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Hitachi Rail Introduction and a Vision of the Future

Hitachi Social Innovation Forum
Brisbane 2017

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Hitachi Australia Pty Ltd

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1. Hitachi Rail Intro
2. Key Achievement
3. Hitachi's Rail Future

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Our business in Hitachi (FY2016)

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■Financial Services * 2

■Others * 1

■Smart Life & Ecofriendly Systems

■Automotive Systems

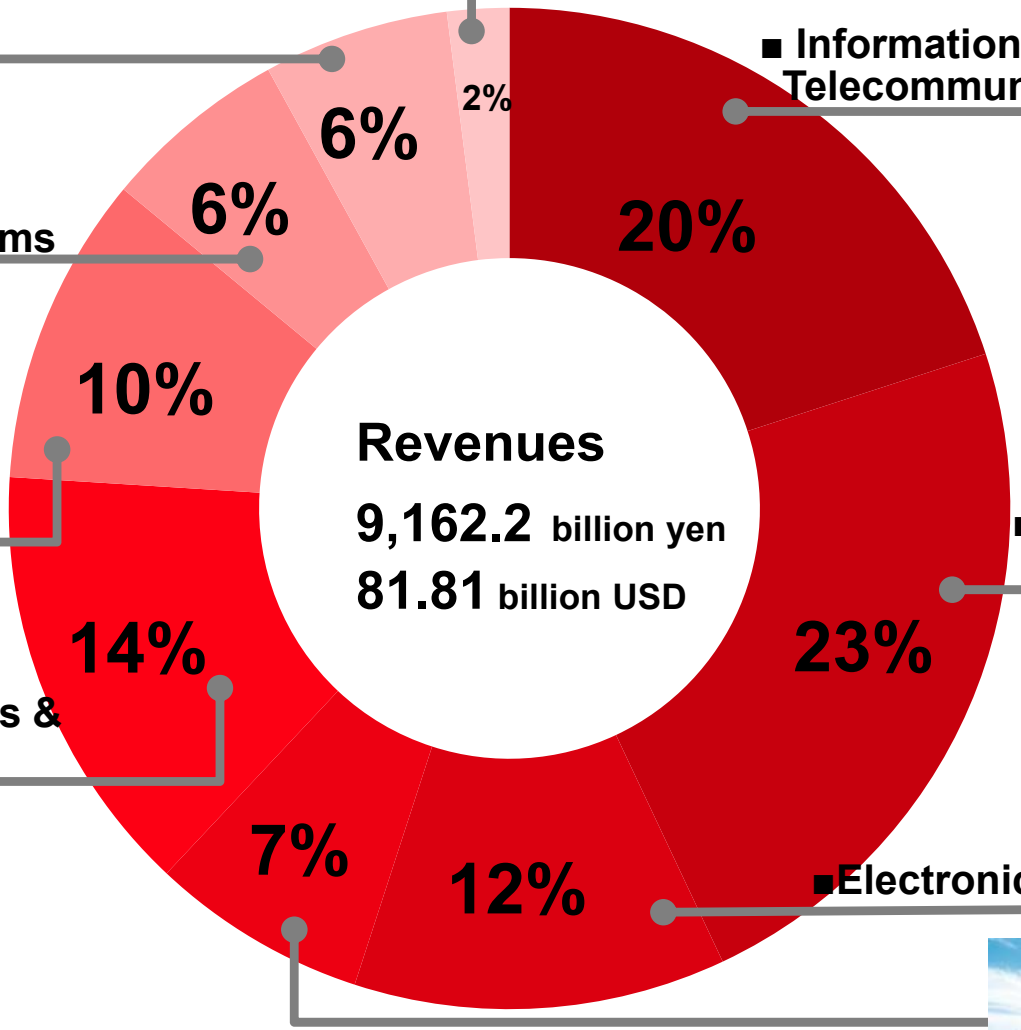
■ Information & Telecommunication Systems

■ Social Infrastructure & Industrial Systems

■Electronic Systems & Equipment

■High Functional Materials & Components

■Construction Machinery



*1: Hitachi Transport System, Ltd. which is included in "Others" became equity-methods affiliate of Hitachi, Ltd. on May 19, 2016.
*2: Hitachi Capital Corporation which constitute of "Financial Services" became equity-methods affiliate of Hitachi, Ltd. on October 3, 2016.

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Global Rail business performance FY2016

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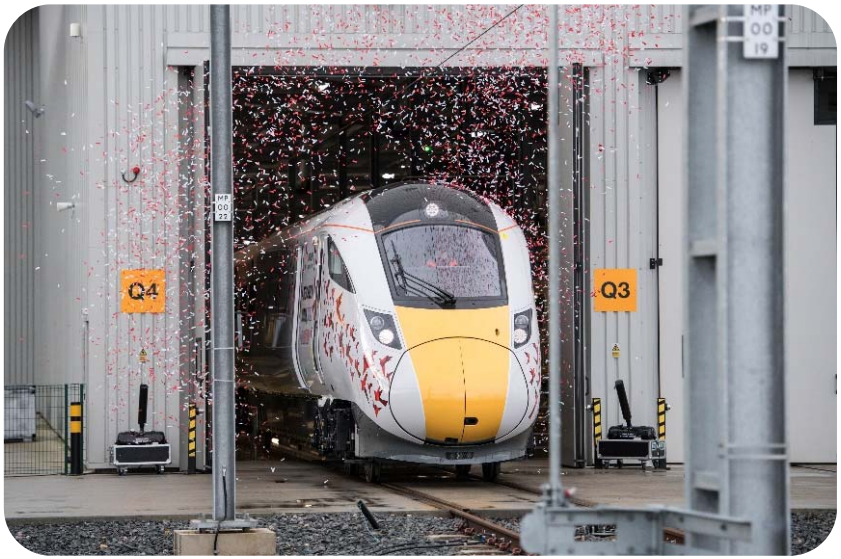

First IEP train manufactured in UK

Hitachi Rail Italy delivers first train to Miami Dade County, USA

FY2016 Results

Revenues

¥ 497.9bn
A$6.22Bn

Order Intake

¥ 473.1bn
A$5.91bn

Order Backlog

¥ 2,020.5bn
A$25.26Bn

Note: FX Rate used 1AUD = 80JPY.
FY2016 results, as of March 30th, 2017.

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Our rail business has a full product range…

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53% ROLLING STOCK

Rolling Stock

Very High Speed

Shinkansen

Commuter

Intercity

LRV

Metro

Monorail

Components

Bogies

Traction Motor

Traction Inverters & Transformers

HVAC

26% SIGNALLING & SYSTEMS

Signalling & Traffic Management

Interlocking

Satellite Train Control

CBTC

Components

TMS

ETCS

Driverless

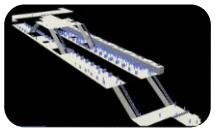
Facility Control

Station & Information Solutions

Passenger Information

Ticketing & Payment

Security


Crowd Flow Management

8% O&M

RS Refurbishment

RS Maintenance

Signalling O&M

Asset Management

13% TURNKEY

LRV: Light Rail Vehicle, HVAC: Heating, Ventilation and Air Conditioning, TMS: Train Management System, ETCS: European Train Control System, CBTC: Communications-based Train Control, O&M: Operations & Maintenance, RS: Rolling Stock

As a % of FY16 revenues

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We have an international footprint…

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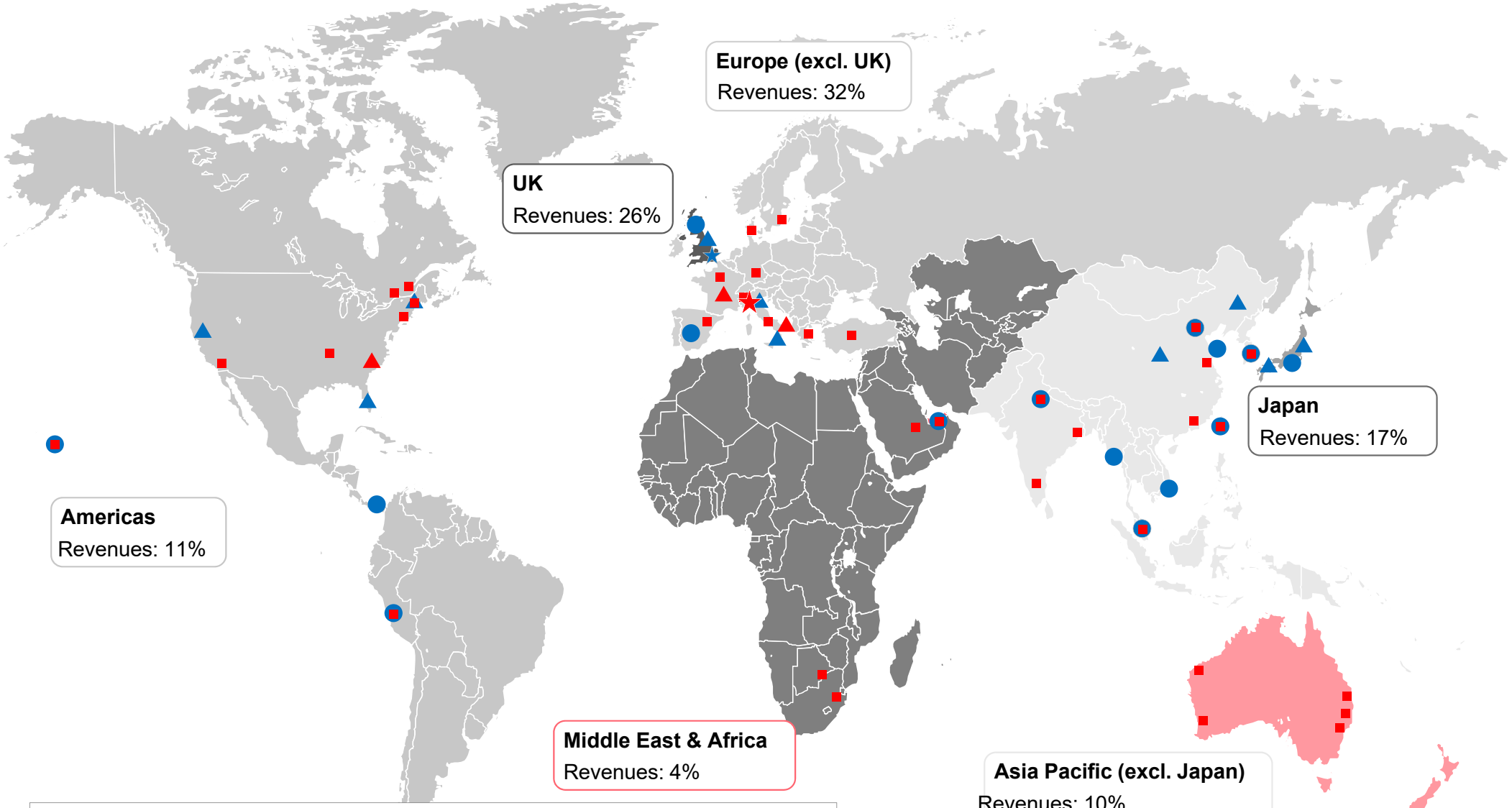
We have a geographically diverse business with the ability to bid effectively on major projects all over the world



OFFICES / SALES PRESENCE	HEADQUARTERS	FACTORIES
● Hitachi Rail	★ Hitachi Rail	▲ Hitachi Rail
■ Ansaldo STS	★ Ansaldo STS	▲ Ansaldo STS

Total global headcount – 11,091 (1)

Note: Percentages represent geographical split of FY16 revenues.
(1) – Headcount as at 31 March 2017

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Global production

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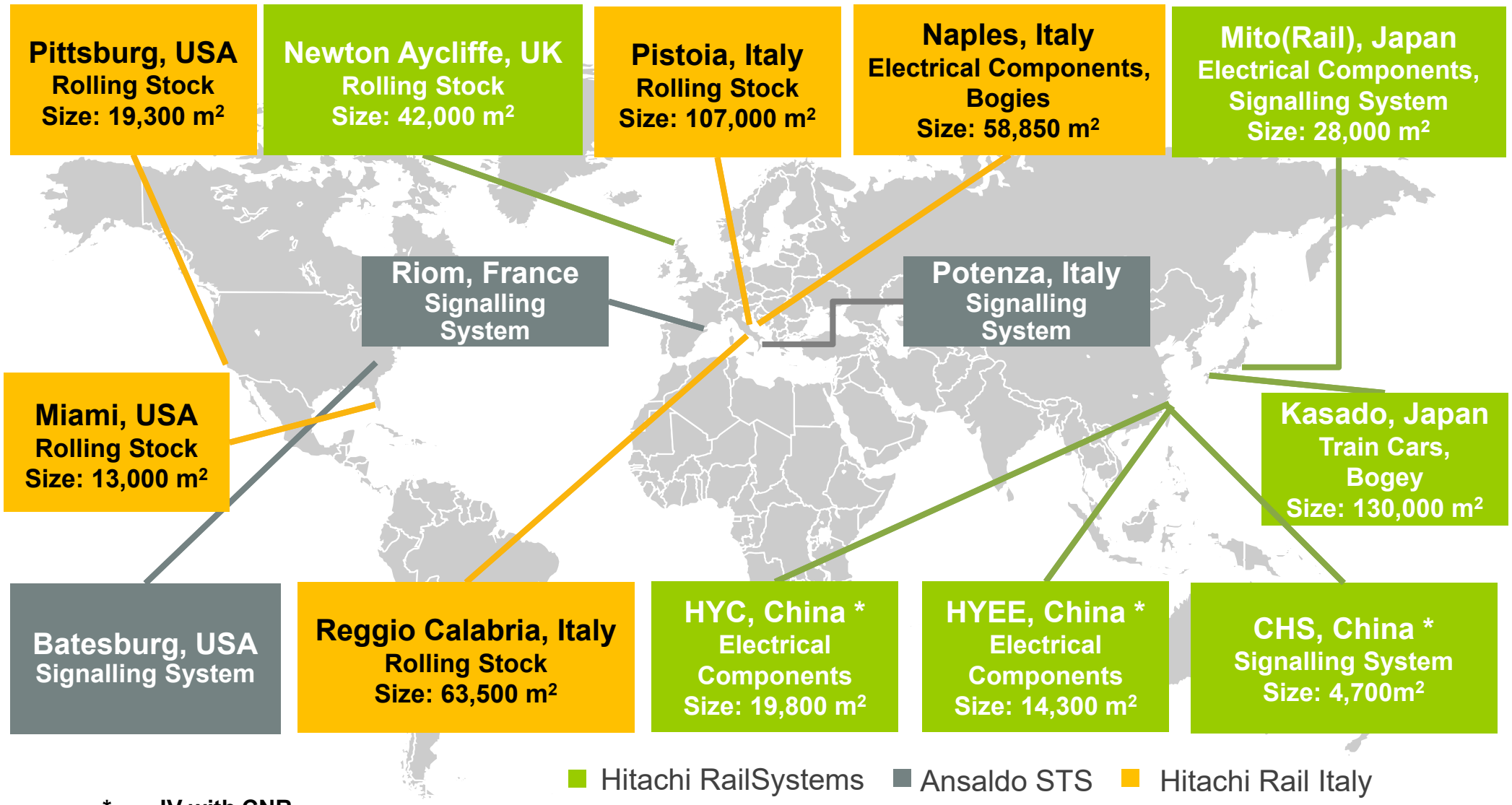

* JV with CNR.

HYEE : CRRC xi'an YongeJieTong Electric Co., Ltd.

HYC : Hitachi Yonge Electric Equipment (Changchun) Co., Ltd.)

CHS : Qingdao CNR Hitachi Railway Signal&Communication Co., Ltd.

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Key Achievement in FY2016 – Investing in our future and delivering for our customers

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Delivering Projects

Testing began on the first of 70 commuter trains for Scotland

The first driverless train for new Lima Metro arrived in Peru

First train delivered to Miami Dade County USA as part of 68 Metro train contract

Delivered first 4 cars of 68 car order to Taipei Metro for driverless metro system

Hitachi-built battery powered trains began operation for Kyushu Railway Company & East Japan Railway Company

Investing in Facilities

Our newly-refurbished UK Doncaster maintenance depot receives its first train

Inauguration of new Pistoia Italy Testing Facility attended by then Prime Minister Matteo Renzi

Production started at Pistoia Italy on GWR contract for the UK

Our purpose-built IEP maintenance depot in Swansea UK became operational

Key Achievements

The first UK-built IEP train was unveiled at Newton Aycliffe manufacturing facility

Hitachi Rail and Trenitalia unveiled new double-deck regional train - Rock

Hitachi Rail showcased its integrated global rail offering at the bi-annual InnoTrans exhibition in Berlin Germany

20th anniversary for Hitachi designed Tokyo Area Traffic Management System

IEP: Intercity Express Programme, GWR: Great Western Railway

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Key Achievement in FY2016 –
We continue to win major contracts in the global market

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UK
RS

West of England options – 7 x 9 car AT300 bi-mode sets

UK
RS

Hull trains – 5 x 5 car AT300 bi-mode sets

Italy
RS

Framework agreement for up to 300 regional double-deck trains

India
Signalling

CBTC systems for Noida-Greater Noida Metro Project

China
Components

HVAC & High Voltage Equipment for CRRC and Traction for Xi'an Metro Line1

Japan
RS

Inspection car MAYA35 for Hokkaido Railway Company

USA
Signalling

Long Island Rail Road to design and build a new signalling system

Taiwan
RS / Turnkey

Turnkey and 29 two-car trainsets for the Sanying Line in New Taipei City

USA
RS

Baltimore Metro Subway Link – 78 new trains with CBTC signalling

Belgium
Signalling

Brussels Metro signalling system renewal

Italy
RS

Additional 15 "Leonardo" metro trains for the city of Milan

Italy
Services

Three contracts for control, monitoring and maintenance of Trenitalia trains

Malaysia
Signalling

Upgrade of signalling works within a section of Klang Valley railway

Australia
Signalling

Complete system for Perth's Forrestfield - Airport Link

CRRC: China Railway Rolling Stock Corporation
SGTP: Sydney Growth Train Project
RS: Rolling Stock

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Track Record and on-going projects in Australia

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We have 40 years experience in the Australian Rail market with offices in Sydney, Brisbane, Perth, Newcastle and Karratha

Western Australia Signalling

Signalling and communications system for the Roy Hill Iron Ore Project

Western Australia Signalling

Rio Tinto signalling, communications, train control and automation systems

Sydney RS Components

Waratah Train traction supply (624 cars)

Melbourne RS Design

Design of the Silver Liner EMU's

Sydney RS Components

traction supply (on-going project)

Australia Signalling

Complete system for Perth's Forrestfield - Airport Link (on-going project)

Queensland RS

Tilting EMU (12 cars)

Queensland RS Components

Electric Locomotive traction supply (22 cars)

Queensland RS Components

Electric Locomotive traction supply (86 cars)

Denotes Ansaldo STS Project

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Key Achievement– Intercity Express Programme

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Background

UK Department for Transport's £7.5 billion programme to replace older intercity trains currently operating on the East Coast and Great Western Main Lines

1976 **2017**

Project Details

- Total of 122 trains (866 cars)
- Includes bi-mode sets for non-electrified routes
- Construction of new depots for fleet maintenance
- Maintenance of the fleet for 27.5 years
- Collaborative interior design process

Project Benefits

- 30% more seats capacity
- 30% reduced journey time London to Bristol
- 15% reduced journey time London to Edinburgh
- 18% saving in energy consumption
- 43% saving in track damage
- Largest privately financed rolling stock deal ever
- One of the largest Public Private Partnerships projects to date

An award winning project

Partnerships AWARDS 2013 — Partnership Bulletin — Pathfinder Project of the Year

Partnerships AWARDS 2013 — Partnership Bulletin — Global Grand Prix Project

Partnerships AWARDS 2013 — Partnership Bulletin — Legal Adviser of the Year

Partnerships AWARDS 2013 — Partnership Bulletin — Transport Project of the Year

ProjectFinance — Project Finance Magazine — European Rolling Stock Project of the Year

The American Lawyer Global Legal Awards — Global Legal Awards 2014 — Global Finance Deal of the Year, Project Finance, Europe

IJGlobal Awards 2015 — IJ Global Europe & Africa — European Rail Agility Trains East

PFI AWARDS 2012 — PFI Awards — European PPP Project of the Year

LEGAL BUSINESS — Legal Business Awards 2013 — Colin Wilson was highly commended in the prestigious Lawyer of the Year category

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Project Delivery Progress of IEP Project

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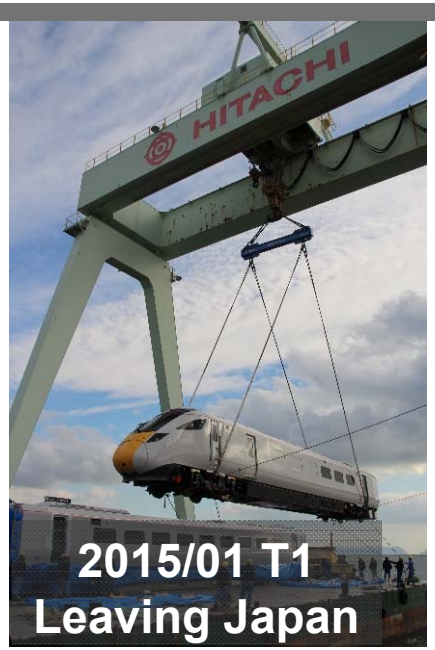
2014/11 1st Train (T1) Manufacturing Completion in Japan



2015/01 T1 Leaving Japan

2015/03 T1 Arrival Southampton, UK

2015/05~ On-going test in UK Network

2015/09 Open of Hitachi Manufacturing Facility at Newton Aycliffe, UK

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Project Delivery Progress of IEP Project

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2016/05 Unveiling
IEP Train (Azuma)

2016/05 Prime Minister's visit
(Mr. D. Cameron & Mr. S. Abe)

2016/12
1st UK built Train
at Newton Aycliffe

2016/05
Queen Elizabeth II Ride

2016/05
Queen Elizabeth II Ride

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Our future and the future of rail as a sector

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- Hitachi Rail has become a major global player within the rail industry and we have ambition to grow further
- We aim to become a ¥1 trillion revenue business with market leading profit margins by:
  - Further strengthening our product offering and leading the way in innovation
  - Continuing the transformation of our business and operations
  - Using M&A to further grow and differentiate our offering

Mr Toshiaki Higashihara – President and CEO, Hitachi, Ltd

"Our aim is to become a ¥1 trillion revenue business by the early 2020s"

Our key areas of external focus that will allow us to achieve our ambitions

Strengthen Core Offering	Grow Rolling Stock Maintenance	Focus on IoT and Digital	Provider of end-to-end solutions	Innovation Leader
High quality manufacturing will remain core to our business and we will invest in expanding and improving our platforms	Further grow our rolling stock maintenance business. Reducing total cost of ownership of our customers will differentiate us	IoT and digital services will enhance our core products and present customers with a truly unique rail offering	Transition to a provider of end-to-end solutions, supported by market-leading technology from across the Hitachi Group	Be an innovation leader in the rail industry, fully utilising the wider Hitachi Group's technology capabilities

IoT = Internet of Things

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Conclusions

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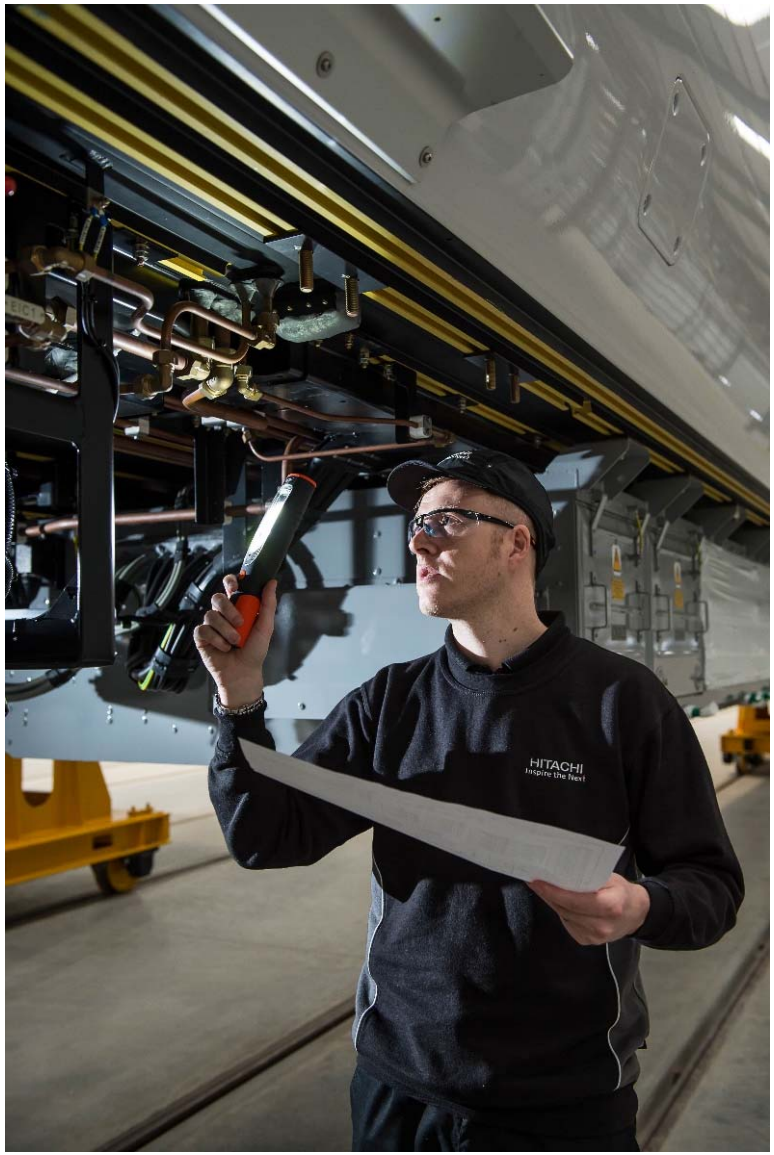
- Our aim is to become a ¥1 trillion revenue business by the early 2020s
- We are investing in core platforms and technologies for future growth
- Our core markets remain strong
- Customers continue to value our technology developed and demonstrated overseas
- IoT is an integral element of our strategy and a clear differentiator for Hitachi.



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Thank You

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