



Hitachi Rail Investor Days

Vehicles 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.

Secular trends are supporting the Rail Vehicles market

Selected trends supporting Rail Vehicles market

Growing population and urbanisation

Urban population set to exceed 6.5B people by 2050, strongly **increasing demand for Mobility and Mass Transportation**

≈70%
of global population in cities by 2050 vs ≈55% in 2022

Rail demand growing steeply as cities will require efficient transit solutions

Sustainability tailwinds

Governments & cities increasingly **pushing towards green Mobility modes**

≈15%
of global GHG emissions from transportation

Rail best to capture transition as the cleanest transport mode

Sharing and intermodality

Mobility to become increasingly multimodal to deliver **seamless customers experience to passengers**

≈30%
of intermodality penetration expected by 2035

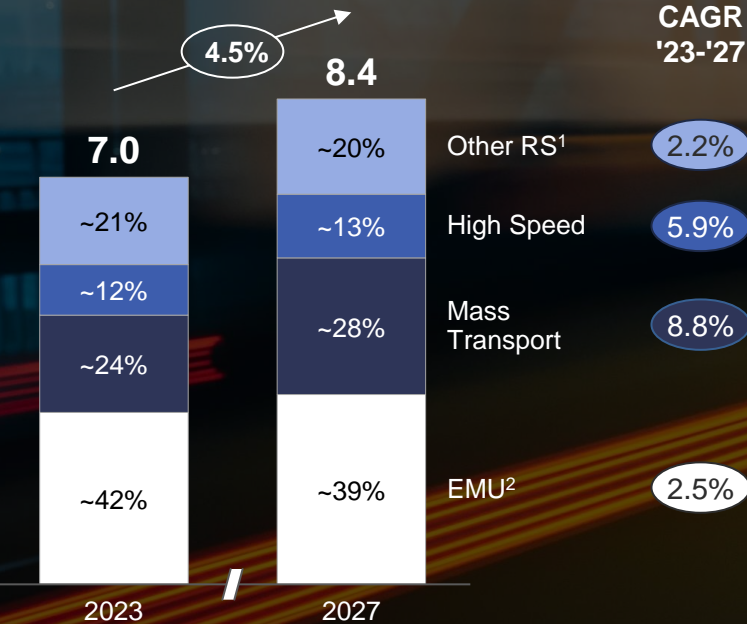
Rail to remain the backbone of intermodal Mass Transport

+50%
Trains in operation in 2030 vs 2019

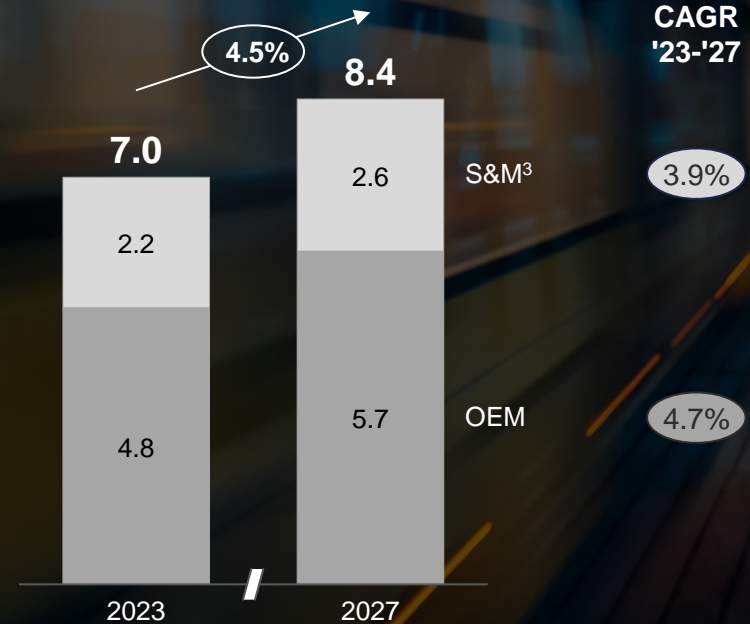
Vehicles' market size reaching 8.4 T¥ by 2027

Hitachi Rail Vehicles reference market evolution ('23-'27, T¥)

by Market Segment



by Business Type



1. Other RS includes: DMUs, MUs, single-deck coaches, double-deck coaches, alternative propulsion; 2. Electric Multiple Units; 3. Service & Maintenance
Note: market size calculated on order intake; Services included in each Market Segment; Source: UNIFE (2024)

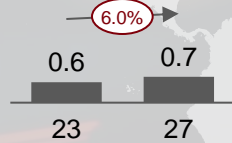
EU and APAC will remain the largest geographies

Hitachi Rail reference market

Total market '23-'27 **≈4.5%**

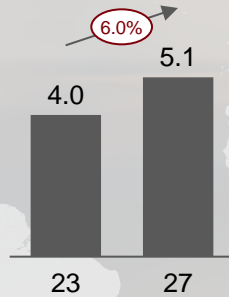
MARKET SIZE AND GROWTH
(T€, CAGR %)

North America (9%)



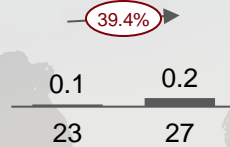
- **USA:** Public fund of >600 M€ for replacement of new railcars (e.g., Chicago, Baltimore, Philadelphia)

Europe (61%)



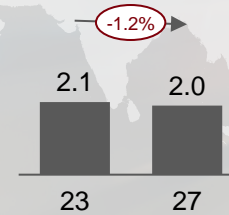
- **EU countries:** public funds to renew existing fleets (e.g., Spain >500 M€ for new Metro cars for Madrid Line 1, France Paris Metro new Rolling Stock for lines 3, 7, 8, etc.)

Middle East (3%)



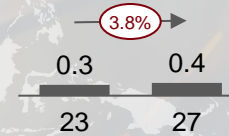
- **KSA²:** giga-projects for Vision 2030 (e.g., NEOM, Al-Ula tramway)
- **GCC countries:** Intercity network to connect GCC countries,
- **Egypt:** planned first High-Speed line

APAC¹ (23%)



- **India:** High-Speed corridors as part of National Rail Plan 2030
- **ASEAN countries:** High-Speed cross-countries network

Japan (4%)



- **Japan:** Several projects to boost vehicles' deliveries (e.g., Tokyo-Kanazawa, Morioka-Shin Aomori for HST³, Tokyo Yurakucho and Namboku Line for Metro)


KEY MARKET DRIVERS

1. Including Rest of the World; 2. Kingdom of Saudi Arabia; 3. High-Speed Trains; Note: Rounded figures; market at Order Intake
Source: UNIFE (2024)

Key: (XX%) weight on '27

(XX) CAGR rate

We have a unique approach to win in the Vehicles market



Selectively approach OEM business

- Prioritise **premium segments** (e.g. Very High Speed)
- Leverage **Hitachi Rail presence**, incl. newly acquired GTS footprint, to ensure market access and **protect profitability**



Focus on Service & Digital offering

- Generate **recurring revenues** through long-term Service & Maintenance contracts on installed base
- Launch **digital solutions** to monetise value-added services




Leverage full-liner portfolio




































- Leverage **full Hitachi Rail portfolio** (Vehicles and Rail Control) to deliver **complex, high-margin projects**, establishing an end-to-end partnership with customers

Hitachi Rail favorable positioning on premium segments combined with high exposure on Service business ensures premium profitability vs market average

Our portfolio covers all major market segments

 Battery train
  Eco-design
  Digital train

 XX%
 Backlog mix range 2024

Mass Transit ≈20%			Multiple Units ≈5%		High Speed ≈10%
Light Rail	Light Metro	Heavy Metro	Regional/Commuter	Intercity	Very High Speed
Streetcar     Turin (ITA)	Light Metro    Thessaloniki (GRE), Genoa (ITA)	Heavy Metro    Milan (ITA), Lima (PER)	MASACCIO ¹     Italy	AT300 WCP    UK	ETR1000    Italy, Spain
Monorail    Okinawa (JAP), Panama		Metro USA    Baltimore, Honolulu	CARAVAGGIO    Italy	AT300 SXR    UK	SHINKANSEN ²    Japan

Service & Maintenance

≈65%

On-demand labour & spare parts

Single requests on components supply with limited integration

Frame agreement

Technical support with increasing degree integration

Entity in charge of maintenance

Full-service agreement with performance guarantee

Smart diagnostic & asset management solutions (HMAX)

HMAX-enabled digital solutions to develop insights on Rolling Stock health status and maintenance needs to optimise clients' TCO³ (e.g., smart diagnostics, predictive and condition-based monitoring)



1. Available also in 2-mode hybrid train (battery, electric) and 3-mode tri-brid train (battery, electric, diesel) 2. Platform intellectual property rights are jointly held with the Japan Railways companies through collaboration agreements 3. Total Cost of Ownership

We deliver state-of-the-art rolling stock around the globe



Hitachi Vehicles enhance worldwide mobility delivering cutting-edge rolling stock and comprehensive solutions for both urban and mainline

Italy High-Speed Train

Fastest mass-produced high-speed in Europe, with >95% of recyclability and recoverability

Shinkansen¹ "bullet-train"

Participated in various Shinkansen series deliveries such as the Alfa-X, the N700 or the new E5 Shinkansen

Multiple driverless Metro

Strong footprint through driverless Metro projects in selected markets (Copenhagen, Milan, Honolulu)

Battery-ready projects

Our Regional/ Intercity and Urban trains retrofittable with batteries to allow greener operations

Flagship projects

1. Platform intellectual property rights are jointly held with the Japan Railways companies through collaboration agreements

Our most recent achievements

Selected examples

COMMERCIAL



S&M on Very High Speed
Deliver S&M on 103 Very High Speed in ITA, growing recurring Revs business

1



100B¥+ contract for Philadelphia
200 Railcars for Philadelphia, SEPTA – full fleet delivery by end of 2031

120B¥+ high-speed trains order for Taiwan

12 sets of new generation high-speed trains for Taiwan – to be delivered from 2026

DELIVERY



Honolulu Metro
Revenue service for Segment 1 of the 1st fully autonomous urban railway system in USA

2



300th delivery in UK since 2009
Class 807 for Avanti West Coast is the 300th train built for the UK railway network



350+ Caravaggio Rock deliveries in Italy
High-capacity trains fully assembled in Italy & drawing upon 20yrs of mfg experience

INNOVATION



HMAX¹ digital asset management
Unveiled collaboration with NVIDIA to deliver AI-enhanced digital solutions



New Hagerstown Factory in USA
Opened plant in Hagerstown, Maryland to expand footprint in North America



UK battery trials
Completed trials for battery-retrofit intercity trains in the UK, generating up to ≈30% emission & fuel cost reduction

1. Hyper Mobility Asset eXpert

1 Delivery: Honolulu Skyline, first driverless metro in USA

Delivered 1st Fully Autonomous Metro System in USA

20

Metro trains delivered with 4-cars each

800
pax.

Metro trains maximum capacity

≈300
tCO₂/day

Avoided CO₂ emissions

Challenge

Deliver a **safe** and **efficient urban transit option** on the Pacific island of Honolulu that balances Hawaii's **delicate environment** and addresses significant congestion issues

Solution

Driverless technology

Trainsets equipped with state-of-the-art Grade of Automation 4, being the true first mass transit system in operation in USA

Unique comprehensive offering

Hitachi Rail established as a 'one-stop-shop' for HART (Honolulu Authority for Rapid Transportation) bidding with comprehensive offering















Comfortable & inclusive cars

Air-conditioned cars, featuring Wi-Fi, ample space for bicycles, surf boards, baby strollers, luggage and compliant with American Disabilities Act

We have a global Manufacturing & Service footprint



Manufacturing Footprint

- 
Hagerstown  **NEW – Focus next**
Served markets: North America (mainly US)
Production lines: Metro – currently in ramp-up stage
- 
Newtown Aycliffe 
Served markets: main European countries
Production lines: IEP & ASR, Battery trains & HS2 (currently under development)
- 
Pistoia 
Served markets: main European countries
Production lines: Very High Speed, Regional Caravaggio/ Masaccio & Metro
- 
Naples 
Served markets: main European countries
Production lines: Tram, Metro, Global Components (e.g., Bogies)
- 
Reggio Calabria 
Served markets: main European countries
Production lines: Metro and Battery trains
- 
Mito 
Served markets: mainly Japan and APAC
Production lines: Metro and Regional trains
- 
Kasado 
Served markets: mainly Japan and APAC
Production lines: Shinkansen, EMUs, Monorails, Global Components (e.g., Bogies, HVAC)

Hitachi Rail global footprint strategically positioned in high-growing markets

1. Including Hitachi Rail-owned, clients and third-party depot sites

We recently opened a new 'state-of-the-art' factory in NAM

Hitachi Rail opened a new 'state-of-the-art' factory to scale-up presence in the North America – 3 pillars to become the Most Advanced Rail factory in the world

Digitalised

Maximization of plant uptime, efficiency and customer value creation through digital applications



- Real time supply chain & manufacturing monitoring
- Local component manufacturing (in 3D printing)
- Full transparency on product quality

Net Zero

Full Scope 1-2 carbon neutrality since day 1, paperless operations and efficient energy use



- MRV¹ platform for carbon accounting
- Local energy generation coupled with active energy management system
- Full digitalisation of working instructions, quality & testing templates

People-centric

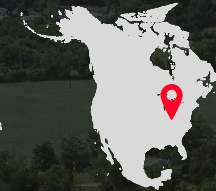
Automation of low value & safety-critical activities, coupled with proactive HSE monitoring



- Full automation of material handling
- Automated quality inspections with drones/robots
- Active safety monitoring with video analytics and smart wearables

Digital factory at a glance

LOCATION



Hagerstown, Maryland (US)

CAPACITY

20+

Heavy rail Metro cars/month

SIZE

≈300

kSqft in a single building

WORKFORCE

400+

Employees expected at peak capacity

DIGITAL

13+

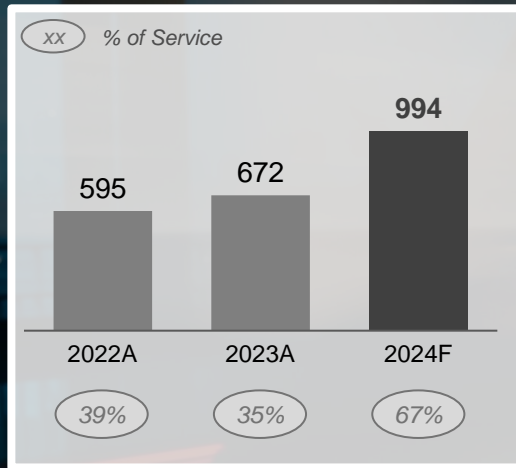
Digital use cases deployed

Further details to be shared during Day 2

Strong 2024 performance with increasing share of Service

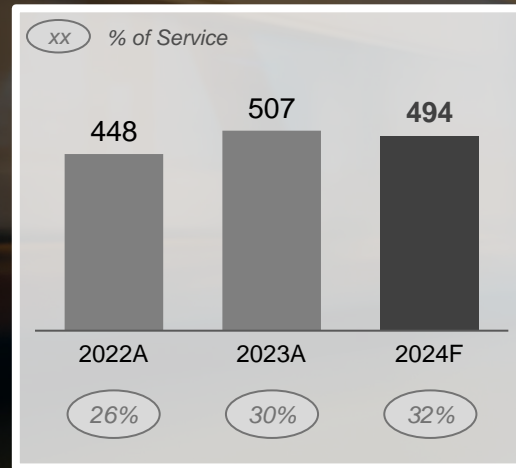
Charts not in scale

Order intake (B¥)



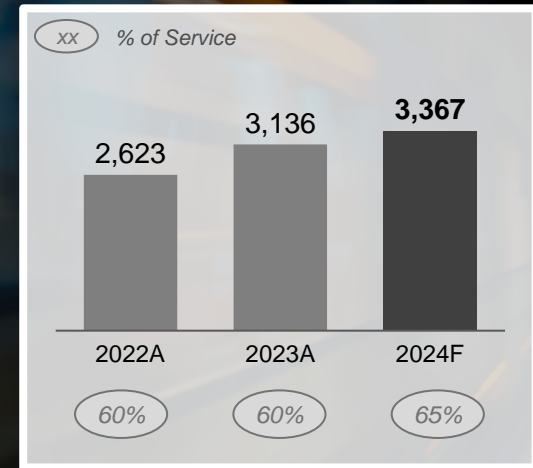
Strong order intake, reaching ≈1.0T¥, driven by major new S&M¹ contracts

Revenues (B¥)



Vehicles remain a consistent foundation with effective backlog conversion

Backlog¹ (B¥)



Consistently growing backlog, with increasing share of S&M² driving higher profitability

1. Backlog evaluated using Actual end-of-year Exchange Rate; 2. Service & Maintenance

Our vision and key priorities going forward



Our vision

Hitachi Rail contributing to the evolution of the Vehicles market towards Digitalisation & Sustainability while enhancing safety, customer experience & operators' TCO¹

Our key priorities

Selectively expand market reach

Enter **new attractive markets and expand competences / portfolio solutions** also leveraging on recently-acquired GTS footprint (e.g. Urban)

Strengthen focus on Digital & Service offering

Capitalise on installed base to **scale up service business and accelerate activation of HMAX suite**, to optimise clients' TCO¹

Leverage on **HMAX offering as distinctive factor for new Vehicles tenders** to unlock additional recurring revenues streams

Maximize internal efficiencies

Optimise operational processes also leveraging on digital use cases (e.g. Hagerstown best practices, other GenAI coding / design)

Further push for **platform portfolio standardisation**

1. Total Cost of Ownership

Vehicles: Summary and key takeaways

Vehicles market

Growing and evolving Vehicles market

Vehicles market to reach 8T¥ by 2027; vehicles backbone role to evolve from hardware-based to Sustainable and Digitalised means to transform Mobility space

Our strategic positioning

Selective market focus to increase profitability

Hitachi Rail favorable positioning on premium segments combined with high exposure on Service business ensures premium profitability vs market average

Our portfolio & business model

Broad portfolio coverage and global footprint

Product portfolio covering all major segments while pushing for platform standardisation, with footprint strategically covering growing markets

Our strategy & key priorities

Clear priorities for future value creation

Prioritise expanding market reach leveraging recently-acquired GTS footprint, scaling-up Service & Digital offering and maximising of internal efficiencies

Hitachi Rail is poised for profitable growth in the Vehicles mkt leveraging its premium positioning, and its focus on expanding market reach and scaling-up Service & Digital offering

HITACHI
Inspire the Next 