



# 2023 GLOBAL RAIL SUSTAINABILITY REPORT

  
INTERNATIONAL UNION  
OF RAILWAYS



The UIC supports the Sustainable Development Goals

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# FOREWORD

When looking at the progress made towards achieving the UN 2030 Agenda, it is clear that the world still has significant socioeconomic and environmental challenges to overcome. The global rail sector has been working diligently to ensure its maximum support to help advance all SDGs, including SDG11, by helping to provide access to safe, affordable, accessible and sustainable transport systems for all. Around half of the world's population does not have easy access to public transport, all while rail is losing ground to more polluting forms of transport in terms of its market share and investment funds.

Railways are the most sustainable form of motorised transport. They are inclusive, energy efficient, and land-use efficient, and they connect communities and support healthy and liveable cities. This fact has been proven by transparent and robust data and real-life examples, that can help more people to understand the role that rail can play in a sustainable and connected mobility system of the future.

UIC is in the privileged position to be able to collate global information from its members and share these stories, shedding light on the action being taken in rail to ensure that train travel remains the cleanest and greenest mode of mass transport. This report is the second edition of the Global Rail Sustainability Report, an evidence-based narrative of all the progress made by the rail sector in its sustainability efforts in the past year.

There is still a lot of important work to undertake to make railways seamlessly connected, accessible, and inclusive to all, while also having net zero emissions, but by sharing these stories, UIC hopes to inspire and find ways to work together to accelerate progress.

For more trains, a more sustainable transport system, and a sustainable way of life.

**François DAVENNE**  
*Director General  
International Union of  
Railways (UIC)*



# PREFACE

Welcome to the second edition of the Global Rail Sustainability Report, an initiative of the International Union of Railways (UIC) and its members. Building on the success of the inaugural 2022 edition, this report continues to serve as a resource for tracking and showcasing the ongoing efforts of the rail community towards a more sustainable future.

Aligned with the United Nations Sustainable Development Goals (SDGs) outlined in the 2030 Agenda, the Global Rail Sustainability Report remains committed to highlighting the contributions of the rail sector in advancing global sustainability objectives. In 2023, updated insights, performance metrics, and perspectives are presented to underscore the industry's dedication to sustainable practices and innovation.

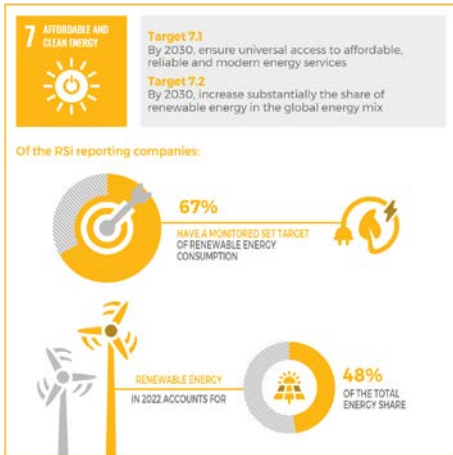
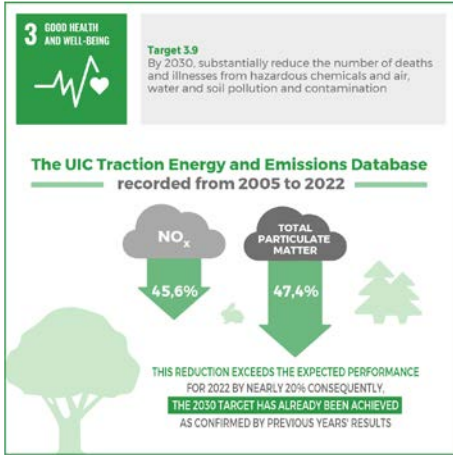
In 2022, UIC launched the Rail Sustainability index (RSi), a benchmarking tool to evaluate railway companies' performances based on several KPIs related to the UN SDGs. As for the 2022 edition of this report, the qualitative and quantitative results obtained from this index constitute the core of this report.

As the report enters its second year of publication, it reaffirms its commitment to transparency, accountability, and collaboration. By providing annual updates to the RSi data and insights, this report aims to serve as the definitive resource for stakeholders seeking to understand and engage with the sustainability performance of the global rail industry.



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RAIL SUSTAINABILITY 2023

# AT A GLANCE



The UIC supports the Sustainable Development Goals



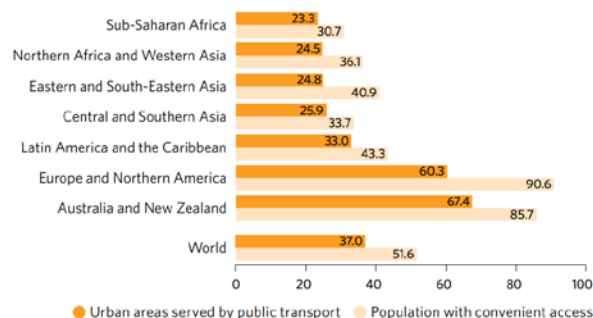
## RAIL AS THE BACKBONE OF SUSTAINABLE MOBILITY

**Target 11.2:** By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

Rail transport is a crucial component of sustainable transport systems worldwide, supporting sustainable cities and communities; SDG 11 acknowledges the importance of people having access to public transport including railways.

Achieving SDG 11 will require building inclusive, resilient, resource-efficient urban development policies, while ensuring access to basic services including efficiently managed transport systems. As shown in Figure 1, several world regions lack an adequate coverage of public transport and a convenient access in urban areas.

**Coverage of public transport and share of population with convenient access in urban areas, 2022 (percentage)**



Note: Based on data from 1,507 cities in 126 countries.

**Figure 1: Coverage of public transport share of population with convenient access in urban areas, 2022 (percentage), United Nations (2023)**

*The IPCC AR6 Synthesis Report: Climate Change 2023* highlights the urgent need for systemic change in transport to mitigate climate change and the role of low-emission modes of public transport, including rail, in reducing the dependence on and impact of private motor vehicles. The IPCC stresses the importance of the 2030 goals, and how rail systems are a vital part of this strategy due to their reduced environmental footprint and ability to support sustainable urban development. [1]



The World Bank emphasises the considerable benefit of investing in rail infrastructure, particularly in developing countries, highlighting how such investments can offer mobility and connectivity solutions, alongside significantly reducing carbon emissions, while supporting the achievement of sustainable development goals (SDGs) [2]

## OBSERVED LOSS OF MARKET SHARE FOR RAIL

Despite general growth in the global rail market, according to UIC and OECD rail and road transport data from the 2007 to 2021 period, in several countries, rail's modal share in both freight and passenger transport and in infrastructure investment has steadily decreased year by year in favour of road transport. [3]



## Rail's market share in freight transport



The average rail freight share in inland transport, excluding inland waterways and pipelines, was at 43%. A decrease of 11% between 2007 and 2021 [4] \*

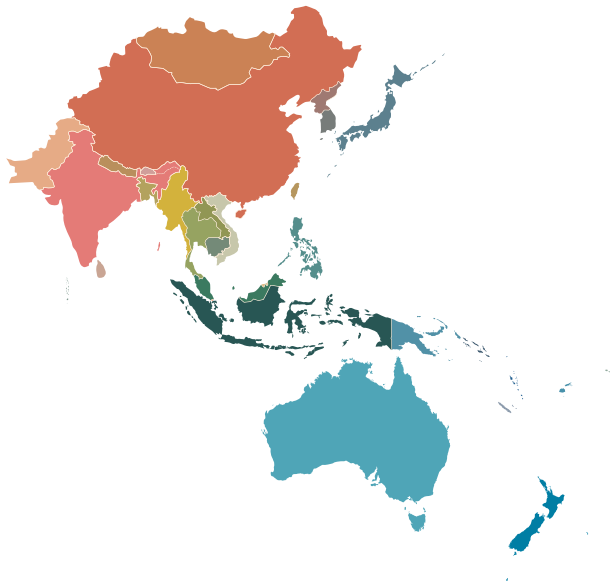
\* Considering countries with available data in Europe, North America, Asia, and Oceania. [4]

Over the last 15 years, in the EU-27, 19% of inland freight transport was carried by rail.

In Belarus, Ukraine and Georgia, rail freight constitutes more than 60% of inland tonne-kilometres (Tkm), with a peak of 90% for Russia[4].

Although fluctuating around 46% in recent years, the modal share of rail freight transport in North America dropped to 42% in 2020 and 2021.

Canada and the United States had opposite trends, with +1.5% and -6% respectively over the same period [4].



In India and China, rail freight's modal share has decreased in the past 15 years.

In China, the percentage of rail freight share halved, from 68% in 2007 to 34% in 2021, and decreased from 36% to 21% in India.

However, Australia experienced significant growth over the same period, rising from 54% to 66% [4].



Cities and communities  
Modal Shift



## Transporting train cargo and SCM (supply chain management) projects

JR East is supporting a growth in rail freight in new ways by using Shinkansen trains to deliver fresh regional specialties to urban customers.

In line with SDG 11, the initiative improves urban-rural connectivity supporting local food economies, and eases the burden on logistics providers suffering from labour shortages. Finally it supports Japan's target to achieve near-zero greenhouse gas emissions by 2050, encouraging rail freight instead of trucks.



Credits: East Japan Railway Company

11 SUSTAINABLE CITIES AND COMMUNITIES



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



13 CLIMATE ACTION



8 DECENT WORK AND ECONOMIC GROWTH



## Rail's market share in passenger transport



**Target 11.2:** By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

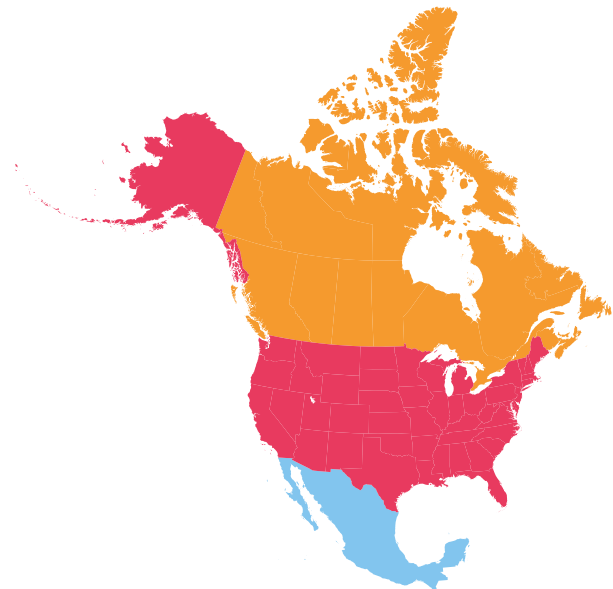
\*Considering all countries with available data in the different world regions [5]

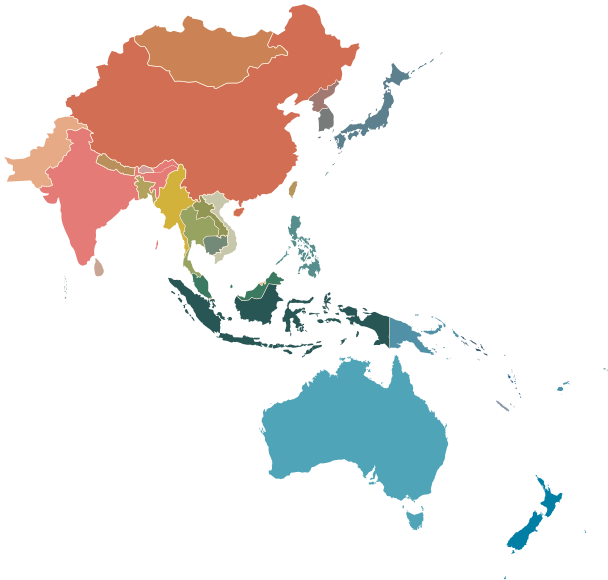


In the EU-27, the trend is in line with the global average of the market share, accounting for 6% in the biennial 2020-2021 [5].

Passenger transport in North America accounted for less than 1% [5].

Share of rail in inland transportation of passengers (i.e. air is not taken into account)





India rail passenger transport has witnessed a long-term decline from 17% to 6%, in contrast to several other countries such as Japan, South Korea and Australia where the trend remained positive until 2019 [5].

## Inland transport infrastructure investments



Rail infrastructure investments increased until 2010, and continued at a slower pace until 2015. This has been followed by a period of stagnation at 200 billion Euros per year until 2021.

The figures on infrastructure investment in the rail sector contrast with that for road infrastructure, which increased strongly from 2015. These infrastructure investments are also in line with and reflect the transport modal share in the same period. [3]

In the EU-27, the share of rail averaged 38% of the total inland transport infrastructure investment, with a notable increase to 46% in 2021. Notably, in Slovenia, Denmark, France, and Portugal, rail infrastructure investment has increased by more than 20% over the last 15 years. In Eastern Europe, including Russia, Belarus, Moldova, and Georgia, rail accounted for roughly 10% of total transport infrastructure investment for the 2007-2021 period. In North America, the figures were similar, comprising approximately 12% of total inland transport infrastructure investment, though this is set to rise with significant announcement for rail investment in the US Infrastructure Bill. [6]

In the Asia Pacific region, the share of rail in inland transport infrastructure investment increased in Australia and Japan, but significantly decreased in China and, to a lesser extent, in India. [6]

## POLICY TO HELP REVERSE THE TREND

Increasing use and access of public transport and rail requires domestically and globally coordinated policy efforts from governments. Nationally Determined Contributions (NDCs), which are country-specific commitments to drive climate change mitigation and adaptation aligned with the Paris Agreement goals, are a powerful tool that can help drive international cooperation to achieve climate change goals. A 2023 UIC review of the most recent 168 NDCs from 195 parties shows that only around 25% of NDCs integrate rail as a solution to climate change, while specific targets, referring mostly to infrastructure projects and estimated CO<sub>2</sub> emission reductions, appear in only around 10%. Additionally, despite its vulnerability to extreme weather, rail is rarely in the adaptation and resilience plans, with the commitment to rail by the NDCs focusing on network expansion, modal shift targets, and passenger and freight transport electrification. Moreover, few countries clearly outline how they intend to finance these projects or which government bodies or entities will monitor the progress. Although rail projects do indeed exist in national transport strategies, they are not always reflected in NDCs. [7]

Recognising rail's status as the most electrified mode of transport worldwide, the International Energy Agency (IEA) has developed a set of 4 recommendations to further promote rail transport and its development [8]:

Establish clear policies and targets, fiscal measures, and reinvest road-related revenues into rail infrastructure and customer incentives

Enhance efficiency, digital integration, electrification, and renewable energy integration in rail infrastructure

Integrate planning, diverse financing, and transit-oriented development

Improve electrification, efficiency, and digital integration in rail projects





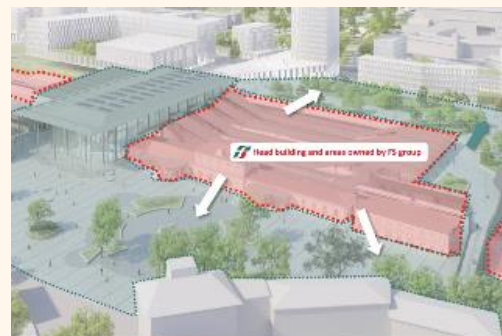
Seamless  
Connectivity



## A new “Pyramid of Mobility” for sustainable and seamless connectivity in Lombardy railway stations

For rail to be a true backbone of a sustainable mobility system, it must be seamlessly connected to other modes of transport including public and active travel. RFI (the Italian railway Infrastructure manager) and Regione Lombardia has established a new partnership for designing intermodal areas and services in strategic railway stations. In line with SDG 11 targets, the ongoing initiative’s mission is to integrate various types of sustainable mobility, namely public transport, cycling, walking, and electric and shared transport, using GIS tools and the “StationLAND” platform provided by RFI.

The project is creating larger walking areas, more cycle paths and parking, new public transport facilities, electric vehicle charging ports, and shared vehicle areas. The “Pyramid of Mobility” framework prioritises the proximity of mobility systems to a station entrance, providing efficient and seamless transport connectivity.



Credits: Rete Ferroviaria Italiana (RFI)

13 CLIMATE ACTION



11 SUSTAINABLE CITIES AND COMMUNITIES



10 REDUCED INEQUALITIES



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE





## Cities and Communities Modal Shift



### 30/30 plan: new commuter and local services

The Chilean railway 30/30 plan aims to connect inland communities with their regional capitals and nearby cities, with the purpose of supporting the expansion of new urban areas with better access to public transport.

The project targets bringing communities together that are approximately 30 kilometres or 30 minutes away by promoting fast, safe, accessible and sustainable services.

The first service became accessible to the public in June 2023, connecting the town of Pitrufquén with Temuco, the Araucanía region's capital, in 41 minutes. The service has been extended by 29.3 kilometres, with stops that benefit around 330,000 people.



Credits: Empresa de los Ferrocarriles del Estado (EFE)



## SAFETY

Developed in 2015 by the UIC Safety Platform, the UIC Safety Index considers a range of factors beyond simply counting incidents and occurrences. Each incident is evaluated based on accident type, victim category, number of victims, and cause. It specifically assigns greater weight to accidents involving passengers, staff, and internal causes than incidents involving trespassers and external causes. Moreover, incidents with a higher number of victims receive a higher weighting than those with fewer victims [9]. Figure 2 shows the change of UIC Safety Index normalized by the total number of train-km on the networks of the established members (members that delivered data at least since 2017), where the basis is 100 for the year 2017. Data showing an improvement in this index emphasize the sector's commitment in being a safe transport mode. [9]

Instruments as the Safety Index, or tools as the UIC Safety Database (UIC-SDB) which offers access to information on accidents and allows a live monitoring of railway safety, contribute to the impact on SDG 11, making railway transport a safer option for its users [10].

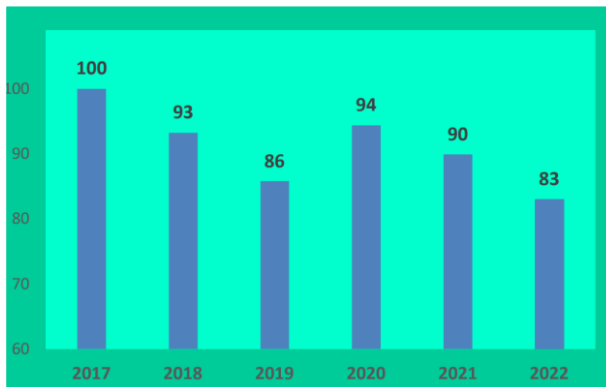
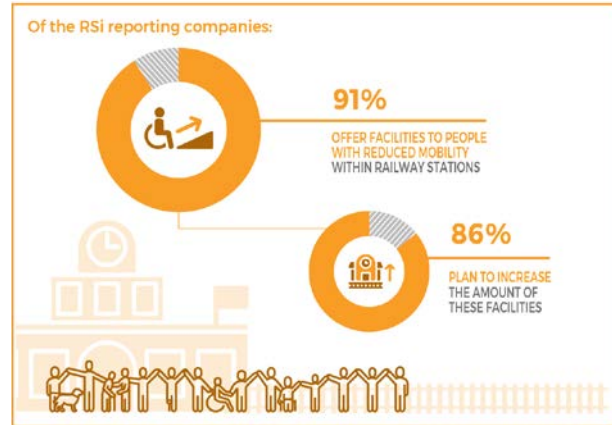


Figure 2: UIC Safety Index Normalized, UIC (2023)



## ACCESSIBILITY

UIC members are working to make railways more accessible for more people, for instance by offering assistance for passengers who request it. UIC with its members have made international journey easier through the online PRM Assistance Booking Tool and 20 Rail call centres use the UIC tool and exchange 3000 international assistance messages per month [11].

There was a consistent improvement (decrease) in the UIC Safety Index normalized from 2017 to 2019.

However in 2020, due to fewer train-kilometres travelled, the index did not decrease as expected. Data from 2022 show the best results in the last 6 years.

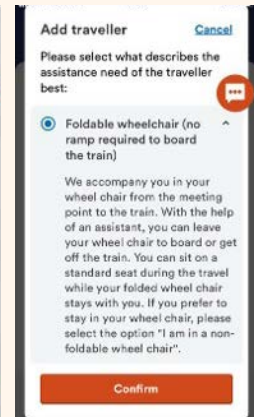
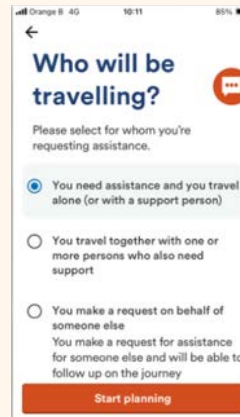
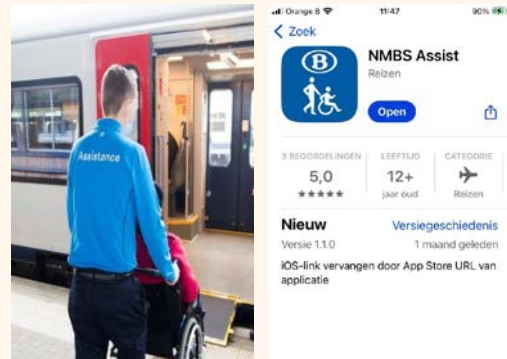


**Customer Service**  
Accessibility, Diversity  
and Inclusion



## SNCB Assist

SNCB has created an application for both mobile and web platforms to provide individuals with additional needs or reduced mobility in booking assistance for their train journey. The project began with designing the customer journey from the perspectives of both those using the future service and those providing assistance. With the introduction of the app, SNCB has seen a 10% increase in people with disabilities travelling. Future improvements will include integration with station staff tools for greater flexibility during incidents, such as traffic interruptions, and adding detailed accessibility information about rolling stock and infrastructure.



Credits: Société nationale des chemins de fer belges (SNCB)



# ECONOMIC GROWTH AND RAIL EMPLOYMENT

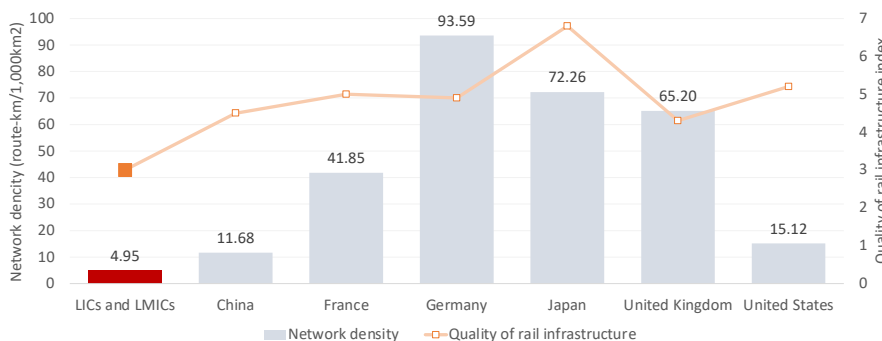
**Target 8.5:** By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

**Target 8.8:** Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

## ECONOMIC GROWTH AND RAIL FINANCING

Investing in rail infrastructure, particularly in lower income countries, can significantly support socio-economic growth, aligning with SDG 8, while providing economic benefits such as stimulating domestic trade, creating employment, improving connectivity, and curbing urban sprawl. More than half of the world’s population currently lives in Low Income and Lower-Middle Income Countries (LICs and LMICs), which combined contribute to only 17% of emissions from transport and possess an average rail network density of 4.95 km per 1,000 km<sup>2</sup>, which is significantly lower than the 50 km average in High Income Countries (HICs) [12].

The average railway network density in LICs and LMICs is 4.95 km of rail infrastructure per 1,000 km<sup>2</sup>. In contrast, many high-income countries have significantly denser networks, with the USA at 15.1 km, France at 41.8 km, Japan at 72.5 km, and Germany at 93.6 km per 1,000 km<sup>2</sup>, as shown in Figure 3 [12].



**Figure 3: Average rail network density and infrastructure quality of LICs and LMICs compared to world-leading countries**



Seamless Connectivity



## Delhi Meerut Regional Rapid Transit System

The Delhi-Meerut RRTS, India's first Regional Rapid Transit System, significantly improves the lives of residents in the area by offering a high-speed, high-frequency rail system.

The 34 km segment which is already in service reduces a 4 hours journey to under an hour and has served over 1 million commuters in six months.



Credits: National Capital Region Transport Corporation (NCRTC)

The primary challenge for rail investment in LICs and LMICs is access to adequate and affordable financing. For countries with low tax revenues and high levels of debt, full self-financing or private investment in rail projects are unlikely. International financial institutions (IFIs) and export credit agencies (ECAs) remain two vital sources of

development financing, although, to date, most of this funding has gone into road projects. Closing the rail investment financing gap in LICs and LMICs requires collaborative action from governments, IFIs, the international community, and the finance sector [12].

## RAIL AS A FAIR AND RESPONSIBLE EMPLOYER

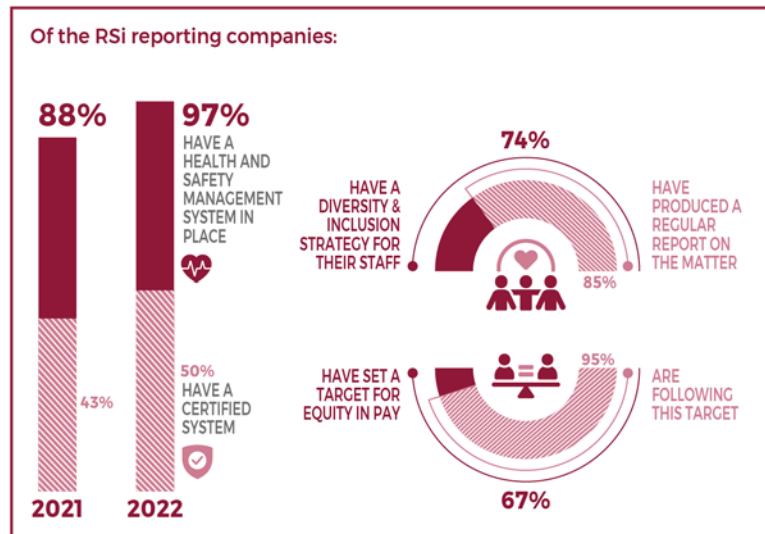
The transport sector is a key employer worldwide, with thousands of people working in the railway industry, as shown in Table 1. In the EU alone, in 2021, the transport sector counted a workforce of 6 million people, with almost 90% of them working in land transport (rail or road) [13]. Asia remains the region with the most employees, and with the

average highest number of employees per company. As there are gaps in the reported data, the total amount of workforce is generally underestimated.

The UIC RSi scores map the importance and impact of railway companies as decent job providers, treating their workforce fairly, and implementing adequate internal policies for the rights of their workforce according to the SDG 8 targets, reflecting a growing commitment to a safer workplace, probably also due to stricter obligations in this area.

**Table 1: Total workforce per world region, 2023, 2022 and 2021 (Railisa, UIC)**

Region	Number of companies	Total workforce
Africa	11	84,695
America	22	220,576
Asia	22	3,196,087
Europe	70	2,020,151
Oceania	3	12,436
<b>Global total</b>	<b>128</b>	<b>5,533,945</b>





**Cities and Communities**  
Healthy Cities and  
Communities



### Cardio-issue protected trains

Railways have the opportunity to go the extra mile and support the health of customers and communities they serve. Italo has installed defibrillators on board all Italo trains, at all ticket offices/lounges and in all workplaces. Training in lifesaving and defibrillator use has been provided to all Italo employees.

This allows Italo trains and sites to be safer places, where qualified and rapid assistance in case of illness is provided. To date, 7 people have been successfully revived from cardiac arrest.



Credits: Gazzetta Dei Trasporti



**Customer Service**  
Accessibility, Diversity  
and Inclusion



## AMTRAK Gives Back

Amtrak Gives Back is a community engagement programme designed to serve communities by building lasting partnerships through people, preservation, and protection. It supports non-profit organisations, including those promoting diversity and inclusion, by:

- Engaging with communities to communicate the impacts and benefits of Amtrak projects and gather feedback
- Supporting non-profits through the “On Track for Good” initiative, sponsorships, and in-kind donations
- Encouraging employee volunteering to strengthen community partnerships

“On Track for Good” provides complimentary trips to non-profits using Amtrak’s excess capacity. Overall, the programme aims to make a meaningful contribution, raise awareness of major projects, and ensure community involvement and feedback.



Credits: National Railroad Passenger Corporation - Amtrak



# CO<sub>2</sub> EMISSIONS, DECARBONISATION AND CLIMATE CHANGE MITIGATION

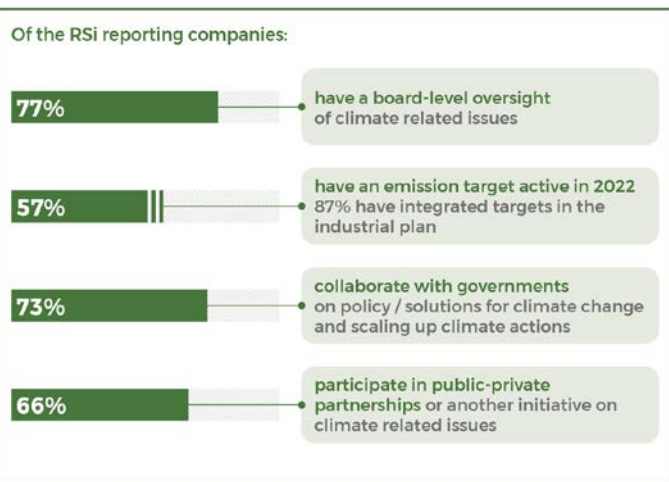
**Target 13.1:** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

**Target 13.2:** Integrate climate change measures into national policies, strategies and planning

On a global scale, transport emissions grew at an annual average rate of 1.7% from 1990 to 2022, faster than any other end-use sector except for industry. [14]

Rail is the least emissions-intensive passenger mode of motorised transport, where electrified rail represents more than 85% of passenger activity, generating no direct CO<sub>2</sub>. On average, rail generates one-fifth of the emissions per passenger-kilometre of air transport, with the absolute emissions from electrified rail further being reduced by renewables or nuclear power [8].

Rail, while being the least emissions-intensive transport mode, must cut emissions by 5% annually to be net zero by 2050. Despite carrying 7% of global passenger and 6% of freight activity, it only accounts for 1% of transport emissions [8].



Although the percentage of emission targets remained steady compared to 2021, many more undertakings included the target in the industrial plan, growing this figure by 13-point percentage.





## Innovation Energy and Decarbonisation



### Decarbonising technologies for net-zero railway

Korean railways are aiming for net-zero emissions by 2050 by strategically addressing greenhouse gas emissions across all scopes. For Scope 1 (Direct Emissions), the project is transitioning from diesel to eco-friendly hydrogen railway vehicles and developing life cycle assessment (LCA) methodologies to measure carbon reduction. For Scope 2 (Indirect Emissions), it is implementing 100% renewable energy sources at railway stations, solar photovoltaic noise barriers and heat pump HVAC systems. For Scope 3 (value chain Indirect Emissions), it is employing principles of circular economy by establishing eco-friendly dismantling and upcycling standards, increasing the recycling rate of concrete sleepers, and developing low-carbon construction methods such as cement-free materials. The strategy also includes creating tools for carbon supply chain management, designing railway vehicles and infrastructure which are highly recyclable, and enhancing waste management techniques.



Credits: Korea Railroad Research Institute

12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



11 SUSTAINABLE CITIES  
AND COMMUNITIES



7 AFFORDABLE AND  
CLEAN ENERGY



13 CLIMATE  
ACTION



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



The UIC Traction Energy and Emission Reporting shows that, from 2005 to 2022 total CO<sub>2</sub>e emissions from participating train operators decreased by 56% (market-based), and by 50% (location-based) [15].

## Passenger



CO<sub>2</sub>e emissions per passenger Km returned to pre-pandemic levels in 2022 and decreased by 54.2% from 2005 (market based) and 46.0% (location based) [15].

## Freight

CO<sub>2</sub>e emissions per freight tonne decreased by 49.7.2% from 2005 (market based) and 50.4% (location based) [15].



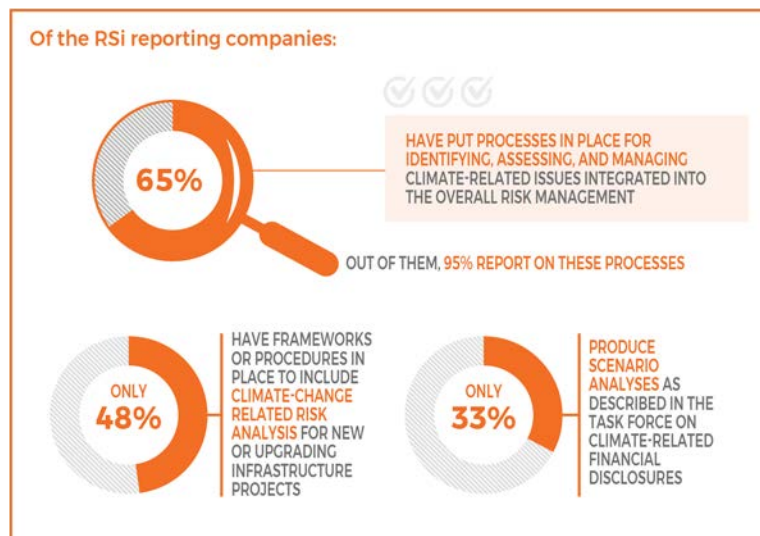


# CLIMATE CHANGE ADAPTATION AND RESILIENT INFRASTRUCTURE

**Target 9.1:** Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

**Target 9.4:** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

If rail must attract more traffic, it must remain very safe, boost capacity and reliability. However, the increasing frequency and severity of weather events such as heatwaves, heavy rainfall, and storms, and associated hazards such as buckled rail, flooding and landslides pose a significant challenge to railway infrastructure and its safe and reliable operations. Disruptions to services create significant economic losses. The changing climate must be taken into account both in the management of existing lines, and in the construction of future ones.



While railways are increasingly putting in place frameworks to adapt, action must be accelerated. The UIC Resilient Railways Facing Climate Change (RERA) programme focuses on providing international technical guidance to railway infrastructure managers in regard to specific natural hazards and areas of climate change that affect railway assets.

RERA-RAIN addresses issues related to heavy rain and flooding, as this can overwhelm drainage systems, wash away ballast, damage signalling equipment, slow train speeds, and damage bridges. International guidance and solutions revolve around forecasting early warning systems, deploying

flood defences including nature based solutions, maintenance regimes, emergency procedures and updated infrastructure design standards. [16]

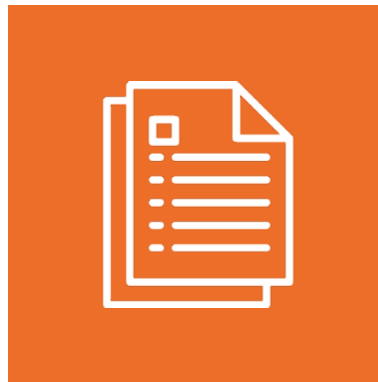


Resilient Railways facing Climate Change

In advance of the full report due late this year, preliminary results from the project members show that there are three main management activities that they are currently undertaking:



A collection of information on precipitation and incidents of train disruption caused by precipitation



Protocol for handling forecasts and extreme rainfall events



Obligations for assessing and managing weather resilience and climate change risks



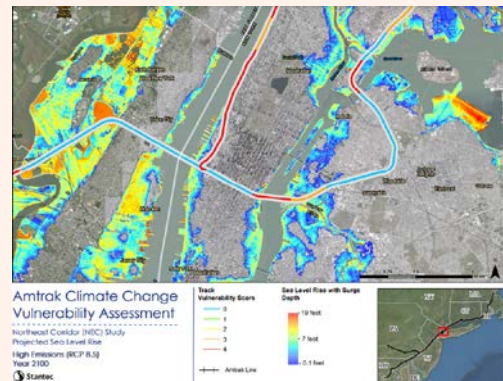
**Customer Service**  
Climate Change  
Adaptation and  
Resilience



## Climate design guidelines and certifications tree

Amtrak's Climate Resilient Design Guidelines are a suite of resources made up of a design guidebook and a third-party rating decision tool created to incorporate the consideration of climate hazards and Amtrak's net-zero goals into the earliest phase of capital projects.

The Guidelines are intended to bolster existing design requirements and technical specifications with the aim to be achieved in terms of reliability, safety, and efficiency.



Credits: National Railroad Passenger Corporation - Amtrak

RERA-TEMP, which addresses the impact of high temperatures and desertic conditions on railway infrastructure, which create issues such as track buckling and ballast pollution from sand accumulation. Key objectives include improving hazard detection and forecasting, developing guidelines for infrastructure and operational

adaptations, and providing guidelines to enhance decision-making for infrastructure managers and railway undertakings [17]. Preliminary surveys highlight priorities, both regarding their most affected assets and the most substantial impact on operations, which are given in Figure 4:

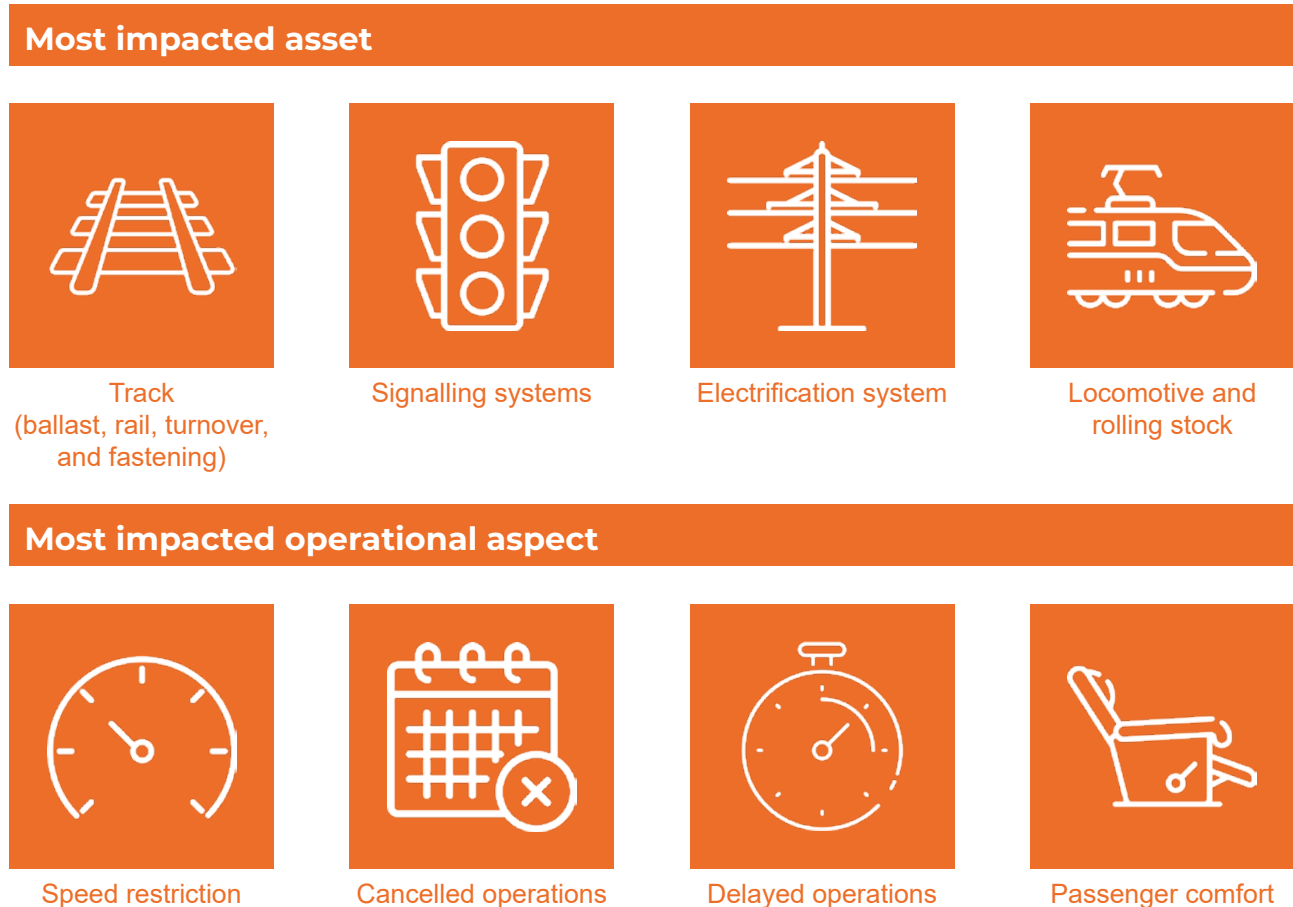


Figure 4: UIC RERA-TEMP preliminary survey results on assets and operations which are more impacted by extreme temperatures, UIC (2023)



Innovation  
Natural  
resources

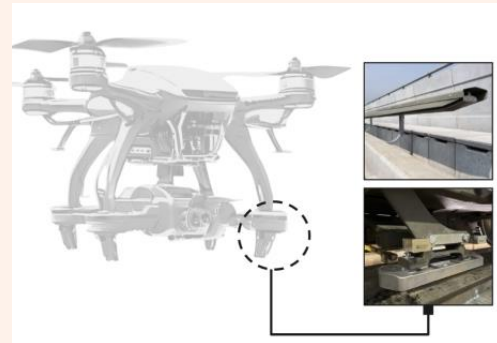


The Railways of the  
Islamic Republic of Iran

## Smart Railway Crisis Management Robotic Drone

Technology can be used in new ways to support the recovery and protection of railways. The Intelligent Multipurpose Robotic Drone has been put to use for a variety of challenges faced along the rail network of Iran. For instance:

- Wildlife management and collision prevention by monitoring transport corridors for wildlife
- Disaster response by assisting the response to natural disasters and industrial accidents, thereby enhancing passenger safety and minimising operational disruptions.
- Infrastructure inspection and maintenance optimisation
- Emergency and operational support by delivering maintenance equipment, assessing damage, searching for victims, monitoring operations, and maintaining communications during accidents, thereby enhancing overall infrastructure reliability.



Credits: The Railways of the Islamic Republic of Iran





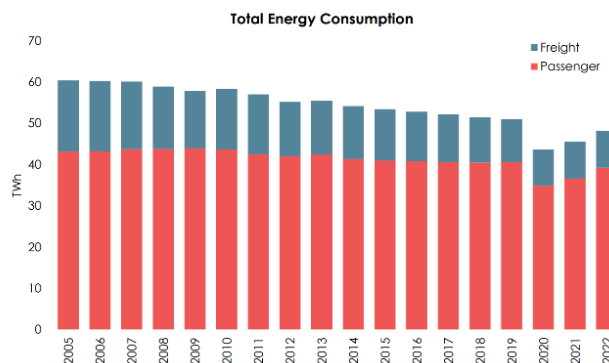
# ENERGY CONSUMPTION, EFFICIENCY AND SAVINGS

**Target 7.2:** By 2030, increase substantially the share of renewable energy in the global energy mix

**Target 7.3:** By 2030, double the global rate of improvement in energy efficiency

The expansion of electrified train systems is set to accelerate, especially as diesel freight trains will be replaced. Currently, rail energy usage is divided between diesel and electricity, with diesel at 53% and electricity at 45% in 2022 (and biodiesel at 1%). Diesel remains dominant in rail freight, comprising 75% of total energy consumption globally in 2022.

Figure 5 demonstrates a continued significant reduction in total energy use in rail. Railways are committed to continuing to phase out fossil fuels and improve on energy efficiency. This process requires diesel operations to be phased out, more lines are being electrified, alternative fuels are becoming more common place, and efficiency measures are being implemented such as regenerative braking and eco-driving techniques, and smart lighting and heating technologies.



**Figure 5: Total Energy Consumption between 2005 and 2022 of the TEER participants, UIC (2023)**

Total European railway energy consumption decreased by 36% between 2005 and 2022

The COVID-19 Pandemic caused energy use to plummet, although this increased by 6% in 2022, returning to pre-2020 levels.

Passenger train energy consumption dropped by 16% from 2005 to 2022, while freight train energy consumption fell by 68%.





**Innovation**  
Energy and  
Decarbonisation



## Fuel for the future – HVO at DB Cargo

DB Cargo has targeted climate neutrality by 2040 and is phasing out the use of fossil fuels. The freight operator is using Hydrotreated Vegetable Oil (HVO) as a transitional solution with up to 90% reduction of CO<sub>2</sub>e emissions from existing diesel locomotives in rail freight. DB Cargo exclusively uses biofuels derived from organic waste products materials which do not compete with food production.



Credits: Jörg Schneider - DB

In 2022, UIC called upon its global members to participate in a concerted effort to identify and share effective strategies for saving energy and reducing costs in their operations. This UIC Energy Saving Taskforce, is a knowledge and expertise sharing platform to enhance energy efficiency, save fuel, and reduce operational costs across the railway sector.



### Ecodriving

Promoting energy-efficient driving techniques without tools, and exclusively using guidelines, incentives or rules.



### Ad-hoc tools

Driving assistance tools, Driving Advisory Systems (DAS) and Automatic Train Operation (ERTMS/ATO)



### Partial equipment usage

Adapting equipment use according to the load/needs



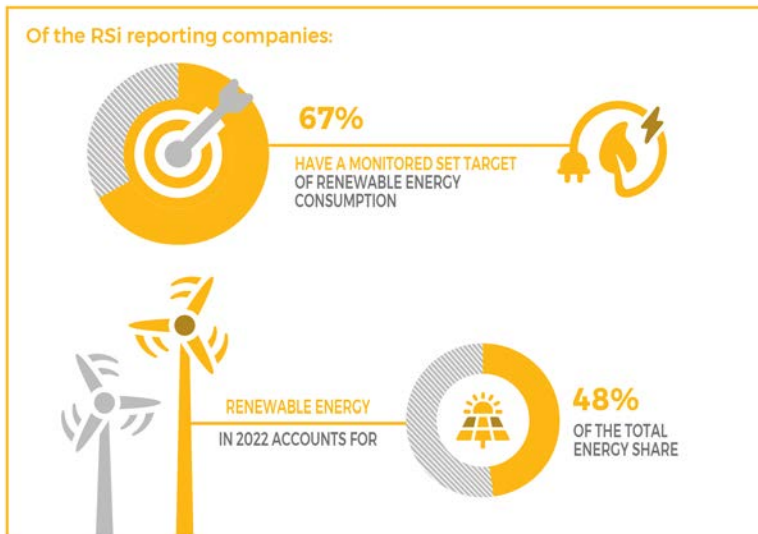
### Eco-parking

Power-reduced operation of a stopped vehicle, when electrified rolling stock is still connected to the power grid.



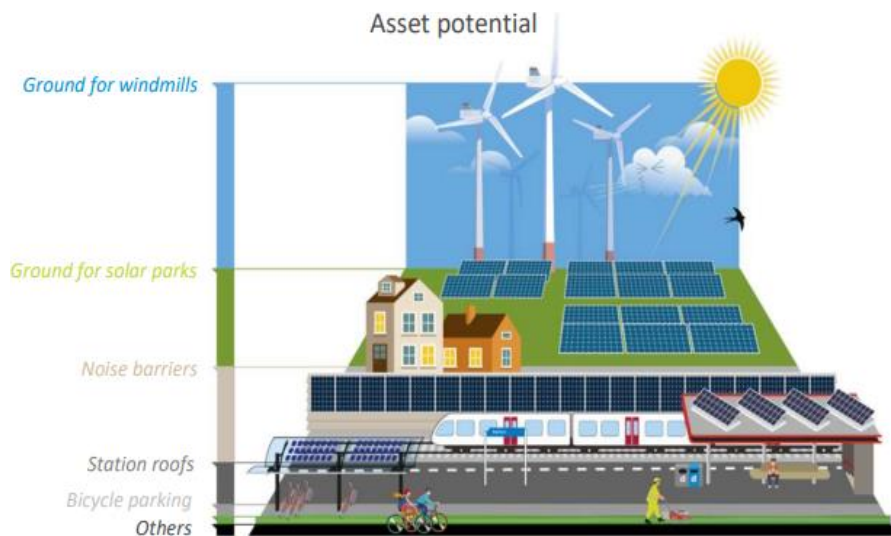
### Eco-stabling

Parked train with minimal energy consumption, when electrified trains are disconnected from the power grid.



The RSi reported energy savings have continued to grow steadily. The average saving in 2022 coming from internal projects, practices or internal company initiatives was 169.09 GWheq, equivalent to 37,199 households in France.

In 2022, UIC hosted a best practice workshop in the integration of renewable energy production, where members shared their impressive plans to generate energy on or close to the railways. Members shared how they are forging new partnerships with the energy sector to provide additional clean energy at depot, station and car park roofs, on railways line sides and on noise barriers [18].





**Innovation**  
Energy and  
Decarbonisation



## The “Solar Rail Power Farm for Happy Chicks” (SRPF4HC) project

In 2015, ÖBB-Infrastruktur became the first railway company to build solar power plants that directly feed into the railway power grid. The initial photo-voltaic cell plant was a small pilot site, but this year the company will launch its first large-scale agri-PV site, covering approximately 14 hectares in Thalsdorf, Carinthia, Austria. This project combines an organic farm, which raises chickens and sheep and produces vegetables, with a PV power plant that generates 100% CO<sub>2</sub>-free railway power, an exemplary form of sustainable land use. Additional measures to enhance biodiversity, such as planting numerous fruit trees, creating wildflower meadows, and establishing a regional wildlife corridor with rare, local bushes and trees, will make the site a valuable natural habitat.



Credits: ÖBB-Infrastruktur

2  
ZERO  
HUNGER



7  
AFFORDABLE AND  
CLEAN ENERGY



8  
DECENT WORK AND  
ECONOMIC GROWTH



11  
SUSTAINABLE CITIES  
AND COMMUNITIES



9  
INDUSTRY, INNOVATION  
AND INFRASTRUCTURE





# SUSTAINABLE PRACTICES ALONG RAILWAY SUPPLY CHAINS

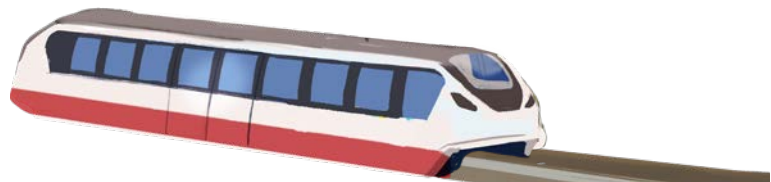
**Target 12.2:** By 2030, achieve the sustainable management and efficient use of natural resources

**Target 12.4:** By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

**Target 12.5:** By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

**Target 12.6:** Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

Railway supply chains are inherently international, sourcing materials and services from across the globe. This global reach makes it crucial to assess and mitigate externalities within these value chains to maintain rail's status as a sustainable mode of transport. As a closed loop system in itself, the railways have long reused and extended the life of assets within the network.





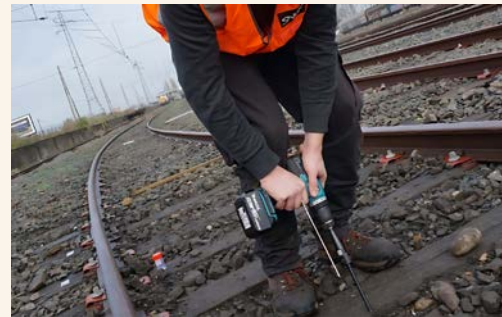
Innovation  
Natural Resources



## Green sleepers

Wood has been a vital natural resource in the railway industry for over a century. SNCF Réseau has modernised the wooden sleeper treatment process at Bretenoux, transitioning to a more sustainable method while maintaining the core product. This initiative ensures the prolonged existence of the facility and strengthens the supply chain by continuing to use French oak. The process involves impregnating sleepers with copper oils (instead of creosote), monitoring aging in climate chambers, and conducting on-track tests. Investments in modernising the impregnation plant, automating loading, training staff, and actively engaging with the supply chain, have enhanced human health and environmental safety, maintained wood performance, and improved working conditions.

Key figures include 15,000 sleepers monitored across 15 sites, with a €10 million investment in production tools.



Credits: Durwood



Railways are committing to both increased recycling rates and the reduction of hazardous wastes such as used oils, solvents, paints, cleaning agents, and lubricants from locomotives and other machineries.



### Establishing an electronic waste resource circulation system

The Korea Railroad Corporation (KORAIL), in collaboration with E-Circular Governance, has implemented a comprehensive circular economy system to recycle electronic products no longer needed by the company, such as laptops, PCs, and monitors. The aim is to reduce greenhouse gas emissions and promote resource efficiency.

KORAIL has successfully recycled 12,243 kg of electronic waste, producing 11,227 kg of recycled materials, including metals and plastics. This initiative has also reduced greenhouse gas emissions by a significant 33,355 kg CO<sub>2</sub>e.

KORAIL has additionally donated approximately 5 million won (3.5k euros) from the sale of recycled materials to the Green Umbrella Children’s Foundation, showcasing its commitment to sustainability and community support.



Credits: KORAIL





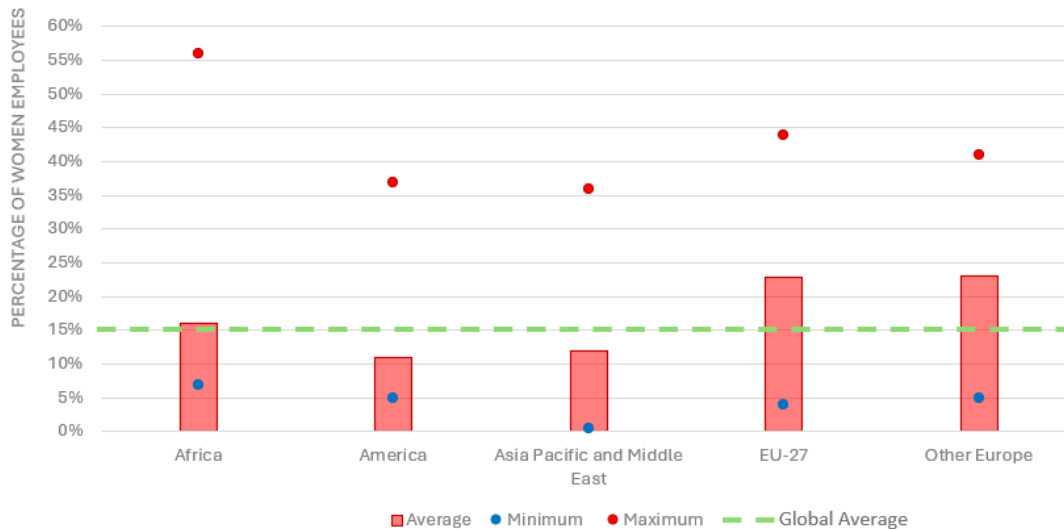
# RAIL AS AN INCLUSIVE EMPLOYER AND GENDER-SAFE MODE OF TRANSPORT WITH A DIVERSE WORKFORCE

**Target 5.1:** End all forms of discrimination against all women and girls everywhere

**Target 5.c:** Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

The railway sector, as with the wider transport industry, has a predominantly male workforce. UIC members are making a dedicated effort to ensure that the railways are a more inclusive and diverse place to work. Nonetheless, on a global scale, women still account for less than 20% of rail sector employees. In order to better cater for women's needs when using rail services, more women in the workforce constitute a great asset.

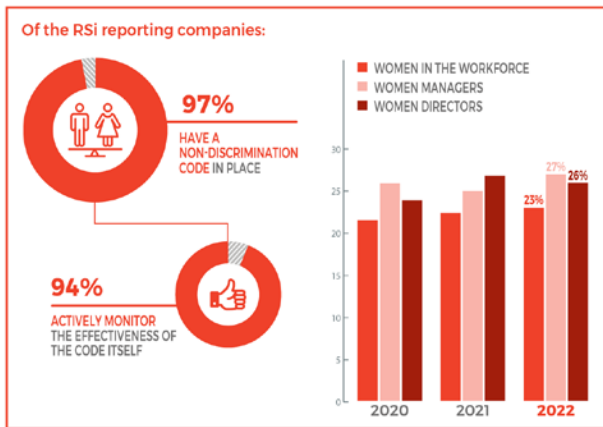
Women Employment in Rail



**Figure 6: Women Employment in Rail, RailISA (UIC Statistics Platform) – estimated proportion of women in rail workforce - data since 2005 for some rail companies, total companies represents approximately 80% of the global market, UIC (2023)**

As shown in Figure 6, women are estimated to make up around 15% of railway employees worldwide. This proportion varies by region, with less than 15% in the Americas, the Asia Pacific region, and the Middle East, and over 20% in Europe, and Africa being the closest to the global average with about 16%.

Passenger operators generally have a higher proportion of female employees than freight operators or infrastructure managers. For freight transport and infrastructure management, the percentages are significantly lower worldwide.



Within UIC RSi, the percentage of women in the workforce as of 2022 was 23%, with a slightly higher share than the global average, and steady with the previous years' data. As RSi respondents are mainly European, these figures align with the UIC Railisa data on EU-27 and Other Europe data.

The number of women managers have slightly increased by 1.5% reaching almost 27%, countering the decrease showed in 2021 over 2020, but the total amount of women directors has dropped by 1.5%, reaching 26%.

To address these disparities within the industry, UIC has launched the Gender Equality Sector, which promotes the TRAIN 2B EQUAL project, an initiative which brings together members to exchange best practices, foster peer-to-peer learning, and collectively improve the ambitiousness and implementation of gender equality in rail services.



By enhancing the experience of women as passengers and employees, the project marks a pivotal step towards driving change and encouraging the railway sector to challenge existing norms and advance inclusivity.

Women often face unique security and accessibility challenges when using rail transport. This is why, over the last two years, the sector has highlighted the difficulties encountered by women as rail service users through a series of webinars and workshops. Issues such as insufficient lighting, lack of surveillance, and poorly designed stations can make rail travel intimidating and unsafe, particularly during hours of darkness. Women are more likely to prioritise security over convenience and may avoid using public transport if they perceive it as unsafe. Moreover, rail service scheduling and design do not always account for how different women's travel patterns are to men's. Across different world regions, women are more likely to make multiple short trips ("trip-chaining"), often involving caretaking responsibilities, which are not well-served by rail systems primarily designed for peak-hour commuting. Therefore, on a general basis, inadequate transport systems can restrict women's access to education, economic opportunities, and healthcare [19].





**Customer Service**  
Accessibility, Diversity  
and Inclusion



## Social campaign against sexual harassment in public places

The FS Group, in partnership with the “Right to Be” association, has developed a major awareness campaign against sexual harassment in public places, providing tools on how to behave in the event of harassment occurring.

The campaign was promoted by using railway assets, such as train monitors, stations, ticket machines, buses and stops, service areas along streets, and advertising panels displaying a QR code linked to the relevant information. FS also rolled out a programme of training for staff across the group.



**N.1 DISTRAI**  
PER FERMARE LE MOLESTIE IN LUOGHI PUBBLICI NON C'È UNA SOLUZIONE. MA CINQUE.  
Scopri l'approccio SD su [fsitaliane.it/righttobe](https://fsitaliane.it/righttobe)

con il Patrocinio del  
MINISTERO DELL'INTERNO  
FERROVIE DELLO STATO ITALIANE

**N.2 DELEGA**  
PER FERMARE LE MOLESTIE IN LUOGHI PUBBLICI NON C'È UNA SOLUZIONE. MA CINQUE.  
Scopri l'approccio SD su [fsitaliane.it/righttobe](https://fsitaliane.it/righttobe)

con il Patrocinio del  
MINISTERO DELL'INTERNO  
FERROVIE DELLO STATO ITALIANE

**N.3 DOCUMENTA**  
PER FERMARE LE MOLESTIE IN LUOGHI PUBBLICI NON C'È UNA SOLUZIONE. MA CINQUE.  
Scopri l'approccio SD su [fsitaliane.it/righttobe](https://fsitaliane.it/righttobe)

con il Patrocinio del  
MINISTERO DELL'INTERNO  
FERROVIE DELLO STATO ITALIANE

**N.4 DAI SOSTEGNO**  
PER FERMARE LE MOLESTIE IN LUOGHI PUBBLICI NON C'È UNA SOLUZIONE. MA CINQUE.  
Scopri l'approccio SD su [fsitaliane.it/righttobe](https://fsitaliane.it/righttobe)

con il Patrocinio del  
MINISTERO DELL'INTERNO  
FERROVIE DELLO STATO ITALIANE

**N.5 DICHIARA**  
PER FERMARE LE MOLESTIE IN LUOGHI PUBBLICI NON C'È UNA SOLUZIONE. MA CINQUE.  
Scopri l'approccio SD su [fsitaliane.it/righttobe](https://fsitaliane.it/righttobe)

con il Patrocinio del  
MINISTERO DELL'INTERNO  
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Credits: Ferrovie dello Stato Italiane



## ENVIRONMENT AND POLLUTION

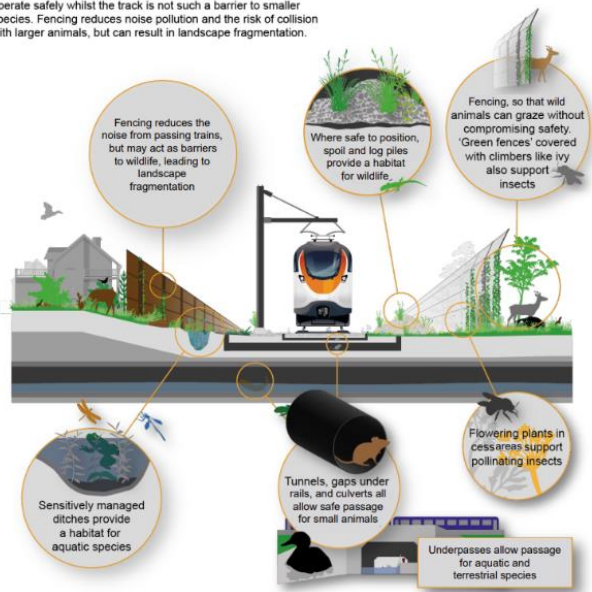
**Target 15.5:** “Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species”

**Target 3.9:** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

Despite requiring only 7 m<sup>2</sup> per passenger compared to the 100 m<sup>2</sup> needed for car transport, railways still occupy extensive land areas around the world, encompassing natural rich assets. These areas benefit from adjacent ecosystems by utilising their resources, such as embankment and slope stabilisation, water management, carbon sequestration, cooling, screening and offering natural scenery to passengers. However, lineside vegetation and wildlife also pose an operational risk, as falling trees, embankment slips, or collisions with large animals can disrupt rail services. Linear infrastructure like rail can lead to habitat fragmentation by creating barriers to wildlife movement, and can also generate pollution from spills, chemical use, noise and vibrations. Proactive

measures are needed to balance the demands for space between the transport sector and nature, in order to avoid conflict with habitat management strategies, via the inclusion of nature-based solutions as key pillars for future infrastructure development. Table 2 shows that, in Europe alone, lines intersect 2500 protected sites, with more than 400,000 km<sup>2</sup> of protected area being within 1 km of the European rail network. Railways are notably starting to take action to protect and enhance their natural assets by capacity building, setting targets, using Geographical Information Systems to monitor change, phasing out the use of chemicals, and change vegetation management practices and strategies [20].

▼ A sensitively managed track potentially allowing vegetation and wildlife to thrive. Appropriate infrastructure ensures trains can operate safely whilst the track is not such a barrier to smaller species. Fencing reduces noise pollution and the risk of collision with larger animals, but can result in landscape fragmentation.



**Figure 7: A track bed environment with idealised measures to enrich biodiversity, though adaptation and validation is required as conditions will vary in each company/country, produced within the REVERSE project, UIC (2022)**

**Table 2: European Railway Network Statistics, Protected Areas and Natura 2000 sites, produced within the REVERSE project, UIC (2022)**

European Railway Network Statistics, Protected Areas, and Natura 2000 sites	
Total rail length	229,854 km
Total number of Natura 2000 sites	29,734
Total area of Natura 2000 sites	1,240,260 km <sup>2</sup>
Total number of Protected Areas (PAs)	139,123
Total area of PAs	1,058,992 km <sup>2</sup>
Number of PAs intersected by rail	9,930
Number of Natura 2000 sites intersected by rail	4,116
Rail length intersecting Natura 2000 sites	13,805.17 km
Rail length intersecting PAs	28,418.54 km
Area of Natura 2000 sites in 1 km buffer within either side of the rail network	31,988.07 km <sup>2</sup>
Area of PAs in 1 km buffer within either side of the rail network	63,127.68 km <sup>2</sup>

The *UIC Guidelines on Managing Railway Assets for Biodiversity* provides a comprehensive framework for railway infrastructure managers to incorporate biodiversity conservation into their asset management strategies for existing and when upgrading lines [21]. The guidelines address specific assets, including tracks, drainage, bridges, tunnels, fencing and lineside buildings as shown in Figure 7, aiming to integrate biodiversity mitigation into company strategy.



**Customer Service**  
Climate Change  
Adaptation and  
Resilience



## Nature Based Solution - Living shoreline

Lamberts Point in Norfolk, Virginia, is a critical marine terminal for railway operations. When the terminal faced flooding due to the considerable and increasing erosion rates at the nearby Elizabeth River shoreline, Norfolk Southern partnered with the Elizabeth River Project to develop a nature based solution in preference to a tradition hard engineering design. The project used a living shoreline to stabilise the area.

These efforts included using 2,300 cubic yards of sand, 24,000 marsh plantings, 2,000 cubic yards of stone and 90 cubic yards of oysters, creating a shoreline with sustainable protection against issues related to climate change.

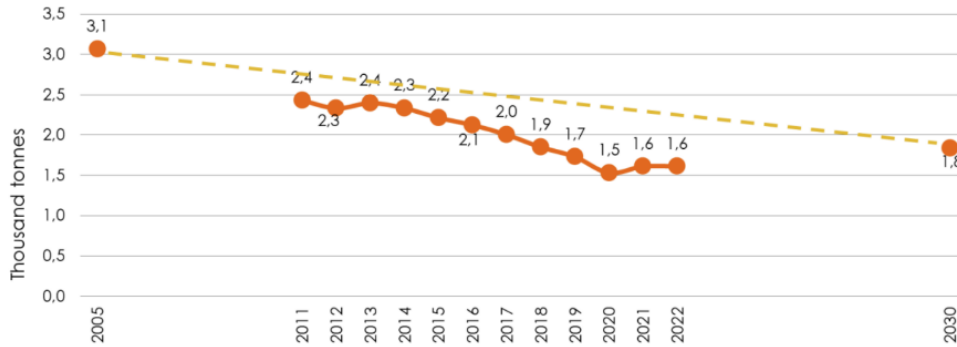
By providing crucial protection against flooding for the railway's land and infrastructure, Norfolk Southern converted a challenging erosion issue into a collaborative win benefiting biodiversity.



Credits: Norfolk Southern



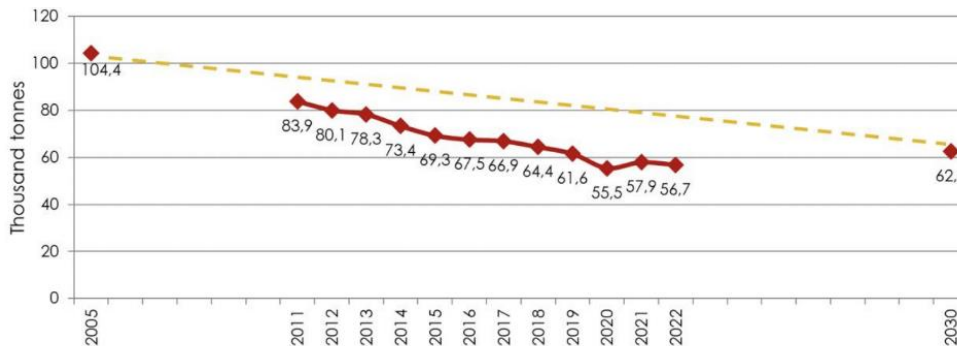
The UIC TED railways monitors railway emissions, particularly particulate matter (PM), e PM2.5 and PM10, and nitrogen oxides (NOx)



Total PM emissions in 2022 were reduced by approximately 47.4% compared to the 2005 baseline. This reduction exceeds the expected performance for 2022 by nearly 20%. Consequently, the 2030 target has already been achieved, as confirmed by previous years' results [15].



Figure 8: Total PM emissions from the UIC TEER participants, UIC (2023)



Total NOx emissions in 2022 were reduced by 45.6% compared to the 2005 baseline [15].

Figure 9: Total NOx, from the UIC TEER participants, UIC (2023)



**Cities and Communities**  
Healthy Cities and Communities



## Establishing a smart air quality management system

KORAIL has introduced an advanced “Smart Air Quality Management System” into their stations, seamlessly integrating cutting-edge fine dust monitors, high-tech air purifiers, and interactive display devices for real-time measurement information. This innovative system ensures that the indoor air quality is precisely controlled by autonomously adjusting HVAC equipment and air purifiers based on fine dust particle levels. Furthermore, passengers receive real-time updates on fine dust levels, increasing their awareness and enabling them to trust the underground’s air quality and to use the railway safely.



Credits: KORAIL

# CONCLUDING MESSAGE FROM THE UIC SUSTAINABILITY PLATFORM CHAIR

Over the last year, UIC and its members have made progress on collective research and best practices around critical topics related to sustainability in the rail sector. Building on the momentum of the inaugural report, this second edition of the UIC Global Rail Sustainability Report has reinforced our commitment to the transparency, accountability, and collaboration, taking us closer to the UIC Vision 2030.

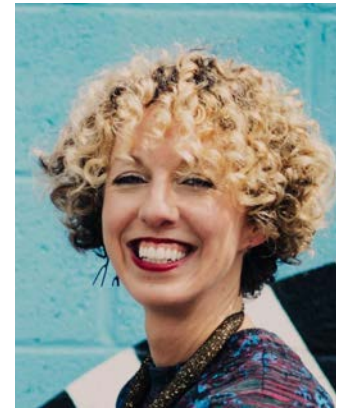
This report has provided examples of how the rail sector is continuing to explore energy efficiency, and in a way that also supports the SDGs. These examples show the importance of advocating for further investment in rail transport on the global stage, such as the UN Climate Change Conferences and other international fora. The voices of the UIC members are reflected in our global messages, our ideas and experience come through in working groups, and our best practices are highlighted through the International Sustainability Rail Awards. Lastly, the Rail Sustainability Index (RSi), launched in 2022, provides a valuable benchmarking tool and formed the basis for this report. The results demonstrate the progress that we are all making, and the scale of, and impact being had toward these collective goals of slashing emissions, by continuing to offer access and connectivity through rail transport, which has low carbon emissions.

As the Chairs of the Sustainability Platform, we have had the opportunity to meet our peers, where we have shared details about how to advance our companies' sustainability programmes and learn from each other. UIC is an essential connector between those relationships and with their leadership, we have accomplished more than we ever thought possible.



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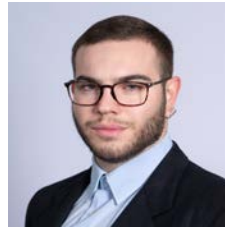
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## SDG PROGRESS ASSESSMENT: REPORTING METHOD

The reporting method adopted for each SDG for the 2023 edition of the report follows its predecessor's structure, relying on the following key components:

- 1. Data and information gathering** from internal UIC sources: the UIC RAIL Information System and Analyses (RAILISA), the Rail Sustainability Index (RSi), the Rail Safety database, the Traction Energy and Emissions Database (TED), and the UIC Sustainability Impact Awards.
- 2. Analysis** on progress towards achieving the United Nations SDGs within the rail sector. The SDGs included in the report reflect those selected in the member collaborative materiality assessment for the RSi.
- 3. Geographic coverage**, while striving to gain a global overview, the majority of data comes primarily from European UIC members.

## UIC MEMBERS DELIVERING SDGS – THE RAIL SUSTAINABILITY INDEX



In 2022, the UIC Rail Sustainability index (RSi) was introduced as a benchmarking tool to measure rail's contribution to achieving the SDGs.

### Materiality assessment

A comprehensive materiality analysis was conducted by the project working group on all 17 SDGs, aiming to identify those most relevant to the rail sector and the objectives of the UIC Sustainability Platform. This led to the selection of seven SDGs, representing areas where rail can make a significant contribution.

### Key performance indicators (KPIs) and variables

Based on the shortlist of 7 SDGs, a set of 35 Key Performance Indicators (KPIs) and more than 50 quantitative and qualitative variables was developed. Quantitative indicators are benchmarked on the last year, considered against the average, and calculated with data from participating companies. These indicators are also benchmarked considering their trends across the two previous years. Each qualitative indicator is assessed through two yes/no questions and one open text question.

### Scoring and benchmarking

The working group assigned a weighting to each SDG based on a prioritisation exercise, leading to a performance assessment which was balanced out across all relevant areas.

Weightings have also been applied to the individual SDGs in relation to the contribution that rail is considered to be capable of making, as shown in Table 3.

Table 3: SDG Rail Index, UIC

SDG Rail Index	SDG weight
SDG 5 - Achieve gender equality and empower all women and girls	10%
SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	20%
SDG 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	10%
SDG 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	15%
SDG 11 - Make cities and human settlements inclusive, safe, resilient and sustainable	10%
SDG 12 - Ensure sustainable consumption and production patterns	15%
SDG 13 - Take urgent action to combat climate change and its impacts	20%
<b>Company SDG Rail Index Core</b>	<b>100%</b>

RSi participants can compare their performance with the average scores of other members around the world. This allows for insight to be gained on areas of strength and opportunities for improvement.

## Participation

In total, 33 companies participated in RSi in 2023:

- 10 companies are infrastructure managers, passenger operators, and freight operators combined (i.e. integrated companies)
- 10 companies are infrastructure managers only
- 5 companies are passenger operators only
- 5 companies are freight operators only
- 1 company is both a passenger and freight operator
- 2 companies are infrastructure managers and passenger operators

The RSi participants were based in three different world regions, with 29 European, 2 Asian, and 2 North American participants.

UIC members have exclusive access to this system at no extra charge, and participation is voluntary. The data used to draft this report was reported by individual companies and was collated into totals, averages and ranges.



## UIC RAIL INFORMATION SYSTEM AND ANALYSES (RAILISA)

# Railisa

## UIC STATISTICS

Railisa is a UIC online tool allowing members to visualise and download the data provided by more than 100 railway companies worldwide. Some of the indicators reported in the tool have been documented since 1995 with continuous updates. Railisa includes parameters such as the size of the infrastructure network, electrification, level crossings, fleets, traffic volumes, train punctuality, financial results, staff, energy consumption and accidents. For more detailed information, readers are encouraged to refer to [IRS 30398](#) on UIC Railway Statistics and the user guide for data queries through the Railisa web interface and API.

## TRACTION ENERGY AND EMISSIONS DATABASE (TED)

### Traction Energy and Emissions Database



The Traction Energy and Emissions Database (TED) was developed to facilitate monitoring, reporting, and benchmarking for UIC Members regarding energy consumption and emissions in relation to UIC-CER defined targets. This database offers insights into energy consumption and emissions within the railway market, encompassing traction energy usage, auxiliary systems, and heating, ventilation, and air conditioning (HVAC).

The data comes predominantly from European UIC members (29 European participants in 2023 and 2 participants outside Europe). The database provides a comprehensive overview of the European railways' achievements against the collectively determined targets in reducing traction energy consumption and related emissions. In 2021, TED data covered 86% of passenger traffic and approximately 47% of freight traffic reported by Eurostat.

Since the beginning, the database has evolved to address changing environmental goals, with targets initially being set for 2020 and then revised for 2030 and beyond.

Furthermore, 2022 was the first year that the data collection cycle was promoted to non-European members, reflecting its significance in tracking environmental performance worldwide.

For this edition of the UIC Global Rail Sustainability Report, the data from the 2023 Traction Energy and Emission Database were used.

# CASE STUDIES: UIC SUSTAINABILITY IMPACT AWARDS



The case studies contained in this report documents the finalists of The UIC Sustainability Impact Awards (SIA) 2024. This competition, jointly organised with the Sustainable Development Foundation, focuses on awarding and showcasing achievements within the railway sector worldwide, with a focus on sustainability.

The SIA features categories that encompass the array of innovations driving transformation within the rail industry. Divided into four subcategories, each category reflects a distinct aspect of sustainability and aligns with the UIC 2030 vision: Design a Better Future, while also contributing to several SDGs.

These awards celebrate excellence in projects or initiatives which have made a significant contribution to sustainable development, with a particular emphasis on demonstrating the impact they had during the 2022-2023 period.

Throughout the report, the 16 shortlisted projects are displayed, providing tangible examples of rail's contribution to the SDGs.

			
Customer Service	Cities and Communities	Innovation	Seamless Connectivity
<p>Accessibility, Diversity and Inclusion</p> 	<p>Healthy Cities and Communities</p> 	<p>Energy and Decarbonisation</p> 	  
<p>Climate Change Adaptation and Resilience</p> 	<p>Modal Shift</p> 	<p>Natural Resources</p> 	

# THE UIC SUSTAINABILITY PLATFORM

## The platform has three key objectives



Connect the sustainability community



Global Advocacy



Provide practical solutions


## Working in 5 technical sector groups



Noise and Vibration



Circular Economy



Air Quality



Energy & GHG Emissions



Sustainable Land Use

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The UIC supports the Sustainable Development Goals