
Railway Systems Business Unit Business Strategy

Hitachi IR Day 2016

June 1, 2016

Alistair Dormer

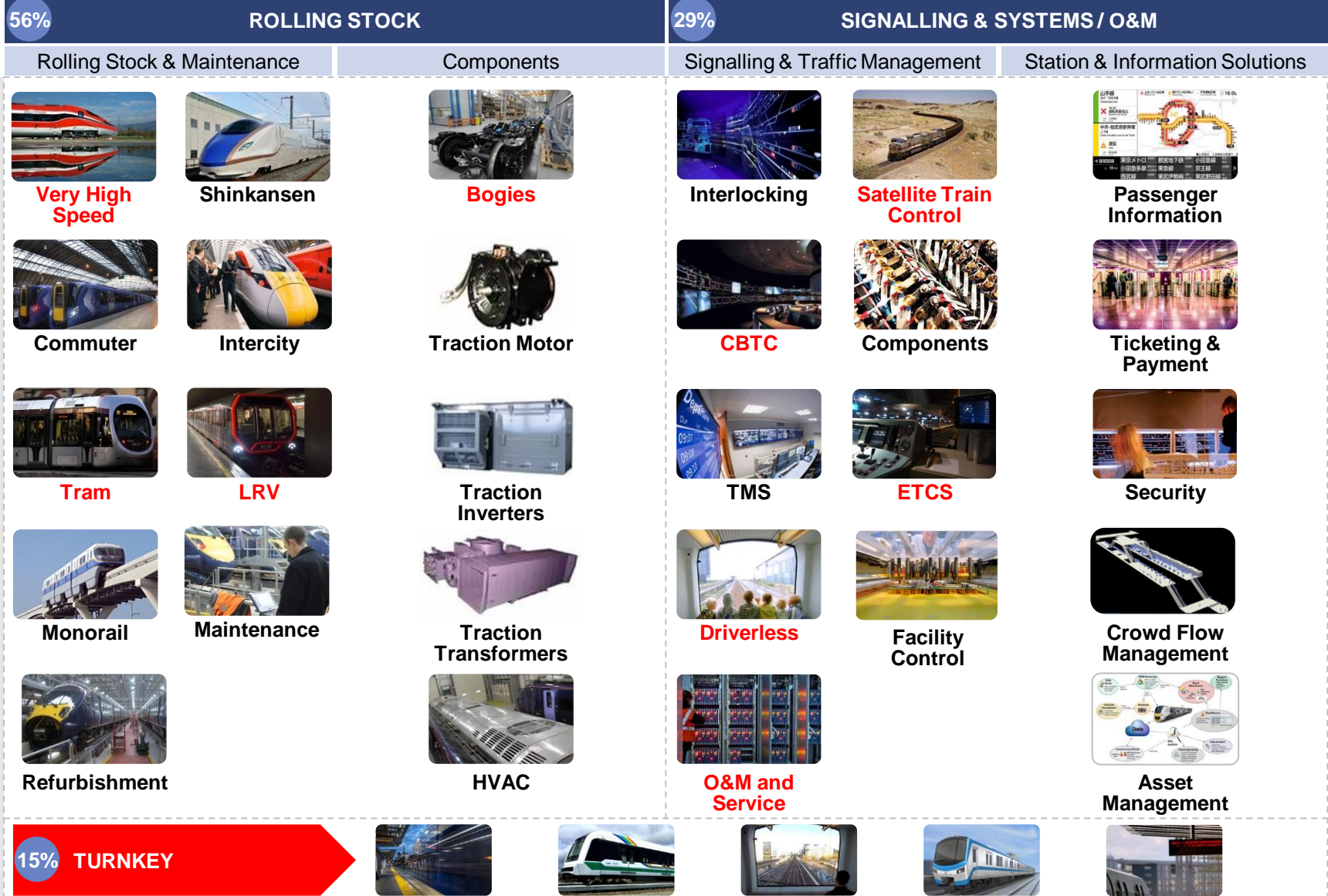
**Senior Vice President and Executive Officer
CEO of Railway Systems Business Unit
Hitachi, Ltd.**

Railway Systems Business Unit Business Strategy

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- 1. Business Overview**
2. Key Achievements in the Last 12 Months
3. Market Environment
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1-1. Our rail business has a full product range...



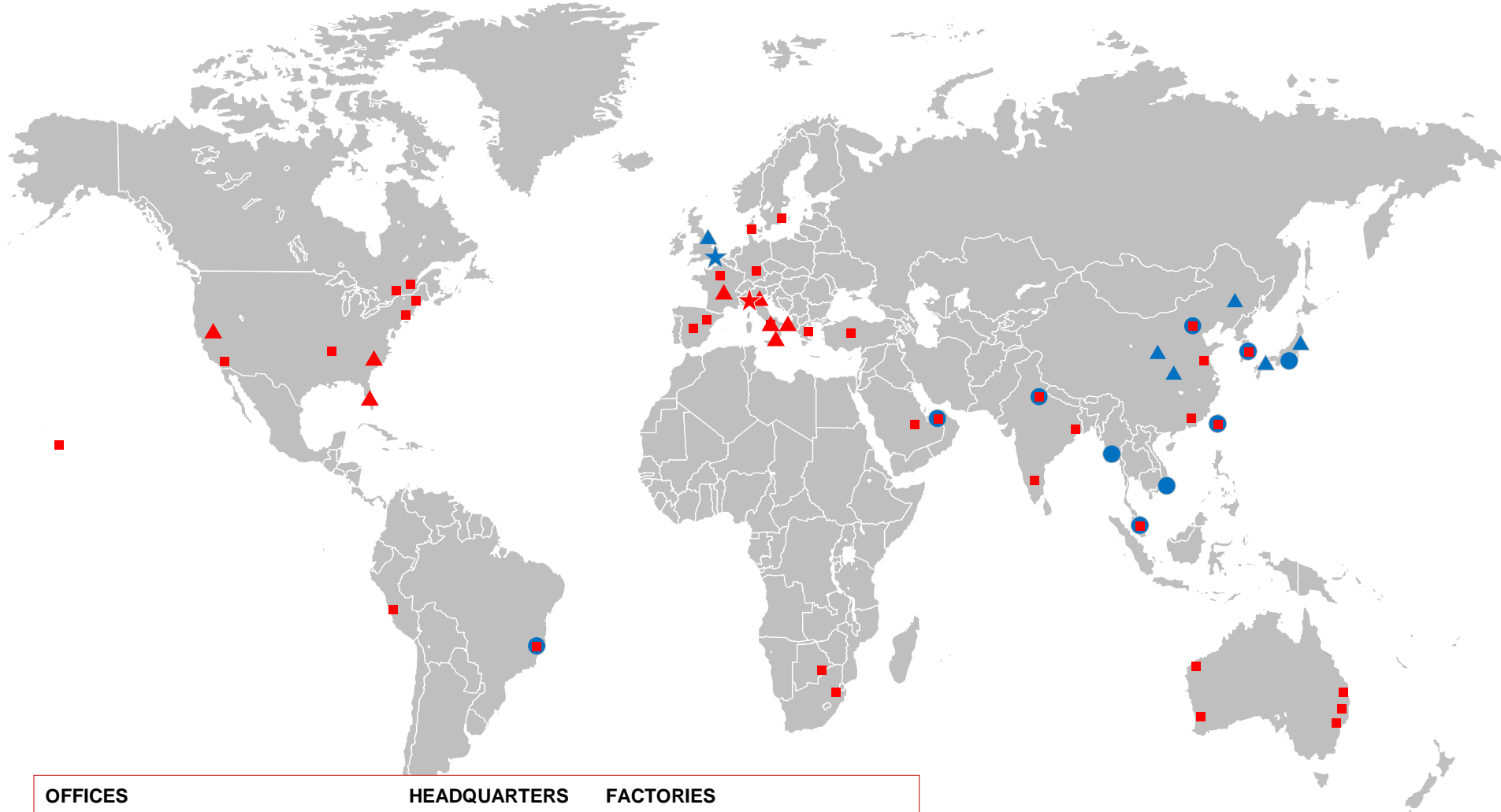
HVAC: Heating, Ventilation and Air Conditioning, TMS: Train Management System, ETCS: European Train Control System, CBTC: Communications-based Train Control, LRV: Light Rail Vehicle

As a % of FY16 revenue forecasts | Red text indicates products added or strengthened through the Ansaldo acquisitions

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1-2. ...with an expanded international footprint

Worldwide presence with a total headcount of 9,554⁽¹⁾ forecast for 2016 supporting ¥500 billion of revenues



OFFICES

- Hitachi Rail
- Ansaldo STS | Hitachi Rail Italy

HEADQUARTERS

- ★ Hitachi Rail
- ★ Ansaldo STS

FACTORIES

- ▲ Hitachi Rail
- ▲ Ansaldo STS | Hitachi Rail Italy

Red icons indicate a presence added or strengthened through the Ansaldo acquisitions

(1) As of the end of March 2016, Ansaldo STS headcount is 3,803

1-3. We are one global team...



**Alistair
Dormer**

Chief Executive Officer



**Kentaro
Masai**

Chief Operating Officer



**Tetsuya
Yamada**

**Chief Administration
Officer**



**Keisuke
Yabuta**

Chief Financial Officer



**Shinya
Mitsudomi**

**MD – Japan Asia Pacific
Chief Strategy Officer**



**Karen
Boswell**

MD – Hitachi Rail Europe



**Maurizio
Manfellotto**

CEO – Hitachi Rail Italy

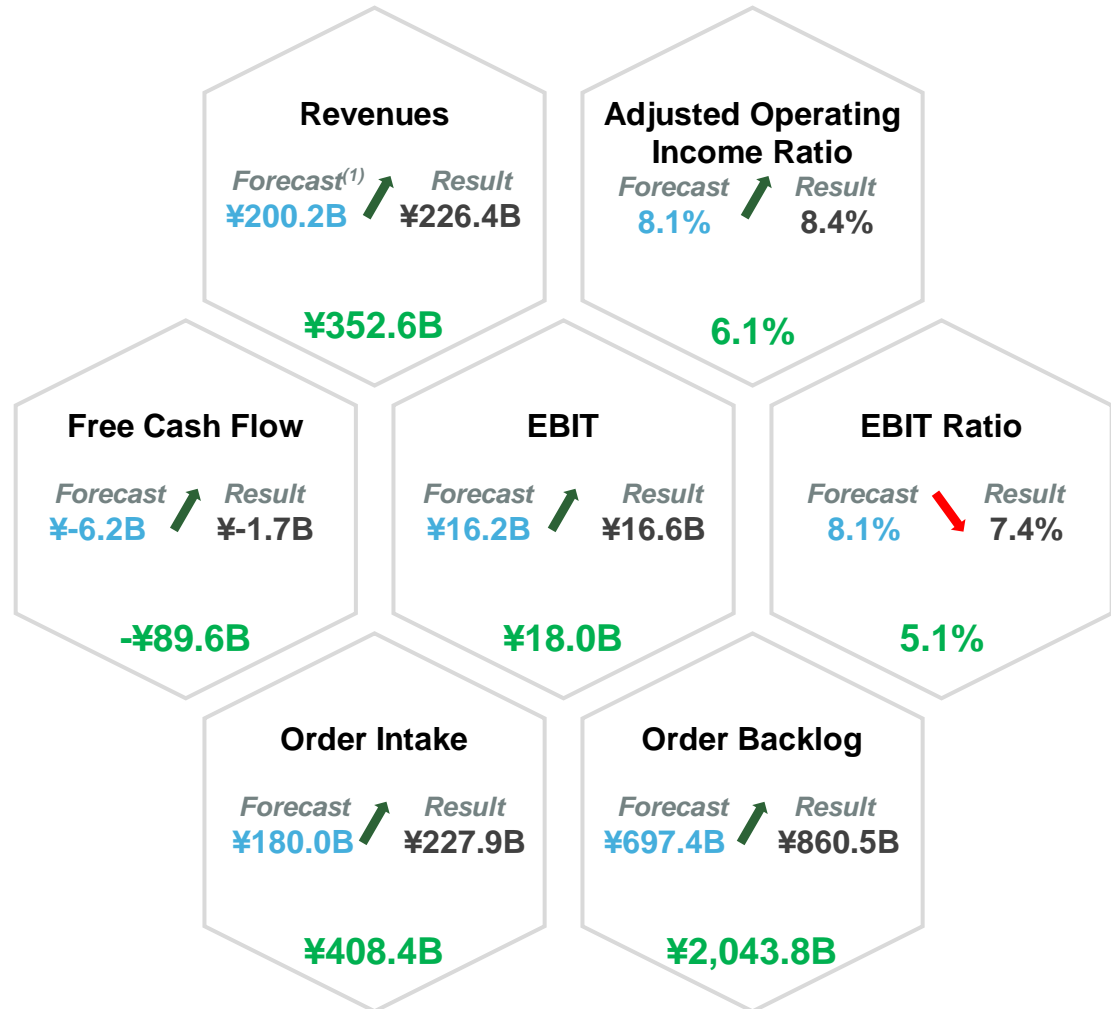


**Andy
Barr**

CEO – Ansaldo STS

1-4. ...and we have achieved our FY15 targets

Note: **Green** figures are consolidated, including Italian acquisitions for 5 months, other figures are for activities already existing



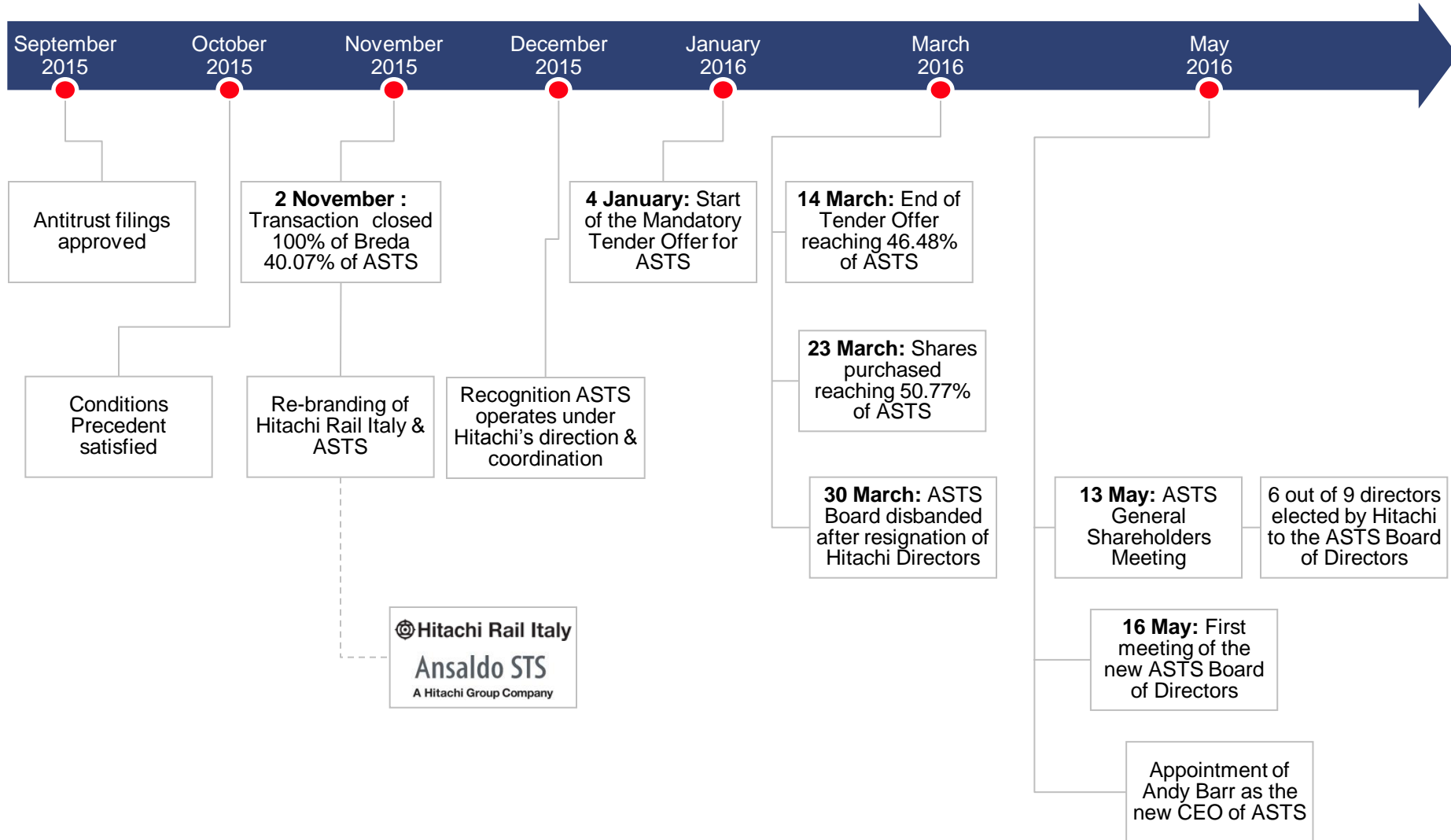
(1) Forecast as of June 11, 2015

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2-1. We closed major acquisitions



Breda: AnsaldoBreda, ASTS: Ansaldo STS

2-2. We continue to deliver...

We are increasing capacity

NEWTON AYCLIFFE

- Manufacturing facility opened 3 September 2015 by UK Prime Minister David Cameron
- 40 vehicles can be manufactured each month, the facility will create 730 new jobs



MIAMI

- New 140,400 square-foot plant opened in 16 March, 2016

Mission critical projects on track

IEP (contract value £7.5bn)

- Completion of the new maintenance facility at Stoke Gifford
- East Coast has completed network testing and has commenced in-traffic testing



ETR 1000

- Trains have been in revenue service since June 2015 with 24 sets being accepted
- Delivery completion of 50 trains is expected in April 2017

Focus on core markets

JAPAN

- Inauguration of Hokkaido Shinkansen
- New IoT business development team set up
- Continue to focus on digitalised signalling and the traffic management market



UK

- Abellio Scotrail is on schedule
- Strong pipeline

We continue to deliver in other regions

INDIA JV

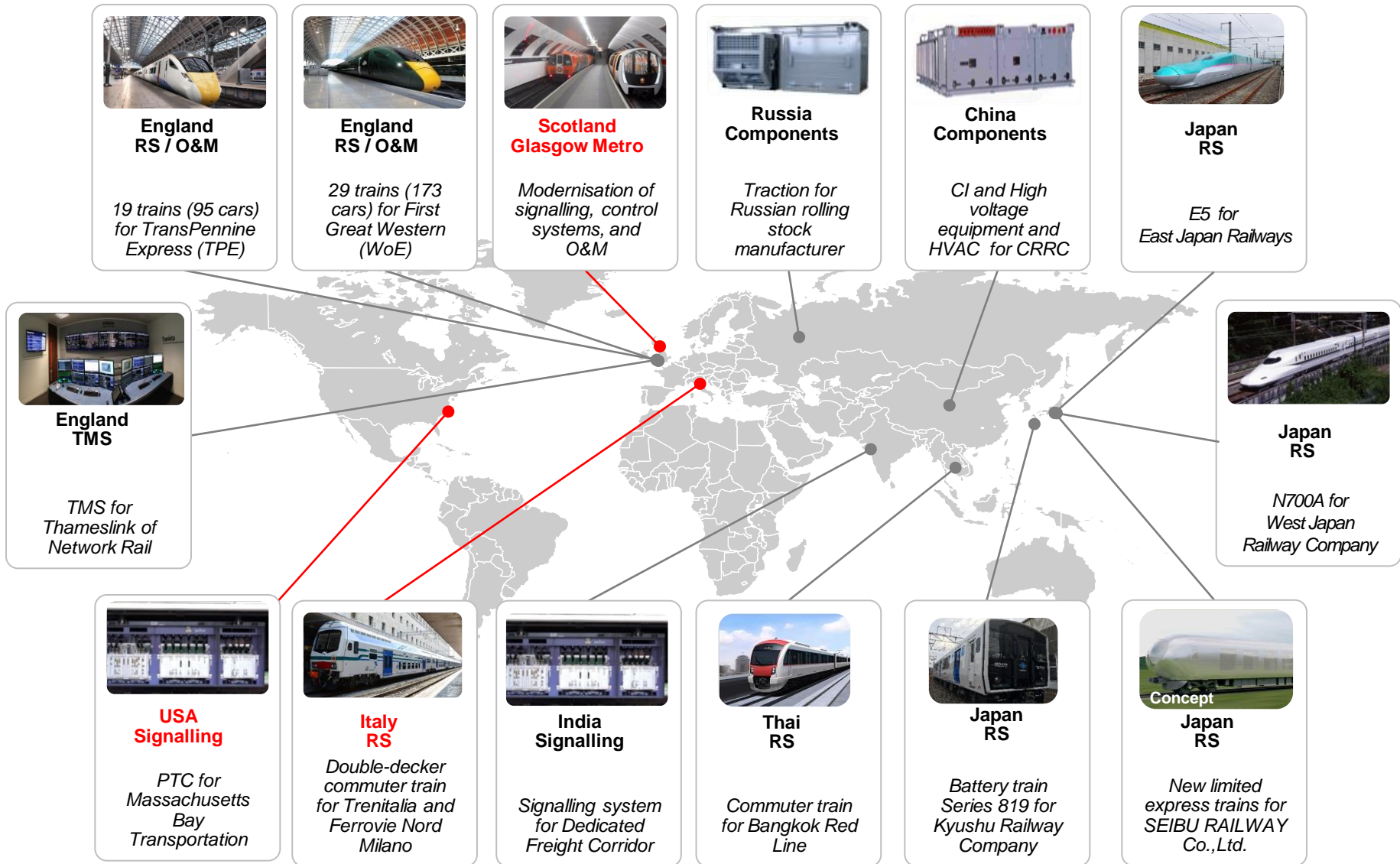
- Set up joint venture company with a partner for on track digital axle counters



TAIWAN TILT TRAIN

- Trains have been delivered and testing in Taiwan is ongoing as scheduled

2-3. ...and win large new orders globally



RS: Rolling Stock, TMS: Train Management System, CI: Converter Inverter, HVAC: Heating Ventilation and Air Conditioning, PTC: Positive Train Control
CRRC: China Railway Rolling Stock Corporation









Red text indicates projects related to the Ansaldo acquisitions

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3-1. Global trends are supporting the rail sector

Environmental	<i>CO₂ emissions targets will drive the electrification of lines and the use of rail</i>	<p>Greenhouse Gas Emissions by Travel (grams of CO₂ per passenger km)</p> <p>150g  170g </p> <p>30g – 70g </p>	Urbanisation (1)	<p><i>Denser urban areas will provide opportunities for rail, such as metro, to reduce crowding and improve predictable transit times, ensuring that density works efficiently</i></p>	Percentage of People Living in Urban Areas	
					<p>1900 20% </p> <p>1990 40% </p> <p>2010 50% </p> <p>2030 60% </p> <p>2050 70% </p>	

Global Challenges in Transportation (2)

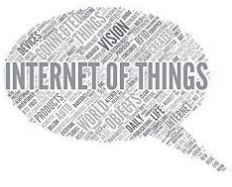
<p>Traffic Congestion</p>  <ul style="list-style-type: none"> Stifling economic growth by ~2% GDP (2) Equivalent of \$1.5 trillion cost to the economy 	<p>Pollution</p>  <ul style="list-style-type: none"> Transport provides 14% of global CO₂ emissions, 4.5 gigatonnes per year 7 million premature deaths per year linked to pollution (3) 	<p>Journey Times</p>  <ul style="list-style-type: none"> Globally over 2 billion hours per year are spent by the population commuting alone (4) 	<p>Fuel Waste</p>  <ul style="list-style-type: none"> 5.95 billions litres of fuel is wasted annually in advanced economies by vehicles idling in congested traffic (5)
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Government and Infrastructure Investment (6)



Public policy is adapting to enable new mobility business models, through opening data, changing legislation, and ensuring continued investment in infrastructure

Connectivity & Convergence (6)

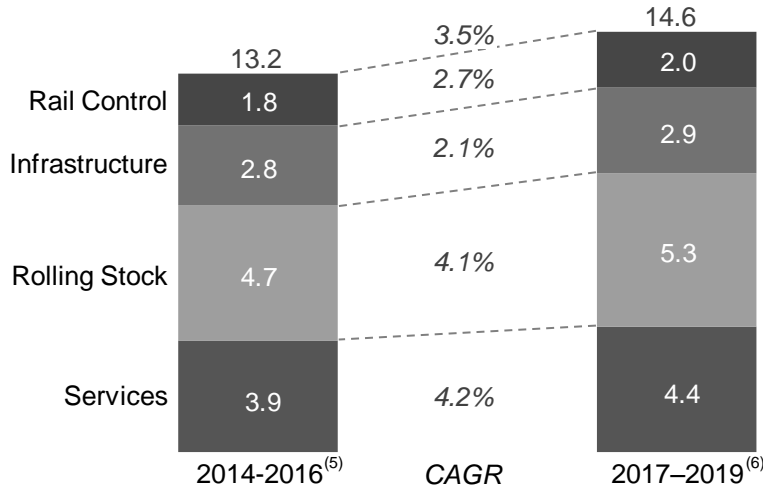


80 billion connected devices by 2025 will see the Internet of Things (IoT) positively impact transportation improving efficiency, information and safety in particular

3-2. Top share in rail PPP

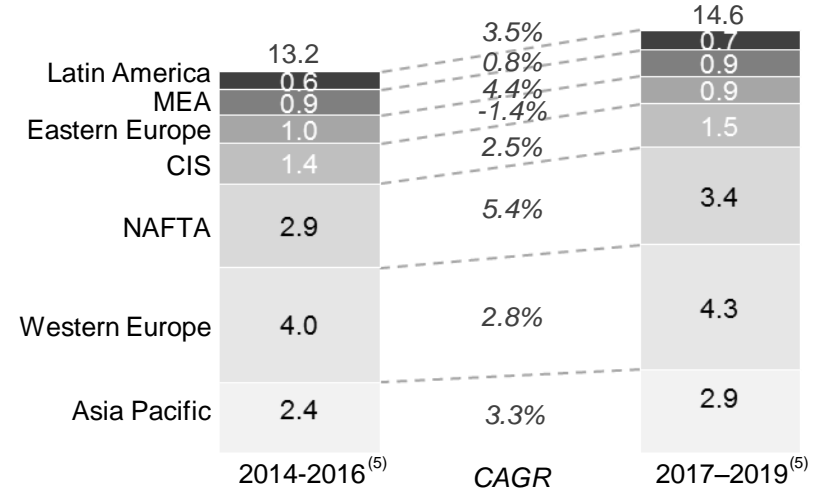
Market Growth by Product ⁽¹⁾

¥Trillions ⁽⁴⁾



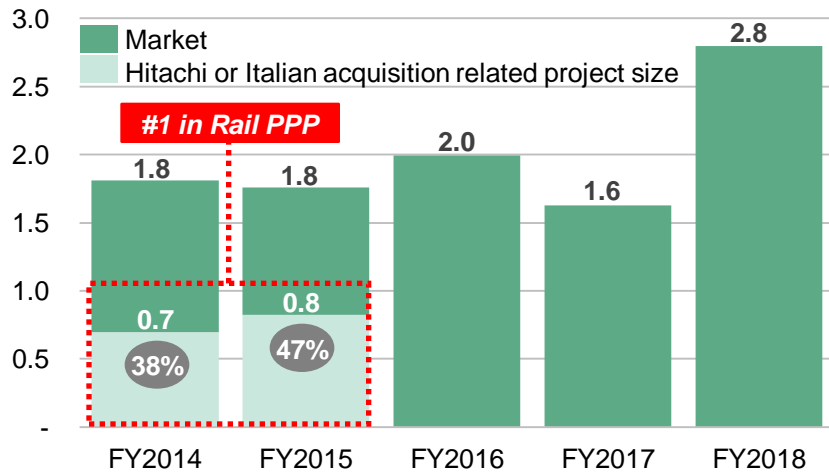
GLOBAL: Market Growth by Geography ⁽¹⁾

¥Trillions ⁽⁴⁾



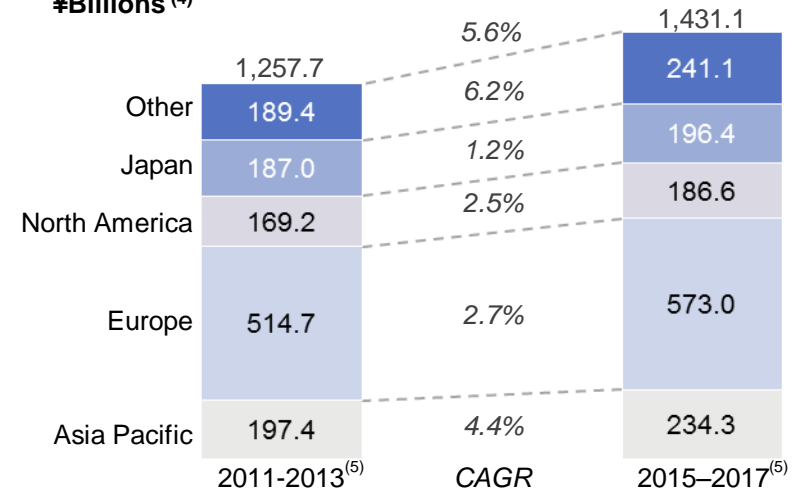
SERVICE: Global Rail PPP Market Order Intake ⁽²⁾

¥Trillions ⁽⁴⁾



INNOVATION: Rail IT Market Growth by Geography ⁽³⁾

¥Billions ⁽⁴⁾

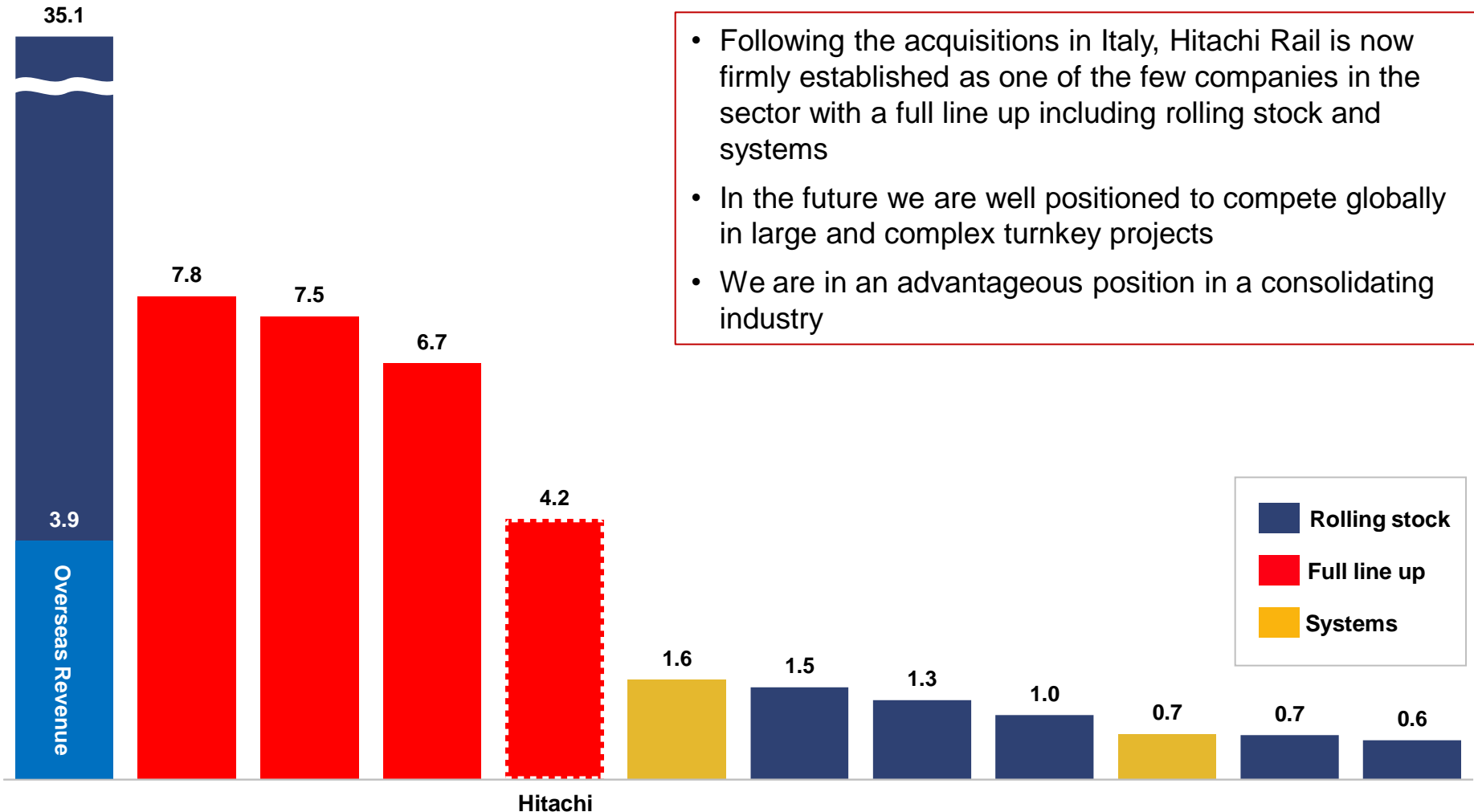


Sources: (1) UNIFE Market Study (2) Infranews, Hitachi analysis based on full project values which may include civil engineering (3) InnovITS & IDC (4) €1 = ¥120 (5) Average for period
PPP: Public Private Partnerships

3-3. We have strengthened our position

2016 Revenue by Competitor ⁽¹⁾

€Billions



- Following the acquisitions in Italy, Hitachi Rail is now firmly established as one of the few companies in the sector with a full line up including rolling stock and systems
- In the future we are well positioned to compete globally in large and complex turnkey projects
- We are in an advantageous position in a consolidating industry

Sources: (1) Capital IQ analyst consensus, company guidance and Hitachi Rail analysis

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4-1. Our strategic themes and integration plan

Integration of the acquisitions permeates all our strategic themes

Global	Service	Innovation
Leverage from global scale whilst operating with a sustainable local presence that is able to take advantage of local knowledge and influence key stakeholders	Optimise the business portfolio to avoid overdependence on specific products and services as well as strengthen our integrated product-service solutions	Succeed by understanding and anticipating our clients' needs, drawing on Hitachi's full capability to be at the forefront of innovation in the global rail industry

Rolling Stock Integration

- Hitachi Rail Italy: global production capacity increases, knowledge transfer begins, joint bids in development
- Delivering for customers: West of England
- Consolidated financial reporting and corporate policy roll-out
- Cross-business teams working together to identify growth opportunities, cost and process improvements

Innovate & Create Value

- Collaboration with Ansaldo STS, a Hitachi Group Company, to grow signalling and turnkey business; create value for both organisations
- Optimise Hitachi product portfolio; strengthen services, operation & maintenance business
- Align the organisation (its people, systems and processes) to respond to global business opportunities

Leverage Hitachi

- Bring together innovation from across the Hitachi Group – including IoT – to develop and deliver unique, integrated products and services for rail

FY2015

FY2016

FY2017

FY2018

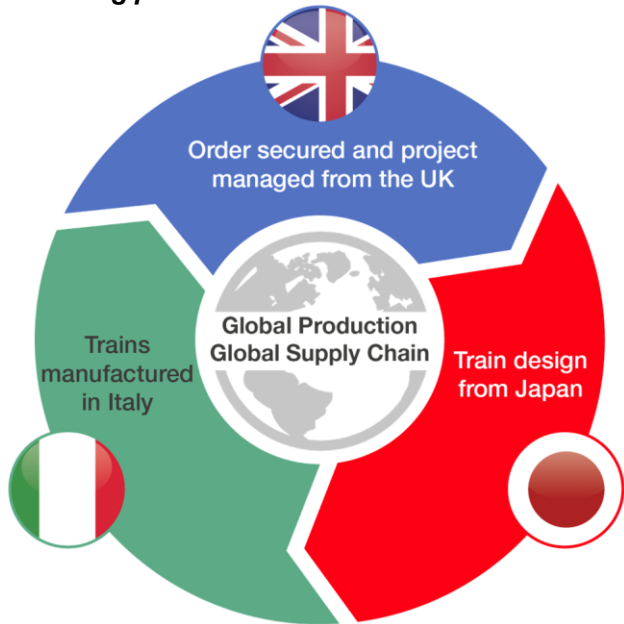
4-2. We are building on our global capability

Global

We will leverage from global scale whilst operating with a sustainable local presence that is able to take advantage of local knowledge and influence key stakeholders. This will result in a balanced global portfolio of projects mitigating the risk related to an overdependence on a specific geography.

Delivering Global Synergies – West of England

Hitachi Rail closed the West of England project for 173 cars to the value of £361m. Our new Global Production approach has allowed us to manufacture the trains in Italy, diminishing risk from the existing production constraints.



How does West of England contribute to our financial objectives?

Increase Global Market Share

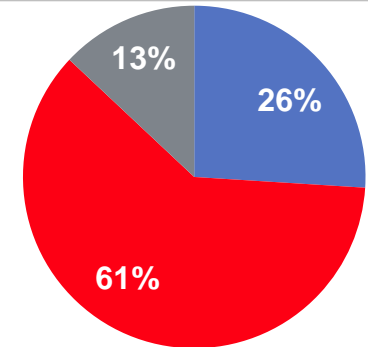
Optimisation of production and the supply chain globally to allow for increased capacity and delivery of projects globally

Expand Project Margins

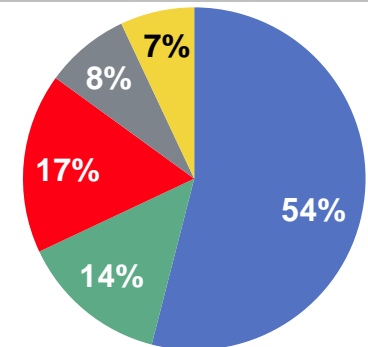
Expansion of our project margins by leveraging scale through the global supply chain and global production

Rebalancing the Portfolio

FY2014 Revenue Result %



FY2018 Revenue Target %

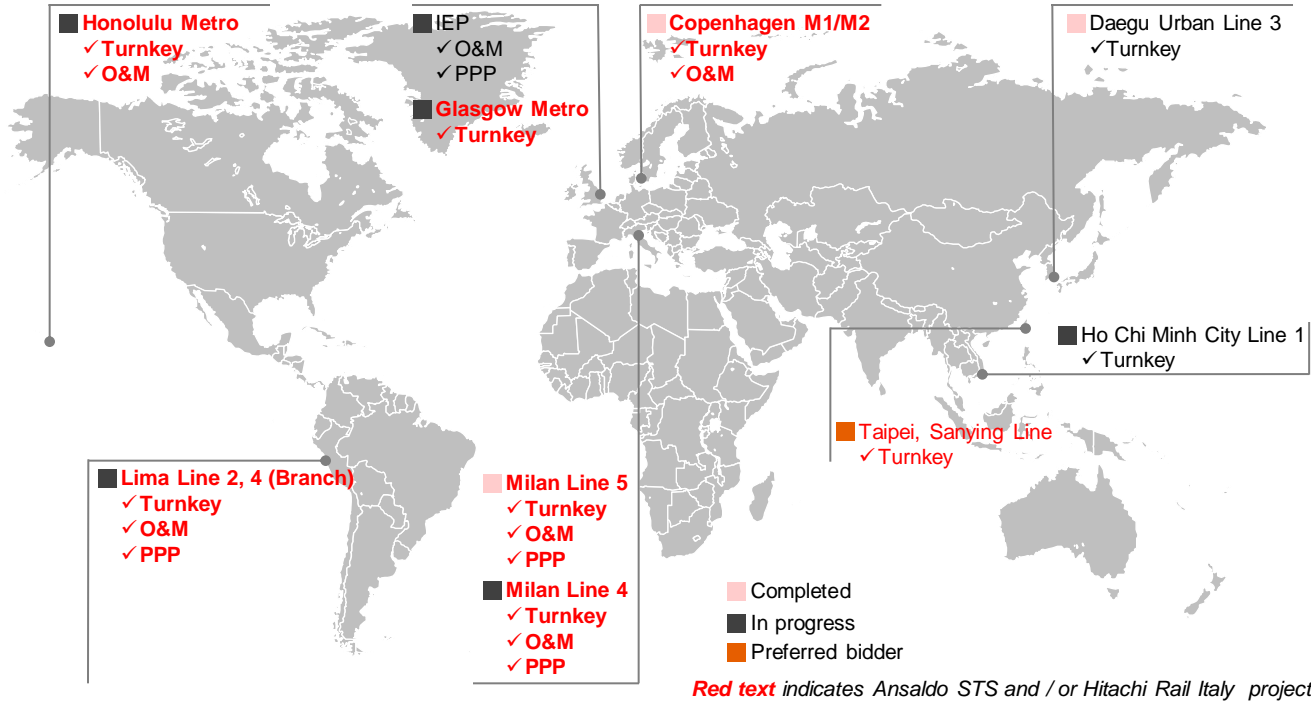


4-3. We are transforming our business portfolio

Service

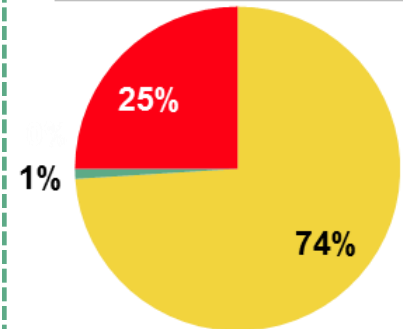
We will optimise the business portfolio to avoid overdependence on specific products and services as well as strengthen our integrated product-service solutions. This includes the Turnkey market (typically includes O&M, Rolling Stock & Signalling) where we can leverage our balance sheet and rebalance the product mix.

Rail as a Service – Turnkey, O&M or PPP Projects

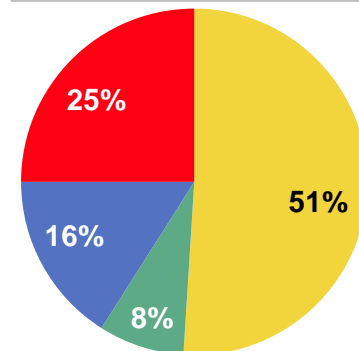


Rebalancing the Portfolio

FY2014 Revenue Result %



FY2018 Revenue Target %



How does Rail as a Service contribute to our financial objectives?

Increase Global Market Share

Improvement of our chances of winning by leveraging Hitachi's balance sheet and relationship banks to provide low cost of finance solutions

Transform the Revenue Mix

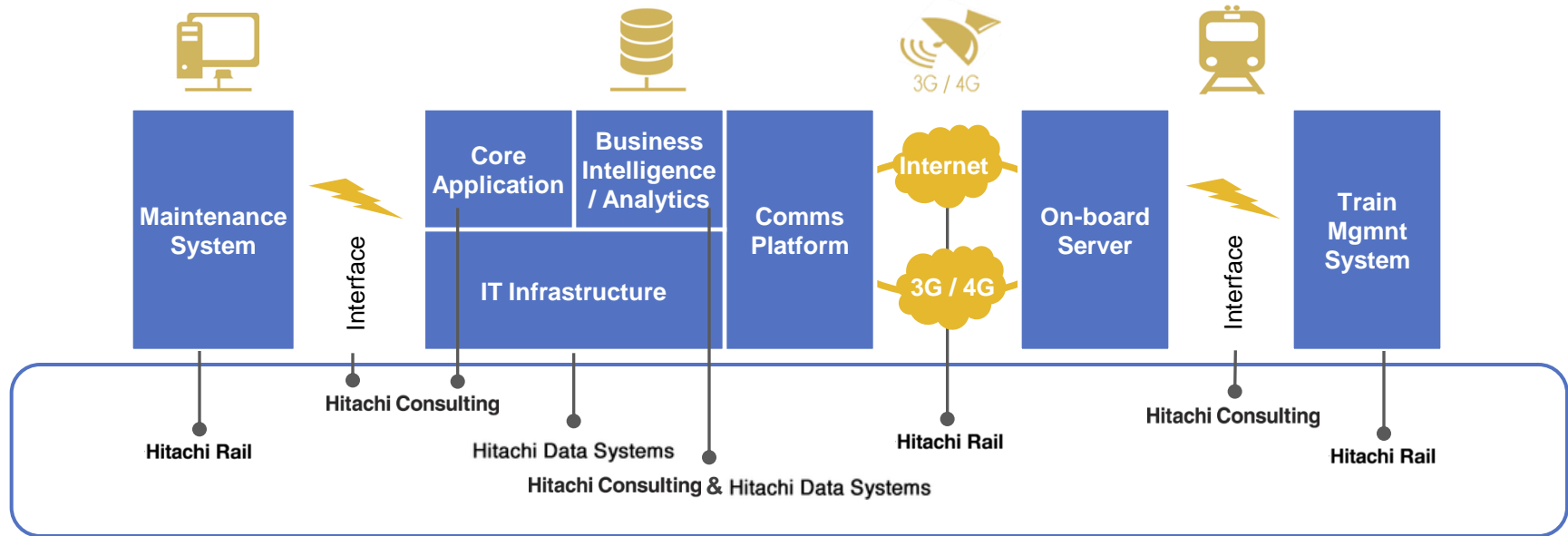
Typically PPP projects are turnkey that include the build of rolling stock and systems plus the long term operation and maintenance of the network

4-4. We continue to innovate with IoT

Innovation

We will succeed by understanding and anticipating our clients' needs, drawing on Hitachi's full capability to be at the forefront of innovation in the global rail industry

Next generation remote maintenance – Leveraging Hitachi to deliver integrated solutions



How does next generation remote maintenance contribute to our financial objectives?

Expand Project Margins

Cost savings for train maintenance through automation of inspections and rapid remote diagnosis

Improve the CCC

Reduction of inventory days by extending the replacement cycle, optimisation of stock and the supply chain

Expand the Revenue Mix

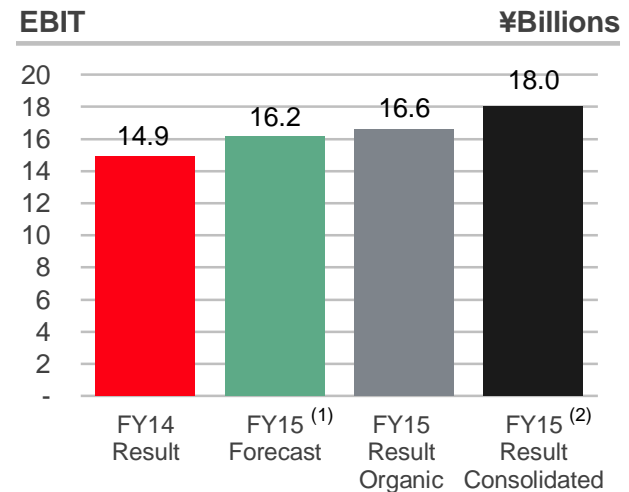
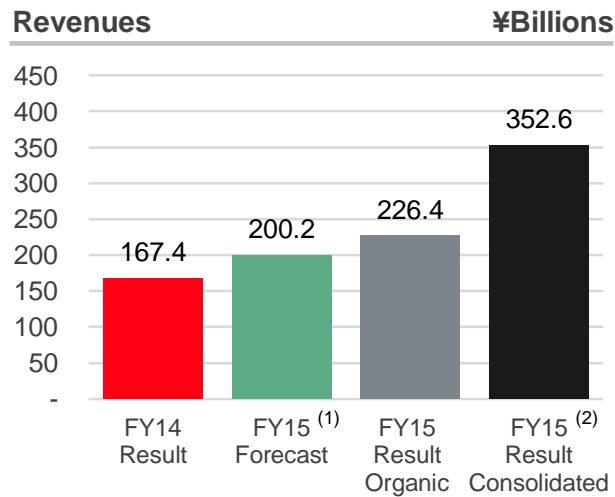
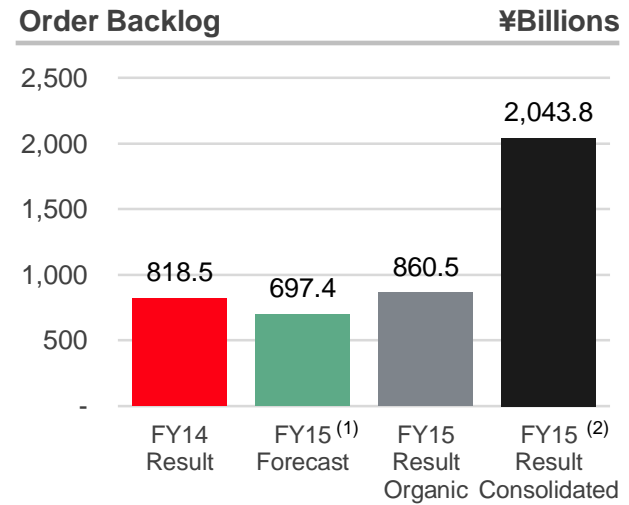
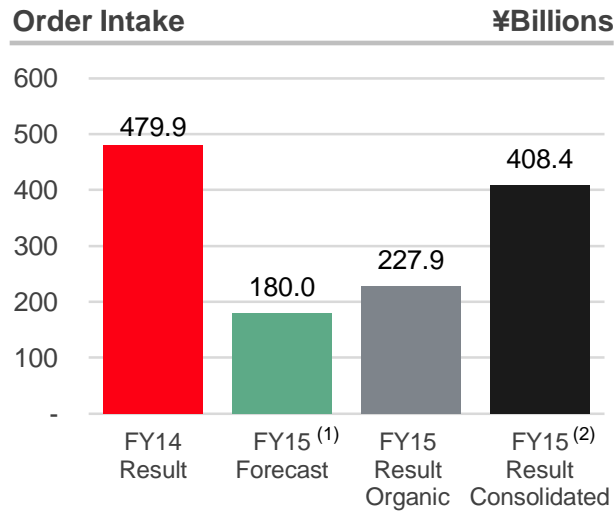
Improvement of our O&M win rate through savings that next generation Reliability Centred Maintenance and Condition Monitoring will bring to the maintenance plan

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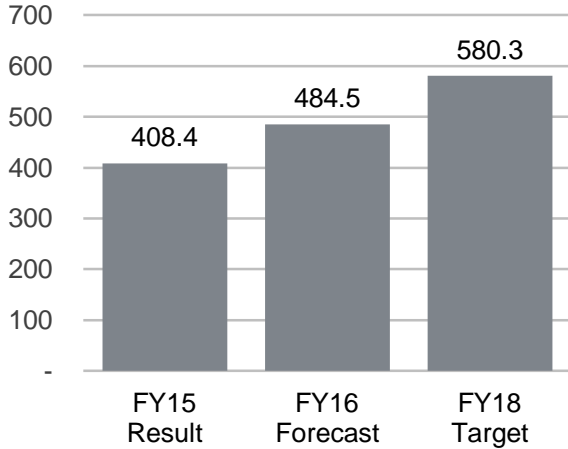
5-1. We realised our targets in FY2015...



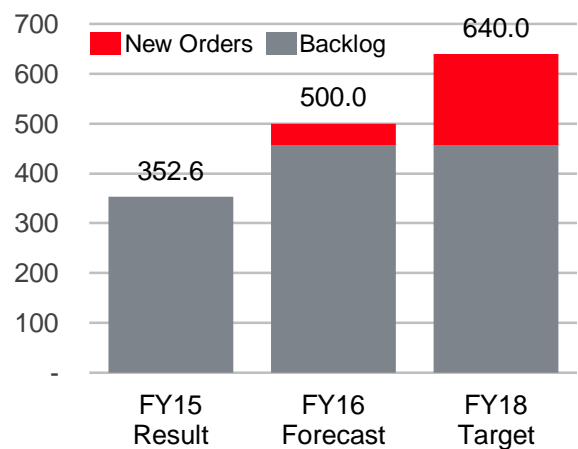
(1) Forecast as of June 11, 2015 (2) Includes 5 months only

5-2. ...and have set ambitious mid term targets

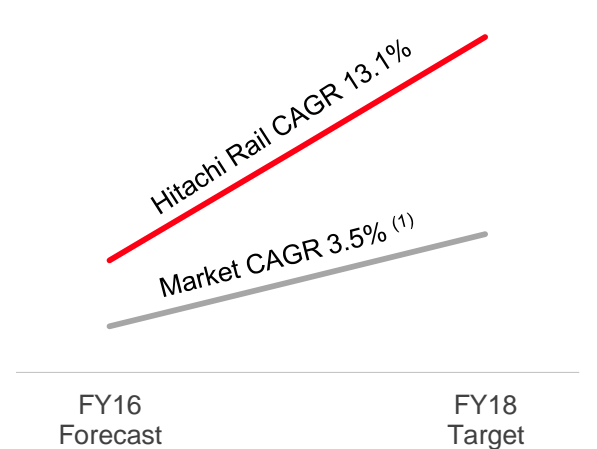
Order Intake ¥Billions



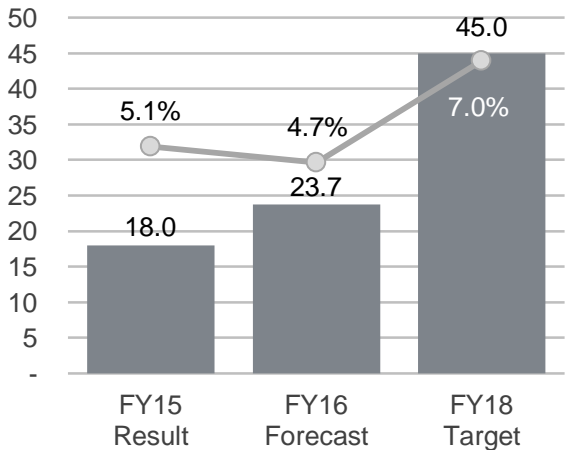
Revenue by Order Type ¥Billions



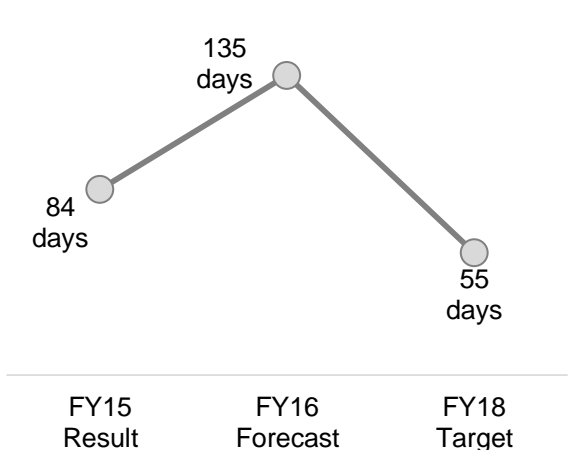
Hitachi Rail vs Market %



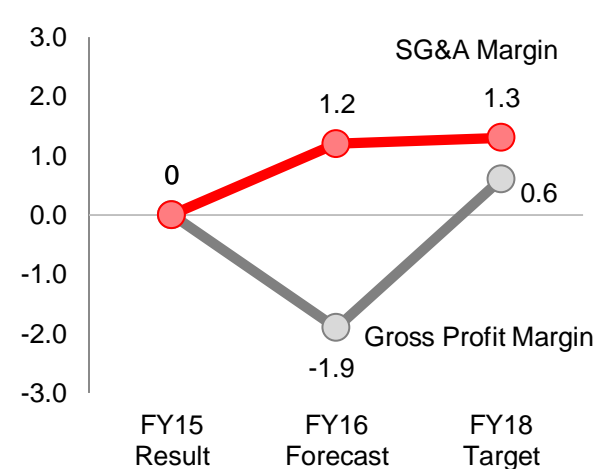
EBIT Ratio ¥Billions | %



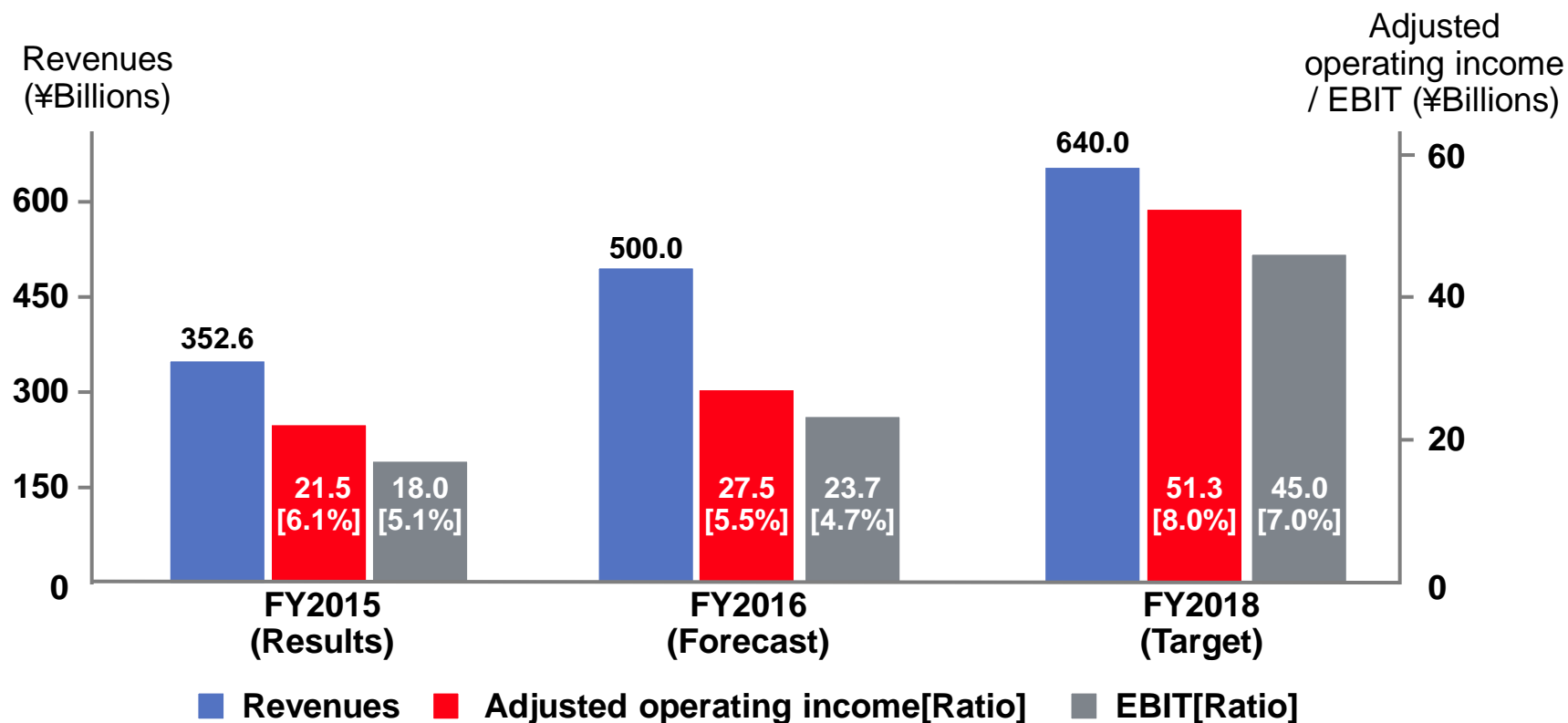
Cash Conversion Cycle Days



Improvement rate in SG&A | Gross Profit Margin %



5-3. Performance trend



5-4. Free Cash Flow is transformed through IEP

	FY2015 (Result)	FY2016 (Forecast)	FY2018 (Target)
CCC	84 days	135 days	55 days
Free Cash Flow	¥-89.6 billion	¥-72.0 billion	¥64.2 billion
Operating Cash Flow	¥-4.7 billion	¥-39.5 billion	¥92.9 billion
Investment Cash Flow	¥-84.8 billion	¥-32.5 billion	¥-28.7 billion

Strengthening cash generating capability and improving asset efficiency

- Implementation of factoring programme
- Promotion of advance receipts for jumbo projects
- First payments received from the Intercity Express Programme will be from FY2017

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- A year of growth in existing markets and integration of the game changing acquisitions in Italy
- Surpassed our forecasts and have a backlog to support revenues of ¥500bn in the current year, helped by Italy acquisitions consolidation
- Transformation of sales mix with top PPP market share, increased O&M and globalisation
- O&M and turnkey to rise from 1% in FY2014 to 24% of sales in FY2018
- Revenue balanced between Asia and Europe with a growing presence in the Americas
- Turnkey capability *plus* local presence *plus* Hitachi technologies = the world's fastest-growing rail business

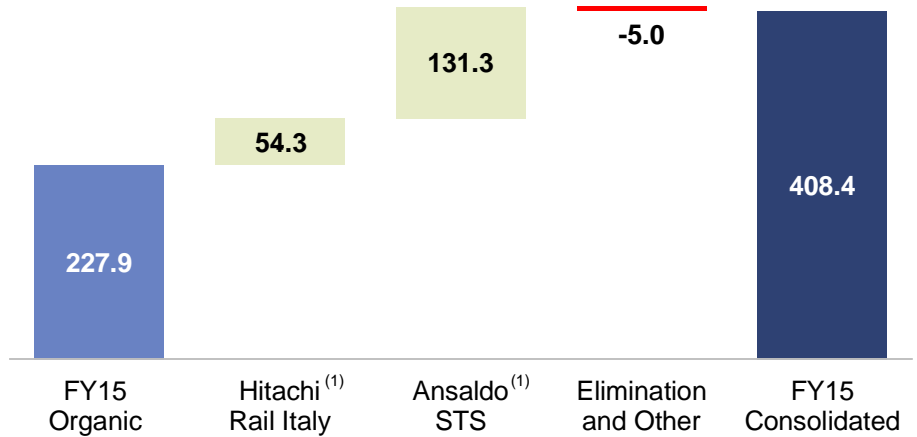
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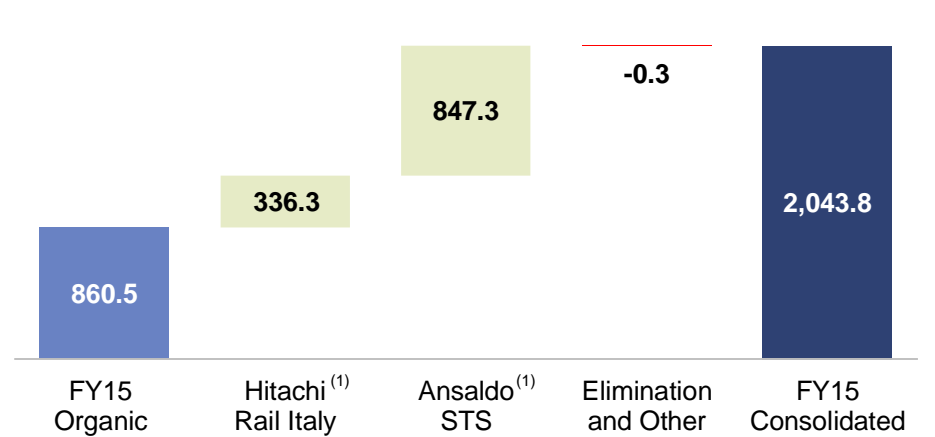
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ASTS	Ansaldo STS	IoT	Internet of Things
CAGR	Compound Annual Growth Rate	LRV	Light Rail Vehicle
CBTC	Communications-Based Train Control	MEA	Middle East and Africa
CCC	Cash Conversion Cycle	NAFTA	North American Free Trade Agreement
CI	Converter Inverter	O&M	Operations & Maintenance
CIS	Commonwealth of Independent States	PPP	Public Private Partnerships
CRRC	China Railway Rolling Stock Corporation	PTC	Positive Train Control
EBIT	Earnings before Interest and Taxes	RS	Rolling Stock
ETCS	European Train Control System	SG&A	Selling, General and Administrative Expenses
GDP	Gross Domestic Product	TMS	Traffic Management System
HVAC	Heating, Ventilation and Air Conditioning	TPE	TransPennine Express
HRI	Hitachi Rail Italy	WoE	West of England
IEP	Intercity Express Programme	WHO	World Health Organisation
IFRS	International Financial Reporting Standards		

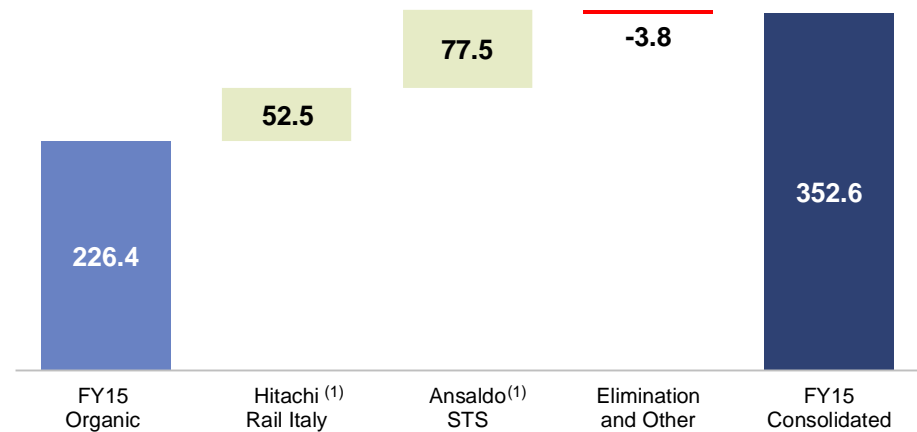
Order Intake ¥Billions



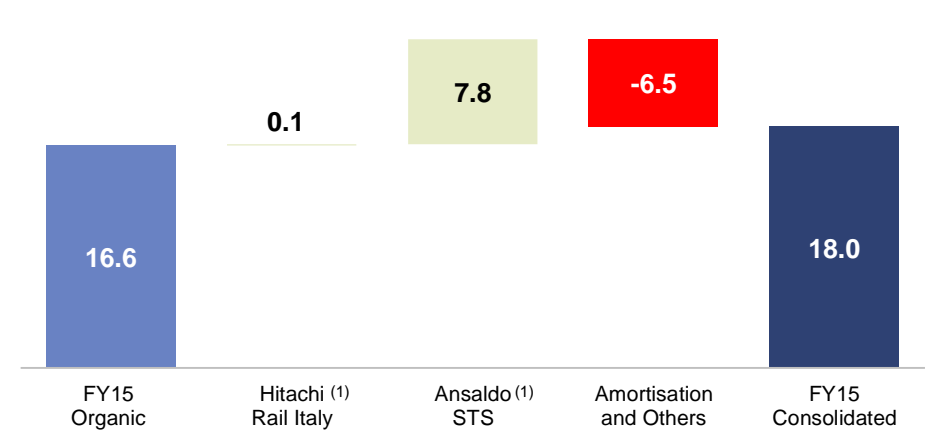
Order Backlog ¥Billions



Revenue ¥Billions



EBIT ¥Billions



(1) Includes 5 months only

Innovation

We will succeed by understanding and anticipating our clients' needs, drawing on Hitachi's full capability to be at the forefront of innovation in the global rail industry

Internet of Things Master Vision

Maintenance – Asset Side

Show how the next maintenance solutions contribute to O&M business expansion for our new company. For example, predictive maintenance and enterprise asset management

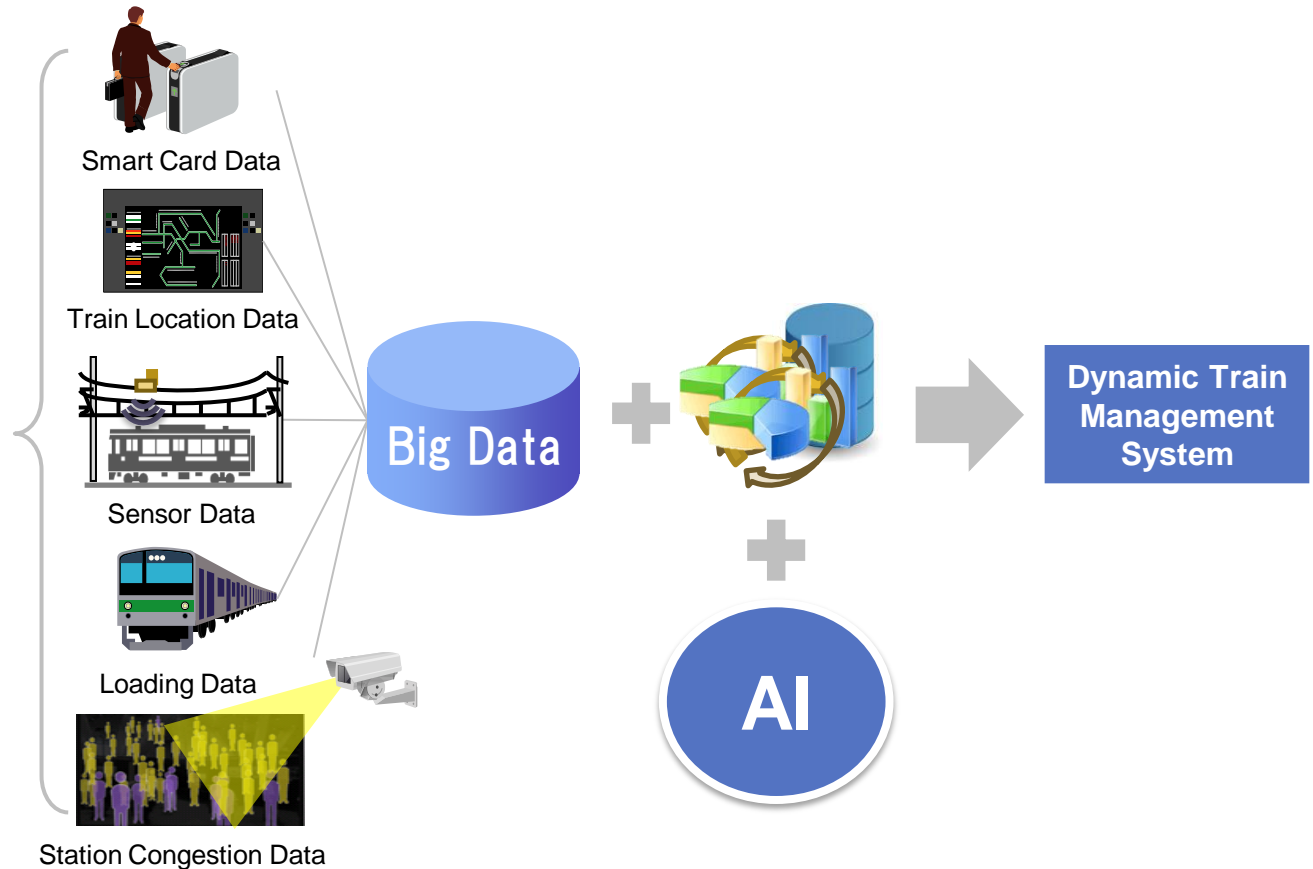
Planning – Human Side

Show how the next Rail Operation Planning (ROP) support the advanced traffic management & control systems. For example, suitable time table planning for increasing capacity

Travelling – Human Side

Show how the next Travelling solutions provide an efficient core network for multimodal intercity travel and transport. For example interoperable payment systems for increased passenger convenience

Planning Example – Passenger Flow Solutions



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.

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Inspire the Next