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**CLIMATE REPORT** 

# Key Takeaways

Wabtec has conducted a scenario-based climate-related risk analysis as recommended by the Task Force on Climate-Related Financial Disclosures<sup>1</sup> (TCFD), which assessed both physical and transition risks associated with potential future scenarios. The highest priority climate-related risks and opportunities that Wabtec faces are related to the transition to a lower-carbon economy.



From a global emissions perspective, rail is the most efficient and lowest-emitting solution for moving freight and people over land. Growth in the use of rail compared to other transportation modes will lead to a global reduction in GHG emissions. However, such growth may increase absolute Scope 3 emissions primarily driven by increased customers' use of Wabtec locomotives.



Transitioning to a lower-carbon economy presents a significant opportunity for Wabtec to generate revenue through our investments in zero- and low-carbon products such as biofuel capable engines, battery electric locomotives, and advanced hydrogen technologies for locomotives. In this scenario, Wabtec faces potential risks due to the timing of shifting customer demand and our ability to offer the right low-carbon technology at the right time.



To further reduce the GHG impact of rail transport, decarbonization will require the supporting infrastructure and supply chains, the adaptation of operating models, the approval of regulatory agencies, and the implementation of underlying policies that promote these various factors.



Understanding the important role Wabtec plays in helping to drive the growth of rail use, and the reduction in the greenhouse gases emitted by our customers' use of our products, we plan to take climate action in three areas: 1) deliver biofuel-capable engines and locomotives; 2) continue our collaboration with research institutions and industry leaders to develop alternative zero- and low-carbon hydrogen technologies; and 3) advance battery electric locomotive technology. These are critical steps on the path toward the decarbonization of rail. They would help mitigate transition risk and allow us to grow our business.

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## **Forward-Looking Statements**

This document contains forward-looking statements, which concern future circumstances and results and other statements that are not historical facts. Forward-looking statements are sometimes identified by the words "believe," "commit," "continue," "could," "endeavor," "estimate," "expect," "goal," "may," "potential," "predict," "seek," "target," "will," or other similar words or expressions. Forward-looking statements include, but are not limited to, our identification and prioritization of climate- and transition-related risks and opportunities, our strategies for addressing climate-related impacts and their potential effectiveness, our strategies and execution against our ESG goals, our ability to effectively develop the new technologies and product offerings discussed in this report and the timeframe for doing so, anticipated trends for customer priorities and demand, and the potential impact of carbon pricing and other climate regulations. These forward-looking statements are based on current expectations and reflect assumptions about the future. Accordingly, forward-looking statements are subject to risks, uncertainties, and assumptions. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those indicated or anticipated by such forward-looking statements. Factors that could cause actual results to differ materially from such commitments, targets, objectives, plans, estimates, or expectations include, among others, (1) Wabtec's ability to implement its strategic plans, product and technology development objectives, and efficiency targets; (2) changes in the legal and regulatory environment, including with respect to EHS and climate change matters, and changes in governmental policies relating to such issues; (3) changes in general economic, political, and/or industry specific conditions, including increases in competition, changes in freight or passenger rail traffic, changes in customer priorities and demand, or advances in technology by competitors; (4) limitations of, and uncertainties relating to, the reports and climate variable models that we utilize in the analyses referred to in this report; (5) increases in operational and compliance costs, including additional costs related to the implementation of our climate-related initiatives; (6) the effects and costs of actions by third parties, including government agencies; (7) negative perceptions among parties regarding our environmental. social, governance or climate-related projects, or controversies involving the environmental, social, governance or climate impact of our business or industry; and (8) other risks and uncertainties that we may face from time-to-time or that we may not currently consider significant. Any forward-looking statements speak only as of the date of this report. Wabtec does not undertake any obligation to update any forward-looking statements, whether as a result of new information or developments, changes in the assumptions on which they were based, future events or otherwise, except as required by law. Readers are cautioned not to place undue reliance on any of these forward-looking statements. Information in this document should not be considered as part of, and is not incorporated by reference into, any registration statement, prospectus, offering memorandum, or other financing related document or other regulatory reports of Wabtec.

Within this report, concepts of materiality refer to the ESG- and climate-related topics about which Wabtec communicates because a range of constituents consider them important within this context and because they inform our ESG- and climate-related targets and objectives. It should not be confused with materiality used in accounting standards or under applicable securities laws.

Metrics and Targets

Wabtec Climate Report

**CLIMATE REPORT** 

## **Introduction & Summary**

The impacts of climate change affect many aspects of our global society and economy. The Wabtec Climate Report presents our strategy for addressing climate-related impacts relevant to our business. This disclosure is aligned with recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). This climate report aims to provide our shareholders and other stakeholders with a high-level overview of the climate-related physical and transition risks to which Wabtec may be exposed, in addition to a review of potential climate-related opportunities.

Wabtec has conducted a forward-looking assessment aligned with the TCFD reporting framework that provides insight into climate-related transition and physical risks and opportunities. Risks and opportunities were reviewed and prioritized by a team of more than 50 Wabtec leaders, with support from a third-party consultant, using a scenario-based approach. The global process of transitioning to a low-carbon economy presents both business significant opportunities and limited risks to our industry as well as to our company. Climate impacts like extreme weather events can cause operational disruptions to Wabtec's operations and facilities that might lead to financial risks. Climate and weather events are likely to increase in frequency and intensity over time, based on projected atmospheric carbon dioxide  $(CO_2)$ levels and temperature scenario analysis as reported by the Intergovernmental Panel on Climate Change (IPCC) in its sixth assessment report (AR6).

Our climate risk assessment identified and evaluated **transition** and **physical risks** through 2050 under multiple scenarios. Under this methodology, physical risks, such as significant business disruption and/or financial loss from damage to Wabtec assets arising from more intense and frequent climate and weather events were analyzed under two scenarios:

- 1. A high emissions scenario in which the global average temperature increases by 3 to 6°C.
- 2. Low emissions scenarios that limit global temperature increases to 1.5 to 2°C.

The low emissions scenarios present both risks and opportunities for Wabtec as the economy transitions to lower-carbon solutions.

Wabtec's most significant climate-related opportunity is associated with our ability to enable the decarbonization of rail by supplying next-generation rail technology that, if successful, could help our customers to achieve their greenhouse gas (GHG) reduction goals. If we are able to supply our customers with rail technology that meets their needs as the world reduces emissions, we could increase revenue and make a positive impact on the environment. However, even if successful, we could face a climate-related risk since we need to provide the right technology at the right time. We expect that customer demand will evolve based on policies and regulation as well as available infrastructure. Investing on the right timeline to avoid overcapitalization or undercapitalization is critical.

Decarbonizing rail, and specifically non-electrified tracks, requires a systematic approach and alignment between a large number of stakeholders. The development of our technology is one piece of this rail decarbonization puzzle, but success also requires the supporting infrastructure and supply chains, the adaptation of operating models, the approval of regulatory agencies, and the implementation of underlying policies that promote these various factors. Commercial adoption requires that all these elements come together. We will continue to advocate for policies that contribute to the decarbonization of rail, and to develop partnerships to address policy issues that are not directly within the scope of our core role as a technology company.

At Wabtec, our vision is to revolutionize the way the world moves for future generations. This report includes our new interim commitments for Scope 3 emissions, that demonstrate how we plan to continue to create sustainable value for our stakeholders and shareholders. Meeting these commitments would enable us to address the identified risks and opportunities with the highest priorities.



This report includes **our new climate commitments**, which demonstrate how we plan to continue to create sustainable value for our stakeholders and shareholders.

## Governance

Wabtec's governance framework begins with our Board of Directors, which oversees the execution of the Company's environmental, social, and governance (ESG) strategy within its oversight of Wabtec's overall business, risks, and opportunities. The Board, guided by its Governance and Sustainability Committee and ESG Subcommittee, oversees our sustainability strategy and execution against our ESG goals; reviews climate-related risks and opportunities; enhances enterprise risk strategy and management systems; addresses Environmental, Health, and Safety (EHS) matters; and shapes Wabtec's public policy and advocacy efforts. The process by which the Board and its committee remain informed of Wabtec's progress on its sustainability goals includes presentations from the Company's management in addition to third-party subject matter experts.

The ESG Subcommittee of the Board meets quarterly and oversees the evolution of ESG policies, procedures, programs, and management systems; reviews Wabtec's ESG reporting and disclosure; monitors the Company's ESG compliance and related risks; and keeps the Board informed of ESG activities and best practices. The ESG Subcommittee reviewed the climate opportunity and risk assessment described in this report.

Wabtec's Chief Strategy and Sustainability Officer has direct oversight responsibility for the Company's sustainability strategy and initiatives and leads internal activities to drive progress across Wabtec's value chain. Together with the executive management team, the Chief Strategy and Sustainability Officer is responsible for carrying out the business strategy and actions related to climate risk and opportunity.

#### The Wabtec Sustainability Task Force meets

quarterly to advance the Company's sustainability strategy. This team includes leaders across functions and business segments, including EHS, Operations, Engineering, Finance Controllership, Investor Relations, Sourcing, Legal, and Human Resources. They are responsible for implementing actions within their respective functions that support Wabtec's ESG framework and strategy.





Additional information about our Board oversight can be found in Wabtec's Sustainability and Corporate Governance webpages.

Sustainability Task Force consisting of cross functional members of management

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## **Risk Management**

#### Wabtec's Enterprise Risk Management (ERM)

process is the primary vehicle for assessing and managing operational, strategic, financial, and compliance risk. Wabtec's Board of Directors, primarily through the Audit Committee, oversees and monitors risks facing the Company. An ERM report, including the status of relevant mitigation measures, is reviewed with the Board twice a year.

The ERM process is central to determining the most relevant risks at Wabtec. Risk identification takes place through surveys of key leaders across the enterprise, including inputs from the business units, regional stakeholders, and functional subject matter experts. These risks are assessed based on a quantified scale using the likelihood of occurrence and the potential severity of the impact. Identifying and implementing action plans to mitigate climate risk is a critical area addressed as part of this process. With support from a third-party consultant, an additional, **climate risk-specific scenario analysis** was conducted in 2023 to assess the risks and opportunities across different temperature outcomes. The scenarios evaluated represent global development paths that result under global average temperature increases from 1.5°C to 6°C, corresponding to low and high GHG emissions scenarios. The evaluation assessed:

- Physical risks, using scenarios from the Intergovernmental Panel on Climate Change (IPCC).
- Transition risks and opportunities, using scenarios from the International Energy Agency (IEA) and the Network for Greening the Financial System (NGFS).

Our climate risk assessment engaged over 50 stakeholders across the business to identify potential climate-related risks and opportunities. Once risks were identified, we utilized our ERM framework and existing standards and regulations to prioritize climate-related risks and opportunities relative to one another. These are presented in this report.

Continuing to reassess and evaluate risks is important to Wabtec's success. Our business and corporate functional teams continue to evaluate, analyze, and address the climate-related risks described in this report. Relevant climate risks will be considered in our annual ERM process, and we plan to revisit the climate-based scenario analysis as needed.



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## **Strategy**

At Wabtec, we seek to enhance our understanding of the potential impacts of climate change on our business and our people, to prepare for the energy transition. To address this aim, we performed a climate opportunity and risk assessment, which included scenario analysis and evaluation of the "just transition" principles<sup>1</sup>. This assessment was performed with the support of a third-party consultant, leveraging TCFD guidance, climate-related expertise, and industry insights. This evaluation also encompassed the participation of more than 50 Wabtec leaders and subject matter experts, spanning the entire value chain and related corporate functions. The teams involved in the assessment considered business risks and opportunities that could arise from the process of transitioning to a low-carbon economy.

In addition, physical risks within the context of a high-emissions world were analyzed for 50 Wabtec locations. This evaluation used geospatial, physics-based climate models designed to quantify risk exposure to acute weather events and chronic climate-related stresses. The analysis identified climate-related risks and opportunities which were then prioritized using a scale similar to the methodology of our ERM framework. Descriptions of the risks and opportunities that we believe are most significant currently are presented in this report.

While the identified risks associated with the "just transition" principles were determined to not be significant, we understand the need to prepare our workforce to succeed in the transition to a low-carbon economy, including retraining and/or upskilling our employees, fostering diversity and inclusion, and continuing to engage and invest in the communities where we operate. More information about how Wabtec prepares for a just, inclusive, and sustainable transition can be found on page 53 of our 2023 Sustainability Report.

## A team of more than 50 Wabtec leaders spanning the **entire value chain** and related corporate functions participated.

### PROCESS TO PRIORITIZE CLIMATE-RELATED RISKS AND OPPORTUNITIES



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## **TRANSITION RISKS AND OPPORTUNITIES**

## **Technology Development**

Rail represents the cleanest, most energy-efficient, and safest mode of moving freight and people on land. The current trend toward a substantial increase in demand for sustainable transportation of people and goods suggests that **freight and passenger rail activity will more than double by 2050**. As rail technology leaders with a long history and legacy as innovators in our industry, we believe we have a central role to play in developing solutions for sustainable rail transportation. Wabtec has identified the opportunity to make a positive impact on industry-wide GHG emissions through our development of future technology solutions, along with continued improvements in the energy efficiency of existing fleets. By leveraging our demonstrated capacity for innovation, we aim to help to accelerate the shift to low- and zero-carbon rail technologies, which, if successful, could reduce emissions in line with the Paris Agreement's path to limiting global temperature increases. Specifically, Wabtec is helping its customers transition to a more utilized, efficient, and low-carbon rail network. Under a low-emissions scenario, we can enable our customers to adapt and thrive during this economic transition. We support our customers with innovative solutions as they seek to reduce their overall carbon footprints. Examples of the solutions we offer include our Tier 4 low-emitting locomotives, Trip Optimizer™, and Green Air HVAC solutions. These products, along with battery electric locomotives and the development of alternative fuel technologies, including biodiesel, renewable diesel, and hydrogen, can give our customers the ability to reduce their Scope 1 and 2 emissions, which would also reduce the Scope 3 emissions intensity of Wabtec's products.

#### LOCOMOTIVE TECHNOLOGY ROAD MAP FOR SUSTAINABILITY

	2015	2023	2026	2030+	Reduction
DIESEL ENGINE	TIER 4			T4 High Efficiency	8%
	MODERNIZATIONS	L Advantage	EVO Adva	ntage	8%
	BIOFUELS	Enabling the adop	tion of biofuel		>60%
<b>BATTERY</b> MAINLINE HYBRID CONSIST		DEMO FLXdriv	e 2.0	FLXdrive 3.0	30%
BATTERY SWITCHER AND LOCAL			FLXswitch		100%
HYDROGEN			Swi	DEMO HHP/ Tender tcher / Local Main Line Locomotive (fuel cell / engine)	100%
DIGITAL	Our technologies, such as Trip	Optimizer <sup>™</sup> and LOCOTROL <sup>®</sup> , enhar	nce the rail industry's susta	inable journey.	Up to 30%

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Wabtec

**Climate Report** 

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#### **STRATEGY**

#### Improvements in Efficiency

As with our own footprint, a key step for our customers in their journey to reduce GHG emissions lies in improving operational efficiency. For over a century, Wabtec has been driving improved efficiency and technology development, and is well-positioned to provide and develop technologies and services in this area.

Improvement in locomotive and rail system efficiency is a first step in helping our customers to achieve GHG emission reductions as they work to meet their sustainability targets. Some examples of our innovations in locomotive and rail efficiency include:

- Wabtec's Evolution Series Tier 4, the first freight locomotive to meet the U.S. Environmental Protection Agency's (EPA) stringent Tier 4 emission standards;
- The modernization of previous generations of locomotives, which can provide significant energy efficiency and emissions improvements to aging fleets with legacy technologies, reducing their GHG emissions by up to 25%; and
- Our digital solutions, such as Trip Optimizer, enable our customers to optimize locomotive and rail network performance, as well as operational and system-wide efficiency, and can achieve GHG emission reductions of up to 30%.

### **Biofuel Compatibility**

Another near-term solution to enable significant decreases in rail GHG emissions is the transition to the use of **biofuel** to replace fossil diesel. This change has the potential to reduce GHG emission intensity by more than 60%. We are partnering with customers to ensure our new and legacy locomotives are biodiesel and renewable diesel capable. This includes ensuring material compatibility and reliability, as well as complying with criteria for pollutant emissions standards. The widespread adoption of biofuel within the rail industry is dependent upon the availability of fuels at affordable prices.

### Alternative Low-Carbon Rail Technology

Wabtec is investing in the development of alternative, **low-carbon products** such as **battery electric locomotives** and **advanced hydrogen technologies** for locomotives. When deployed, these products could provide our customers with powerful solutions to enhance their sustainability, delivering the potential to eliminate up to 100% of GHG emissions from the operation of their locomotives. It could also provide Wabtec significant opportunities to increase revenue and growth.

Our FLXdrive<sup>™</sup> locomotive provides a solution for switchyard operations and other short-distance use cases, such as some mine hauling, affording our customers an option for zero direct emissions when charging with renewable energy. Powering locomotives with hydrogen fuel is one of the more promising alternative energy options for the decarbonization of rail. Wabtec is exploring two approaches: 1) converting internal combustion engines to work on a blend of hydrogen and diesel; and 2) powering locomotives with hydrogen fuel cells.



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#### **STRATEGY**

## **Technology Adoption**

We see a significant opportunity for Wabtec to provide new low-carbon locomotive technology to the rail industry. This expectation is predicated on the identification of a sizable potential addressable market, and our ability to satisfy that market. Providing this technology would be expected to have a significant impact on Wabtec's organic sales growth. In the future, when use of the diesel locomotive decreases, the demand for low- and zero-carbon solutions will grow, and we plan to be in a position to fill the expanding demand for our customers. If we are ready with innovative products that allow our customers to deliver freight and passengers with a lower climate impact, we expect to be successful. With our recent advances in battery electric locomotives and our proven leadership in other alternative energy and low-emitting technologies, we believe Wabtec is well prepared to contribute to the decarbonization of rail.

There is also a scenario where our ability to further benefit from low-carbon locomotive technologies in the future could face potential risk. Wabtec's ability to deploy the right technology or solution at the right time is dependent on infrastructure development, customer demand, climate and air quality regulations, and our strategic investments in specific new technologies, among other things. This could potentially lead to financial impacts to our business. However, we have strategic partnerships in place with the intent to reduce the likelihood of this scenario.

To illustrate this risk, Wabtec could develop a hydrogenpowered locomotive on an accelerated schedule. But if hydrogen production and fueling infrastructure do not yet exist when our product is ready, the market for this new locomotive may be limited or non-existent. In this scenario, our company's financial performance could be adversely impacted. On the other hand, if we are late with a product when the market does develop, this could also lead to an impact on Wabtec's financial performance. Wabtec aims to reduce these and similar risks by partnering with key stakeholders to drive the innovation of alternative fuels and support infrastructure development, while also working with regulatory agencies to create acceptance for these emerging technologies. As an example of this, Wabtec supported the Department of Energy (DOE) Hydrogen Program, contributing to the development of the DOE hydrogen hub implementation strategy. Wabtec also supported applications to secure a share of government hydrogen hub funding. Wabtec recognizes that progress cannot be made if stakeholders act alone. Therefore, we continue to collaborate actively with a diverse group of partners, including our customers and government agencies, to better understand their decarbonization strategies, goals, and time horizons. Ultimately, our objective is to bring together the pieces of the puzzle – such as the technology, the infrastructure, and the regulatory environment - to produce meaningful and promising strategies for the decarbonization of rail.

### Expected Impact of Global Carbon Pricing, Policies, and Regulation

Existing and emerging carbon pricing and other climate regulations are expected to impact the demand for Wabtec's products. The timing and content of emission

policies and regulations that affect rail customers are both important factors for the adoption of new rail technology. These will likely have an impact on when we may be able to sell products and what type of products will give the best value to our customers as they work to meet new standards. Another complicating factor is that global and regional variations exist in climate regulations that may affect some rail customers more stringently and sooner than others. Finally, policies that impact the infrastructure required to move beyond fossil diesel across the global rail network will contribute to the type and timing of technology adoption.

We expect the risks associated with these policies are significant since future demand for Wabtec's low- and zero-carbon products depends to a large degree on when, where, and how they are implemented. To help ensure we can respond to shifting demand, Wabtec's strategic planning process considers the evolving regulatory landscape related to the environment and climate change policy and prospective legislation that could have potential impact on our customers.



Keeping track of the global policy and regulatory environment enables the Company to understand the impact, scope, timing, and applicability of evolving regulation to our industry, and also allows us to plan for additional R&D investment in the medium/longterm and/or changes in the mix of products.

In addition, we engage in advocacy, working at the national, state, and local levels to advocate for transportation policies that promote practical solutions to decarbonize rail and support domestic manufacturing. Wabtec works with government agencies such as the U.S. Department of Transportation and Department of Energy to understand their priorities and to provide input on the challenges the rail industry faces in moving to lower-carbon solutions. New technologies often face complex and unforeseen regulatory challenges that require partnership and cooperation between regulators and industry. As a global rail technology leader, Wabtec seeks to provide its expertise and experience to assist the regulatory community in developing new regulations and standards that could eventually apply to the low-carbon economy.

### Shifting Customer Demand

There is a potential scenario where customers implement ambitious decarbonization strategies aligned with a low-carbon economy. In this case, shifting customer demand may present limited risks to a small part of Wabtec's market share for existing diesel-based products across different business segments. Also, changes in primary commodities that customers transport in North America and globally, influenced by market and policy changes, may negatively impact demand for Wabtec products. To reduce this risk, we continuously work closely with our customers and other partners to understand when and how market demand could change.

It is important for Wabtec to match the speed with which our customers adopt next-generation technologies to

accelerate a transition to a low-carbon economy. If Wabtec is not ready with the right solution at the right time, there is potential for limited loss of market share.

Wabtec has a long history of very close partnerships with our customers. These partnerships are important to mitigate the risk of not matching the timing of our technology availability with market demand.

continuous

products

We develop technology with our customers' needs in mind and regularly work with them to test and demonstrate our innovative future products and technologies. Moreover, these partnerships lead us to a deeper understanding of our customers' requirements, helping to reduce risks associated with shifting demand.

### INFRASTRUCTURE

 Support of rail transportation policies that allow scalable and cost-efficient infrastructure



rail, and renewable energy industries

Decarbonization of the rail industry will require innovative technology, partnerships between multiple stakeholders, and advocacy for policies and regulations designed to enable a smooth transition from the current state.

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#### STRATEGY

## Carbon Pricing on Direct Operations and Raw Materials

Existing or new regulations on climate change may increase our operational and compliance costs. Currently, carbon pricing mechanisms on operations and products already exist in several jurisdictions in which Wabtec operates. Examples of such regulations are the EU Emissions Trading System (EU ETS) and the Carbon Border Adjustment Mechanism (CBAM). Considering our manufacturing operations are not as energy intensive as other industries (such as oil and gas, cement, steelmaking, etc.), the risk exposure to regulations that cover Scope 1 and 2 emissions, such as EU ETS, is mitigated. However, these regulations could impact energy prices and add additional supply chain costs. For example, as steel is a major raw material used for our products, we actively monitor price fluctuations in this input that are caused by regulatory activities such as CBAM and other climate policies, and we maximize the reuse of steel during modernizations and other projects to minimize the impact of such fluctuations.

## Urbanization Driving Transit Business

Urbanization, especially in the European Union, is expected to continue as a prominent trend, driven by factors such as economic opportunity and demographic shifts. In its World Energy Outlook 2023 report, the International Energy Agency (IEA) projects a 36% increase in rail passenger-kilometers by 2030<sup>1</sup>. The growing trends of urbanization and ridership may increase demand for our Transit products, including braking systems, doors, HVAC and comfort systems, and electrical and power collection solutions. We believe that the growth in urbanization is directly related to policies intended to promote sustainable infrastructure development and to reduce national GHG emission levels in countries across the globe.

For example, cities like Amsterdam, Netherlands, have invested in efficient public transportation systems including local trams and metros<sup>2</sup> to promote

sustainable modes of transportation, reduce congestion, and improve air quality.

By the end of 2022, EUR 25.3 billion had been spent by projects under the European Regional Development Fund (ERDF) as reported in the European Structural and Investment Funds Summary report<sup>3</sup>. One of these projects is the renovated railway network in South Morvia, one of the biggest Cohesion Policy investments in Czechia, benefiting the rail industry with a capital investment of approximately EUR 223 million<sup>4</sup>.



<sup>1</sup> International Energy Agency (2023), 'World Energy Outlook 2023' https://www.iea.org/reports/world-energy-outlook-2023

<sup>2</sup> Discover Amsterdam (2023), 'Sustainable Transportation' https://www.iamsterdam.com/en/conventions/sustainabletransportation

<sup>3</sup> European Commission (2024), 'Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions' https://ec.europa.eu/regional\_policy/sources/reports/annual\_2023/2023\_Annual\_Summary\_Report.pdf

<sup>4</sup> European Commission (2023), 'EU Cohesion Policy: New sustainable modern railway in Czechia' https://ec.europa.eu/regional\_policy/whats-new/newsroom/22-06-2023-eu-cohesion-policy-new-sustainable-modern-railway-in-czechia\_en

#### **STRATEGY**

## **PHYSICAL RISKS**

If actions are not taken to limit the growth in global GHG emissions, industry experts predict that there will be a corresponding increase in the frequency and severity of weather events, as well as long-term impacts such as a rise in sea level. With the support of a third-party expert, we have conducted a physical risk analysis to determine the potential impacts that pose a risk to certain Wabtec locations, operations, and business activities. We used the latest IPCC Sixth Assessment Report (AR6) "Climate Change 2021: The Physical Science Basis" as a guide, in addition to geospatial, physics-based global climate variable models.

According to the IPCC AR6 Report, climate-related physical risks are expected to increase over time due to an increase in global GHG emissions. Each of these climate risks may cause impacts such as damage to Wabtec assets, operational disruptions and interruptions, supply shortages, cost increases, and health and safety concerns for employees or the public. However, none of the physical risks were estimated to have a higher impact than the business transition risks and opportunities described above. There are several climate-related physical risks that we consider relevant and discuss herein.

# Acute Physical Risks for Wabtec Operations

Risks due to the increased frequency and severity of weather events could impact Wabtec by potentially disrupting our own operations, as well as those of our suppliers and customers. According to the geospatial modeling analysis, the most prevalent acute weather risk for Wabtec locations is anticipated to be hail, covering six locations. However, the anticipated impact of hail is quite limited for our facilities, and it would be unlikely for operations to be significantly disrupted as roofing and other infrastructure would most likely suffer only minor damage. The analysis uncovered other acute physical risks that are anticipated to increase by 2050 under a high emissions scenario such as flooding, extreme heat, tornados, and tropical cyclones for a small set of facilities. These locations have plans to deal with such emergency events and we have insurance coverage in respect of significant losses.

# Acute Physical Risks for Wabtec Suppliers

Our 27,000+ suppliers are also expected to be exposed to acute physical risks. If extreme weather affects the ability of a supplier to provide us with a key raw material or component, we may not be able to meet our production plans. This is a lowto medium-scored risk in terms of impact and likelihood. In an effort to mitigate this risk, Wabtec assesses major suppliers to determine the impact of such disruptions and considers alternative supply possibilities, ensuring that we have multiple options for production continuity.



## **Metrics and Targets**

## **GREENHOUSE GAS EMISSIONS**

Wabtec's total Scope 1 and 2 GHG emissions, our operational carbon footprint, were 235 thousand metric tons of  $CO_2e$  in 2022 (down 35% from a 2019 baseline). We have aligned our operational framework with the Paris Agreement and its science-based goal of limiting the Earth's temperature increase to less than 1.5°C. Our absolute GHG target is to reduce our Scope 1 and 2 emissions by 50% by 2030 from our baseline in 2019.

Consistent with this objective, we intend to continuously drive efficiency through conservation measures, embracing the lean philosophy of only using what is needed when it is needed. These reduction efforts include active campaigns to turn off idle equipment, as well as energy efficiency improvements in our manufacturing processes and infrastructure. To reduce our GHG emissions further, we plan to shift a significant portion of our remaining energy needs to renewable sources using long-term power purchase agreements that enable the construction of additional clean power generation facilities.

Our efforts to drive energy efficiency and switch to renewable energy aim to mitigate the risks associated with carbon pricing regulations on our own operations. By operating at a lower energy intensity, we would be less exposed to the risk of energy price increases. Outside of our operational boundary, Wabtec's value chain GHG emissions (Scope 3) stem mostly from the use of Wabtec products, with the majority attributable to locomotives. From a global emissions perspective, rail is the most efficient and lowest-emitting way of moving freight and people over land. Growth in the use of rail compared to other transportation modes is expected to lead to an overall reduction in global GHG emissions, but this modal shift may lead to an increase in absolute Scope 3 emissions from using additional Wabtec products in the short and medium term, before low- and zero-carbon technologies are enabled and embraced by the rail industry.

Bureau Veritas UK Ltd. (Bureau Veritas) was engaged by Wabtec to provide third-party verification of our Scope 1, 2 and 3 GHG emissions data, as well as water consumption data in water-scarce areas, for the period from January 1 to December 31, 2022. Bureau Veritas performed this limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 Revised Edition. Our complete GHG inventory, as well as the <u>assurance statement</u>, can be found on page 67 of our 2023 Sustainability Report. 1/



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#### **METRICS AND TARGETS**

## **NEW CLIMATE COMMITMENTS**

We recognize the importance of climate action; we intend to lead the decarbonization of rail and do our part to accelerate technology that results in an overall reduction in global GHG emissions. Scope 3 GHG emissions from use of Wabtec's products represent one area where we can have a critical impact on reducing GHG emissions. We can achieve this by helping our customers meet their climate goals. Our climate strategy includes Scope 3 commitments to develop, advance, and promote the adoption of technologies and products to drive the reduction of GHG in the rail industry.



Freight locomotives with 100% biofuel (B20/R80) capability<sup>1</sup> will be available with the following milestones:

New and modernized high-HP<sup>2</sup> freight locomotives capable of 100% biofuel (B20/R80) in North America by 2026. Low-HP modernizations to provide capability for 100% biofuel (B20/R80) by 2027.

New and modernized freight locomotives with 100% biofuel (B20/R80) capability globally by 2030.



Wabtec will promote and demonstrate the viability of low- and zero-carbon fuels through:

- Partnering with research institutions to complete demonstration of hydrogen combustion technologies by 2026.
- Achieving a hydrogen-powered locomotive demonstration reducing carbon emissions by 2030.
- · Collaborating with industry leaders to develop new technologies.



Wabtec will advance battery electric locomotive technology and promote industry adoption through continued improvements in technology and cost.

Wabtec is committed to sustainable value creation. Our strategy is to contribute to a better, more sustainable world through our unique business offerings, leading technologies, and sustainable business practices. These commitments help us capitalize on market opportunities and positively impact the planet and our customers' climate goals, while reducing climate-related risks to our business. We will disclose our progress toward these commitments, along with our other sustainability metrics in our routine ESG reporting.

<sup>1</sup> Locomotive and engines are considered biofuel capable when the materials are compatible with 100% biofuel blends. In North America, that capability extends to meeting emission requirements over the life of the engine for blends up to B20/R80, a mixture of 20% biodiesel and 80% renewable diesel.

<sup>2</sup> High horsepower engines are those with an output of over 4,000 HP.



# **TCFD Index**

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Торіс	Recommendation	Page Reference	
Governance	a) Describe the board's oversight of climate-related risks and opportunities.		
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	6	
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	8-13	
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	8-13	
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	8-13	
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks.	6-7	
	b) Describe the organization's processes for managing climate-related risks.	6-7	
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	6-7	
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	14	
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	14	
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	14-15	



### Wabtec Corporation

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