HITACHI RAIL

ESG Report 2024 – FY23
Think Responsibly, Act Sustainably

HITACHI
Inspire the Next

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Letter to Stakeholders

from Giuseppe Marino, Group Chief Executive Officer of Hitachi Rail

"**Dear Valued Stakeholders, I am pleased to present to you the Environmental, Social, and Governance (ESG) Report for the fiscal year 2023**"

This report reflects Hitachi Rail's commitment to sustainable business practices, transparency, and our dedication to making a positive impact on society.
As a rail business, our central mission is to grow the use of seamless, innovative and sustainable transport around the world. Yet we are also firmly focused on ensuring that we deliver this sustainably, with commitments to achieving carbon neutrality across our key sites by 2030 and net-zero CO_2 emissions by 2050.

Delivering this mission relies on our most valuable resource, our people; and we believe that by promoting inclusion and valuing diversity we will be best placed to succeed.

It is inevitably hard to simplify into a few lines the efforts that our colleagues have put in, to make this company - and its impacts - increasingly sustainable. I would however like to highlight some aspects that may encourage a more in-depth reading of the entire report.

Every action described in this document was only possible thanks to our stakeholders and to the people who work for Hitachi Rail and who aim to make our company a Climate Change Innovator.

Our planet, our only home

As I always like to remind myself first and foremost, in today's world, faced with multiple challenges including climate change, the pursuit of sustainability isn't just a choice – it's a responsibility. We strive to honor this responsibility every year, through the meticulous work of our team to improve our performance in this field. In this fiscal year, Hitachi Rail has made further efforts to reduce the environmental impact.

Our target was to reduce our overall Scope 1 and Scope 2 emissions by 5% during FY23 compared to FY22. I am proud to report that we significantly exceeded this target, achieving an overall decrease of 14%.

14%

overall decrease of Scope 1 and Scope 2 emissions

We achieved this remarkable result thanks to the use of energy from renewable sources and more specifically through the purchase of Renewable Energy Certificates (RECs).

We are also working at pace to continuously improve our energy efficiency, harnessing the power of digital to reduce our energy consumption.

Our people: our best resource

Working in a safe environment is not a goal, it is a prerequisite. And without safety, there is no quality, there is no delivery, there is no business.

In FY23, 94% of our employees were covered by the ISO 45001 certification that aims to reduce occupational injuries and diseases, including promoting and protecting physical and mental health.

But safety alone is no longer enough. We want to provide our employees with a healthy workplace.

This is also reflected in our effort toward a more equitable and inclusive company. Our workforce continues to grow and diversify.

+9%
females in middle management

In FY23, we hired 1,508 new employees, and achieved an increase in female representation in senior positions, with 9% increase in middle management.

In FY23 we also obtained the ISO 30415 Certification on Diversity, Equity and Inclusion. In addition, we are committed to contributing to our colleagues' lifelong learning.

We increased training hours in almost all countries by 21% overall, deploying global, regional, and specific initiatives. This included an overall 9.9% of hours of training dedicated to human rights.

+21%
training hours

Our strong commitment to innovation

Our pioneering spirit is essential to our success as a business. To be effective we give our innovation work efficient frameworks and processes for delivering. In this context, certification is a crucial process when it comes to measurable results in the field of sustainability. It is why we continue to pay this aspect particular attention.

In FY23, we achieved significant milestones in our commitment to innovation and sustainability.

first ever BSI PAS 2080 certification

We obtained the first ever BSI PAS 2080 certification for the HS2 train, which attests to our commitment to product decarbonization from the design phase to construction and operation.

This certification guides the management of carbon across the life cycle of buildings and infrastructure and recognizes the work we are doing to ensure the use of low carbon materials, for example requiring suppliers to provide aluminium made with renewable energy. It also underlines our commitment to the circular economy as we build a very high level of recyclability into all of our trains.

We also developed the industry's first Sustainable Product Declaration (SPD) for the Masaccio Train, demonstrating our commitment to sustainable production and consumption.

Hitachi Rail has become the first rolling stock manufacturer that can track the ethical life cycle of a product.

The pioneering system, that Hitachi Rail has developed with EPD International, records all the work done by the company and its suppliers across the entire value chain – and evaluates their social performance and adherence to modern, ethical working practices, including employee safety, fair salaries, gender equality, labour laws and rule of law.

6,944 suppliers

204 industries | 55 countries

Our suppliers: a value chain that grows with us

For sustainable growth and development, it is crucial to partner and work closely with our value chain.

In FY23, Hitachi Rail screened 6,944 suppliers across 204 industries and 55 countries, registering 142 suppliers more than the previous year.

Hitachi Rail ended FY23 with 954 suppliers fully registered in the EcoVadis Ratings platform.

954 suppliers fully registered in the EcoVadis Ratings platform

EcoVadis is an assessment platform that rates businesses' sustainability holistically in four categories: environmental impact, labour and human rights standards, ethics and procurement practices.

And this helps to guide us and our suppliers toward more sustainable practices.

FY23 was a year of significant progress in our sustainability initiatives and looking forward, our future has already begun by welcoming more than 9,000 new colleagues to Hitachi Rail, following the merger with Thales GTS early this year.

Acquisition of
Thales GTS

Hitachi Rail is embarking on a new chapter in its history, driven by a renewed impetus for innovation through digitalization and sustainability. It's not merely an opportunity but a reality as we position ourselves as the global leader in sustainable mobility, leveraging our skills and expertise to deliver social innovation on a larger scale.

Thank you for your ongoing trust and support.

Giuseppe Marino

Giuseppe Marino
Chief Executive Officer of Hitachi Rail

● **Letter to Stakeholders**

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Methodological Note

The following document constitutes the fifth annual Sustainability Report of the companies belonging to the Hitachi Rail Business Unit of Hitachi Ltd. (hereinafter referred to as "Hitachi Rail" and "Organisation") consisting of Hitachi Rail Ltd. and its fully consolidated subsidiaries and the Rail division of Hitachi Ltd. in Japan. Its purpose is to report on the Environmental, Social, and Governance (ESG) performances, impacts and ambitions of Hitachi Rail.

The consolidation perimeter remains substantially unchanged compared to the past fiscal year. It should be noted the addition of the new company established in France named Hitachi Rail Systems France S.A.S., which is wholly controlled directly by Hitachi Rail STS S.p.A..

There are no boundary restrictions for the human resources and health and safety data. The scope of environmental data encompasses the performance of 46 sites. Excluded from the reporting scope to date are the Mito site and all construction sites since the data collection system at these sites is currently under implementation. For more information, please refer to "*Chapter 1: Context and Identity*" Section "*1.2.3 Group Structure and Business*".

The ESG Report - published annually - is the instrument with which Hitachi Rail communicates to internal and external stakeholders the commitments, strategy, management methods and results of the organisation's sustainability activities, declined in their economic, environmental and social aspects. The objective is to enhance ESG awareness and consistently establish and implement effective actions and strategies. The document is structured to provide an overview of the context in which Hitachi Rail operates and its identity and values (*Chapter 1*), to illustrate to the reader its approach to sustainability topics through its ESG Framework and Roadmap (*Chapter 2*), and then to focus on its performance and impacts on the three sustainability dimensions: Governance (*Chapter 3*), Social Impact (*Chapter 4*) and Environmental Impact (*Chapter 5*). This years' ESG Report also includes Hitachi Rail's first "*Voluntary Disclosure on EU Taxonomy*", (for details please see "*Regulation (EU) 852/2020*" in Glossary section), focusing on the eligibility analysis as an element of anticipation of the regulatory changes implied by the future mandatory compliance with the Corporate Sustainability Reporting Directive (CSRD). Following last year's disclosure improvements, the ESG Report 2024 (data and information in this document refer to the fiscal year 2023 - 1st April 2023 to 31 March 2024) also reports a wide range of Annexes at the end of this document, namely the section of "*Significant events occurred after the closing of the Fiscal Year covered by the ESG Report*", the "*Methodological Note on Consumption and Emissions*", the "*TCFD Reference Table*", the "*GRI Content Index*", and the "*Glossary and Main Acronyms contained in the ESG Report*".

This ESG Report has been prepared in compliance with the GRI Sustainability Reporting Standards, published by the Global Reporting Initiative (GRI), based on the "in accordance with" option. Hitachi Rail is committed to continuous improvement, guaranteeing data consistency through comparative analysis with the previous fiscal year - where possible - and expanding the scope of reporting to provide a comprehensive view of the most significant impacts for the Organisation and to enhance accuracy, comparability and verifiability - essential elements for high-quality reporting. This year, Hitachi Rail's ESG Report has been prepared with the aim to start meeting the future ESRS Reporting Standards.

For a correct representation of performance and to ensure the reliability of the data, the use of estimates has been limited as much as possible, which, if present, are based on the best available methodologies and are appropriately reported. In addition, any restatements of previously published comparative data are clearly indicated in the document. For further details please consult the "*GRI Content Index*" at the end of the document.

Furthermore, for FY23 Hitachi Rail has confirmed the results of the Materiality Analysis conducted in the previous reporting year. Hitachi Rail has developed a new approach to Materiality Analysis that looks to the future of Corporate Sustainability Reporting from a perspective on the impacts the Organisation has on economy, people, environment and human rights. In terms of stakeholder engagement, the results of the process carried out for FY22 were reconfirmed.

The activity consisted of an engagement through surveys, addressed to different categories of internal and external stakeholders with dedicated questionnaires whose statistical significance was ensured through sharing with representative samples of respondents, and an engagement to the most relevant referents of the main structures of the Organisation through a dedicated workshop, with a live vote and brainstorming on the long list of individual impacts preliminarily identified.

The outcome of the Materiality Analysis has been presented to Hitachi Rail's Sustainability Committee. The Organisation emphasises the intrinsic correlation between its material topics, the United Nations Sustainable Development Goals (SDGs) and the associated targets to which it contributes in line with Hitachi Group's Business Strategy. For an in-depth understanding of their connections and interdependencies, please refer to the section titled "*2.3.1 Our Contribution to SDGs*".
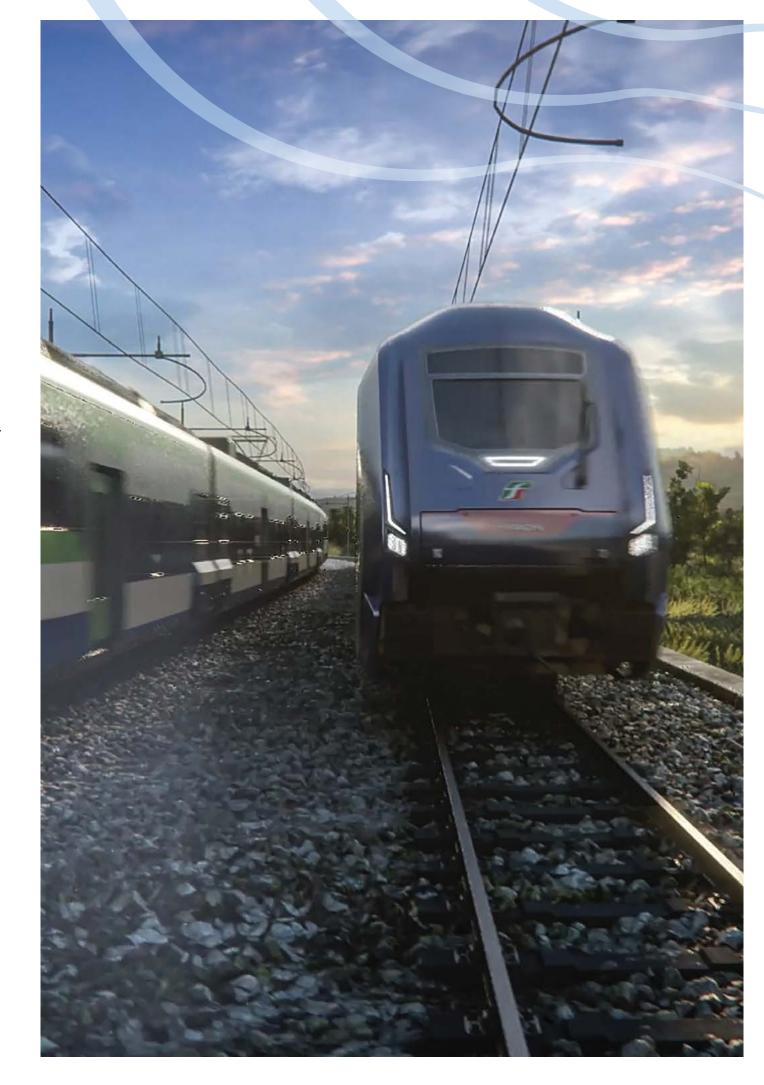
An important new focus was given to the process of integration of ESG risks into the Enterprise Risk Management (ERM) framework, with a particular focus on climate related risks. Hitachi Rail is gradually aligning to Task Force on Climate-Related Financial Disclosures (TCFD) recommendations and has started from its path to transparently disclose upon those recommendations. For more details, please consult the *"TCFD Reference Table"* at the end of this document.

Finally, in this document, Hitachi Rail introduces some valuable examples of its concrete action towards increased sustainability in the management of its operations. By highlighting these practices Hitachi Rail represents the measured and proven results of concrete projects which aim at:

- **ESG Strategy:** Hitachi Rail has an environmental, social, and governance (ESG) strategy and roadmap that guides it towards its ambition of being a leader in sustainability and corporate social responsibility;

- **strategic priorities:** health and safety at work, ethics, integrity and transparency, customer focus, emissions reduction and climate change mitigation are the strategic priorities established;

- **decarbonisation:** Hitachi Rail is committed to achieving Carbon Neutrality in its main sites by 2030 and Net-Zero emissions by 2050;

- **sustainable innovation:** at the heart of Hitachi Rail's business is sustainable mobility, which aims to inspire a better, more sustainable future for cities and customers around the world, with a high attention and collaboration along the entire value chain.

For any information on the ESG Report, please write to csrs@hitachirail.com.

Highlights Fiscal Year 2023

14,775 employees

Environment

Scope 1 and 2 (market-based):
-14% compared to FY22

Scope 3: 10 categories reported
of which 2 new ones
-4% compared to FY22

Energy consumption: 62% from renewable
sources (auto-produced and purchased from certified sources)

Waste: 80% of total waste reused or recycled

Social

Diverse workforce

• **ISO 30415 Certification on Diversity,
Equity and Inclusion for Italy**

• **Employees with open-ended for contract: 96**%

• **Female representation in middle management: +9**%

Health and Safety

• **94**% **employee covered by ISO 45001**

Training

• **Learning hours per capita: +21**%

Governance

Suppliers screening in EcoVadis IQ: over 6,900

Completion Code of Ethics training: 86%

Incidents of corruption: 0

> **In this report, you will find concrete actions we have completed during FY23 and also a clear roadmap of our future priorities. Another step forward has been consolidated this year toward our sustainability roadmap for a greener future!**

Ulderigo Zona
Executive Officer Safety, Health, Environmental & Quality

1
Context and Identity

Chapter 1:

Context and Identity

Hitachi Rail's contribution to the UN Sustainable Development Goals (SDGs) forms the basis for its idea of sustainability: to offer an integrated and sustainable mobility ecosystem, capable of contributing to the achievement of prosperity and quality of life in balance with natural capital.

Hitachi Rail knows that the role of rail transport is crucial in achieving the goals of decarbonisation and in bringing people, territories, and relationships closer together for social and economic wellbeing.

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

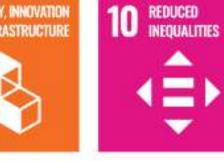The responsible communication of facts and areas for improvement is considered fundamental for engaging all stakeholders within the Organisation. Hitachi Rail, in partnership with the Global Alliance, supports the initiative to include the 18th Sustainable Development Goal, focused specifically on Responsible Communication.

This aims to combat misinformation and enhance the culture of sustainability.

1.1 The Global Sustainability Scenario and the Transport Sector Challenges and Trends

Technological innovations are driving the railway sector towards greater sustainability. There continues to be a growing emphasis on electrification and renewable energy sources to power trains. While hydrogen propulsion is also emerging as a promising solution for non-electrified lines, as they produce only water vapour as emissions, its concrete application is still a distant vision due to infrastructure challenges for hydrogen distribution.

Trains equipped with batteries are a solution that is already mature and allows operators to overcome small non-electrified sections and reduce pollution while approaching the stations (see trimodal trains from Hitachi Rail). Traffic management systems and autonomous trains, can improve efficiency and safety, reduce energy consumption, optimise operations, and enhance the passenger experience.

This shift aims to reduce greenhouse gas (GHG) emissions and dependence on fossil fuels. However, several challenges persist. Upgrading existing rail infrastructure to accommodate new technologies requires substantial investments and coordination among

stakeholders. And more needs to be done to ensure seamless integration with other modes of transport and improve accessibility to remote areas. The effects of extreme client events continue to highlight the need for a notable shift in businesses' commitments to reduce their environmental impacts.

As regulators react, an increasing number of legislations require companies to have stronger sustainability commitments. The European Union has introduced new development plans and directives to promote sustainability, such as the "Green Deal," which aims – among other things - for the decarbonisation of the transport sector by 2050.

Many national governments are encouraging the use of trains over other means of transport through subsidies and investments in railway infrastructure.

The new standards set by emerging European regulations - including the Corporate Sustainability Reporting Directive (CSRD) - are challenging for organisations, which must be prepared to develop and find the tools and resources to meet the new requirements.

Integrated, inclusive, collective and environmentally low-impact mobility

Ensuring a continuous and sustainable movement of people and goods within and between cities is fundamental to building a sustainable future.

For Hitachi Rail and its customers and stakeholders, the challenge lies in aligning traditional economic and financial objectives with the principles of sustainable development.

The Hitachi Rail strategy is underpinned by executing continuous innovation processes to strengthen its leadership position in reference sectors. Through innovation, it offers high-quality and customised services that meet the needs of travellers, clients, and other stakeholders, encompassing the entire value chain: from design and construction to maintenance, providing safe, integrated, and tailormade transport services.

1.2 Introduction to Hitachi Rail

For over a hundred years, Hitachi's mission has been to contribute to society through the development of superior technology. Today, Hitachi Rail is committed to driving the sustainable mobility transition and has a clear focus on partnering with customers to rethink mobility.

With more than 14,500 employees in around 40 countries, Hitachi Rail is a trusted partner to the world's best transport organisations. The company's reach is global, but the business is local - with success built on developing local talent and investing in people and communities.

Its international capabilities and expertise span every part of the urban, suburban, mainline and freight rail ecosystems – from high quality manufacturing and maintenance of rolling stock to secure digital signalling, smart operations, and payment systems – through to a full turnkey solution projects.

Hitachi Rail is pioneering the digital transformation of transport and is committed to being a climate change innovator by co-creating greener products with its customers. With its new Smart Mobility suite of technology, Hitachi Rail helps customers to predict, plan, manage and optimise mobility networks in real time - improving how passengers use the network and how operators manage congestion, cost, and carbon. Hitachi Rail's asset performance management technology is helping operators to increase safety and reduce maintenance costs by predicting faults before they happen. Hitachi Rail's customers benefit from additional value from the wider Hitachi Group companies, including digital transformation expertise from GlobalLogic, energy infrastructure from Hitachi Energy and innovative business models and financing from Hitachi's corporate entity and partners.

1.2.1 Mission, Vision and Values

The approach of Hitachi Rail is unique in how its pioneering partnerships bring together innovation and expertise from the Hitachi Group and its wider stakeholders' ecosystem.

Hitachi Rail's beliefs and actions are guided by a clear mission, vision, and values as it takes pride in holding itself and its projects to the highest standards, and the values provide benchmarks to evaluate successes and opportunities for improvement.

Initially set by Hitachi founder Namihei Odaira, the Hitachi Mission has been carefully passed on to generations of employees and Stakeholders throughout its 110-years history.

Mission

Hitachi Rail's Mission is to contribute to society through the development of superior, original technology that enables more seamless, sustainable journeys.

Vision

The Vision is that every passenger, customer, and community around the globe can enjoy the benefits of more seamless, sustainable journeys.

Values

Wa (Harmony) – (和)
The need to show respect to colleagues, suppliers, clients, and stakeholders.

Makoto (Sincerity) – (誠)
To act with integrity in all words and actions, exemplifying the fact that sincerity lies inholding to stated values.

Kaitakusha Seishin (Pioneering Spirit) – (開拓者精神)
This means to lead with ambition, to seek new challenges; and to be unafraid of flexibility and adaptability to the changing needs of the business.

Hitachi Rail's people around the globe choose to put these values into practice by working together, responsibly and with a collaborative approach with the aim of contributing to the society with courage and knowledge.

1.2.2 Business, Products and Solutions

Our Offering: Our focus market segments and solutions

Rolling Stock	Urban Rail	Mainline Rail	Freight Rail	Ticketing & Payments

ERTMS *(Rolling Stock)*

Turnkey, (incl. Vehicles) *(Rolling Stock – Urban Rail)*

CBTC *(Rolling Stock – Urban Rail)*

Rolling Stock *(Urban Rail – Mainline Rail)*

Operations *(Urban Rail – Mainline Rail)*

Passenger Information Systems *(Urban Rail – Mainline Rail)*

Integrated Operations Control Centre *(Rolling Stock – Freight Rail)*

Passenger Mobility and Video & Security systems (including onboard) *(Rolling Stock – Freight Rail)*

Telecoms *(Rolling Stock – Freight Rail)*

Digital Asset Management *(Rolling Stock – Ticketing & Payments)*

Service & Maintenance *(Rolling Stock – Ticketing & Payments)*

Cybersecurity *(Rolling Stock – Ticketing & Payments)*

Ticketing & Payment *(Urban Rail – Mainline Rail)*

Ticketing & Payment *(Ticketing & Payments)*

Interlockings *(Urban Rail – Freight Rail)*

ERTMS / ETCS / TMS *(Mainline Rail – Freight Rail)*

Hitachi Rail is a global leader in the railway sector offering integrated rail solutions, including rolling stock, signalling systems, digital technology, operation and service & maintenance activities.

Rolling Stock

With a remarkable century-long track record of serving customers and passengers, Hitachi Rail excels in engineering and embraces a dedication to innovation. Through collaborative partnerships with customers, Hitachi Rail strives to enhance the passenger experience across all Hitachi Rail's rolling stock offerings. In terms of train products and vehicles, the production is oriented on: High speed trains (also called "Very High Speed"), Main line trains (Intercity and Regional trains) and Mass transit trains (Tram, Monorail and Metro).

Among the most important and globally recognised Hitachi Rail's train models, which demonstrate Hitachi Rail's commitment to sustainability and to the reduction of products' environmental impact, there are:

- **ETR 1000** provided with a recyclability of 94.4% and the remarkable recoverability rate of 95.8%;

- **Caravaggio Train**, recyclable as of 95.1% and presenting a high recoverability of 96.3%;

- **HTR 412 Blues train**, recyclable for its 93.3% and provided with a good recoverability rate of 95.2%.

Digital Signalling & Systems

Hitachi Rail specialises in designing, producing, installing, and commissioning advanced signalling systems, components and comprehensive mobility solutions for modern and enhanced railway, transit, and freight lines.

The extensive product and solution portfolio includes state-of-the-art signalling technologies, traffic management systems, and an integrated control centre platform that caters to diverse operational needs.

With dedicated teams worldwide, Hitachi Rail provides a broad spectrum of innovative signalling solutions. Hitachi Rail's offerings range from traditional signalling systems to cutting-edge digital and automated solutions to enhance railway operations' safety, cybersecurity, reliability, and efficiency.

By leveraging a comprehensive approach on railway and transit operations, Hitachi Rail enables its clients to achieve superior performance and revenue efficiencies, driving long-term success and sustainability in the transportation sector.

Smart Mobility

The Lumada Intelligent Mobility Management suite represents a novel and distinctive proposition introduced by Hitachi Rail, with a specific focus on assisting public transport operators, cities, and passengers in realising a more sustainable, cost-efficient, and congestion-free global landscape.

This suite comprises a collection of intelligent mobility solutions, encompassing the multi-modal passenger smartphone application, 360Pass, and a cutting-edge orchestrator tool named 360Motion, tailored for operators and municipalities.

With its capability to create a digital twin of an entire city's public transport network, 360Motion enables predictive analytics and real-time responses, empowering cities to optimise their transportation systems and facilitate seamless movement for their citizens.

Turnkey

Hitachi Rail holds a prominent position as a leader in the global design and construction of entire railways, whether undertaken independently or in collaboration with consortium partners. Their transportation systems are carefully crafted, with a primary focus on whole life cost considerations. As a result, these solutions exhibit exceptional performance, enhanced capacity, elevated safety levels, improved service availability, and heightened passenger satisfaction. With versatile capabilities, Hitachi Rail has the capacity to act as a specialised contractor or assume a leadership role in joint ventures alongside civil work companies and other rolling stock manufacturers.

Operation, Service & Maintenance

Hitachi Rail offers pioneering solutions across a diverse range of services, encompassing Service & Maintenance for both rolling stock equipment and legacy signalling installations including full operation services for metro line systems. By providing best-in class services, Hitachi Rail aims to optimise product life cycles, support customers' operations, and elevate passenger experience through the integration of innovative digital solutions.

Next-Generation trains for Naples Metro Line 6

The Metro Linea 6 in Naples - for which Hitachi Rail will deliver 22 metro vehicles - has been recognised by Italy's Campania Region as a best practice sustainability initiative.

Hitachi Rail made substantial progress using Building Information Modelling (BIM) technology to enhance construction efficiency and accuracy.

The line incorporates several sustainable features: energy-efficient systems like LED lighting and regenerative braking reduce overall energy consumption, while solar panels installed on station roofs generate renewable energy, decreasing reliance on non-renewable sources. The construction process uses recycled and low-impact materials, such as eco-friendly concrete.

Advanced water management systems have been implemented to reduce water use and manage runoff, contributing to the conservation of local water resources.

Hitachi Rail incorporated technology to minimise noise and vibrations, improving the quality of life for residents in surrounding areas and reducing environmental noise pollution. The design includes green spaces and vegetation within and around the stations, which improve air quality and provide aesthetic and ecological benefits to the urban environment.

Europe's first battery train

In June, Hitachi Rail completed the first 20 trains of its ground-breaking 'tri-brid' Masaccio fleet, which can operate on battery, electric and diesel power.

The trains will run on routes between Calabria, Basilicata, and Puglia. The fleet is already cutting carbon emissions by 50% on lines in Italy, with more to be delivered.
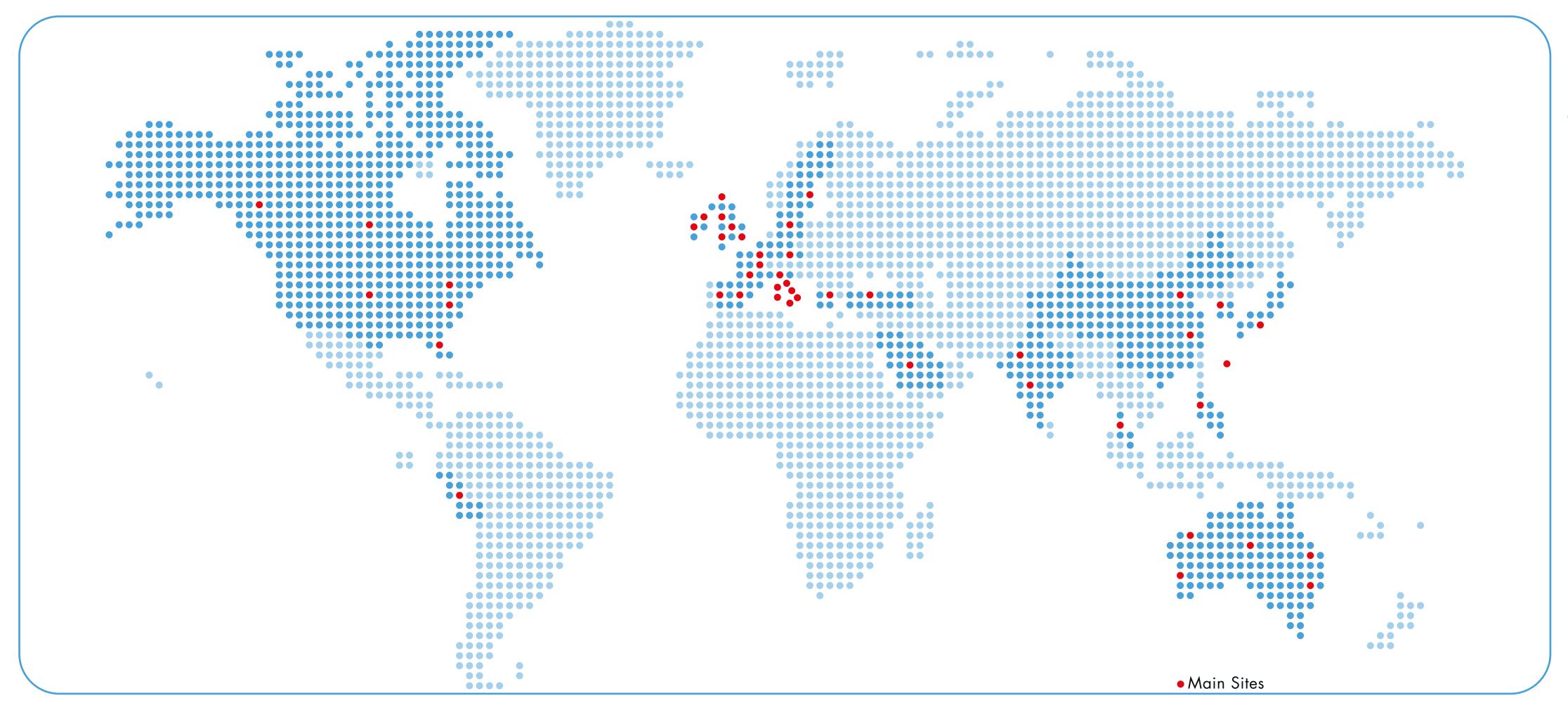
More than half of Europe's railways still rely on diesel and our retrofittable battery technology is now helping Trenitalia to deliver cleaner, quieter services for passengers.

The Masaccio train in Italy, the world's first to obtain the SPD (Social Product Declaration), which assesses and communicates the environmental and social impacts of products throughout their life cycle, focusing on aspects such as resource use, emissions, and social responsibility.

The SPD was published November 6th and assess the train's effect on a variety of factors, including end-of-life care and recycling, manufacturing, and the supply chain.

1.2.3 Group Structure and Business

● Main Sites

The ESG Report 2024 of the companies belonging to the Hitachi Rail Business Unit of Hitachi Ltd. consists of Hitachi Rail Ltd. and its fully consolidated subsidiaries, the Rail division of Hitachi Ltd in Japan and some direct subsidiaries of Hitachi Ltd involved in Rail business.
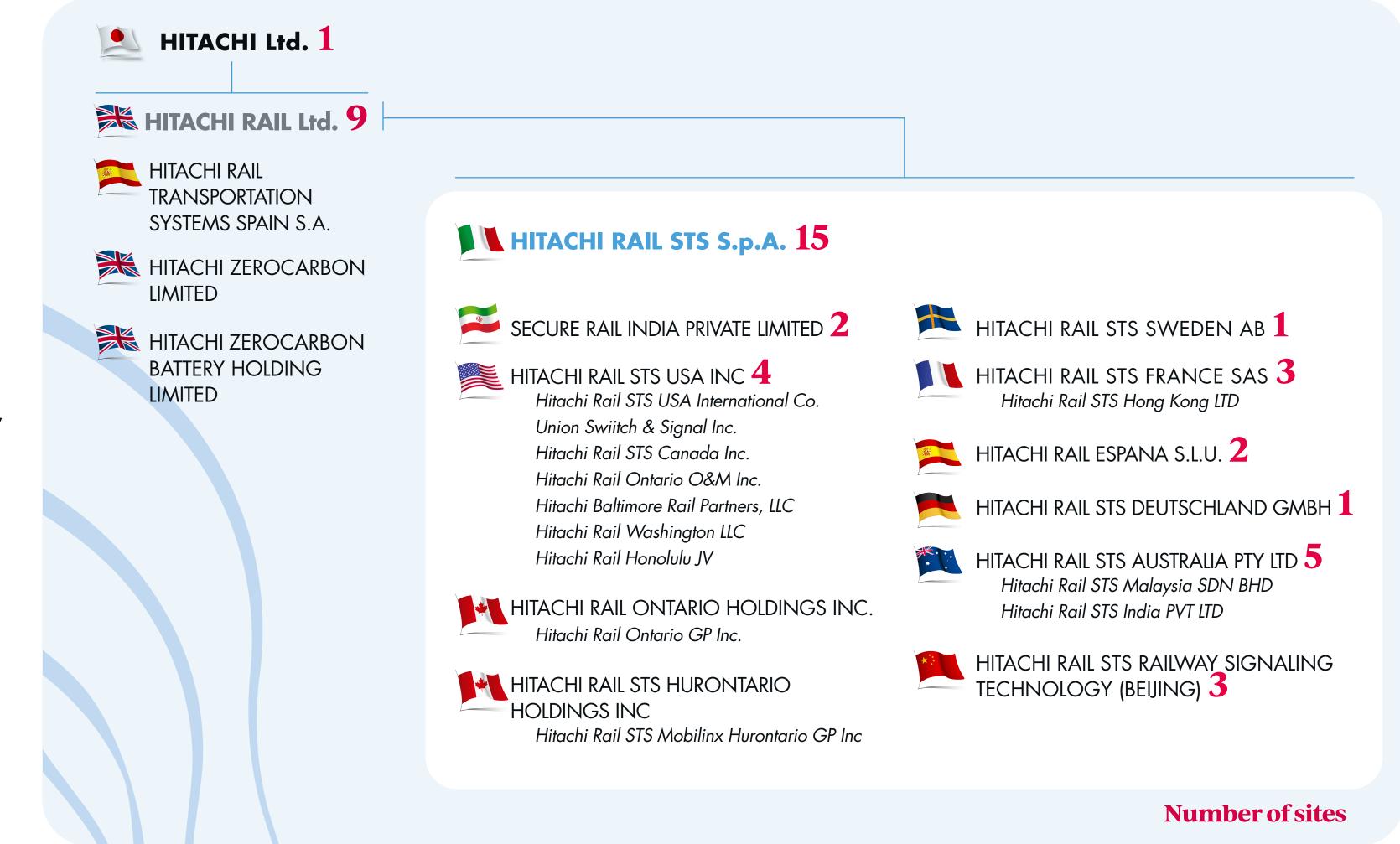
The reporting scope of qualitative and quantitative environmental data and information in the ESG Report 2024 includes 46 **main sites** in which Hitachi Rail operates as shown below:

- **32 offices:** Ankara, Baltimore, Bangalore, Beijing (2 sites), Brisbane, Copenhagen, Genova, Glasgow, Karratha, Kolkata, Kuala Lumpur, Les Ulis, Lima, Ludgate (Global Head Office), Madrid, Makati City, Miami, Munich, Noida, Perth, Piossasco, Pittsburgh, Quezon City, Riyadh, Seoul, Shanghai, Solna, Sydney, Taipei and New Taipei, UAE sites, Zaragoza;

- **6 train maintenance centres:** Bounds Green, Craigentinny, Doncaster, North Pole, Stoke Gifford, Swansea;

- **8 manufacturing sites:** Batesburg, Kasado, Napoli, Newton Aycliffe, Pistoia, Reggio Calabria, Riom, Tito Scalo.

The correspondence between the Group's sites and related legal entities consolidated on a line-by-line basis as of 31 March 2024 is shown below:

🇯🇵 **HITACHI Ltd. 1**

🇬🇧 **HITACHI RAIL Ltd. 9**

🇪🇸 HITACHI RAIL TRANSPORTATION SYSTEMS SPAIN S.A.

🇬🇧 HITACHI ZEROCARBON LIMITED

🇬🇧 HITACHI ZEROCARBON BATTERY HOLDING LIMITED

🇮🇹 **HITACHI RAIL STS S.p.A. 15**

🇮🇷 SECURE RAIL INDIA PRIVATE LIMITED **2**

🇺🇸 HITACHI RAIL STS USA INC **4**
  Hitachi Rail STS USA International Co.
  Union Swiitch & Signal Inc.
  Hitachi Rail STS Canada Inc.
  Hitachi Rail Ontario O&M Inc.
  Hitachi Baltimore Rail Partners, LLC
  Hitachi Rail Washington LLC
  Hitachi Rail Honolulu JV

🇨🇦 HITACHI RAIL ONTARIO HOLDINGS INC.
  Hitachi Rail Ontario GP Inc.

🇨🇦 HITACHI RAIL STS HURONTARIO HOLDINGS INC
  Hitachi Rail STS Mobilinx Hurontario GP Inc

🇸🇪 HITACHI RAIL STS SWEDEN AB **1**

🇫🇷 HITACHI RAIL STS FRANCE SAS **3**
  Hitachi Rail STS Hong Kong LTD

🇪🇸 HITACHI RAIL ESPANA S.L.U. **2**

🇩🇪 HITACHI RAIL STS DEUTSCHLAND GMBH **1**

🇦🇺 HITACHI RAIL STS AUSTRALIA PTY LTD **5**
  Hitachi Rail STS Malaysia SDN BHD
  Hitachi Rail STS India PVT LTD

🇨🇳 HITACHI RAIL STS RAILWAY SIGNALING TECHNOLOGY (BEIJING) **3**

Number of sites

For more details regarding the reporting boundary refer to the Methodological Note.

1.2.4 Economic Performance

Direct economic value generated and distributed

Through reliable transportation and sustainable practices, Hitachi Rail fosters local growth and prosperity, ensuring a positive impact on the community's development.
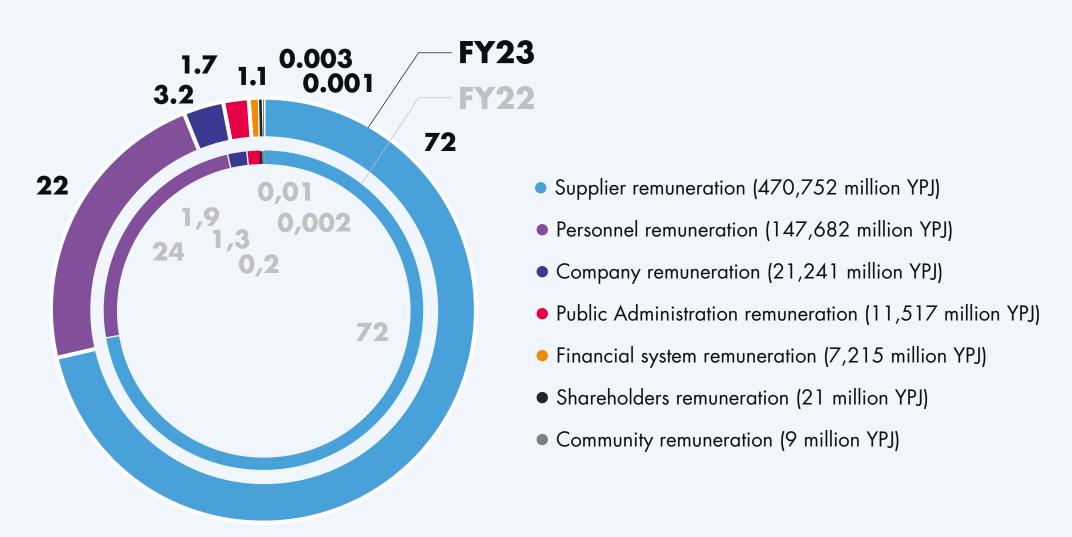
Hitachi Rail is committed to generating value for its stakeholders and to reporting its direct monetary value added to local economies, as well as acknowledging the importance of being transparent by providing a clear picture of its economic profile.

The chart below shows the economic value generated and distributed by Hitachi Rail referring to Hitachi Rail Ltd. and its subsidiaries. The sites and offices in Japan are not included.

In FY23 Hitachi Rail's economic value generated is 658,438 million of JPY (520,027 in FY22).

Most of the value generated refers to the remuneration of suppliers (72%; 470,752 million JPY and 72%; 375,673 million JPY in FY22), personnel remuneration accounts for 22% (147,682 million JPY and 24%; 126,518 million JPY in FY22), company remuneration accounts for 3.2% (21,241 million JPY and 1.9%; 9,678 million JPY in FY22), Public Administration remuneration accounts for 1.7% (11,517 million JPY and 1.3%; 6,865 million JPY in FY22), financial system remuneration 1.1% (7,251 million JPY and 0.2%; 1,242 million JPY in FY22), shareholder remuneration 0.003% (21 million JPY and 0.008%; 39 million JPY in FY22) and community remuneration 0.001% (9 million JPY and 0,002%; 10 million JPY in FY22).

Direct economic value distributed (in million JPY %)

- Supplier remuneration (470,752 million YPJ)
- Personnel remuneration (147,682 million YPJ)
- Company remuneration (21,241 million YPJ)
- Public Administration remuneration (11,517 million YPJ)
- Financial system remuneration (7,215 million YPJ)
- Shareholders remuneration (21 million YPJ)
- Community remuneration (9 million YPJ)

> " We are proud to have developed the industry's first Sustainable Product Declaration. Hitachi Rail's commitment to the Sustainable Development Goals is demonstrated by facts "

Michele Fracchiolla
Corporate Officer

Head of Global Environment Division
Hitachi Group

Head of Rail Control System Lob
for Europe, Australia and Latin America
Hitachi Rail STS

2
ESG Framework and Roadmap

Chapter 2
ESG Framework and Roadmap

2.1 ESG Strategy and Roadmap

Sustainability is at the core of Hitachi Rail's operations and vision. Its sustainability strategy focuses on reducing the environmental footprint, enhancing social responsibility, and ensuring robust governance practices across all aspects of business. The Organisation is committed to developing energy-efficient trains and advanced rail control systems that contribute to a low-carbon transportation future. Key commitments include achieving Carbon Neutrality in its main sites by 2030 and Net-Zero emissions by 2050, increasing the use of renewable energy in manufacturing processes, and continuously improving the recyclability of products.

Additionally, Hitachi Rail prioritises the wellbeing of its employees and communities by fostering a diverse and inclusive workplace, upholding the highest safety standards, and engaging in transparent and ethical business practices. Through these efforts, Hitachi Rail aims to drive innovation, create value for stakeholders, and lead the way toward a more sustainable and connected world.

Hitachi Rail's sustainability strategy is built upon five key pillars, each designed to drive the commitments to environmental stewardship, social responsibility, and economic growth.

1. Sustainable Supply Chain

Hitachi Rail prioritises integrating sustainable practices throughout its supply chain. By partnering with suppliers who share its values, the company ensures that materials and processes are both environmentally responsible and ethically sound. This approach not only reduces the overall environmental footprint but also supports the global movement towards more sustainable industry practices.

2. Green & Digital Product Solutions

Innovation is at the heart of product development. The focus is on creating green and digital solutions that enhance energy efficiency and reduce emissions. Hitachi Rail's cutting-edge trains and rail control systems incorporate the latest technologies to provide sustainable transportation options that meet the demands of the modern world while minimising environmental impact.

5. Stakeholders' Partnership for Sustainable Growth

Collaboration is key to sustainability efforts. Hitachi Rail actively engages with a wide range of stakeholders, including customers, suppliers, industry partners, and local communities, to promote sustainable growth. By building strong partnerships, it can share knowledge, leverage resources, and drive collective action towards its sustainability goals.

3. Employees Culture and Occupational Health & Safety

Hitachi Rail is dedicated to fostering a culture of sustainability among employees. This includes comprehensive training programmes, promoting a safe and healthy work environment, and encouraging initiatives that contribute to the overall sustainability goals. With its commitment to Occupational Health & Safety Hitachi Rail ensures that the workforce operates in a safe and supportive environment, which is essential for achieving long-term success.

SUSTAINABILITY STRATEGY

These five pillars collectively form the foundation of Hitachi Rail's sustainability strategy, guiding the business towards a future where innovation, responsibility, and sustainability go hand in hand. Through a comprehensive approach, it is committed to making a positive impact on the environment and society, while delivering value to all stakeholders.

4. Decarbonisation Pathway

The pathway to decarbonisation is a cornerstone of the sustainability strategy. Hitachi Rail set ambitious targets to reduce carbon emissions, including transitioning to renewable energy sources and improving the energy efficiency of operations. By doing so, it aims to significantly contribute to global efforts to combat climate change and promote a low-carbon economy. The target is to reduce direct and indirect GHG emissions ensuring Carbon Neutrality in its main sites by 2030 and Net-Zero emissions by 2050.

Hitachi Rail is also committed to actively contributing to the United Nations Sustainable Development Goals (SDGs) through sustainable practices, innovative solutions, and community engagement initiatives.

Delivering a Sustainable, Safe and High-Quality Railway Business

Hitachi Rail's Environment, Social, Governance and Sustainability strategy and roadmap guide its ambitions as a sustainability leader. It provides a framework for decision making and goal setting that keeps Hitachi Rail on track to become a Climate Change Innovator.

Hitachi Rail's ESG roadmap sets environmental targets and establishing performance measurements and transparent disclosures which drive its day-to-day activities.

Digital Innovation

Within Hitachi Rail's diverse range of rolling stock, signalling, and turnkey solutions, it harnesses digital technologies effectively to deliver improved customer experiences with reduced environmental impacts. Hitachi Rail's signalling solutions team is leading the way in developing innovative 'Zero-Infrastructure' train control technologies. These advanced systems replace traditional line-side equipment with cloud-based solutions connected via satellite communication.

Lifecycle Analysis, Material Recovery and Waste Reduction

Hitachi Rail places a strong emphasis on leveraging the latest advancements to minimise material and energy consumption for its customers throughout the product lifecycle. By adopting lifecycle analysis, Hitachi Rail integrates sustainable materials, including recycled ones, and embraces renewable energy sources such as battery trains to achieve this objective.

Moreover, Hitachi Rail proactively encourages its suppliers to participate in energy efficiency initiatives and other environmental programs aimed at reducing emissions. This includes promoting the adoption of material recovery, an innovative technological approach for recycling electronic equipment and materials. Through these efforts, Hitachi Rail is committed to reducing its environmental footprint and promoting sustainable practices across its supply chain.

Carbon Management and the Decarbonisation Pathway

Hitachi Rail takes actions to reduce greenhouse gas emissions as part of the Environmental Management System established at a global level, and defines its Carbon Management Approach based on the following principles:

- global approach: mechanisms that increase the commitment to sustainability in all offices and production sites;

- reasonable and feasible long-term objectives: clear and realistic vision for path to be followed;

- support for the development of technologies and advanced solutions;

- effort to train a broader base of employees in the LCA analysis;

- methodological developments, including impact assessment methodologies type I and II and interpretation phases;

- recognition of a plurality of established approaches, since social life cycle impact assessment methodologies include different approaches developed in the literature;

- development of areas where minimum guidance prevails;

- integration of Social Organisational Life Cycle Assessment (S-LCA).

Hitachi Rail's CBAM journey

In October 2023, Hitachi Rail's committed to comply with the new European Carbon Border Adjustment Mechanism (CBAM) Regulation.

The CBAM is a compensation mechanism for carbon emissions embedded in goods imported from outside the borders of the European Union and it encourages cleaner industrial production in third countries. During the transitional phase, which started on October 1st 2023, Hitachi Rail began collecting quarterly data on goods subject to the CBAM. Starting on January 1st 2026, it will annually report the amount of goods subject to the CBAM imported in the previous calendar year and the carbon dioxide emissions incorporated.

To address the challenges of the CBAM implementation, Hitachi Rail set up a CBAM working group consisting of the Procurement, Customs and Transportation, Legal, Trade and Compliance, and Finance functions and, with the support of the CSR & Sustainability team, in FY23 it implemented actions such as:

- the identification of materials and suppliers subject to the CBAM regulation;

- the reporting of the information required for the transitional period;

- the review of contractual terms with CBAM material suppliers.

This new legislation gives Hitachi Rail the opportunity to make its value chain greener by selecting suppliers who care about green operation in their production processes. In view of the definitive period, which will start in 2026, Hitachi Rail will finalise a thorough procedure for the CBAM reporting process, including governance, responsibilities, and activity flow.

Partnership for Sustainable Development

Through partnerships Hitachi Rail brings together diverse stakeholders, including governments, businesses, civil society organisations, academy, and communities, to collaborate and work towards achieving the United Nations Sustainable Development Goals (SDGs).

These partnerships recognise that no single actor or sector can effectively tackle issues such as poverty, climate change, inequality, and environmental degradation on their own. By leveraging the strengths, expertise, and resources of each partner, these collaborations foster innovation, knowledge sharing, and collective action towards Sustainable Development.

Commitment to the UN Global Compact

Hitachi Rail is co-founder of the UN Global Compact Network Italy (2010) a voluntary United Nations initiative that supports global companies committed to responsible business practices in the areas of human rights, labour, the environment, and corruption. The Group's membership in the initiative reiterates its commitment to the Global Compact and its principles as an integral part of the Hitachi Rail's strategies and workplace culture.

Hitachi Rail regularly submits the Communication on Progress (CoP) Questionnaire, which focuses on five disclosure areas (governance, human rights, labour, environment, and anticorruption) and is designed to help participating companies monitor performance across the Ten Principles of the UN Global Compact.

Awards Recognition Fiscal Year 2023

Hitachi Wins Special Jury Prize at Japan Industrial Technology Awards

Hitachi Ltd.'s project, *Development of High-Speed Trains (Class 800 Series)* for the UK's Intercity Express Programme (IEP), earned the Special Jury Prize at the Japan Industrial Technology Awards.

Addressing the diverse needs of electrified and non-electrified lines, Hitachi innovated by equipping trains with electric generators powered by modern diesel engines. This solution enables seamless travel on both types of tracks while reducing CO_2 emissions.

The Japan Industrial Technology Awards celebrate innovation and technological excellence in the Japanese industry, awarding companies and individuals that stand out for their significant contributions to technological development and industry advancement.

Greening Urban Landscapes: Hitachi's Environmental Initiative

A Hitachi Rail safety campaign received the Best Health and Safety Project award at this year's Health and Safety Excellence Awards in the UK, on World Health and Safety Day. This award, organised by Western Business Media, identifies exemplary initiatives aimed at enhancing workplace health and safety across industries.

Hitachi Rail's winning campaign *Be Safe, Safety Starts With Me*, developed in collaboration with BB&A, is designed to develop a proactive safety culture within the organisation. It emphasises the importance of individual accountability and collective effort in maintaining a secure work environment. The campaign extends beyond internal initiatives, reaching out to stakeholders and communities to promote safety beyond the workplace.

Hitachi Rail Honolulu receives Hitachi "Inspiration of the Year" Award

Hitachi Rail Honolulu won Hitachi's Inspiration of the Year 2023 – an award that acknowledges initiatives that embody Hitachi core values and enhance brand value.

The Skyline rail project, delivered with the City and County of Honolulu, is the first driverless rail system in the U.S. and offers a green transportation alternative to help limit the 40,000 car trips that people take each day on the island of Hawaii.

Reflecting its commitment to societal improvement, Hitachi Rail recognised this project for its innovation and its contribution to social infrastructure.

SPACIA X Train Wins Prestigious Design Awards

Hitachi Ltd., in partnership with Tobu Railway Co., Ltd. (Tobu Railway), won the *2023 GOOD DESIGN AWARD* for the design and manufacture of the car body of the new Series N100 "SPACIA X", sponsored by the Japan Institute of Design Promotion.

The Design Award recognises outstanding achievements in design across various industries, emphasising innovation, functionality, and aesthetics.

Under the concept of *Connect & Updatable*, SPACIA X has been manufactured with the aim of becoming a more advanced and high-quality flagship limited express train, while maintaining the tradition and brand image of the conventional Series 100 SPACIA. SPACIA X connects Asakusa with the Nikko and Kinugawa Onsen areas.

Hitachi Rail receives EMAS Award for Energy Autonomy Initiatives at Tito Scalo Site

Hitachi Rail's Tito Scalo site has been recognised with an EMAS (Eco-Management and Audit Scheme) award in the category dedicated to energy autonomy projects. The award identifies site initiatives focused on ecological transition.
In efforts to improve environmental performance, Hitachi Rail has modernised the electrical distribution network at Tito Scalo to minimise energy losses and reduce energy consumption, upgrading outdated equipment, replacing components, and adopting remote WiFi-enabled smart light fixtures.

Hitachi Rail has also installed a photovoltaic system for generating electricity from renewable sources by deploying solar panels.

The Eco-Management and Audit Scheme (EMAS) award is a prestigious recognition given to organisations that demonstrate excellence in environmental management and internal audit.
Founded by the European Union, EMAS awards recognise organisations that demonstrate excellence in environmental management and internal audit.

Hitachi received the "Welcome. Working for refugee integration" logo

welcome
working for refugee integration

UNHCR (United Nations High Commissioner for Refugees) has awarded Hitachi Rail the Welcome.

Working for refugee integration logo for the year 2023, in recognition of its outstanding commitment to promoting specific interventions for the labour integration of refugees.

2.2 Stakeholder Engagement

For Hitachi Rail, corporate social responsibility translates into the daily focus and constant care of its relations with stakeholders. It defines and implements specific tools for dialogue and interaction to achieve greater understanding of their needs and expectations.

The stakeholder engagement process plays a central role in Hitachi Rail's corporate strategy, reflecting its unwavering dedication to inclusive decision-making and transparent communication.

Regulatory bodies

Hitachi Group

Customers

HITACHI Inspire the Next
HITACHI RAIL

Suppliers and business partners

Investors

Employees

Banks

Local communities

National and Local Governments
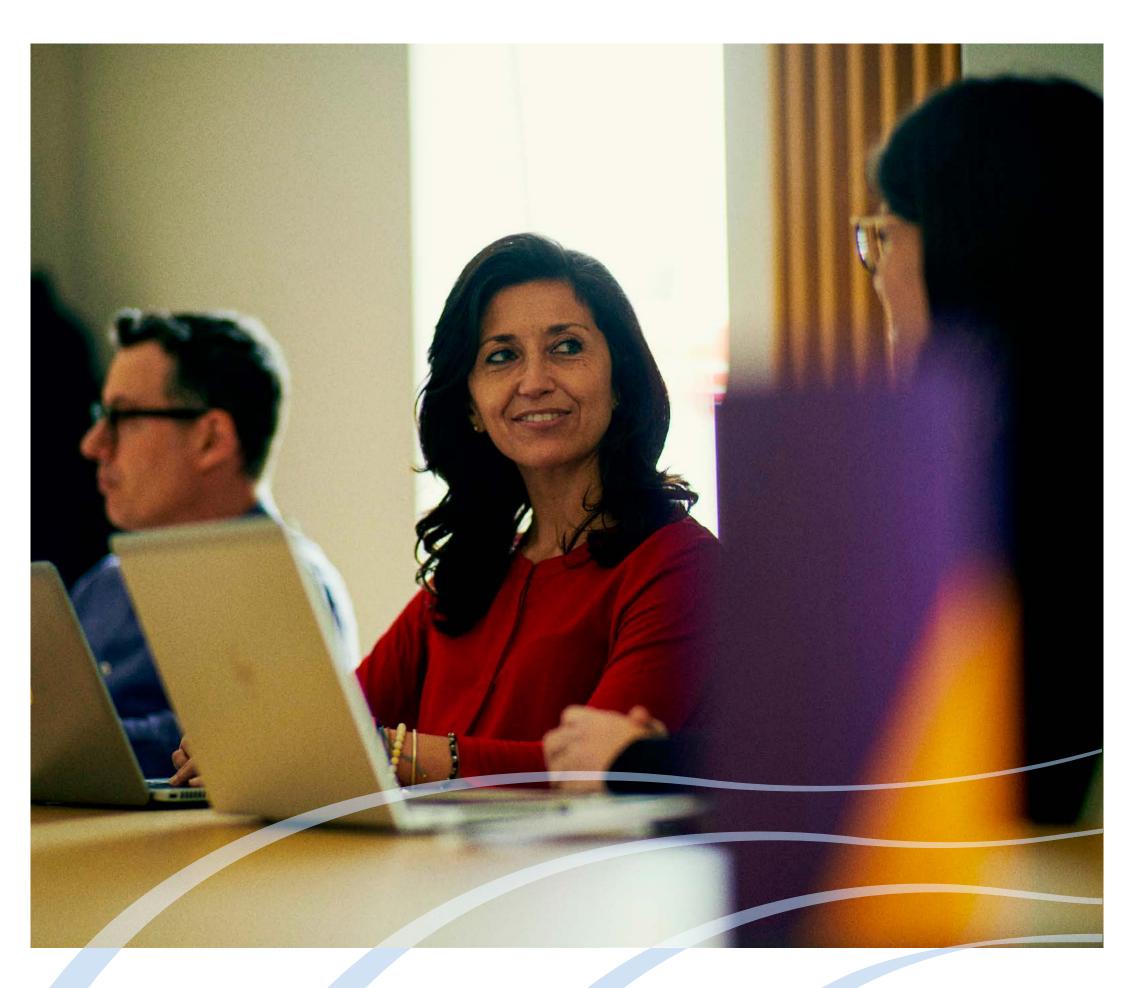
2.2.1 Our Dialogue with Stakeholders and their Involvement Process

Core to Hitachi Rail's stakeholder engagement strategy is the principle of inclusivity and receptiveness, embracing the needs and perspectives of workers, customers, suppliers, and other stakeholders to cultivate an environment where shared values thrive.

Hitachi Rail seeks to identify common priorities, pursuing them through three distinct and transparent lines of action:

- **opportunities for information**: unidirectional communication from Hitachi Rail to its Stakeholders, to provide pertinent information, updates, and insights, keeping stakeholders informed;

- **consultation/dialogue**: actively seeking the invaluable opinions and perspectives of its Stakeholders, through surveys, polls, focus groups, and other participatory mechanisms. This also includes permanent discussion groups to allow for ongoing dialogue and exchange of ideas;

- **partnerships**: forging specific projects in collaboration with Stakeholders to work jointly on goals of mutual interest, strengthening relationships and co-creating value with its diverse partners.

At the forefront of this effort is the decarbonisation strategy, focused on driving modal shift for better public transport, accelerating the adoption of batteries to aid customers in decarbonisation, and reducing emissions in Hitachi Rail's own operations and supply chain.

Hitachi Rail and local communities

Hitachi Rail Joins Dianova in Italy's Most Inspiring Race

In April, Hitachi Rail teams took part in an inspirational race with long time charity partner Dianova in Milan, Italy, commemorating 40 years' of service to building inclusive and supportive communities.

Dianova is an organisation committed to social development, helping individuals and communities in need through programs and initiatives in Italy.

The event brought together colleagues and teams across Hitachi Rail and Dianova to celebrate solidarity, teamwork and mutual support.

Hitachi's Earth Day Tree Planting Initiative in Pittsburgh

On this year's Earth Day, Hitachi Rail colleagues and families from Pittsburgh got together in a tree-planting initiative. Over the weekend, they planted an impressive total of 100 trees throughout the city. This collective initiative aimed to establish a new woodland, offering benefits such as soil stabilisation, air purification, and canopy restoration.

Empowering Tomorrow's Leaders: Hitachi Rail's Dedication to Youth Development in Honolulu

Hitachi Rail once again joined the 2023 Hawaii FIRST Tech Challenge Season, which attracts over 100 student competitors, volunteer robotics mentors, and coaches.

Organised by Hawaii FIRST Robotics, a nonprofit dedicated to promoting STEM education and careers, the event aims to inspire young people building their self-confidence, knowledge, and life skills programme.

Further demonstrating its commitment to community engagement and talent development, in April Hitachi Rail hosted engineering students from the University of Hawai'i Manoa for an exclusive tour of the Honolulu Operations and Service facility.

Project HSE Manager, Isaac gave students an inside look at the facility that will maintain and operate Hawaii's first autonomous metro fleet. The students also learned real-world applications of construction safety procedures. From classroom theory to on-site learning, Isaac and the HRH team are committed to inspiring the next generation of talent locally.

2.2.2 Our Customers and their Engagement

Hitachi Rail's breadth of rail experience and research and development programmes has created new, innovative trains and infrastructure, meeting the demand of passengers, operators, and governments all over the world for rolling stock, traffic management systems, signalling and much more. Its global expertise means that the Organisation can offer to customers solutions to every aspect of a railway network.

And, as Hitachi Rail's customers operate multiple types of transport, it continues to expand its capability to support them beyond its traditional areas of operation.

Customer Focus

Whether as a leader or part of consortia, Hitachi Rail innovates and collaborates to deliver projects that meet customers' needs, providing advanced solutions in every aspect of rail travel.

And, through collaboration with customers, Hitachi Rail is innovating transportation systems that contribute to CO_2 emissions reduction and environmental preservation.

Alongside project management, Hitachi Rail actively engages with customers to ensure their awareness of business news, updates, and developments whether through virtual and face-to-face conferences, trade shows, press releases, editorial content, or through the group website. Customers also participate in a 360-degree feedback loop that helps Hitachi Rail fully to understand customer needs and requirements. These surveys target new and existing customers – allowing communication plans and tactics to be adjusted and customised based on qualitative feedback.

Customer Complaint Management

Hitachi Rail's comprehensive customer complaint strategy operates on a global scale across both its Vehicles and Rail Control Lines of Business through a centralised database system. This complaint management initiative ensures that it can address and resolve customer grievances, aiming to reach mutually agreed-upon solutions while consistently working to minimise valid complaints by conducting thorough root cause analyses.
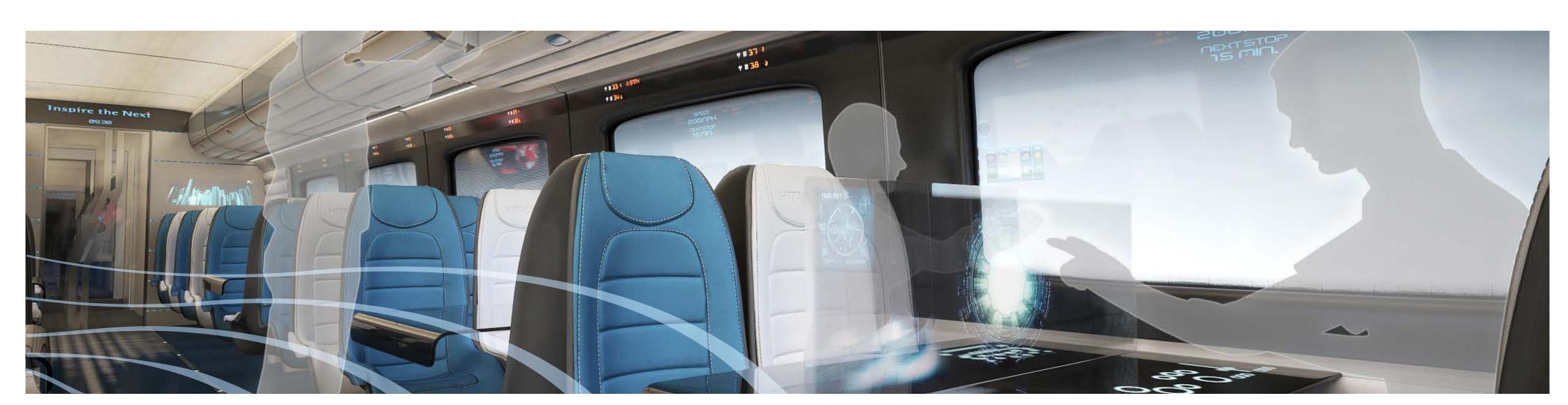
A Key Performance Indicator (KPI) in this domain is the timely resolution of complaints, which monitors the percentage of complaints handled and closed within a three-month timeframe.

By adhering to this timeline, Hitachi Rail ensures efficient and effective customer service, fostering trust and satisfaction among its clientele while continually striving for improvement in its products and services.

In FY23 in all regions about 80% of customer complaints were closed on time.

Customer Satisfaction Survey FY23

Hitachi Rail conducts regular customer satisfaction surveys, to understand and meet the needs of its customers.

These surveys are conducted by Project Managers and/or Project Quality Engineering teams, who engage in detailed interviews to gather comprehensive customer feedback. In FY23, more than 180 people were involved in this activity either externally or internally.

Through direct engagement, Hitachi Rail gathered valuable information about customers' experiences and preferences, allowing to tailor products, services, and processes to drive positive change and enhance overall satisfaction.

This holistic approach ensures that customer feedback is not only collected but also effectively used to drive positive change and enhance overall satisfaction with Hitachi Rail's products and services.

The results showed an overall weighted global score of 7.5, including both Rail Control and Vehicles Lines of Business, of which the following scoring breakdown resulted:

- **Responsiveness** – average score of 7.7;
- **Effectiveness** – average score of 7.1;
- **Technology** – average score of 7.4;
- **Collaboration** – average score of 7.9.

The overall average satisfaction level remains consistently positive – where green signifies satisfactory performance – and the satisfaction level by geography has exceeded expectations in FY23.

Continuous improvement process

In FY23 Hitachi Rail introduced a proactive approach to anticipate potential customer dissatisfaction, by implementing a new process called Customer Satisfaction Perception.

This internal self-assessment is based on 8 dimensions across all major projects and serves as a valuable insight to identify areas of improvement and to implement necessary measures.

The assessment is visualised via a Dashboard that allows for a comprehensive view of the project's performance across different dimensions, assessed by the project team, facilitating informed decision-making and proactive measures to anticipate potential dissatisfaction.

2.2.3 Industry Associations

Hitachi Rail is a member of...

UNIFE (Association of European railway builders)

UITP (International Public Transportation Association)

AICQ (Italian Association for a Quality Culture)

APTA (American Public Transportation Association)

RIA (Railway Industry Association)

RSSI (Railway Systems Supplies, Inc.)

UNISIG (Association of European Railway Signalling Companies)

ANIE (National Federation of Electro technical and Electronic Companies)

The Italian partner of **EFQM** (European Foundation for Quality Management)

HSRG (High Speed Rail Group)

ARA (Australasian Railway Association)

Cosila (consortium for safety in the workplace)

Industry association partnership: Spotlight on Hitachi Rail in UNIFE

Within the scope of UNIFE, Hitachi Rail collaborates to promote the use of railway transportation through the implementation of technological standards such as the ERTMS (European Traffic Management System) and the TSI (Technical Interoperability for the Railway System). Hitachi Rail also participates in European research projects aimed at improving safety, energy efficiency, and environmental protection in the field of railway transportation.

Examples of collaboration

SHIFT2RAIL: Hitachi Rail participates in SHIFT2RAIL, now known as Europe's Rail, proposed as a Joint Undertaking in the railway sector to reduce emissions and promote a modal shift in transportation, in line with the EU Commission White Paper on the subject.

Sustainable Transport Committee: aims to define a consistent and effective consensus in the railway industry with respect to environmental issues and energy efficiency (reliable standards to measure energy consumption), life cycle assessments in decision-making processes, eco-procurement, and noise and emission reduction.

ERRAC (European Rail Research Advisory Council): focuses on the contribution of railways to sustainable mobility. Its primary objective is to communicate the railway sector's common Research & Innovation vision to European institutions and other important stakeholders.

Hitachi Rail in UNIFE working group

Within its role on the UNIFE Sustainable Transport Committee, during FY23, Hitachi Rail supported the development of a joint statement with other rail sector associations and updated the working group's position paper on the EU Taxonomy.

The focus this year is to successfully implement EU Taxonomy in the rail sector. In the Life Cycle Assessment Topical Group, Hitachi Rail concentrated on Eco-Design for Sustainable Products Regulation and Environmental Product Declarations, and took part in ISO Standardisation for circular economy guidelines and legislative discussions on Eco-Design and Circular Economy Directives.

In the Chemical Risk Topical Group, the working group focused on the new proposal to restrict Per- and Polyfluoroalkyl Substances (PFAS), which will have implications for the rail sector, as well as the management of dangerous substances, which relies on the REACh Regulation, the SVHC, the SCIP Database, and the RISL (Railway Industry Substances List).

Hitachi Rail: Active participation in sector committees and projects
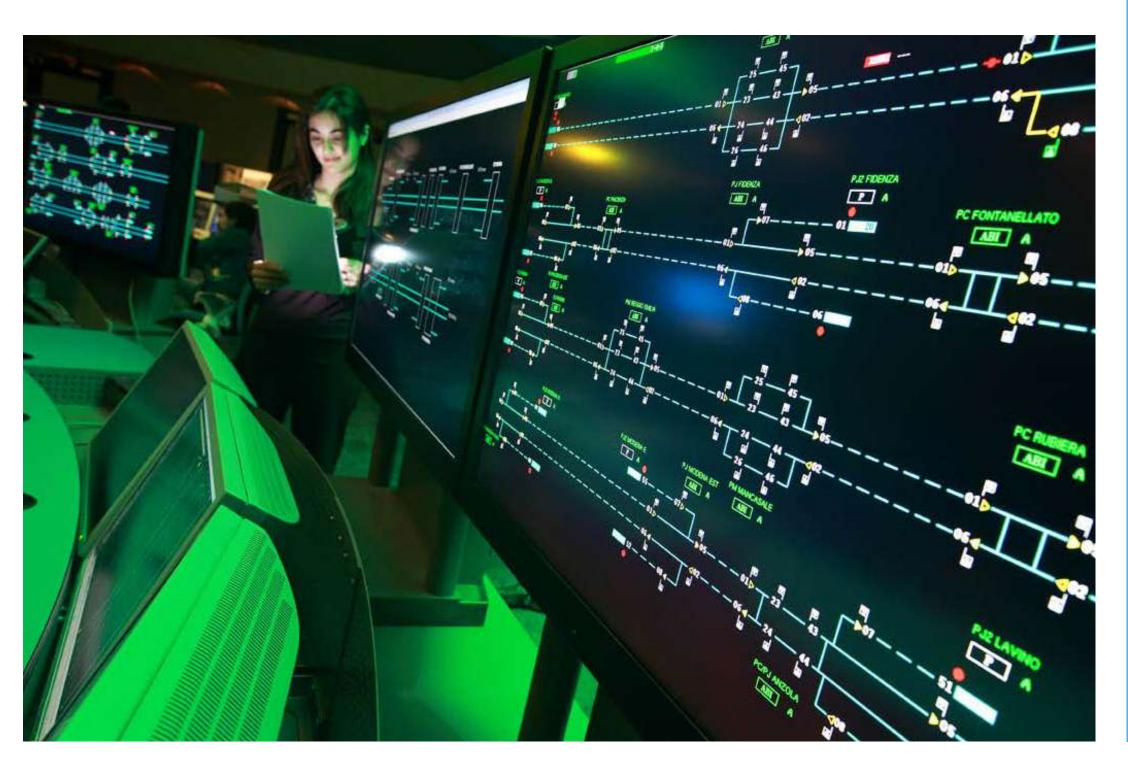
Round Table Rolling (RTR)

RTR – Round Table Rolling Stock (RTR) is the European Initiative for Procurement of Rolling Stock which aims to respond to the ever-evolving ecosystem and market dynamics and to collaborate and adopt new approaches to improve the efficiency of the procurement process. Railway operators, buyers, and suppliers have joined forces to facilitate and improve the way of working together in rolling stock procurement. Since 2018, RTR and its member firms have been working to move from a traditional project-oriented approach with long lead times, towards a more efficient product-oriented procurement approach.

Flagship Project for Sustainable and Green Rail System (FP4-Rail4Earth)

The scope of work of the four-year FP4-Rail4EARTH, under the HORIZON-ER-JU-2022-FA4-01 call topic, is to improve the existing sustainability performance of railways, to build a more attractive and resilient transport mode and to contribute towards the objectives of a climate neutral Europe for 2050. The activities are covering Europe's covering the Europe's Rail Flagship Project 4 Sustainable and Green Rail Systems, including rolling stock, infrastructure, stations, and all their related sub-systems Hitachi Rail is one of the partners of this important European initiative.

Letter to Stakeholders

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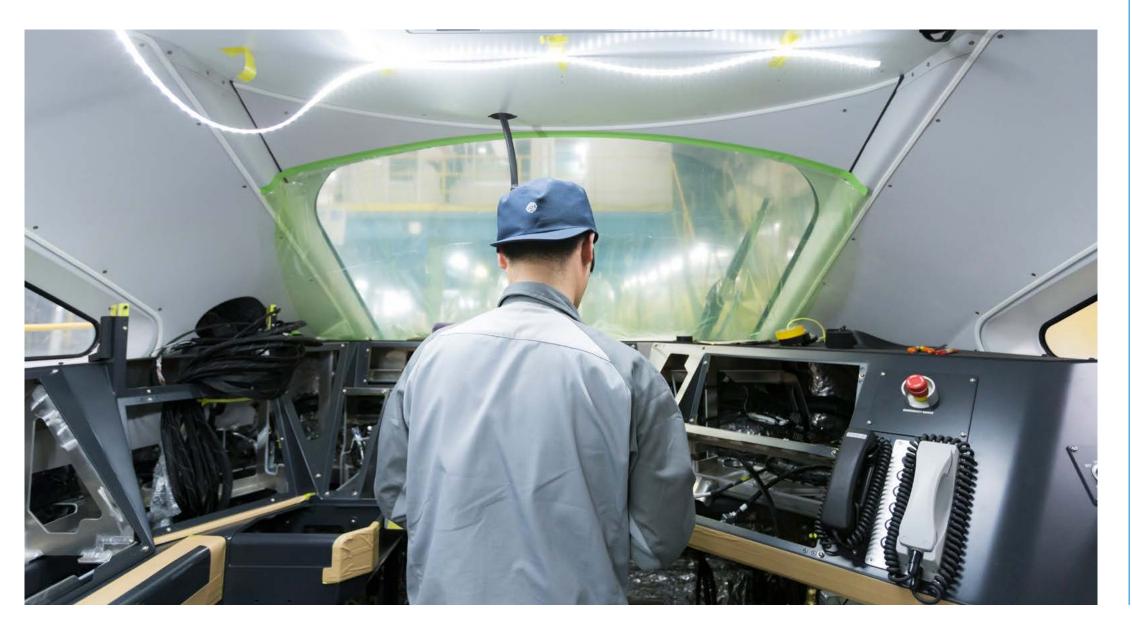
Chapter 5
Environmental Impact

Voluntary Disclosure on EU Taxonomy

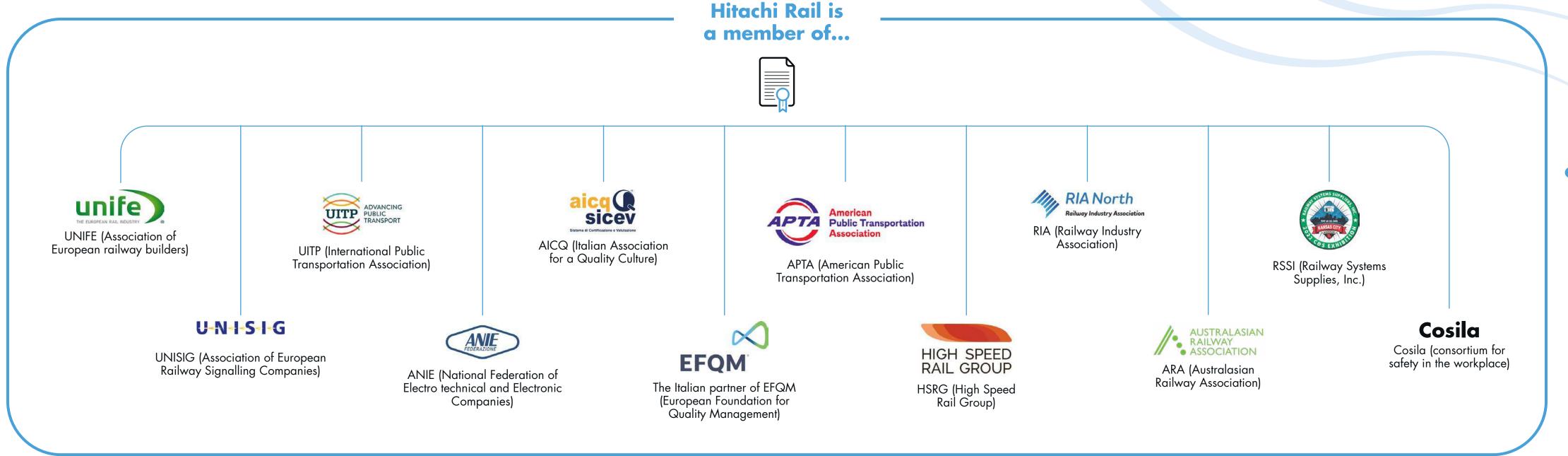Significant Events occurred after the closing of the Fiscal Year covered by the ESG Report

Methodological Note on Consumption and Emissions

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Glossary and Main Acronyms contained in the ESG Report

2.3 Materiality Analysis

Hitachi Rail is attentive and responsive to variations in stakeholder needs, and through ongoing dialogue, it directs its efforts and defines strategic sustainability priorities. This enables a focused approach on the most relevant topics for business development in line with stakeholder expectations, considering the positive and negative impacts expected on the reference business.

Our approach to Materiality Analysis

According to the GRI Sustainability Reporting Standards, materiality is the principle that identifies which topics represent the most significant impacts of an Organisation on the economy, the environment, and people, including impacts on human rights.

The Materiality Analysis conducted in FY22 was confirmed for FY23. Hitachi Rail's approach for the 2023 materiality analysis already integrated several elements, such as the "Impact Materiality" process defined by GRI 3: Material Topic 2021 (according to requirements set forth by the new GRI Universal Standards 2021) in a process that will gradually move towards a full double-materiality[1] assessment. Through a comprehensive and structured analysis process, Hitachi Rail began with an extensive

desk analysis of the internal and external reference context and subsequently identified significant macro-topic for Hitachi Rail, which take into account the impact of Hitachi Rail's activities on the environment and the impact of ESG issues on the company.

The process involved engaging in extensive stakeholder consultations and conducting a rigorous analysis of environmental, social, and economic material aspects and related impacts to identify the most relevant material topics to be included in its sustainability reporting.

The approach to the Materiality Analysis has focused on the concept of significant, actual, and potential impact on the economy, people, and the environment, from an "inside-out" perspective, also including elements from a financial impact dimension,

known as "outside-in" perspective. As a result, Hitachi Rail has updated its Materiality Analysis, considering the shift from a focus on the relevance of material topics for stakeholders and the Organisation to a focus on the actual and potential impacts, both positive and negative, arising from its activities.

The process can be summarised as follows:

- **external context analysis and identification of relevant macro-themes**: the analysis started with the analysis of the internal and external context, implementing an in-depth benchmarking exercise focused on business activities, stakeholders, sustainability sector trends, industry ESG priorities, reporting trends, and market

KPIs. This resulted in the rationalisation of Hitachi Rail's FY22 material topics by identifying relevant "macro-themes," broader than the previous material topics;

- **preliminary analysis and identification of relevant impacts**: Hitachi Rail analysed its activities and those of the sustainability context in which it operates to identify possible impacts related to the most relevant ESG macro-areas. It drew of a list of impacts on the main stakeholders, differentiated by positive/negative, current/potential, and reversible/irreversible, evaluated by the area of impact (economic, environmental, social, human rights) and by the moment of occurrence along the value chain (business operations – suppliers and partners, end use).

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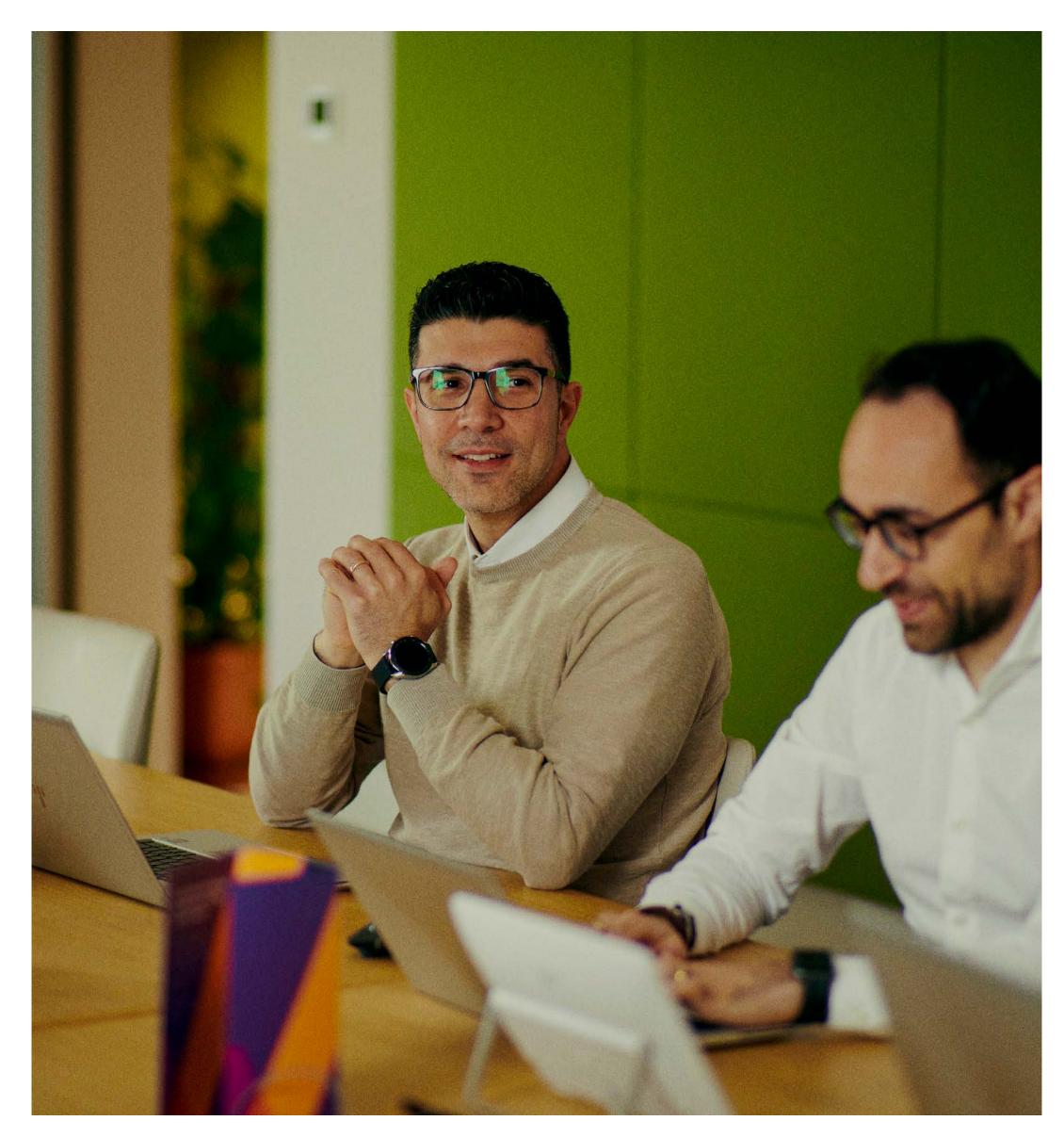
[1] Double materiality is defined by the EU Commission in the context of the CSRD and is composed two dimensions: impact materiality and financial materiality. A sustainability matter is material if it meets the definition of impact materiality, financial materiality, or both.

This analysis was based on multiple elements, including:

- internal procedures and analyses that Hitachi Rail developed during its experience in the field of sustainability;

- the GRI Universal Standards and Sustainability Accounting Standards Board (SASB) Sector-Specific Standards applicable to the railway transportation industry and the machinery and industrial goods industry;[2]

- a diverse characterisation of impacts, such as positive or negative, short/ medium/ long-term, actual, or potential, systematic, or linked to individual incidents, expected or unintended, and reversible or non-reversible.

Through this analysis, Hitachi Rail identified 16 material topics and 32 impacts which were submitted for approval to Hitachi Rail's Sustainability Committee;

- **stakeholder engagement and the evaluation of material topics and impacts**: Hitachi Rail engaged the top management and primary internal and external stakeholders to assess each material topic:

- Internal and External Stakeholders: two separate surveys on the relevance of potential impacts related to each of the material topics (inside out perspective);

- Top Management: a dedicated survey to assess the significance of the expected financial impact of each of the material topics (outside-in perspective);

- Impact Materiality Workshop: inaugural workshop session with relevant stakeholders from the middle management of Hitachi Rail's Functions. The workshop focused on directly assessing the severity and likelihood of the identified impacts

[2] For further details please consult: https://www.sasb.org/standards/archive/.

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This engagement approach has allowed Hitachi Rail to involve and gather feedback from **more than 550 stakeholders**, marking a significant increase in the number of engaged participants compared to the previous edition of the analysis. The results of the workshop are summarised in the figures below.
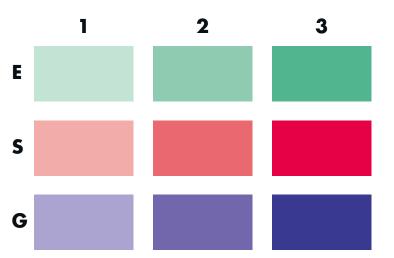
Materiality Matrix

X-asis: Relevancy from Internal stakeholders
Y-asis: Relevancy from External stakeholders

Square width Relevancy from financial perspective from Top Management
Square color Significance of the main impacts connected to the material topic

Legend for the significance of the impacts

From the materiality analysis, the following findings emerge:

- **Environmental (E):** among the related topics, "Reduction of emissions and mitigation of climate change" emerges as the most relevant;

- **Social (S):** the priority topics are "Occupational Health & Safety" and "Customer focusing";

- **Governance (G):** the standout topic in this area is "Ethics, integrity, and transparency."

Hitachi Rail is working to update its materiality analysis next year to move closer and closer to the double materiality concept and the requirements of the Corporate Sustainability Reporting Directive (CSRD).

2.3.1 Our Contribution to SDGs

In 2015, the 193 Member States of the United Nations officially signed the Agenda 2030, presenting 17 Sustainable Development Goals (SDGs), articulated in 169 specific targets, based on a set of fundamental and urgent issues for the planet to be achieved by 2030.

Hitachi Rail's contribution is based on the broader framework of Hitachi Group's commitment to contributing to the SDGs through its Business Strategy. The contribution to these objectives can be substantiated in different ways, such as:

- through the achievement of Hitachi Rail's mission to develop railway and mass transit systems and create increasingly sophisticated products and solutions that are safe, convenient, efficient, and environmentally sustainable;

- through management models which enable the Organisation to follow a path of sustainable growth and guarantee a cohesive culture of responsibility which promotes sustainable actions by individual collaborators.

SDGs to which Hitachi Group contributes through its Business Strategy and Corporate Commitment

Business Strategy

3 GOOD HEALTH AND WELL-BEING
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
11 SUSTAINABLE CITIES AND COMMUNITIES

Corporate Commitment

4 QUALITY EDUCATION
5 GENDER EQUALITY
8 DECENT WORK AND ECONOMIC GROWTH
10 REDUCED INEQUALITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
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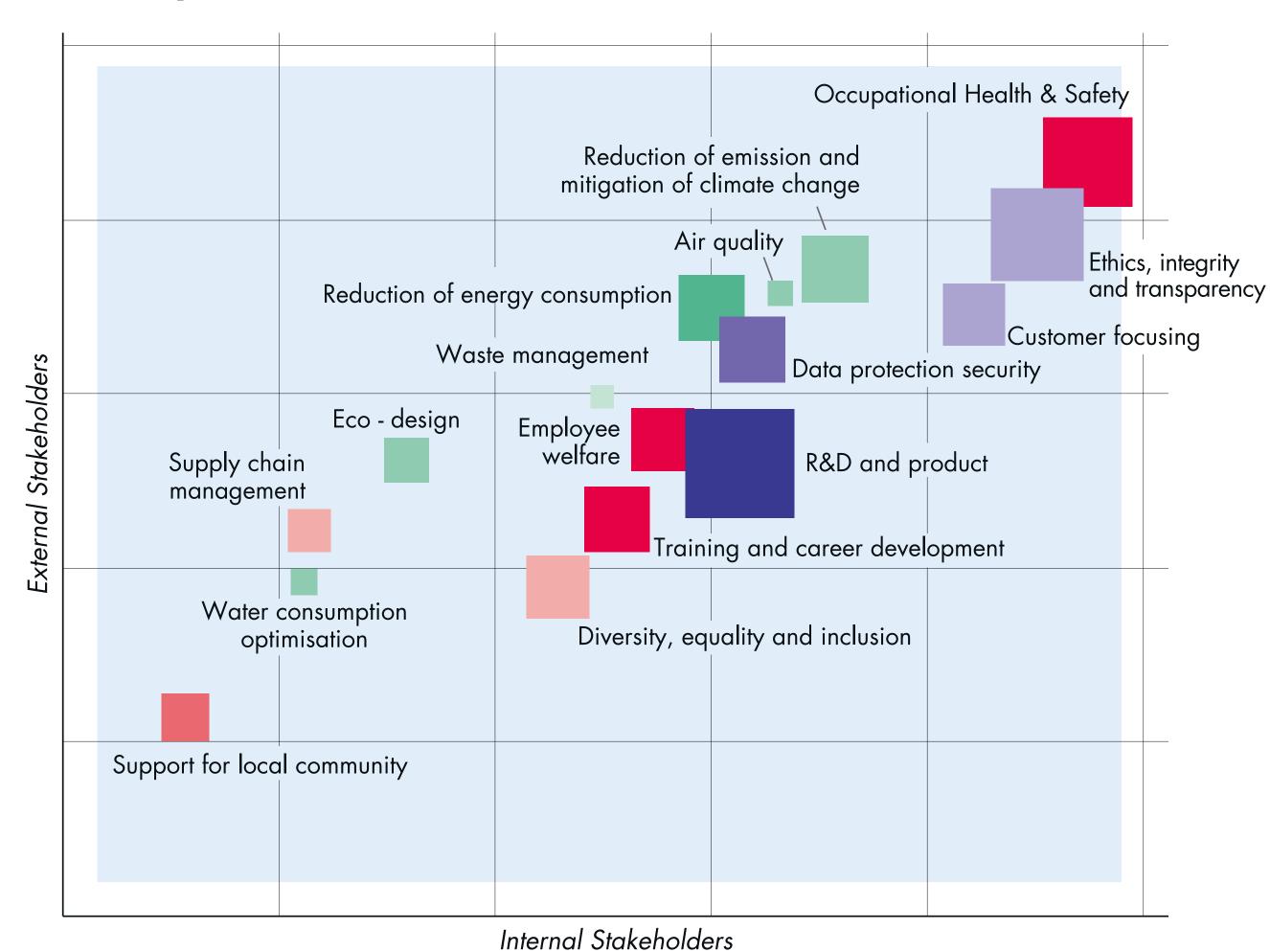Glossary and Main Acronyms contained in the ESG Report

Among the UN Sustainable Development Goals (SDGs), Hitachi Rail has identified the ones to which it contributes the most through its business activities, and has drawn up the close link between these topics and the SDGs.

All details can be found in the following table:

TOPIC	TOPICS DESCRIPTION	SDGS
Reduction of emission and mitigation of climate change	Effectively manage the potential environmental impacts of the Group's activities, contributing to the overall reduction of atmospheric emissions	7 AFFORDABLE AND CLEAN ENERGY / 13 CLIMATE ACTION
Reduction of energy consumption	Manage operations with a holistic approach to reducing energy consumption and the rational use of resources	7 AFFORDABLE AND CLEAN ENERGY / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Air quality	Managing production processes by reducing emissions of substances able to affect the natural composition of the air and impact biodiversity, local communities, and employee health	3 GOOD HEALTH AND WELL-BEING / 11 SUSTAINABLE CITIES AND COMMUNITIES
Water consumption optimisation	Ensure a responsible water supply by rationalising consumption and carefully managing water discharges to minimise environmental impacts	6 CLEAN WATER AND SANITATION / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Waste management	Ensure proper waste management aimed at safeguarding the environment, favouring the reuse, and recycling of recoverable material, also through continuous training and updating of internal staff	11 SUSTAINABLE CITIES AND COMMUNITIES / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION / 13 CLIMATE ACTION
Eco-design	Rethink production processes from a circular economy perspective to make the finished product and its production/maintenance process more efficient and less resource intensive	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Training and career development	Training, valorisation and development of Hitachi Rail people, through the development of dedicated activities and programmes aimed at increasing professional skills and promoting growth paths	4 QUALITY EDUCATION / 8 DECENT WORK AND ECONOMIC GROWTH
Diversity, Equality, and Inclusion	Promoting inclusion and valuing gender, generation, and cultural diversity as factors for growth and innovation	5 GENDER EQUALITY / 10 REDUCED INEQUALITIES

TOPIC	TOPICS DESCRIPTION	SDGS
Employee welfare	Offer employees modern and flexible tools and working models to meet specific personal needs and ensure work-life balance	3 GOOD HEALTH AND WELL-BEING / 8 DECENT WORK AND ECONOMIC GROWTH
Occupational Health & Safety	Guarantee, through the creation of safe and healthy working environments, the psychophysical health of all Group personnel and of all those who access offices, maintenance centres and production centres	8 DECENT WORK AND ECONOMIC GROWTH
Customer focusing	Developing products and services according to criteria of honesty, fairness, transparency, and collaboration to maintain a solid relationship with customers and based on listening to their needs	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Support for local community	Ensure the social development of the territory and communities in which the Organisation operates, through local stakeholder engagement initiatives aimed at generating long-term sustainable value	3 GOOD HEALTH AND WELL-BEING / 11 SUSTAINABLE CITIES AND COMMUNITIES / 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
Supply chain management	Ensure that the Organisation's values are shared throughout the supply chain, setting purchasing processes on monitoring the social and environmental performance of counterparts	8 DECENT WORK AND ECONOMIC GROWTH / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION / 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
R&D and product innovation	Develop innovative and technologically advanced solutions to take advantage of digitisation and automation opportunities and offer state-of-the-art products and services	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Ethics, integrity, and transparency	Act in compliance with the regulations in force in the individual countries in which the Organisation carries out its activities, implementing controls to prevent and monitor corruption in all its forms and to ensure ethical and transparent business conduct	10 REDUCED INEQUALITIES / 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
Data protection security	Ensuring professional management of sensitive and personal data with state-of-the-art procedures, tools and technologies, ensuring an effective IT security management system and efficient use of information assets	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

> **In our company, governance ensures accountability, stability, transparency, and ethical practices conduct through structured policies and our decision-making or advisory committees**
>
> **Jaclyn Jewell**
> *Chief Compliance Officer*

3
Governance

Chapter 3:

Governance

3.1 Corporate Governance

Hitachi Rail's Corporate Governance has undergone continuous transformations in recent years, most recently following the acquisition of Thales GTS.[3]

Among the most significant changes is the re-design of the Board of Directors of the ultimate holding company of Hitachi Rail: its composition has been enlarged to 11 members, by considering elements of diversity (both gender and possible membership of underrepresented social groups). Additionally, two new committees have been established - the Sustainability Committee and the Remuneration, Talent & Diversity Committee.

With the implementation of these Corporate Governance measures, Hitachi Rail has put in place a structure designed to better face the important challenges and opportunities that are ahead.

The Corporate Governance System adopted by Hitachi Rail is based on the **Legal Division Directive** (in this document referred to as "Legal Directive") of **Hitachi Corporate** - as Hitachi, Ltd, the ultimate parent company based in Tokyo, is commonly called.

It consists of a set of rules and guidelines that govern Hitachi Group, including Hitachi Rail. The Legal Directive, which aims at providing high-level guidance on Corporate Governance issues relevant to the Group, provides for a delegation of authority, with the purpose of achieving highly transparent management, and setting the criteria for the division and the appointment of powers between bodies/functions belonging to the Corporate or the Business Unit (BU).
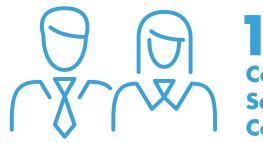
[3] It should be noted that the representation is provided of the Governance System is for FY23. However, on 31st May 2024, Hitachi Rail announced the completion of the acquisition of Thales' Ground Transportation Systems (GTS) business. After the acquisition, the composition of the Hitachi Rail's Senior Executive Committee (the Hitachi Rail CEO's advisory committee Rail SEC), the advisory body to the Hitachi Rail's CEO) was changed to make it more agile with a stronger focus on critical matters. It now comprises the CEO, a representative from the Green, Energy&Mobility Sector - of which Hitachi Rail is a part - the Chief Operating Officer, and the CEO of the Rail Control and GTS businesses. In addition, another Hitachi Rail governance committee, the Investment Strategy Committee (ISC), has been renamed to Risk Management Committee that will be chaired by a member of the GEM sector and comprise an independent attendee, the Chief Financial Officer, the Group General Counsel, the Chief Strategy Officer, and the Chief Risk Management Officer. The Audit Risk and Compliance Committee (ARCC) was renamed the Audit and Compliance Committee (ARCC) and all risk functions will be transferred to the Risk Management Committee (Enterprise Risk Management and Project Review). For more details on the acquisition process of Thales GTS, please see section "Significant events occurred after the closing of the Fiscal Year covered by the ESG Report".

The following chart sets out the Governance structure of Hitachi Corporate and Hitachi Rail's governance bodies

GOVERNANCE STRUCTURE

1
Corporate
Senior Executive
Committee

2
EXECUTIVE VICE
PRESIDENT
in charge of Sector

3
Hitachi Rail
Chief Executive Officer

4
Hitachi Rail
Senior Executive
Committee

5
Hitachi Rail LEGAL ENTITIES
(Boards of Directors +
Legal Entity Rules)

The **Corporate Senior Executive Committee (SEC)** has an advisory role to the President of Hitachi Ltd., which makes the ultimate decisions on matters of particular importance to the Corporate and the whole Hitachi Group. The SEC meets regularly in order to ensure accurate control and a lean and efficient decision-making process on crucial issues.

The issues addressed by the Corporate SEC relate to Hitachi Group's development strategies, Corporate Risk Management, and all relevant matters in the agenda necessary to grant business continuity, the flourishing of the Organisation, its culture and human capital.

Independence is ensured at the Corporate level, as Hitachi, Ltd. has established a system that facilitates the full exercise of oversight functions by maintaining a separation between management oversight and execution.

The **Executive Officer in charge of Sector (EOS or EVP)** – represented for Hitachi Rail by the Executive Officer in charge of Green Energy & Mobility **(GEM)** has the role of assisting the Hitachi, Ltd. President by providing advice from the perspective of company-wide management and improving the cooperation among different business sector organisations.

Within the scope of governance, Hitachi Rail's highest role in the Corporate Governance structure is the **Chief Executive Officer (Group CEO, henceforth also "CEO").** Supported by its advisory body, the Rail SEC, the CEO is the key managerial position of Hitachi Rail, representing it to the outside and responsible for making decisions that influence every aspect of the business, including the Management Plan, the budget planning and achievement of Hitachi Rail's performance targets.

Hitachi Rail Legal Entities' **Board of Directors** has an advisory and strategic direction role within all the respective Legal Entities belonging to the Group. It defines the basic management policy and supervises the execution of tasks of the Executive Managers to sustainably improve the value and the common interests of the organisation's shareholders.
All Legal Entity Boards must ensure compliance with local law which are additional to any approvals that Legal Entities must follow under the Corporate Governance rules. In principle, each Board of Directors must be comprised of a maximum of three Directors. Within each Board an appropriate combination of skills, experiences, and knowledge is required, depending on the nature of the legal entity (e.g., reliability, seniority requirement, being employees of the Organisation or a legal

person, authorisation to act as directors under local law etc.).

The appointment of the Board of Directors must comply with local law and for the purpose of esuring control on and correct implemenation of the corporate governance and compliance rules is subject to the prior written approval of the Group General Counsel or a delegate. They will consult in advance with the senior managers of Hitachi Rail and the Legal Entities. Any disagreement regarding appointments to the Board shall be decided by the Group CEO.

Appointments such as the **Company Secretary**, the **Supervisory Board**, and the **Statutory Auditor**, must comply with local law and be carried out by people and bodies with the appropriate qualifications and expertise. Also, in order to further develop and strengthen Hitachi Rail Corporate Governance system, Hitachi Rail has established the Talent, Remuneration and Diversity Committee with specific competences in the definition of the appointments of the governing bodies, remuneration and diversity strategy. For further information on remuneration systems, processes and policies see par. "*4.3.4 Compensation and Benefits* of this document".

Each Legal Entity has a predetermined term of office for their respective Board of Directors, as defined by each By-laws or required by local law. Committees do not have a fixed term of office but remain in place until dissolution or changes due to a new organisational directive. This structure ensures stability in decision-making and reporting processes.

In order to prevent and mitigate potential conflicts of interest, in principle, no director has the right to receive any compensation for the service provided to the Board of Directors, or to the board of any other legal entity in which Hitachi Rail holds a financial interest.

There are specific procedures **"Conflicts of Interest Policy"**[4] and the **"Hitachi Group Code of Ethics and Business Conduct"**, which assist with the identification, management, and mitigation of potential conflicts of interest and provide a crucial reference tool in cases of situations that could be considered a conflict of interest by defining the decision-making procedures and actions for all Hitachi Group executives and employees.

Regarding the performance evaluation process of the Top Executives, Hitachi Rail carries out a **Global Performance Management** to improve performance, through SMART goals, and to support the improvement of the high-performance culture based on the current Mid-Term Plan (MTMP) and the business needs of the Organisation.[5] Additionally, there are dedicated meetings with the Chief Human Resources Officer (CHRO) and the General Manager with each of the N-1 leaders, where the N-1 leaders explain the rationale used for the evaluation of their direct reports. The review/evaluation process takes place in two stages: at mid-year and at the end of the fiscal year.

Hitachi Rail regulates in principle the delegation of authority system with which the regular activities and day-to-day operation of the Legal Entity are guaranteed according to a specific policy. Each Legal Entity must ensure that all decisions are consistent with Corporate Governance rules and that all matters other than those reserved for the Board of Directors are appropriately delegated. Therefore, the Board of Directors provides clear, comprehensive, and documented

rules, specifies the authorised persons and the financial thresholds for the approvals of financial commitments and defines the appropriate checks and balances, while the Hitachi Rail CEO determines and executes the decisions defined at the Management Meetings and leads the management.

In FY23, the Hitachi Rail CEO was supported by the following committees:

- the **Rail Senior Executive Committee (SEC);**

- the **Rail Investment Strategy Committee (ISC)** and

- the **Rail Audit Risk and Compliance Committee (ARCC).**

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[4] For more details, see the paragraph "*3.2.1 Code of Ethics and ESG Policies*".
[5] For more details on the percentage of executives who received a regular performance management review in FY23, please refer to paragraph "*4.3.2 Learning, Career Development and Performance Management*".

Hitachi Rail's highest governance body, the **Senior Executive Committee (SEC)** is the advisory body to the CEO and is responsible for examining the management and financial status of Hitachi Rail and making decisions on matters that have a significant effect on it, on the MTMP or on Hitachi Rail budget, as well as making decisions on appropriate measures against risks and problems.

The Rail SEC, established in accordance with Hitachi Corporate guidelines, includes key Hitachi Rail global executives such as the Chief Financial Officer, the Chief Operating Officer, and other CEO Advisers.

The Rail SEC also includes external members, who provide additional management skills and support in the risk mitigation process.

Other attendees may be invited to join the committee to provide information or support to the decision-making process.

The Rail SEC is convened by the CEO twice a month to discuss issues related to safety (once a month the HSE update is a mandatory task, in compliance with Hitachi Rail principle 'Safety First'), quality, budget and financial results, projects and strategy, audit, risk & compliance and other transactions.

The **Investment Strategy Committee (ISC)** is established with the aim of providing independent and objective guidance and advice to the CEO and the Rail SEC. The ISC enhances the efficiency of Hitachi Rail's assets and wealth, through the optimal allocation of capital, and ensures the profitability of individual projects. The ISC, which is composed of members appointed by the CEO, such as the Chairman, the Deputy CEO, the Chief Investment Officer, the Chief Financial Officer and the General Counsel, is responsible for reviewing the contract scheme and the overall bid in tenders before they are submitted for approval to the CEO and Rail SEC, verifying the consistency of investments, and mitigating transactional risks, particularly in complex offer structures, partnerships, and projects. In fulfilling its primary role, the ISC carries out its activities by meeting periodically and combining its meetings with those of the other Hitachi Rail bodies.

Finally, the **Audit Risk and Compliance Committee (ARCC)** is composed of three members appointed by the CEO: the Chairman, who must be an independent figure due to the nature of the role performed, the Internal Audit Officer and the Chief Financial Officer.

The members act through a consultative vote and report to the SEC on the main activities carried out by the committee on a quarterly basis.

The matters on which the ARCC provides advice to the CEO, or the SEC are as follows:

- **Enterprise Risk Management:** the process involves the assessment and management of the risks of Hitachi Rail to ensure that the main risks relating to the Organisation are correctly identified, measured, managed, and mitigated, and in the independent assessment of project risks and significant issues on margins, losses, deliveries, costs, customer relationships and complaints;

- **Project review:** review and evaluation of overall project risk exposure, which tracks all the key ongoing projects across all Hitachi Rail regions;

- **Internal Control System**: periodic assessment of the adequacy and effectiveness of Hitachi Rail's Internal Control System in relation to business characteristics, costs, customer relations and complaints;

- **Internal Audit**: review and evaluation of the internal audit plan, to assess its adequacy and effectiveness;

- **Audit Plan of Corporate Auditors**: report of the GEM Sector Auditors in relation to the audit plans for the fiscal year;

- **External Audit:** review and sharing of progress and results of the external audits performed;

- **Compliance:** analysis and evaluation, in compliance with Hitachi Rail's Global Compliance Program, with Hitachi Rail's Code of Ethics and with the provisions on whistleblowing and anticorruption. The approval of specific policies is delegated to the competent function, under the strict coordination and supervision of the central Compliance function;

- **J-Sox Committee Reports:** review of the J-Sox Committee reports;

- **Cyber Security Risk:** analysis and evaluation of topics relating to information security, as well as the actions identified to resolve any issues.

All Committees are established in full accordance with the Corporate Governance system established by Hitachi, Ltd., and deal with financial and non-financial matters.

In FY24 the structure and governance controls of Hitachi Rail will undergo significant changes with the aim of strengthening and implementing its governance system and to continue achieving sustainable growth in corporate value through sound and highly transparent management.

3.1.1 ESG Governance

Since 2020, the **Sustainability Committee oversees, approves, and provides input to Hitachi Rail on its policies, strategies and programs related to Sustainability and Corporate Social Responsibility**.

The Sustainability Committee, led by the Group CEO and composed of permanent Executive members and other specific appointed figures, manages Hitachi Rail's vision and long-term ESG goals in pursuing continuous improvement of governance through a global structure, effective decision-making, and implementation. **The Committee's mission is to manage Hitachi Rail's vision and long-term environmental goals, while respecting and protecting social relations, in pursuing continuous improvement of governance** through a global structure, incorporating effective decision-making and implementation.

The Sustainability Committee is also responsible for approving the results of the Materiality Analysis and is the body responsible for the final approval of the ESG Report.

In FY23, the Committee held three strategic and operational meetings with the following main outcomes:

- develop its mission of addressing, evaluating activities and correcting strategies;

- discuss leading CSR and Sustainability topics, both from a strategic and development and implementation point of view.

Hitachi Rail's dedicated Corporate Social Responsibility & Sustainability (CSR&S) function plays a crucial role in promoting practices that minimise the environmental and social impacts of operations.

The function is responsible for developing and implementing sustainability strategies and interface with the lead managers of Hitachi Rail's business Functions.

In FY23, Hitachi Rail established Regional Committees with the objective of implementing strategic plans and actions discussed in the Corporate Senior Executive Committee for the main Hitachi Rail regions, including Australia, America, and UK. The Regional Committees will coordinate the local implementation of the global strategy in coordination with the Hitachi Rail Sustainability Committee, receiving overall Strategy and Global Targets and reporting on performance and achievements.

ESG Ratings: EcoVadis

EcoVadis is a third-party provider of business sustainability ratings that organisations can use to better understand their sustainability performance and that of their suppliers. Since its founding in 2007, EcoVadis has rated globally over 130,000 companies on its platform in areas covering environment, labour & human rights, ethics, and sustainable procurement.

The EcoVadis Sustainability Rating, which is based on Hitachi Rail's Non-Financial Reporting, is highly requested by the most important clients.

In 2024, EcoVadis awarded Hitachi Rail the Silver medal with a score of 71/100, which covered only the signalling part of the business. This result places Hitachi Rail among the top 15% of companies assessed by EcoVadis in the past 12 months.

Hitachi Rail's 'Preparation of the ESG Report' Procedure and ESG KPI Model

At the end of FY22, the CSR&S function drafted a specific procedure dedicated to the 'Preparation of the ESG Report' of Hitachi Rail. This document discloses environmental and socio-economic performance information, measures and oversees ESG performance and impacts, and tackles sustainability risks and opportunities, making it possible to define a clear governance model for the preparation of the ESG Report, defining roles and responsibilities for each stage of reporting process.

This procedure describes the process of the ESG Report preparation including, among others, the reporting timeline, the reporting boundaries, the description of the materiality analysis process, the data collection and consolidation process, and the finalisation, approval, and communication phases of the document.

Creating an ESG reporting procedure is essential for increasing transparency and accountability, improving operational efficiency, and engaging with stakeholders. It helps companies comply with emerging regulations and identify and mitigate environmental and social risks.

Annually, the KPI Model - one of the Annexes to the procedure - is updated. Before the start of the annual reporting process for the ESG Report, Hitachi Rail updates the repository of all relevant ESG KPIs to be collected and integrated as to guarantee the higher possible level of granularity of information, the compliance with emerging regulations and the monitoring of all relevant ESG KPIs, also taking into account the needs of the business and its customers.

In doing so, all data owners are notified and know what kind of data to collect, the frequency of update needed and the standards to which they need to refer. As such, the quality of data collection is increased, and regulatory updates and best practices are implemented progressively in all areas of reporting.

This report was developed following this procedure and the updated KPI model clearly identifies the relationship between the KPIs and the data source and the responsible party.
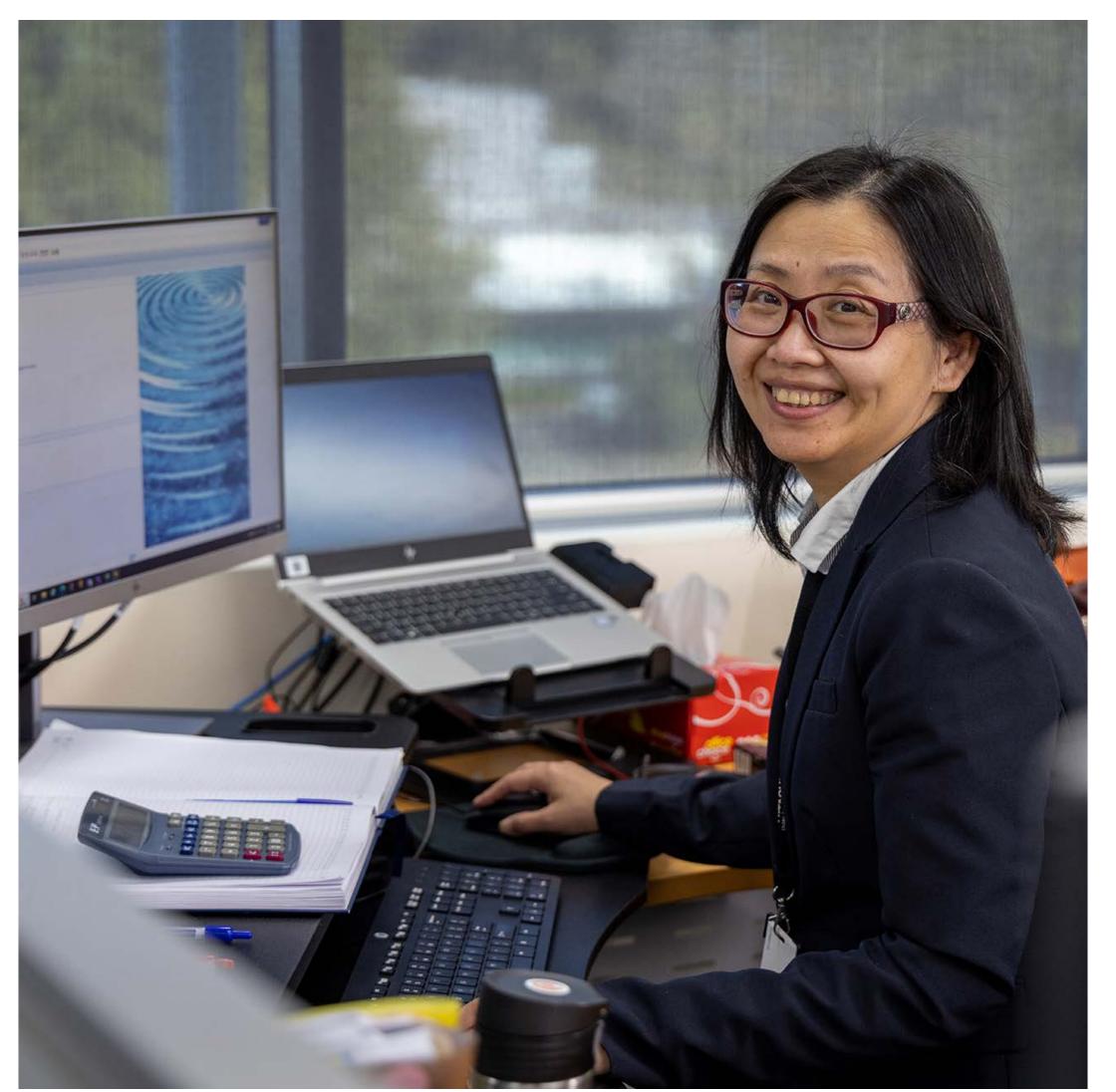
3.1.2 ESG Management System and Certifications

The Global Business Management System ("GBMS") is the unique set of rules that combines all related components of a business into one single system to facilitate management and monitoring in a continuous improvement approach.

There are four GBMS sections:

- **governance**: high level manuals, global objectives, and policies (strategy execution);

- **organisation**: organisational structure, roles, and mandates (accountabilities for each organisational role), project team structure;

- **process excellence**: complete sets of operating practices, procedures, rules, forms, templates, and detailed instructions;

- **enterprise architecture**: the Organisation's IT platforms and tools.

Since its inception in April 2020, the COSMO GBMS area has grown significantly: from the governance area (manuals, global policies, strategy, and governance documents), through the support and customer processes clusters, to the execution processes for both Vehicles and Rail Control. This in addition to the Organisational Area (lead by HR Functions) containing the Organisational Chart, Roles & Mandates, and the Project Organisation Structure.

As of March 2024 (end of FY23), Hitachi Rail holds the following certifications, listed by country and site.

COUNTRY	CITY	IRIS	ISO 9001	ISO 45001	ISO 14001	EMAS	SA 8000	ISO 50001	ISO 27001	ISO 30415
PRODUCTION SITES										
USA	Batesburg	✔	✔	✔	✔					
USA	Miami		✔	✔	✔					
FRANCE	Riom	✔	✔	✔	✔					
UNITED KINGDOM	Newton Aycliffe		✔	✔	✔			✔		
ITALY	Tito Scalo	✔	✔	✔	✔	✔	✔	✔		✔
ITALY	Naples	✔	✔	✔	✔	✔	✔	✔		✔
ITALY	Pistoia	✔	✔	✔	✔	✔	✔	✔		✔
ITALY	Reggio Calabria	✔	✔	✔	✔	✔	✔	✔		✔
JAPAN	Kasado		✔	✔	✔					
JAPAN	Mito Rail		✔	✔	✔					
TRAIN MAINTENANCE										
UNITED KINGDOM	Ashford		✔	✔	✔					
UNITED KINGDOM	Stoke Gifford		✔	✔	✔					
UNITED KINGDOM	Doncaster		✔	✔	✔					
UNITED KINGDOM	Landore Swansea		✔	✔	✔					
UNITED KINGDOM	Edinburgh (Craigentinny)		✔	✔	✔					
UNITED KINGDOM	London (North Pole)		✔	✔	✔					
UNITED KINGDOM	London (Bounds Green)		✔	✔	✔					
OFFICES AND SIGNALLING										
UNITED KINGDOM	London Head Office Ludgate		✔	✔	✔					
FRANCE	Les Ulis		✔	✔	✔					
SPAIN	Madrid		✔	✔	✔					
SPAIN	Zaragoza		✔	✔	✔					
DENMARK	Copenhagen		✔	✔	✔					
ITALY	Genoa		✔	✔	✔		✔		✔	✔
ITALY	Roma		✔ (included in the Italian Certicate)	✔ (included in the Italian Certicate)	✔ (included in the Italian Certicate)		✔			✔
ITALY	Milano		✔ (included in the Italian Certicate)	✔ (included in the Italian Certicate)	✔ (included in the Italian Certicate)		✔			✔
ITALY	Piossasco		✔	✔	✔		✔			✔

COUNTRY	CITY	IRIS	ISO 9001	ISO 45001	ISO 14001	EMAS	SA 8000	ISO 50001	ISO 27001	ISO 30415
OFFICES AND SIGNALLING *CONTINUED*										
SAUDI ARABIA	Riyadh		✔	✔	✔					
EMIRATES	Abu Dhabi		✔	✔	✔					
PERU	Lima		✔	✔	✔					
TAIWAN	Taipei		✔	✔	✔					
MALAYSIA	Kuala Lumpur		✔	✔	✔					
MALAYSIA	Rawang			✔	✔					
USA	Pittsburgh PA		✔	✔	✔					
USA	Pearl city (Honolulu)		✔	✔	✔					
AUSTRALIA	Brisbane (Eagle Farm)		✔ AS/ZNS 4801:01	✔	✔					
AUSTRALIA	Perth (Belmont)		✔ AS/ZNS 4801:01	✔	✔					
AUSTRALIA	Sydney		✔ AS/ZNS 4801:01	✔	✔					
AUSTRALIA	Karratha		✔ AS/ZNS 4801:01	✔	✔					
INDIA	Kolkata		✔	✔	✔					
INDIA	Noida		✔	✔	✔					
INDIA	Mumbai		✔	✔	✔					
INDIA	Bangalore		✔	✔	✔					
CANADA	Ontario		✔	✔	✔					
GERMANY	Munich		✔							
SWEDEN	Solna		✔	✔	✔					
CHINA	Bejing		✔	✔	✔					
PHILIPPINES	Makati									
TURKEY	Ankara									

Key achievements

- All the Italian sites are certified SA8000: this Standard provides a framework for organisations of all types, in any industry and in any country, to conduct business in a way that is fair and decent for workers and to demonstrate their adherence to the highest social standards;

- in February 2024 Hitachi Rail obtained the ISO 30415 Certification on Diversity, Equity, and Inclusion;

- all Vehicles Manufacturing plants in Europe have been certified according to the ISO 50001 Certification, the International Standard promoting the sustainable Energy Management System;
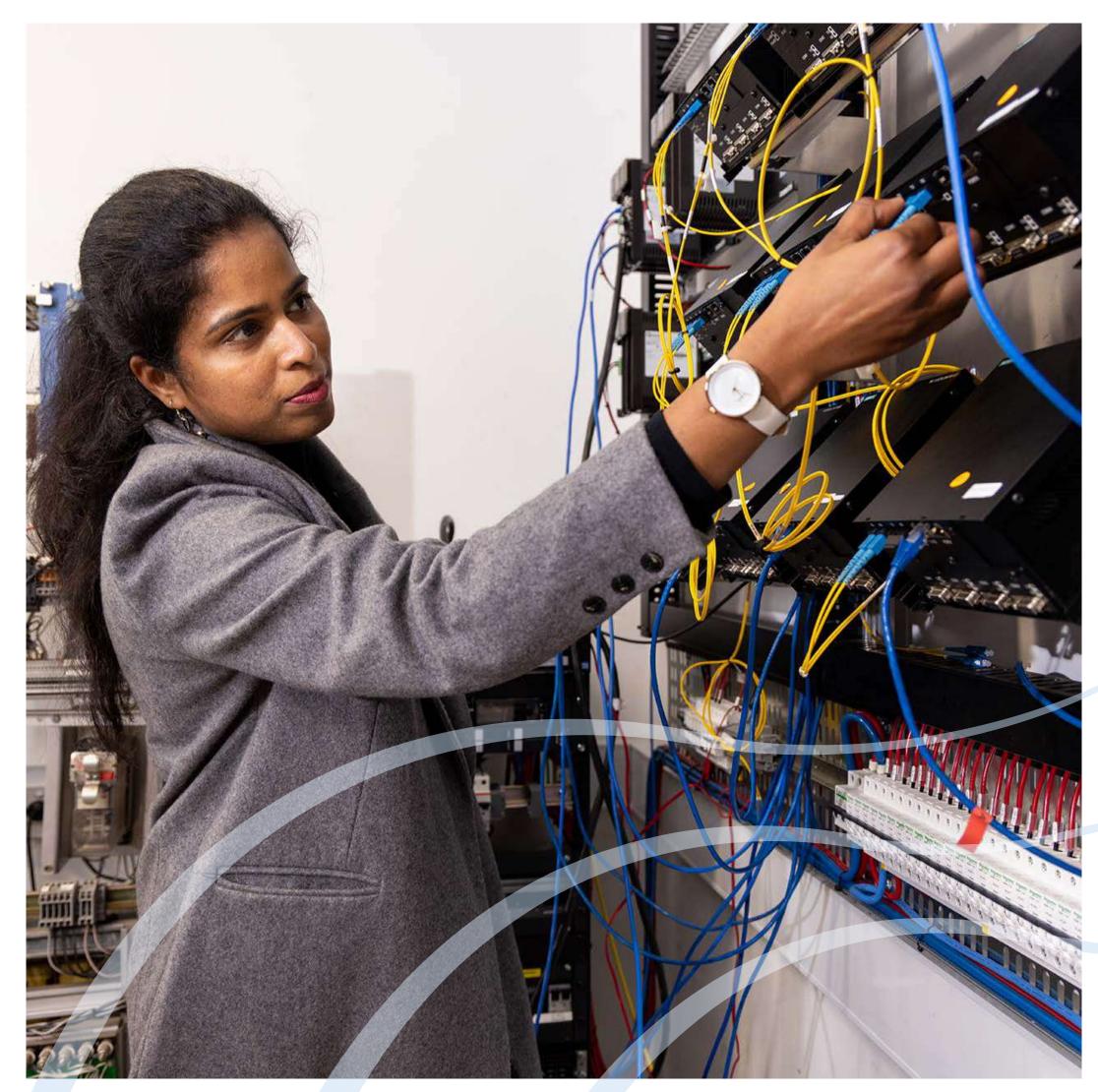
- the SHEQ (Safety, Health, Environment and Quality) Team has revised the procedure for incident management to include a new Reporting Tool within a systematic approach to incident reporting. Progressively, other procedures were issued related to engineering controls for the management of critical risks like "Electrical Hazard", "Working at Height", "Train Movement", "Contractor Management", and "Confined Space". Furthermore, the Critical Risk Control Assessment, already introduced in FY22, has proved to be an important element of integration with the campaign "Our Life Saving Rules";

- all Rail Control Organisational Units completed the Capability Maturity Model Integration ("CMMI") Level 2 Registration. This model consists of a proven set of best practices organised by critical business capabilities, whose objective is the overall improvement of business performances;

- Hitachi Rail conducted a CMMI probing activity to assess the increased maturity level on some critical Practice Areas. Through this process it identified strengths and areas needing further improvement, providing a solid foundation for the ongoing growth and development of the Organisation toward CMMI 3.0 Maturity Level 3.
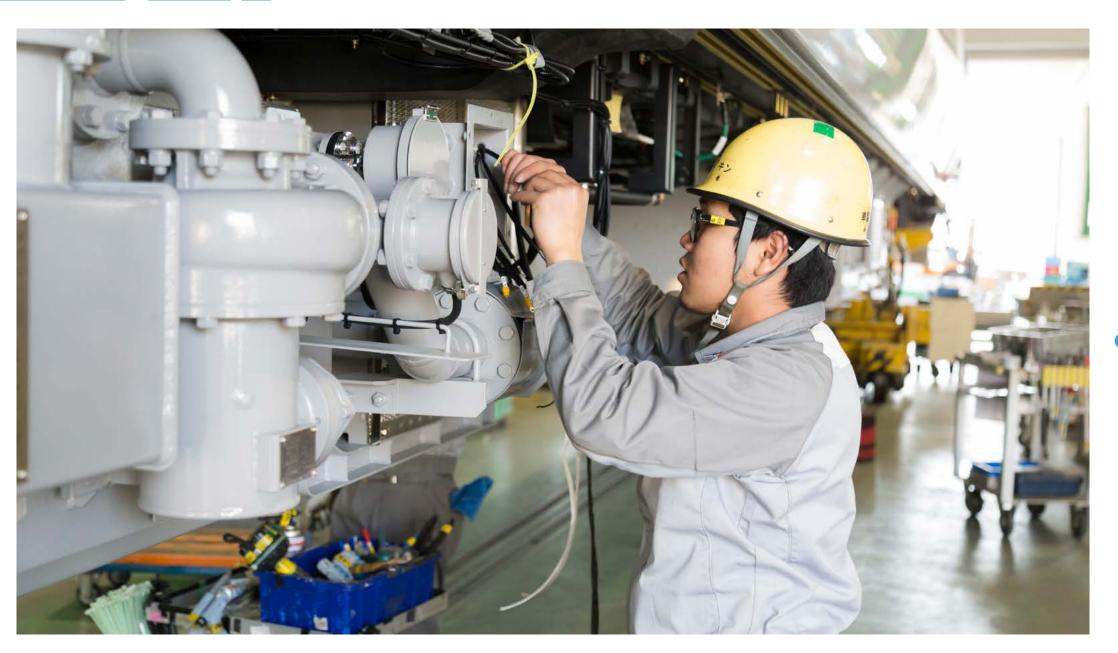
3.2 Business Ethics, Transparency and Integrity

Hitachi Rail complied with laws and regulations and no fines nor non-monetary sanctions were recorded in relation to bribery and corruption or personal data protection laws

In late February 2024, Hitachi Rail became aware of lapses related to the re-export of controlled items from its project site in Australia to its Italian facilities for after-market repair and maintenance work. These isolated instances of re-export without the required licence were due to an administrative oversight. No fines nor non-monetary sanctions are anticipated for Hitachi Rail and, while not required, it will submit a voluntary self-disclosure to reiterate its proper business practice and to remain in good standing with the relevant authorities. To guarantee full compliance, Hitachi Rail is also reviewing all global re-export activities of controlled items for after-market repair.

Legal

The Legal function supports the business with legal guidance and counsel across all operations globally, including - among other - advising on contractual matters, negotiations, bids, litigations, mergers and acquisitions, and insurance coverage. During the reporting period, the Legal function-maintained Hitachi Rail's governance aligned to Hitachi Group directives and requirements in accordance with its governance manuals documented in the internal Global Business Management System (GBMS), including Governance, Committees, Boards of Directors, and Legal Entity Rules, as well as Bid and Project Authorisation Rules. During FY23, the Legal function focused on finalising the publicly announced merger and acquisition process for the purchase of Thales Ground Transportation Systems.

Compliance

Building on the successful launch of the new Hitachi Group Code of Ethics and Business Conduct in March 2023, the Compliance function finalised Hitachi Rail's Compliance Programme Manual as documented in the internal GBMS in July 2023. The Manual provides information on its architecture - how the Programme is structured; its implementation - how the Programme is deployed; and its effectiveness - how the Programme works in practice. This infrastructure provides the necessary framework and tools to manage, measure, and improve the Compliance Programme to identify and mitigate potential risks for Hitachi Rail and to support the ethical business conduct of its workforce. The Manual follows the U.S. Department of Justice's requirements for an effective ethics and compliance programme, aligned to Hitachi Group Compliance efforts.

3.2.1 Code of Ethics and ESG Policies
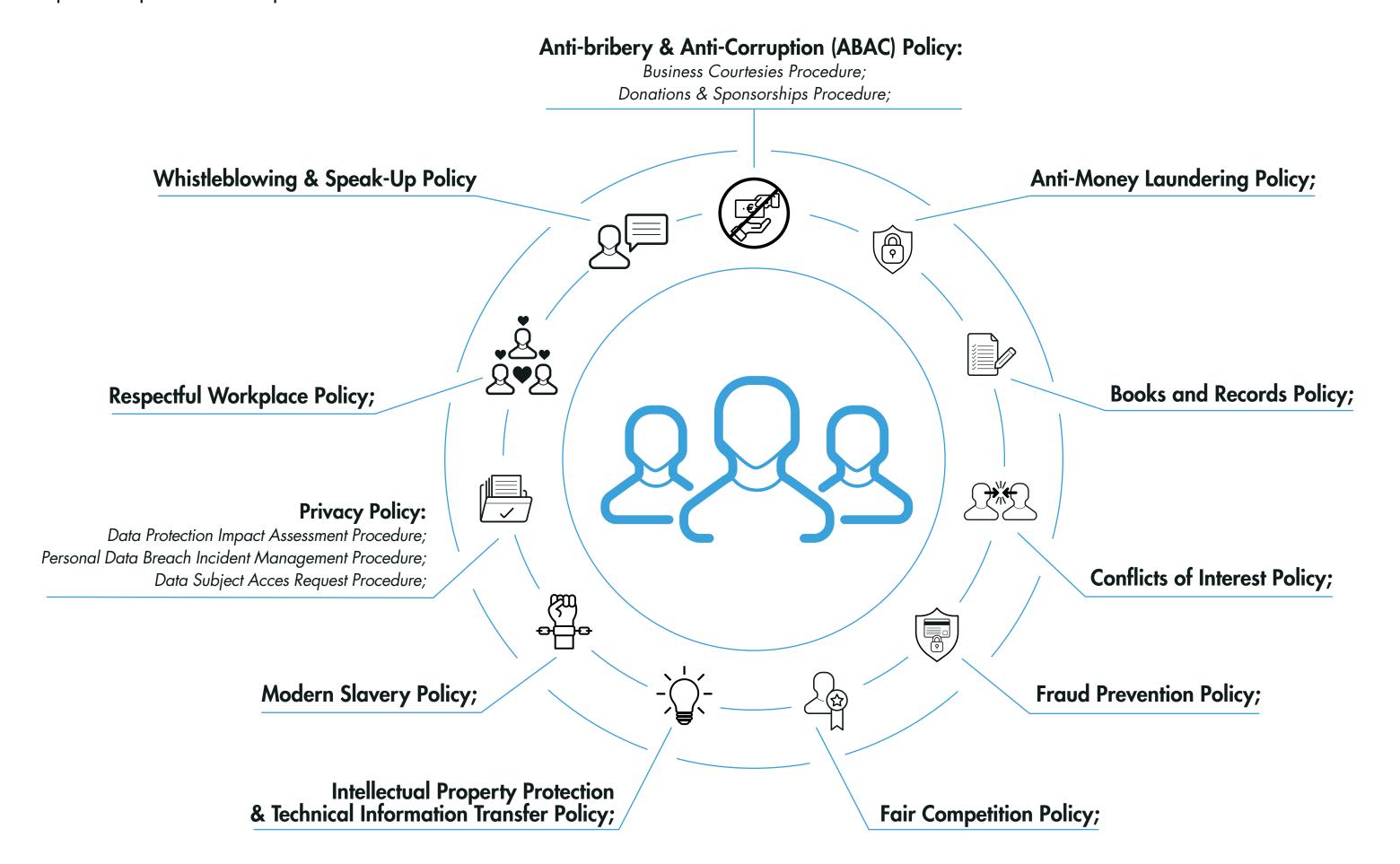
The Code of Ethics and Business Conduct sets the requirements for the ethical conduct of employees, executives, directors, and third parties engaging in business with Hitachi Rail. The same rules, values and principles in the Code are also intended to assist officers and employees in making business decisions and acting in alignment with Hitachi Group Identity.

The Code of Ethics and Business Conduct was internally communicated and disseminated to all employees, and publicly posted in March 2023 on the Hitachi Group and Hitachi Rail external websites. It sets the requirements for the ethical conduct of all stakeholders engaged with Hitachi Rail. The core policy commitments related to business conduct include:

- being aware (making good decisions and reporting concerns);

- protecting what is ours (safeguarding assets, intellectual property, and non-public information);

- demonstrating accountability (selecting business partners carefully, maintaining accurate financial records, and preventing money laundering, exchanging business courtesies responsibly, identifying and managing conflicts of interest, and safeguarding personal data);

- dealing fairly with others (building customer trust, competing fairly, preventing bribery and corruption, complying with trade compliance laws);

- caring for Hitachi Rail's communities (caring for the planet, respecting human rights, appreciating diversity, equity, and inclusion, providing a workplace free of harassment, promoting health and safety, and investing in local communities).

Hitachi Rail has internal-facing compliance policies and procedures for its workforce to supplement the Code. The following global compliance policies and procedures have been authorised in FY23:

Anti-bribery & Anti-Corruption (ABAC) Policy:
Business Courtesies Procedure;
Donations & Sponsorships Procedure;

Whistleblowing & Speak-Up Policy

Anti-Money Laundering Policy;

Respectful Workplace Policy;

Books and Records Policy;

Privacy Policy:
Data Protection Impact Assessment Procedure;
Personal Data Breach Incident Management Procedure;
Data Subject Acces Request Procedure;

Conflicts of Interest Policy;

Modern Slavery Policy;

Fraud Prevention Policy;

Intellectual Property Protection & Technical Information Transfer Policy;

Fair Competition Policy;

Additionally, the Code and the compliance policies and procedures are supplemented by the following ESG policies:

- **Quality Policy**
- **Product Safety Policy**
- **Health & Safety Policy**
- **Environmental Policy**
- **Business Continuity Policy**
- **Information Security Policy**
- **Social Accountability Policy**
- **Human Rights Policy**
- **Conflict Minerals Policy**

During FY23, Hitachi Rail achieved an 86% completion rate for its annual Code of Ethics training package. The Compliance team delivered numerous facilitator-led training sessions to high-risk functions, including Sales and Procurement, on the new Business Courtesies Procedure and rolled out the first global privacy e-learning training package on International Privacy Day.

In January 2024, Hitachi Rail launched a dedicated Ethics & Compliance page on its intranet site (COSMO), serving as a central repository for employees on compliance related topics. Since the launch, the page has registered over 1,500 visitors and seen high engagement with employees on compliance topics through additional Viva Engage ('Yammer') posts and COSMO global news articles.

3.2.2 Organisational, Management and Control Model

Where applicable, Hitachi Rail has adopted appropriate measures to prevent liability in accordance with the Italian Legislative Decree 231/01, through the implementation of specific protocols and supervision systems. These are designed to prevent potential crimes committed by directors, statutory auditors, executives, employees, or any person that has a contractual, financial, or commercial relationship with Hitachi Rail.

In accordance and with consideration of national specificities, other legal entities within Hitachi Rail have adopted an organisation, management, and control model pursuant to the model set by the Legislative Decree no. 231/0, which is regularly updated following regulatory and organisational changes.

3.2.3 Anticorruption

The Hitachi Rail ABAC Policy outlines its commitment to ensuring compliance with applicable anti-bribery and anticorruption laws and regulations in effect wherever it operates. In accordance with its Policy, Hitachi Rail prohibits giving or accepting bribes to or from public officials or others to influence any business decision. The policy prohibits facilitation payments and political donations and requires accurate and complete books and records for all transactions. The Policy is supported by the Business Courtesies Procedure which provides compliance controls to ensure that any business courtesies given or accepted are transparently reported and recorded with the required pre-approval documentation.

This year, the Compliance function launched a digital solution to process pre-approvals for business courtesies requests and processed around 150 requests under the new procedure. The Donations & Sponsorships Procedure supports the ABAC Policy and facilitates the review of all donations and sponsorships to avoid the reception of bribery or corruption and ensure that they are aligned to Hitachi Rail strategy and values. During FY23, it reviewed 30 donations and sponsorships.

Hitachi Rail conducted its annual Code training package, which focuses on all elements of the Code of Ethics and Business Conduct, with a dedicated session covering anti-corruption requirements. During the reporting period, Hitachi Rail did not register any incident of corruption. Through speak-up channels, one concern related to an alleged kickback from a supplier was received and duly investigated concluding that the allegation was not substantiated.

3.2.4 Competition Law

Since the previous reporting period, Hitachi Rail authorised its Fair Competition Policy, which ensures that its workforce is aware of the obligations under competition law and that it acts in compliance with applicable rules.

Hitachi Rail engages in business across the world in adherence with the local laws of the regions in which it operates. For example, in Europe it operates in compliance with EU competition laws that set the basis for fair and open competition. With the launch of the Fair Competition Policy, Hitachi Rail will track contact with competitors and engagements at trade or industry events and engagements.

3.2.5 Export and Trade Compliance

Hitachi Rail is committed to complying with regulations regarding export, import, re-export or re-transfer of tangible and intangible products, technologies, information, and services (hereinafter "goods") classified as "Dual-Use". It does not deal in military goods and shares the concerns of the international community

on the proliferation of weapons of mass destruction and is committed to complying with all applicable export and trade compliance laws and regulations.

Hitachi Rail's Export and Trade Compliance Manual sets requirements to prevent, manage, and monitor the risk of non-compliance with applicable legislation and regulations on export, import, re-export, or re-transfer of goods classified as dual use. The Manual complies with standard controls required by the applicable Regulation in force and is based on available best practices and the European Commission Recommendation.

All Hitachi Rail employees are required to operate in full compliance with the laws and regulations in force, and training opportunities to reinforce a culture of compliance are duly offered. The Compliance function, under its Export and Trade Compliance programme, collaborates cross-functionally with - among other - Engineering, Industrialisation, and Operations to ensure that all Hitachi Rail products are properly assessed, reviewed, and classified.

The Organisation conducts export and trade compliance-related due diligence against any possible illicit transaction and ensures

that no goods are provided, nor trade is carried out in any country or with any entity in violation of laws and regulations.

Hitachi Rail's signalling business includes the dual-use encryption software that requires export licences from the relevant authorities. Hitachi Rail holds 11 active export licences: two EU General Export Authorisation (EUGEA) licences and nine EU Individual Export Authorisation licences (six issued in FY22 and three in FY23) for export of goods from Italy to projects in the United Arab Emirates, Turkey, Peru, and Panama.

During the reporting period, Hitachi Rail became aware of re-export of goods from Australia to Italy for after-market repair without the locally required licence. No fines nor non-monetary sanctions are anticipated for Hitachi Rail and, while not required, the Organisation will submit a voluntary self-disclosure to reiterate its proper business practice and to remain in good standing with the relevant authorities. To guarantee full compliance, Hitachi Rail is also reviewing all global re-export activities of controlled items for after-market repair.

3.2.6 Data Protection and Cybersecurity

Hitachi Rail has developed distinct approaches to IT security for data protection, including for the GDPR, both at corporate level and at project/customer level.

Privacy and GDPR

Hitachi Rail proactively manages personal data lawfully and ethically in compliance with local privacy laws and the best available international practices, such as the NIS Directive, Network and Information Security Directive (EU 2016/1148) and the EU Cybersecurity strategy. The privacy policies and procedures across Hitachi Rail entities and other customer agreements clearly define how to process the data, from the reason why it is collected, to who can access it and for how long.

Hitachi Rail implements its Personal Data Protection Governance Model - aligned to both the EU and the UK GDPR principles and the international best available practices - in all countries in which it operates, standardising personal data processing and granting the highest level of compliance with local laws. When required, Hitachi Rail's governance model provides for the appointment of a Data Protection Leader, Committee, and Data Protection Officer. In the event of data transfer to third parties or in the context of project execution,

Hitachi Rail data protection and privacy specialists work closely with teams across the organisation to maintain compliance with data privacy standards and to ensure that any data is used in an ethical manner.

The Customer Data Protection function also introduced guidelines concerning the security processes in place in business areas. Critical Infrastructures (CIs) are the physical and virtual assets essential for the effective functioning of society and the national economy.

Cybersecurity activities are aimed at protecting systems and services and minimising risks related to misuse of data and abuse of confidential information by authorised/unauthorised personnel having malicious intents potentially exposing passengers and personnel to risk of harm and/or impacting the continuity of customer operations. These security activities are managed by Security Management Systems, based on IEC 62443 standards. The Security Process is implemented throughout all phases of a project lifecycle, following the general principles of Prevention, Detection and Reaction.

The process evaluates and monitors the Cybersecurity Risk Level by managing all the cybersecurity activities, in accordance with the contractual requirements, best

practices, standards and laws. The aim of the Cybersecurity Risk process consists in protecting transportation system information, minimising risks related to Data Confidentiality, Integrity, and Availability.

Cyber Security Strategy

The Hitachi Rail Security and Control System (S&CS) Unit defines the cybersecurity strategy, the level of detail of the Security Risk Management activities, and any learning needs. As a result of the strategy, Hitachi Rail implements an annual Cybersecurity Management Plan and carry out a Cybersecurity Risk.

Protection of Hitachi Rail's IT assets

The Cyber Security & IT Risks Unit (or Cyber Security Unit) suggests Information Security objectives and defines countermeasures to protect data, systems, and product/service in line with Hitachi Rail's business strategies, policies, standards, and guidelines to implement the Information Security framework, IT security risk management, and training programmes. It also maintains day-by-day operations to ensure the control and the detection of threats, the management of risk mitigation with IT

systems, and the implementation of security incident responses when needed; finally, the Unit coordinates all annual Information Security and Cyber Security audits, technical assessments, and mitigation reviews.

The Cyber Security function uses the Information Security Management System (ISMS) Documentation Framework to ensure that all activities are conducted according to well-defined criteria. It collaborates with other relevant internal functions (e.g., Legal and Compliance and Risk Management) to ensure the implementation of Hitachi Rail's IT security objectives. The Cyber Security function handles compliance issues separately, focusing primarily on security incidents and vulnerabilities and records these events in internal log to track each incident and the corresponding corrective actions taken. When events threaten the continuity of business operations, the Enterprise Risk Management function takes control and works in synergy with the Cyber Security function to ensure a prompt response and the implementation of an effective solution.

During FY23, Hitachi Rail passed both the Cyber Essentials Basics and Cyber Essentials Plus assessments, renewed the certifications and demonstrating the effectiveness of the protection against the growing threat of cyber-attacks.

3.2.7 Fiscal Transparency

Hitachi Rail follows rules for transfer pricing management and manages transfer pricing in accordance with the Organisation for Economic Co-operation and Development (OECD) Transfer Pricing Guidelines and the laws and regulations on transfer pricing in each country or region where Group companies are located.

For Intercompany projects, the margin allocation between group companies, decided at contract award, must comply with Arm's Length principle and other transfer pricing principles provided by OECD.

Each Group Legal Entity involved in Intercompany projects is remunerated in accordance with the functions performed, assets used, and risks assumed in the transaction. The "commercial route" for the Projects is decided also taking into consideration the tax implications. During the contracts execution the monitoring is also aimed at identifying possible adjustments, where appropriate.

3.2.8 Internal Audit & J-SOX

A dedicated Internal Audit & J-SOX function[6] - with an onsite presence in Italy, UK, US, and Japan – oversees the proper implementation of the Internal Control System over financial information and its continuous improvement for the entire Organisation.

The function, in line with the industry best practices, operates in accordance with the annual Audit Plan that is drafted with a risk-based approach and formally approved by the ARCC (Audit, Risk, and Compliance Committee) and the SEC (Senior Executive Committee) at the beginning of each financial year. This Plan is periodically reviewed and updated considering the state of Hitachi Rail's risks and specific business requirements.

During FY23, Internal Audit & J-SOX carried out nearly 50 audits mostly relating to operational matters, including key projects, minor entities, branches, internal processes, and compliance matters. The function also oversees testing J-SOX controls in accordance with Internal requirements. J-SOX requires the implementation and operation of a large set of controls over financial reporting.

In FY23, Internal Audit & J-SOX tested 1,117 controls regarding the main financial processes like closing the books, purchase to pay, order to cash, and ITGC (IT General Controls). Testing activities were performed for legal entities located in Australia, Canada, France, India, Italy, Japan, UK, US and in the main STS branches.

The results are periodically shared with the ARCC, the SEC, and the J-SOX Committee and the Board of Directors of Hitachi Rail STS S.p.A. The results are also shared with Hitachi Rail's third-party auditors.

[6] A Japanese regulation based on international frameworks like SOX, Sarbanes, and Oxley Act, in the US.

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3.2.9 Whistleblowing Management

Hitachi Rail's Whistleblowing & Speak-Up Policy provides numerous "speak-up" channels through which anyone internal or external can report concerns. These channels include managers, members of the Human Resources and Legal & Compliance teams, and the Hitachi Global Compliance Hotline. When required by specific local laws and regulations, the Organisation additionally uses supervisory bodies and other eligible recipients. All speak-up channels are publicly available on Hitachi Rail's external website and internally on a dedicated Ethics & Compliance sub-page on the intranet site, COSMO.

Hitachi Rail promotes a speak-up culture whereby anyone can report, in good faith, actual or suspected violations or breaches of laws, regulations, Hitachi Rail's Code of Ethics and Business Conduct, or any other applicable policy with zero tolerance for retaliation on who reports a concern or participates in an investigation. Hitachi Rail allows and encourages any person wishing to report a concern to choose the speak-up channel that is most suitable to the circumstances and/or through which they feel most comfortable.

The Compliance function promptly and effectively evaluates concerns to determine the appropriate course of action. If an investigation is deemed necessary, it appoints an independent investigator with the due competency, capacity, and appropriate authority to manage and follow up on the concerns. Hitachi Rail applies strict confidentiality on the investigation details, the identity of the person reporting the concern and of any other individual involved to the maximum extent reasonably possible.

During FY23, Hitachi Rail received and investigated 76 concerns through its speak-up channels. This is a 76% year-on-year increase in volume, having received 43 concerns during the prior fiscal year. This increase in volume, coupled with a decrease in anonymity rates, demonstrates increased trust in the programme. Hitachi Rail completed a poster campaign to ensure that information on how to report concerns is readily accessible to all employees at all Hitachi Rail sites.

3.3 Risk Management Process and Internal Control System

Hitachi Rail has a dedicated Enterprise Risk Management function that collaborates with the Compliance function on assessing relevant risks.

The Enterprise Risk Management (ERM) belongs to the Integrated Risk Management Framework (IRM) and applies this common framework[7] to provide reasonable assurance to the Hitachi Rail Senior Executive and ARCC (Audit Risks and Control Committee) that an effective Risk Management system is in place. This includes identifying and managing potential events that may affect the enterprise's objectives, projects, and programmes.

The ERM structure, comprising Lines of Business, Regions, and Technical Risk Areas (Operational and Organisational Resilience), ensures that enterprise risks and opportunities are managed in an integrated way across the

organisation, covering key interdependencies. ERM is a multidirectional, iterative process in which most components can and do influence one another. Hitachi Rail's ERM Process observes the following steps:

- **landscape evaluation** - update of the Risk and Opportunity Portfolio and prioritisation of Key Risk Themes and Technical Risk Areas;

- **risk assessment** - risk identification and risk analysis (before and after risk response);

- **treatment** - action plan identification and planning.

- **monitoring** - risks and actions progress monitoring;

- **reporting** - periodical reporting of ERM insights and summary to Senior Executives and ARCC.

During the landscape evaluation, the ERM Function annually refreshes Hitachi Rail Risk and Opportunity Portfolio and prioritises the Key Risk Themes to Deep Dive in line with the Mid-Term Management Plan.

The main categories of the Hitachi Rail Risk and Opportunity Portfolio are:

- **strategic** - risks associated with decisions and actions that impact the ability to achieve strategic objectives and targets;

- **financial** - risks that pertain to potential adverse impacts on financial stability and performance;

- **operational** - risks related to the day-to-day business operations and processes;

- **regulatory** - risks that arise from the failure to adhere to laws, regulations, industry standards, and internal policies.

The Risk Assessment is the iterative process of Risk Identification and Risk Analysis, undertaken to update the Risk Profile, using impact and likelihood scales set by the ERM Unit. Risk Analysis involves consideration of risks at both inherent and residual level, and the assessment of the effectiveness of the Current Risk Response.

Risk Treatment is determined based on the Residual Risk and Risk Score (Residual Risk + Velocity), where Velocity is the time to respond to a risk when it materialises.

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7   All best practices and external applicable standards were taken into account and monitored by internal functions in designing, reviewing, and implementing policies and the GBMS, such as:
- ISO 31000:2018 Risk Management Principles and Guidelines;
- ISO 9001:2015 Quality Management System European Standard;
- COSO (Committee of Sponsoring Organisations of Treadway Commission) 2004, updated in 2017.

In July 2023 ERM provided, first to Senior Executives and then to the ARCC, an update on five Key Risk Themes:

- production capacity;
- supply chain resilience;
- energy supply & inflation;
- geopolitical evolution;
- climate change & ESG.

In February 2024 the ERM Risk Portfolio was updated in line with Hitachi Rail Mid-Term Management Plan.

The Key Risk Themes prioritised are:

- macroeconomic and geopolitical;
- GTS acquisition and integration;
- supply chain resilience;
- disruptive technology and AI;
- project delivery;
- talent management and shifting labour expectations;
- cyber security.

The main technical risk areas under attention are:

- climate change & ESG;
- quality assurance;
- compliance;
- health & safety;
- information technology;
- business continuity.

Responding to ESG Risks and Opportunities

ESG plays a key role in defining a renewed perception of risks and opportunities in the corporate environment. From a financial and compliance perspective, Enterprise Risk Management Processes have been turning into a comprehensive framework.

Structured processes at both Hitachi Ltd Corporate and Hitachi Rail levels integrate ESG factors, by analysing sustainability context, identifying priorities - for example through materiality analysis - and implementing specific actions in support of sustainability goals and reporting.

At each stage of the process, Hitachi Rail considers alignment on respect for human rights a fundamental element in pursuing sustainable success.

The CSR&S and the ERM functions work together to identify and evaluate risks and opportunities by setting specific tools and techniques.
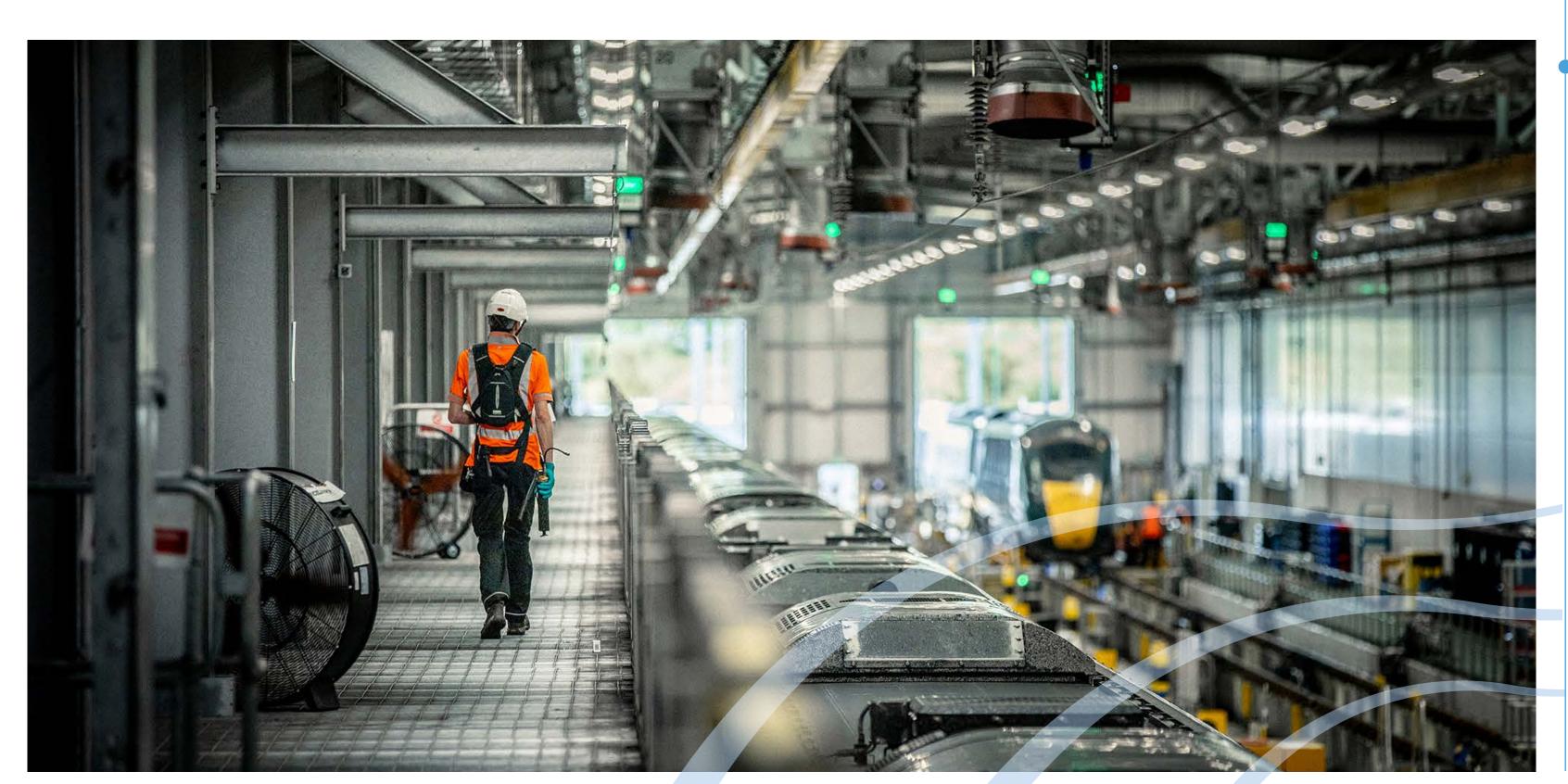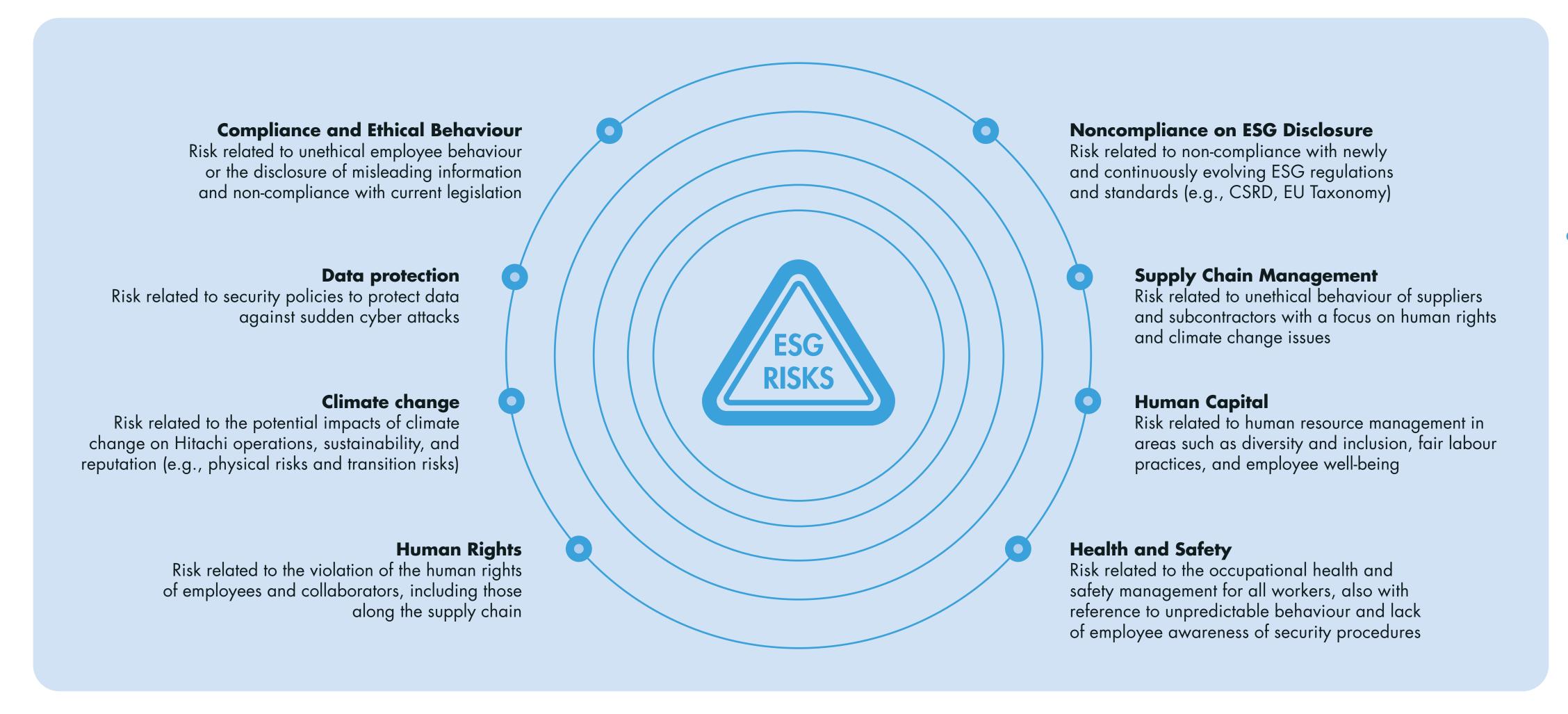
The main ESG risks for Hitachi Rail

Compliance and Ethical Behaviour
Risk related to unethical employee behaviour or the disclosure of misleading information and non-compliance with current legislation

Data protection
Risk related to security policies to protect data against sudden cyber attacks

Climate change
Risk related to the potential impacts of climate change on Hitachi operations, sustainability, and reputation (e.g., physical risks and transition risks)

Human Rights
Risk related to the violation of the human rights of employees and collaborators, including those along the supply chain

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Noncompliance on ESG Disclosure
Risk related to non-compliance with newly and continuously evolving ESG regulations and standards (e.g., CSRD, EU Taxonomy)

Supply Chain Management
Risk related to unethical behaviour of suppliers and subcontractors with a focus on human rights and climate change issues

Human Capital
Risk related to human resource management in areas such as diversity and inclusion, fair labour practices, and employee well-being

Health and Safety
Risk related to the occupational health and safety management for all workers, also with reference to unpredictable behaviour and lack of employee awareness of security procedures

Already during FY22, Hitachi Rail had started to enhance and better detail in its ERM System ESG Risks, adopting a holistic approach that leverages on the sustainability context and the sustainability materiality analysis. In FY23, Hitachi Rail updated its overall Risk and Opportunity Portfolio with a more detailed identification, assessment, and treatment of specific risks.

Managing ESG Risks

ESG Risks are a priority for Hitachi Rail and are highly relevant to the overall exposure of the industry in which it operates. Hitachi Rail monitors and reinforces its risk responses and mitigation actions, and as a result has introduced the following:

- **Risk Assessments**: regular ESG risk assessments to identify potential impacts across the value chain. These assessments inform decision-making processes and enable the implementation of targeted mitigation measures;

- **Sustainability Committee**: regular meeting of the Sustainability Committee, comprising senior executives and subject matter experts, to review ESG performance, set strategic priorities, and ensure compliance with industry standards;

- **Policies and Procedures**: development of policies and procedures that govern ESG practices. These include waste reduction strategies, water conservation efforts, and initiatives to enhance workplace diversity and inclusion;

- **Certified Management Systems**: adherence to internationally recognised standards, including ISO 14001 for environmental management and ISO 50001 for energy management. These certifications allow to systematically identify, assess, and mitigate environmental risks;

- **Stakeholder Engagement**: stakeholder engagement with stakeholders to better plan and detail the ESG strategy. The Organisation maintains open dialogues with customers, suppliers, employees, and local communities to understand their concerns and incorporate their feedback into risk management practices.

- **Training and Awareness:** ongoing training and awareness programs for employees to ensure they are knowledgeable about ESG risks and sustainability goals. This empowers them to contribute actively to ESG initiatives.

By integrating these elements into the ESG risk management framework, Hitachi Rail ensures that everyone is well-prepared to address challenges and capitalise on opportunities, fostering long-term resilience and sustainability.

Climate-related risks and opportunities

Hitachi Rail considers climate related risks and opportunities as a major commitment. Hitachi Rail is preparing to implement TCFD recommendations starting its path to transparently disclose upon those recommendations (for further details please read "TCFD Reference Table").

During FY23, Hitachi Rail assessed the Climate Change & ESG Technical Risk Area as a crucial element of the set strategy. This comprehensive Risk Area encompasses several risk sources and events related to ESG targets and the related potential financial, operational, and reputational risks.

Climate-related risks

Risk title	Risk type	Risk description	Time period	Magnitude of the inherent impact	Impact type
Acute climate conditions	Physical Risk	Increased severity of extreme weather conditions, natural disasters (such as floods, fires, avalanches, extreme temperatures, and typhoon) and rising temperatures combined with physical countermeasures in plants and premises 30/40 years old spread in different geographical areas that may lead to production, construction, premises sites damages and personnel injuries resulting in operations or production disruptions and workforce impacts	Current (⚠)	Very high	Operational
Chronic climate conditions	Physical Risk	Rising temperatures, frequency and intensity of heat waves, scarcity of water resources, change in precipitation patterns combined with physical countermeasures in plants and premises 30/40 years old spread in different geographical areas that may lead to production, construction, premises sites damages and personnel injuries resulting in increased operating costs, damages to facilities, and workforce impacts	Emerging (?)	Very high	Operational
Climate-related Supply Chain	Transition Risk	Green-deal rush, increased demand and cost of raw materials and difficulties in scouting suppliers (sole source) combined with the lack of awareness during suppliers' selection on virtuous providers (impacting Scope III emissions) that may lead to decrease of competitiveness and weak supply chain sustainability resulting in increased production and operation costs	Current (⚠)	Very high	Financial
Climate-related Vehicle Technology	Transition Risk	Rapid advancements of low emission technology (battery cell and materials obsolescence) combined with the lack of awareness on further emission reduction opportunities (Scope III) that may lead to delayed train performance and consumptions improvements resulting in the erosion of the BU's market share in favour of competitors with lower emissions options and reduced capability to attract capital	Current (⚠)	Medium-high	Financial
Climate-related Rail Control Technology	Transition Risk	Rapid advancements of low emission technology combined with delayed integration of sustainability requirements into Product Strategy and R&D and lack of awareness on further emission reduction opportunities (Scope III) that may lead to delayed product and system green transition and non-compliance with customers' requirements resulting in the erosion of market share in favour of competitors with lower emissions options and reduced capability to attract capital	Current (⚠)	Very high	Financial
Climate-related Policy and Compliance	Transition Risk	Newly and continuous evolving Regulatory ESG and Climate Change requirements and standards may lead to delayed compliance with the tightening regulation resulting in reputational damages, legal liabilities and financial penalties	Current (⚠)	Medium-high	Reputational
Non-achievement of emission reduction targets	Transition Risk	Lack of detailed action plans and related investments to meet Scope 1,2 and 3 emission reduction targets (Carbon Neutrality in its main sites by 2030 and Net-Zero emissions by 2050) may lead to delayed achievement of emission reduction targets resulting in reputational damages and loss of market opportunities	Current (⚠)	Medium-high	Reputational

Legend: ⚠ Current | ? Emerging | ▮▮▮ Very high | ▮▮▯ Medium-high | ▮▯▯ Medium | ⚙ Operational | 🏛 Financial | 🎖 Reputational

Climate-related opportunities

Hitachi Rail has thoroughly evaluated the opportunities associated with climate change. By identifying and leveraging these opportunities, it aims to enhance its sustainability efforts by innovating product offerings and improving operational efficiencies. This proactive approach not only helps to mitigate potential risks but also positions the Organisation as a leader in the transition to a low-carbon economy.

Opportunity title	Opportunity type	Opportunity description	Time period	Magnitude of the impact	Impact type
Increase corporate value from low-emission products and services	Products and Services	Enhanced corporate value and increased revenue may be attained through the enlarged sales of products and services that incorporate low-emission technological innovations, contributing to both climate change mitigation and adaptation			
Improve processes from energy-efficient solutions	Resource Efficiency	Improving resource efficiency across production and distribution processes by implementing measures such as energy-efficient infrastructure, materials optimisation, electrification using renewable energy sources, and innovative technologies may create the potential for significant cost savings for organisations in the medium to long term, while also contributing to global efforts aimed at reducing emissions.			

Current - Emerging - High - Medium - Financial - Operational

Hitachi Rail has taken specific actions both at global and local level to mitigate risks and enhance opportunities:

- developing and marketing more energy-saving railcars and battery powered railcars for non-electrified sections;

- strengthening railway services through digital utilisation such as dynamic headway (flexible operations in response to passenger demand) and new mobility services like MaaS;

- ensuring the competitiveness of the business by focusing on sustainable activities carried out in accordance with international standards (i.e., EU Taxonomy). This also increases the ability to access capital and ESG driven investments, for both internal and external business projects;

- responding with an integrated view of business management that includes the management of production sites and the decarbonisation of plants and offices;

- taking risk aversion into account when deciding the location and equipment layout of a new plant given the increasing frequency of natural disasters, take;

- monitoring the supply chain to strengthen the ability to respond to business disruption risks.

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3.4 Towards a Sustainable Value Chain

Hitachi Rail is continuously supporting its programme to transform Supplier Management capabilities as part of a broader Procurement improvement agenda. As part of its continuing efforts to transform Supplier Management capabilities, Hitachi Rail is striving to:

- implement and operate a global supplier qualification process for rail to qualify supply base against a defined set of criteria, improve visibility of key risks (including Sustainability), and enable the ongoing tracking and management of suppliers against these criteria and risks;

- support the improvement of quality and risk management of the supply base;

- drive more effective performance management with suppliers with a particular focus on tracking performance against key sustainability metrics;

- work collaboratively with suppliers to define and implement innovative solutions that support sustainability.

These support a broader Hitachi Rail's Procurement agenda which is designed to improve visibility and monitoring and define improvement actions on key risks in the Supply Chain, with a particular focus on CSR and Sustainability and decarbonisation.

Supplier Governance and Guidelines

Hitachi Rail Supply Chain & Procurement teams work within the framework of the Code of Ethics and Supplier Code of Conduct to responsibly and effectively source, procure and contract with suppliers based on the Procurement Strategy and in line with its Supplier Quality procedures.

Code of Ethics and Supplier Code of Conduct

The Code of Ethics is fully deployed across all areas of Hitachi Rail, while the Supplier Code of Conduct is in place for the UK, Italy and Japan business areas. For Hitachi Rail's business, the Code also reflects the commitment to become a climate change innovator. Hitachi Rail is committed to having all its suppliers conform to Hitachi Rail standards, as well as to the agreed business conditions.

This contributes to ensuring customer trust and confidence with Hitachi Rail products and services and demonstrates how suppliers are valued partners in this process. The document clearly explains human rights, health and safety, environmental management, ethics, supplier commitment, product quality and data protection policies and expectations.

Hitachi Rail calls on all suppliers to act as ethical and responsible companies, to commit to the sustainability of their supply chains, and to promote innovation and excellence for the rail industry. Following the publication of the Code of Conduct, Hitachi Rail, in partnership with its suppliers, is committed to doing its part to provide the best for the millions of passengers who travel the world's rail networks every day for the benefit of a more sustainable society.

Hitachi Rail's Speak-Up channel is made available to report any suspected violations of the Group Code of Ethics or any violation of laws and regulations during the procurement process. Hitachi Rail ensures whistleblower protection within in the supply chain and assures that no individual among suppliers is subject to any direct or indirect retaliation, illegal conditioning and/or discrimination of

treatment of any kind for having reported a violation in good faith.

In late March 2024 Hitachi Group Corporate Compliance issued the Hitachi's new 'Expectations of Business Partners' document that will substitute the Supplier Code of Conduct and will apply to all Hitachi Rail. Primarily intended for suppliers, the Expectations may be used with any of our business partners, or may consider having, a business transaction or relationship with. The document serves as a guideline for the ethical conduct and fair business practices that are expected of business partners.

Supplier Audits

Hitachi Rail conducts regular audits on suppliers under a specific procedure which covers all audits, both internal and external. Hitachi conducts second party audits aimed at verifying External Providers' processes and activities. External Providers audits can be general (including qualification audits) or relevant to one project only.

This audit scope can include:

- External Provider Monitoring Audits: audits aimed at verifying the External Providers' processes;
- External Provider Qualification Audits: audits performed to qualify an External Provider;
- Project External Provider Audits: audits aimed at verifying the External Providers' processes and activities on specific projects;

Each audit can encompass one or more of the following areas:

AUDIT AREAS

- Quality
- Health & Safety and Environment
- Technical capabilities & Product Safety
- Information Security
- Business Continuity
- Social Accountability

Hitachi Rail selects the suppliers and subcontractors to be included in the yearly audit programme based on various risk-based decision criteria such as spend, material group risk (risk of what is being supplied to the business), impact on the overall project performance, impact on safety, time since last audit, results from internal stakeholder assessments on supplier performance, product quality (SQC) statistics or specific cases of request from operations.

It determines the frequency of audits based on the material group provided, with high-risk categories prioritised according to the above criteria.

Business Partner Due Diligence and Management

During FY23, the Compliance team used the integrated platform, Jaggaer, to maintain business partner due diligence screening for suppliers and processed some 600 compliance reviews assessing red flags for entities, owners, and management associated with matters such as sanctions and watchlists, regulatory actions, negative news, corruption, human rights, and reputational risks. Following this assessment, Hitachi Rail deployed an appropriate risk model, embedded in a single platform, for due diligence during supplier qualification, specifically screening against any red flags for Hitachi Rail.

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Sustainable Supply Chain

Sustainability sits at the heart of Hitachi Rail's supply chain strategy to address the climate crisis and transition to a regenerative economic model. Most of the business social and environmental impact occurs in the supply chain. Through its Sustainable Supply Chain Strategy, Hitachi Rail drives positive intentions, delivers sustainable change, and ultimately empowers the achievement of its Sustainable Development Goals promises.

During FY22 Hitachi Rail introduced the model of Sustainable Procurement Strategy based on externally recognised frameworks i.e., the Organisation for Economic Co-operation and Development, or the United Nations Guiding Principles on Business and Human Rights. This model will be aligned to deliver the Hitachi Corporate Sustainable Procurement Policy and wider Sustainable Development Goals and Agenda 2030 commitments.

Hitachi Rail continues to improve the digital carbon accounting engine which uses the Greenhouse Gas (GHG) Protocol to estimate total carbon footprint through a spend-based methodology for the Scope 3 categories of purchased goods and services and capital goods. This is an innovative and tailored approach for Hitachi Rail to solve the challenge of understanding the volume of the Scope 3 emissions of its suppliers without having direct access to the Scope 1 and 2 emissions data for these suppliers. While most of the Scope 3 calculation remains spend-based, in FY23, the Organisation started a process to improve supplier estimations using supplier data to better reflect real emissions.

Hitachi Rail has also been able to determine the categories of spend with the highest levels of carbon intensity. This gives a clear opportunity to focus on efforts of collaboration with top supply chain partners to address their emissions as well to track and monitor their progress towards carbon neutrality over time. Meanwhile, all suppliers are encouraged to register in the EcoVadis Ratings platform and Hitachi Rail is using the EcoVadis Carbon Action Module functionality to engage suppliers in climate action, build capability and collect primary data. This will provide a better understanding of suppliers' sustainability and decarbonisation practices, strengths, and areas of improvement.

Hitachi Rail supplier mapping through EcoVadis is composed of the following main steps:

1

Screening of Hitachi Rail's risk distribution per theme - EcoVadis IQ:
Screening of suppliers using the EcoVadis IQ platform which profiles and maps the supply base for environmental, social and ethical risk using inherent industry & country sustainability risk profiles.

2

Assessment of the sustainability performance of suppliers – EcoVadis Rating:
Actual assessment of suppliers based on risk and supplier materiality through registration in the EcoVadis ratings platform.

3

Assessment of the carbon performance of suppliers - Carbon Scorecard:
Monitoring of the carbon performance of rated suppliers eligible for the Carbon Scorecard.

Screening of Hitachi Rail's risk distribution per theme – EcoVadis IQ

Hitachi Rail screened over 6,900 suppliers using the EcoVadis platform. This screening provides critical insights on the inherent risk profile of suppliers in terms of the industries they work in and the countries in which they operate, and it allows Hitachi Rail to have a holistic CSR & Sustainability risk profile to focus resources and prioritise the highest potential risks. In FY24 Hitachi Rail will upgrade to the latest EcoVadis IQ plus solution. This screening solution includes DocScan with contactless AI data mining and AI powered document review.

For FY23 Hitachi Rail uploaded and screened 6,944 suppliers from 204 industries and 55 countries, registering an increase of 142 suppliers with respect to last year.

OVERVIEW

6,944 Suppliers

204 Industries

55 Countries

Assessment of supplier sustainability performance – EcoVadis Rating

Through a defined implementation plan based on risk and supplier materiality, Hitachi Rail ended 2023 with 954 suppliers fully registered in the EcoVadis Ratings platform, providing detailed visibility of their CSR & Sustainability performance.

This marks an increase of 195 (25% increase) in new suppliers screened for environmental, social, and ethical criteria. Currently, nearly 55% of in-scope annualised Procurement spend at Hitachi Rail is covered by rated suppliers, an increase with respect to the 50% covered the previous year.
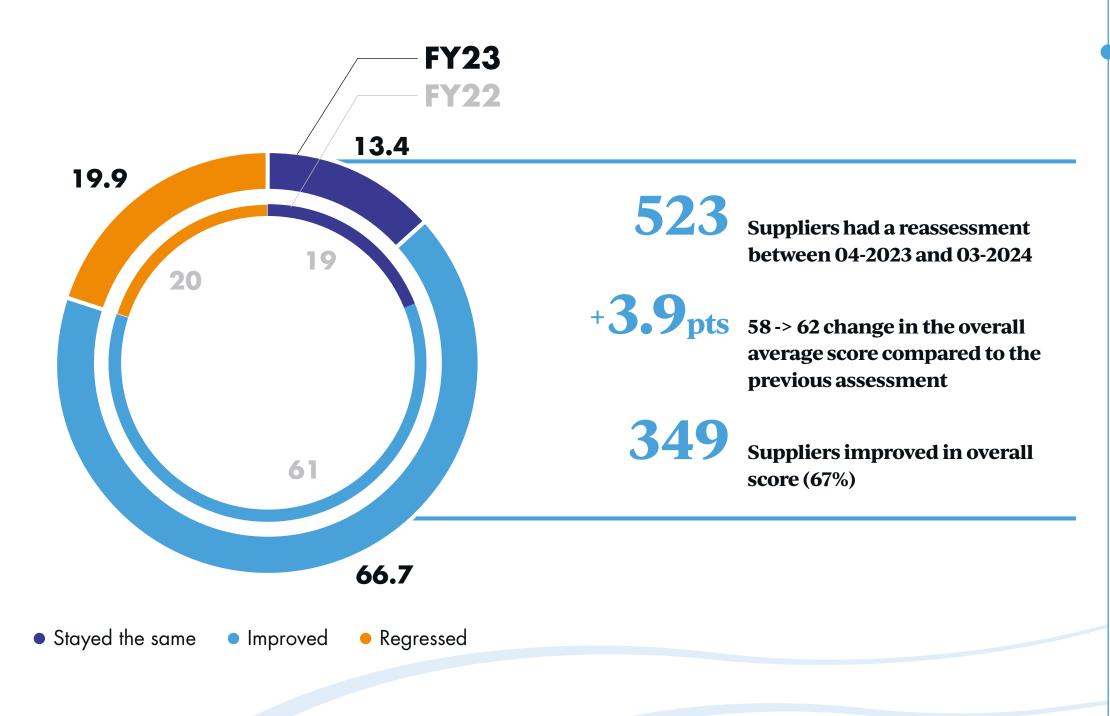
Over the year, Hitachi Rail will continue to expand the number of suppliers invited to join the platform, providing essential information on the performance of the supply base and forming a basis for a broader Sustainable Procurement Strategy.

It should be noted that the figure "In progress" also includes suppliers being re-assessed.

Rated **In progress**
954 **280**

As shown below, the reassessment process has registered significant improvements in the score of the suppliers involved, showing a shared commitment and the development trend towards a common path.

Evolution of reevaluated suppliers in FY23 (%)

FY23
FY22

19.9   13.4   523   Suppliers had a reassessment between 04-2023 and 03-2024

20   19   +3.9pts   58 -> 62 change in the overall average score compared to the previous assessment

61   349   Suppliers improved in overall score (67%)

66.7

● Stayed the same ● Improved ● Regressed

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Around 8/10 of Hitachi Rail's suppliers on EcoVadis are eligible for the Carbon Scorecard and of those 60.1% (an increase of 8.7% compared to the last reporting year) are rated as intermediate or above. Supplier assessment integration in business practices:

- EcoVadis was formalised in a Group Indirect Sourcing procedure and EcoVadis Rating was incorporated in the UK Supplier Selection Board (SSB). Therefore, where applicable, the EcoVadis rating is included in the supplier selection decision-making alongside other selection criteria;

- a specific training session on EcoVadis was held covering the corrective actions plan feature, involving procurement staff from around the globe.

Given the nature of Hitachi Rail's global business presence, the Organisation manages a large and diverse supply base covering multiple areas of spend including:
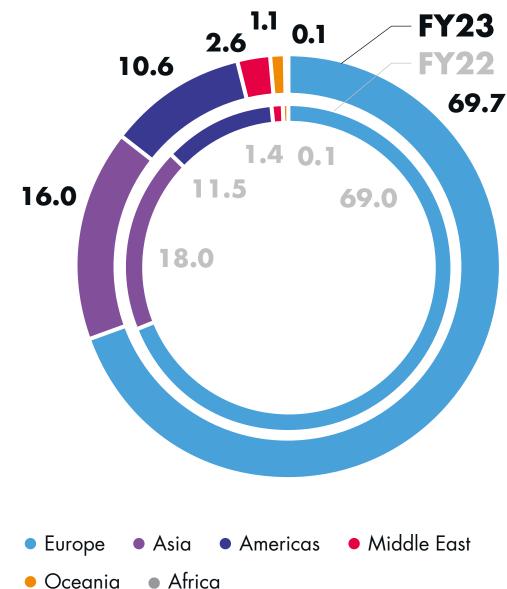
- materials – purchase of circuit boards, mechanical and plastic parts, wayside equipment, cables, racks, cabinets, industrial PCs, on-board equipment, and electromechanical components, all kind of other rolling stock components (from semi-finished aluminium/still parts to interior components);
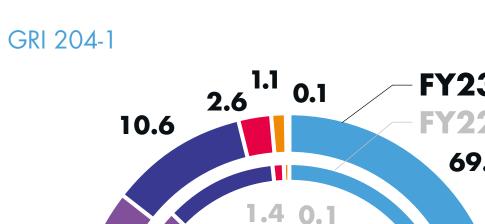
- services – facility management and HSE, payroll services, professional, and ICT services, logistics services and travel;

- business services – engineering and development services and RAMS activities together with Operation, Service and Maintenance Services

- turnkey projects and subcontracts – such as installation and commissioning systems, telecommunications systems, power supply and systems, supervision and control systems, equipment for depots, signalling systems, rails and civil works.

An overview of the regional distribution of supplier base can be found below:

SUPPLIER DISTRIBUTION BASED ON SPENDING (%)

GRI 204-1

FY23
FY22

69.7

69.0

0.1

0.1

1.4

11.5

18.0

16.0

10.6

2.6

1.1

- Europe
- Asia
- Americas
- Middle East
- Oceania
- Africa
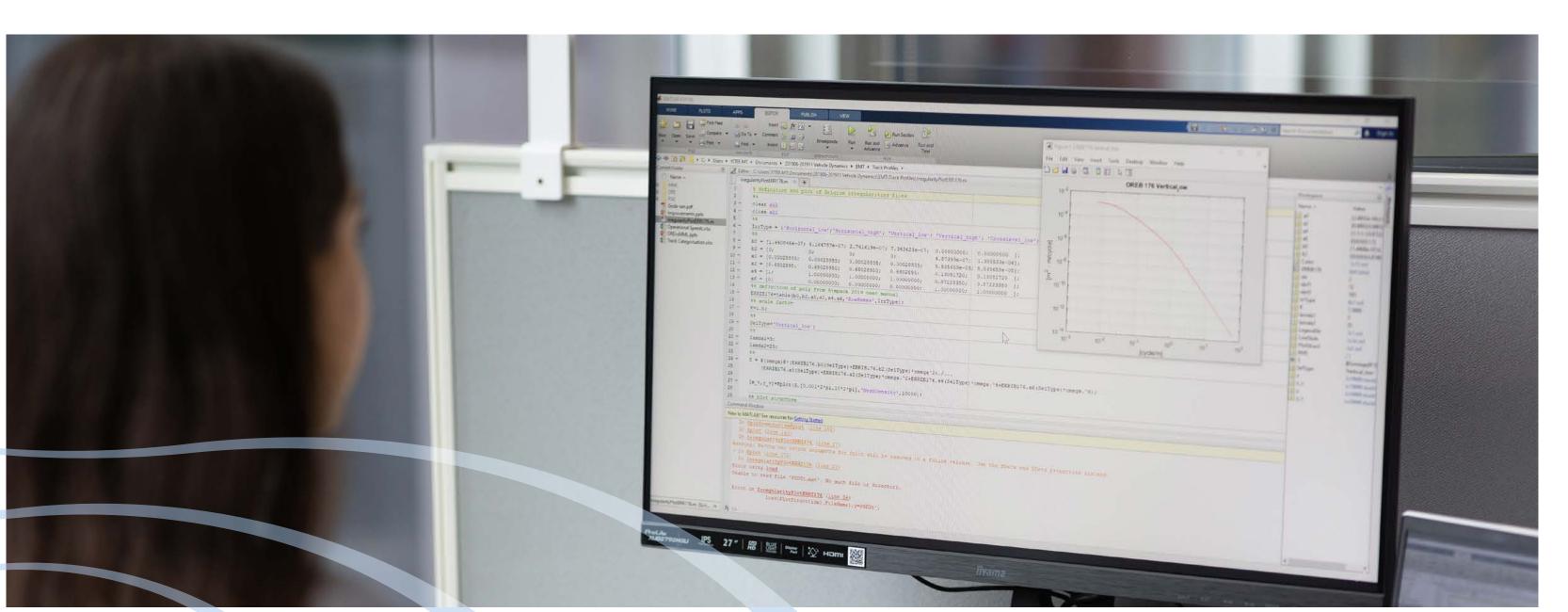
> **Promoting equity and lifelong learning, Hitachi Rail commits itself to continuously foster a culture of inclusivity and growth**
>
> **Lyn Amor Raymundo**
> *Deputy Chief Human Resources Officer*

4
Social Impact

Social Impact
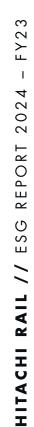
4.1 Our People
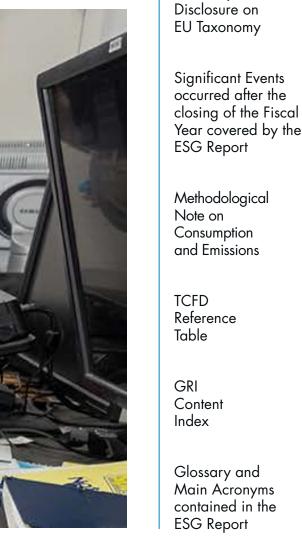
Hitachi Rail's workforce is managed by the Human Resources function, guided by a set of HR policies and a strong governance structure, defined in alignment with Hitachi Ltd. policies and guidelines as well as with regional and local requirements.

All Hitachi Rail's employees are recorded into the Organisational Chart, which provides a clear description of the mandates of each role, ensuring consistency with the Mid-Term Strategic Plan, and encouraging collaboration across functions and regions by building

an equitable and inclusive organisation where diverse talents to play an active role.

The structure allows Hitachi Rail to actively engaging in regular dialogue with employees regarding opportunities,

training, and career development through its Global Performance Management (GPM) process, as well as through regular dialogue between managers and employees.

4.1.1 Human Capital

Below are the tables representing the Hitachi Rail workforce. Employees are divided by gender, geographical location, professional categories, education, age, seniority, and types of contracts.

All quantitative human resources data refers to headcount as of March 31 and is not expressed in full-time equivalents (FTEs).

Unless otherwise specified, HR data is disaggregated by region to obtain a more detailed and understandable view of the data. It should be noted that the workforce figures for FY22 have undergone a revision compared to those published within the previous ESG Report.

This is related to a review of the internal process of consolidation of personnel data to make it consistent with the perimeters of the ESG Report and to refine the methodologies in view of future regulatory obligations.

Number of employees[8] by Region

The Hitachi Rail workforce is grouped in five different Regions around the world, with 30% of the workforce concentrated in Italy – constituting a Region itself due to the concentration of workforce - 28% in the EMEA (Europe, Middle East, and Africa) Region and 25% in Japan. This year confirms the trend of a growing workforce in the EMEA, with an increase of 196 employees.
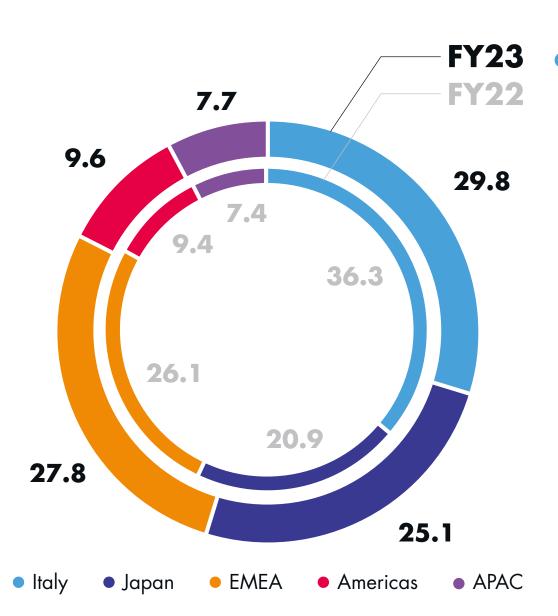
The remaining workforce is in the US and Canada (10%) and in the APAC (Asia Pacific) Region representing 8% of the total workforce.

EMPLOYEES BY REGION GRI 2-7

N. of employees[9]	FY22				FY23			
	MEN	WOMEN	TOTAL	%W	MEN	WOMEN	TOTAL	%W
Italy	3,651	636	**4,287**	14.8%	3,729	680	**4,409**	15.4%
Japan	3,539	296	**3,835**	7.7%	3,411	291	**3,702**	7.9%
EMEA	3,300	611	**3,911**	15.6%	3,438	669	**4,107**	16.3%
Americas	1,063	347	**1,410**	24.6%	1,049	367	**1,416**	25.9%
APAC	909	186	**1,095**	17.0%	926	215	**1,141**	18.8%
Total	**12,462**	**2,076**	**14,538**	**14.3%**	**12,553**	**2,222**	**14,775**	**15.0%**

Employees by Region (%)

FY23 (outer ring): Italy 29.8, Japan 25.1, EMEA 27.8, Americas 9.6, APAC 7.7
FY22 (inner ring): Italy 36.3, Japan 20.9, EMEA 26.1, Americas 9.4, APAC 7.4

● Italy ● Japan ● EMEA ● Americas ● APAC

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[8] Please note this document refers to employees as with a employment contract with Hitachi Rail.
[9] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.
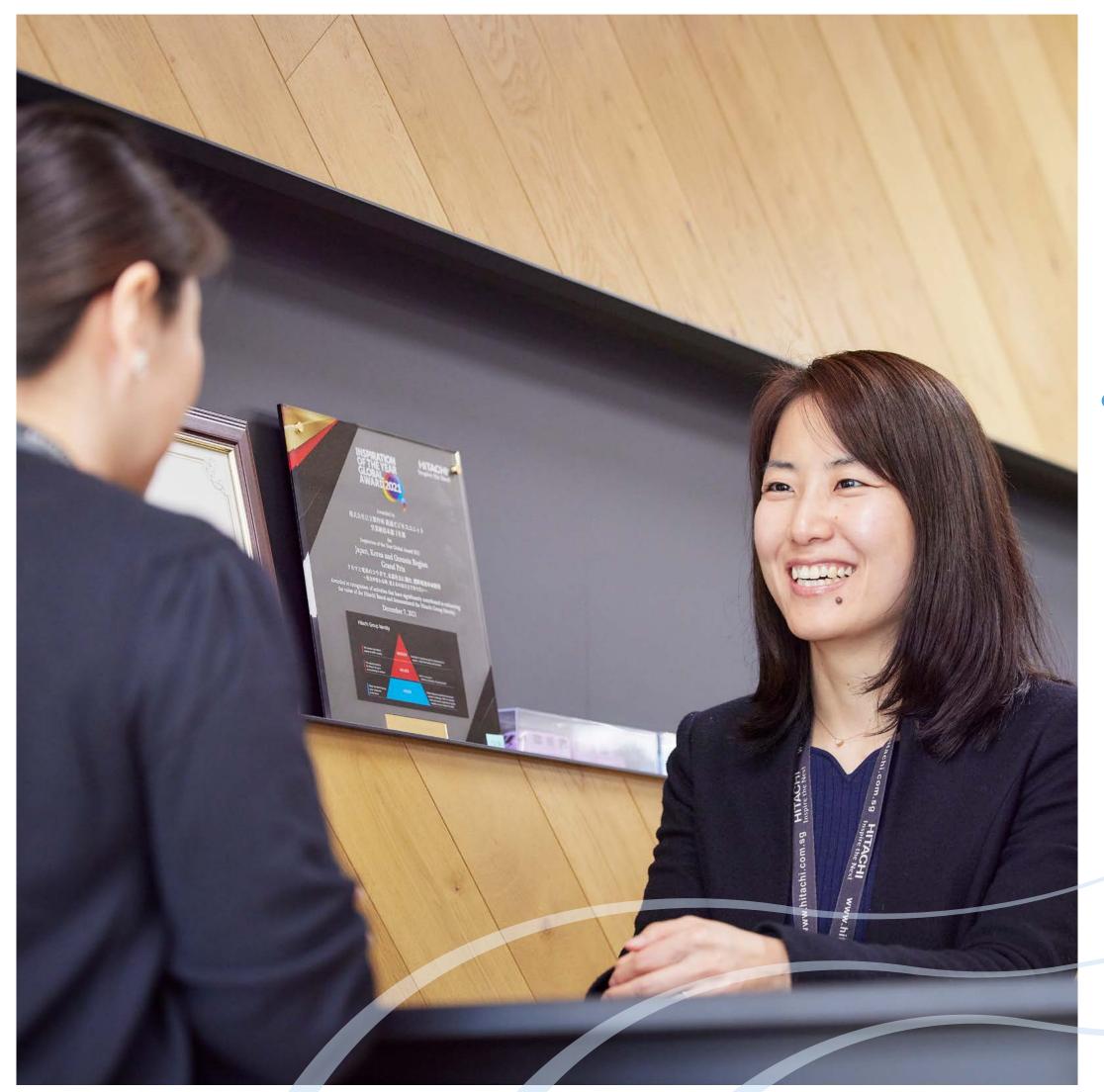
Employee composition

According to data for FY23, 52% of Hitachi Rail's employees fall into the "Other White collars" category of which women represent 21%, compared with 15% at an overall level. The number of women in the Executive category has been increasing over the years, recording an increase of one person this year compared to the previous fiscal year (7% increase). The number of women in middle management positions increased by 9% from the previous year, recording proportionately more female hires. When looking at the age distribution, 62% of employees is aged between 30 and 50; 28% over 50, while the remaining 10% are employees under 30 years old.

EMPLOYEES BY AGE AND GENDER GRI 405-1

N. of employees	TOTAL					
	FY22			FY23		
	MEN	WOMEN	Total	MEN	WOMEN	Total
Executives	**165**	**15**	**180**	**165**	**16**	**181**
<30	-	-	-	-	-	-
30-50	58	4	62	57	6	63
>50	107	11	118	108	10	118
Middle management	**1,607**	**188**	**1,795**	**1,611**	**204**	**1,815**
<30	2	-	2	2	-	2
30-50	809	129	938	807	134	941
>50	796	59	855	802	70	872
Other White collars	**6,020**	**1,451**	**7,471**	**6,146**	**1,589**	**7,735**
<30	739	202	941	679	216	895
30-50	3,853	906	4,759	4,027	1,010	5,037
>50	1,428	343	1,771	1,440	363	1,803
Blue collar	**4,670**	**422**	**5,092**	**4,631**	**413**	**5,044**
<30	606	50	656	611	36	647
30-50	2,863	244	3,107	2,825	243	3,068
>50	1,201	128	1,329	1,195	134	1,329
Total	**12,462**	**2,076**	**14,538**	**12,553**	**2,222**	**14,775**
<30	1,347	252	1,599	1,292	252	1,544
30-50	7,583	1,283	8,866	7,716	1,393	9,109
>50	3,532	541	4,073	3,545	577	4,122

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By considering the distribution over generations, Hitachi Rail's workforce consists of a majority of Generation X employees.

EMPLOYEES BY GENERATION

N. of employees[10]	FY22				FY23			
	MEN	WOMEN	Total	%	MEN	WOMEN	Total	%W
Traditionals (1926-1945)	3	1	4	0.03%	2	1	3	0.02%
Baby Boomers (1946-1965)	1,591	248	1,839	12.6%	1,387	227	1,614	10.9%
Generation X (1966-1985)	7,320	1,197	8,517	58.6%	7,337	1,239	8,576	58.0%
Generation Y (1986-1995)	2,768	507	3,275	22.5%	2,920	595	3,515	23.8%
Generation Z (1996-2005)	780	123	903	6.2%	907	160	1,067	7.2%
Total	12,462	2,076	14,538	100%	12,553	2,222	14,775	100%

Hitachi Rail monitors its ability to retain talent by tracking the years of seniority of its employees, i.e., the number of years they spent within the Organisation. Roughly 48% of the workforce has been employed by more than 10 years.

EMPLOYEES BY SENIORITY

N. of employees[10]	FY22				FY23			
	MEN	WOMEN	TOTAL	%	MEN	WOMEN	TOTAL	%
< 5	3,804	767	4,571	31.4%	3,410	769	4,179	28.3%
5-10	2,776	537	3,313	22.8%	2,932	542	3,474	23.5%
11-15	1,761	233	1,994	13.7%	1,822	285	2,107	14.3%
16-20	1,453	236	1,689	11.6%	1,493	272	1,765	11.9%
21-25	782	98	880	6.1%	973	139	1,112	7.5%
> 25	1,886	205	2,091	14.4%	1,923	215	2,138	14.5%
Total	12,462	2,076	14,538	100%	12,553	2,222	14,775	100%

[10] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

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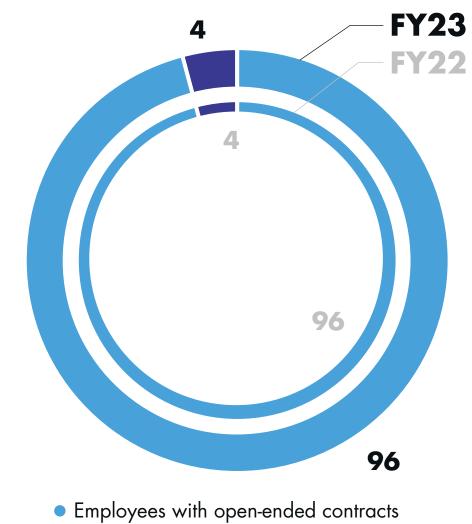
Hitachi Rail aims to build long-term relationships with each of its employees. The share of employees with open-ended contract reached 96% in FY23. The overall number of employees globally recorded a slight increase compared to last year, with 99% of employees now employed on full-time contracts. The trend by region (see table) shows an increase in permanent contract hires for the Italy and EMEA regions. For the regions of Italy, EMEA and Americas, open-ended contract for the female population have increased.

EMPLOYEES BY TYPE OF CONTRACT (open-ended, temporary) GRI 2-7

| N. of employees | TOTAL | | | | | |
| | FY22 | | | FY23 | | |
	MEN	WOMEN	Total	MEN	WOMEN	Total
Employees with open-ended contracts	11,936	1,990	13,926	12,066	2,132	14,198
Employees with temporary contracts	526	86	612	487	90	577
Total	**12,462**	**2,076**	**14,538**	**12,553**	**2,222**	**14,775**

EMPLOYEES BY TYPE OF CONTRACT (full-time, part-time) GRI 2-7

| N. of employees | TOTAL | | | | | |
| | FY22 | | | FY23 | | |
	MEN	WOMEN	Total	MEN	WOMEN	Total
Number of full-time employees	12,409	1,944	14,353	12,493	2,083	14,576
Number of part-time employees	53	132	185	60	139	199
Total	**12,462**	**2,076**	**14,538**	**12,553**	**2,222**	**14,775**

Employees by employment contract (%)

FY23
FY22
4
4
96
96
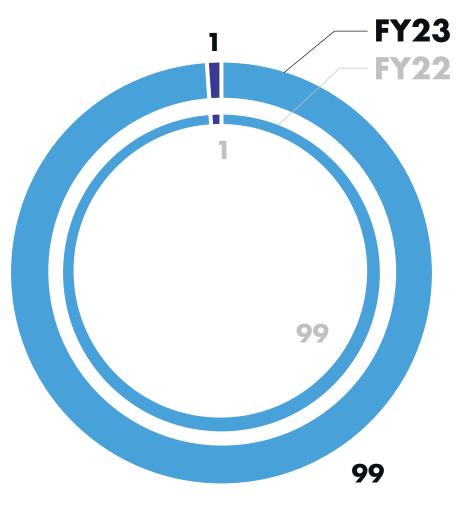
- Employees with open-ended contracts
- Employees with temporary contracts

Employees by employment hours (%)

FY23
FY22
1
1
99
99

- Number of full-time employees
- Number of part-time employees

Workers who are not employees

Hitachi Rail also tracks information on workers who are not employees but perform work for the Organisation whilst not being in an employment relationship with Hitachi Rail. The number of workers who are not employees are presented in headcount at the end of the reporting period.

The number of the workers who are not employees in Hitachi Rail is 1,698 during FY23, a slight increase compared to FY22 when non-employee workers were 1,691. 53% of non-employee workers belong to the temporary workers category, a figure that remained consistent with the percentage of FY22 (54%).

WORKERS WHO ARE NOT EMPLOYEES GRI 2-8

N. of non-employees[11]	TOTAL					
	FY22			FY23		
	MEN	WOMEN	Total	MEN	WOMEN	Total
Temporary workers[12]	794	282	**1,076**	919	166	**1,085**
Trainees[13]	37	23	**60**	57	30	**87**
Contractors[14]	487	68	**555**	469	57	**526**
Total	**1,318**	**373**	**1,691**	**1,445**	**253**	**1,698**

[11] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

[12] Also defined as "Contingent worker" or "contingent labour" people engaged by the company where Hitachi Rail is not the payroll owner, usually to cover a certain (temporary) workloads. Usually this category has three sub-categories: production labour, general/office labour, project labour.

[13] Term that refers to students, interns or apprentices: individuals working at Hitachi Rail, for the main purpose to acquire skills, training or education.

[14] Independent contractors are self-employed individuals who provides a scope of work/service, sometimes for one companies, sometimes for multiple companies at the same time. Concerning this category, in Hitachi Rail line managers cannot supervise, control, train or manage work time in order to avoid co-employment risks.

4.1.2 Industrial Relations Management

Industrial Relations Management includes the management of interactions and negotiations between a company, its employees, and their representatives (such as Works Councils and/or unions). The aim of Industrial Relations is to manage and balance the interests of all parties to ensure a productive, equitable and fair work environment. Hitachi Rail fosters collaboration with its social partners by having constructive dialogues and fruitful exchanges/ conversations. Its objective is to create and assure a stable and cooperative workplace, minimising conflicts and enhance overall productivity, job satisfaction, opportunities for career growth and professional development. Hitachi Rail manages employment relationships with its employees and their representative bodies according to the local labour laws and collective bargaining agreements in place in the specific countries where it operates.

The percentage of total employees covered by collective bargaining agreements changes according to the country; for example, in Italy and in France, collective bargaining agreements cover 100% of the workforce, while for the United Kingdom it accounts for around 70%. In general, the percentage of employees covered by collective bargaining agreements within Hitachi Rail stands at 63%.

Where employees are not covered by collective bargaining agreements, Hitachi Rail determines working conditions and terms of employment by identifying roles in line with business requirements, levels of responsibility, and external benchmarking against relevant market rates. Benefits are determined based on existing similar internal roles and industry trends.

Below are some examples of industrial relation frameworks from a few of the different territories in which Hitachi Rail operates.

Industrial Relations in Italy

In Italy Industrial Relations are focused on creating an inclusive and diverse work environment that empowers employees through active listening practices, such as surveys and focus groups to gather employees' feedback and promoting ongoing communication to raise awareness among workers.

FY23 was marked by negotiations for the renewal of the Second-Level Company Contract. Among the main points included: Welfare FORyou, a welfare bonus for all employees focused on "self-training"; the Long-Term Care Insurance ensuring a lifetime annuity in the event of loss of self-sufficiency; the Banca Ore Solidale ensuring the transfer of vacation hours to colleagues who are in situation of personal or family difficulty, as well as the Banca del tempo giving the option to set aside vacation hours to use in case of need. Also, FY23 saw the Manufacturing Knowledge and Transfer (MKT), a project aimed at enhancing manufacturing skills and the Company Support given to employees' families in case of death.

The negotiation phase was successfully concluded with the signing of an agreement on each topic in March 2023 and the final ratification of the entire Second Level Platform in April 2024.

Industrial Relations in France

In France, the bargaining system does not require one to be unionised to benefit from a collective agreement. At national and company level, all collective agreements are automatically binding on the entire population. The French national metal and steel sector has gone through a period of major reforms, resulting in significant changes in grading systems, working hours and health plans.

In addition, according to French law, all companies with more than 300 employees are required to publish annual data on equal pay for men and women, based on age, seniority, and category, using a scoring system. Aware of the importance of gender equality and equal pay, Hitachi Rail STS France achieved a score of 85/100 (same score as the previous year) according to the Equality Index 2023[15].

[15] Ref. Index égalité entre les femmes et les hommes en France en 2023.
https://www.hitachirail.com/media/wk0fuwia/information-internet-intranet_-equality-index-2023.pdf

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Industrial Relations in Australia

The Australian Industrial Relations system includes the Fair Work Act (2009), the National Employment Standards, registered agreements, and awards. The system applies to both employees and employers but - as not mandatory - union membership amounts to around 12.5% across Australia.

The **Fair Work Commission**, national workplace relations tribunal in Australia, has control over minimum wages, bonuses, agreements, and industrial action, can help resolve disputes involving employers, employees, and unions that fall under national workplace relation systems. Recent changes to the Industrial Relations legislation aim to introduce additional flexibility, implement new safeguards, and make collective bargaining more accessible and straightforward.

Industrial Relations in the UK

The UK has a complex Industrial Relations structure. Industries, such as rail, that were historically nationalised, have long-standing union agreements, to which Hitachi Rail has signed additional agreements to cover additional sites or roles, resulting in a multiple tiered and layered framework influenced by different factors such as location, start date, and job role.

Employees do not have to be a member of the trade union to be covered by the collective bargaining agreement in place. It is job roles and grades that determine whether an individual's contract of employment will be considered within the scope of a collective agreement. At present about 70% of roles in Hitachi Rail UK are covered by a collective agreement. Industrial relations are managed through a framework of agreed-upon meetings, at company, regional, and local levels. Meetings will be planned in FY24 to establish a new framework agreement on industrial relations and new entities, such as a policy review committee to further improve engagement and joint work.

Industrial Relations in Japan

Hitachi Rail labour-management relations in Japan are those of Hitachi, Ltd. (There is no labour union at HIK, an affiliated company, and an employee representative council is established to carry out labour-management efforts.).

Hitachi Ltd., and the Hitachi Workers Union have concluded collective agreement. The collective agreement applies a closed shop system. (Although labour law in Japan allows an employee to join more than one union).

The Hitachi Workers Union establishes a branch at each site and engages in its activities with business entities related to the site. Agreements are concluded between business and branches as necessary.

Employees in managerial positions are non-union members. In addition, only a small number of employees join labour unions when they reach the retirement age of 60 and enter into new employment contracts.

Approximately 75% of employees are union members.

Hitachi Ltd. has built an enduring relationship of trust with the unions by holding regular meetings of the Management Council, spring negotiations, and various committees (safety, etc.) at Hitachi Ltd. level, Hitachi Rail level, and site level to discuss and negotiate improvements in the workplace environment and working conditions, and by explaining and sharing management information. In addition, through Survey 2023 and town hall meetings by senior management, the opinions of employees are directly collected and incorporated into management measures and improvements in the workplace environment.

In addition, labour and management have built a good relationship by incorporating the opinions of employees into management measures and improvements in the workplace environment. The management status of various systems is also checked regularly.

Industrial Relations in the United States

During FY22 and FY23, Hitachi Rail in North America finalised three collective bargaining agreements with organisations representing Train Controllers, Station Operators, and Technician workers in Honolulu, Hawaii.

These agreements cover working conditions, wages and benefits, career progression, and other matters to protect the rights and interests of covered employees. The organisations represented include the Hawaii Teamsters and Allied Workers Local 996 and the Hawaii International Brotherhood of Electrical Workers Local 1186.

The ratio of US employees belonging to labour unions is roughly 9.4% across the United States (53.5% of the Hawaii workforce.) Hitachi Rail maintains an open dialogue with union representatives addressing employee concerns as they arise.

Minimum Notice Period Regarding Operational Changes

Where there are collective bargaining agreements in place, notice periods and the provision for consultation and negotiation are specified in the collective bargaining agreements.

The number of weeks' notice provided to employees where there are significant operational changes is determined by the contract and employment law.

4.2 Diversity, Equity, and Inclusion

> **"** *We at Hitachi Ltd. are committed to fostering a diverse, inclusive and innovative workplace within our group companies. Hitachi Rail stands out for its initiatives aiming to secure a safe, inclusive and sustainable work environment for all, including obtaining the ISO 30415 certification and the execution of Human Rights Due Diligence.* **"**

Mitsuru Suzuki
Global Diversity Equity and Inclusion Assistant Manager, Hitachi Ltd.

Hitachi Rail adopts an inclusive culture, embracing and celebrating diversity in its workforce by valuing differences in backgrounds, age, gender, sexuality, family status, disability, race, nationality, ethnicity, and religion. Aligned with broader Hitachi Group initiatives, Hitachi Rail pursues several key objectives to enhance DEI:

- cultivating a truly global workforce with diverse talents from around the world;

- enhancing capabilities to better serve global customers, improve operations, and explore new markets;

- harnessing diversity to foster innovation and creativity;

- attracting and retaining top talents through a supportive and inclusive work environment;

- ensuring employee engagement and alignment with the Group's strategic vision.

During FY23, Hitachi Rail has achieved notable progress in its pursuit of DEI objectives, in line with the DEI targets of the Organisation

to increase gender balance and representation in Hitachi Rail and to communicate diversity inside and outside the Organisation:

- the ratio of female employees stands at 15%;

- the ratio of female managers increased to 11%;

- the internal communication and dialogue on DEI to address biases was intensified;

- the diversity of "ambassadors" for External Communications was fostered through diverse People Stories.

By fostering a culture of inclusion and empowering employees from diverse backgrounds, Hitachi Rail strives to create a vibrant and dynamic workplace, driving innovation, and delivering wide social value. FY23 showed key improvements in Hitachi Rail DEI strategy. The Organisation carried out the first DEI analysis at country level, covering legal requirements, maturity, available training, and actions. This overview allowed Hitachi Rail to gain a detailed overall picture.

This led to the constitution of a DEI Global Committee, which was launched in January 2024, and allowed contents and best practices to be shared among DEI representatives from different HR/Business areas, leaving the space for each country to share their experiences.

During the reporting period, Hitachi Rail also designed the DEI Global Policy and the Global Implementation Policy, which are part of GBMS. Since the kick-off phase of the DEI Global Committee, it has seen the first Employer Resource Groups (ERGs), starting from the UK. Hitachi Rail started to collect all necessary information and documentation for the preparatory phase to obtain the ISO 30415: 2021 - Diversity & Inclusion, with Italy as the pilot country. The certification was obtained at the beginning of FY24. For additional information on ISO 30415: 2021 journey, please refer to box reported below.

Lastly, to support the development and implementation of the global Hitachi Rail DEI strategy, together with the HSE department, the Wellbeing Global Framework and Committee was developed.

Additional learning resources on DEI for employees' benefit were provided, such as:

- **D&I Leaders** conferences for ERG leads;

- **Women's Network** workshops focusing on 'preventing burnout', 'allyship' & 'stepping into your power';

- inspirational speakers for the **Women's Network**;

- **Right Track Learning** to support Disability & Impairment ERG – skills for line managers to support Neurodivergent employees;

- **unconscious bias** and culture dimensions;

- Respect @ Work;

- **Inclusive behaviours**, leadership and hiring;

- **gender identity**.

Employer Resource Groups (ERGs)

Hitachi Rail recently made some great progress launching and reinvigorating several ERGs (Employee Resource Group). This year saw the launch of two new ERGs: the Ethnic Diversity & Multi Faith ERG, whose mission is to cultivate a workplace that celebrates and embraces the richness of ethnic and religious diversity, and the Disability & Impairment Network, which is committed to fostering inclusivity by empowering the abilities of individuals.

The Women's Network recorded boosted membership by both men and women, particularly in the UK – where there is also new leadership in place – and the UK Pride network (LGBTQ+) refreshed their mission, announcing a series of new activities.

In the UK, too, a Hitachi Rail team launched the Disability & Impairment Network which is committed to fostering inclusivity by empowering individuals of all abilities, championing accessibility, changing needs throughout careers and valuing the unique contribution that anyone can bring to the workplace.

People with disabilities

Hitachi Rail's diversity principles are deeply ingrained in operational procedures and working practices, with systems, policies, and practices to enable everyone to access the same opportunities and to help them realise their potential. Talent Acquisition projects reflect these principles. The High-Speed Talent Diversity for Inclusion project, dedicated to people with disabilities, aims at promoting inclusive and enriching collaborations, following Hitachi's values, mission, and the basic principles of the DE&I Policy.

In Italy, Law no. 68/99 introduced the key concept of "targeted" employment where successful matches are made by analysing positions, forms of support, positive actions, and the possible solutions to issues related to the work environment, tools, and interpersonal relations that a person would experience in the role. In Japan, the law mandates that a certain percentage of the workforce must represent people with disabilities. In the United States, it is common practice for customers to require the mandatory allocation of a percentage of the contract to DBEs (Disadvantaged Business Enterprises), which are regulated by federal and state departments.

Hitachi Rail provides opportunities and positions both in office-based roles and in production roles. The table below shows the total number and percentage of the workforce represented by people with disabilities by region.

EMPLOYEES WITH DISABILITIES GRI 405-1

| | Italy | | | | Japan | | | | EMEA | | | | Americas | | | | APAC | | | |
| | FY22 | | FY23 | | FY22 | | FY23 | | FY22 | | FY23 | | FY22 | | FY23 | | FY22 | | FY23 | |
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W
% of total workforce	3.6%	4.7%	4.0%	5.1%	0.9%	4.4%	1.0%	4.5%	0.2%	1.3%	0.1%	1.5%	0.0%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%

5 GENDER EQUALITY

10 REDUCED INEQUALITIES

ISO 30415 Certification
for Diversity & Inclusion – Italy

Hitachi Rail is actively pursuing the ISO 30415 International Standard for Diversity & Inclusion (D&I) in Italy, which aims to foster internal change in organisations, guiding them both in defining more socially sustainable strategic goals and in building a different relationship with their stakeholders, in line with the core principles of the D&I Policy.

During FY23, Hitachi Rail began the preparatory phase to obtain ISO 30415:2021 - Diversity & Inclusion with Italy as a pilot country. Hitachi Rail developed the Global Wellbeing Framework to support the development and implementation of the global Hitachi Rail DEI strategy, equality of opportunity between women and men in economic development, the elimination of all forms of abuse against women, and equal rights at all levels of participation. Hitachi Rail obtained certification at the beginning of FY24.

4.3 People Development and Care

In synergy with its Global Wellbeing Framework, Hitachi Rail's People Strategy aims to provide Hitachi Rail employees with a work-life balance, whilst giving them the support and resources to thrive inside and outside of work.

This "People Care" concept aims to provide Hitachi Rail employees with a work-life balance, whilst giving them the support and resources to thrive inside and outside of work. People Care is linked to Hitachi Rail's "Total Reward" strategy, based on tangible and intangible measures to create a working environment where employees can continuously gain experience, develop skills, forge relationships, and find motivation. The programme actively supports relationships between managers, employees, and colleagues.

The "People Care" initiatives and approach collectively exemplify Hitachi Rail's dedication to nurturing a thriving and supportive work environment, ensuring that its employees flourish both personally and professionally enhancing their overall wellbeing.

Hitachi Rail offers support services, such as flexible work schedule, special arrangements with local entertainment and sports centres, benefits such as health insurance, accident insurance, company-car, employee scholarships, corporate welfare, canteen and breakfast areas, and celebrations of successful projects to full-time and part-time employees across regions.

The Employee Assistance Programme

The Employee Assistance Programme provides employees and their families a selection of services and products with a comprehensive support system, offering psychological assistance on various aspects of life, as well as legal and medical information, from experts in the relevant fields. An example of some of the initiatives carried out are:

- **remote and face-to-face listening and support:** anonymous and confidential psychological support provided by listening professionals, both remotely and face-to-face, on various topics, including managing life changes, self-esteem, relationships, inclusion and diversity, personal wellbeing;

- **legal, fiscal, and social welfare support:** this information service is provided by experts in the social welfare sector and by lawyers and accountants enrolled in the relevant professional registers;

- **agile working method** and flexible work schedule continues to gain satisfaction and engagement in Italy with the participation of the staff of all sites. Smart working and flexible work schedule continue to favour the need to reconcile work-life in full compliance with business activities and objectives;

In Italy, for example, employees receive contractual and company welfare through a digital platform that offers a wide choice of products and services and benefits such as:

- health insurance, accident insurance, company-car, canteen, and breakfast areas;

- **bonus upon completion of certain seniority (as the Italian "Premio fedeltà"):** Hitachi Rail provides an economic amount to all employees, with 30, 35 and 40 years of Group seniority;

- **access to an app and portal:** which includes a variety of health and wellbeing articles and webinars, sports activities, podcasts, and a wide range of discounts.

Hitachi Rails offers a comprehensive benefits package and a wide range of resources and education, some of which are also available to family members. Many support service packages include discounted gym membership, benefits such as private medical insurance, an income protection scheme, counselling service, access to a physiotherapist or illness.

Concerning specific aspects in the UK, in terms of policies, a flexible working policy is in place, enabling employees to request amended working patterns or reduced hours to fit in with their family and personal life. Hitachi Rail is also provided with policies relating to employee welfare including several topics such as suicide awareness, mental health and physical health awareness and stress management, abuse in the workplace and occupational health.

The HR Department reviews and updates procedures every three years and these are approved via the Head of HR Business Partnering.

Hitachi Rail ensures new joiners are made aware of where to find policies and procedures during their onboarding process.

Healthcare

Hitachi Rail health benefits cover Health Care to supplement social security, and occupational and non-occupational accident policies.

The Corporate Welfare Plan increases the purchasing power of families without increasing their taxable income by incorporating sustainable mobility, supplementary healthcare, and smart working into the benefits programme.

The comprehensive benefits packages cover a range of health care products, an income protection schemes and other benefits such as critical illness for employees and their families.

Onsite and remote occupational health and physiotherapy clinics are also provided to support employees who may not be able to fulfil their role due to a medical condition or are absent from work.

BeWell: the global program to build and promote a strong wellbeing culture at Hitachi Rail

Wellbeing is crucial to benefit Hitachi Rail's people and business. Hitachi Rail's Global Wellbeing Program was formed according to five pillars:

- Feel *physically* well;
- Feel *mentally* well;
- Feel *valued and included;*
- Feel *financially* well;
- Feel *able to learn and grow.*

With a focus on actions and best practices to improve retention and talent attraction, Hitachi Rail's reputation as a great place to work has grown significantly, motivating, and encouraging people to work at their best, reinforcing the business.

In FY23 Hitachi Rail launched a global "BeWell" Stakeholders Framework and the Global BeWell Committee, composed of BeWell referents of all countries, both from the HR and the HSE departments to foster local wellbeing activities with a consistent global Hitachi Rail approach.

Hitachi Rail also engaged in the organisation of the first Global Wellbeing initiative starting from the first pillar of the Global Wellbeing Program – "physically well" – with the initiative "EatWell", a global collection of recipes from around the Hitachi Rail world.

FY23 local highlights:

- Teams in Australia recognised "*R U OK Day*", aimed at responding to the "mentally well" pillar providing activities to raise awareness of mental health;

- Teams held wellness communications and webinars in Canada;

- A podcast covering mental health issues in Denmark;

- In the Emirates, Hitachi Rail employees participated for free in sport activities such as the Abu Dhabi Marathon and the Dubai Marathon;

- In Pittsburgh and Batesburg in the US, Hitachi Rail saw the implementation of on-site fitness centres amongst other initiatives;

- Hitachi Rail in Italy received an honourable mention as Wellbeing Ambassador for this year's "Safety Factory Challenge";

- A team of wellbeing champions across the UK, lead initiatives such as "Movember" – a month of solidarity and demonstration regarding prostate and testicular cancer – World Menopause Day- raising awareness of menopause, symptoms, and adjustments one can make to support affected people and Stress Awareness Month.

Hitachi Rail also has an onsite and remote Occupational Health Service which is accessible to all employees via their manager. The service provides support for those who are not able to fulfil their role due to a medical condition or are absent from work, offering expert advice and recommended adjustment to support the employee to stay in work or return to work. The service also offers physiotherapy to employees and a bi-annual health check programme where employees receive tailor advice to help improve the health and wellbeing.

Letter to Stakeholders

Methodological Note

Highlights Fiscal Year 2023

Chapter 1 Context and Identity

Chapter 2 ESG Framework and Roadmap

Chapter 3 Governance

Chapter **4 Social Impact**

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Voluntary Disclosure on EU Taxonomy

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GRI Content Index

Glossary and Main Acronyms contained in the ESG Report
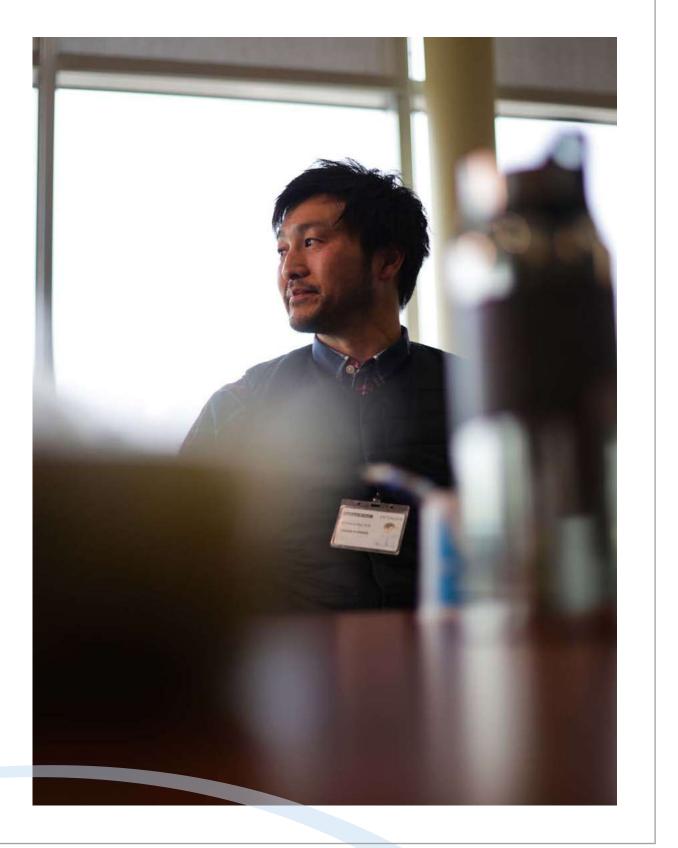
Hitachi's Global EatWell Initiative: Cultivating Well-being Through Healthy Eating

In January, Hitachi Rail launched a new Global Wellbeing initiative under the first pillar of the Global Wellbeing Program – "physically well".

The "EatWell" initiative recognises the profound impact of nutritious food on overall wellness and aims to highlight the benefits of balanced meals to increase energy, enhance cognitive function, and reduce risk to health conditions like diabetes, heart disease, anxiety, and depression.

Colleagues worldwide submitted recipes to a comprehensive Hitachi Rail EatWell recipe book. Hitachi Rail then published a curated selection of these recipes, showcasing the variety of nutritious and delicious meals enjoyed by employees.

Parents at Hitachi Rail

Hitachi Rail guarantees and grants parental leave in accordance with legislation, collective agreements, and internal policy, and in line with Sustainable Development Goals 5 (Gender Equality) and SDG 8 (Decent work and Economic growth). At the Organisation level, a total of 631 employees took family-related leave in the reporting period, marking a 22% increase compared to last year.

FAMILY-RELATED LEAVE GRI 401-3

N. of employees[16]	FY22		FY23	
	MEN	WOMEN	MEN	WOMEN
Number of employees entitled to take family-related leave (parental leave, maternity leave, and paternity leave)	12,105	2,015	12,584	2,190
Number of employees that took family-related leave (parental leave, maternity leave, and paternity leave)	358	160	444	187

Hitachi Rail, as part of the continuous improvement of its reporting systems, has started an in-depth methodology for the representation of family-related leave metrics.

Parents at Hitachi Rail access a range of goods and services, as well as recreational activities and children's camps, to support a healthy work-life balance.

The establishment of Workers' Company Recreational Clubs adds to the enrichment of both Hitachi Rail's people and the community through local recreational and cultural initiatives.

[16] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

Focus on: APAC Region

- In April 2024, Hitachi Rail Australia implemented paid parental leave for either parent, enabling the primary carer to access up to 12 weeks leave at full pay and the secondary carer to access up to two weeks leave at full pay;

- Hitachi Rail China provides parents with five days' leave at full pay before their child reaches the age of three;

- In the Philippines, the government has three types of parental leave: a maternity leave of 105 days, a paternity leave of seven days with full pay; and a solo-parent leave, regardless of employment status, of seven working days with pay (minimum six months' service).

- The Malaysian government has increased the maternity leave for married women from 60 consecutive days to 98 days and implemented paternity leave of seven consecutive days.

4.3.1 Talent Acquisition

In FY23, Hitachi Rail strengthened its Employment Strategy, ensuring the attraction and retention of the best talents while fostering a positive and inclusive working environment.

Recruitment Marketing

Hitachi Rail proactively engaged in initiatives aimed at presenting the Organisation as an outstanding and reliable employer in the industry, an "*Employer of Choice*". One of the key aspects of this effort is to develop and showcase captivating content that brings to life the essence of Hitachi Rail and its workforce.

The Talent Acquisition Team makes strategic use of various channels including Hitachi Rail's Careers Site (*www.hitachirail.com/careers*) and other third-party recruitment platforms such as LinkedIn and Glassdoor to provide up-to-date and relevant information to potential candidates.

Hitachi Rail also values and actively seeks feedback from potential candidates, believing that genuine conversations contribute to continuous improvement. This open and responsive approach has led to an increased social engagement, a surge in job applications, and positive ratings, reinforcing Hitachi Rail's Employer Brand and making it a preferred destination for top talent.

Employee Value Proposition (EVP) and Employer Branding

Employee Value Proposition (EVP) and employer branding play a crucial role in attracting and retaining talent.

The Employee Value Proposition ("EVP") process is the guiding foundation for highlighting topics and values that resonate with all employees, fostering a sense of belonging and pride in being part of Hitachi Rail.

In its quest to become an '*Employer of Choice*', to attract the best quality candidates and diverse talent, Hitachi Rail presents the Company Employer Brand in a clear, concise, attractive, and authentic manner, to potential and current employees. It conducted research in FY23, which concluded that Hitachi Rail's employees are proud of their work and its alignment with sustainability values.

Hitachi Rail launched its Employer Brand during this period, underpinned by the pillars of innovation and multiculturalism.

The team created a toolkit to simplify sourcing and - by publishing recruitment content, using employee photoshoots and redesigning the career website - Hitachi Rail emphasised its inclusivity, leading to increased traffic and candidate applications. It integrated Diversity, Equity & Inclusion content into the Employer Brand, highlighting the talent and experiences of employees and resulting in the 'People Stories' campaign, which showcases employees from various backgrounds and roles. Hitachi Rail also enhanced its internal mobility opportunities this year, promoting career development within Hitachi Rail and other Hitachi companies. Below is reported the information on the number of employees hired and terminated during the year and the related rates. A total of 1,508 employees were hired during the year.

NEW HIRES GRI 401-1

N. and rate of employees[17]	Italy		Japan		EMEA		Americas		APAC		TOTAL	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
< 30	65	25	60	4	111	18	48	12	29	19	313	78
	1.8	3.8	1.7	1.4	3.3	2.8	4.6	3.4	3.2	9.5	2.5	3.6
30-50	127	30	51	2	342	104	95	47	101	28	716	211
	3.4	4.6	1.5	0.7	10.2	16.3	9.0	13.2	11.01	13.9	5.7	9.8
> 50	15	1	50	2	53	11	20	5	29	4	167	23
	0.4	0.2	1.4	0.7	1.6	1.7	1.9	1.4	3.2	2.0	1.3	1.1
Total	207	56	161	8	506	133	163	64	159	51	1,196	312
	5.6	8.5	4.6	2.7	15.0	20.8	15.4	17.9	17.3	25.4	9.6	14.5

TERMINATIONS GRI 401-1

N. and rate of employees[18]	Italy		Japan		EMEA		Americas		APAC		TOTAL	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
< 30	12	2	23	4	55	11	29	8	14	2	133	27
	0.3	0.3	0.7	1.4	1.6	1.7	2.7	2.2	1.5	1.0	1.0	1.3
30-50	56	7	172	3	204	45	91	25	63	12	586	92
	1.5	1.1	4.9	1.0	6.1	7.0	8.6	7.0	6.9	6.0	4.7	4.3
> 50	61	3	94	6	109	19	57	11	65	8	386	47
	1.6	0.5	2.7	2.0	3.2	3.0	5.4	3.1	7.1	4.0	3.1	2.2
Total	129	12	289	13	368	75	177	44	142	22	1,105	166
	3.5	1.8	8.3	4.4	10.9	11.7	16.8	12.3	15.5	11.0	8.8	7.7

[17] The rate is calculated as the ratio of new hires to the average number of employees at 31.03.2023 and at 31.03.2024 by region, gender, and age group. The purpose of the rate is to represent the percentage of new hires with respect to the average number of employees over the last two years.

[18] The rate is calculated as the ratio of termination to the average number of employees at 31.03.2023 and at 31.03.2024 by region, gender and age group. The purpose of the rate is to represent the percentage of terminations with respect to the average number of employees over the last two years.

A breakdown of hires and leavers by generation is also shown below, consistent with the representation required by the Standard ISO 30415: 2021.

HIRES BY GENERATION

N. of employees	Italy		Japan		EMEA		Americas		APAC		TOTAL	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Traditionals (1926-1945)	-	-	-	-	-	-	-	-	-	-	-	-
Baby Boomers (1946-1965)	3	-	76	2	16	1	8	1	11	-	114	4
Generation X (1966-1985)	71	6	15	1	175	55	67	26	76	17	404	105
Generation Y (1986-1995)	91	33	15	2	227	63	45	30	53	21	431	149
Generation Z (1996-2005)	42	17	55	3	88	14	43	7	19	13	247	54
Total	207	56	161	8	506	133	163	64	159	51	1,196	312

TURNOVER BY GENERATION

N. of employees	Italy		Japan		EMEA		Americas		APAC		TOTAL	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Traditionals (1926-1945)	-	-	-	-	-	-	1	-	-	-	1	-
Baby Boomers (1946-1965)	55	2	78	4	68	10	34	8	17	1	252	25
Generation X (1966-1985)	42	3	173	2	146	36	75	19	65	8	501	68
Generation Y (1986-1995)	22	6	18	2	125	22	48	10	53	12	266	52
Generation Z (1996-2005)	10	1	20	5	29	7	19	7	7	1	85	21
Total	129	12	289	13	368	75	177	44	142	22	1,105	166

4.3.2 Learning, Career Development and Performance Management

During FY23, Hitachi Rail has maintained an integrated framework of learning processes, building. Building upon on the efforts of the previous years, it defined a three-year learning plan with the aim of strengthening and further developing the necessary competences while keeping gathering inputs and feedback to improve it continuously.

Learning

In the last year Hitachi Rail increased training hours in almost all countries (+21% overall) by deploying global, regional, and specific initiatives as a result of the Global Learning Needs Analysis process and interactions with Hitachi Rail internal stakeholders in the Organisation.

The analysis helped drive Hitachi Rail's global and regional learning plans and highlighted the competences to be developed in the coming months and years.

TRAINING BY GENDER AND REGION GRI 404-1

Average hours of training per employee[19]	ITALY		JAPAN		EMEA		AMERICAS		APAC		TOT		
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN	TOTAL
FY23	22.9	25.7	26.2	26.6	19.5	13.9	14.5	14.6	21.1	19.7	**22.0**	**19.9**	**21.7**
FY22	19.5	24.1	24.6	34.5	14.0	10.4	6.5	7.2	17.8	17.0	**18.3**	**18.1**	**18.2**

TRAINING BY GENDER AND PROFESSIONAL CATEGORY GRI 404-1

Average hours of training per employee[19]	FY22			FY23		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Executives	11.8	19.5	12.5	**17.9**	**21.2**	**18.2**
Middle managers	33.5	20.8	32.2	**48.6**	**73.5**	**51.4**
Other White Collars	30.9	22.5	29.3	**25.4**	**16.6**	**23.6**
Blue collars	5.5	3.7	5.3	**8.5**	**5.8**	**8.3**
Total	18.3	18.1	18.3	**22.0**	**19.8**	**21.7**

[19] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

Hitachi Rail provides its employees with a wide range of training activities covering various topics and business areas.

In FY23, compared to FY22, Hitachi Rail carried out a different breakdown of the topics and business areas covered by training to provide a more granular and detailed view, the main areas covered by training were **Technical-Specialist Training (32.3%)** and **Health & Safety (18.2%)**. Hitachi Rail also delivered courses specifically dedicated to the topic of **human rights** (**9.9%** of the total).

Hitachi Rail continues to invest in technical and professional upskilling, including role-specific training for engineers with power of attorney, certifications in safety-critical skills, special processes in vehicle manufacturing, and non-destructive testing.

In FY23, it launched a programme focused on Building Information Modelling (BIM), to foster the community around BIM skills and its implementation.

The course derives from the belief that expertise and know-how sharing is a strategic leverage to improve related business skills through a practical and effective approach, by sharing internal experience and expertise.

TRAINING PER CONTENT

Hours	FY23	
Technical specialist	104,037	32.3%
Language	32,129	10.0%
Managerial	16,908	5.3%
Environment	1,674	0.5%
Health and Safety	58,629	18.2%
Quality	18,918	5.9%
Human Rights	31,960	9.9%
Business Ethics\Ethical Aspects	18,190	5.7%
Anti-corruption	334	0.1%
Sustainability	1,802	0.6%
Other	37,089	11.5%
Total	**321,671**	**100.0%**

In FY23 Hitachi Rail's management development initiatives focused on training to enhance leadership and organisational effectiveness. These initiatives include:

- **LEAD – Leadership Enhancement and Development Programme:** this programme, launched in FY22 and continued throughout FY23, supports a global leadership culture based on both Hitachi and managers' core values and competencies in areas such as effective communication, feedback & difficult conversation, and development culture. The goal is to equip managers with concrete tools for effective people management;

- **Quality UP - The Quality UP Program:** this programme is aimed at enhancing quality and excellence by focusing on creating a new culture of quality, with a significant number of team members participating in the initiative. With a dedicated training path, over 1,300 colleagues from several project teams have already participated;

- **Business Continuity:** Business Continuity (BC) training supports Hitachi Rail's ability to continue its operations in the face adverse events. To ensure organisational resilience and responsiveness, several remote workshops were organised involving resources assigned to support BC, such as the Regional Emergency Boards (REB), and simulating critical situations for effective management;

- **Building Information Modelling (BIM):** it is a programme focused on Building Information Modelling (BIM), to foster the community around BIM skills and its implementation. The course derives from the belief that expertise and know-how sharing is a strategic leverage to improve related business skills through a practical and effective approach, by sharing internal experience and expertise.

Think responsibly, act sustainably

Hitachi Rail considers sustainability to be a core part of its heritage and mission, and offers a course on Sustainability, SDGs, and CSR, available in four languages for all employees. The course takes an engaging approach to encourage understanding and commitment to real change in thinking and living. As part of a Learning and Development (L&D) strategy that focuses on increasing learning opportunities, fostering a culture where employees actively seek growth in their competences and contribute their knowledge to the company. Hitachi Rail has launched several projects to train employees in transferring knowledge through a train-the-trainer approach, empowering a sense of belonging and reducing training costs while investing in upskilling people with new competences. Employees also have the opportunity to gain awareness of environmental matters, including e-learning modules on SA8000 and Climate Change, as well as face-to-face courses on environmental topics like waste management. In early 2024, Hitachi Rail deployed six awareness sessions on sustainability topics, involving over 250 managers worldwide, to support the development of a culture of sustainability amongst leadership.

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Performance

The Global Performance Management process is performed for employees and line managers, facilitated by the HR department, as part of the "People Development Cycle". The aim of the Global Performance Management process is to improve people's performance through SMART goals with clearly defined and shared performance expectations, continuous feedback, and coaching to support the improvement of the High-Performance culture based on the current Mid-term plan and the organisational business needs.

From FY23, Hitachi Rail introduced a new set of group core competency, undertaking several initiatives to drive awareness of the new competencies amongst leaders, managers, and individual contributors. It introduced pilot processes on talent discussion during the annual review phase, to strengthen the discussion on talent pools. Last year Hitachi Rail introduced regional calibration and has since made improvements to ensure more consistent and strong data, enabling alignment across the evaluation process whilst observing cultural differences. To support this, regional managers participated in regional calibrations to review the performance ratings of their own teams, supported by their regional HR operations representative.

A common and integrated Hitachi Rail Global Performance Management process represents one of the main pillars of the new Talent Management Framework, as does the launch of the Group Talent Review Process. Both processes aim to align the characteristics, behaviours, and aspirations of everyone with business goals and business challenges. The Talent Review Process aims to:

- promote potential, performance, and a development-oriented culture in the Organisation;

- identify suitable actions that will enhance employees' talents and growth also through Development Plans;

- ensure a pipeline of talented people at all organisational levels;

- retain talents, ensure continuous improvement of skills, and support individual needs;

- calibrate the rating distribution to be balanced at global level. This process, known as Talent Review, provides managers with the opportunity to focus and discuss the accomplishments, strengths, and development needs of their collaborators and teams.

Furthemore, at a highest governance body level, in Hitachi Rail the performance of the SEC Members and Body is assessed and reviewed through the Global Performance Management (GPM) process.

The following table shows the percentage of employees by gender and professional category who received a regular performance management review during the reporting period.

EMPLOYEES RECEIVING REGULAR PERFORMANCE REVIEWS GRI 404-3

% of employees[20]	FY22			FY23		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Executives	95%	100%	97%	98%	100%	98%
Middle Management	100%	98%	100%	99%	97%	99%
Other White Collars	97%	96%	95%	94%	91%	93%
Blue Collar	79%	88%	71%	79%	83%	79%
Total	**91%**	**95%**	**90%**	**89%**	**90%**	**89%**

[20] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

4.3.3 Employee Engagement

The Hitachi Rail internal communication strategy, which is linked directly to the global strategic objectives, connects employees with their shared direction and purpose and keeps them up to date with business achievements. Hitachi Rail provides several communication channels available in up to five languages, recognising the diversity of Hitachi Rail's people:

- COSMO: a global intranet accessible to all Rail employees which is updated regularly;

- Viva Engage: an employee engagement platform accessible to all Rail employees, including via a mobile application;

- screens at production sites for employees without regular access to PCs;

- large scale video conferences led by senior leaders.
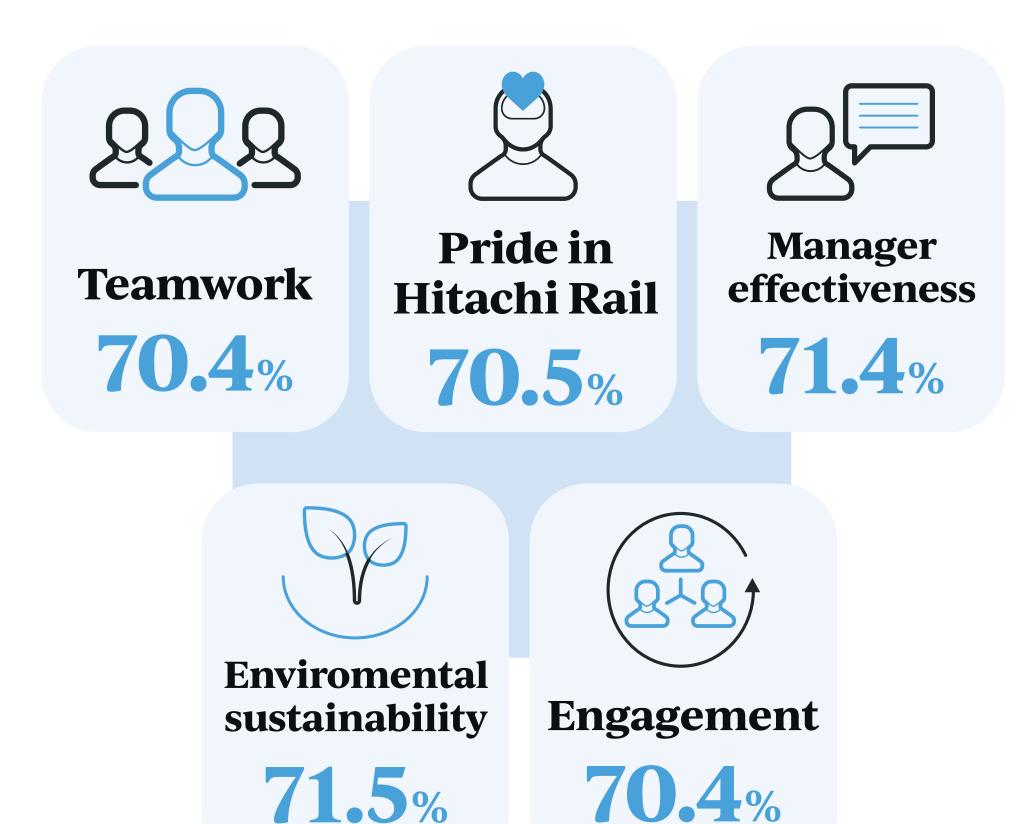
Employees accessed COSMO more than 8 million times, keeping up to date with COSMO news daily. In April 2023, Hitachi Rail launched a new channel - Viva Engage - enabling colleagues to react, comment on, and engage on different topics in real time. At the end of the reporting period, this channel counted over 12,400 users across Hitachi Rail and saw colleagues create more than 160 posts, resulting in over 550,000 views, and more than 3,100 reactions and 330 comments.

Employees discussed wellbeing (including safety and the Be Safe Campaign), mental and physical health (including the BeWell campaign and Diversity, Equity, and Inclusion), employees' voice, the Hitachi Insights Survey, rewards, and recognition (including awards programmes), Sustainability, CSR and environment, and quality improvements (including the Quality Up campaign).

Measuring engagement through Hitachi Insights Survey

The Hitachi Insights Survey is available for all Hitachi Rail employees in many different languages and individual responses are anonymous. Some of the crucial focus areas are *"manager effectiveness"*, *"empowerment"*, *"diversity and inclusion"*, *"professional growth"*, *"communication"*, *"engagement"* and *"growth mindset"*. The aim is to identify key strengths and opportunities, to improve productivity and help leaders to analyse and communicate results. The survey is managed across the full lifecycle, including preparation phase, launch, survey management, post survey phase, action plan management, KPIs setting and action plan communication.

In FY23, 13,780 Hitachi Rail employees were invited to participate across all Legal Entities with an overall response rate of 84% achieved, +11 percentage points in comparison to FY 22. Among the top five strengths, the results indicated:

Teamwork
70.4%

Pride in Hitachi Rail
70.5%

Manager effectiveness
71.4%

Enviromental sustainability
71.5%

Engagement
70.4%

Following the analysis of results, managers across Hitachi Group will continuously work on action planning at team-level.

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4.3.4 Compensation and Benefits

Hitachi Rail's total reward framework strategy includes the design, standardisation, implementation, and communication of remuneration and benefits to ensure it is embedded in its ways of working and organisational culture. Furthermore, through the contribution of specialist companies in the field, Hitachi Rail periodically evaluates its position comparing its remuneration policies with those of the reference market.

For its remuneration policies and process, Hitachi Rail is provided with a robust process following Hitachi Ltd. schemes and structures. The Hitachi Ltd. Compensation Committee has the authority to determine remuneration policies for directors and executive officers and remuneration for individuals (including amounts of remuneration). The Committee ensures transparency and fairness in the remuneration determination process, verifies and reviews details of the process used for determining remuneration for individuals, including assessments concerning basic remuneration amounts, evaluations of progress made toward individual targets, and performance appraisals that are tied to short-term incentive compensation.

At the Hitachi Rail level, the Remuneration, Talent & Diversity Committee will enter into force in FY24.

When determining remuneration, Hitachi Rail engages external consultants to support and carry out the external market benchmarking analysis for executive compensation. The data can also be refined to match industry data trends, basing on the scheme:

- Base Salary

- Target Total Cash Compensation (Base Salary plus variable bonus – Short term incentive/MBO)

- Total Direct Compensation (Target Total Cash plus long-term incentives)

In terms of Remuneration policies, variable compensation (short term incentive bonus plan) is linked to clear personal objectives set, which are approved and aligned to the Business Strategy. Hitachi Ltd. has implemented a framework where individual targets are connected to the company's overall targets and the payout of the short-term incentive/MBO payout is determined by the achievement of the personal objectives aligned to overall goals.

The management targets outlined in Mid-Term Management Plan 2024 are used as evaluation criteria when determining compensation for individual employees. Short-term incentive compensation at Top Executives level also depends on Company-wide performance, individual performances, and Sustainability-linked evaluations.

The determination of remuneration, also concerning that of the highest governance bodies, is proposed by Hitachi Rail following the external benchmarking analysis, while the approval process, internal equity and market analysis checks are managed by Hitachi Ltd. Total remuneration is set according to the relevant position, the market analysis, internal equity, and the company financial results. Top executives-level remuneration is determined by the Hitachi Global Grade (HGG). For HGG A positions, remuneration is managed under executive compensation, while for positions graded HGG X, such as the CEO, a joint approval is needed between GEM Sector Executive and Hitachi Ltd. (CHRO).

As part of Hitachi Group Companies, the approval process for Executive compensation (changes/promotions) for those graded as HGG A is submitted to the person in charge

of Human Capital Group. There is a standard group submission form and deadline date as part of the approval process. As part of the internal Hitachi Rail process, this is managed by the Head of Compensation & Benefits and approved by the CHRO and CEO prior to the submission to Hitachi Ltd.

The CEO compensation is managed directly by the person in charge of Human Capital Group at Hitachi Ltd. level. It is only on receipt of this standardised stringent approval process, that Rail applies the proposed executive compensation changes on an annual basis.

Hitachi Rail, though its Rewards Strategy aims to deliver outstanding business performance and superior capabilities through an engaged and motivated workforce. It aims to attract people by clearly differentiating its employment offering, at affordable and sustainable costs, in line with business goals and Hitachi Rail's long-term objectives. This year, Hitachi Rail has also been working to digitalise all compensation processes such as salary review and bonuses, improving the governance and freeing up time for the HR teams to focus on more value-added activities.

Hitachi Rail monitors the ratio of basic salary between men and women. The reported data show different trends for regions and seniority levels and are by their nature conditioned by multiple factors over time, such as the structure and application of collective agreements, local compliance, and statistical significance of employee numbers.

In order to provide a figure that better takes into account possible contextual distortions of the data, Hitachi Rail applied a different calculation methodology for the following indicators as of this year.

The figures below only take into account the basic salary and total remuneration of employees if employees of both genders are present.

BASIC SALARY GRI 405-2

Ratio of basic salary of women to men[21, 22]	Italy		Japan		EMEA		Americas		APAC	
	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
	W/M		W/M		W/M		W/M		W/M	
Executives	0.91	0.78	1.02	0.97	-	-	0.95	0.90	0.85	0.96
Middle management	0.98	0.99	0.93	0.92	1.06	0.94	0.93	0.85	-	0.55
Other White Collars	0.96	0.97	0.85	0.86	0.90	0.89	0.80	0.81	0.85	0.83
Blue collar	1.03	1.02	0.97	0.98	0.89	0.89	0.87	0.84	0.94	0.96

This ESG Report also reports data on the ratio of remuneration of women to men, which takes into account not only the basic salary, but also additional amounts, such as MBOs, bonuses and overtime working.

REMUNERATION GRI 405-2

Ratio of remuneration of women to men[22, 23]	Italy		Japan		EMEA		Americas		APAC	
	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
	W/M		W/M		W/M		W/M		W/M	
Executives	0.90	0.61	1.02	0.96	-	-	1.00	1.17	0.85	0.96
Middle management	0.98	0.99	0.92	0.92	1.04	0.93	0.95	0.87	-	0.55
Other White Collars	0.96	0.97	0.79	0.79	0.89	0.88	0.80	0.81	0.84	0.82
Blue collar	1.03	1.02	0.94	0.93	0.84	0.84	0.87	0.84	0.94	0.96

Looking ahead to the future, the function intends to digitalise all the compensation processes by standardising different practices across countries, bringing efficiency and more transparency to employees when feasible. The pay transparency legislation is changing quickly, and Hitachi Rail is committed to respond to employees' requests about how their compensation is determined and what benefits are available.

[21] The data is calculated as the ratio of female to male basic salary.
[22] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.
[23] The data is calculated as the ratio of female to male remuneration.

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The Health and Safety conditions of employees, partners, and contractors can have severe consequences both inside and outside the Organisation. Hitachi Rail monitors its impacts every year, re-evaluating the context of its operations and its interactions with interested parties, as relates to the economic and social costs and to the affected communities and the environment. While the first are easy to identify as they represent the costs paid by Hitachi Rail and individuals in assets such as medical treatments, turnover, and personnel replacement, the latter include the subjective pain, fear, and loss of trust suffered by victims, families, and communities. Hitachi Rail performs this kind of assessment and context analysis regularly and its review activities have been further triggered by a change in management.

Based on the clear distribution of accountabilities in the legal entities that is cascaded to sites and projects, the responsible function determines the internal and external impacts that can affect the Health and Safety of all interested parties and then evaluates them in terms of risk and opportunities. This leads to the definition of action plans, applying principles and monitoring, through targeted audits along the entire chain of stakeholders and inspections, which are monitored throughout the whole fiscal year. In FY23, Hitachi Rail conducted 21 context analyses that have resulted in the identification of a few corrective actions which will be monitored and verified quarterly against defined criteria and SMART indicators to verify the status of their implementation. The resulting deviation and trend analysis drive decision making and support the review and update of Health and Safety Policies each year to ensure focus on strategic objectives, targets, and mitigation actions.

Occupational Health, Safety and Environment (QHSE) Management System

Hitachi Rail's integrated HSE Management System (embedded in the Global Business Management System - GBMS) ensures that processes and procedures are properly implemented and maintained. Hitachi Rail HSE management system includes a set of global documented procedures and templates, constituting the backbone of the system.

Hitachi Rail uses an integrated approach to Health, Safety, and the Environment to ensure that all work practices are carried out in a manner that mitigates the risk of injury or harm to the personnel and the environment. The system is implemented in all Hitachi Rail permanent and project sites and covers Health and Safety hazards as well as environmental aspects in all activities undertaken by Hitachi Rail or by third-party performing activities under its control and management. The procedure covers all Lines of Business (LoB), including routine activities within LoB Scope of Work (such as production, installation, and periodic maintenance), non-routine activities (such

as mobilisation/, emergency conditions, and extraordinary maintenance), indirectly related activities, such as employees' mobility, customer premises, canteens, and visitors.

In FY23, the percentage of Hitachi Rail employees covered by a certified ISO 45001 occupational health and safety management system reached 94%.

Hitachi Rail's HSE Management System is globally applicable, and it is composed of both internal policies, processes and third-party assessments and certifications.

Additionally, each Country/Legal Entity/ Branch and Site/Project can develop, according to specific legal, and regulatory requirements, customer contractual specifications and operational control process needs, local instruction or project documents. As consequence, all sites and projects are covered by a dedicated management system. Hitachi Rail has identified employee representatives in each Legal Entity in line with the legal requirements for their participation in the decision-making process. The employee representatives, together with accountable managers and their delegates meet at least on a quarterly basis to discuss
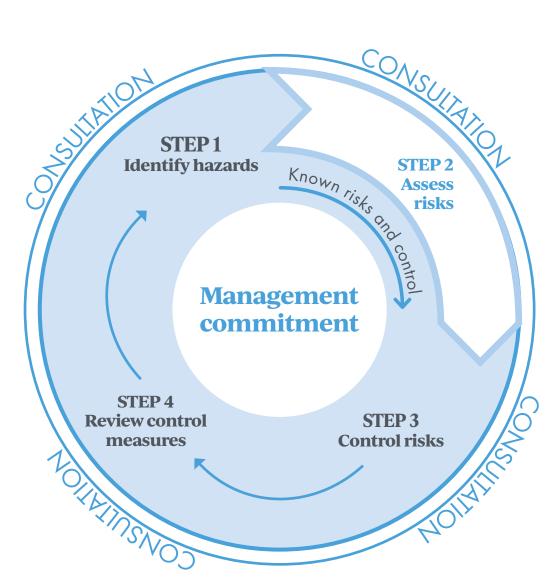
HSE changes to the management system, the performance trends, and the actions and decisions to be taken. The participation and consultation in this forum are moderated by HSE professionals that guide the discussion ensuring all relevant HSE topics are taken into consideration.

One of the main tasks where management and employee representatives collaborate is Risk Management. **The Health and Safety Risk Assessment and Environmental Aspect Evaluation follows the ISO 31000 Risk Management, considering the "Plan, Do, Check, Act" cycle**, as follows:
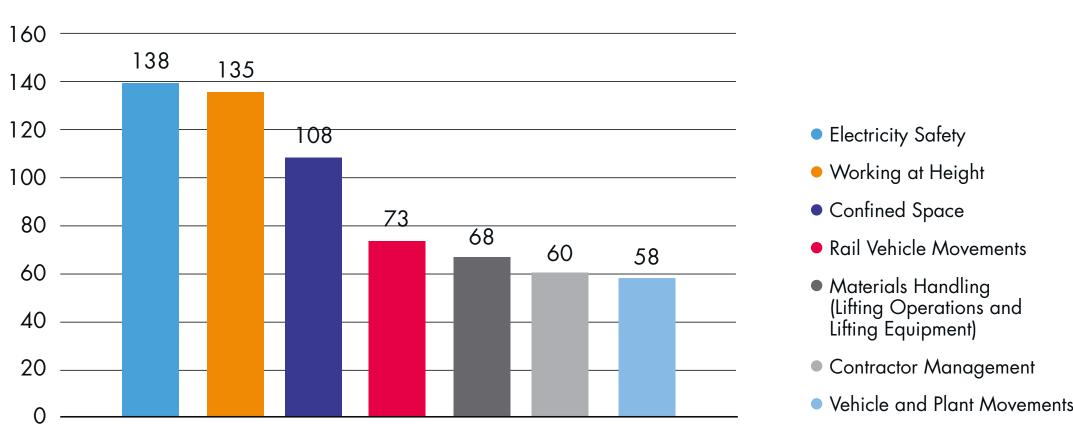
This policy is shared with all Hitachi Rail personnel and all stakeholders online and via Hitachi Rail's intranet. The initiatives adopted by Hitachi Rail to promote employee welfare in the workplace are adequate for the proper performance of the risk assessment (e.g., analysis and monitoring of working activities, including the nature of the work, equipment, workspaces, personal and collective protective measures, technical infrastructure, and contractual issues, both for internal and contracted tasks).

In addition to HSE Committees, there are informal initiatives which aim to encourage the employees to participate and provide feedback on HSE matters related to their work activities, including meaningful safety conversations between workers and management built on trust without the possibility for retaliation, risk workshops and reward & recognition frameworks that encourage best practice and participation.

The Global Multi Site Certificate for the ISO 14001 and the ISO 45001 demonstrates the constant efforts to build a safety culture and promote health and safety activities. During FY23, the main OHSE Management System review included the introduction of Critical Risk Control (CRCs) Procedures to standardise the approach to assessment and control measures for those risks that have the potential to cause serious injuries, illness or fatalities. Hitachi Rail performed over 600 assessments (distributed according to the relevance of the risks) in all sites for the whole range of critical risks identified, and periodically monitors and re-evaluates changes.

CRC Assessements FY23

In FY23 Hitachi Rail developed extensive training material for Risk Assessment preparation, targeting leaders and supervisors responsible for these activities. The campaign, which started through a pilot in Australia and will be further globally deployed during FY24, aims to ensure that accountable managers are aware of the hazard identification process, provided with sufficient tools to develop risk assessments and able to involve HSE professionals whenever needed. The training strengthens awareness on the importance of controls, their hierarchy, and their ownership in the implementation of mitigation measures.

Hazard and Close Calls reporting

Digitalisation of HSE reporting played a key role in FY23 in increasing reporting capabilities and providing easy access to all employees, contractors, and clients to a platform to no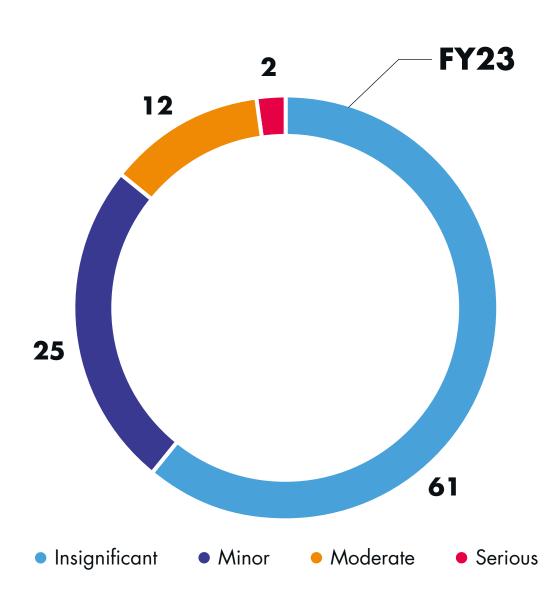tify hazards and near misses. The number of close calls reported increased by 32.17% since the previous reporting year, reaching up to 760 near misses identified, reported, and addressed.

Close calls by severity (%)

- 2
- 12
- 25
- 61
- **FY23**

- ● Insignificant   ● Minor   ● Moderate   ● Serious

Workforce on all sites have access to QR codes for immediate reporting which are used to notify HSE advisors and supervisors of the identified hazards. These codes were used 1,952 times on projects and sites by employees, contractors, and visitors and ensured an immediate reaction and mitigation of the potential risks identified. The use of the QR code is periodically monitored by HSE staff through targeted meetings and information activities for the staff employed on the sites and projects.

Incident Investigation by qualified HSE leaders

Hitachi Rail approaches incidents using the Kelvin Topset methodology ensuring root causes, and specific actions are uncovered to prevent reoccurrence. The qualified HSE professionals and operational leaders adopt this investigation technique for each relevant incident, and they establish the appropriate actions to avoid recurrences. They share lessons learned across the business, including the close calls learnings, and participate in governance meetings across regions and in HSE committee meetings within each legal entity. Management teams analyse trends on a quarterly basis to ensure the proper reaction to emerging risks and the improvement area actions implemented, based on live data captured via the EcOnline database.

HSE Training

Hitachi Rail has developed a dedicated training and learning process to implement HSE principle in collaboration with functional managers and the HR department, ensuring that each country has a training matrix describing HSE competencies for each specific role. This includes standard HSE training elements as well as specific ones required by local regulation or specific projects.

In FY23 Hitachi Rail provided global standard HSE training on Life Saving Rules which it rolled out to employees in relation to their involvement in high-risk activities, such as working at height or working with electricity. It developed a full package of training and conversation tools which are being delivered to leaders to increase their knowledge and competences on risk assessment. The training includes information related to the process of the risk assessment, the evaluation criteria of the risks, and the hierarchy of controls. It has been delivered globally to supervisors and managers with responsibility for people or contractors.

For FY24, Hitachi Rail will invest in training and awareness programmes for contractor management, a cornerstone of Health and Safety.

Compliance with laws and regulations

Hitachi Rail ensures legal compliance with the systematic management of the applicable legal framework. To complete its HSE Compliance Obligation, it considers the following main steps:

- identification of the applicable HSE requirements;
- tracking of any update of these requirements;
- notification of these requirements to all internal and external stakeholders;
- monitoring of the compliance;
- correction of the eventual discrepancies.

The HSE advisor is responsible for updating the legal register and related checklists for the verification of the compliance, based on matters such as law changes, organisational changes, client contractual requirements and management system changes. HSE professionals also manage internal and external communication for the identified updates and lead the annual compliance control for the aforementioned checklist. They monitor deviations quarterly and verify the effectiveness of the corrective actions ensured as soon as they are implemented.

In FY23 there were no significant instances of reported violations, fines, or sanctions in relation to health, safety or environmental issues.
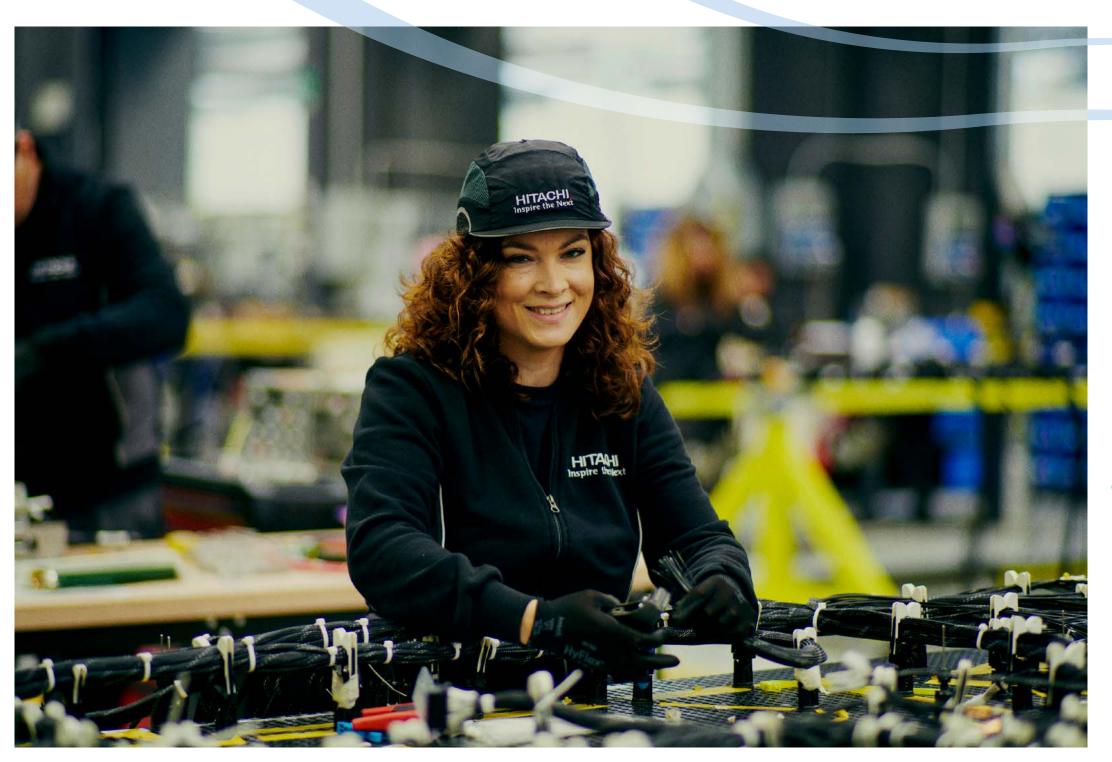
HSE Performance

Hitachi Rail has increased the level of detail of the data collection with regards to health and safety incidents. For the first time, it reports the number of recordable work-related injuries with **higher granularity** for both **employees** and **non-employees**. Likewise, it points out four different rates: the recordable work-related injuries rate (which accounts for all the injuries registered during the reporting year regardless of their nature), the lost time injury frequency rate (which accounts for all injuries registered during the reporting period except for those resulting in medical treatment and restricted work case), the fatalities as a result of work-related injury rate (which accounts for all fatalities during the reporting period), and the high-consequence work-related injuries (excluding fatalities) rate (which accounts for all work-related injuries excluding fatalities during the reporting period) The records show the following trends:

HEALTH AND SAFETY - EMPLOYEES[24] GRI 403-9

	FY22	FY23
Total hours worked	26,950,498	27,324,369
Number of recordable work-related injuries	82	96
of which fatalities as a result of work-related injury	-	-
of which high-consequence work-related injuries (excluding fatalities)	-	-
of which lost time work-related injury	61	61
of which Medical Treatment e Restricted Work Case	21	35
Recordable work-related injuries rate[25]	0.61	0.70
Lost time injury frequency rate[26]	0.45	0.45
Fatalities as a result of work-related injury rate[27]	0.00	0.00
High-consequence work-related injuries (excluding fatalities) rate[28]	0.00	0.00

[24] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.
[25] N. Recordable work-related injuries/h. worked x 200,000.
[26] N. Recordable work-related injuries with lost days/h. worked x 200,000.
[27] N. Fatalities/h. worked x 200,000.
[28] N. High-consequence work-related injuries (excluding fatalities)/h. worked x 200,000.

OTHER RELATED KPIs – EMPLOYEES[25] GRI 403-10

	FY22	FY23
Number of near misses	575	760
Number of first aid	120	147
Number of cases of recordable work-related ill health	2	-
Number of fatalities as a result of work-related ill health	-	-

The FY23 HSE trend analysis shows an increase of incident reporting including close calls, hazard reporting, and first aid cases.

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This is linked to the increased capability and attention to reporting, but also highlights a need to place additional focus on the management of risks.

HEALTH AND SAFETY - NON-EMPLOYEES GRI 403-9

	FY22	FY23
Total hours worked	3,264,363	3,244,130
Number of recordable work-related injuries	18	42
of which fatalities as a result of work-related injury	-	-
of which high-consequence work-related injuries (excluding fatalities)	1	1
of which lost time work-related injury	10	31
of which Medical Treatment e Restricted Work Case	7	10
Recordable work-related injuries rate[29]	1.10	2.59
Lost time injury frequency rate[30]	0.67	1.97
Fatalities as a result of work-related injury rate[31]	0.00	0.00
High-consequence work-related injuries (excluding fatalities) rate[32]	0.06	0.12

[29] N. Recordable work-related injuries/h. worked x 200,000.
[30] N. Recordable work-related injuries with lost days/h. worked x 200,000.
[31] N. Fatalities/h. worked x 200,000.
[32] N. High-consequence work-related injuries (excluding fatalities)/h. worked x 200,000.

Hitachi Rail monitors the following key performance indicators:

- number of leadership HSE activities;
- number of local wellbeing initiatives.

Leaders have conducted a total of 1,479 inspections, conversations, toolbox talks, and safety moments around the globe increasing the focus on health and safety and the engagement of managerial roles in these initiatives.

In FY24, the HSE objectives include strengthening Hitachi Rail's contractor management and control processes. This will include an extensive programme to deploy Leadership Workshops on the global principles and toolkits on HSE management of contractors and include packages of inductions and awareness tools for workers from external companies working under the control of Hitachi Rail. The goal is to improve the safety culture in companies working for Hitachi Rail by influencing partners and contractors and to generate a positive impact in the Hitachi Rail community.

Sites across all countries have launched a total of 94 wellbeing initiatives with the participation and involvement of employees and contributed with 51 local environmental plans to reduce energy consumption and waste production. These include collaboration with local canteens to remove plastic in the packaging and providing employees with reusable lunch boxes or water bottles.

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4.5 Human Rights

In pursuing its vision to meet its responsibility to respect human rights in all its activities, operations and value chain, Hitachi Rail follows the relevant regulatory standards generally shared by the international community, such as the UN Guiding Principles on Business and Human Rights (Human Rights Due Diligence "HRDD"). **The Hitachi Rail Human Rights Policy, as well as its Social Accountability Policy, is communicated internally and made available to all members of the workforce on Hitachi Rail's Global Business Management System**.

The policy commits to develop and implement ongoing human rights due diligence by identifying and assessing potential and actual impacts and taking appropriate action to prevent or mitigate risks. If Hitachi Rail is linked to an event impacting human rights, it will use its leverage with the relevant third parties to address and will provide for or cooperate in legitimate remediation. Hitachi Rail's Social Accountability Policy provides the basis for the SA8000 certification extended to its Hitachi Rail STS S.p.A. Legal Entity (Italy). This policy applies to all officers and employees across the consolidated subsidiaries, and it requires compliance from business partners and other relevant parties, as well. The Group also reiterated its commitment in the Hitachi Group Code of Ethics and Business Conduct which was revised in 2023.

As part of its unwavering commitment to protecting human rights, Hitachi Rail is dedicated to ensuring that its business practices uphold the highest ethical standards. Hitachi Rail recognises its responsibility to respect human rights across all aspects of operations and within supply chain. Also in line with the SA8000 Standard, Hitachi Rail is committed to:

- reject the use of child labour: comply with legislation, ILO Conventions, and the International Convention on the Rights of the Child;

- reject forced and compulsory labour: condemn modern slavery and prohibit non-voluntary labour;

- protect workers' health, safety, and welfare: ensure a healthy and safe workplace, preventing accidents and health issues;

- respect freedom of association and collective bargaining: support workers' rights to join labour organisations and promote collective bargaining;

- ensure fair wages and working hours: adhere to laws on working hours, rest, and holidays, ensuring decent wages;

- uphold dignity, equality, and non-discrimination: prohibit discrimination based on age, ethnicity, nationality, political and trade union views, religion, sexual orientation, gender identity, disabilities, and other personal characteristics;

- provide grievance mechanisms: establish effective channels for reporting and resolving human rights concerns;

- conduct training and awareness programs: educate employees about their rights and human rights policies;

Implementing the responsibility to respect human rights in Hitachi Rail

Policy commitment & embedding

In **2013**, the Group established the "Hitachi Group Human Rights Policy" and declared the implementation of human rights risk management based on the UN Guiding Principles on Business and Human Rights.

The Group also represented its commitment to business activities that respect human rights in the Hitachi Group Code of Ethics and Business Conduct which was **revised in 2023**.

Human rights due diligence

In **2021** the Group issued the Human Rights Risk Management Implementation Manual, which sets out the entire process for use in the practical operation of each Business Unit.
Since **2022**, Group has worked with Shift (leading centre of expertise on UNGPs) to **build capacity** across the BUs on human rights and to begin implementing HRDD.

Remedy & grievance mechanisms

Hitachi Rail encourages everyone to **speak-up** when they see something that they believe may constitute actual or suspected misconduct. Actual or suspected violations can be reported to the following speak-up channels made available to all stakeholders:

- Hitachi Group Compliance Hotline (hotline) available in 21 languages
- to the supervisory body at odv@hitachirail.com*

*Hitachi Rail STS SpA related concerns (including all its branches and subsidiaries)

The Hitachi Group Human Rights policy applies to all officers and employees of Hitachi and its consolidated subsidiaries, and it requires its business partners and other relevant parties to respect human rights.

Hitachi Rail has established dedicated channels - available to all stakeholders - to enable reporting any suspected breaches of the Group's Code of Ethics or any violation of laws and regulations related to Corporate Social Responsibility, with a focus on maintaining high ethical standards and compliance with applicable laws and regulations.

SA8000

In 2021, Hitachi Rail achieved the SA8000 certification, a globally recognised standard for social accountability, for its Italian sites. This certification underscores Hitachi Rail's unwavering commitment to maintaining the highest standards of workplace conditions and ensuring the ethical treatment of employees. The SA8000 certification is crucial because it verifies the adherence to stringent criteria in areas such as fair wages, safe and healthy working environments, reasonable working hours, and the prohibition of child and forced labour.

By obtaining the SA8000 certification, Hitachi Rail not only demonstrate its dedication to social responsibility but also build trust with stakeholders, including customers, investors, and the communities in which Hitachi Rail operates. This certification positions Hitachi Rail as a leader in ethical business practices, fostering a positive impact on workforce and contributing to a more sustainable and equitable value chain.

Human Rights Due Diligence

In FY23, Hitachi Rail initiated the implementation of a Human Rights Due Diligence process, marking a significant step forward in its commitment to social responsibility. This initial effort represents the first phase in Hitachi Rail's endeavour to identify, prevent, and mitigate human rights risks within operations and supply chain. Hitachi Rail is committed to building on this foundation by implementing improvements year after year, whilst acknowledging the complexity and importance of this task.

As part of its commitment to Human Rights Due Diligence, Hitachi Rail has conducted a thorough assessment to identify the most significant human rights risks associated with its business operations. **The analysis revealed that the majority of these risks, particularly those with the highest severity and likelihood, are concentrated within the supply chain.** This is largely due to the complexity and the multitude of stakeholders involved, and the nature and severity of the risks to people involved. These risks include labour rights violations, unsafe working conditions, and inadequate wages, among others.

In contrast, the risks identified within its own operations are fewer and generally easier to manage, given the direct oversight and established internal controls. Nonetheless, Hitachi Rail takes these risks seriously and is committed to addressing them comprehensively.

To effectively manage and mitigate the identified risks, Hitachi Rail has mapped all existing safeguards and has developed a detailed action plan. This plan outlines specific measures tailored to address the unique challenges within the supply chain and its own operations. For the supply chain, these measures include enhancing supplier due diligence, implementing stricter contract requirements, conducting regular audits, and engaging in continuous dialogue with suppliers to promote best practices. Within its own operations, Hitachi Rail is strengthening its internal policies, providing ongoing training for employees, and ensuring rigorous enforcement of the human rights standards.

Human rights due diligence is a process of continuous improvement, and Hitachi Rail is determined to consistently strengthen its practices to ensure the respect and protection of human rights in all activities. As part of this commitment, next year Hitachi Rail will focus on creating a culture of awareness and engagement around human rights across the Organisation, alongside comprehensive communication initiatives to ensure all employees understand and support its efforts.

Modern Slavery

Hitachi Rail's commitment to the abolition of slavery and all forms of forced or compulsory labour is detailed in the Hitachi Group Code of Ethics and Business Conduct and the Hitachi Rail Modern Slavery Policy.

Hitachi Rail condemns and rejects modern slavery in accordance with local laws and regulations. In FY23, it published statements that set out the steps taken to address modern slavery and human trafficking in the business in compliance with Section 54 of the UK Modern Slavery Act 2015 and the Australian Modern Slavery Act 2018. In FY23, Hitachi Rail:

- developed bespoke modern slavery training and delivered it to its global workforce;
- deployed training to internal buyers and category managers regarding the registration with and use of EcoVadis, the tool that allows Hitachi Rail to benchmark and risk score suppliers against a range of sustainability and human rights criteria, between November 2022 and January 2023;
- invited over 1,600 suppliers to attend engagement sessions on the expectations on supplier behaviour and the encouraged use of EcoVadis; and

- launched an online platform called Jaggaer for supplier onboarding in February 2023, which includes a risk model for compliance due diligence checks whereby country and industry human rights risks, including labour-related scores from EcoVadis, are assessed. Jaggaer is integrated with invoicing and payment systems and includes the documented acceptance of Hitachi Rail Supplier Code of Conduct by suppliers as part of the onboarding process.

Conflict Minerals

The technologies that are required to facilitate the shift towards a green and low-carbon economy often require minerals and metals; the majority of which are found in hotspot states perceived to be conflict affected and high-risk areas (CAHRAs). These minerals are referred to as conflict minerals and encompass, but are not limited to, cobalt, copper, gold, graphite, iron, lead, lithium, nickel, silicon, silver, tantalum, tungsten, tin, and zinc. These minerals are essential to produce various components and their extraction and trade have the potential to aggregate grievances and tensions and

often fund armed groups and perpetuate violence, contributing to human rights violations.

Tracing the origin of minerals throughout complex global supply chains is a significant challenge. The train manufacturing industry relies on a vast network of suppliers, making it difficult to verify the ethical sourcing of every mineral used. Hitachi Rail is implementing responsible sourcing programmes that establish criteria for suppliers, and where necessary, adopting enhanced human rights due diligence per guidance for conflict affected and high-risk areas (CAHRAs).

Hitachi Rail has adopted a policy to ensure that the procurement/sourcing of materials containing conflict minerals does not encourage activities of armed groups, human rights violations, including child labour, corruption, and environmental destruction in the conflict and high-risk regions.

Hitachi Rail will enhance human rights due diligence processes in conflict-affected and high-risk areas by implementing a comprehensive risk assessment framework that is aligned to and upholds the UN Guiding Principles (UNGPs) and OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Area frameworks.

> **I'm proud to share that our environmental initiatives, fostered thanks to our management, employees and business partners, led to a 14% reduction in emissions, emphasizing sustainable mobility and resource efficiency**

Deborah Forzato
Senior HSE Manager

5
Environmental Impact

Environmental Impact

5.1 Environmental Policy

Hitachi Rail uses a systematic framework for integrating environmental management practices by supporting environmental protection, pollution prevention, waste minimisation, as well as energy and materials consumption reduction.

Hitachi Rail applies environmental management systems, such as ISO 14001 and ISO 50001, reporting to all stakeholders and promoting sustainable environmental practices to suppliers, contractors, and customers.

Hitachi Rail's Environmental Policy places safeguarding the environment at the heart of its management and development strategies, with a constant and targeted commitment to preventing pollution and pursuing continuous improvements in its environmental services. The policy is shared with all Hitachi Rail personnel through the Hitachi Rail intranet.

The key principles of Hitachi Rail's commitment are:

| to **identify significant environmental impacts** of its activities, products and services in order to control and monitor impacts on the environments as appropriate to its purpose and context | to **prevent environmental pollution** and to the protection of the environment relevant to its context | to **improve environmental performance** through the achievement of increasingly ambitious targets and objectives, consistently with the technological progress of the sector and with the budgeted expenses | to improve its activities also for the purpose of r**educing its overall impact** in terms of climate altering emissions in the atmosphere | to **involve staff, suppliers and contractors** in the environmental issues, raising their awareness on this subject | to **define indicators** for straightforward performance monitoring | to **start an open dialogue** with the Public Authorities, the communities and the public, aimed at raising awareness of the real environmental impacts and cooperating to update environmental regulations. |

5.2 Environmental Goals and Decarbonisation Path

Hitachi Rail's commitment to environmental sustainability is at the forefront of the business strategy, reflected in ambitious environmental goals and comprehensive decarbonisation pathway.

Recognising the urgent need to address climate change, it has set clear and measurable targets to significantly reduce its carbon footprint, with the ultimate goal of achieving

Carbon Neutrality in its main sites by 2030 and

Net-Zero emissions by 2050.

The environmental strategy encompasses several key initiatives:

- **Transition to Renewable Energy:** shifting energy sources to renewables, including solar and other sustainable options. This transition not only reduces carbon emissions but also aligns operations with the global movement towards cleaner energy.

- **Energy Efficiency Enhancements:** continuously improving the energy efficiency of manufacturing processes and products. This includes adopting of advanced technologies and practices that minimise energy consumption and optimise resource use.

- **Innovative Green Technologies and Eco-design:** developing and integrating cutting-edge green technologies into trains and rail control systems through R&D efforts. These innovations are designed to enhance performance while significantly reducing environmental impact. As pioneers in the rolling stock and digital

systems, Hitachi Rail aims to accelerate the decarbonisation of rail by creating new electrified railways or powering trains with batteries. By accelerating the electrification and central role of technological innovation, Hitachi Rail is making rail transport an environmental frontrunner. As of today, the global non-electrified rail transport relying on diesel amounts to no more than 25%.

- **Waste Reduction and Water Conservation:** minimising waste generation and enhancing water conservation across all operations. By implementing circular economy principles, Hitachi Rail aims to reduce, reuse, and recycle materials, thereby minimising the environmental footprint. As such, it sets ambitious targets for water - 50% improvement of efficiency in use of water by 2050 (compared to 2010) - and waste - 50% improvement in Waste and Valuables Generation per unit by 2050 (compared to 2016) and Zero Landfill by 2030 in main sites.

- **Biodiversity Protection:** extending environmental stewardship to protecting and enhancing biodiversity. Hitachi Rail takes proactive measures to preserve natural habitats and support ecosystems in and around operational sites.

- **Sustainable Supply Chain:** collaborating closely with suppliers to ensure that they adhere to sustainable practices while reducing the overall environmental impact and drive industry-wide change.

- **Stakeholder Engagement and Transparency:** engaging with stakeholders is crucial to environmental strategy. As such, Hitachi Rail maintains an open dialogue with customers, suppliers, regulators, and local communities to gather insights, foster collaboration, and ensure that practices meet their expectations. Transparency is key, and the commitment is to regularly report progress and challenges in meeting environmental goals.
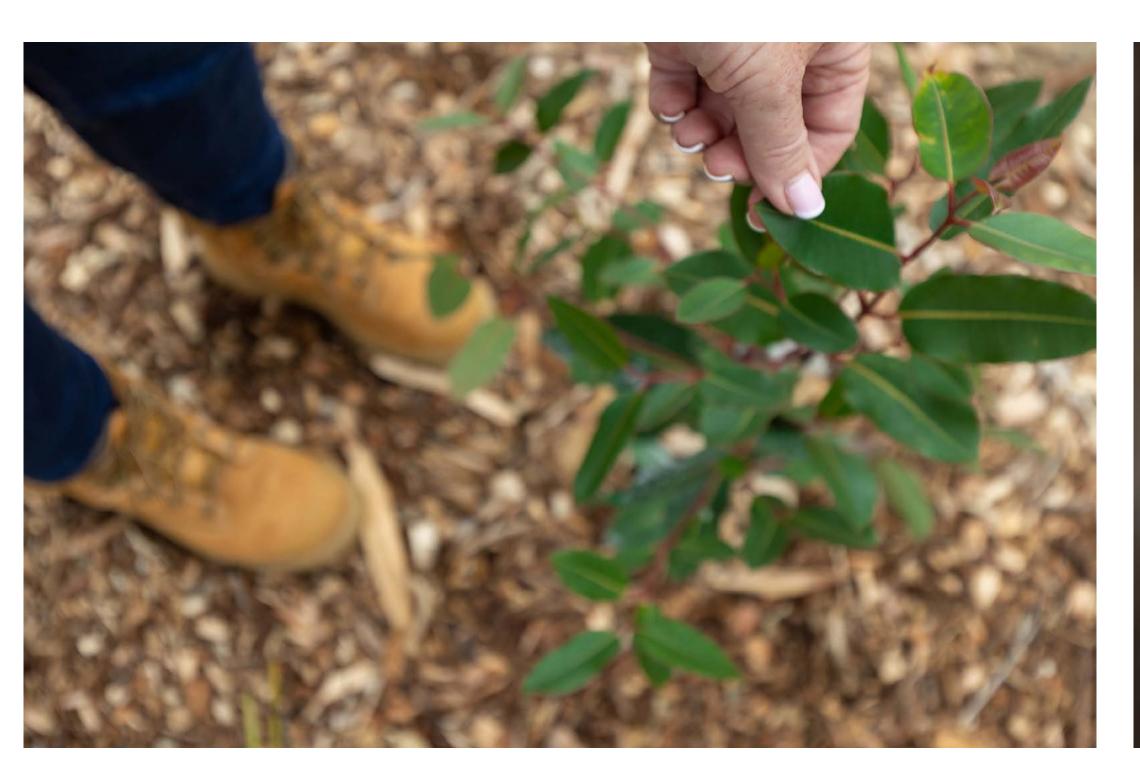
Hitachi commitment to SBTi

In December 2020, Hitachi Ltd. received validation of its emission reduction targets from the Science Based Targets initiative (SBTi), the international organisation that supports those companies setting emission reduction targets that are in line with the Paris Agreement goals of keeping mean global temperature to well below 2°C and preferably limit the increase to 1.5°C above pre-industrial levels. Hitachi Ltd. Corporate made a commitment to reduce its absolute Scope 1 and 2 GHG emissions by 100% by 2030 and absolute Scope 3 GHG emissions by 40% by 2030, considering a 2010 baseline. In FY23 Hitachi Ltd increased the SBT target ambition with commitment to Net-zero to 2050.

To be able to reach these targets, Hitachi Rail sets specific targets every year. For FY23, Hitachi Rail aimed to reduce overall Scope 1 and 2 emissions by at least 5% compared the previous period. Hitachi Rail has defined this target based on the forecasts and decarbonisation plans available to date. The actual outcome is described in paragraph "*5.2.2 GHG Emission and Air Quality*".

Approaching the climate related scenario analysis

Aligning with the Hitachi Ltd.'s endorsement of the recommendations and, on a local level, to the path towards UK MCD compliance, Hitachi Rail has structured a scenario analysis that identifies its main climate risks and opportunities areas with regard two different climate scenarios:

1) Business environment and major risks and opportunities under the 1.5°C scenario:

Risks

- compliance with EU Legislations and timely response with effective and sustainable products which are crucial to stay in the market;

- reduction in competitiveness due to delays in the development of innovative emission-reducing technologies, such as dynamic headway, flexible operations in response to passenger demand, and new mobility services like MaaS

Opportunities

- increase in demand for railways, which emit less CO_2 per distance covered compared to every other transportation mode. There will be a shift from conventional models to energy saving railcars, the efficiency of railway services will be improved through digital utilisation and through the provision of sustainable mobility systems based on alternative multi-modal energy vehicles. Data usage will also boost demand for new mobility services;

- increase in demand for long-distance public transport for less impactful modes of transport. For example, in 2018, in EU rail accounted for only 0.4% of both greenhouse gas (GHG) and CO_2 transport emissions and for only 2% of transport energy consumption.

2) Business environment and major risks and opportunities under the 4°C scenario:

Risks

- increase in demand for electric powered transport without tighter energy regulations, causing high exposure and costs;

- sharp increase in damage from typhoons, floods, and other natural disasters caused by climate change;

- exacerbation of damage to facilities, deteriorating working environments, and disruption of supply chains leading to delays in deliveries and the procurement of components due to high frequency of natural disasters.

Opportunities

- development of increased resilience of transport systems to natural disasters. Competitiveness can be enhanced by providing added value, such as energy-saving railcars and new technologies;

- achievement of increased control over the supply chain, including organisations and their physical locations, for better monitoring activities.

By becoming a Climate Change Innovator, Hitachi Rail aims to develop innovative technologies and solutions that mark an alternative path to sustainable mobility and to help cities, governments, and customers to cut carbon in the mobility sector. By integrating sustainability into core business operations, it strives to create long-term value for stakeholders and contribute to the global effort to mitigate climate change. By continuously monitoring, evaluating, and reporting, Hitachi Rail ensures that it stays on track with its commitments, driving towards a decarbonised and environmentally responsible future.

5.2.1 Energy Efficiency and Consumption Trends

Hitachi Rail works with customers and society to contribute to the more efficient use of resources.

Energy Consumption

Hitachi Rail mainly uses electricity for lighting, plant operation and building temperature control, but in some cases relies on fossil fuels, such as natural gas and district heating, to heat workplaces and for some production activities. The Organisation is constantly working on improving its real estate assets to reduce electricity consumption, also through:

- the installation of LED lighting systems;
- geothermal systems to support eating and cooling;
- the construction of envelopes and the installation of thermal insulation for windows/doors;
- the direct expansion of heating/cooling systems, such as the installation of heat pumps;
- the installation of presence detectors or clocks/timers to control the activation and/or deactivation of powered systems;
- monitor consumption with enanced Energy Management Systems;
- the improvement of the energy efficiency of data centres;

- the promotion of energy saving practises by reminding personnel to turn off production equipments, lights, their laptops and any other device that might consume energy;
- the implementation of power purchase agreements (PPAs) for self energy production from solar in several site such as Pistoia, Reggio Calabria and Naples in Italy and Hagerstown in US.

Through different contractual agreement and implementation frameworks installations, Hitachi Rail runs a solar panel installations at various facilities in Italy (Tito Scalo), Australia (Perth), and the United Kingdom (Newton Aycliffe, Doncaster and Stoke Gifford). It encourages low carbon transportation though its electric car sharing schemes for its employees and use of electric vehicles at all Hitachi Rail sites including the installation of EV Charger in the main premises around the world.

In FY23, its total energy consumption - electricity, diesel, natural gas, district heating, gasoline, kerosene, LPG, LNG amounted to 582,121 GJ, in line with the previous year. The percentage of electricity derived from renewable sources, both purchased from certified sources from the grid and self-produced, reached 62%, increasing by about 20 percentage points with respect to the previous period.

ENERGY BY SOURCE GRI 302-1

Giga Joules [GJ][35]	PRODUCTION SITES AND TRAIN MAINTENANCE CENTRES		OFFICES		TOTAL	
	FY22	FY23	FY22	FY23	FY22	FY23
Electricity consumption	**272,555**	**273,476**	**61,665**	**64,582**	**334,220**	**338,058**
Consumption of electricity purchased from the National Power Grid	271,050	269,660	60,826	63,426	331,876	333,086
from renewable sources (Renewable Energy Certificates)	*172,707*	*205,231*	*1,271*	*896*	*173,978*	*206,128*
from nuclear source (fill in only if all electricity purchased is nuclear)	*4,659*	*5,058*	*8,797*	*8,744*	*13,456*	*13,802*
Auto produced and self-consumed electricity from renewable sources	1,505	3,816	839	1,156	2,345	4,972
Fuel consumption for production activities and building heating	**222,358**	**214,756**	**19,155**	**29,307**	**241,513**	**244,062**
Diesel Consumption for energy or power production	13,939	18,591	4,780	7,058	18,719	25,649
Natural gas	140,140	133,727	13,994	21,904	154,134	155,631
District heating	-	-	178	141	178	141
Diesel consumption for company forklifts	3,170	3,568	2	1	3,172	3,569
Gasoline consumption for company forklifts	616	322	-	-	616	322
Kerosene	172	92	-	-	172	92
LPG	64,321	58,456	202	202	64,523	58,658
LNG	-	-	-	-	-	-
Total	**494,913**	**488,232**	**80,820**	**93,889**	**575,734**	**582,121**

[35] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

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Significant Events occurred after the closing of the Fiscal Year covered by the ESG Report
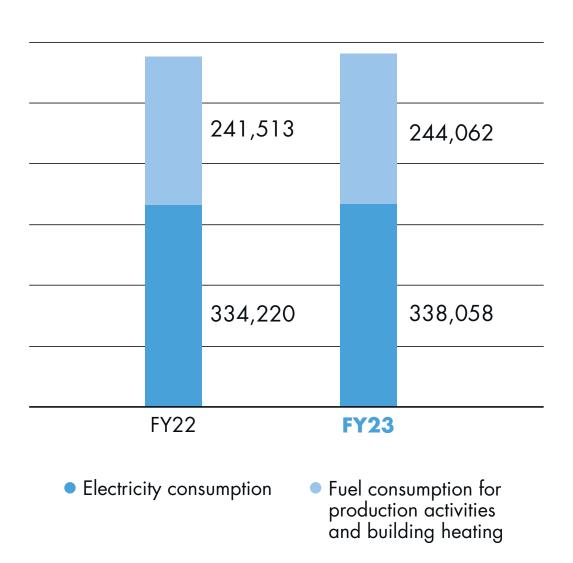
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During FY23, Hitachi Rail registered decreases in the consumption of district heating (-21%), gasoline (-48%), Kerosene (-47%) and LPG (-9%), as a result of good practices, and the energy efficiency investments made in several regions. The energy consumption trends of the two-year period are illustrated in the graphic below. Again, the overall consumption of energy shows a constant trend over the years.

Energy consumption (GJ)

- Electricity consumption
- Fuel consumption for production activities and building heating

FY22: 241,513 / 334,220
FY23: 244,062 / 338,058

5.2.2 GHG Emission and Air Quality

Regarding CO_2 emissions, Hitachi Rail registered a decreasing trend for Scopes 1 and 2, notwithstanding the slightly increasing consumption trends due to increase of production. This is due to the increased amount of certified renewable electricity purchased from the grid for FY23.

The decrease in total Scope 1 and 2 market-based emissions amounted to 14%. For the first time in FY23, Hitachi Rail calculated Scope 2 location-based emissions.

This additional data representation does not yet include comparative figures with the previous reporting period, but it allows for an additional depiction of the *status quo* and more in-depth reasoning for the future of Hitachi Rail's sustainability strategy.

Moreover Scope 3 emissions decreased notwithstanding the increase of vehicles delivey (+ 10% in terms of numbers of cars) and this is due to a product mix more sustainable al with lower emission put into revenue service.
Moreover Scope 3 emissions notwithstanding the increase of vehicles delivey (+ 10% in terms of numbers of cars) and this is due to a

product mix more sustainable al with lower emission put into revenue service. and underwent a significant change during the year as Hitachi Rail refined its calculation of indirect emissions by adding the results of additional emission categories as defined by the GHG Protocol.

Scope 1, 2 and 3 emissions are shown in the table below, along with relevant details.

TOTAL DIRECT SCOPE 1 [TCO$_2$e], INDIRECT SCOPE 2 [TCO$_2$] AND INDIRECT SCOPE 3 [TCO$_2$e] EMISSIONS[36,37,38] GRI 305-1; 305-2; 305-3

	FY22	FY23
Emissions due to energy production (Natural Gas)	8,726	8,766
Emissions due to energy production (Diesel)	1,423	1,971
Emissions from air conditioning systems (Fugitive emissions)	1,878	1,138
Emissions due to internal handling (Lorries and Forklifts)	281	289
Emissions due to other activities (Kerosene, LPG, LNG)	4,141	3,758
Total Scope 1 Emissions (-3%)	**16,449**	**15,921**
Emissions due to electricity consumption (market-based)	18,939	14,460
Emissions due to district heating (market-based)	8	7
Total Scope 2 Emissions Market-Based (-24%)	**18,947**	**14,467**
Emissions due to electricity consumption (location-based)	-	28,687
Emissions due to district heating (location-based)	-	7
Total Scope 2 Emissions Location-Based	**-**	**28,694**
Total Scope 1&2 Emissions – Market Based (-14%)	**35,397**	**30,388**
Total Scope 1&2 Emissions – Location Based	**-**	**44,615**
Total Scope 3 Emissions (-4%)	**5,280,015**	**5,072,473**

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[36] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

[37] Scope 1 emissions are calculated using the factors provided in their most up-to-date publicly available version by the UK government's Department for Environment, Food and Rural Affairs (DEFRA). The Scope 2 Market-Based emission factors adopted are the IEA (International Energy Agency) factors provided by Hitachi Ltd. The Scope 2 Location-Based emission factors are a combination of EU AIB (Associations of Issuing Bodies) factors, direct energy providers' factors, and, where necessary, IEA factors. For what concerns Scope 3 emission calculation methodologies, further details are provided in the methodological note.

[38] Additional details can be found in the Methodological Note. The total amount of Scope 3 emissions for FY23 reported in the table differs from that published in last year's Report.

In FY23, Hitachi Rail extended the scope of the calculation of Scope 3 by including two additional emission categories: category 3 (Fuel-and energy-related activities) and category 15 (Investments).

This demonstrates Hitachi Rail's constant commitment to refine Scope 3 emission analysis by including all applicable emission categories.

Hitachi Rail has made methodological refinements for all categories, in order to achieve greater consistency and accuracy of data. Its actual data collection process is continuously improving through the implementation of specific product related data collection.

In a significant step forward with respect to the data published in the previous ESG Report, in category 11 (Use of sold products), Hitachi Rail now includes information on products related to the Rail Control segment of the business.

By expanding this category, it has improved accuracy and reliability of the emissions assessment, consequently becoming the most impactful category in the calculation of Scope 3 emissions, equating to 84.49% of the total.

Hitachi Rail has also recorded further progress in category 4 (Upstream transportation and distribution), by adopting a distance-based approach in calculating emissions.

Where possible, Hitachi Rail applied methodological refinements to both FY2023 and FY2022. For this reason, the values for Scope 3 differ from those published in the previous ESG Report and are in line with those calculated for FY2023.

Hitachi Rail aims to adopt an approach based on actual data, transitioning from a spend-based calculation to an activity-based calculation methodology, with the goal of achieving a more complete and accurate view of Scope 3 emissions, and develop increasingly effective mitigation strategies.

In addition to the CO_2e emissions reported above, Hitachi Rail also monitors the pollutant emissions related to the production processes that emit volatile organic and inorganic compounds.

Volatile organic compounds are compounds that have a high vapor pressure and low water solubility, and - with reference to Hitachi Rail - they are mainly connected with the use of paints in the production process.

Compared to FY22, total air emissions decreased by 17.05%, thanks to the improvement plans executed globally.

AIR EMISSIONS GRI 305-7

Tonnes [t][39, 40]	FY22	FY23
NOx	19	22
SOx	1	2
CO	5	6
Volatile Organic Compounds	232	192
Volatile Inorganic Compounds	0	1

BEST PRACTICES

Hitachi Rail's Solar Initiative with A2A

Hitachi Rail, in partnership with A2A, is leading decarbonisation efforts through a 25-year Virtual PPA agreement, which aims to reduce CO_2 emissions by 7,000 tons annually, equivalent to planting 42,000 trees a year.
At the sites of Reggio Calabria, Naples, and Pistoia in Italy, Hitachi Rail installed next-generation photovoltaic panels aimed at actively reducing emissions and investing in renewable energy. By using rooftop installation, it optimises resource and minimises the use of land, benefiting local communities both economically and environmentally. Over the next two years, around 15,000 photovoltaic panels will be installed on the grounds of the Reggio Calabria site and on the rooftops of production sites in Naples and Pistoia. These installations will cover over 60,000 square meters, showcasing Hitachi Rail's commitment to sustainable practices and environmental responsibility.

[39] SOx, NOx and CO values were estimated from the consumption of natural gas and diesel for energy production using EEA emission factors. The emission factors used were those of "Commercial/institutional plants" (1.A.4 Small combustion 2019) for offices and those of "Manufacturing industries and construction" (1.A.2 Combustion in manufacturing industries and construction) for production sites and maintenance centers. Volatile Organic Compounds and Volatile Inorganic Compounds values were aggregated from direct measurements.
[40] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

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Achieving the GoGreen Plus Certificate 2023: logistics optimisation 82tons of CO_2 saved

By orchestrating diverse transportation methods, Hitachi Rail is working to reduce approximately 3,500 tons of CO_2 emissions from 2023 to 2025 through green shipment management. This year Hitachi Rail achieved the GoGreen Plus Certificate 2023, which underscores its commitment to environmental responsibility while demonstrating a proactive approach to mitigating climate change.

The impact of these initiatives speaks volumes: with over €53 million in total shipments arranged, Hitachi Rail has showcased its capability to manage logistics efficiently and sustainably. By orchestrating diverse transportation methods, the Organisation continues to serve the Middle East and Africa, Europe, and Latin America.

By pioneering innovative solutions and fostering collaborative partnerships, Hitachi Rail continues to drive positive change within the logistics landscape, one shipment at a time.

5.2.3 Sustainable Mobility

FY23 saw a significant resurgence in travel for business following the impact of the COVID-19 pandemic. Hitachi Rail has reintroduced business travel through a global gradual recovery of national and international trips, placing great importance on safety and security guidelines, while prioritising the environment and monitoring the environmental impacts of all business travels.

Mobility (Travel for Business)

Hitachi Rail relies on business agreements with major airline companies reputed for environmental performance, it promotes stays in green and sustainable hotels, and in FY23, it joined Hitachi Group's hotel procurement programme, giving all travellers access to a larger list of sustainable accommodation options.

During the reporting period, Hitachi Rail lay the foundation for a global travel policy to provide global guidelines to its employees to book and organise business travels with greater awareness of safety, security, and sustainability criteria, using a self-service booking tool. The policy went into effect at the end of the fiscal year.

Sustainable mobility (home-to-work) - Italian sites

During FY23, Hitachi Rail updated its Home-to-Work Commuting Plans (PSCL) in Italy, by collecting updated employee residence/domicile information, in order to better provide alternative mobility solutions based on employee mobility habits.

The updated data also allowed Hitachi Rail to estimate the CO_2, Nox, PM10 and VOC emissions linked to employee home-work-home travel. It used the COPERT method (Computer Programme to Calculate Emissions from Road Transport) to estimate the amount of pollutants released into the atmosphere:

AIR EMISSIONS GRI 305-7

Tonnes [t]	FY23
Emissions CO_2	3,960.8
Emissions CO	61.1
Emissions VOC	7.37
Emissions NOx	11.78
Emissions PM_{10}	1.01

The CO_2 data gives an emission ratio for the surveyed Italian employees of 0.99 t CO_2e/year per capita. The main actions identified to reduce the above-mentioned emissions are:

- contacts with individual local mobility companies (LPT);
- car-pooling apps;
- if applicable, possible structural improvements to encourage the use of bicycles, such as increasing the number of bikes racks;
- gamification, such as virtual competition between employees regarding mobility habits.

The Naples plant started a Car Sharing pilot project last year for employees' business travel, which extended to the Genoa plant in FY23. Hitachi Rail also continue to promote and enable remote working, to support the reduction of pollution by employees' travelling to work and back to their homes in all Hitachi Rail sites around the world.

BEST PRACTICES

High Speed Talent Women ReStart: Bridging Gender Gaps in Sustainable Mobility

High Speed Talent Women ReStart is a new inclusion programme launched in collaboration with Experis, a global leader in professional resourcing and part of Manpower-Group. The project aims to provide an opportunity for talented women with strong technical and managerial skills who, for different reasons, have found themselves outside the labour market and are currently unemployed, providing them with permanent contracts at Hitachi Rail offices in Genoa, Turin, Pistoia, and Naples.
The initiative aims to address gender imbalances by offering roles as Project Planners or Project Manager Support, complemented by comprehensive training on methodologies, tools, and business processes. Participants will work on sustainable mobility projects, enhancing their careers while promoting gender diversity and economic empowerment.

5.3 Circularity, Innovation and Resource Management

Hitachi Rail is working towards a circular business model that fosters material conservation, product longevity through repair and reuse, and eventual recycling are no longer optional choices but imperative necessities.

Embarking on a circular business model demands a radical shift, innovative thinking, substantial investment, and meticulous research.

Governance of natural resources

Hitachi Group has established targets to minimise its impact on natural capital as part of its long-term environmental targets.

Hitachi Rail is working directly with customers and society to create higher economic value, designing and promoting use of less and pursuing products and solutions, as well internal processes and activities, with a reduced environmental burden.

The enabler for achieving this is technology: Hitachi Rail prioritises knowledge transfer between research and business to ensure responsible resource management that balances the use of traditional and alternative sources according to their availability, renewability, affordability, sustainability, and environmental impact.

Circular Economy Project

Hitachi Rail incorporates the concept of Circular Economy within its Environment and Quality Management Systems at the production sites in which relevant certifications are managed.

The Circular Economy Project allows Hitachi Rail to evaluate the opportunity cost of alternative business models in terms of socio-economic (Life Cycle Cost, Social Life Cycle Assessment) and environmental impacts (Environmental Life Cycle Assessment).

In recent years, the market dynamics in the sector have shifted towards increased customer demand for turnkey transportation solutions that efficiently meet the needs of local and national institutions.

This demand requires comprehensive support throughout the project's entire life cycle, as customers are increasingly regarded as partners rather than mere buyers.

Hitachi Rail records detailed information on the material content of each component to facilitate recovery and recycling operations by asset owners[41].

It publishes several Environmental Product Declarations (EPDs) and Carbon Footprint Disclosures, showcasing progress towards product recyclability, recovery, and other environmental impacts.

During FY24, the Circular Economy Transition Project will continue by:

- defining the Circular Economy Strategy;
- designing the Circularity Approach;
- reporting the economic, social, and environmental benefits generated by each Circular Economy activity undertaken.

Many of these activities will be developed in the near future, with a transition planned for completion during FY27.

[41] In some cases, suppliers request the return of resulting materials in their contracts, such as aluminium from window cuts, which are then reused in their production processes. Other instances involve selecting disposal partners through tender procedures, negotiating the purchase price of resulting materials, particularly in maintenance processes, where valuable materials from spare parts are retained at the end of their regenerative cycles.

5.3.1 Product Innovation and Eco-Design

Through an open innovation approach, Hitachi Rail develops and tests new solutions and technologies to demonstrate their effectiveness while ensuring positive impact on business and communities.

It creates product prototypes that, together with the associated skills, enrich the future product portfolio through collaboration with engineering and development departments.

From FY24, all new Hitachi Rail's products are being developed using a Life Cycle Assessment (LCA) and an Eco-Design perspective, recognising that 80% of a product's environmental impact can be affected by the design phase. Through this approach, Hitachi Rail builds an inventory of materials used throughout entire life cycles, from raw material extraction to train decommissioning. This method prioritises recyclability, environmental impact, and energy consumption from the outset of the process, and includes production and maintenance processes that valorise waste or spare parts that have reached the end of life. Since introducing LCAs on rolling stock since 2005, Hitachi Rail focuses on:

- the development of Eco-Design solutions: through the collaboration of the defined governance, the engineering, development, and deployment teams, it put in place various implementation strategies, considering peculiarities and constraints of Signalling and automation domain solution, such as:

  - material substitution;

  - supply chain workstreams enhancement;

  - manufacturing and construction process optimisation;

  - product redesign;

  - end-of-life management options.

- The evaluation and the implementation processes: the proposed Eco-Design solutions follow strict evaluation to ensure their effectiveness in achieving the established goals, through:

  - quantitative assessments, comparing the environmental impact of the redesigned product to its predecessor;

  - qualitative assessments, considering factors like product durability, repairability, and recyclability.

The goal is to deploy solutions that effectively reduce the product's environmental impact without compromising its safety, functionality, performance, or user experience.
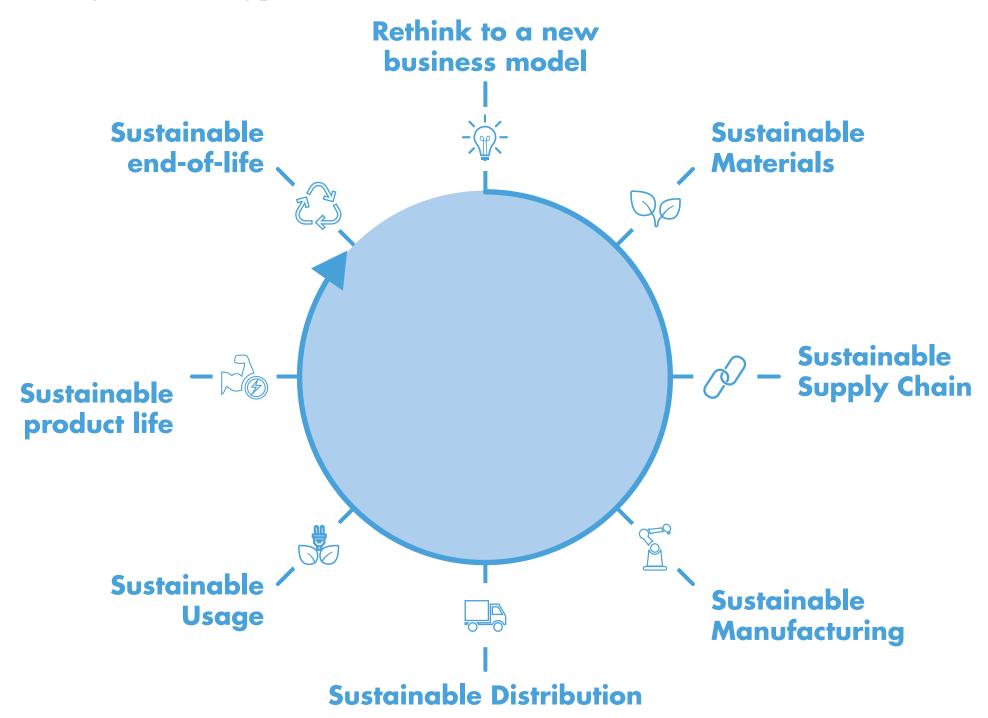
Eco-Design Strategy

Eco-Design or "sustainable design" sensitively improves the design of products for disassembly, repairability, recovery, and recycling, and includes techniques that are also applied to Circular Economy, going beyond the creation of a "green" product to meet the needs of consumers in a sustainable way. Companies that incorporate Eco-Design into their long-term product innovation strategies strive to alleviate negative environmental, social, and economic impacts of their products' supply chain and their entire life cycle.

The Eco-Design Strategy Wheel illustrates the eight main directions to follow to achieve improvements.

Eco-Design Strategy Wheel

Hitachi Rail pursues an Eco-Design Strategy through improved performance in the use of rolling stock. All the Life Cycle Assessment (LCA) studies conducted on local and regional trains, high-speed trains, trams, and subways have shown that most of the environmental impacts are due to the operational and maintenance phase of the rolling stock. The electricity mix that feeds the grid affects the results, but reduction of energy consumption remains a primary objective. Hitachi Rail is focused on reducing energy consumption during the operational phase through:

- weight reduction;

- improved aerodynamical performance of car bodies and bogies;

- more efficient power units and related piloting systems HVAC adsorption;

- lighting efficiency.

While the production of suppliers' parts and components has a low environmental impact compared to the overall impacts of the railway vehicle in its life cycle, Hitachi Rail's Eco-Design Strategy also addresses upstream stages to further reduce overall impacts. It has launched a dedicated procedure to guide the eco-design process incorporating LCA from the conceptual design to the preliminary and final phases.

After conducting LCAs, the results are shared with design members to:

- evaluate the attainment of train performance objectives;

- identify critical points contributing significantly to environmental impacts throughout their life cycle;

- explore alternative materials to reduce environmental impacts to be incorporated in the project's subsequent review;

- increase the commitment of the supply chain in reducing the impacts of the parts and components provided, in particular by increasing the use of recycled content from raw materials, such as steel, aluminium, and copper.

Hitachi Rail is committed to involving the supply chain to produce trains with improved environmental performance and, through efforts to meet Scope 3 targets, it commits to tracing and reducing the use of primary resources. In the Eco-Design process, each Legal Entity compiles a list of train parts significantly contributing to the carbon footprint and selects potential suppliers based on their Environmental Product Declaration (EPD) or carbon footprint calculations. Suppliers, upon entering supply contracts, commit to provide materials and weight details for

LCA review during the Detailed and Final design phases.

Process owners must communicate changes, such as:

- train weight matrix;

- refinements in the design for sub-groups, equipment, and parts, including possible material sheets from suppliers;

- supplier-related changes, such as change in origins and components;

- worked hours, resource consumption (energy, auxiliaries), and waste production (air emissions, water discharge, solid waste) in each involved plant for specific projects;

- simulation results, such as improved power equipment performance, energy recovery systems, product mass reduction, optimised auxiliary consumption, and enhanced aerodynamics;

- issues or changes in predictive maintenance plans.

The LCA tool is used to assess proposed solutions for reducing the environmental impacts from previous phases. Hitachi Rail involves the supply chain to gather information on recyclability rates and recycled content, aiming to increase the circularity of trains. The LCA is the tool that not only allows Hitachi Rail to point out the hot spots to focus on to reduce the environmental impact of the train but also monitors the effectiveness of the alternative solutions proposed by design.

As part of its Eco-Design strategy, Hitachi Rail obtained the first PAS 2080 certification for the HS2 train in the UK. This certification, released by a third-party certification body, looks at the train's carbon management, starting from the design phase up to its construction and operation. Currently, the train is in the conceptual design phase, and the certification attests that, since the design stage, the topic of product decarbonisation has been a central theme, enabling Hitachi Rail to meet its commitment to reduce Scope 3 emissions.

Industry first Social Product Declaration in the world

Hitachi Rail uses the Social Life Cycle Assessment (S-LCA) to assess the social and socio-economic aspects of its products and their impacts on different stakeholders along their life cycle, in line with the Sustainable Development Goals (SDGs).

In anticipation of approval in 2024, this activity contributes to Hitachi Rail's alignment with the new obligations that will derive from the Corporate Sustainability Due Diligence Directive (CSDDD), that will ensure that large companies take responsibility for the environmental and social impacts produced along the value chain to build their business.

Hitachi Rail is the first in the railway industry to apply S-LCA to a train life cycle, the Blues Train. From the

start, the goal of the project was to develop a Social Product Declaration (SPD) following ISO 14025 guidelines and to communicate the impacts of the product's life cycle to stakeholders. Hitachi Rail developed the first SPD in the world, demonstrating its commitment to sustainable production and consumption, while promoting transparency and positive social impacts of products and services. The study was conducted with the support of Circular S.r.l and various internal departments.

After the development of the S-LCA of the Blues train, the project continued with the development of the first Product Category Rules for the SPD (PCR – SPD) and the SPD of Blues which was audited and certified by a third party and published in November 2023. This part of the project was conducted with Circular S.r.l and the International EPD System as provider. All documents and information are available at https://www.environdec.com/spd.

Hitachi Rail Eco-Design Projects in FY23

PROJECT	DESCRIPTION
Hitachi Rail is the world's first train manufacturer to attain the world leading PAS 2080 environmental design accreditation	Hitachi Rail became the world's first train manufacturer to attain the rigorous PAS 2080 carbon reduction standard for the design, manufacture, and operation of the 100% electric HS_2 fleet in the UK. Life cycle analysis found that the CO_2 emissions on HS_2 trains will be 90% lower than taking the same journey by car or plane. These emission savings will reduce further as the UK electricity grid decarbonises. The PAS 2080 accreditation is globally recognised as one of the leading environmental standards in infrastructure design in manufacturing. Hitachi Rail was audited and approved for the renewal of the certification in January 2024. For the next audit - scheduled January 2025 - we anticipate that we may need to adjust the design solution to further reduce the carbon footprint of HS_2.
EPD Certification HS_2 Project	Hitachi Rail is on the way to achieving the Environmental Product Declaration (EPD) certification for the HS_2 train. Once the final design review is released, Hitachi Rail will be able to update the LCA model - already implemented on the SimaPro platform for PAS 2080 purposes - and issue the final release of the Life Cycle Assessment. The LCA and the corresponding EPD will be verified by a third-party certification body and published by the International EPD System (IES) programme operator on their website www.envnrondec.com.
World first Social Product Category Rules (S-PCR) for Rolling Stock	This year, Hitachi Rail finalised audited and published the world's first Social Product Category Rules (S-PCR) Declaration for Rolling Stock, following last year's successful Social Life Cycle Assessment (S-LCA) on the HTR 412 Blues train. In FY22, Hitachi Rail carried its first Social Life Cycle Assessment (S-LCA) - representing the first assessment of the positive and negative social impacts of a train over its life cycle - on the Blues train, supported by Circular S.r.l. Hitachi Rail subsequently began a new innovation project, also with Circular S.r.l. and using the International EPD System (Environdec.com), aiming to develop the first worldwide Social Product Category Rules (S-PCR). Until now, it was only possible to evaluate and certify the environmental impact of one single product using ICO 14025. With this new project, Hitachi Rail and its Eco-Design team developed the world's first Social Product Declaration of Rolling Stock Product Group, allowing it to certify the social impact of its components and complete their sustainability assessment. The publication of the S-PCR of Rolling Stock represents a milestone in the communication tool of social impact assessment and covers an important gap. From now on, other companies in the sector of Rolling Stock can assess the social performance of their train and improve their performance in a consistent manner and other companies can develop their own S-PCR for their products. During FY23, together with the PCR-SPD, Hitachi Rail's first SPD in the world was finalised, audited and published by the International EPD System (https://www.environdec.com/spd).

Hitachi Rail's Rail Control Eco Design Initiatives and Projects in FY23

PROJECT	DESCRIPTION

ECODESIGN PROCESS CONSOLIDATION AND TOOLS DEFINITION	Hitachi Rail has consolidated its Eco-Design process:
	• ensuring compliance with sustainability requirements in contracts:
	  - materials declaration;
	  - compliance to REACH, RoHS;
	  - carbon footprint.
	• supporting new bids on Life Cycle Assessment and Full Live Cost requirements:
	  - definition of LCA methodology to be applied to current strategic products and future products LCA – Life Cycle Assessment (ISO 14040);
	  - reuse of experience and know-how of the vehicle LoB.
	• digital approach to Project Management and Delivery - BIM:
	  - the BIM digital model of each Part Number (Make or Buy) will include all environmental and Ecodesign Data to set up an integrated and streamlined process of information collection, analysis, elaboration and application.

ECODESIGN APPLICATIOON CASE: METRO NAPOLI LINE 6 CAMPEGNA DEPOT PROJECT	The Line 6 Depot and Campegna Station - an example of the application of eco-design approach and methodology in system integration design – has been completed and delivered. • The project (design, configuration, and eco design data analysis) has been carried out in collaboration with the Department of Industrial Engineering (DII) of the University of Naples Federico II. This collaboration aimed at encouraging the use of sustainable technologies, thus reducing total CO_2 emissions and the combination of advanced solutions has represented an important step forward in the design and construction of sustainable buildings. It provides a tangible example of how innovation and sustainability can come together to create a cutting-edge environment. The components of the main technical pillars of the application were: • new materials adopted to enhance the building energy efficiency; • photovoltaic systems to produce its own energy; • energy-efficient cooling systems; • smart grids; • advanced systems for thermal energy storage; • free cooling systems for sustainable cooling of technical rooms.

Innovation Projects
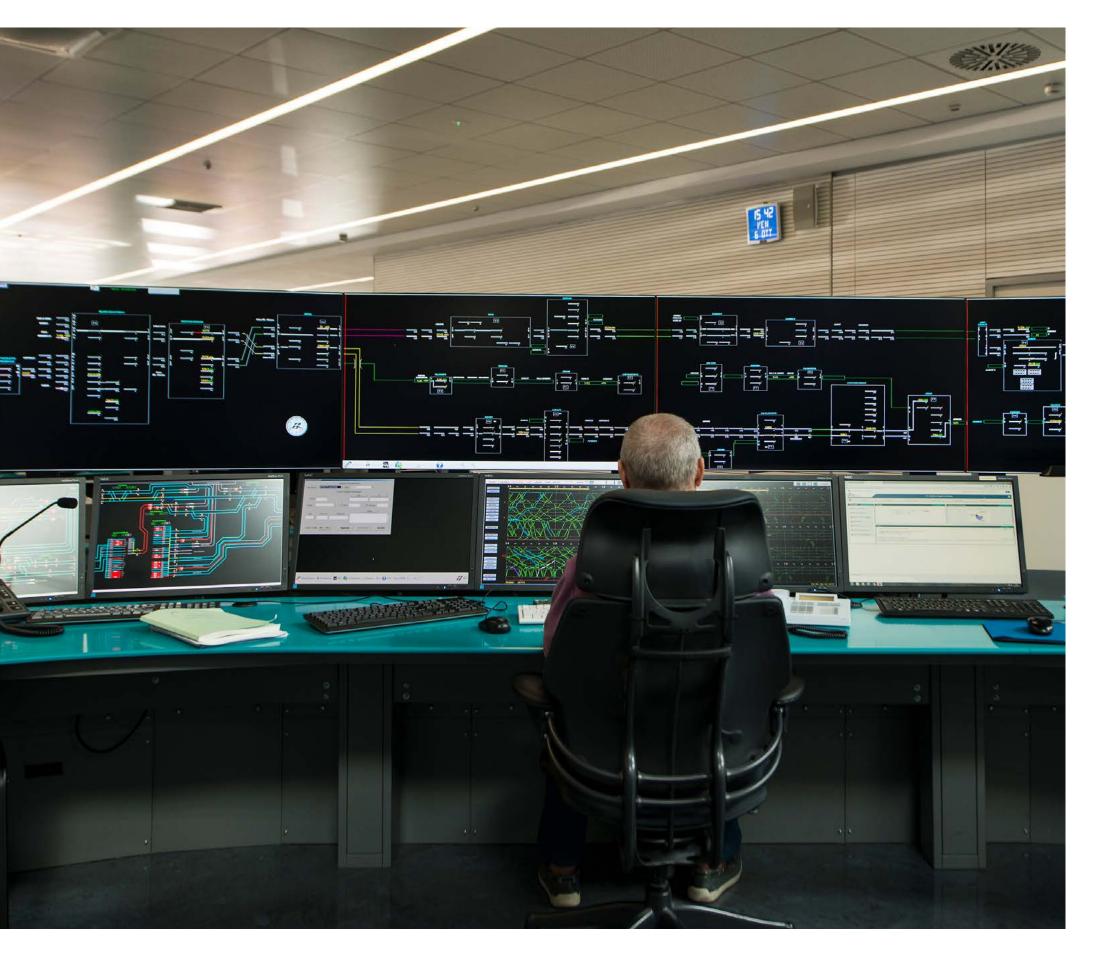
Hitachi Rail Research & Development (R&D) function has created the "Zero Infrastructure" framework, aimed at eliminating parts of physical infrastructures such as servers and power and telecommunications cables alongside railway lines. The aim is to provide solutions with less equipment that consequently consume less; and – where there is still physical equipment – to favour green alternative sources of energy together with batteries and capacitors. These solutions in turn also reduce the cost of operating and maintain the railway.

Hitachi Rail projects within the "Zero Infrastructure" framework are:

- the creation of alternative green power sources for the signalling systems along the line;

- the study and design on the use of cloud computing in signalling and automation systems, including the implementation of Verification and Validation laboratories in the Cloud;

- the use of wireless communication to connect the signalling systems installed along the line with the central stations;

- the optimisation of installation and construction process and practices, in order to minimise the amount of physical materials and reduce the impact on landfill in terms of waste. This aspect is managed through weight reduction,

the enhancement of functional synergies of components and devices to optimise working cycles, the digitalisation of design, and the deployment workflow by BIM methodologies.

Hitachi Rail, as a partner of IAM4RAIL, aims to improve the sustainability of the railway industry with the development and demonstration of an Intelligent and Integrated Rail Asset Management System

(IAMS) covering fixed and rolling stock assets, minimising the life cycle costs of assets and extend their lifetime, while meeting safety requirements and improving reliability.

One of the key focus areas for innovation activities is on Automated Maintenance and Intelligent Asset Management. In FY23, in accordance with the guidelines set by Hitachi Ltd. Corporate, Hitachi Rail started to implement pilot projects to investigate and analyse the application of AI/Gen AI to business processes and technical solutions. The aim is to significantly increase the efficiency and efficacy of working processes, reduce operational time in project execution and solutions delivery, and increase the quality of deliverables while minimising reworking.

AI application is expected to determine a consistent positive impact on technical business sustainability whilst also improving environmental parameters.

By integrating AI with Digital Asset Management, Hitachi Rail can more effectively acquire and utilise the enormous quantity of environmental and performance data, and fully monitor and finetune the operations, feedback design decisions, and technical strategy.

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Masaccio Hybrid

Hitachi Rail's Masaccio is the new multimode single deck train for regional transportation, in operation in Italy since December 2022 across six different regions, from North to South.

The Masaccio train is a concrete example of Hitachi's strong commitment to a more sustainable society, not only through the use of highly recyclable materials, but also thanks to the innovative features and performances which it brings on the market.

Its different operating modes (electric, diesel/electric, hybrid, battery), lightweight construction and on-board technologies:

- reduce fuel consumption, energy consumption, Nox, and CO_2 emissions, as well as noise pollution;

- provide a high km range in battery mode for zero-emissions e.g., while crossing residential areas;

- offer a flexible fleet management thanks to the capability of running both on electrified / unelectrified railway lines.

As a result, the Masaccio train has been certified by a third party for its environmental performance (EPD®), as well as for its social performance (SPD – first in the world).

Advancing Digital and Green Solutions in Rolling Stock

The Hitachi Fleet Monitoring Tool (HFMT) is a strategic digital asset monitoring platform, powered by Internet of Things (IoT), that delivers advanced wayside remote capabilities and provides the maintenance organisation with condition data that enable effective and efficient methods for fleet maintenance and asset reliability.

This digital platform offers real time monitoring, with the ability to produce and control passenger facing features such as passenger numbers, timetable, seat reservations up-loads, remote HVAC temperature settings, and remote software uploads. HFMT offers insights of real time train key systems such as toilets, HVAC, catering and doors, en-abling the control room and maintenance staff to receive live events off the train and take corrective actions.

Alongside serving real-time insights and remote train control, HMT plays a significant role in the maintenance organisation for efficient and effective train maintenance and has enabled the adoption of digital and smart maintenance practices in Hitachi Rail, saving millions of pounds on maintenance activities.

5.3.2 Circular Economy: Materials and Waste

Materials

Hitachi Rail promotes the reduction of the intensive use of raw materials in line with the OECD Council principles and its sustainability roadmap.

This commitment is reflected through the reliable quantification of the raw materials used and strives for increasingly standardised designs that can lead to an overall reduction in the direct and/or indirect consumption of raw materials.

Specific initiatives have been launched among Procurement and Design Dpts to increase the amount of recycled material ratio and reduce the emission connected with raw material Specific Specific initiatives have been launched among Procurement and Design Departments to increase the amount of recycled material ratio and reduce the emission connected with raw material production (green Steel and Green Alluminium).

MATERIALS AND SUBSTANCES[42] GRI 301-1

Tonnes [t]	FY22	FY23
Material – Aluminium	**10,820**	**15,981**
new material	8,639	13,473
recycled material	2,181	2,507
Material – Steel	**3,850**	**2,224**
new material	3,850	2,224
recycled material	-	-
Material – Copper	**423**	**352**
new material	423	352
recycled material	-	-
Material - Iron	**-**	**168**
new material	-	168
recycled material	-	-
Liquefied compressed gases	**955**	**1137**
nitrogen	40	37
argon	569	521
carbon dioxide	16	15
oxygen	111	135
other	220	430
Paints (water based)	**244**	**6,107**
Oil	**7,630**	**89**
Glues and adhesives	**15,735**	**10,077**

Primary materials, not pre-assembled

For the reporting period, the materials and substances used are listed in the table. While consumption clearly varies depending on the work commissioned, the higher decreased was linked to oil (-99%) and the higher increased was linked to iron (+41,900%) and paints (2,406%).

[42] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

Waste

Hitachi Rail's internal policy is to reinforce the principle of re-use, recycling, and recovery of waste. All sites have waste collection areas based on the type of waste and site layout. External specialist companies collect and process hazardous and non-hazardous waste. For a detailed picture of Hitachi Rail's waste cycle, refer to the following points:

- **inputs:** through its office, production, maintenance and construction sites Hitachi Rail purchases services, products, and production materials for the construction of trains, mass transit, and railway signalling;

- **activities:** the activities that generate non-hazardous and hazardous waste include office activities, train manufacturing, railway bogies, railway signalling, train maintenance activities, and plant maintenance;

- **outputs:** indirect outputs are generated by activities carried out by companies working on Hitachi Rail sites for activities such as maintenance, including painting and installation of cabinets, and by supply logistics;

- **upstream generation:** upstream waste is generated and managed by third-party suppliers who supply materials and/or semi-finished products such as electronic boards, railway signals, train carriages, and components for engine assembly. The related waste includes packaging, plastic, cardboard, paper, electronic waste, and scrap metal;

- **operations:** waste generated by Hitachi Rail's own operations includes both hazardous and non-hazardous waste. Non-hazardous waste includes plastic, wood, cardboard, paper, electronic waste, scrap metal, and mixed waste. Hazardous waste includes batteries, solvents, chemicals, degreasers, and sludge. The generated waste is managed in collaboration with authorised entities;

- **downstream generation:** downstream waste is generated as the result of the distribution and installation of trains and railway lines.

Hitachi Rail made continuous efforts to minimise waste in its manufacturing facilities by prioritising actions as follows:

- separate waste and, if possible, recycle it;

- reduce the production of plastic (Plastic Free Project);

- inform and train the personnel on reuse, through signs, articles, posters, etc;

- reduce the amount of waste in landfill (target 0% landfill waste within FY30).

During FY22, Hitachi Rail used new technologies to reduce organic material waste while creating thermal and electrical energy. Across the world, it continues to promote green initiatives on all sites through:

- the use of bio waste bags in offices to reduce landfill waste and to increase recycling;

- the elimination of plastic resetting water bottles in all Italian canteens (as a consequence, plastic waste was reduced by 12% and 3.6 plastic tons of waste were avoided);

- the use of re-usable and biodegradable products in India and Sweden (glass bottles and cups were replaced by ceramic ones which allowed for a waste reduction of 10% compared to the previous year);

- the evaluation of suppliers selling waste such as iron, copper, ropes, aluminium, and steel.

Across Hitachi Rail's supply chain, its suppliers – who mainly generate construction site waste during installation – continue to commit to the reduction of the amount of packaging waste that occurs when semi-finished products are delivered.

The following table provides details on the waste produced at the production sites and offices, with the specification of the disposal method:

WASTE PRODUCTION[43] GRI 306-3; 306-4; 306-5

Tonnes [t]	TOTAL	
	FY22	FY23
TOTAL HAZARDOUS WASTE	**962**	**1,048**
% Recycled	63.4%	36.8%
% Incinerated (mass burn)	24.5%	63.1%
% Disposed of in landfill	12.1%	0.0%
TOTAL NON HAZARDOUS WASTE	**14,731**	**16,624**
% Reused	3.6%	26.0%
% Recycled*	87.4%	56.7%
% Incinerated (mass burn)	5.6%	13.0%
% Disposed of in landfill	3.5%	4.3%
Total	**15,693**	**17,672**

* the increase in reused waste compared to recycled waste is due to a better reporting capacity and thus a better distribution of waste between recycling and reuse.
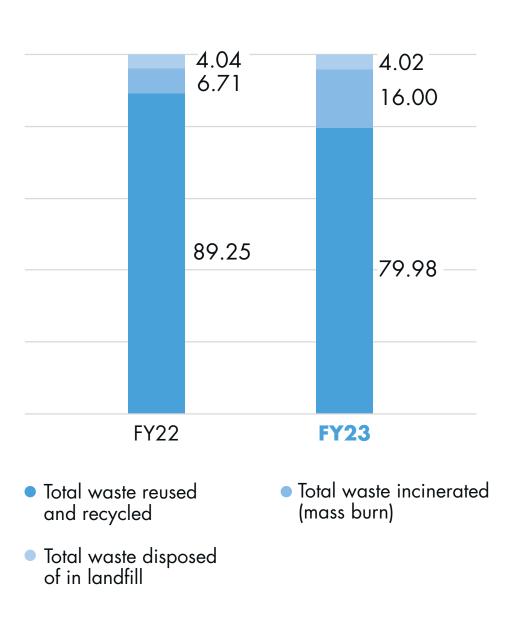
As of FY23, the total waste production amounted to 17,672 tonnes, an increase of 13% compared to the previous reporting year due to an increase in production activities with particular reference to Kasado, Newton Aycliffe and Pistoia sites.

Approximately 80% of the total waste has been recycled or reused. Taking into account non-hazardous waste, this number reaches 83%, including 64% of used plastic which has been recycled. With regards to hazardous waste, the number lowers to 37%.
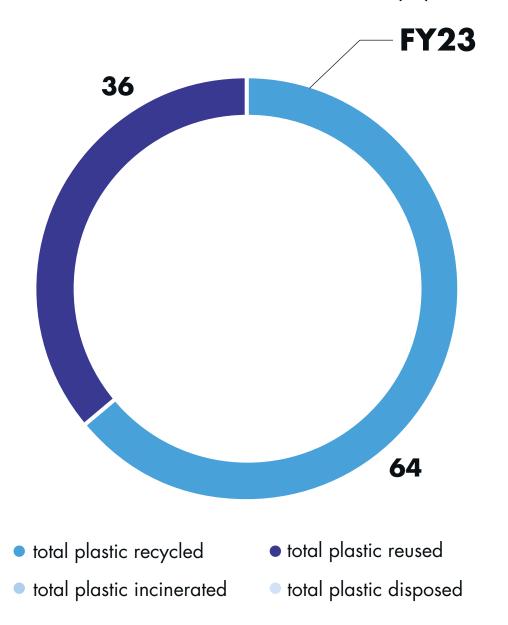
Looking into the trend of waste production by type of waste, it can be noted that:

- total non-hazardous waste increased by 13% (from 14,731 to 16,624 tonnes);
- total hazardous waste increased by 9% (from 962 to 1,048 tonnes).

Total waste by disposal method (%)

	FY22	FY23
	4.04	4.02
	6.71	16.00
	89.25	79.98

- ● Total waste reused and recycled
- ● Total waste incinerated (mass burn)
- ● Total waste disposed of in landfill

Disposal Methods of Non-Hazardous Plastics (%)

FY23

36

64

- ● total plastic recycled
- ● total plastic reused
- ● total plastic incinerated
- ● total plastic disposed

[43] Data regarding FY22 differ from the ones represented in the previous ESG Report due to restatements registered following a methodological refinement in data collection and processing.

Improving Waste Management for
Sustainable Operations at Hitachi Rail Plant

The team at the Hitachi Rail plant in Pistoia implemented a new project to improve the order and cleanliness conditions of the temporary storage of waste consisting of wood packaging, with subsequent reuse.

The project, conceived in collaboration between the Facility, Maintenance and HSE functions aimed at reducing the volumes of wooden packaging waste generated by the unpacking of the materials, prior to entering the temporary warehouse, which previously reached peaks capable of jeopardising the capacity of storage areas.

Though this project Hitachi Rail reduced wood piles, consequently reducing the risk of falling materials, and improving decorum and cleanliness of the waste collection areas. Now, wooden packaging waste will no longer be "recycled", but rather "reused", climbing the waste sustainability pyramid.

5.3.3 Water and Effluents

To minimise the impacts of its activities on water, Hitachi Rail constantly invests in the improvement of internal water management, adopting new technologies, sharing internal knowledge and implementing good practices through the application of the LCA.

Hitachi Rail assesses its water-related impacts from business sites through the ISO 14001 certified Environmental Management System and from its products through Life Cycle Assessment (LCA), an internationally standardised methodology aligned to the ISO 14040 and the ISO 14044. Both approaches help to quantify the environmental pressure related to products, services and operations, the possible environmental benefits and trade-offs, and the areas on which to focus.

For FY23, Hitachi Rail approached the data collection with an increased level of detail in order to gain a more complete picture and greater alignment with the requirements of the GRI reporting standards. As a result, the data for FY22 differ from those represented in the previous ESG Report due to the new approach to data collection and the greater granularity of information collected by each site.[44]

During the FY23 reporting period, the trend in water withdrawal has remained quite stable, registering an overall increase of around 0.53%.

WATER WITHDRAWAL GRI 303-3

Cubic metres [m³]	FY22		FY23	
	All Areas	Water stress areas	All Areas	Water stress areas
Total water withdrawal	**670,120**	**240,208**	**673,679**	**296,452**
of which total third-party water (including tap water)	281,513	128,145	300,050	134,050
of which total surface water (including rivers and lakes)	583	583	1,553	1,553
of which total groundwater (including underground)	380,422	103,878	305,702	94,475
of which total seawater	-	-	-	-
of which total rainwater	7,602	7,602	66,374	66,374
of which total produced water	-	-	-	-

Taking into account the sites located in water stress areas only, the trend increases reaching up to 23.41%.

The management of water discharge is under the control of the Facility Function, which - with HSE Function - defines the control and monitoring standards in relation to local applicable law.
Hitachi Rail manages all discharges, including those originating from indirect activities, periodically carrying out chemical, physical, and biological control analyses to verify the quality of the water before discharge. The management of these controls follows Corporate procedures.

[44] The water stress related areas were identified based on the location of each site through the tool WRI Water Risk Atlas.

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During FY23, water discharge increased by an overall 16.55% and by 40.21% while taking into account the sites in water stress areas only

WATER DISCHARGE GRI 303-4

Cubic metres [m³]	FY22		FY23	
	All Areas	Water stress areas	All Areas	Water stress areas
Total water discharge	**518,507**	**176,450**	**604,295**	**247,392**
of which total discharged in third-party water (including sewer)	314,115	173,579	401,939	246,531
of which total discharged in surface water (including rivers and lakes)	201,521	-	201,495	-
of which total discharged in groundwater (including underground)	-	-	-	-
of which total discharged in seawater (including marine area)	-	-	-	-

Water use has decreased by 54.24% across all sites and by 23.05% for the ones in water stress areas only.

WATER USE GRI 303-5

Cubic metres [m³]	FY22		FY23	
	All Areas	Water stress areas	All Areas	Water stress areas
Total water consumption	151,613	63,758	69,384	49,060
Water storage*	**60**	**60**	**60**	**60**

Hitachi Rail has also been implementing and tracking water recycling activities in order to demonstrate responsible management of water resources. These accounted for 60 m³ of recycled water during both FY22 and FY23.

WATER RECYCLED/REUSED

Cubic metres [m³]	FY22	FY23
Total water recycled and reused**	**60**	**60**

*Water held in water storage facilities or reservoirs
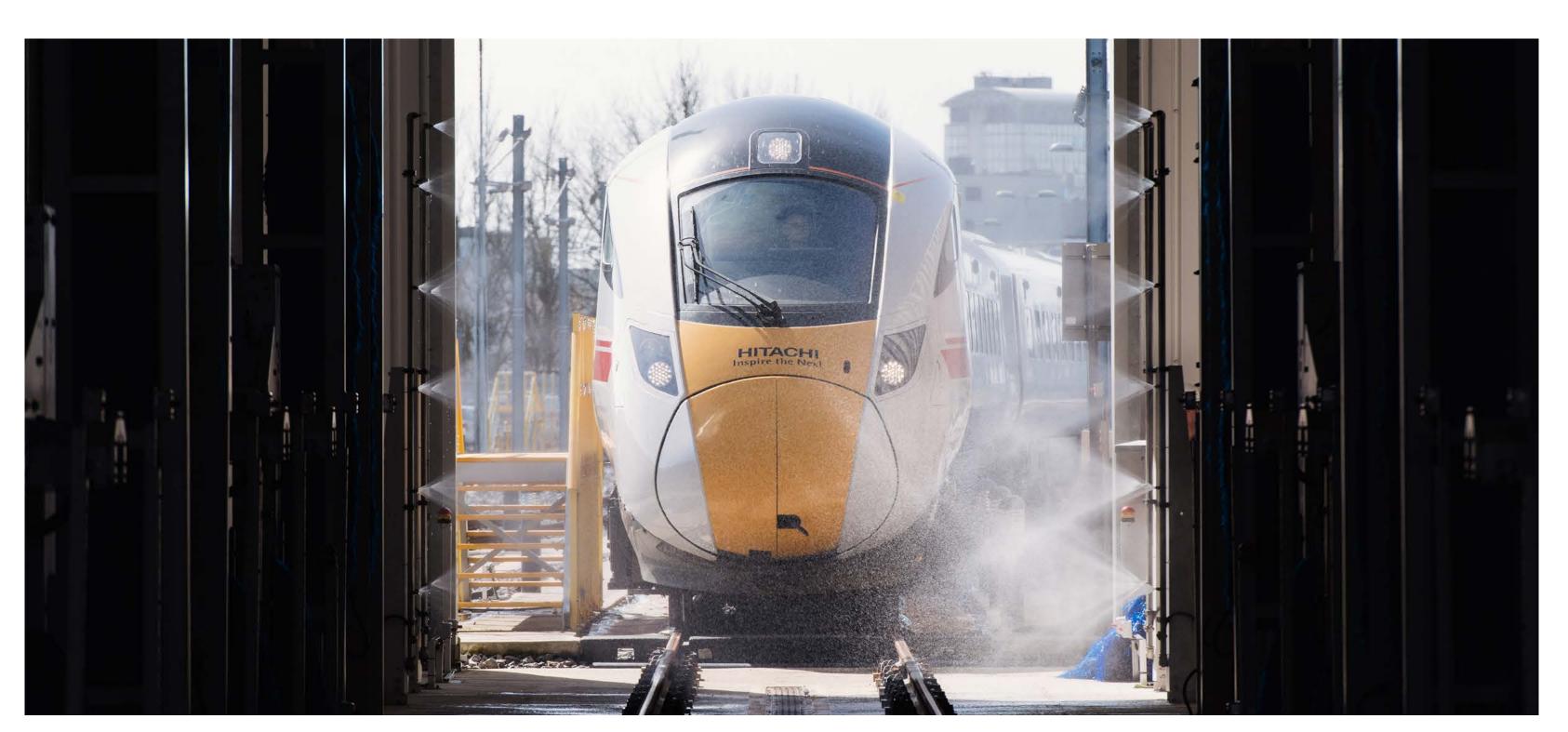
**Water that has been used more than once before being discharged from the undertaking's or shared facilities' boundary, so that water demand is reduced.

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Hitachi Rail's Kasado site has already met the Hitachi Ltd. water reduction target set for 2050, registering a 50% improvement of efficiency in water use compared to 2010. It has done so by developing the following water cycle:

- water is taken from a close river;

- water is purified and tested;

- water is used in the plant for industrial purposes, but also for drinking and cleaning;

- after use, water is tested one more time and then released into the ocean.

Thanks to this cycle, 95% (around 240,000 m_3 per year) of the total water taken from the river goes back to the ocean.

Hitachi Rail has implemented several measures to manage water risks, such as:

- improvement of processes and equipment to verify consumption and discharge, such as enhanced monitoring of water consumption through dedicated water metres;

- smart metres installation in multiple sites, namely all UK sites, Pittsburgh, Batesburg, Baltimore, Beijing, and Australia (for which the installation is still ongoing);

- implementation of corporate and local procedures to define control and monitoring criteria;

- support from external laboratories for sampling;

- pre-treatment systems before discharge, including biological, chemical-physical purifiers, and collection and pre-treatment tanks;

- automated water diffusion systems;

- awareness campaigns on the sustainable use of water resources.

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Voluntary Disclosure on EU Taxonomy

The European Taxonomy ("Taxonomy"), introduced by Regulation (EU) 852/2020 and in force since January 1, 2022, is a classification system for environmentally sustainable economic activities.

The purpose of the Taxonomy is to ensure the reliability, consistency, and comparability of sustainable economic activities to protect private investors from greenwashing, assist companies in the sustainable transition, mitigate market fragmentation, and bridge the sustainable investment gap.

Taxonomy has established six objectives for identifying sustainable economic activities:

- Climate change mitigation,
- Climate change adaptation,
- Sustainable use and protection of water and marine resources,
- Transition to a circular economy,
- Pollution prevention and control,
- Protection and restoration of biodiversity and ecosystems.

For each environmental objective, a list of relevant economic activities has been established. When a business activity fits the description of an economic activity, it is considered Taxonomy-eligible. To be in line with the EU Taxonomy, the activity must substantially contribute to, at least, one of the environmental objectives, while simultaneously not causing significant harm to the others. Therefore, to be sustainable, an activity must satisfy both the Substantial Contribution (SC) criteria and the Do No Significant Harm (DNSH) criteria, collectively known as the Technical Screening Criteria (TSC). Additionally, the company must adhere to Minimum Social Safeguards (MS), specific requirements upholding social and governance principles.

During 2021, the Delegated Act on climate change was published, along with its Annexes I and II, related to the first two objectives of the Taxonomy: Climate Change Mitigation and Climate Change Adaptation. These Annexes identify the eligible economic activities, i.e. included within the scope defined by the EU Taxonomy, and define the related technical screening criteria, according to which it is possible to determine whether an economic activity is taxonomy-aligned, i.e. sustainable, to the first two objectives.

With the publication of the new Environmental Delegated Act in 2023, the Annexes referring to the four remaining objectives were published, broadening the list of economic activities included in the Taxonomy.

The Article 8 of Regulation 852/2020 specifically requires companies subject to the obligation to publish, starting from January 1, 2022, information on how and to what extent their activities are sustainable, according to the European Taxonomy. This measure must be expressed both qualitatively and quantitatively, the latter in terms of revenue (Turnover), capital expenditure (CapEx), and operational expenditure (OpEx).

Although not yet subject to the regulation, Hitachi Rail is closely monitoring developments in the EU Taxonomy, including the compliance with the Corporate Sustainability Reporting Directive (CSRD), which will require the integration of Taxonomy information into a dedicated section of the Management Report.

Hitachi Rail, as an active member of the UNIFE European Railway Association, and associated Sustainable Transport Committee, contributed to the development of a joint statement with other rail sector associations and updated the position paper on the EU Taxonomy.

In this context, Hitachi Rail has decided to voluntarily carry out the Taxonomy eligibility assessment for FY23 in anticipation of such regulatory changes, aiming at ensuring maximum clarity, completeness, and comparability to its disclosure at all times.

Eligibility Analysis

The current eligibility analysis has been conducted through a thorough examination of Hitachi Rail's activities, involving different internal departments and considering all the activities currently included in the Taxonomy. Therefore, the eligibility analysis has also considered the newly added activities adopted with the integrations of June 2023. At this stage, only the potential inclusion of the Group's economic activities among those listed in the Delegated Act was assessed, regardless of whether such activities met one of the technical screening criteria established by the same regulation.

Hitachi Rail's eligible activities identified under Climate Delegated Act

EU Taxonomy sector	3. MANUFACTURING		6. TRANSPORT	8. INFORMATION AND COMMUNICATION
EU Taxonomy activity	3.19 Manufacture of rail rolling stock constituents	3.3 Manufacture of low carbon technologies for transport	6.14 Infrastructure for rail transport	8.1 Data processing, hosting, and related activities
Activities description	Manufacture, installation, technical consulting, retrofitting, upgrade, repair, maintenance, and repurposing of products, equipment, systems, and software related to the **rail constituents** detailed in Point 2.7 of Annex II to Directive (EU) 2016/797. These constituents and services are essential to the environmental performance, operation and functioning over the lifetime of rail rolling stock that **comply with Section 3.3.** of this Annex.	Manufacture, repair, maintenance, retrofitting, repurposing and upgrade of **low carbon transport vehicles, rolling stock** and vessels.	Construction, modernisation, operation and maintenance of **railways and subways** as well as bridges and tunnels, stations, terminals, **rail service facilities**, safety and **traffic management systems** including the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like as well as the performance of physical, chemical and other analytical testing of all types of materials and products.	Storage, manipulation, management, movement, control, display, switching, interchange, transmission or processing of **data through data centres**, including edge computing.
Hitachi Rail's activities	Manufacture of train components	Manufacture and maintenance of trains	Construction and maintenance of infrastructure and system for rail transport	Integration, elaboration and management of data for digital solutions
Hitachi Rail's line of business	**Vehicles**		**Rail Control**	**Smart Mobility**

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Taxonomy KPIs disclosure

The KPIs specified in the Taxonomy cover Turnover, CapEx and OpEx. This allows a quantitative representation of Taxonomy eligible/aligned activities, by presenting the share of each KPI corresponding to such activities.

In order to represent the indicators, the Regulation requires the use of specific templates, provided in Annex V of Delegated Regulation 2023/2486 amending Delegated Regulation 2021/2178, as well as the templates included in the EU Delegated Regulation 2022/1214 regarding economic activities in certain energy sectors.

As mentioned in the paragraphs above, Hitachi Rail is carrying out a voluntary Taxonomy assessment on eligible activities. The absence of data related to the alignment process should not be understood as a lack of aligned activities, but rather as the second step of the Taxonomy analysis that will be carried out in the near future.

Furthermore, in light of the voluntary nature of this first assessment, the data presented below have been subject to a few limitations, due to the availability of information. Nonetheless, Hitachi Rail is working to enhance the level of granularity for future disclosures.

Turnover
Definition and reconciliation

The proportion of Taxonomy-eligible turnover has been calculated as the part of net turnover derived from products and services associated with Taxonomy-eligible economic activities (numerator) divided by net turnover (denominator) for the Fiscal Year ended March 31, 2024.

The Turnover for the Organisation amounts to 856.1 billion of JPY with an eligibility rate of 100%.

CapEx
Definition and reconciliation

The Taxonomy-eligible/aligned CapEx reflects the ratio of CapEx deriving from eligible/aligned activities (numerator) to total CapEx (denominator). In particular, the denominator of the CapEx KPI comprises the increases in tangible and intangible assets during the year before depreciation, amortisation, write-downs and write-backs, including those deriving from business combinations.

The eligible/aligned portion of CapEx includes capital expenditure relating to assets or processes associated with Taxonomy-eligible economic activities (category a.) pursuant to section 1.1.2.2. Annex I Delegated Regulation art. 8). For fiscal year 2023 no CapEx related to a plan ("CapEx plan"), intended to enable Taxonomy-eligible economic activities to become aligned, nor related to the purchase of products deriving from Taxonomy-eligible economic activities were identified.

The allocation of CapEx to eligible activities was performed by considering CapEx directly attributable to the corresponding activities. CapEx not directly related to the business activities (for example cross-sutting investment) were not included in the eligibility KPI in order to ensure the robustness of the data.

The CapEx for the BU amounts to 18.1 billion of JPY with an eligibility rate of 71%.

OpEx
Definition and reconciliation

The Taxonomy-eligible/aligned OpEx reflects the proportion of eligible OpEx with respect to the total OpEx. For the purpose of this analysis, only OpEx connected to R&D were considered, as they are the most representative cost items from the shortlist of costs provided by the Taxonomy under the OpEx KPI. OpEx were then allocated to the identified economic activities associated with the main business activities.

The OpEx for the BU amounts to 11.7 billion of JPY with an eligibility rate of 100%.

The templates for the representation of the turnover, CapEx and OpEx indicators are shown below. Please note that only eligibility information is shown, as only eligibility was voluntarily assessed for FY23. The alignment will be evaluated and disclosed in the future.

Table 1 - Proportion of turnover from products or services associated with Taxonomy-eligible economic activities – disclosure covering FY 2023

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Economic Activities	Code	Financial year 2023 Turnover (bnJPY)	Proportion of Turnover, year N (%)	Substantial Contribution Criteria (1)	(2)	(3)	(4)	(5)	(6)	DNSH criteria ('Does Not Significantly Harm') (1)	(2)	(3)	(4)	(5)	(6)	MS	Proportion of Taxonomy aligned (A.1.) or eligible (A.2.) Turnover, year 2022 (%)	Category enabling activity (E)	Category transitional activity (T)
				Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N			
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)	-	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A		
Of which Enabling	-	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A	-	-
Of which Transitional	-	-	%	-						-	-	-	-	-	-	-	N/A	-	-
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)*																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Manufacture of low carbon technologies for transport	CCM 3.3	496.3	58%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Manufacture of rail rolling stock constituents	CCM 3.19	10.2	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Infrastructure for rail transport	CCM 6.14	349.5	41%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Data processing, hosting and related activities	CCM 8.1	0.0	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Turnover of Taxonomy- eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		856.1	100%																
A. Turnover of Taxonomy eligible activities (A1+A2)		856.1	100%	100%	0%	0%	0%	0%	0%								N/A		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities		0	0%																
Total		**856.1**	**100%**																

* It is specified that for FY2023 Hitachi Rail only carried out the eligibility assessment.

Table 2 - Proportion of CapEx from products or services associated with Taxonomy-eligible economic activities – disclosure covering FY 2023

Economic Activities	Financial year 2023			Substantial Contribution Criteria						DNSH criteria ('Does Not Significantly Harm')						MS	Proportion of Taxonomy aligned (A.1.) or eligible (A.2.) CapEx, year 2022	Category enabling activity	Category transitional activity
	Code	CapEx	Proportion of CapEx, year N	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)				
		bnJPY	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)	-	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A		
Of which Enabling	-	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A	-	-
Of which Transitional	-	-	%	-						-	-	-	-	-	-	-	N/A	-	-
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)*																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Manufacture of low carbon technologies for transport	CCM 3.3	12.8	50%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Infrastructure for rail transport	CCM 6.14	4.9	19%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Data processing, hosting and related activities	CCM 8.1	0.4	2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
CapEx of Taxonomy- eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		18.1	71%																
A. CapEx of Taxonomy eligible activities (A1+A2)		18.1	71%	71%	0%	0%	0%	0%	0%								N/A		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities		7.3	29%																
Total		**25.4**	**100%**																

* It is specified that for FY2023 Hitachi Rail only carried out the eligibility assessment.

Table 3 - Proportion of OpEx from products or services associated with Taxonomy-eligible economic activities – disclosure covering FY 2023

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Economic Activities	Code	Financial year 2023 OpEx	Proportion of OpEx, year N	Substantial Contribution Criteria (1)	(2)	(3)	(4)	(5)	(6)	DNSH criteria ('Does Not Significantly Harm') (1)	(2)	(3)	(4)	(5)	(6)	MS	Proportion of Taxonomy aligned (A.1.) or eligible (A.2.) OpEx, year 2022	Category enabling activity	Category transitional activity
		bnJPY	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)	-	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A		
Of which Enabling	-	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A	-	-
Of which Transitional	-	-	%	-						-	-	-	-	-	-	-	N/A	-	-
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)*																			
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL										
Manufacture of low carbon technologies for transport	CCM 3.3	4.5	38%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Infrastructure for rail transport	CCM 6.14	6.6	56%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
Data processing, hosting and related activities	CCM 8.1	0.6	5%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								N/A		
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		11.7	100%																
A. OpEx of Taxonomy eligible activities (A1+A2)		11.7	100%	100%	0%	0%	0%	0%	0%								N/A		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities		0	0%																
Total		**11.7**	**100%**																

* It is specified that for FY2023 Hitachi Rail only carried out the eligibility assessment.

Table 4 - Nuclear and fossil gas related activities

Row	Nuclear energy related activities	YES/NO
1.	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
2.	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	NO
3.	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	NO
	Fossil gas related activities	
4.	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	NO
5.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	NO
6.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	NO

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Acquisition of Thales GTS

Hitachi Rail announced on 31st May 2024 the completion **of its acquisition of Thales' Ground Transportation Systems (GTS) business, expanding its global presence to 51 countries** with the majority of its revenues now coming from higher-return signalling and systems.

Hitachi Rails key locations in Japan, Italy, the UK and the US are strategically complemented by GTS large centres in Germany, France, Spain and Canada - with both businesses having an established reputation in the wider European market, the Middle East and Asia-Pacific.

The closing sees 9,000 highly skilled colleagues join the business taking Hitachi Rail to 24,000 employees worldwide. It enhances the Company's full portfolio of transport solutions with expertise in rolling stock, urban turnkey railways, mainline digital signalling, freight signalling, and communication and supervision systems.

Hitachi Rail is right at the forefront of the global mobility sector following the acquisition. The closing of this acquisition strengthens the company's strategic focus on helping current and potential Hitachi Rail and GTS customers through the sustainable mobility transition - the shift of people from private to sustainable public transport, driven by digitalisation.

The transaction almost doubles Hitachi Rail's engineering capability and increases investment in innovation to provide an enhanced digital product offer, spanning signalling, ticketing, operations and cyber security solutions.

The company has established a new Agile Innovation Team and will combine the expertise from GTS' five global Digital Hubs & Competence Centres and the digital strength of Hitachi's Group companies. The new business is also poised to achieve greater cost competitiveness, including improving the effectiveness of procurement, optimising engineering capabilities and investment in R&D.

Hitachi Ltd. Standard Ethics Rating

Standard Ethics published the SE Global Railway Manufacturers Index on June 25, 2024. This sustainability index compares 12 of the world's largest listed companies involved in train and rolling stock production (ranging from metros to high-speed trains), as well as rail transport services and systems, including infrastructure maintenance and modernization. The Index aims to provide an overview of the industry's sustainability levels and to monitor progress toward achieving sustainability goals.

Standard Ethics has defined nine grades, from EEE (the highest rating) to F (the lowest rating). Hitachi Ltd. received a rating of EE, which is defined as strong. Hitachi Rail is committed to driving the sustainable mobility transition, and it is gratifying to see our commitment reflected in this Index. The Index will be revised annually, and we look forward to improving Hitachi's rating as we strive to become a more sustainable business, achieve our targets, and make sustainable mobility a reality across all areas of the global railway sector.

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Consumption data were collected at the operational site level in the original unit of measurement. The conversion factors used for translating energy consumption into GJ are those provided by ISPRA (Italian National Institute for Environmental Protection and Research) in the "Tabella parametri standard nazionali" (Table of National Standard Parameters).

Scope 1

Scope 1 Direct GHG Emissions are of utmost importance for Hitachi Rail due to its commitment of Carbon Neutrality in its main sites by 2030. Consequently, the Company is doing its best to track the Year-on-Year trend to identify the primary sources of emissions and the best solutions to mitigate them. The calculation structure and methodology follow the guidelines provided by the GRI 305-1, considering emissions conversion factors recognised by the international community and consistent Global Warming Potential (GWP) rates. Scope 1 emissions are calculated using the factors provided in their most up-to-date publicly available version by the UK government's Department for Environment, Food and Rural Affairs (DEFRA).

Scope 2

Also, Scope 2 Energy Indirect GHG Emissions are of paramount importance for Hitachi Rail in line with its commitment to Carbon Neutrality in its main sites by 2030. In this regard, Hitachi Rail is committed in tracking yearly variation in order to identify which facilities are responsible for the highest energy consumption. This enables the prioritisation of future interventions (e.g., green energy production, phase-out of polluting technologies, modernisation of the plants, etc.).

The calculation structure and methodology follow the guidelines provided by the GRI 305-2, applying for the first time in FY23 both market-based and location-based calculation method. Market-based emissions were calculated adopting a combination of emission factors provided directly by the suppliers, market-based factors of EU AIB (Association of Issuing Bodies) and, residually, for sites for which the previous factors were not available, IEA (International Energy Agency) Emission Factors. The market-based methodology considers contractual instruments (e.g., Power Purchase Agreements) and energy attribute certificates (RECs, GOs, etc.). Location-based emissions instead were calculated adopting IEA (International Energy Agency) Emission Factors provided by Hitachi Ltd. and used at a Group level.

This dual approach, according to GRI Standards, allows to comprehensively assess greenhouse gas emissions by considering the actual energy procurement choices (market-based) and the average energy grid emissions (location-based). By employing these two methods, the Organisation gains a more detailed understanding of its carbon footprint, allowing to develop more effective strategies for reducing emissions and improving sustainability performance.

Scope 3

In line with last year's methodology, in order to account for the highest number of applicable categories as possible, a hybrid calculation method has been adopted. This follows the hierarchic order provided by the GHG Protocol Guidelines, which has been applied following this logic:

- Whenever the internally gathered values allow for an in-depth calculation methodology (e.g., distance-based method, waste-type specific method, etc.), more precise methods have been selected,

- If not available, the spend-based method has been selected. This provides a high-level analysis based on the costs of purchased goods and services.

By applying the mixed method approach, it was possible for Hitachi Rail to confirm the extensive perimeter analyses and to identify the main sources of emissions, prioritising future activities necessary to address them.

For FY22 data some categories were restated. In particular, for categories 5, 11 and 12 have been updated through the alignment with current methodology highlighted below. Moreover, certain emission categories underwent an update in line with the restatement of input data

disclosed in the ESG Report. For these reasons, the total amount of Scope 3 emission has been restated. Furthermore, it is specified that for FY23 emission categories 3 and 15 have been included, however, the computation has not been performed for FY22.

Computation methodology for each emission category is specified below.

Emission category	Methodology
1. Purchased Goods and Services	Computation adopting a hybrid methodology considering both a spend-based method and, when applicable, Supplier-specific method. The spend-based methodology was implemented considering Environmentally Extended Input-Output (EEIO) emission factors. Emission factors, specific to the country and product or service provided by a supplier have been mapped to all expenditures made by Hitachi Rail. The categorisation and emission factor mapping of all activities has been reviewed and approved by Hitachi Rail's procurement team. Additionally, Hitachi Rail has started to incorporate direct actual emissions from suppliers, based on the criteria of the presence of SBTi Approved targets and the third-party assurance of the GHG results. The pilot project involved 22 suppliers with the aim of expanding the perimeter yearly, incorporating an ever-increasing number of suppliers actual emission into the computation, reaffirming the Company vision to shift toward full actual data computation in the upcoming years.
2. Capital Goods	Computation adopting a hybrid methodology considering both a spend-based method and, when applicable, Supplier-specific method. The spend-based methodology was implemented considering Environmentally Extended Input-Output (EEIO) emission factors. Emission factors, specific to the country and product or service provided by a supplier have been mapped to all expenditures made by Hitachi Rail. The categorisation and emission factor mapping of all activities has been reviewed and approved by Hitachi Rail's procurement team. Additionally, Hitachi Rail has started to incorporate direct actual emissions from suppliers, based on the criteria of the presence of SBTi Approved targets and the third-party assurance of the GHG results. The pilot project involved 22 suppliers with the aim of expanding the perimeter yearly, incorporating an ever-increasing number of suppliers actual emission into the computation, reaffirming the Company vision to shift toward full actual data computation in the upcoming years.
3. Fuel- and energy-related activities	Computation following GHG Protocol provisions, incorporating fuel and energy related activities not mapped in scope 1 and 2 with the updated DEFRA conversion factors for T&D, losses and WTT GHG impact.
4. Upstream transportation and distribution	Computation adopting a distance-based method performed through the collection of data related to mass, distance, and mode of each shipment and the application of DEFRA Conversion factors. Where necessary and on a residual basis, estimates of distances and/or weight were applied. Residually, the actual emissions reported by the suppliers were taken into account, according to a process designed to ensure the exclusion of the possibility of double counting.
5. Waste generated in operations	Computation adopting a Waste-type-specific method using DEFRA emission factors: sum of the multiplication, by the respective conversion factor, of treated water and hazardous and non-hazardous waste, also broken down by disposal method (recycling, incineration, landfill).
6. Business travel	Computation adopting a distance-based method using DEFRA emission factors. Business travel data was collected with particular reference to air travel with a split between domestic, long-haul, and short-haul flights and leased vehicles and taxies,
7. Employee Commuting	Computation adopting a variation of the Average-data method. Hitachi Rail computed from direct data gathering the average amount of emission from commuting per person for the Italian sites and used this to estimate the commuting emission for the entire workforce. The methodology applied to the estimation of air pollutant emissions is based on the EMEP/EEA air pollutant emission inventory guidebook 2016 and is consistent with the 2006 IPCC Guidelines with respect to greenhouse gases.
8. Upstream leased assets	Category not calculated.
9. Downstream transportation and distribution	Category not applicable as all Hitachi Rail shipments meet the characteristics of category 4.
10. Processing of sold products	Category not calculated.
11. Use of sold products	Direct use-phase emissions were computed based on the provided EPDs using declared yearly distance and kWh/km, alongside production mix data from EcoInvent for European trains. It should be noted that the different combinations of train power supplies were taken into account in the calculation, i.e., electricity and diesel. EcoInvent emission factor was used for diesel portion of usage for trains which corresponding EPDs have been issued; DEFRA emission factor was instead used for the diesel portion of usage of other trains. The emissions related to this category currently encompasses vehicles and Rail Control products delivered in the FY23. Rail Control business has been included for the first time in the category of the use of sold products through the inclusion of data referring to a portion of rail control components items produced in the Italian BU's sites.
12. End-of-life treatment of sold products	Computation based on available EPDs for a portion of Vehicles delivered in the FY23. Materials data was paired with waste fate emission factors Ecoinvent 3.8 factors for material groups. The emission related to category 12 currently encompasses only the vehicles production business of Hitachi Rail.
13. Downstream leased assets	Category not applicable.
14. Franchises	Category not applicable.
15. Investments	Computation based on the allocation of emissions based on the investor's proportional share of total project costs (Average-data method) which involves using EEIO data to estimate the scope 1 and scope 2 emissions from the investee company and allocating emissions based on share of total project costs. Conversion factor set: EEIO emission factor (CO_2/$). Perimeter considered is those of the FY23 Equity share.

TCFD Reference Table

Topic	TCFD code	Section	Disclosure at a glance*
Governance			
Describe the board's oversight of climate-related risks and opportunities	TCFD – G(a)	3.1.1 "ESG Governance"	A global Sustainability Committee oversees sustainability topics including climate related topics. This Committee is composed by permanent members, including the Hitachi Rail Group CEO and key global heads of functions (e.g. SHEQ Global Director, CSR&S, HR, Communication, HSE, Facility, Eco-design, GBMS, etc.), with specific competence on ESG material topics to guide Hitachi Rail's vision and long-term environmental goals. Moreover, in FY23, Regional Committees were established to coordinate the local implementation of the global strategy in coordination with the Sustainability Committee.
Describe management's role in assessing and managing climate-related risks and opportunities	TCFD – G(b)	3.1.1 "ESG Governance" 3.3 Risk Management Process and Internal Control System	A CSR & Sustainability function has been established within Hitachi Rail to manage ESG topics across all functions, going from monitoring activities to reporting ones. Moreover, different management departments across Hitachi Rail are dedicated to various sustainability topics at global and local level and are addressing climate-related risks and opportunities. In particular, there is a global energy management function that manages energy topics and the decarbonisation plan. ERM Function, supported technically by CSR&S, guides risk assessment activities and updates Hitachi Rail Risk and Opportunity Portfolio. The ARCC (Audit, Risks and Control Committee) and Senior Executives are involved in the periodic review of the risk assessment results, as well as the Sustainability Committee which takes the proper following management decisions.
Strategy			
Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term	TCFD – S(a)	3.3 Risk Management Process and Internal Control System	During FY23, the Climate Change & ESG Technical Risk Area was assessed as a crucial element of the set strategy. This comprehensive Risk Area encompasses several risk sources and events related to ESG targets and the related potential financial, operational, and reputational risks. For the detailed assessment please refer to paragraph 3.3 Risk Management Process and Internal Control System - Climate-related risks and opportunities.
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	TCFD – S(b)	2.1 "ESG Roadmap and Targets" 3.3 Risk Management Process and Internal Control System	In FY23, thanks to the integration of the analysis of risks related to climate change within the ERM, a qualitative/quantitative analysis of the impacts of risks on company operations was carried out for the first time. For the detailed assessment please refer to paragraph 3.3 Risk Management Process and Internal Control System - Climate-related risks and opportunities. More details will be shared in the next ESG Report.
Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	TCFD – S(b)	5.2 Environmental Goals and Decarbonisation Path	Hitachi Rail, following Hitachi Ltd. guidelines, identifies its risks and opportunities and assesses them through a qualitative approach, taking into consideration three scenarios: a. Business environment and major risks and opportunities under the 1.5°C scenario; b. Business environment and major risks and opportunities under the 4°C scenario; c. A transition scenario assessing non-environmental market factors.
Risk management			

Topic	TCFD code	Section	Disclosure at a glance*
Describe the organisation's processes for identifying and assessing climate-related risks	TCFD – RM(a)	3.3 Risk Management Process and Internal Control System	The CSR&S function, methodologically supported by the ERM function and in conjunction with the work of the ARCC and Senior Executives, identifies and assesses Hitachi Rail's ESG risks, including climate related risks and opportunities.
Describe the organisation's processes for managing climate-related risks	TCFD – RM(b)	3.3 Risk Management Process and Internal Control System	Climate related risks are managed within Hitachi Rail IRM and ERM system, based on the COSO Framework and other relevant external framework and monitored by ARCC.
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management	TCFD – RM(c)	3.3 Risk Management Process and Internal Control System	Climate related risks are then managed within Hitachi Rail IRM and ERM system. Moreover, given the implementation fo the UK MCD regulation and Hitachi Rail will to fully integrate a TCFD approach in its business strategy and operations, in the near future, Hitachi Rail will commit to deep dive its scenario analysis and risk and opportunities quantitative assessment.

Metrics & Targets

Topic	TCFD code	Section	Disclosure at a glance*
Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management	TCFD – MT(a)	2.1 ESG Strategy and Roadmap 5.2.1 Energy Efficiency and Consumption Trends 5.2.2 GHG Emission and Air Quality	Hitachi Rail has defined an extensive list of KPIs and metrics which go beyond reporting disclosure objectives and is considered a useful tool to evaluate and assess ESG performances over time. With regard to climate-related risks and opportunities, Hitachi Rail calculates its consumption trends of natural resources and monitors its related impacts on the outside world.
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	TCFD – MT(b)	5.2.1 Energy Efficiency and Consumption Trends 5.2.2 GHG Emission and Air Quality	Hitachi Rail calculates and discloses its Scope 1, Scope 2, and relevant categories of Scope 3 emissions, together with intensity ratio for energy, waste, and water.
Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	TCFD – MT(c)	2.1 ESG Strategy and Roadmap 5.2 Environmental Goals and Decarbonisation Path	Hitachi Rail is pledged to reducing the negative impacts of its activities and to enhance the positive ones, also through its commitment to follow a Science Based approach on decarbonisation after Hitachi Group's formal commitment to SBTi and through its effort in building a climate resilient development plan. A decarbonisation plan for Scope 1 and Scope 2 emissions was developed for most emission intensive facilities in Hitachi Rail as a result of that commitment.

* The contents in this table are updated as of the date of publication of the ESG Report, following the end of the relevant FY, to provide an up-to-date view of the ongoing analysis. The references within the paragraphs of the document instead follow the scope of the FY23.

GRI Content Index

Statement of use	Hitachi Rail has reported in accordance with the GRI Standards for the period April 1st, 2023, to March 31st, 2024.
Use of GRI 1	GRI 1: Foundation 2021

GRI Standard	Disclosure	Location	Omission/Notes
The Organisation and its reporting practices			
2-1	Organisational details	1.2 Introduction to Hitachi Rail 1.2.3 Group structure and business	
2-2	Entities included in the organisation's sustainability reporting	Methodological Note 1.2 Introduction to Hitachi Rail 1.2.3 Group Structure and Business 1.2.4 Economic Performance	Disclosure 2-2-b not applicable as the consolidated financial statement of Hitachi Rail is included in the Report of Hitachi at Group level.
2-3	Reporting period, frequency and contact point	Methodological Note Letter to Stakeholders from Giuseppe Marino	
2-4	Restatements of information	Methodological Note and where specifically indicated in the document	Restatements are due to methodological and perimeter refinements, aiming at a more accurate and complete Representation of data, and are indicated in the document through footnotes in correspondence with the tables with restated information.
2-5	External assurance	-	Hitachi Rail have not requested external assurance for ESG Report FY23 and it's not yet legally required to.

GRI Standard	Disclosure	Location	Omission/Notes
Activities and workers			
2-6	Activities, value chain, and other business relationships	1.2 Introduction to Hitachi Rail 1.2.2 Business, Products and Solutions 3.4 Towards a Sustainable Value Chain 4.5 Human rights	
2-7	Employees	4.1 Our People 4.1.1 Human Capital	
2-8	Workers who are not employees	4.1.1 Human Capital	Omission of disclosure
Governance			
2-9	Governance structure and composition	1.2 Introduction to Hitachi Rail 2.1 ESG Strategy and Roadmap 3.1 Corporate Governance 3.1.1 ESG Governance	
2-10	Nomination and selection of the highest governance body	3.1 Corporate Governance	
2-11	Chair of the highest governance body	3.1 Corporate Governance	
2-12	Role of the highest governance body in overseeing the management of impacts	3.1 Corporate Governance 3.1.1 ESG Governance	

GRI Standard	Disclosure	Location	Omission/Notes
2-13	Delegation of responsibility for managing impacts	2.1 ESG Strategy and Roadmap 3.1 Corporate Governance 3.1.1 ESG Governance 3.3 Risk Management Process and Internal Control System	
2-14	Role of the highest governance body in sustainability reporting	Methodological Note 3.1.1 ESG Governance	
2-15	Conflicts of interest	3.1 Corporate Governance	
2-16	Communication of critical concerns	3.1 Corporate Governance	
2-17	Collective knowledge of the highest governance body	-	
2-18	Evaluation of the performance of the highest governance body	3.1 Corporate Governance 4.3.2 Learning, Career Development and Performance Management	Further details on GRI 2-18 point b and c currently not available.
2-19	Remuneration policies	3.1 Corporate Governance	
2-20	Process to determine remuneration	3.1 Corporate Governance	
2-21	Annual total compensation ratio	N/A	Omission – Not disclosed due to Confidentiality constraints
Strategy, policies and practices			
2-22	Statement on sustainable development strategy	Letter to Stakeholders from Giuseppe Marino	

GRI Standard	Disclosure	Location	Omission/Notes
2-23	Policy commitments	1.2.1 Mission, Vision and Values 2.1 ESG Strategy and Roadmap 2.2.1 Our Dialogue with Stakeholders and their Involvement Process 2.3 Materiality Analysis 3.2.1 Code of Ethics and ESG Policies 3.2.3 Anticorruption 3.2.4 Competition Law 3.2.6 Data Protection and Cybersecurity 3.2.9 Whistleblowing Management 4.2 Diversity, Equity, and Inclusion 4.3 People Development and Care 4.4 Occupational Health and Safety 4.5 Human Rights 5.1 Environmental Policy	Policy commitments are not publicly available apart from those explicitly summarised in the ESG Report because of confidentiality constraints if the policy commitments are not publicly available. Any approved policy commitment in Hitachi Rail is broadly shared with employees through COSMO.
2-24	Embedding policy commitments	1.2.1 Mission, Vision and Values 2.1 ESG Strategy and Roadmap 2.2.1 Our Dialogue with Stakeholders and their Involvement Process 2.3 Materiality Analysis 3.1.1 ESG Governance 3.2.1 Code of Ethics and ESG Policies 3.2.3 Anticorruption 3.2.4 Competition Law 3.2.6 Data Protection and Cybersecurity 3.2.9 Whistleblowing Management 4.2 Diversity, Equity, and Inclusion 4.3 People Development and Care 4.4 Occupational Health and Safety 4.5 Human Rights 5.1 Environmental Policy	
2-25	Processes to remediate negative impacts	2.1 ESG Roadmap and Targets 2.3 Materiality Analysis	
2-26	Mechanisms for seeking advice and raising concerns	3.1.2 ESG Management System and Certifications 3.2 Business Ethics, Transparency and Integrity 3.2.1 Code of Ethics and ESG Policies 3.2.9 Whistleblowing Management	

GRI Standard	Disclosure	Location	Omission/Notes
2-27	Compliance with laws and regulations	3.2 Business Ethics, Transparency and Integrity 3.2.1 Code of Ethics and ESG Policies 3.2.3 Anticorruption 3.2.5 Export and Trade Compliance 3.2.6 Data protection and Cybersecurity 4.4 Occupational Health and Safety 5.3.1 Product Innovation and Eco-Design	
2-28	Membership associations	2.2.3 Industry Association	
Stakeholder engagement			
2-29	Approach to stakeholder engagement	Methodological Note 2.2 Stakeholder Engagement 4.3.3 Employee Engagement	
2-30	Collective bargaining agreements	4.1.2 Industrial Relations Management	
MATERIAL TOPICS			
3-1	Process to determine material topics	Methodological Note 2.3 Materiality Analysis	
3-2	List of material topics	Methodological Note 2.3 Materiality Analysis	
Ethics, integrity and transparency			
3-3	Management of material topics	Chapter 1: Context and Identity 2.1 ESG Strategy and Roadmap	

GRI Standard	Disclosure	Location	Omission/Notes
205-2	Communication and training about anti-corruption policies and procedures	3.2.3 Anticorruption 4.3.2 Learning, Career Development and Performance Management	
205-3	Confirmed incidents of corruption and actions taken	3.2.3 Anticorruption	
206-1	Legal actions for anticompetitive behavior, antitrust, and monopoly practices	3.2.5. Export and Trade Compliance	
207-1	Approach to tax	3.2.7 Fiscal Transparency	
Supply chain management			
3-3	Management of material topics	3.4 Towards a Sustainable Value Chain	
308-1	New suppliers that were screened using environmental criteria	3.4 Towards a Sustainable Value Chain	
308-2	Negative environmental impacts in the supply chain and actions taken	3.4 Towards a Sustainable Value Chain	
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	3.4 Towards a Sustainable Value Chain 4.5 Human Rights	Omission for disclosure point a. ii.
414-1	New suppliers that were screened using social criteria	3.4 Towards a Sustainable Value Chain	
414-2	Negative social impacts in the supply chain and actions taken	3.1.1 ESG Governance 3.4 Towards a Sustainable Value Chain 4.5 Human Rights	Omission for disclosure 414-2-b;c;d;e

GRI Standard	Disclosure	Location	Omission/Notes
Eco design			
3-3	Management of material topics	5.3 Circularity, Innovation and Resources Management	
301-1	Materials used by weight or Volume	5.3 Circularity, Innovation and Resources Management	
Reduction of energy consumption			
3-3	Management of material topics	5.3 Circularity, Innovation and Resources Management	
302-1	Energy consumption within the Organisation	5.2.1 Energy Efficiency and Consumption Trends	The data disclosed were subject to restatement.
302-4	Reduction of Energy Consumption	5.2.1 Energy Efficiency and Consumption Trends	The data disclosed were subject to restatement
Water consumption optimisation			
3-3	Management of material topics	5.3 Circularity, Innovation and Resources Management 5.3.3 Water and Effluents	
303-1	Interactions with water as a shared resource	5.3.3 Water and Effluents	
303-2	Management of water discharge-related impacts	5.3.3 Water and Effluents	Omission for disclosure points a. i. and iv.
303-3	Water discharge	5.3.3 Water and Effluents	Omission for disclosure point c.
303-4	Water discharge	5.3.3 Water and Effluents	Omission for disclosure point b. and c.
303-5	Water consumption	5.3.3 Water and Effluents	

GRI Standard	Disclosure	Location	Omission/Notes
Reduction of emission and mitigation of climate change			
3-3	Management of material topics	5.2 Environmental Goals and Decarbonisation Path 5.2.2 GHG Emission and Air Quality 5.3 Circularity, Innovation and Resources Management	
305-1	Direct (Scope 1) GHG emissions	Highlights (FY23) 5.2.2 GHG Emissoin and Air Quality 5.2.3 Sustainable Mobility	The data disclosed were subject to restatement
305-2	Energy indirect (Scope 2) GHG emissions	Highlights (FY23) 5.2.2 GHG Emissoin and Air Quality	The data disclosed were subject to restatement
305-3	Other indirect (Scope 3) GHG emissions	Highlights (FY23) 5.2.2 GHG Emissoin and Air Quality	The data disclosed were subject to restatement
Waste management			
3-3	Management of material topics	5.1 Environmental Policy 5.3 Circularity, Innovation and Resources Management 5.3.2 Circular Economy: Materials and Waste	
306-1	Waste generation and significant waste-related impacts	5.3 Circularity, Innovation and Resources Management 5.3.1 Product Innovation and Eco-Design 5.3.2 Circular Economy: Materials and Waste	

GRI Standard	Disclosure	Location	Omission/Notes
306-2	Management of significant waste-related impacts	5.3 Circularity, Innovation and Resources Management 5.3.1 Product Innovation and Eco-Design 5.3.2 Circular Economy: Materials and Waste	
306-3	Waste generated	5.3.2 Circular Economy: Materials and Waste	
306-4	Waste diverted from disposal	Highlights (FY23) 5.3.2 Circular Economy: Materials and Waste	
306-5	Waste directed to disposal	5.3.2 Circular Economy: Materials and Waste	
Employee welfare			
3-3	Management of material topics	4.1 Our People 4.3.1 Talent Acquisition	
401-1	New employee hires and employee turnover	4.3.1 Talent Acquisition	
401-2	Benefits provided to fulltime employees that are not provided to temporary or part-time employees	4.3 People Development and Care	
401-3	Parental leave	4.3 People Development and Care	
402-1	Minimum notice periods regarding operational changes	4.1.2 Industrial Relations Management	

GRI Standard	Disclosure	Location	Omission/Notes
Occupational health & safety			
3-3	Management of material topics	3.1.2 ESG Management System and Certifications 4.4 Occupational Health and Safety	
403-1	Occupational health and safety management system	4.4 Occupational Health and Safety	
403-2	Hazard identification, risk assessment, and incident investigation	3.1.2 ESG Management System and Certifications 3.3 Risk Management Process and Internal Control System 4.4 Occupational Health and Safety	
403-3	Occupational health services	4.3 People Development and Care 4.3.3 Employee Engagement 4.4 Occupational Health and Safety	
403-4	Worker participation, consultation, and communication on occupational health and safety	4.4 Occupational Health and Safety	
403-5	Worker training on occupational health and safety	4.3.2 Learning, Career Development and Performance Management 4.4 Occupational Health and Safety	
403-6	Promotion of worker health	4.3 People Development and Care 4.3.3 Employee Engagement 4.4 Occupational Health and Safety	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	4.4 Occupational Health and Safety	
403-8	Workers covered by an occupational health and safety management system	4.4 Occupational Health and Safety	

GRI Standard	Disclosure	Location	Omission/Notes
403-9	Work-related injuries	4.4 Occupational Health and Safety	
403-10	Work-related ill health	4.4 Occupational Health and Safety	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services		
Training and Career Development			
3-3	Management of material topics	4.3.2 Learning, Career Development and Performance Management	
404-1	Average hours of training per year per employee	4.3.2 Learning, Career Development and Performance Management	
404-3	Percentage of employees receiving regular performance and career development reviews	4.3.2 Learning, Career Development and Performance Management	
412-1	Employee training on human rights policies or procedures	4.3.2 Learning, Career Development and Performance Management	
Diversity, Equality and Inclusion			
3-3	Management of material topics	4.2 Diversity, Equity and Inclusion	
405-1	Diversity of governance bodies and employees	4.2 Diversity, Equity and Inclusion	
405-2	Ratio of basic salary and remuneration of women to men	4.1 Our People 4.2 Diversity, Equity and Inclusion	
Support for Local Community			
3-3	Management of material topics	2.2.1 Our Dialogue with Stakeholders and their Involvement Process	
Custom Indicator	Total number of projects and/or initiatives supporting local communities	2.2.1 Our Dialogue with Stakeholders and their Involvement Process	

GRI Standard	Disclosure	Location	Omission/Notes
201-1	Direct economic value generated and distributed	1.2.4 Economic Performance	
Air Quality			
3-3	Management of material topics	5.2.2 GHG Emission and Air Quality	
305-7	Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	5.2.2 GHG Emission and Air Quality	
Data protection security - Material Topic covered by a custom KPI			
3-3	Management of material topics	3.2.1 Code of Ethics and ESG Policies 3.2.6 Data Protection and Cybersecurity	
Custom Indicator	Number of assessment and certification obtained	3.2.6 Data Protection and Cybersecurity	
Customer focusing - Material Topic covered by a custom KPI			
3-3	Management of material topics	2.2.2 Our Customers and their Engagement	
Custom Indicator	People involved in the Customer Satisfaction Survey	2.2.2 Our Customers and their Engagement	
R&D and product innovation - Material Topic covered by a custom KPI			
3-3	Management of material topics	5.3 Circularity, Innovation and Resource Management	
Custom Indicator	Average percentage of recyclable components in vehicles	5.3 Circularity, Innovation and Resource Management 5.3.2 Circular Economy: Materials and Waste	
Custom Indicator	Number of innovative projects finalised during the FY	5.3.1 Product Innovation and Eco-Design	

Glossary and Main Acronyms contained in the ESG Report

This glossary aims to facilitate the understanding of the terminology used both for sustainability issues and for those more specific to the business sector.

CSRD (Corporate Sustainability Reporting Directive)

The CSRD (Corporate Sustainability Reporting Directive) is a European Directive governing corporate sustainability reporting. The objective of this directive, which came into effect on 5th January 2023, is to ensure that investors and other stakeholders have access to the necessary information to assess the impact of companies on people and the environment, as well as to evaluate the financial risks and opportunities arising from climate change and other sustainability issues. Companies subject to the CSRD will be required to report according to the European Sustainability Reporting Standards (ESRS).

EPD (Environmental Product Declarations)

The International EPD® System is a global programme for environmental declarations and signals a manufacturer's commitment to measure and communicate to stakeholders the environmental impact of its products and services and report these impacts in a transparent way. With an EPD, manufacturers report comparable, objective, and third-party verified data which records the environmental performance of their products and services.

GDPR (General Data Protection Regulation)

The General Data Protection Regulation is a European regulation that came into effect on 25th May 2018. It was designed to strengthen and unify the protection of personal data of citizens within the European Union, giving them greater control over their data and imposing a set of obligations and responsibilities on public bodies and businesses in regard to the management of personal data. It also establishes significant sanctions for organisations that violate the provisions of the GDPR.

GHG (Greenhouse gas)

The IPCC defines Greenhouse gases as those gaseous constituents of the atmosphere, both natural and anthropogenic, which absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, by the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapor (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), and ozone (O_3) are the primary greenhouse gases in the Earth's atmosphere. Moreover, there are several entirely human-made greenhouse gases in the atmosphere, such as the halocarbons and other chlorine- and bromine- containing substances, dealt with under the Montreal Protocol. Besides CO_2, N_2O, and CH_4, the Kyoto Protocol deals with the greenhouse gases sulfur hexafluoride (SF6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).

GRI (Global Reporting Initiative) Standards

The GRI Standards provide a standardised framework for organisations to report on their sustainability impacts in a consistent manner, fostering global comparability, transparency, and accountability. The set of Standards allows organisations to select the most relevant Topic Standards based on their material topics - economic, environmental, or social - ensuring an inclusive and comprehensive portrayal of material impacts and their management in sustainability reports. In 2021, GRI introduced its latest version of the standards, further encouraging organisations to engage with stakeholders in identifying and prioritising their impacts (GRI 2).

IPCC (Intergovernmental Panel on Climate Change)

The IPCC is a United Nations intergovernmental body offering regular scientific assessments on climate change, future risks, and potential solutions for adaptation and mitigation. Through its Assessment Reports, it presents the updates related to climate change impacts and options for mitigating its effects. Also, it produces Special Reports on specific topics agreed upon by member governments and Methodology Reports that provide guidelines for greenhouse gas inventories preparation.

LCA and S-LCA (Life Cycle Assessment.)

Life Cycle Assessment (LCA) is a methodology used to evaluate the environmental, social, and economic impacts of a product or process throughout its entire life cycle, from raw material extraction to waste disposal and help inform decision-making while identifying opportunities for improvement. Social Life Cycle Assessment (S-LCA) is a methodology used to assess and evaluate the social and societal impacts of a product or process throughout its life cycle considering factors such as labour conditions, human rights, community wellbeing, and social equity. By considering the social aspects of a product or process, S-LCA aims to support sustainable and socially responsible decision-making.

OECD (Office of Economic Cooperation and Development)

OECD is an intergovernmental economic organisation with 37 member countries, founded in 1961 to stimulate economic progress and world trade. It is a forum of countries describing themselves as committed to democracy and the market economy, providing a platform to compare policy experiences, seek answers to common problems, identify good practices and coordinate domestic and international policies of its members.

PCR – Product Category Rules

A PCR (Product Category Rule) is a copyrighted document found in the EPD "cookbook," providing guidelines for creating a EPD (Environmental Product Declaration) for a specific product category. The PCR instructs on conducting the life-cycle assessment, declared/functional unit (product quantity and service life), and defining the use phase and end-of-life options. The PCR allows accurate assessment of a product's environmental impacts and ensures consistency and comparability across EPDs within the same product category.

TCFD (Task Force on Climate Related Financial Disclosures)

The Task Force on Climate-related Financial Disclosures (TCFD) is an initiative established by the Financial Stability Board (FSB) to develop recommendations for more effective climate-related financial disclosures. The TCFD aims to enhance transparency around climate-related risks and opportunities, helping investors, lenders, insurers, and other stakeholders to make more informed financial decisions.

IRIS (International Railway Industry Standard)

IRIS certification is a global system developed by UNIFE in 2005 to ensure higher quality in the rail sector. It aims to evaluate those companies supplying to the railway industry through a standardised evaluation method and promotes common language, guidelines, fostering transparency and trust in IRIS Certification throughout the supply chain. The standard enhances competition and improves the quality of rail products, building upon ISO 9001:2015 to create a recognised and robust evaluation framework for the rail industry.

Eco-design

Eco-design, also known as ecological or sustainable design, is an approach that considers the environmental impact of products and systems throughout their entire lifecycle. Its goal is to create environmentally friendly and resource-efficient products, considering factors like energy efficiency, waste reduction, and the use of renewable materials. By adopting eco-design principles, companies can contribute to a more sustainable future and appeal to environmentally conscious consumers.

GBMS (Global Business Management System)

The Global Business Management System is the unique set of rules common to the whole Hitachi Rail organisation. It is designed to cover, with the same approach and methods, the activities of all Hitachi Rail entities. The GBMS combines all related components of a business into only one system to facilitate management and monitoring in a continuous improvement approach. There are four GBMS sections: Governance; Organisation; Process excellence and Enterprise architecture.

MaaS (Mobility as a Service)

MaaS is an integrated system of transport aimed at optimising urban mobility through modular solutions, which are more coordinated and efficient. The goal is to respond to the increasingly emerging necessity of mass transport in the sustainable mobility ecosystem.

S4M (Services for Mobility)

S4M delivers advertising that drives more customers to stores, dealerships and restaurants. Its drive-to-store platform, Fusio, delivers incremental customer visits which are always independently verified. Founded in 2011, S4M's platform is available globally, and used by over 1,000 brands worldwide to drive customers to physical locations.
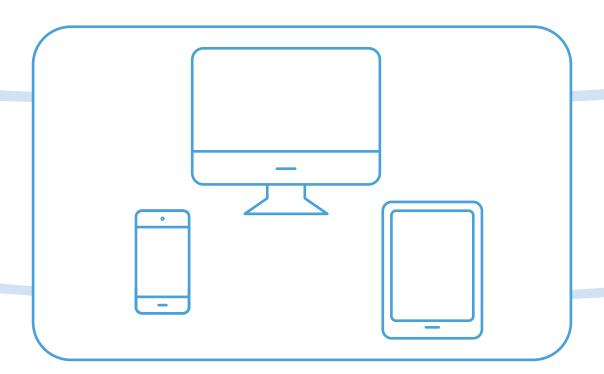
ESG Report 2024 – FY23

To share your feedback on this report please email:
csrs@hitachirail.com

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