

Rail Systems Business Strategy

Hitachi IR Day 2013

June 13, 2013

Hiroshi Nakayama

**Vice President and Executive Officer
President & CEO, Rail Systems Company
Infrastructure Systems Group
Hitachi, Ltd.**

Rail Systems Business Strategy

Contents

- 1. Overseas Business Development**
2. Business Performance Trends and Targets
3. Business Overview and Market Environment
4. Growth Strategies
5. Conclusion

Turn-key orders for “Urban Railway Line 1” in Ho Chi Minh City, Vietnam(June 11, 2013)

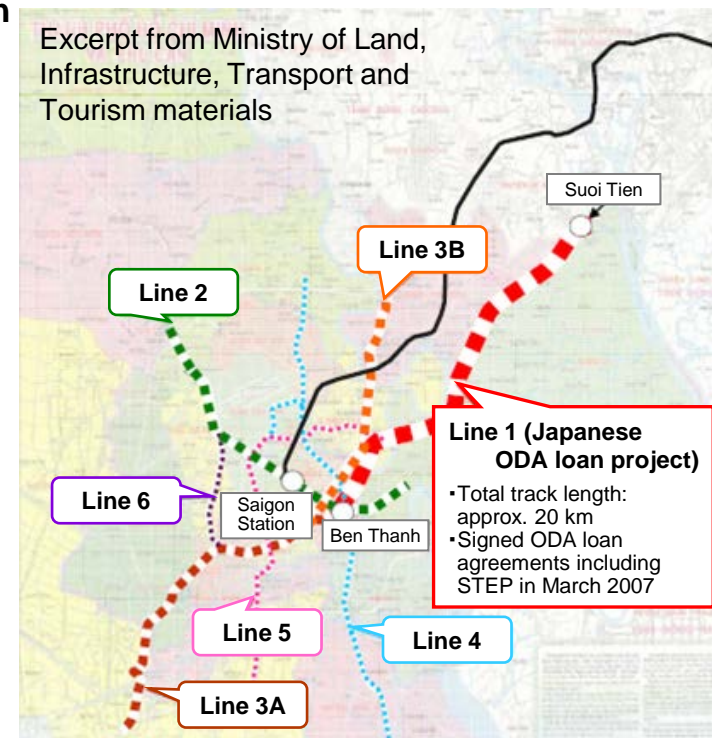
■ Project Overview

A new line that is scheduled to become operational in early 2018. The 19.7 km line includes both underground and elevated tracks. It will connect Ben Thanh in the center of Ho Chi Minh City with Suoi Tien, a bus terminal to the northeast of the city.

- **Customer** : Management Authority for Urban Railways of the People’s Committee of Ho Chi Minh City
- **Contract scope** : 17 train sets (total of 51 cars), signaling and telecommunication system, power supply system, platform screen doors, and depot facilities.
Maintenance for five years following the start of commercial operations (separate agreement is to be concluded at later stage)
- **Delivery date** : 2016 (first series of train sets)
- **Contract value** : approx. 37 billion yen

■ Meanings for Hitachi

Foothold for expanding business opportunities in the urban transport railway business in Southeast Asia and other region



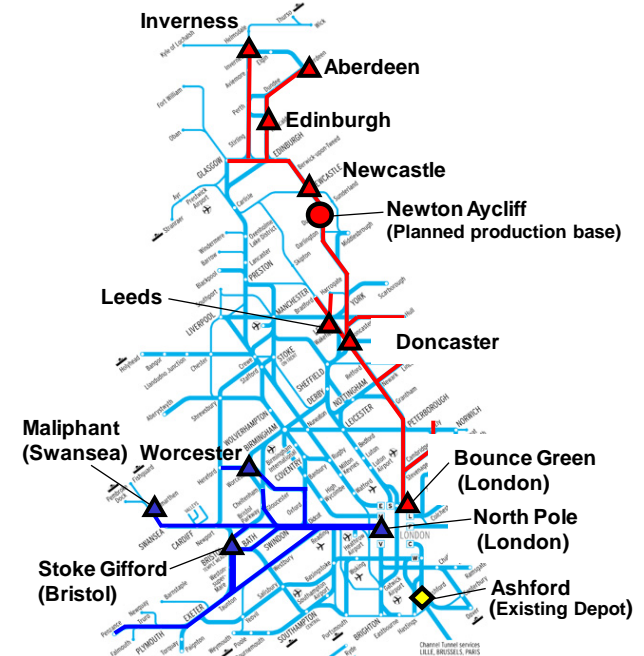
UK IEP (Intercity Express Programme) Order (July 24, 2012)

■ Project Overview

- Customer : UK Department for Transport
- No. of rolling stocks : 596
- Delivery : from 2017 to 2019
- Procurement method : PPP (Public Private Partnership) project

■ Meanings for Hitachi

1. Participate in Rolling stock lease business
2. Wide-area expansion of maintenance services (Ashford in existence + 11 bases)
3. Establishment of Newton Aycliffe, UK production base (production starts in FY 2015 ,hiring up to 730)
Make this bases as EU production hub



Order for UK Railway Traffic Management System Prototype (August 29, 2012)

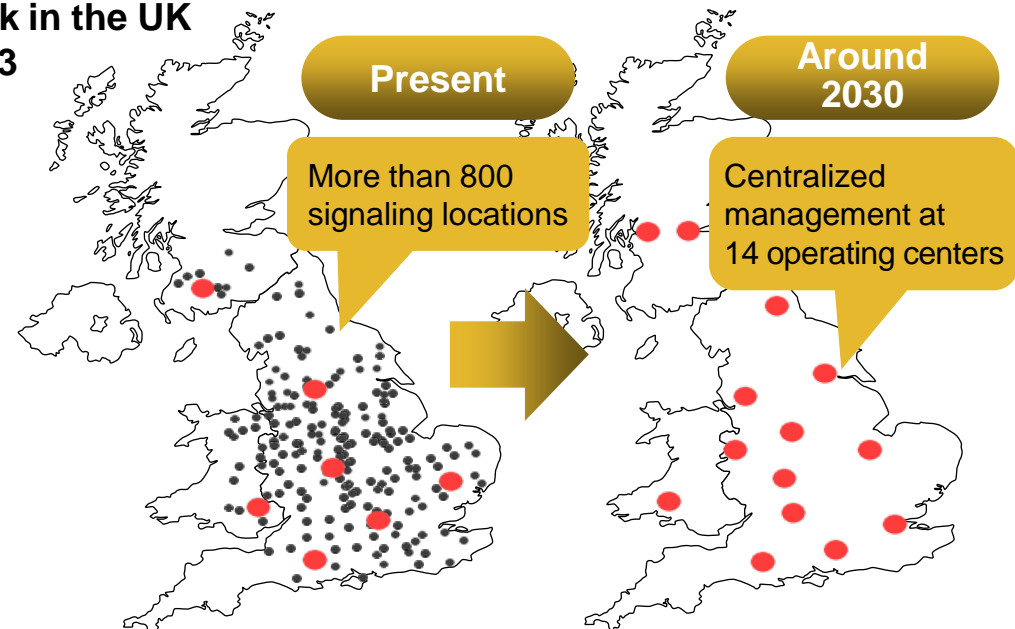
■ Project Overview

A large-scale traffic management system upgrade project encompassing the entire existing UK rail network (approx. 25,000 km). The project involves separation into sections and centralized management at 14 operating centers of more than 800 signaling locations.

- **Customer** : Network Rail Infrastructure Limited (state-run company that owns and manages railway infrastructure throughout Britain)
- **Contract scope** : Prototype for evaluation of companies for rollout across the entire rail network in the UK
- **Evaluation announcement** : End of 2013

■ Meanings for Hitachi

1. Europe's first traffic management system project
2. Foothold for developing across the UK



Rail Systems Business Strategy

Contents

1. Overseas Business Development
- 2. Business Performance Trends and Targets**
3. Business Overview and Market Environment
4. Growth Strategies
5. Conclusion

2-1. FY2012 Results and FY2013 Forecast

(Billion yen)

	FY2011	FY2012		FY2013	
	Results	Results	YoY	Forecast	YoY
Revenues	139.6	146.7	105%	150.0	102%
Operating income (EBIT)	4.7 (5.8)	5.0 (5.2)	+0.3 (-0.6)	5.1 (4.8)	+0.1 (-0.4)

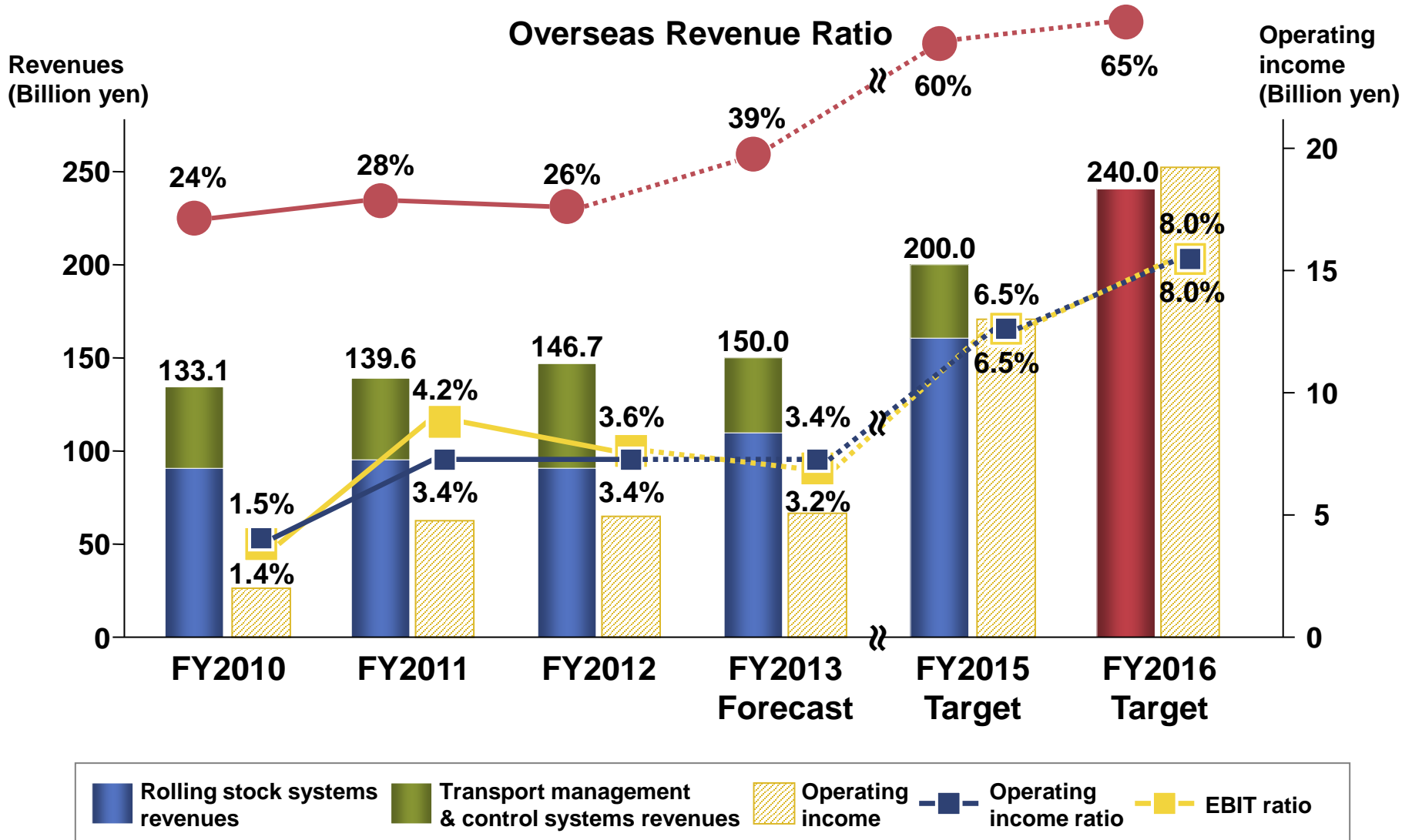
Revenues

- FY2012 revenues were higher year over year due mainly to an increase in traffic management system sales in Japan, despite lower sales of electrical components to China.
- Projecting higher revenues in FY2013 year over year due to higher Shinkansen sales in Japan and higher overseas project sales.

Operating Income

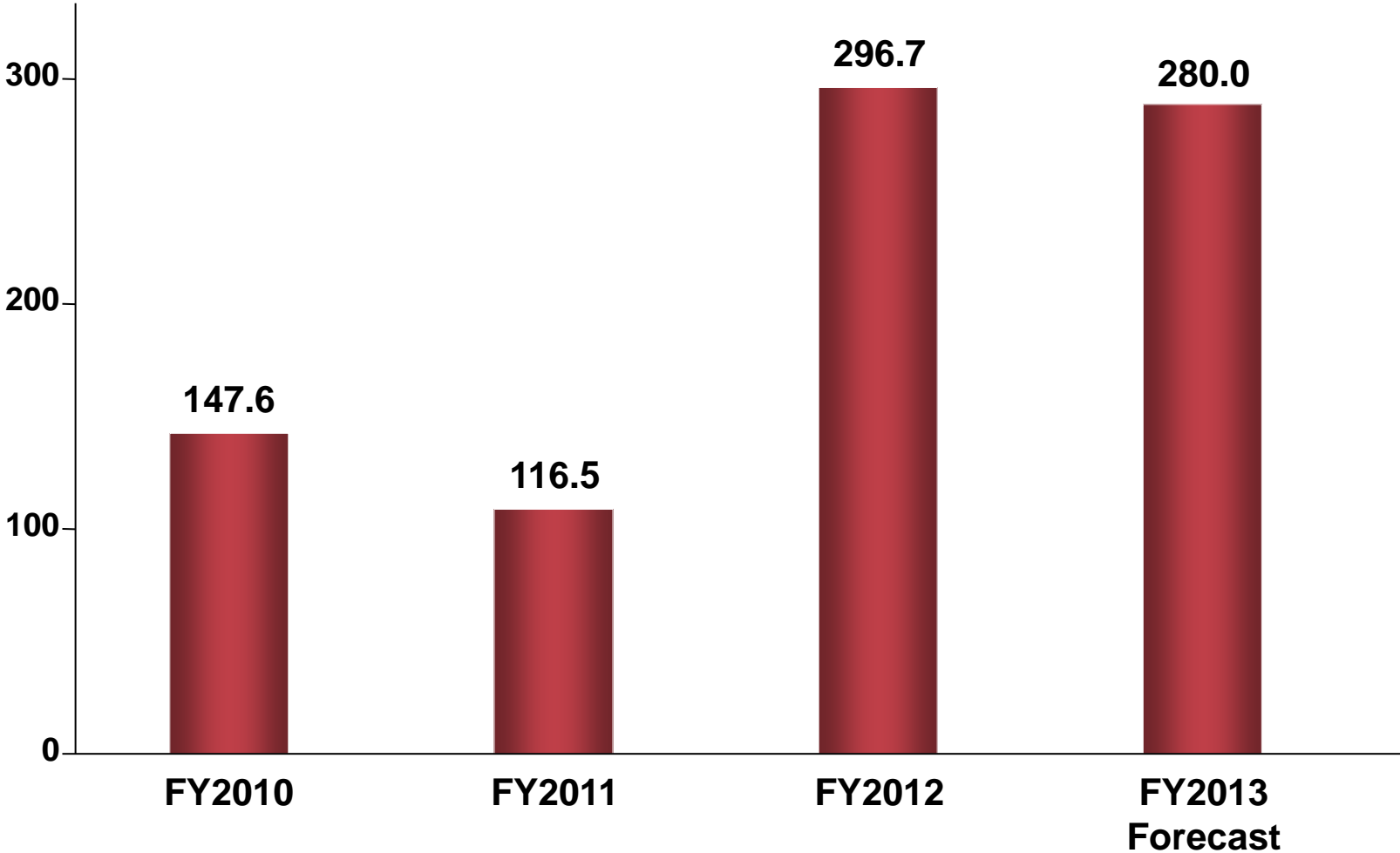
- FY2012 operating income increased year over year due to higher earnings accompanying the increased revenues from traffic management systems in Japan, despite the lower electrical component sales to China, and the benefits from the Hitachi Smart Transformation Project.
- Projecting operating income in FY2013 slightly above FY2012

2-2. Business Performance Trends

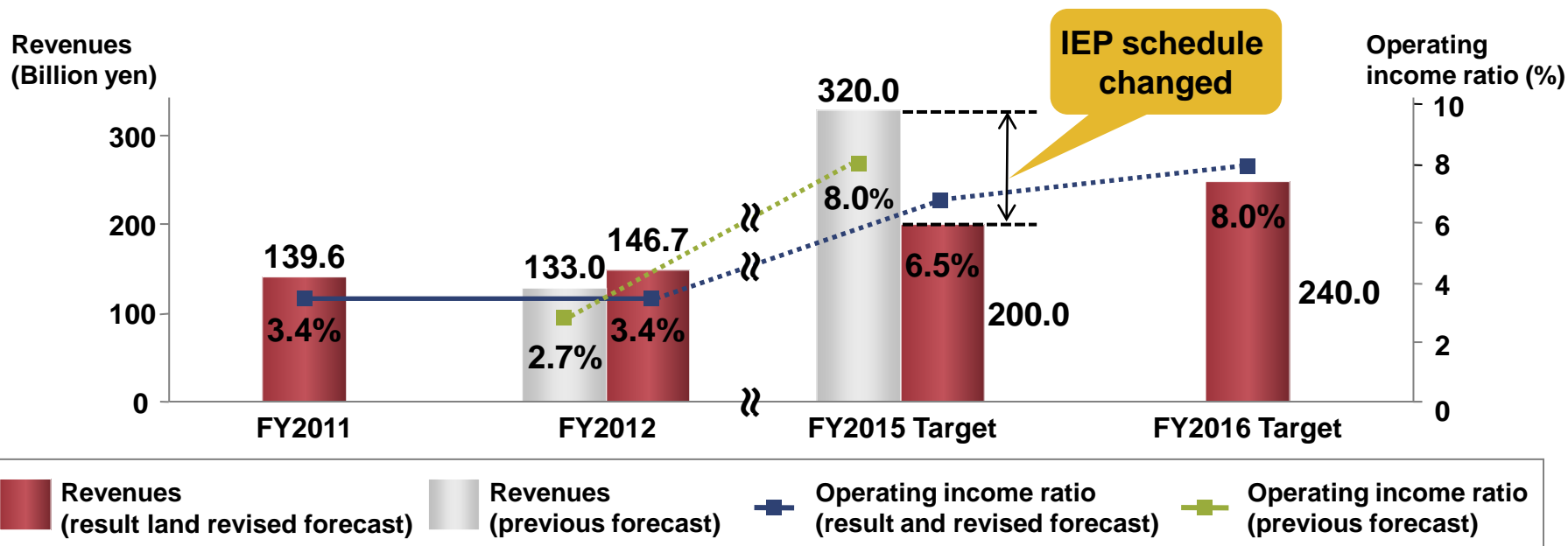


2-3. Orders

Orders
(Billion yen)



2-4. Differences From Previous Forecast



Main Reasons for Differences

	FY2012	FY2015
Revenues	Increase in traffic management systems, signaling equipment, etc. in Japan	Adjustment to target setting based on organic growth and changed schedule of IEP
Operating income ratio	Increase in traffic management systems, signaling equipment, in Japan.	IEP schedule changed

Rail Systems Business Strategy

Contents

1. Overseas Business Development
2. Business Performance Trends and Targets
- 3. Business Overview and Market Environment**
4. Growth Strategies
5. Conclusion

3-1. Revenues by Systems and Products & Services

Transport management & control systems

Signaling/ traffic management systems

Signaling/train control systems



Traffic management systems/ power management systems



Power supply systems



Platform gates



Rolling stock systems

Rolling stock/maintenance

High-speed trains

Regional trains

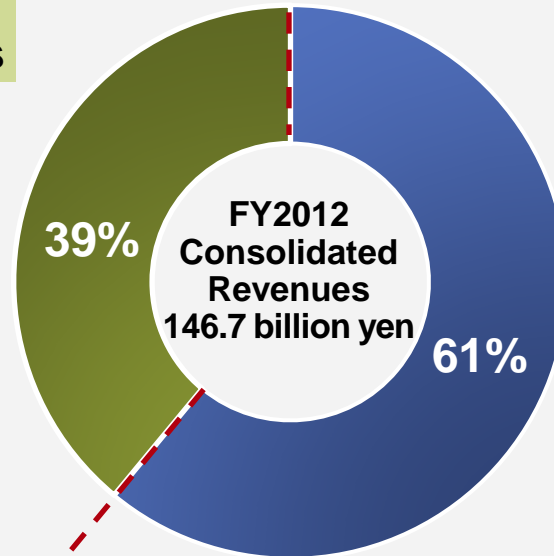


Commuter trains

Monorails



Maintenance



Electrical components

Main circuit/
main motor



Air conditioning/
air-moving systems



No.1 share in Japan

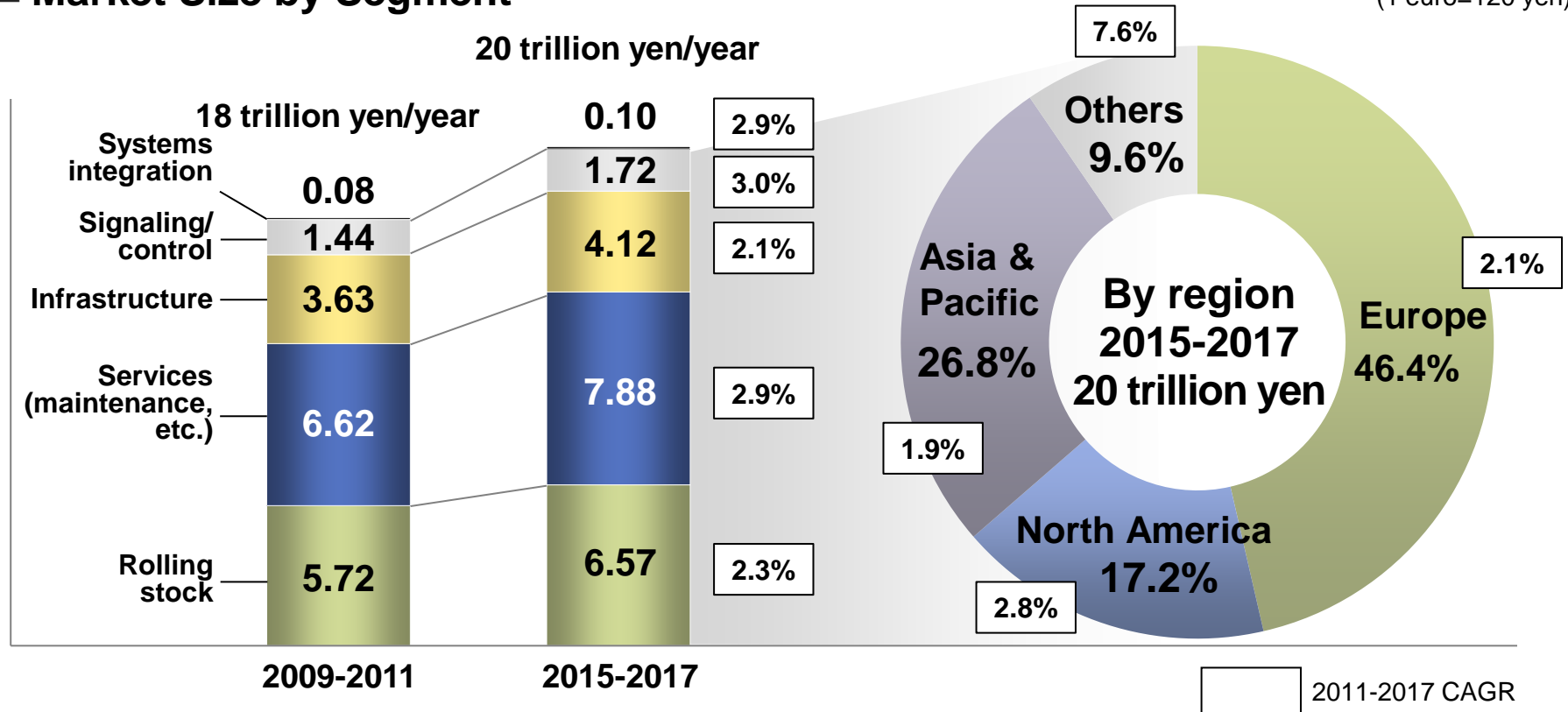
Conditions

18 trillion yen per year (2009-2011 average) ⇒ 20 trillion yen per year (2015-2017 average) (CAGR 2.6%)

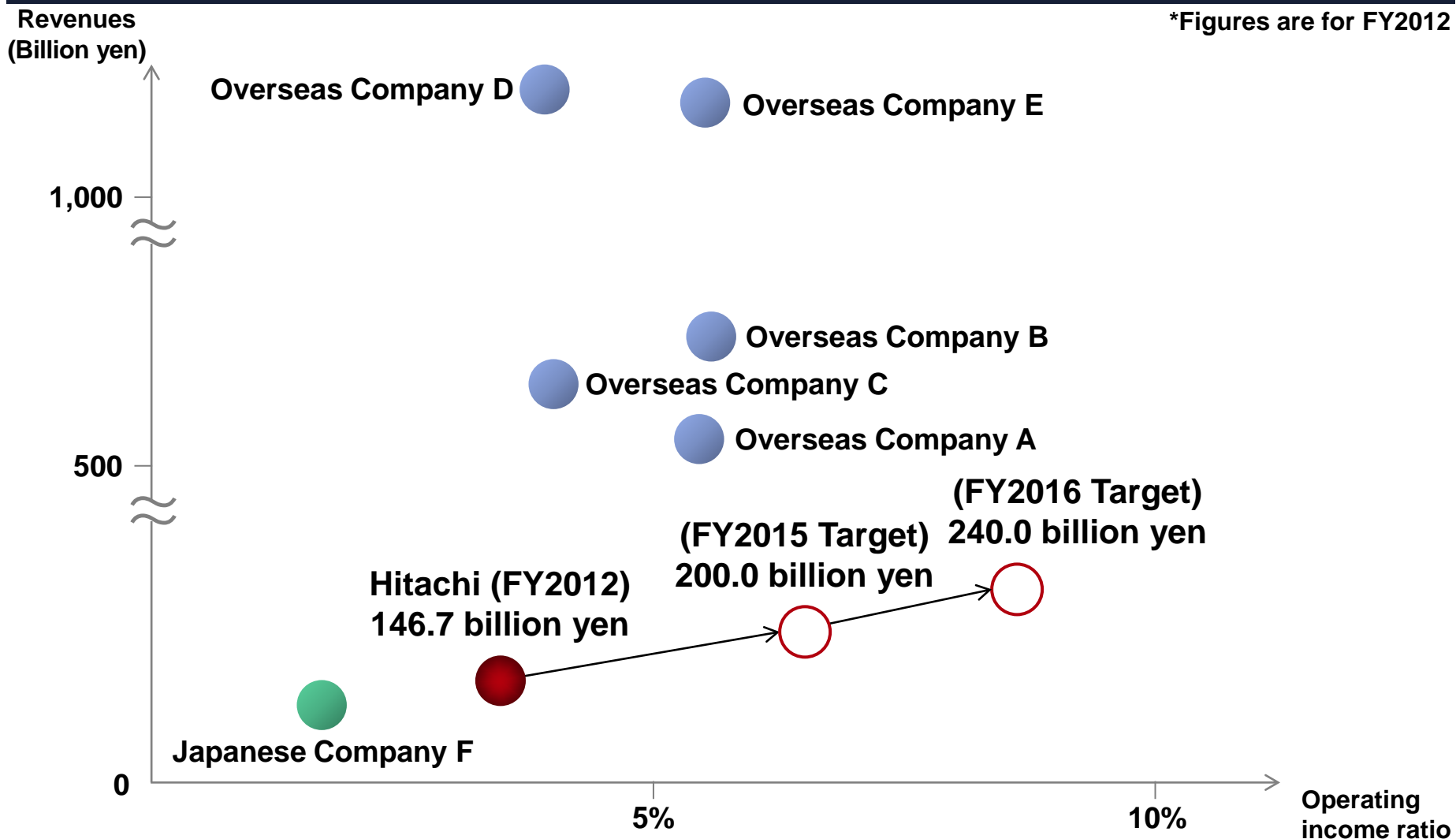
- High growth in service and signaling/control businesses
- Increased investments in railway networks in emerging countries

Market Size by Segment

Source: UNIFE World Rail Market Study 2012
(1 euro=120 yen)



Hitachi's Position



3-4. Strengths and Key Targets

Rolling stock systems

Higher efficiency, lower environmental impact

- **Aluminum train technology**
(high-speed trains, commuter trains)
 - Highly economical next-generation rolling stock (A-train)
- **Inverter technology**
 - Develop compact, lightweight, low noise (world-class) products
- **Hybrid traction system technology**
 - World's first to enter service (developed jointly with East Japan Railway Company)

Proven track record in maintenance business (UK)

Transport management & control systems

High reliability, lower environmental impact

- **Signaling/ train control systems technologies**
 - Signaling systems compliant with European standards (ETCS)
 - Wireless train control system (CBTC)
- **Traffic management system technologies**
 - Provide high-performance, highly functional systems to support high-density transportation
- **Energy-conserving technologies**
 - B-CHOP (Regenerative Energy Storage System)
 - Smart grid technologies for rail systems

ETCS:European Train Control System
CBTC:Communication Based Train Control

Total project integration (turn-key)

Global business expansion with own core systems technologies in traffic management, signaling, power supply and rolling stock

Rail Systems Business Strategy

Contents

1. Overseas Business Development
2. Business Performance Trends and Targets
3. Business Overview and Market Environment
- 4. Growth Strategies**
5. Conclusion

Rail Systems Business Growth Strategy

Global

- Expand existing bases further (Japan, UK, and China)
- Actively develop new bases (India, Brazil, and Southeast Asia)

Transformation

- Reshape business portfolio
Expand services businesses, increase sales of signaling/
transport management systems, expand the turn-key business
- Expand and enhance product portfolio
Global A-train, global signaling systems, next-generation inverters

Innovation

- Total rail solutions
Propose total rail systems by linking infrastructure control systems and
IT systems
Rail energy management systems concept (GREEN)

4-2. Growth Strategy (Global Expansion)

● Europe

- Expand maintenance business throughout the U.K.
- Establish rolling stock manufacturing base (2015)
- Enter signaling/traffic management system markets



● China

- Establish signaling/ control system manufacturing base (2013)
- Expand electrical component manufacturing bases (2014)



● Japan

- Strengthen core product competitiveness
- Create new businesses and products (Energy-conserving systems, etc.)

▲ India

- Establish new operation centers
- Enter signaling/traffic management system markets

▲ Southeast Asia

- Complete Urban Railway Line 1 in Ho Chi Minh City
- Establish new engineering centers
- Capture turn-key projects

▲ South America

- Establish manufacturing base in Brazil (2014)

● Expand and enhance existing bases

▲ Develop new bases

Reshape business portfolio

Expand service businesses

- **Expand maintenance business**
 - Depots in U.K. (Ashford in existence +11 bases)
- **Expand rolling stock lease business**
 - IEP rolling stock
- **Service business ratio Increase to 15% (2020)**



Ashford Depot
(Class 395)



IEP rolling stock
(image)

Expand sales of signaling/traffic management systems

- **Participate nationwide installation project after completion of UK rail traffic management system prototype project**
- **European standard Signaling systems (ETCS)**
- **Wireless train control system (CBTC)**

Expand sales of total project integration (turn-key)

- **Complete Urban Railway Line 1 in Ho Chi Minh City, step up efforts to capture turn-key business**
- **Focus on monorail systems**

Expand and enhance product portfolio

Global A-train

■ Optima product lineup by use

- AT100 (metro/Commuter)
- AT200 (regional)
- AT300 (high-speed)
- AT400 (monorail)

Global signaling systems

■ Develop products compliant with global (European) standards

- UK: Expand ETCS sales through joint development with Network Rail (apply to IEP train signaling system)
- China: Expand sales of Chinese train control systems (CTCS)
- India: Expand sales of TPWS (ETCS1)

Next-generation inverters

- Develop SiC inverters for reducing power loss to contribute to greater energy savings



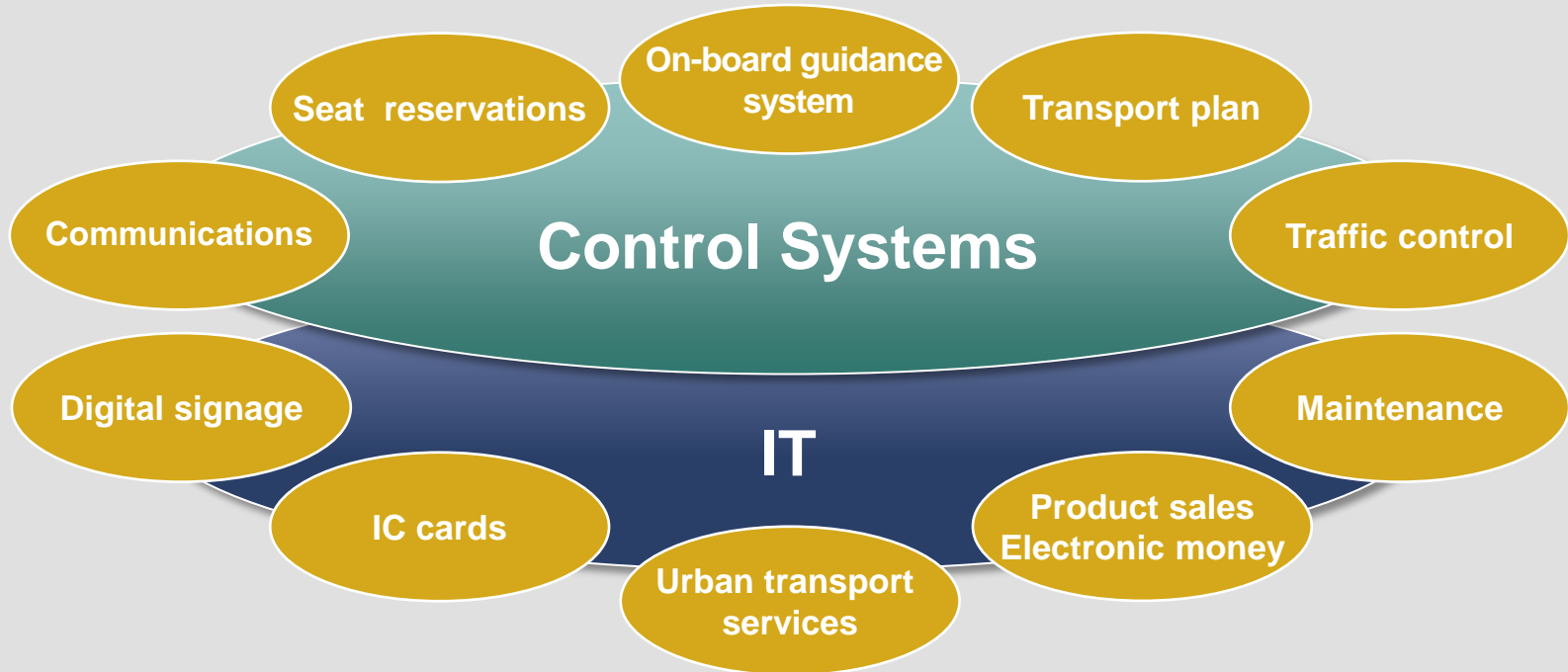
AT300 rolling stock (image)



Inverter control system

Total rail solutions concept

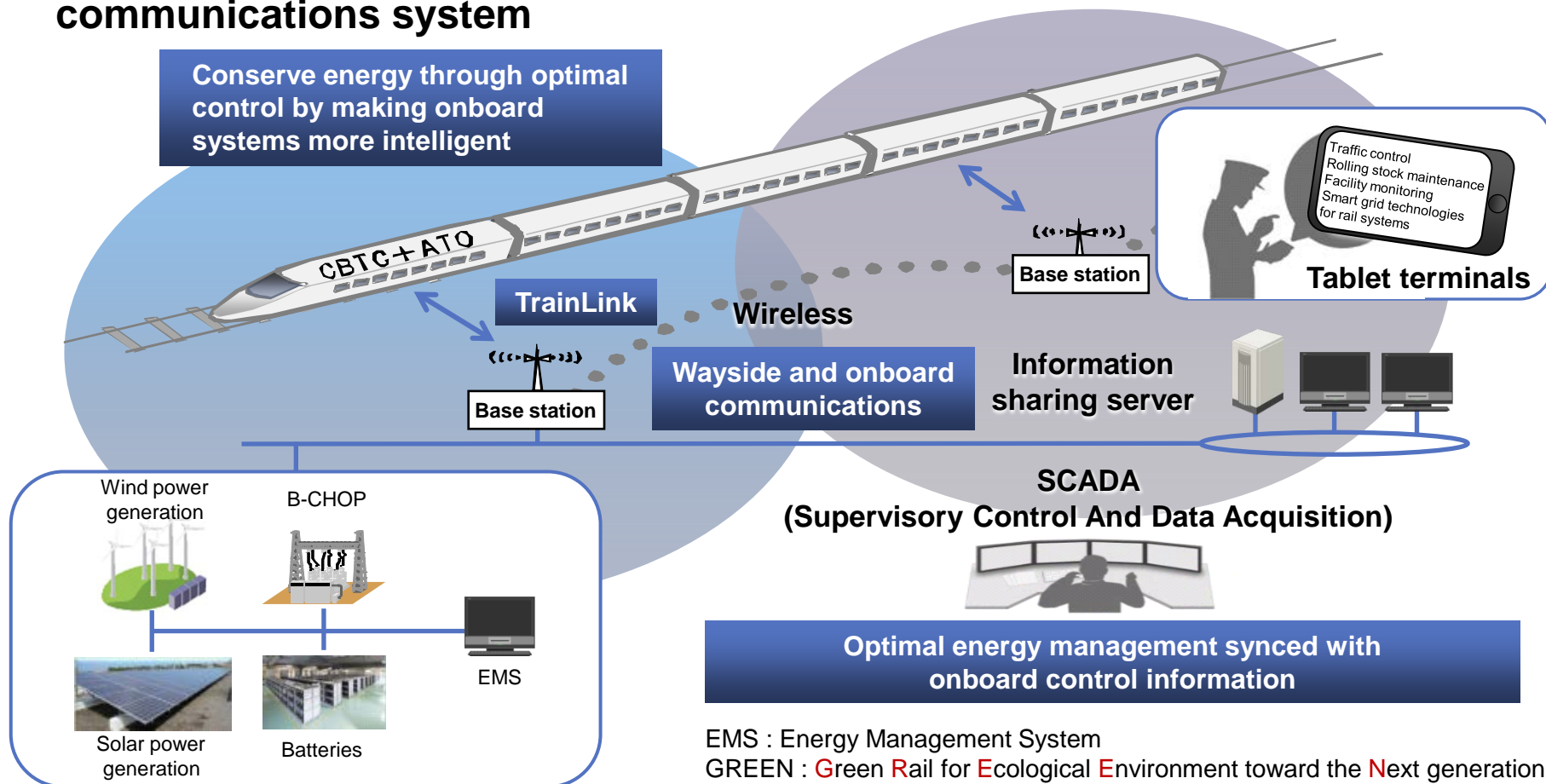
Integrate services leveraging infrastructure control systems and IT systems



**Provide total transport solution
from train service to customer service**

GREEN (Rail energy management system concept)

- Achieve greater energy conservation by facilitating railcar control synced with optimal electricity control via the TrainLink wayside and onboard communications system



EMS : Energy Management System

GREEN : Green Rail for Ecological Environment toward the Next generation

Main Initiatives (Complined)

Production costs

- Shortened rolling stock production lead times
- Increased product syncing efficiency

Direct materials costs

- Increased global procurement efficiency ratio
- Promoted centralized purchasing

Indirect costs

- Reduced indirect costs by centralizing and standardizing administrative and overlapping functions
- Actively utilized global human resources

Main Initiatives (Plan)

1. Further promote local manufacturing bases and global procurement (UK, China, Brazil, and India)
2. Optimize global logistics
3. Centralize IT and business systems

Targeting cumulative Hitachi Smart Transformation Project benefits of 11 billion yen over the period from FY2011 to FY2015

4-8. Measures to Strengthen Cash Flow Management

Areas for Improvement and Issues

Operating cash flows

- Improve asset efficiency to generate the necessary working capital for executing large projects

Improve investment efficiency

- Increase investment returns
- Accelerate investment return

Specific Initiatives

1. Generate cash flows by shortening production lead times
2. Implement Vendor Managed Inventory (VMI)
3. Strengthen global supply chain management in conjunction with Group companies*

* Hitachi Capital, Hitachi High-Technologies and Hitachi Transport System

1. Strictly select investments
2. Bolster post-investment monitoring and quickly respond
3. Reduce capital expenditure through global procurement

Rail Systems Business Strategy

Contents

1. Overseas Business Development
2. Business Performance Trends and Targets
3. Business Overview and Market Environment
4. Growth Strategies
- 5. Conclusion**

FY2015 Targets

- Revenues: 200 billion yen (overseas revenue ratio: 60%)
- Operating income (EBIT): 13 billion yen
(operating income ratio (EBIT ratio): 6.5%)
- Gross margin: 1.0 point improvement (Vs. FY2012)
- SG&A expenses ratio: 2.1 point improvement (Vs. FY2012)

- Accelerate globalization with technologies developed in Japan
- Promote Social Innovation Business

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, 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;
- the potential for significant losses on Hitachi’s investments in equity method affiliates;
- increased commoditization of information technology products and digital media-related products and intensifying price competition for such products, particularly in the Digital Media & Consumer Products segments;
- 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;
- rapid technological innovation;
- 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;
- 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;
- 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 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 affiliates 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 earthquakes, tsunamis or other natural disasters;
- 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