



# Hitachi Rail Investor Days

## Rail Control LoB Presentation

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# 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 report.

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, 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;
- 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;
- credit conditions of Hitachi’s customers and suppliers;
- 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 Hitachi’s ability to respond to tightening of regulations to prevent climate change
- 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 Hitachi’s ability to attract and retain skilled personnel;
- 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 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;
- estimates, fluctuations in cost and cancellation of long-term projects for which Hitachi uses the percentage-of-completion method to recognize revenue from sales;
- increased commoditization of and intensifying price competition for products;
- fluctuations in demand of products, etc. and industry capacity;
- uncertainty as to Hitachi’s ability to implement measures to reduce the potential negative impact of fluctuations in demand of products, etc., exchange rates and/or price of raw materials or shortages of materials, parts and components;
- uncertainty as to the success of cost structure overhaul;
- 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; *(There are legal restrictions which would prevent certain information being disclosed in connection with the acquisition of the Ground Transportation Systems business from Thales SA as provided for in the sale and purchase agreement)*
- 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;
- 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;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property; 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 elsewhere in this report.

## Market Segments

### Mainline

Rail networks to connect major cities and regions, designed for long-distance:

- High Speed lines
- Regional lines
- Freight lines

### Urban

High-frequency, flexible capacity, intra-city transit systems within cities:

- Metro lines
- LRT/ tramway lines
- Commuter lines
- APM/ monorail

## Key market solutions

### Signalling Systems

Equipment and devices managing safe train movement ensuring safety, efficiency and smart power management. Includes Interlocking, Radio Block Centre, track circuits, axle counters, point machines, LED signals, Onboard train protection, balises, etc.

Operate

### Operations mgmt (incl. Passenger Services)

OCCs are centralised facilities for monitoring and controlling train operations. They manage scheduling, routing, timetable adherence, and conflict resolution, using AI and advanced algorithms to propose and automatically implement optimal responses to operational disruptions. Additionally, they include systems for passenger information, integrated ticketing, and fare management to enhance the travel experience.

Control

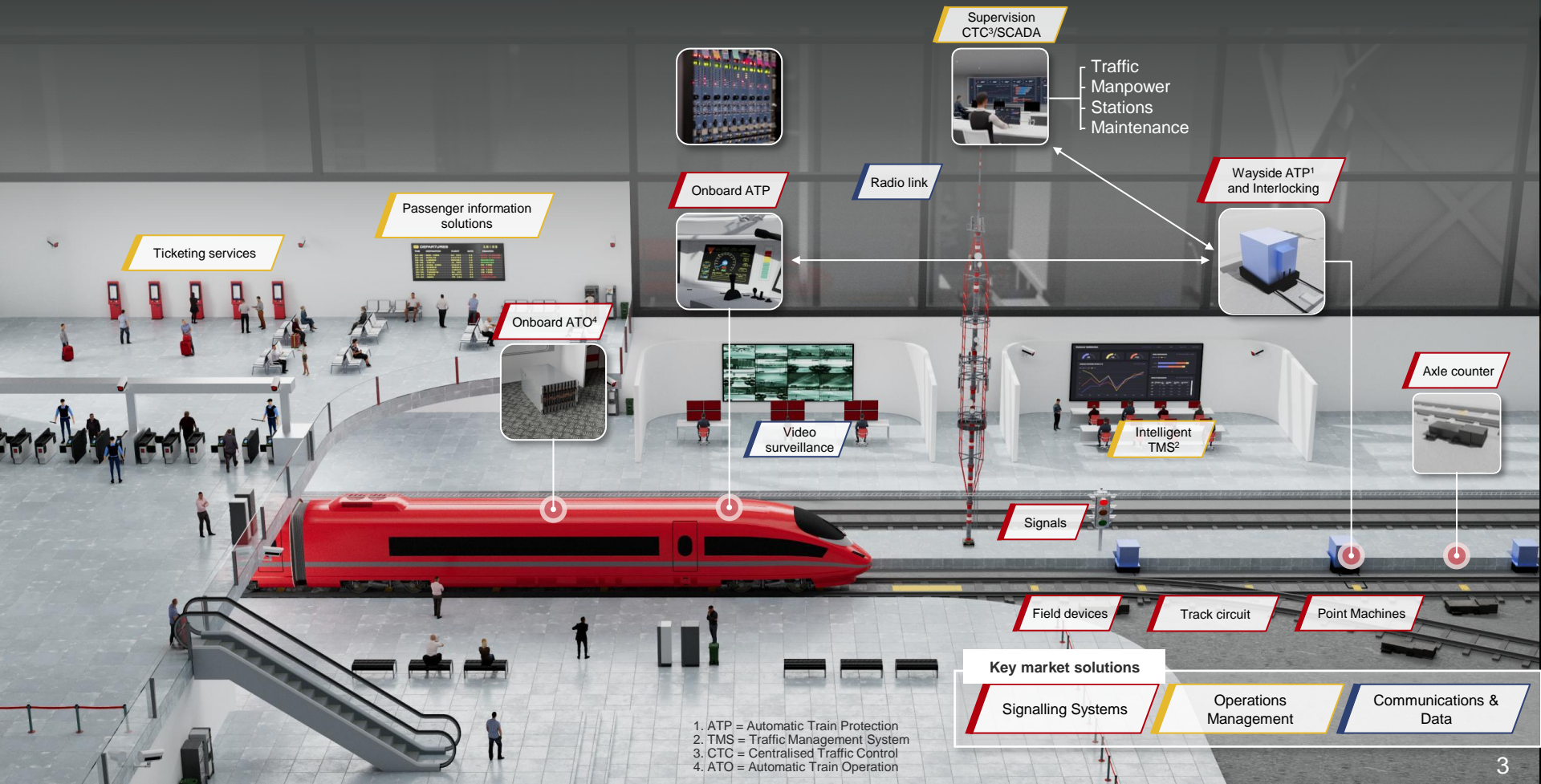
### Communications & Data

Systems enabling communication between trains, control centers, and other rail infrastructure equipment. Security elements monitor and safeguard against potential threats and infrastructure integrity

Communicate



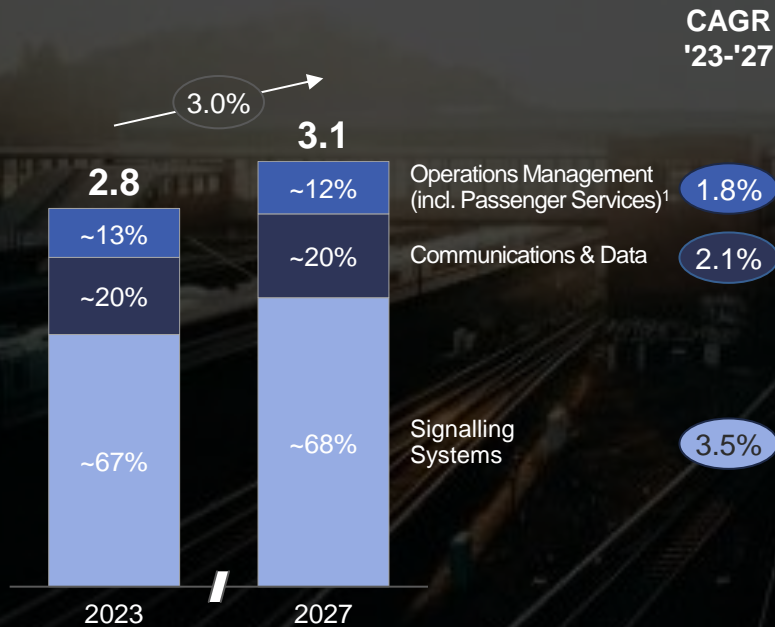
# Rail Control ecosystem overview



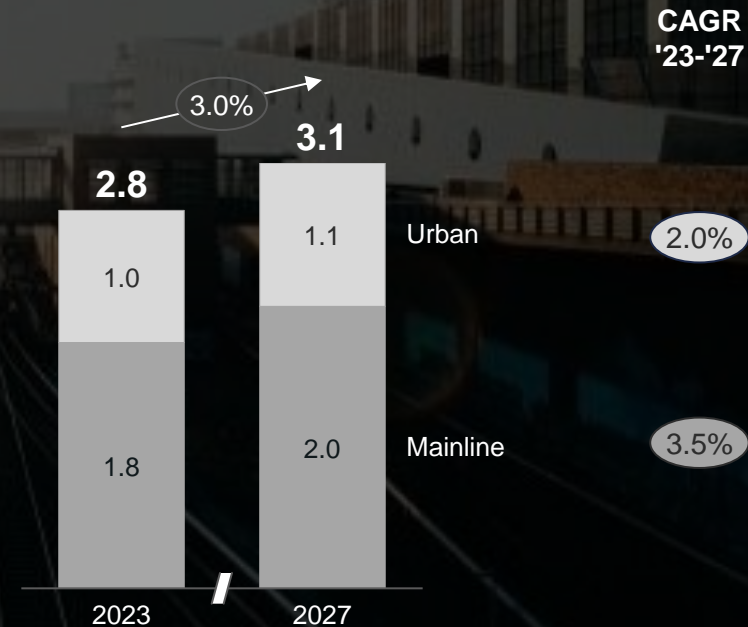
# We are playing in a growing mkt, expected to hit 3+ T¥ in '27

## Rail Control reference market evolution ('23-'27, T¥)

by Solution



by Market Segment



1. Revenue collection systems not included  
Note: market size calculated on order intake  
Source: UNIFE data

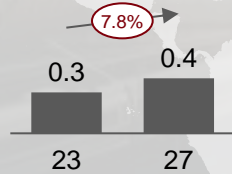
# EU & APAC largest regions, NAM & ME fastest growing

Focus on reference market

Total market '23-'27 **≈3.0%**

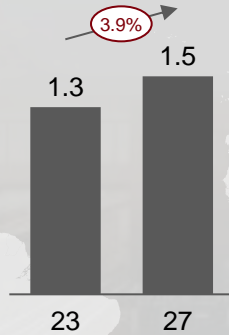
MARKET SIZE AND GROWTH (T\$, CAGR %)

## North America (12%)



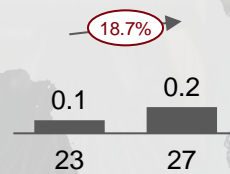
- **USA:** largest-ever infra investment (>60B€ fund for passenger and freight rail)
- **Canada:** unveiled the Public Transit Fund (>20 B€ fund)

## Europe (48%)



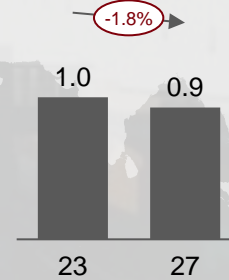
- **Europe:** EU Green Deal (carbon neutrality by '50), on top of specific national programs (e.g. Grand Paris Express by '30 in France, and National Infrastructure upgrade programs)

## Middle East (6%)



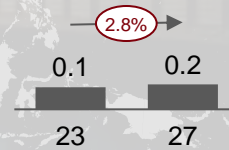
- **KSA<sup>2</sup>:** giga-projects for Vision 2030 (e.g., NEOM)
- **GCC countries:** several infrastructure development projects (e.g., GCC rail network)

## APAC<sup>1</sup> (29%)



- **India:** National Rail Plan '30 for Mainline/Urban signalling (e.g. High-Speed, Freight Corridors)
- **ASEAN countries:** High-Speed cross-countries network

## Japan (5%)



- **Japan:** HST<sup>3</sup> projects planned (e.g., Tokyo-Kanazawa, Morioka-Shin Aomori), and Metro investments/ extensions (Tokyo: Yurakucho and Namboku Line)

KEY MARKET DRIVERS

1. Including Rest of the World; 2. Kingdom of Saudi Arabia; 3. High-Speed Train; Note: Rounded figures; market size at Order Intake  
Source: UNIFE data

Key: (XX%) weight on '27

(XX) CAGR rate



# We have a unique positioning to compete in the RC mkt

A

## Broad Portfolio & Flexible Business Model

- **Flexible solutions** from individual component to comprehensive turnkey projects, meeting a **range of client requirements**
- **Extensive portfolio** spanning from traditional work packages to full portfolio operations, positioning Hitachi as a **complete solutions provider**

B

## Strategic Regional Presence on Mainline and Urban

- **Driving major rail modernization projects** in over 50 countries, serving 70+ clients worldwide
- **Active in global urban networks**, providing advanced driverless technology and integrated solutions for key cities

C

## Digital Offering Scaling-Up (leveraging on HMAX)

- **HMAX** is accelerating the digital transformation in Rail Control, and **increasing our ability to generate Lumada revenues**
- **Strong ability to digitalise Rail Control solutions and systems** leveraging on internal capabilities, and Hitachi Group support (both GlobalLogic and Hitachi Digital)

Hitachi Rail leverages a flexible business model, strategic regional presence, and advanced digital solutions (such as HMAX) to develop a distinctive position in the global Rail Control market

# A Broad & flexible business model covering wide mkt needs

Rail OEM Business Model

## Rail Control work packages

## Non-Rail Control work packages

## Additional Services

Signaling Systems	Ops Mgmt.	Comms & Data	Electro-mechanical system Integration	Vehicles provider	Service & Maint.
IXL, ATP, wayside equip.	OCC, PIS, Ticketing	CCTV, video content analysis	Catenary impl., Power Supply	Rolling stock	<b>HIMAX</b> HYPER MOBILITY ASSET EXPERT

**Operations**

Full portfolio control and operations

### Operations & Maintenance

Multi-year contracts to operate and maintain entire metro/ railway lines

✓	✓	✓	✓	✓	✓	✓
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### Complex Turnkey

Major infrastructure tenders where integration is required – Vehicles and Rail Control Prime-contractor for Rolling Stock and signalling tech.

✓	✓	✓	✓	✓	✓	✓
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### Design & Build

Tenders on pure rolling stock/ signalling projects to serve mature clients – e.g., OCC tenders, tailored metros for specific markets

✓	✓	✓		✓	✓	✓
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### Components & spare parts

Specific customer requests for tailored spare parts – recurrent business to harvest

✓	✓	✓			✓	✓
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Only on selected clients to guarantee access to **innovative technology** systems and generate **recurrent revenue**

✓ Hitachi Rail positioning – Installation provided    
 ✓ Hitachi Rail positioning – Installation not needed    
 ✓ Hitachi Rail positioning – Provided by Vehicles LoB



# B We drive key national mainline upgrades worldwide



Country Coverage  
Hitachi coverage on key national upgrade programs

Not exhaustive

## Mainline Signaling

Hitachi Rail drives national rail upgrades<sup>1</sup> globally with advanced signalling solutions, supporting over 70 clients across 50+ countries

### Italy Programs

Various RFI<sup>2</sup> programs to boost connectivity and technology upgrades to latest standards (e.g., Verona-Padua, IRICAV consortium)

### Digital Rail Germany

Initiative to implement advanced digital signaling and ETCS<sup>3</sup> technology across Germany

### Queensland ETCS level 2

Rail modernisation adopting ETCS L2 and first ATO overt ETCS project in direct partnership with Authorities

Key railway upgrading programs<sup>1</sup>

1. Government-led initiative focused on modernizing and expanding railway infrastructure, improving safety, efficiency, and sustainability, often through track upgrades, electrification, digitalization, high-speed rail development, and public-private partnerships 2. Rete Ferroviaria Italiana (RFI) is the Italian railway infrastructure manager, subsidiary of Ferrovie dello Stato (FS), a state-owned holding company 3. European Train Control System

# B We play in major urban networks around the globe



● Key urban markets

Not exhaustive

## Urban Signaling

Hitachi powers urban mobility with cutting-edge driverless technology and comprehensive solutions in major cities worldwide

### Presence in major cities

Rail Control is embedded in the core infrastructure of all major high-density metro networks (NY, HK, PAR, SG, TKY)

### Singapore Green CBTC

Innovative brownfield re-signalling targeting up to 15% energy saving (8% already achieved)

### Copenhagen ecosystem

Network of 300,000 passengers per day – metro operated by Hitachi Rail (O&M<sup>1</sup>)

Flagship projects

1. Operations and Maintenance contracts

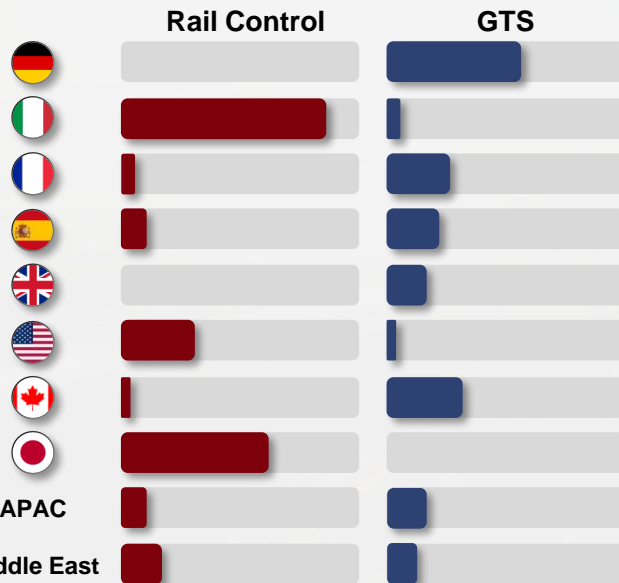
# B GTS acquisition strongly contributing to competitiveness

Not exhaustive

Positioning: ++ Strong + Fair

## Geographical presence

(Total headcounts)



**Strong complementarity**

- UAE: RC focused on Mainline vs GTS on Urban
- Saudi: RC focused on Urban vs GTS on mainline
- Egypt: RC not present vs GTS covering all segments

## Product positioning

(qualitative view on portfolio coverage and installed base)

	Rail Control	GTS	Key strategic actions
ETCS On-board units	++	+	Scaling-up market positioning, pivoting on Rolling Stock presence
ETCS platform	++	++	Shaping the market, capitalizing on established front-runner position
Operations Control Center (OCC)	+	++	Driving Digital & AI transformation, leveraging on Hitachi Digital
Interlocking	++	++	Combining R&D capabilities to speed-up asset-lite solutions
Track-side components	++	++	Expanding portfolio to enhance bid flexibility and provide smarter asset mgmt solutions
CBTC	+	++	Integrating R&D capabilities, to deliver industry-leading solutions with an extensive market footprint
Telecom and Physical Security	+	++	Enhancing competitiveness by deploying solutions powered by AI, 5G, and cybersecurity innovations

With a **complementary geographical footprint** and **R&D capabilities**, Hitachi Rail is positioned to significantly **enhance its competitiveness** and broaden its market reach, driving technological leadership in the industry

ETCS = European Train Control systems; CBTC = Communication-based Train Control



# c We have a clear vision to address future clients' needs

Unprecedented challenges faced by clients'...

...are opportunities to innovate & adapt

**Cost** and **Capacity** optimisation

**Reliability** and **Availability** maximisation

**Safety & Security** enhancement

**Infrastructure simplification**

**Customer experience** improvement

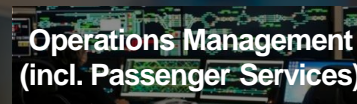
**Sustainability** outperformance

**Mobility Management** integration



## Signaling Systems

- Transition to **cloud-based systems** for enhanced scalability and dematerialisation
- CBTC evolution centered on **train-centric operations**
- Integration of **autonomous driving capabilities** for mainline operations
- Green features integration, including onboard and wayside **smart energy management**



## Operations Management (incl. Passenger Services)

- Leverage **data analytics and AI** for optimised operations, maintenance, and cost efficiency
- Multi-modal **mass transport coordination** with **multi-operator ticketing systems**
- Enhanced services for improved **customer experience** and journey quality



## Communications & Data

- **Cybersecurity solutions** for asset and infrastructure protection
- Advanced physical security and **hazard monitoring capabilities**
- High-speed **5G connectivity** to maximise data utilisation and insights

# GTS integration on-track, minor risks closely monitored

Area	Risk	Mitigation actions	Residual risk
<b>Integration synergies</b>	Delays in business synergy realisation generating impact vs. financial projections	Set and monitor synergy targets through bottom-up initiatives, panels, and mid-term planning	
<b>IT Adoption &amp; TSA exit</b>	Late exit from TSA with Thales Group ( <i>main focus on IT</i> )	Developed detailed TSA exit plan, closely monitored and adjusted	
<b>GTS Project performance</b>	Potential GTS project underperformance, in terms of timeline and/or budget	Conduct due diligence on key projects with recovery strategies for identified issues	

Very High High Medium Low

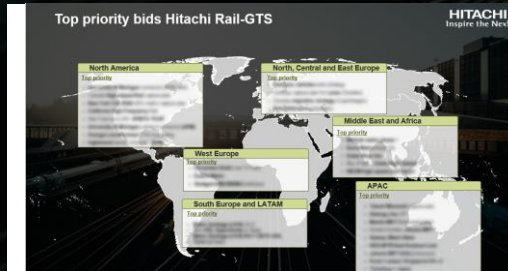
# Integration is live: core processes already integrated

Selected examples

## Sales & mktg

Joint bidding and go-to-market

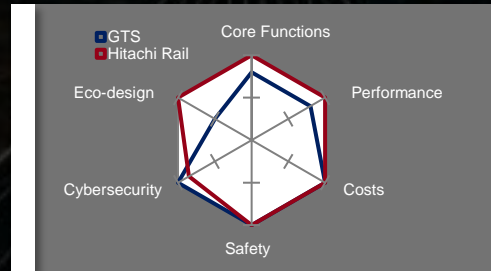
3 joint bids already ongoing, totaling >1B€ tender value



## Products

Unified approach to product innovation

Activated convergence on 7 solutions to improve competitiveness and unlock synergies (additional 4 solutions under assessment)



## Procurement

Joint sourcing for common categories

Already secured ≈70% of planned synergies in less than 6 months and enhanced competitiveness through collaborative bidding efforts





# Our most recent achievements

Only selected examples

## COMMERCIAL



### Alexandria Abu-Quir

Conversion of current diesel-fueled rail line into a high-capacity electric metro system



### 150B¥ Framework agreement (RFI)

ERTMS<sup>1</sup> framework agreement from PNR



### Montreal Blue line extension

CBTC installation on the existing 9.7 km Blue Line and its 6 km extension

## DELIVERY



### Milan L4 opening

New driverless line – in peak hours, operates with a train frequency of 90 seconds



### Honolulu Metro

Start of commercial operations for 1<sup>st</sup> driverless metro in USA (Segment 1); Completion of Segment 2



### Sydney Metro Southwest

Delivery of Central Control and Communication Systems

## INNOVATION



### Green CBTC in Singapore

Green CBTC in NSEW line - to realize 15% energy savings (8% already achieved)



### Autonomous Freight w/SNCF

Completion of GoA4 demonstration on railway line with Hitachi ATO



### Possession Mgmt System In Italy

Successful demonstr. of vital track possession mgmt for site crews using portable devices

1. European Railway Traffic Management System

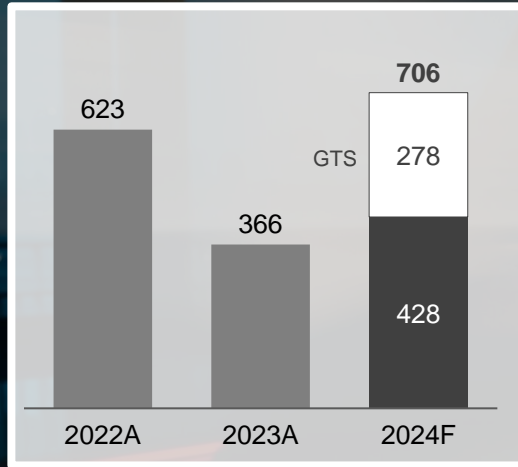
# Solid topline growth from organic expansion & GTS

Overall figures including GTS from June '24

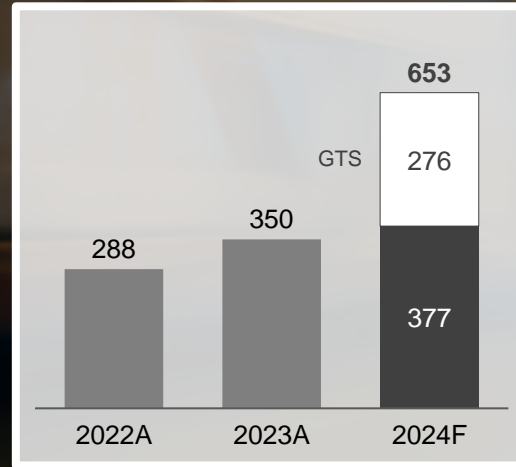
FX rates as per  
relevant FY reporting

Charts not in scale

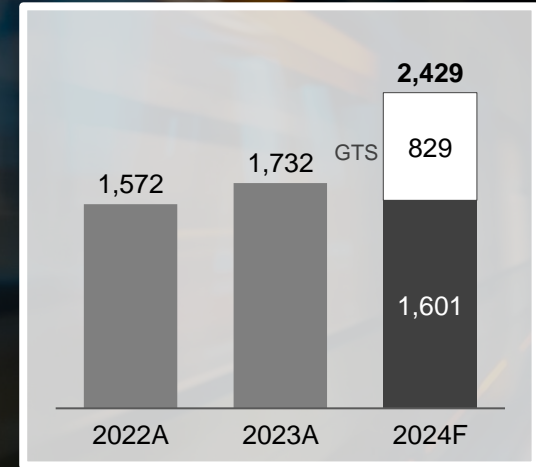
## Order intake (B¥)



## Revenues (B¥)



## Backlog (B¥)



Order intake expected to surpass 700 B¥ in 2024, growing vs 2022 mainly driven by to GTS acquisition

Revenues to almost double in 2024F vs. 2023A (653 vs 350 B¥), thanks to joint GTS acquisition and organic growth

Solid and growing backlog, reaching 2,429 B¥ in 2024, mainly due to GTS backlog integration (829 B¥ in 2024F)



# Key priorities for future value creation



## Maximise Market Reach

Capitalise on **new capabilities** and **expanded footprint** to seize growth opportunities in key regions and **broaden expertise and solutions** within the Rail Control business

## Drive Service-Centric Revenue Growth

Move beyond **hardware solutions** to deliver a suite of **service-driven offerings** that enhance operational efficiency, reduce maintenance costs, and build steady, recurring revenue

## Accelerate Digital Innovation in Rail Control

Lead with **digital solutions** across core products & services (e.g., Digital Interlocking), back-end (e.g. SaaS for Digital Operations), and **new Mobility** (e.g., Digital Integrated Payments) leveraging **Hitachi Digital and GlobalLogic capabilities**



# Rail Control: summary and key takeaways

## Rail Control market

### High Growth Potential in a Transforming Rail Control Market

Rail control market to reach 3.1B¥ by 2027; strong growth driven by sustainability initiatives (EU) and infrastructure expansion (NAM, APAC, MEA)

## Our portfolio & business model

### Broad Portfolio & Flexible Business Model for Diverse Market Needs

Hitachi Rail provides a full suite of solutions, with the most flexible approach in the market that spans from single components to large turnkey projects

## Our strategic positioning

### Strong Market Position and Strategic Regional Presence

Strong position across global markets, with robust regional projects and a top-tier status in key geographical areas, boosted by GTS integration

## Our strategy & key priorities

### Focused Strategy for Future Value Creation and Innovation

Prioritising digital and green advancements and service-driven revenue to fuel growth, leveraging Hitachi Digital and GlobalLogic strengths for cutting-edge solutions

**Hitachi Rail is strongly positioned in the growing Rail Control market with its flexible business model, strategic regional presence, and clear focus on driving digital and service-led revenue growth**

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Inspire the Next 