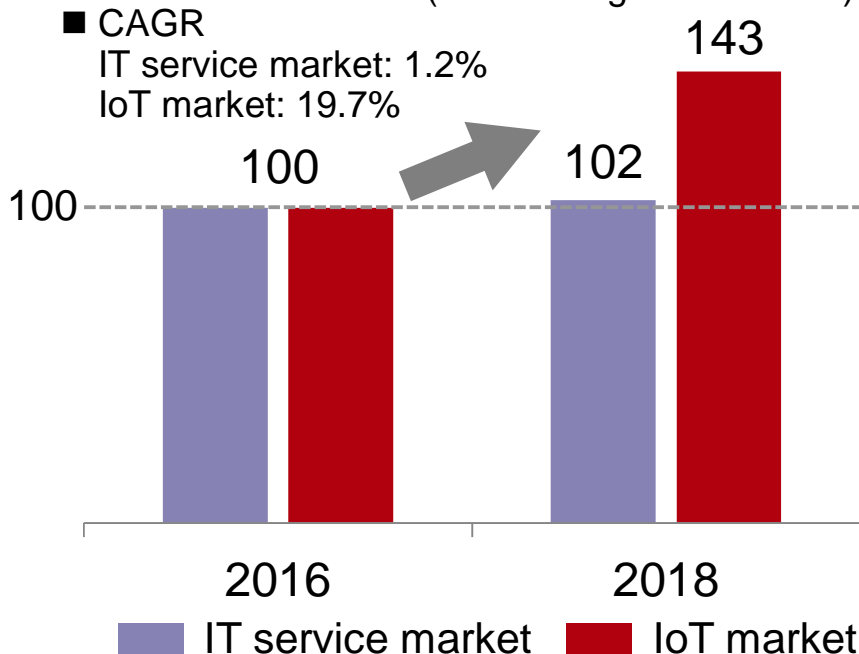
*1 From April 1, 2017, system integration businesses for the social infrastructure are classified as the Government, Public Corporation & Social Infrastructure Business Unit. The numerical values for FY2016 are shown both in the old and new classifications.

*2 As of June 1, 2016.

PoC: Proof of Concept

The market size of Japan IT services will result in a slight increase, however, the IoT market will expand at CAGR of 20%

- Anticipated investment:
Japanese public/social-related IT market
(Index using 2016 as 100)



- Market trends (Japan)
 - The utilization of IoT is progressing, focused around Society 5.0-related fields, led by the government (Construction of a safe and secure society, regional revitalization, improved quality of life)
 - Needs related to data utilization are expanding (Security measures, new services associated with future expansions in scope of use and the advancement of public-private sector coordination)
 - Intensifying market competition related to power deregulation
 - Improvement of transportation services in the transport field, including unmanned operations
- Services and Technical needs
 - “Society 5.0” which combines advanced IT (IoT, big data, artificial intelligence, robots, cyber security, etc.)

CAGR: Compound Annual Growth Rate

Source: IT service market: Totaling the industrial fields (small classification) of government offices, local governments, public/public benefits, transport / transportation services and telecommunications/media shown in “Forecast for each industrial field in the domestic IT service market from 2017 to 2021,” released by IDC Japan in February 2017 (in Japanese).

IoT market: Totaling the industrial fields of transport/transportation services, government offices, public/public benefits and telecommunications shown in “Forecast for each industrial field/use case in the domestic IoT market from 2017 to 2021,” released by IDC Japan in February 2017 (in Japanese).

- Hitachi's systems integration business is ranked top tier in Japan
- Create a model case for IT x OT, and aim to be a leading company in the IoT field

Hitachi's share in the Japan IT market

Government offices field*1	3rd
Energy field*2	2nd
Transportation field*3	2nd

Competitive Trends in the Public Field

- Competition between pure IT vendors is continuing

Competitive Trends in the Social Field (Energy and Transportation)

- In addition to IT vendors, heavy electric machinery manufactures are also entering the IT field, and each company is actively expanding into the IoT field

Strengths of Hitachi

- Building capabilities of large-scale business systems and tracking records of building large-scale systems that support the Japanese social system
- Supporting capabilities, upstream to downstream, with a structure of customer-based sales and system engineers
- Value creation capabilities through combination of IT and OT

*1 According to a survey conducted by Hitachi based on the procurement information database released by Japan External Trade Organization (JETRO) and the government

*2 Gartner Market Share: IT Services, 2016, April 19, 2017, Sorted by Utilities, Japan

*3 Gartner Market Share: IT Services, 2016, April 19, 2017, Sorted by Transportation, Japan

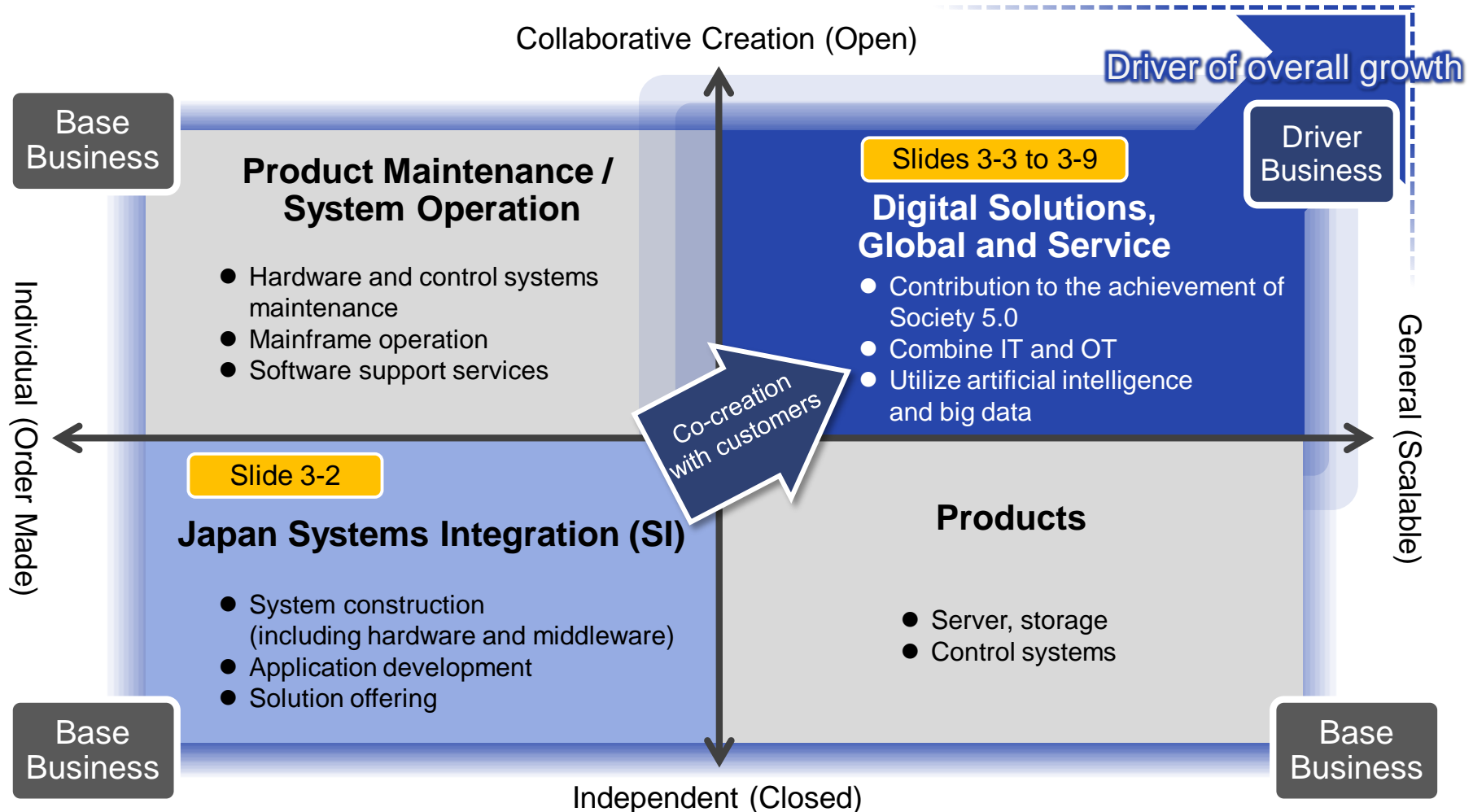
In this report, for all of the descriptions belonging to Gartner, Hitachi has made its own interpretation of the data, research, opinions or views issued as a part of the subscription service for Gartner's customers, and Gartner does not review this report. Information issued by Gartner is its view at the time of the issuance, not at the time of the issuance of this presentation/report. The opinions described in the materials published by Gartner do not express the fact and may be changed without prior notice.

Government, Public Corporation & Social Infrastructure Business Unit Business Strategy

[Contents]

1. Positioning of Government, Public Corporation &
Social Infrastructure Business Unit
2. Business Overview and Analysis of Current Status
- 3. Business Strategy**
4. Business Performance Trends
5. Conclusion

Expand the digital solutions businesses including IoT, positioning systems integration business as a base



Continuously promote steady accepting orders and operations of large-scale systems which support Japanese social system and infrastructure, and through increase in productivity and efficiency

1 **Accepting orders and operation for mission critical business systems**

[Major customers: Government offices, incorporated administrative agencies, railway operators, power companies and telecommunications carriers]

- Promote system renovation, continuous order acceptance for equipment renewal and stable operation, by continuously strengthening the ability to make system improvement proposals based on a deep understanding of customer services,
- Create new added values by utilizing advanced technologies, including security

2 **Transition of existing systems into open systems and cloud-based systems**

- Steadily and continuously meet high-level needs in both the public and social fields
- Provide flexible system operation services that meet the needs of each customer

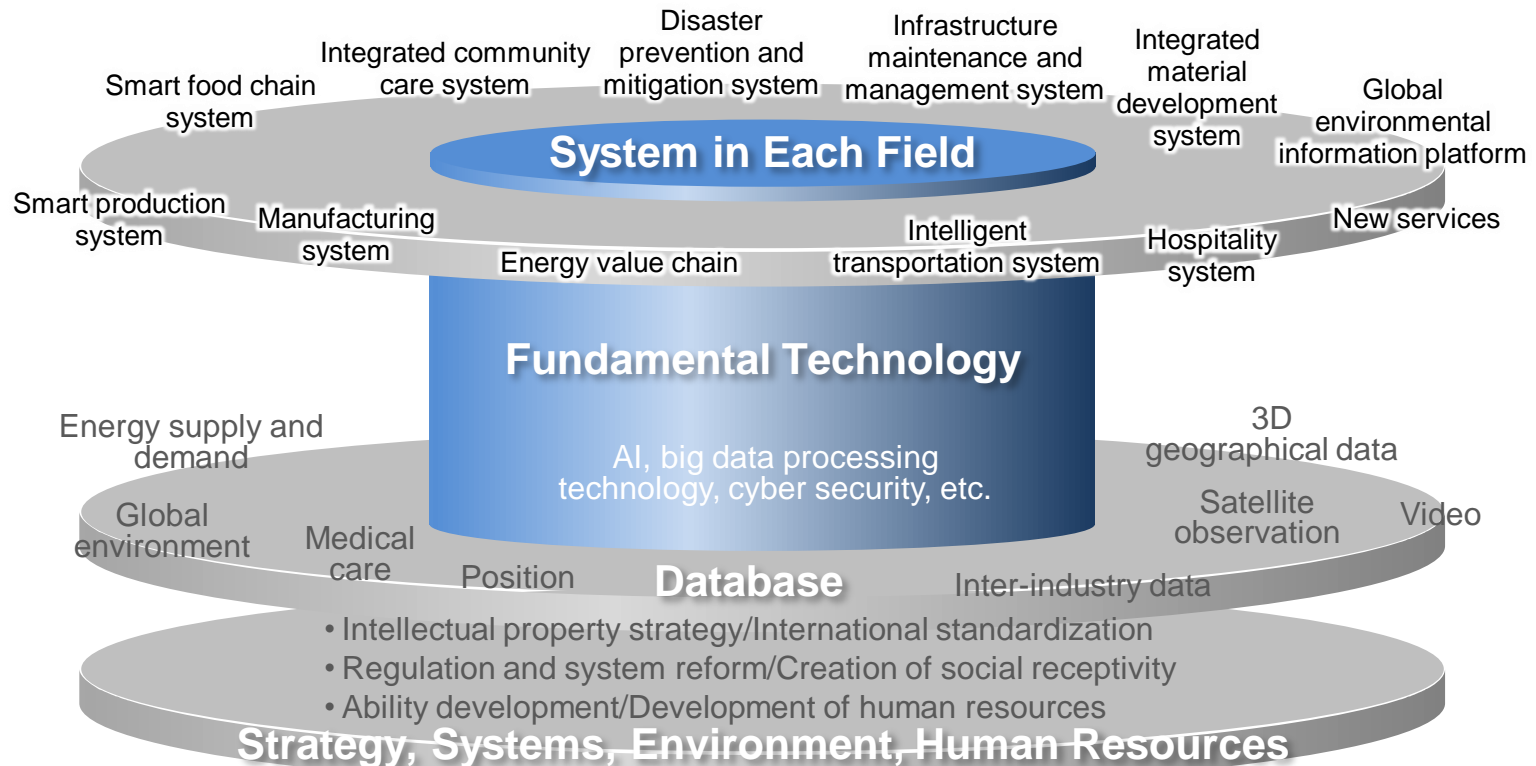
3 **Thoroughly improve the efficiency of system development and maintenance**

- Increase the efficiency of application development using a test work automation tool
- Improve the efficiency of maintenance operations by applying technologies to extract and visualize existing systems' specifications such as system asset information

3-3. Growth Business: Sophistication of Social Infrastructure (1)

Contribute to the realization of Society 5.0, a super smart society

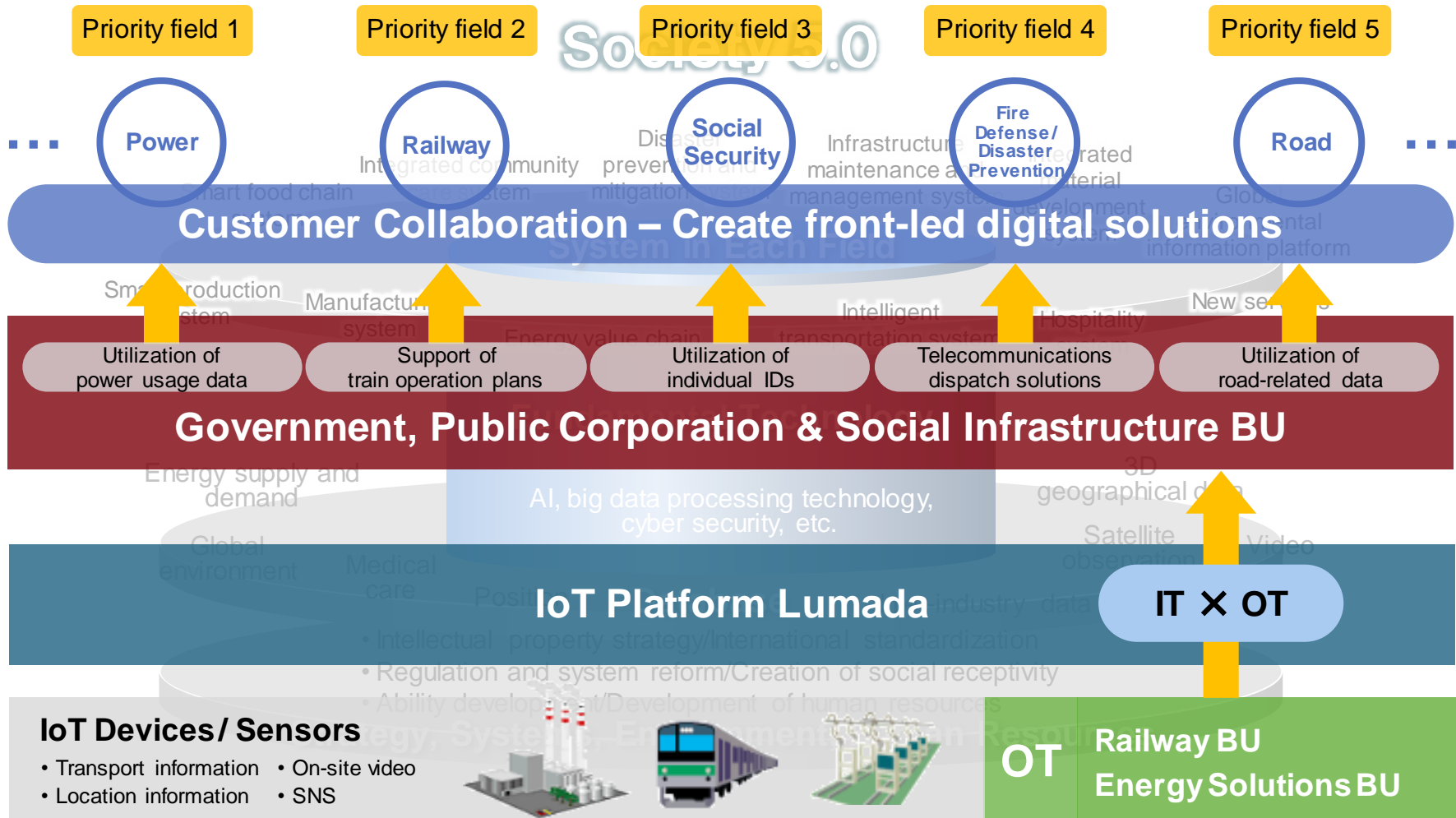
Society 5.0



Source: Created by Hitachi based on the materials from the "Council for Science, Technology and Innovation (13th)" and "5th Science and Technology Basic Plan" issued by the Cabinet Office.

3-4. Growth Business: Sophistication of Social Infrastructure (2)

- Create front-led digital solutions through collaborations with customers
- Embody services using IT x OT and Lumada as the fundamental technologies



3-5. Priority Field: Power [Utilization of Power Usage Data]

Reduce electricity charges by saving costs of power providers and realize new information services, utilizing data analysis and prediction technologies related to power usage status

Social Challenge

- Intensifying competition promoted by electricity system reform, expectations for reduced power charges
- Highly-efficient power generation to achieve a low carbon society, response to diversified power sources

Strengths of Hitachi

- The largest market share for the power charge system (customer information system) for Japanese power companies
- Promote many co-creation and demonstration experiments with power companies

Power Producer

- Predictive maintenance with sensors
- Highly-efficient power generation with most economical dispatch

Power Retailer

Minimization of power procurement cost by utilizing market transactions

Information Service Provider

New services, including watching over based on the usage status of equipment

Utilization

Utilization

Utilization

IoT Platform Lumada

Extraction of operation status for equipment

Prediction of power demand and generation ...

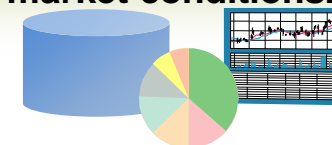
Prediction of facility load

Calculation for the most economical dispatch

Usage status, operation status (meters, sensors)



Customer information, track record modeling, market conditions...



3-6. Priority Field: Railway [Support of Train Operation Plan]

Support operational timetable planning in passengers focused and trouble resistant aspects by applying predictions upon past behaviors by passengers

Social Challenge

- Propose the railway operational timetable and the optimal transit mode in accordance with passengers' behaviors
- Establish both the high standard safety on punctual operation and the efficient facility maintenance

Strengths of Hitachi

- The largest market share in Japan of an operation management system for railway operators
- Track record of building and installing the congestion visualization system in trains and the station-yards

Railway Operator

- Expedite delay recoveries based on past operational records
- Efficient safety assurance and the facility wellness based on predictive maintenance

User (Passenger)

Determine and select the optimal transportation means considering congestion and transportation disorder

Utilization

Utilization

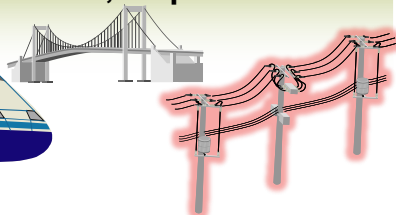
IoT Platform Lumada

- Quality assessment of operation plan
- Visualization of the degree of congestion
- Analysis and prediction of people flow
- Prediction of facility failure
- ...

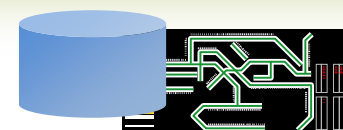
Train location, degree of congestion in trains and the station yard



Sensor, inspection results



Train timetables, past records of failure restoration...



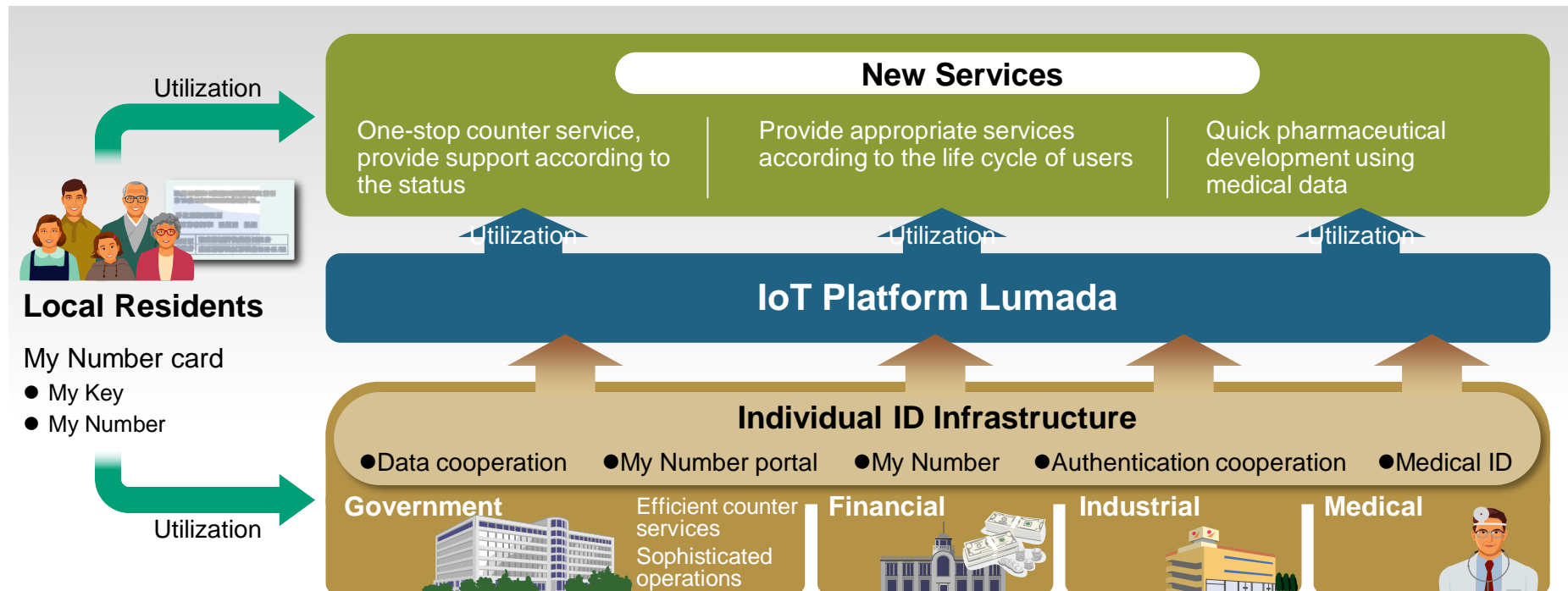
Support the utilization of individual ID, including My Number, in the government, medical and private sectors to improve quality of life

Social Challenge

- [Government] Sophistication of government services
- [Medical / pharmaceutical] Sophistication of medical care and expedite product development
- [Service] Improve quality by utilizing individual ID and data

Strengths of Hitachi

- Track record of delivery of My Number-related systems to government offices and local governments
- Experience and knowledge about healthcare businesses
- Customer base in a variety of industries



3-8. Priority Field: Firefighting / Disaster Prevention [Telecommunication Dispatching Solutions]

Contribute to the safety and security of the local community, utilizing videos and related information from an accident or disaster site in real time

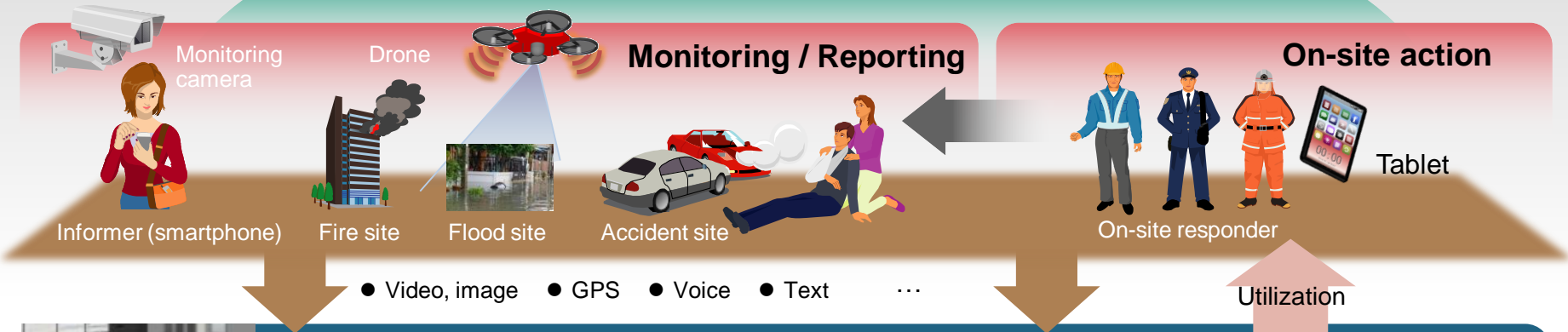
Social Challenge

- Efficient contact and communication in the event of an accident or disaster
- Sophistication of emergency response utilizing video recordings / sharing functions of smart devices or drones

Strengths of Hitachi

- Know-how to accumulate and analyze a large volume and variety of data
- High-performance and high-quality system development skills under a mission critical environment

Accurately understand site status using photos and videos to make a prompt decision



IoT Platform Lumada

- Analysis of video and image
- Prediction and simulation
- Support the optimum deployment of a rescue team
- Automatic selection of ambulance destination

Telecommunications dispatch center

3-9. Priority Field: Road [Utilization of Big Data]

Enhance general users' satisfaction levels and improve the profitability of related companies, analyzing road and transport-related data in real time from many perspectives

Social Challenge

- Ease traffic congestion and enhance users' satisfaction levels
- Sophistication of road construction and management operations
- Improve operation efficiency, including transportation

Strengths of Hitachi

- Analysis and visualization using AI and BI technologies, responding to operational needs
- Real-time processing with the distributed processing of a large volume of data

Create services through collaborations among operators by utilizing data

General user (Driver)
Enhance satisfaction level

Road operator / Transport operator
Sophistication of business / Profitability improvement

Private companies, including transportation
Efficient business / Cost reduction / Profitability improvement

Instruction on congestion avoidance reflecting real-time information

Improve road services, including construction plans considering transport demand

Strengthen profitable routes, improve operation information service

Utilization

Utilization

Utilization

IoT Platform Lumada

Analysis of traffic volume

Analysis of origin-destination data

Traffic simulation

Analysis of operation status

Probe data...

Travel data based on transport card...

Road Operator

Road Information Provider

Transport Controller, Transport Operator, etc.

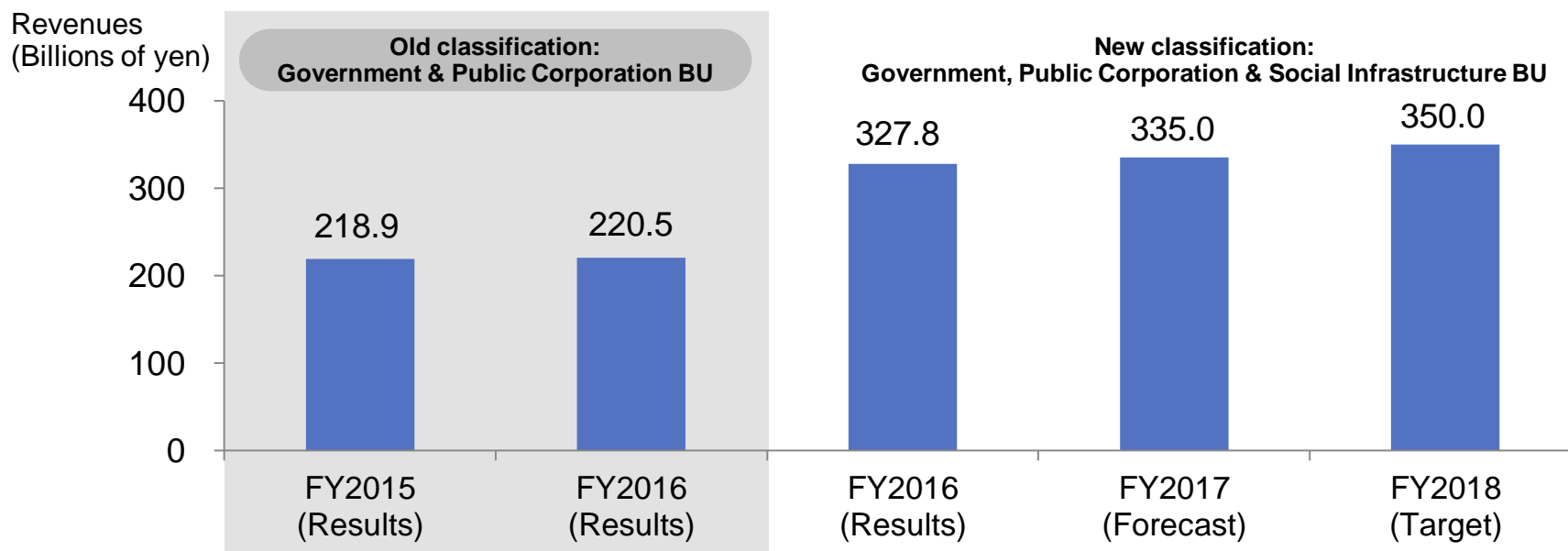
Government, Public Corporation & Social Infrastructure Business Unit Business Strategy

[Contents]

1. Positioning of Government, Public Corporation & Social Infrastructure Business Unit
2. Business Overview and Analysis of Current Status
3. Business Strategy
- 4. Business Performance Trends**
5. Conclusion

4. Business Performance Trends*1

	Old Classification		New Classification		
	FY2015 (Results)	FY2016 (Results)	FY2016 (Results)	FY2017 (Forecast)	FY2018 (Target)
Orders Received*2	246.0 billion yen	238.8 billion yen	-	335.0 billion yen	350.0 billion yen
Overseas Revenue Ratio	1%	0%	0%	1%	1%
Growth Field Revenue Ratio*3	11%	15%	13%	16%	22%



*1 From April 1, 2017, system integration businesses for the social infrastructure field are classified into the Government, Public Corporation & Social Infrastructure Business Unit. The numerical values for FY2016 are shown both in the old and new classifications.

*2 To manage the orders received plan based on revenues, the forecast and target values are the same as the value of revenues.

*3 Digital solutions businesses (disclosed as "social infrastructure businesses" in Hitachi IR Day 2016), service businesses and global businesses.

Government, Public Corporation & Social Infrastructure Business Unit Business Strategy

[Contents]

1. Positioning of Government, Public Corporation &
Social Infrastructure Business Unit
2. Business Overview and Analysis of Current Status
3. Business Strategy
4. Business Performance Trends
- 5. Conclusion**

FY2018 Target

	FY2018	Vs. FY2016
Revenues	350.0 billion yen	+22.1 billion yen [+6.8%]
Growth Fields Revenue Ratio	22%	+9%

Expand businesses in the IoT field
positioning systems integration business as a base

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.

HITACHI
Inspire the Next