

## Non-Technical Summary of the Smart Train Lease CO<sub>2</sub> reduction project in Germany

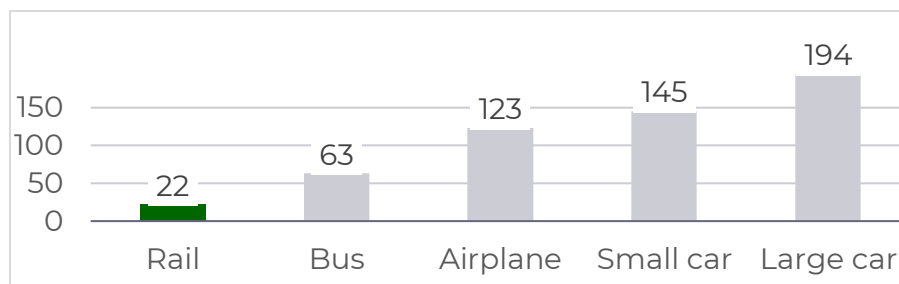
### Chapter 1: Introduction

This Non-Technical Description aims to clarify the environmental and sustainable impacts that the Smart Train Lease CO<sub>2</sub> reduction project has. The project focuses on the substitution of existing diesel trains by the Smart Train Lease battery trainsets in Germany in the transport sector.

Rail transport is demonstrably the most sustainable mode of transportation and, as a surplus, offering the highest cost-efficiency in the decarbonization of traffic. **Figure 1** illustrates that rail transport results in CO<sub>2</sub> emissions that are at least more than six times lower compared to passenger cars. **Figure 2** further substantiates the high cost-effectiveness of shifting from road to rail.

#### Figure 1: Low CO<sub>2</sub> emissions of rail<sup>1</sup>

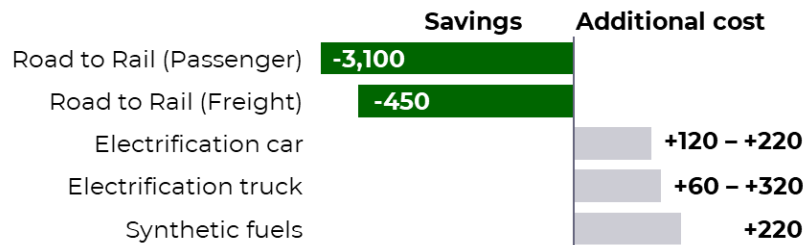
Global average of CO<sub>2</sub> intensity (CO<sub>2</sub>e grams/passenger-km)



#### Figure 2: Large cost-effectiveness of rail in CO<sub>2</sub> reduction

Avoidance costs with focus on 2050 (€/t CO<sub>2</sub>e)

<sup>1</sup> Figure 1 and 2: BCG Analyses for Siemens Mobility based on BCG Klimapfade für Deutschland (2018), BCG Analyse Klimapfade Verkehr 2030 (2019), BCG Klimapfade 2.0 (2021)

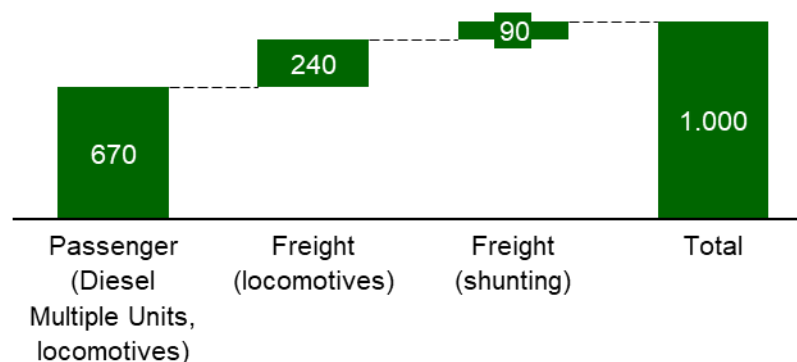


However, significant transformation is still required within the rail sector, particularly considering the approximately 2,000 diesel trains in the regional rail segment operating across 450 lines in Germany.<sup>2</sup>

The replacement of diesel fleets presents a substantial potential for CO<sub>2</sub> emissions reduction, as depicted in **Figure 3**. Overall, this transition could lead to the avoidance of approximately 670,000 tons of CO<sub>2</sub> equivalents annually only in the rail sector in Germany. If all diesel-powered rail vehicles were substituted, an annual savings potential of more than 1 million tons CO<sub>2</sub> equivalents is possible.

**Figure 3: CO<sub>2</sub> Emissions Avoidance by Replacement of Diesel Fleets in Rail<sup>3</sup>**

Germany, in thousand tons CO<sub>2</sub>e, per year



This is the transformation challenge where the start-up Smart Train Lease comes into play. Smart Train Lease, a 100% subsidiary of Siemens Mobility launched in 2024, focuses on the rental of sustainable, state-of-the-art regional trains. The Smart Train Lease fleet includes battery trains of the type Mireo Smart Plus B, which are highly

<sup>2</sup> VDB 2021, page 7, 210506\_VDB\_Strategiepapier Emissionsfreier Schienenverkehr Korr. 2021-07-05.indd

<sup>3</sup> BCG – rounded average from various sources 2022/2023 (i.e. UBA, BMDV, DB Energie, AG Energiebilanzen, Unife)

energy-efficient battery-powered trains of the latest generation. A primary goal of Smart Train Lease is to support the replacement of old diesel trains with new, environmentally friendly battery trains. Through the flexible rental model, the substitution of diesel trains and thus faster CO2 reduction can be achieved much earlier. To further support this transformation, Smart Train Lease plans to certify the savings achieved by switching from diesel trains to sustainable Smart Train Lease battery trains as part of a CO2 reduction project.

This description document facilitates a review by a broad range of stakeholders to deepen the understanding of Smart Train Lease and the rationale of the CO2 reduction project. The objective of the Smart Train Lease Stakeholder Consultation is to engage with directly and indirectly affected stakeholders to discuss potential environmental, social and economic impacts (both positive contributions and potential risks) that the CO2 reduction project may have during design, planning, and implementation. A further goal is to establish an ongoing mechanism for feedback as the Smart Train Lease fleet continues to operate, develop and expand in Germany.

Once review comments have been received from Stakeholders, both online and during the in-person Stakeholder meeting to be held in Berlin in April 2025, Smart Train Lease will document all provided Stakeholder Feedback in a written report.

Smart Train Lease will then use the insights gained to address any risks in the design of the CO2 reduction project. The research findings and references in this document are based on our review and analysis of comprehensive internal as well as external sources.

This Non-Technical Summary is divided into 7 subsequent chapters, starting with **Section 2**, which explains the Smart Train Lease project objectives. **Section 3** covers the Smart Train Lease's carbon project background, scope and rationale. In **Section 4**, an outline of the underlying technology is provided. This is followed by **Section 5**, depicting the project specifics in terms of scale, duration and the execution plan. **Section 6** contains a summary of the economic, social, and environmental impacts, to highlight the various benefits from substituting diesel trains by sustainable battery-driven trainsets. **Section 7** details how Smart Train Lease will safeguard and assure to meet United Nations' Sustainable Development Goals during its operations. **Section 8** closes with further relevant information.

## **Chapter 2: Smart Train Lease business objectives**

Smart Train Lease's mission is to support the transition towards green mobility in Germany. To achieve this goal the company provides, with its innovative renting model for state-of-the-art commuter trains, a new solution for customers, such as operators and Public Transport Authorities, to switch in a fast, easy and reliable manner from diesel trains to battery-electric multiple units (BEMU).

**The business objectives can be summarized as follows:**

1. Smart Train Lease aims to be part of the sustainable transformation from road to rail in Germany and to support the **achievement of Paris Agreement targets** for 2030 and 2050 by measurably reducing carbon and greenhouse gas emissions.
2. Smart Train Lease's ambition is to support the **substitution of old, energy-intensive diesel trains by sustainable and locally emission-free battery trains**. The vision is to largely contribute in a meaningful way to the substitution of the about 2,000 diesel trains still operating in Germany.
3. The company wants to **accelerate the transformation towards 100% green rail transport by assisting its customers in a fast introduction of alternative drive trainsets**. To achieve this goal, the Smart Train Lease business model includes the Mireo Smart, a standardized and state-of the-art regional train developed by Siemens Mobility. Due to its standardization, the Mireo Smart allows significantly shorter delivery times and Smart Train Lease tries to further shorten the timeline with a clear fleet ramp-up plan.
4. Smart Train Lease aims to **reduce entry barriers for the shift from diesel trains to battery trains** as much as possible. Therefore, Smart Train Lease provides not only the battery trainsets for rent, but it also **supports with a training and service concept to make the shift** as easy as possible. The full business model works with end-to-end-standardization, thus Smart Train Lease has also developed a simulation tool to easily give customers security about the fit of their operations network with the available battery travel distance. The concept allows customers to operate battery trains risk-free without high investments or residual value risks.
5. Smart Train Lease wants to **support its customers in providing a reliable and sustainable rail mobility**. By covering interim transport demands, Smart Train Lease is a solution for additional capacity needs and can support the overall reliability of commuter rail in Germany. By offering the Mireo Smart, the company also supports standardization efforts in the industry with a reliable rolling stock product demonstrating that standards pay off in terms of reliability, speed and investment security.

### **Chapter 3: Smart Train Lease's carbon project**

South Pole is supporting Smart Train Lease to gain recognition for its carbon programme. Since 2006 and with a network of more than 1000 experts, South Pole has been advising and assisting companies and institutions worldwide in defining and implementing ambitious sustainability strategies to meet climate challenges. As a pioneer in the field of decarbonisation, South Pole distinguishes itself by developing tailor-made climate change mitigation and adaptation projects certified according to the most rigorous standards, contributing to the reduction of global CO<sub>2</sub> emissions while supporting initiatives to protect the territories and communities most vulnerable to climate change.

Smart Train Lease and South Pole are in the process of having the carbon project certified by Gold Standard, a certification programme for greenhouse gas reduction and carbon storage projects. Gold Standard is one of the world's leading standards for climate action and sustainable development. Gold Standard was founded in 2003 by WWF and other international NGOs and has always been a pioneer in raising ambition<sup>4</sup>. The standard demonstrates leadership for high-quality and high integrity in the voluntary carbon market, while using the two decades of experience to evolve and innovate to serve wider needs.

Smart Train Lease's carbon project focuses on the use case of replacing old diesel trains with sustainable Smart Train Lease battery trains. When a diesel train is replaced with a Mireo Smart Plus B from Smart Train Lease, the CO<sub>2</sub> savings realized during operation will be quantified and validated using the recognized Gold Standard methodology. The CO<sub>2</sub> certificates generated based on this certification programme serve as essential building block to achieve the objectives outlined in Section 2. A key focus of Smart Train Lease is to effectively reduce barriers to the early decommissioning of diesel trains via the introduction of environmentally friendly Smart Train Lease battery trains, contributing to the greater goal of driving the transformation towards green mobility.

### **Chapter 4: Smart Train Lease technology**

The technological foundation of the Smart Train Lease business models is based on the Mireo Smart. The Mireo Smart, developed and produced by Siemens Mobility, is a highly efficient regional train designed to meet the demands of transport operators

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<sup>4</sup> <https://www.goldstandard.org/gold-standard-for-the-global-goals/our-standard>

and Public Authorities across Germany. With an approximate delivery time of 18 months after order placement, the Mireo Smart allows for a quick response to capacity requirements. The train is characterized by its energy efficiency and flexibility, offering a reliable and cost-effective solution for regional and commuter transport. The Mireo Smart is available as standard Electric Multiple Unit (EMU) but also offers alternative drive options (battery or hydrogen). The importance of an attractive interior design to enhance customer satisfaction is emphasized. Key features include a bright and high-quality vehicle interior, a uniform design with selectable upholstery colors for both first and second class, clear visibility throughout the vehicle, spacious multipurpose areas with folding seats, and an easily accessible PRM area with a PRM friendly toilet next to the entrance door. **Figure 4** summarizes the general characteristics of the Mireo Smart.

**Figure 4: Mireo Smart Overview<sup>5</sup>**



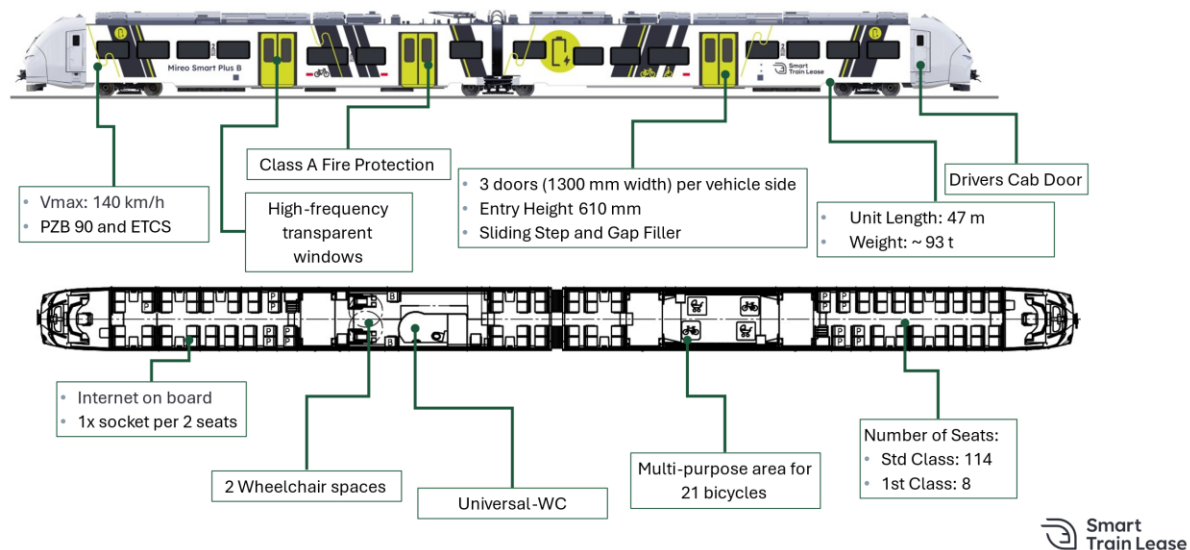
Focus of the Smart Train Lease CO2 reduction project is the Mireo Smart Plus B. This battery train is designed to be cost- and energy-efficient, providing emission-free regional and commuter transport. This makes it an ideal alternative to conventional diesel multiple units, especially on non-electrified or partially electrified lines. The Mireo Smart Plus B combines the benefits of the Mireo platform with a high-

<sup>5</sup> FIS = Fahrgastinformationssystem (de) or Passenger Information System (en)

performance battery system, ensuring a sustainable and efficient operation both now and in the future. The battery trains have an average reach of 80 to 120 kilometres, depending on the station stop distance and the general topography of the alignment. Each trainset can accommodate 122 passengers, including 8 in first class, and provides space for 12 bicycles and 2 wheelchairs. **Figure 5** depicts a layout of the Mireo Smart Plus B. It uses a state-of-the-art LTO (Lithium Titanate) battery system, which enables fast charging with up to 2 MW of charging power as well as a long useful life of the battery of 15 years.

**Figure 5: Mireo Smart Plus B Layout**

The Mireo Plus B Smart is configured for short-term and with high quality



An Environmental Product Declaration and life cycle assessment according to ISO 14025/ISO 14044 and the relevant product category rule UN CPC 495 for rolling stock for the battery electric multiple unit train Mireo Plus B has been performed and will be published soon. The global warming potential of the Mireo Smart Plus B is 9.2 g Co<sub>2</sub>eq/Pkm (100% seat occupancy) with the German energy mix and can be further reduced to 2.1 g Co<sub>2</sub>eq/Pkm by using a German green energy mix.<sup>6</sup> Due to its energy efficient design, the emissions are significantly lower than the global average emissions of rail (see Figure 1). Due to the use of natural and recyclable materials, the Mireo Smart Plus B is 97.9 % recoverable, where 95.4 % of the materials are recycled and 2.5 % is recovered by incineration.<sup>7</sup>

<sup>6</sup> Ecoinvent data 2021

<sup>7</sup> ISO 21106:2019 with UNIFE material recovering factors



## **Chapter 5: Scale, Duration, And Implementation Plan**

Smart Train Lease was founded in 2023 as 100% subsidiary of Siemens Mobility and launched to the German market in February 2024. The start-up has gained initial experience in leasing battery trains through a pilot project with Niederbarnimer Eisenbahn and Tesla, which commenced operations in August 2024 and includes two battery trains substituting existing diesel trains. To enable this quick start, Smart Train Lease has borrowed these two battery trains from another Siemens Mobility customer.

The focus of this CO2 reduction project is on Smart Train Lease's own fleet of Mireo Smart Plus B trains. Regarding the current ramp-up, Smart Train Lease will receive the first six battery trainsets in summer 2026. Furthermore, a total of 24 Mireo Smart battery trains are planned to be in operations by 2028, a further ramp-up is possible. The trains will remain in service at least until the first major overhaul required in year 8 to 10 after start of operations.

The implementation plan for the Smart Train Lease CO2 reduction project processes in three steps:

- First, a draft carbon project design will be set up including the project planning, stakeholder consultation, creation of Preliminary Review documents and a Pre-Review by Gold Standard.
- Second, the final project development and validation will be undertaken incl. the final project design, the design review process, the validation by a Validation and Verification Body (e.g. TÜV) and the final review to be conducted by Gold Standard.
- Once the project development and validation are successfully completed, in step three the Monitoring, Reporting and Verification can start as well as the commercialization of the generated carbon credits. Regarding the timeline, the project development is expected to take place in the 1<sup>st</sup> year from the project start (2026), the operation and monitoring will start in the 2<sup>nd</sup> year and from the 3<sup>rd</sup> year the monitoring report and issuance of carbon credits can start.

### **Contact Details To Get Further Technical Detail And Project Information**

To submit responses, questions, and clarifications about this document, Smart Train Lease, the Mireo Smart and further related topics, please note the following contacts:

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## **Chapter 6: Summary Of Economic, Social And Environmental Impacts Of The Project**

### **Environmental impact:**

#### **Positive impacts**

- The project aims at **reducing CO2 emissions** by eliminating diesel trains and replacing them with battery-electric trains. Those new trains are much more energy efficient and will therefore reduce the overall energy consumption during its operation. Additionally, the trains have a lifetime of 30 years and will therefore form an investment with long-term durability.

#### **Potential Negative impacts**

- The environmental impact of battery production involves mining activities being a **water-intensive industry**, i.e. high-water consumption and potential groundwater pollution if not properly managed<sup>8</sup>. The Environmental Product Declaration and life cycle assessment according to ISO 14025/ISO 14044 and the relevant product category rule UN CPC 495 for rolling stock for the battery electric multiple unit train Mireo Plus B is near to completion and will be published soon.

The potential environmental impacts related to water via a life cycle analysis are quantified based on the Ecoinvent database. The analysis of the modelling of the environmental impacts of all materials including the batteries of one Mireo Plus B 2-car trainset from cradle to gate and the manufacturing of one

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<sup>8</sup> <https://earth.org/environmental-impact-of-battery-production/>

trainset was assessed. Thus, the estimated total amount of water for the sourcing of all upstream components of a battery, as well as its manufacturing is included in the environmental impact assessment.

The mother company of Smart Train Lease, Siemens, has developed a holistic environmental protection by aiming to minimize their adverse impacts and maximize their positive contributions to the natural environment in the three dimensions: responsible product development, clean supply chain, and efficient own operations (Source: 2024 Sustainability Report<sup>9</sup>). They apply these dimensions across their value chain: from the sourcing of raw materials in their supply chain to the management of products throughout their lifecycle in their own operations. Siemens is working on a thorough resource management approach implementing a defined water strategy and have conducted risk assessments to shape local water targets. The aim of Siemens' Water Strategy is to minimize local adverse effects of their water consumption. As a result, the consumption of water in the manufacturing site in Krefeld of Siemens Mobility was reduced by 80% from 2017 to 2024. To protect water bodies, substances hazardous to water are only removed in quantities equivalent to daily consumption, in accordance with the internal specifications of the hazardous substances management. As part of the emergency and hazard prevention, sewer barriers and drain mats are located in critical areas such as the paint shops and waste collection points, to ensure immediate action if necessary. In addition, Siemens Mobility requires all suppliers for rolling stock to establish an environmental management system according to ISO 14001 or equivalent. Smart Train Lease, through Siemens, ensures the protection of natural resources, including reduction of harmful water impacts by monitoring various key environmental indicators (more info in the Sustainability Report).

- The environmental impact of battery production involves mining activities contaminating **soil** if not properly managed<sup>10</sup>. The Environmental Product Declaration and life cycle assessment according to ISO 14025/ISO 14044 and the relevant product category rule UN CPC 495 for rolling stock for the battery electric multiple unit train Mireo Plus B is near to completion and will be published soon.

The potential environmental impact related to land via a life cycle analysis are quantified performed by Ecoinvent. The analysis of the modelling of the environmental impacts of all materials including the batteries of one Mireo Plus

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<sup>9</sup> <https://assets.new.siemens.com/siemens/assets/api/uuid:32a7154d-edba-47bc-8e9b-9761617ba774/sustainability-report.pdf>

<sup>10</sup> <https://www.environmentenergyleader.com/stories/addressing-the-environmental-and-health-risks-in-battery-manufacturing,45038>

B 2-car trainset from cradle to gate and the manufacturing of one trainset was assessed. Hence, the estimated total amount of land for the sourcing of all upstream components of a battery, as well as the manufacturing is included in the environmental impact assessment. In addition, the soil acidification has been analysed.

The approach followed by Smart Train Lease to mitigate the negative impact on soil is identical to the one described for water.

Smart Train Lease, via Siemens, ensures the protection of natural resources, including reduction of harmful soil impacts by monitoring various key environmental indicators (more info in the Sustainability Report).

- The project may involve the release of any **pollutants** to the environment via the production of electrical batteries for the trains.

The battery and train production releases pollutants to air, water and land in routine as any consumption (production of goods or fulfilment of services). The amount of the environmental impact in routine of the train productions and its parts is being derived by performing a life cycle assessment by Ecoinvent and the results will be available soon.

Any non-routine or accidental environmental impact assessment is part of the environmental management according to ISO 14001, Chapter 6.1: "Actions to address risks and opportunities". Every production facility of Siemens is externally certified by ISO 14001. Furthermore, the production facilities in Krefeld reduced the volatile organic compounds (VOC) emissions to the air by a changeover from solvent-based paint to water-based paint to below 25 grams per square meter of painted car body surface, while the regulatory threshold is 110 grams. In addition, internal plant vehicles are being replaced by electric vehicles. Moreover, Siemens Mobility requires all suppliers for rolling stock to establish an environmental management system according to ISO 14001 or equivalent.

Smart Train Lease, via Siemens, monitors the "Atmospheric pollutant emissions" at sites, and more specifically the Volatile Organic Compounds, ozone-depleting substances (ODS), Nitrogen oxides, Sulfur oxides, and respirable dust (more info on the indicators monitored in the Sustainability Report). Smart Train Lease, via Siemens, monitors the "Atmospheric pollutant emissions" at sites, and more specifically the Volatile Organic Compounds, ozone-depleting substances (ODS), Nitrogen oxides, Sulfur oxides, and respirable dust (more info on the indicators monitored in the Sustainability Report). In addition, their Environmental Protection Standard includes a commitment to phase out ODS.

- The project may involve the generation of **waste materials** (both hazardous and non-hazardous) via the production of electrical batteries for the trains. The Environmental Product Declaration and life cycle assessment according to ISO 14025/ISO 14044 and the relevant product category rule UN CPC 495 for rolling stock for the battery electric multiple unit train Mireo Plus B is near to completion and will be published soon.  
Smart Train Lease is aiming to reduce hazardous waste and working on increasing our material recycling rate and reducing our landfill waste (Sustainability Report). The waste management throughout the supply chain is highly efficient (see page 76 of the report).  
Smart Train Lease, through Siemens, monitors the "Waste" at sites, and more specifically the various indicators related to Non-hazardous waste as well as Hazardous waste (more info in the Sustainability Report).

### **Social impact:**

#### **Positive impact**

- Smart Train Lease has a large focus on **knowledge and skills development** via programmes for employee education and training. Continuous skill-building activities are geared toward specific target groups. Smart Train Lease provides interactive training formats for its people, suppliers, and global and regional salespeople and for specific functions like Sustainability, Compliance, and Environmental Protection, Health Management, and Safety. For Smart Train Lease' suppliers, they deliver tailored training based on the updated content in the Supplier Code of Conduct, e.g. to operate the Mireo Smart trains, maintain them, etc.
- Regarding **health and safety**, German regulations aim to protect it for workers. According to the German Labour Law<sup>11</sup>, Smart Train Lease must ensure the health and safety of his workers by implementing prevention, information and training measures. According to the German Labour Law<sup>12</sup>, Smart Train Lease must ensure the health and safety of its workers by implementing prevention, information and training measures. It must also assess the occupational risks at each workstation. These risks are recorded in a document. Failure to comply with this obligation may result in civil and/or criminal liability. These regulations

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<sup>11</sup> <https://osha.europa.eu/en/about-eu-osha/national-focal-points/germany>

<sup>12</sup> <https://osha.europa.eu/en/about-eu-osha/national-focal-points/germany>

are followed by all stakeholders directly involved in the project (i.e. train and battery manufacturing and train operation).

The battery trains of the Mireo Smart Plus B type are built according to the latest standards and regulation and are designed with maximum safety in mind. During the operation of the trains, there are very rare health and safety risks related to the manufacturing of the trains and their operation, especially in relation to the batteries. There is yet a risk related to battery fire, environmental pollution in the event of an accident, and total loss of the vehicle, which are very unlikely. Those risks have been assessed and mitigated per the required laws and regulations and are continuously checked.

### **Safeguards with no direct impact on the project**

- Smart Train Lease (a subsidiary of Siemens), guarantees and protects **human rights** of its employees and the people throughout its entire supply chain through the Siemens Code of conduct<sup>13</sup>, as well as the Siemens Business Conduct Guidelines<sup>14</sup>, and the Siemens Sustainability Report<sup>15</sup> (Section 3.3.) The Sustainability Report exposes Siemens' ambitious targets addressing the multifaceted issue of human rights in the areas of G (Governance), E (Ethics), E (Employability), and E (Equity) across the entire Siemens value chain. Furthermore, the report depicts the Continuous improvement measures to meet the targets, as well as the actions put in place and the expected results. Hence, Smart Train Lease suppliers must commit to the Siemens Code of Conduct for Suppliers and so to not discriminate, to promote gender equality and other social principles via a set of preconditions to become a supplier. Accordingly, the project does not discriminate concerning participation and inclusion.

Smart Train Lease, through Siemens, performs regular audits of its supply base to monitor adherence to the Code of conduct.

- Siemens has created a Code of conduct for its employees, and suppliers, including its subsidiaries. Smart Train Lease works to ensure that **Diversity, Equity & Inclusion** (DEI) activities abide by relevant laws and regulations and to reduce the risk of biased talent decisions and other discrimination. To grow

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<sup>13</sup> <https://assets.new.siemens.com/siemens/assets/api/uuid:cbb1292b-f2d5-4f67-9bad-28e2823568b0/Code-of-Conduct-English.pdf>

<sup>14</sup> <https://assets.new.siemens.com/siemens/assets/api/uuid:121e8fd4-aa7c-4a09-9a25-8c9f3ebefc2e/sag-bcg-de.pdf>

<sup>15</sup> <https://assets.new.siemens.com/siemens/assets/api/uuid:32a7154d-edba-47bc-8e9b-9761617ba774/sustainability-report.pdf>

the workforce more equitably, Smart Train Lease has via Siemens implemented recruitment and internal promotion strategies through their **Gender Equity Program** (GEP) and inclusive-language job posts. Learning and enrichment opportunities through their DEI Learning Channel and Employee Resource Groups (ERGs) are continuously offered, as well as empowering managers and teams through their Belonging Playbook, and fostering open dialogs during their Belonging Days.

- The project is not and will not be involved or complicit in the alternation, damage or removal of any sites, objects or structures of significant **cultural heritage** as there are German laws prohibiting this, which the project must follow. In Germany, no new tracks are planned to be built specifically for Mireo Smart trains. They will be operating on existing railway track alignment. Moreover, Siemens offers protected channels for reporting violations of external and internal rules to all their people and external third parties. The reports generated by these channels are forwarded to their Legal and Compliance organization and followed up on by Legal and Compliance or respective Service and Governance Units. The same channels can also be used to report human rights violations to the company. Hence, the project has no adverse impacts to sites, structures or objects with historical, cultural, artistic, traditional or religious values or culture. Therefore, no impact to UNESCO sites is possible.

### **Economic impact:**

#### ***Positive impacts***

- The project enables the deployment of battery-electric trains by eliminating diesel trains, thanks to the carbon revenues to support the large financial investment.

#### **Safeguards with no direct impact on the project**

- There is a low risk of **corruption** considering that Germany is ranked as 15 of 180 on Transparency International corruption perception index (2024)<sup>16</sup>. Furthermore, a precondition to become a supplier for Siemens is to commit to the Siemens Code of Conduct for Suppliers, which ensures that suppliers actively prevent corruption and bribery.

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<sup>16</sup> <https://www.transparency.org/en/cpi/2024>




- The project does not involve any **forced labour** and Smart Train Lease will ensure that all employment is in compliance with domestic and international labour and occupational health and safety regulations and laws.

## Chapter 7: Contribution of the project to the Sustainable Development Goals (SDG)

SDG and its description	SDG target	Positive contribution
 <p><b>4 QUALITY EDUCATION</b></p> <p><i>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</i></p>	<p>4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship. Refers to the sum of all training hours provided to employees. It is not intended to capture the average number of training hours per employee.</p>	<p>Learning and education opportunities for all Smart Train Lease people, as well as vocational and more advanced training through partnerships with schools and universities. Education for their customers and suppliers is likewise highly significant. Knowledge and skills development through continuous trainings for people taking care of the Mireo trains' operation and maintenance for a state-of-the-art propulsion system. Giving train drivers and people in maintenance jobs the opportunity to switch their expertise from "oily hands" jobs to more future oriented digital and electromechanics type of jobs.</p>
 <p><b>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</b></p>	<p>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</p>	<p>As an innovative project in electrification, automation, and digitalization, Smart Train Lease supports sustainable industrialization. With their engineering expertise, their knowledge of battery-electric trains, and their digital technology, they help their business partners across the</p>



<b><i>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</i></b>		entire value chain, from design to production, and from operations to maintenance.
 <b><i>Take urgent action to combat climate change and its impacts</i></b>	13.2 Integrate climate change measures into national policies, strategies and planning	Amount of greenhouse gases emissions avoided by eliminating diesel trains with Smart Train Lease battery trains.

## Chapter 8: Other Relevant Information

- Further information about the Mireo Smart: [Mireo Smart - Siemens Mobility Global](#)
- Further information about Smart Train Lease: [Smart Train Lease | Mireo Smart Trains for Rent](#)
- Further information about the Niederbarnimer Eisenbahn project: [Tesla shuttle returns with battery trains | News | Railway Gazette International](#)