

# Corporate Social Responsibility Report

2022

 CargoBeamer





Editorial

# Editorial

Introduction

Dear readers,

Strategy

Although 2022 being turbulent, it was a fantastic year for CargoBeamer's growth and its ability to shift trailers from road to rail. We increased our transports by over 50% and at the same time achieved a disproportionate 76% more CO<sub>2</sub> savings compared to road transport. We established a new "Sustainability" business unit, within which two employees and a working student are now fully dedicated to this central topic. For the first time, we have CO<sub>2</sub>-compensated our company's footprint and that of our product, as certified by TÜV Nord Cert. And we published our first CSR report, whose successor you now have in front of you.

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At the same time, the consequences of the Ukraine war have not left us untouched: Price fluctuations in the energy market, affecting both our traction power and diesel used in road transport, have intensified direct price competition. We have witnessed a temporary surge in fossil fuel consumption, while the need for an accelerated transition to renewable energy sources becomes increasingly apparent. Additionally, the European economy has experienced a sudden decoupling from the Russian market. Inflation and a global increase in interest rates have further exacerbated the challenges of corporate financing in the short term.

CargoBeamer has been affected by this in many ways. For example, the diesel price cap has eased the burden on German road transport, while no corresponding

tools have been developed for the more environmentally friendly rail freight sector. In addition, quality in rail freight transport as a whole is at a historically low level, in particular due to a circumstance from which we will benefit in the medium term: There is finally more investment in maintaining and expanding rail infrastructure, which means more construction sites in the short term but smoother operations in the long-term. The situation is similar when it comes to financing conditions: In the short term, interest rates have risen and financing conditions have become more difficult, while we expect comparatively more favorable refinancing conditions in the medium term, given the promising prospects for companies like CargoBeamer that provide a distinct and scalable contribution towards achieving net-zero emissions.

So far, all our previous wagon batches (totaling 293 wagons) were sourced from an external wagon manufacturer. In 2022, we successfully completed the first wagons from our in-house production. This accomplishment, just 11 months after receiving approval from the Supervisory Board, marked a significant milestone. Moving forward, by taking on the assembly of the supplied components ourselves, we guarantee greater control over the production process and eliminate any potential loss of information between the manufacturer and the user of the wagons. This approach ensures our ability to maintain the highest standards of quality.

This is our second CSR Report in the history of

CargoBeamer and covers the reporting year of 2022. Protection of the environment is at the very center of our strategy. That is why our shareholders invested in CargoBeamer. And that is why we pursue an ESG best-in-class approach with a focus on, but not limited to carbon reduction. Our intention is to inspire fellows within the transport industry, encourage others to follow suit, and contribute to the growing pool of information, knowledge, and ideas that can support others on a similar journey.

Our annual CSR report outlines the progress made towards our goals, the challenges we encounter, and the strategies we employ to overcome them. The assessment methods and calculation assumptions for the data in this report are based on the existing information published on the European Corporate Social Responsibility Directive (CSRD). Since the information is currently not yet complete, reference is made to the Global Reporting Initiative ("GRI") standards at the appropriate point.

Our carbon reduction and offset roadmap builds upon the foundation and significant efforts already underway at CargoBeamer to reduce emissions. This is the third time we have completed a comprehensive evaluation of our scope 1, 2, and 3 emissions. We will continue to review and revise our targets annually as we make progress and gain more insights. We are fully committed to reaching our objectives in collaboration with our customers, partners, and other stakeholders within the transport sector.

CargoBeamer Executive Board:

**Nicolas Albrecht**  
Chief Executive Officer

**Dr. Markus E. Fischer**  
Chief Financial Officer

**Boris Timm**  
Chief Operating Officer

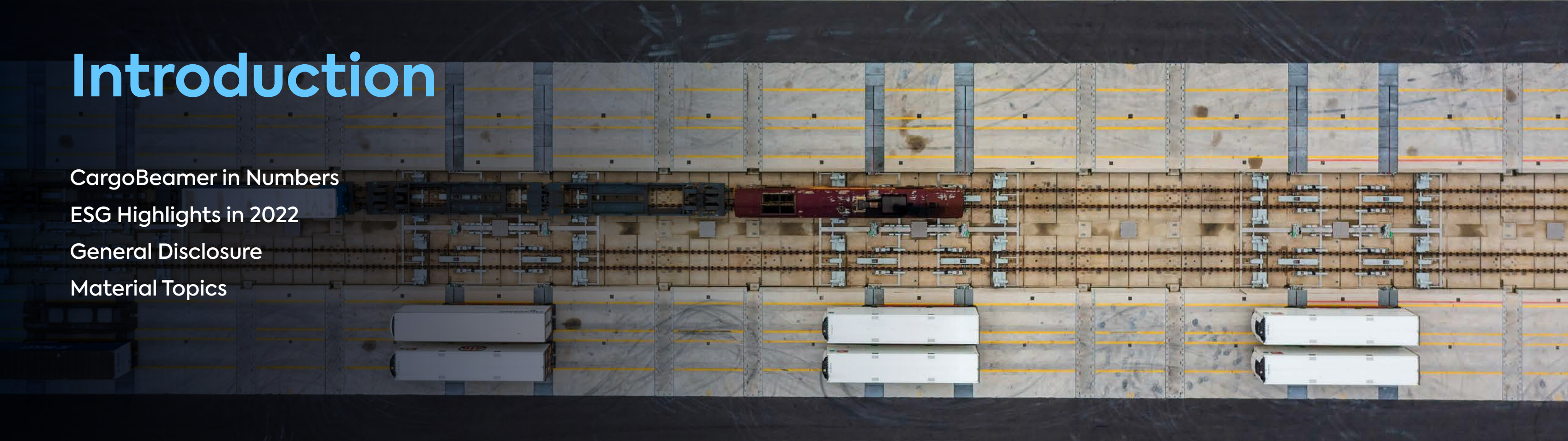
**Dr. habil. Hans-Jürgen Weidemann**  
Chief Technology Officer





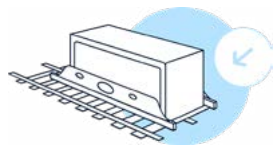
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- ESG Highlights in 2022
- General Disclosure
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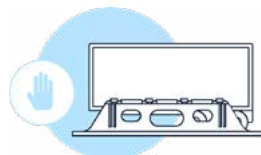




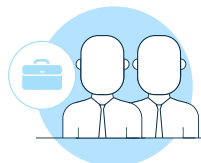
# CargoBeamer 2022 in Numbers



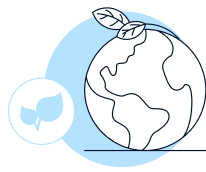
2  
Terminals Operated



33,340 t  
Saved CO<sub>2</sub> emissions  
compared to road



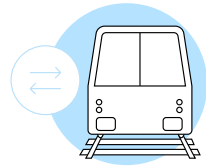
125  
Active Customers



6,758 t  
Compensated CO<sub>2</sub> emissions



119,6%  
YoY Revenue Growth<sup>1</sup>



8.6 g  
CO<sub>2</sub>/tkm emissions per  
distance

<sup>1</sup>Revenue Growth is calculated in accordance with International Financial Reporting Standards

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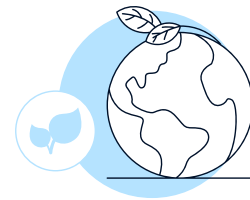
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# ESG Highlights in 2022



## Calculating product and carbon footprint

- We calculated our product (PCF) and company carbon footprint (CCF) in compliance with the international Greenhouse Gas Protocol.

## Emissions tracking software

- We integrated a CO<sub>2</sub> tracking software from EcoTransit, industry leader in calculating transport emissions, into our internal eLS system, enabling us to track and monitor emissions in almost real-time.

## Reducing product carbon footprint

- We achieved 41% reduction in our relative product footprint (in g CO<sub>2</sub> per tkm), showing rail's ecological advantage over other modes of transport.

## Certified as carbon neutral company & product

- We successfully offset our product and company carbon footprint, leading to our certification as a net-carbon neutral company offering a net-carbon neutral product by TÜV Nord Cert.

## Committing to "The Climate Pledge"

- We committed to The Climate Pledge<sup>2</sup>, aiming to achieve net-zero emissions across all scopes by 2030, which is 20 years earlier than the EU's goal.

## Monetizing ESG benefits

- We successfully monetized our environmental advantages for the first time under the French program "Certificats d'Economie d'Energie" (CEE), generating a significant portion of our revenue.

## Sustainability department established

- We established a dedicated sustainability department with 2 employees, one working student and now direct CEO responsibility.

## Continuous headcount growth

- We seamlessly onboarded and integrated 54 new employees into our ever more diverse team at CargoBeamer.

<sup>2</sup><https://www.theclimatepledge.com/us/en/Signatories>



# General Disclosure

## Business Model

CargoBeamer offers an environmentally friendly system for combined transport, enabling the shipment of all kinds of semi-trailers by rail. The service targets logistics companies, freight forwarders, and large shippers across Europe. The CargoBeamer Group aims to reduce CO<sub>2</sub> emissions by establishing a network of routes and terminals in Europe. The company's value proposition is to provide an efficient and environmental friendly alternative to the challenges of road freight transport – efficient as it only needs 20 minutes to load and unload a complete train, environmental friendly as rail transport saves an average of 85% of emissions compared to road transport and we compensate for the remaining emissions with Gold Standard CO<sub>2</sub> certificates.

CargoBeamer has developed an innovative, system-open, and sustainable logistics concept, covering various service elements of a transport service in unaccompanied combined transport. Subsidiaries and second-tier subsidiaries of CargoBeamer AG cover production, ownership, and financing of special purpose vehicles for CargoBeamer railcars ('CB Railcars') and CargoBeamer road/rail transshipment facilities ('CB Terminals'). Additionally, CargoBeamer AG operates and further develops the digital logistics platform 'CB eLogistics'. We manage operations from our two office locations in Leipzig and Frankfurt, while our employees are based in four European countries, (Germany, France, Italy, and Spain).

Thanks to CargoBeamer's pioneering transshipment system, almost all semi-trailers commonly used in Europe can be transferred from road to rail, using

specialty designed baskets for CB Railcars. Semi-trailers are handled in a time-, energy-, and cost-efficient manner through parallel and automated horizontal loading in the CB Terminals. CB Railcars can be easily integrated into any intermodal freight train and loaded and unloaded in any conventional crane or reachstacker terminal. This means that CB Railcars are fully compatible with conventional combined transport, providing access to the market of non-craneable semi-trailers.

## Organization and shareholdings

CargoBeamer AG is the holding company and owner of the CargoBeamer patent and trademark rights. The patent groups cover the CargoBeamer cargo handling system, which includes the specific CargoBeamer Railcar, the modular technology for road-rail transshipment called CargoBeamer GateModule technology, and the CargoBeamer CBoXX container, which is a high-volume rail container for the LTL market<sup>3</sup>, that can be moved on a CB railcar, ideally connecting automated warehouses.

**CargoBeamer AG** has overarching functions for the group. It is responsible for central areas, including Finance, Accounting, HR, Legal, IT, Sustainability, Controlling, and R&D. In addition, CargoBeamer AG develops business strategies and identifies new markets, including new terminal locations.

The Management Board of the AG is responsible for the operational management and strategic alignment of the group. It defines the company's goals and is responsible for achieving them with the help of management and control processes and available resources.

The business is divided amongst the following subsidiaries:

- CargoBeamer intermodal operations GmbH,
- CargoBeamer Rolling Stock GmbH,
- CargoBeamer Terminal GmbH,
- CargoBeamer Rolling Stock Production GmbH,
- CargoBeamer International AG, and
- several financing companies.

CargoBeamer AG is the sole owner of the operational subsidiary companies, holding directly or indirectly 100% of their shares.

<sup>3</sup> Less Than Truckload (LTL) refers to a segment of the transportation industry that specializes in the shipment of smaller-sized freight that does not require a full truckload.

# General Disclosure

GRI 100, 102-106

**CargoBeamer intermodal operations GmbH** acts as the central operator for transport services in Europe and is responsible for the commercialization of CargoBeamer’s services. It is our group’s interface to our customers. In 2022, our team managed operations on six routes throughout the EU and a partnership with Getlink for a joint transport service between Calais , France and Ashford, UK using the Eurotunnel infrastructure.

**CargoBeamer Rolling Stock GmbH** is responsible for the management of the wagon fleet and serves as the Entity in Charge of Maintenance (“ECM”), maintaining and ensuring the safe condition of the wagons. This entity also oversees the leasing of the wagons to operators, such as CargoBeamer intermodal operations GmbH.

**CargoBeamer terminal possession entities** such as CargoBeamer Terminal Domodossola Srl, CargoBe-

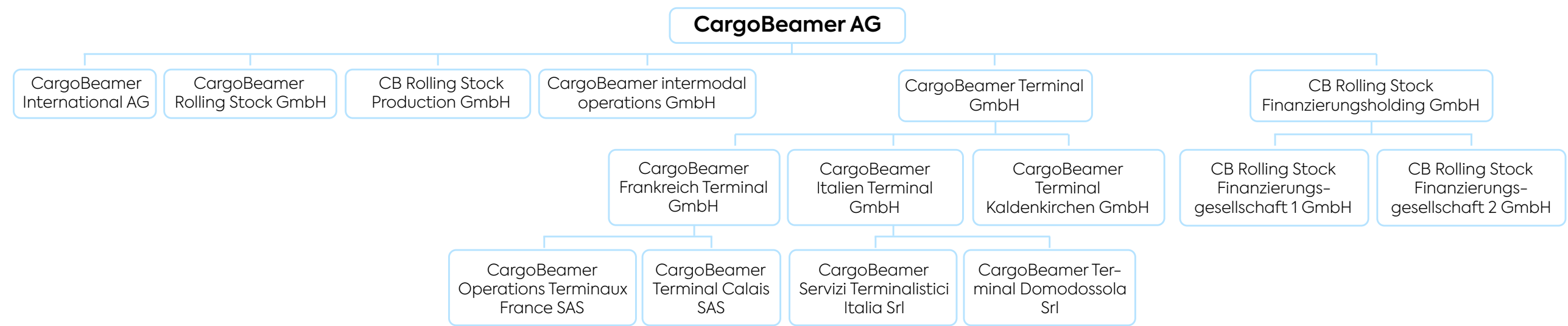
amer Terminal Calais SAS, and CargoBeamer Terminal Kaldenkirchen GmbH are responsible for the acquisition of land and construction of terminals and the receipt of terminal investment subsidies. In doing so, they make use of CargoBeamer AG’s expertise in terms of content. In addition, there are **terminal operating companies** who, in each case, rent the terminal built and take care of the commission, operation, and maintenance. The first commercially operating CB Terminal is located in Calais, France. During the year under review, a German terminal ownership company was added to the group for the future terminal in Kaldenkirchen (CargoBeamer Terminal Kaldenkirchen GmbH).

In 2022, we launched our own CB Railcar production line in Erfurt, conducted by **CargoBeamer Rolling Stock Production GmbH**. This newly established company specializes in the construction of our CB

Railcars. To facilitate this, we refurbished a production site in Erfurt during summer 2022, and by November, we started our wagon assembly. Since then, we are successfully producing high-quality railcars made in Germany. Individual CB Rolling Stock financing special purpose vehicles held by **CB Rolling Finanzierungsholding GmbH** are responsible for the acquisition and investments associated with the procurement of CB Railcars. CB Rolling Stock Financing GmbH acts as a holding entity for various financing vehicles involved in railcar procurement.

**CargoBeamer International AG** organizes the international business, with a particular focus on non-European regions. Its primary responsibilities encompass international acquisition, advisory consulting, and the establishment of partnerships.

Organizational Chart CargoBeamer AG as of 2022, end of the year





# Material Topics

Our sustainability reporting is guided by our sustainability strategy. To put this strategy into action, we are gradually implementing a sustainability management system. Given that there is currently no established industry standard for this, we are taking a step-by-step approach to ensure our system aligns with best practices.

In 2021, we conducted a comprehensive materiality analysis that involved input from representatives across different levels and technical departments of our company. This analysis covered a broad range of ESG topics and helped us identify the substantive key areas of our strategy. We revised this analysis in 2022 to align it with the new CSRD reporting requirements and leverage a new AI-based software for data gathering. This year's analysis was less extensive but still validated the material set of topics. We plan to conduct a comprehensive materiality analysis for our 2023 reporting, applying the principles of double materiality with a stakeholder survey. This will help us prepare for the gradual alignment of our reporting with the new CSRD, which we expect to address in the second half of 2023. In this year's condensed analysis, we arrived at the following material set of topics:

- Environment: Greenhouse gas emissions, emission reduction, energy consumed, materials used, and waste.
- Social: Health and safety, diversity and equal opportunities, working conditions and benefits, training and skills.
- Governance: Corporate governance, strategies and goals, resilience to climate risks, privacy and

data security, corruption, child labor and human rights, corporate behavior and ethics.

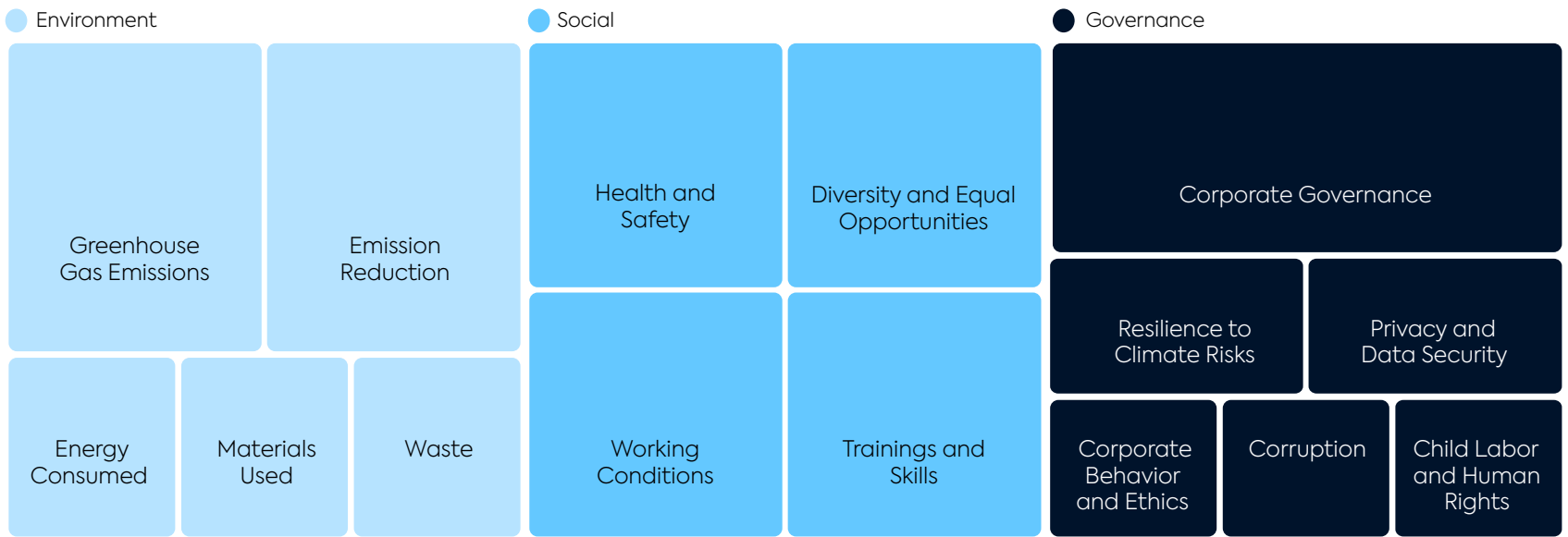
We do not report on:

- Collective bargaining as we do not have a unionized workforce.
- Community and social impact as we are still in the early stages of developing a social impact and community strategy, and we do not yet have enough meaningful data or initiatives to report on.
- Water because we have not yet installed measures at company or product level apart from tracking the amount withdrawn and discharged at every single location. Our railcars assembled in Erfurt are

mainly made of steel components which in their pre-production went through various processes like coke-making, iron-making, and steel-making, all of which require significant amounts of water. A considerate use of this resource is important to us and a key to protecting the biodiversity of aquatic habitats. We are still considering the most efficient management approach to the use of this resource along our value chain.

- Biodiversity as to our analysis our operations in 2022 have not had severe direct impact on sensitive habitats or species as we did not build a terminal. We remain committed to continually assessing our impact on biodiversity and integrating relevant actions into our sustainability strategy as we evolve.

## Material topics for CargoBeamer AG in 2022





# Strategy

Goals and Emission Monitoring  
UNSD Goal Alignment





# Goals and Emission Monitoring

GRI S 220

As an international company, CargoBeamer recognizes the challenges related to sustainability. Consequently, we have established sustainability goals in the domains of environment, social engagement, and corporate governance. Our objective is to actively contribute to sustainable practice by providing a net carbon-neutral product, advocating for eco-friendly transportation solutions, enhancing air quality, and maintaining a reputation as a high-quality employer. Given our business model, we particularly prioritize the examination of our CO<sub>2</sub> emissions<sup>4</sup>.

Our goal is to reduce and compensate all our emissions including scope 3 by 2030

As signatory of The Climate Pledge<sup>5</sup>, we are committed to reach net zero by 2030 across all our scopes (1, 2 and 3). This is 20 years earlier than the EU goal to reach net zero and 10 years earlier than requested by The Climate Pledge.

Our target is to reduce CO<sub>2</sub> emissions wherever technologically and economically possible and to

offset the remaining footprint by investing in high quality offsetting programs<sup>6</sup>.

2022 was the third year we conducted a detailed carbon footprint of our company and our products. Our emissions are measured and reported in line with internationally recognized standards and guidelines set by the Greenhouse Gas Protocol (GHG Protocol). The GHG Protocol helps to ensure consistency and transparency in greenhouse gas accounting and reporting, allowing us to compare our performance with competitors and partners and identify opportunities for emissions reductions. Our analysis covers the full scope of emissions associated with our activities, including:

**Scope 1 emissions:** Direct emissions from sources that are owned or controlled by the CargoBeamer Group. These can include emissions from combustion of fossil fuels in our company vehicles, boilers, or other equipment.

**Scope 2 emissions:** Indirect emissions from the consumption of purchased electricity, heat, or steam like the electricity at offices, terminal, or production sites.

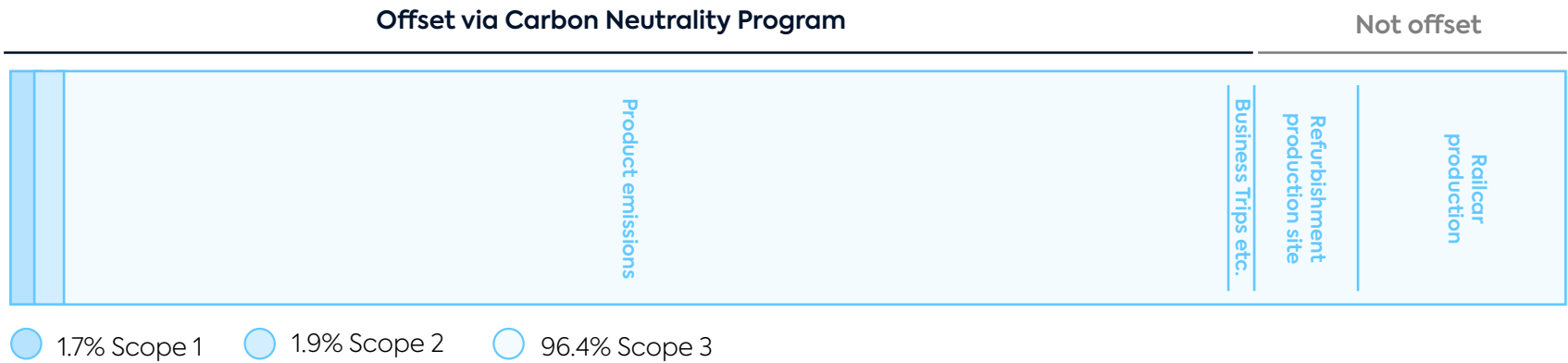
**Scope 3 emissions:** All other indirect emissions that occur in our value chain, such as emissions from wagon parts we assemble in Erfurt or traction current we purchase for moving goods via rail.

This year, our total emissions amount to 8,480 t CO<sub>2</sub>, which corresponds to the average emissions of 1,060 German individuals<sup>7</sup>. Through our services, we have saved 33,340 t CO<sub>2</sub>, equivalent to the emissions caused by around 4,121 German individuals. More details about the savings are presented in the table on the next slide.

Our footprint consists of 3.6% scope 1 and 2 emissions, with the remaining 96.4% being scope 3 emissions. We offset all scope 1 and 2 emissions and more than 75% of our scope 3 emissions with Gold standard certificates. The offset scope 3 emissions include, for example, traction energy emissions, terminal handling emissions, emissions from waste, commuting, travel, and other.

As of 2022, we do compensate for all our emissions except for scope 3 emissions from wagon production & maintenance as well as our terminal production.

Total emissions in 2022: Scopes 1-3



<sup>4</sup>When referring to CO<sub>2</sub> in this document, we are talking about CO<sub>2</sub>-equivalents. Other greenhouse gases like methane are included in this metric.  
<sup>5</sup><https://www.theclimatpledge.com/us/en/Signatories>.  
<sup>6</sup>We compensate our emissions by investing in projects that meet the rigorous standards set by the Gold Standard Foundation, a widely recognized certification body for carbon offset projects.  
<sup>7</sup>Per capita CO<sub>2</sub> emissions from fossil fuels and industry (land use change not included) average at 8.09 t CO<sub>2</sub> in 2021 ([Per capita CO<sub>2</sub> emissions \(ourworldindata.org\)](https://ourworldindata.org)).



# Goals and Emission Monitoring

GRI S 220

Our whole business model is centered around saving emissions. One semi-trailer that is moved from road to rail saves around 1 t of CO<sub>2</sub> on average. Emission reductions are the most significant leverage to mitigate negative environmental impact within the industry. We want to increase the number of semi-trailers shifted to electrified railroads and, hence, reduce the overall transport emissions. The following table shows how we cope with this mission, and it provides details about the development over the last years:

After collecting and analyzing datasets of our activities and related emissions, we have identified emissions as our most significant leverage to mitigate our own negative environmental impact of our operations. That is why we put a particular focus on the three sources of emissions that contribute to over 95% of our overall emissions.

1. Emissions from **transportation** (railroad current, shunting and terminal handling emissions at our own and third-party terminals),

2. Emissions from producing our **rolling stock** and

3. Emissions from building our **terminals**.

We prioritize reducing these emissions and implementing reduction measures as our primary goal. Our approach and achievements in this regard are described in the chapter “Environment”. The respective chapter also provides specific details on the measures we have already implemented towards the achievements.

Development of key KPIs in 2022 in comparison to previous year

	Unit	2021	2022	Delta 2021-2022	Savings (2021)	Savings (2022)	Delta 2021-2022	Savings in % of Road Transport
CO <sub>2</sub> emissions (scope 1+2) <sup>8</sup>	(t)	144	272	89%	(n.a.)	(n.a.)	(n.a.)	(n.a.)
CO <sub>2</sub> emissions (scope 3, traction) <sup>8</sup>	(t)	5,256	5,675	8%	18,937	33,340	76%	85%
CO <sub>2</sub> (scope 3, other) <sup>7</sup>	(t)	30	1,778	5,885%	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Transport performance	(Mio. tkm)	362.5	662.2	83%	(n.a.)	(n.a.)	(n.a.)	(n.a.)
CO <sub>2</sub> /tkm	(g)	14.5	8.6	-41%	(n.a.)	(n.a.)	(n.a.)	(n.a.)
Energy	(GJ)	158,441	276,940	75%	185,708	345,134	86%	55%
SO <sub>x</sub>	(kg)	5,756	7,235	26%	2,951	26,733	806%	79%
NO <sub>x</sub>	(kg)	6,151	6,146	0%	16,943	34,732	105%	85%
NMHC	(kg)	515	964	87%	6,605	11,949	81%	93%
PM10	(kg)	529	1,185	124%	116	1,692	1,359%	59%

<sup>8</sup> In order to ensure comparability over the years, the emission values in this table are presented without a 10% safety buffer. All other CO<sub>2</sub> emission values presented in the report include a safety buffer as we use a conservative calculation approach.



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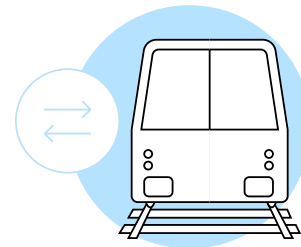
KPIs

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# Goals and Emission Monitoring

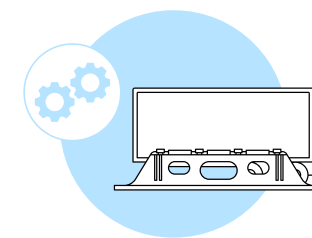
Our three sources of emissions and their monitoring

## Emissions from transportation



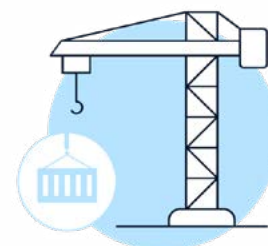
Since the beginning of 2021, we calculate the route emissions using an API interface from EcoTransIT, the industry leader for calculating transport emissions in the logistics sector. This tool allows us to track and monitor emissions from transport in almost real time. We add the transshipment emissions at the (CargoBeamer and third party) terminals based on a calculation approved by TÜV Nord Cert as part of our annual Product Carbon Footprint Audit. Through the data provided by the tool we can monitor our emission reduction goal.

Currently, we calculate the emissions of our wagons' value chain using emission factors that are established through consultation with our external partners, including Climate Extender and TÜV Nord Cert. In this process, we ensure that we adopt a conservative approach. Direct emissions from the production site in Erfurt are tracked monthly within CB eLogistics. As soon as we have a sufficient set of data, we can draw conclusions about the effectiveness of reduction measures.



## Emissions from rolling stock production

## Emissions from building terminals



We are using a FlexSim software model, that allows us to simulate and optimize logistical workflows and processes at a CargoBeamer terminal. By integrating emission values, we can analyze and improve emission-efficient processes. We have set a goal for our upcoming Kaldenkirchen terminal to create a comprehensive dataset on the consumption and emissions of individual terminal components using Building Information Modeling ("BIM") models. This dataset will enable efficient resource planning and will serve as a reference point for future projects.



# Goals and Emission Monitoring

### Goals “E”

- Develop a detailed plan in 2023 to reduce scope 1 and 2 emissions with specific milestones to be achieved by 2030 (e.g. by purchasing 100% green power at our terminals, production, and office sites)
- Analyze and optimize the use of consumables in operations at our production facility and terminals
- Develop a concept for continuous optimization of emissions release during construction and life span of terminals
- Sustain a wagon recycling rate of at least 90%
- Investigate electrified first and last mile transportation solutions
- Explore avenues for transforming our terminals into self-sufficient hubs by integrating photovoltaic systems
- Investigate options for biodiversity-oriented design of terminal sites

### Goals „S“

- Maintain a work environment that attracts, retains, and develops talented and motivated employees
- Promote diversity and inclusivity
- Promote continuous training opportunities
- Improve and further adapt our Occupational Health and Safety Management System
- Participate in at least two community campaigns in 2023

### Goals “G”

- Strengthen the strategic integration of sustainability throughout the entire company and define timelines for each goal until 2024
- Prepare for reporting requirements under the Corporate Sustainability Reporting Directive (CSRD) and align goals with Paris 1,5°C
- Analyze and report on CargoBeamer’s economic activities under the EU taxonomy in 2023
- Establish a comprehensive compliance system led by the General Counsel in 2023
- Implement ISO 2700 for our information security management system and maintain a high level of data security
- Expand the company’s internal helpdesk (intranet) to optimize support processes
- Develop a concept for continuous review of climate risks at all locations and plan adaptation measures and integration in company’s risk management system
- Conduct information about importance of sustainability from customers perspective in regular surveys and engage in dialogue with stakeholders on key sustainability issues
- Increase awareness for anti-corruption and human rights (e.g., by integrating mandatory learning modules into our onboarding process)
- Implement professional company-wide risk management

To accurately account for our carbon emissions, we collaborate with external partners (Climate Extender, EcoTransIT, and a KI-based software). To ensure the completeness and standardization of our carbon accounting, we double-check our calculations within a yearly audit with TÜV Nord Cert. This approach enables us to obtain the necessary information to effectively monitor our reduction goals.

However, there are factors beyond our control that can influence our reduction goal achievements. The imponderables in connection with CO<sub>2</sub> emissions include:

- The price development of road freight transport as our main competitor.
- The inclusion of all modes of transport in the European emissions trading system and the price development of these certificates.
- The integration of all external costs in all economic sectors, as intended by the EU by 2050.
- The future share of green power in rail electricity in countries where our transports take place.
- The price difference between “green” and “normal” steel and concrete.

During the annual review of our targets, trends in these areas may lead us to adjust our strategy to the current situation.



# UNSD Goal Alignment Description

With the 2030 Agenda, the member states of the United Nations have developed a roadmap for "transforming the world for the better" in the sense of a sustainable transformation of society, the economy, and the environment by the year 2030. Part of the 2030 Agenda are 17 global Sustainable Development Goals (SDGs), divided into 169 sub-goals.

The goals can only be achieved if as many actors as possible get involved. CargoBeamer is committed to making a significant contribution. CargoBeamer particularly focuses on SDG 13 by taking targeted measures to reduce and compensate for emissions in order to combat climate change. Additionally, we tackle SDG 9 by investing in innovative technologies and redesigning the transport sector. Furthermore, we contribute to the achievement of SDG 8 by ensuring fair and dignified working conditions for our employees and partners. Finally, we also support SDG 3 by promoting health, as we drastically cut emissions of particulate matter, SOx, NOx and NMHC.

Our efforts at CargoBeamer align most strongly with the following UNSDGs:

### Climate Action

**SDG 13** essentially provides for strengthening resilience and adaptive capacity to climate-related hazards, mainstreaming climate action into national policies, and enhancing human and institutional capacity in the area of climate change mitigation and adaptation.

### Industry innovation and infrastructure

**SDG 9** highlights the importance of innovative and resilient infrastructure. This is characterized by its reliability and sustainability to support economic development.

### Decent Work and Economic Growth

**SDG 8** aims for stable per capita economic growth and the decoupling of economic growth from environmental destruction. A subgoal is to achieve productive full employment under decent working conditions. Jobs should be free from forced labor, slavery, or child labor and safe in terms of compliance with the labor rights of all (migrant) workers.

### Good Health and Well-being

**SDG 3** aims to promote the health and well-being of people of all ages, with a specific goal of significantly reducing the number of deaths and illnesses caused by hazardous chemicals and pollution of the air, water, and soil.

CargoBeamer's UN SDG's alignment<sup>9</sup>



<sup>9</sup><https://www.un.org/sustainabledevelopment/>.



An aerial photograph of a freight train traveling through a lush, green landscape. The train, composed of several white and green boxcars, is moving along a set of tracks that curve through the terrain. The surrounding area is filled with dense green trees and open fields, with a few small buildings visible in the distance. The sky is a pale blue with some light clouds.

# Environment

Environmental Advantage from Rail over Road

Greenhouse Gas Emissions and their Reduction

Monetization of ESG Benefits

Materials Used

Waste

Energy Consumed



# Environmental Advantage from Rail over Road

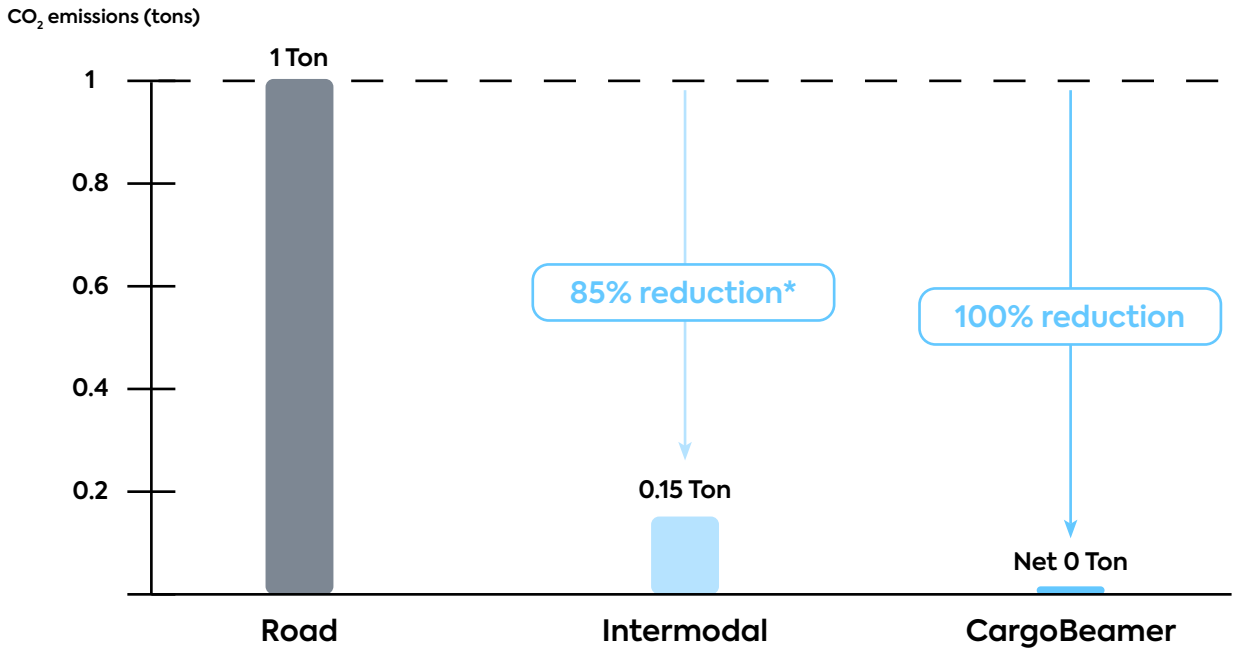
Rail transport offers inherent benefits over road transport:

- 1. Rails has an average of 85% less CO<sub>2</sub>-emission per ton kilometer compared to road due to >50% less energy demand and high share of green electricity.
- 2. Steel on steel causes much less friction compared to rubber on concrete. Smoother operation not only results in energy savings, but also reduces wear and tear.
- 3. The aerodynamics of trains provide an edge over road transport, as one train has much less wind resistance compared to the trucks necessary to move the same number of trailers on the road.
- 4. Railways are generally engineered with gentler gradients compared to roads, making it easier for trains to traverse the landscape, resulting in further energy savings and less strain on the environment.

At CargoBeamer, sustainability is central to our mission. To measure our product carbon footprint, we integrated a calculation tool of EcoTransit, industry leader for calculating emissions in the logistics sector into our eLogistics software. To protect the climate to the fullest extent, we walk the extra mile and compensate for our remaining emissions by investing in

Gold Standard certificates emissions, supporting for example projects for renewable energy in Asia and cooking stoves in Africa. For the reporting year, we compensated 6.758t for our Product and Company Carbon Footprint plus an additional 137t for the ex-post validation of our 2022 footprint.

Comparison of CO<sub>2</sub> (net) emissions



\*Average number.

# Greenhouse Gas Emissions and their Reduction

GRI 305 -1, -2, -3  
GRI 305 -5

Based on the latest Intergovernmental Panel on Climate Change report, civilization will need to cut global greenhouse gas emissions by 45% by 2030 compared to 2010 levels if we want to limit global warming to 1.5°C. Limiting warming to 1.5°C can avoid the worst impacts of climate change. Our goal at CargoBeamer is to reduce direct and indirect emissions and, hence, their potential negative impact on the environment.

### Transportation emissions

Transportation emissions accounted for approximately 6,242 tons in 2022 and comprised a significant portion of our carbon footprint. Two factors have considerably reduced our relative product's carbon footprint in 2022 compared to 2021: First, the addition of traffic in France, which has lower emissions per tkm, and second, EcoTransIT's updated calculation methodology. EcoTransIT now uses country electricity mixes from 2019 instead of 2017, demonstrating that the footprint from traction current has decreased by 14% worldwide between 2017 and 2019.

To address emissions reduction along our routes, we are considering the possibility of transitioning to low emission traction. We initiated the process of requesting green traction contracts in 2022. However, unforeseen challenges arose as a result of the fluctuating energy market prices, influenced by the ongoing Ukraine conflict. As a result, we have had to temporarily postpone our request. Nevertheless, we remain committed to exploring and pursuing low-carbon energy alternatives.

Terminal emissions made up a significant portion of our total product emissions in 2022. Regarding our terminal operations shunting of a diesel locomotive and the use of diesel reachstaker produce the highest emissions, while E-Terbergs and CB GateModules only contribute very little. We save up to 70% of a Terberg's emissions, as we deploy an E-Terberg at our terminal in Calais. We have identified several strategies to lower terminal emissions, including building and using more CargoBeamer owned terminals, optimizing existing terminals by deploying more GateModules, using more E-Terbergs and E-reachstackers, deploying hydro or e-locomotives for shunting, optimizing handling processes and terminal layouts, and purchasing green electricity at all our terminals. A FlexSim terminal simulation model for operational planning and optimization programmed by CargoBeamer in 2022 allows us to identify the most effective measures for each terminal layout.

### Emissions from producing rolling stock

In the past, all emissions stemming from the production of rolling stock were categorized as scope 3 emissions. This changed in 2022 when we began producing our CargoBeamer wagon fleet at our production site in Erfurt. In that year, our production process resulted in 84t CO<sub>2</sub> emissions (scope 1+2). Emissions associated with the value chain of our wagons originate from numerous upstream companies and activities, rendering accurate measurement and reporting challenges at present. We will report on these emissions once the

produced wagons have left our production site and started operating.

Emissions from the refurbishment of the production site account for 573t CO<sub>2</sub><sup>10</sup>. Our analysis of our impact caused by producing rolling stock centers on the following questions, which must be addressed before we can formulate transparent reduction strategies:

- How can we generate precise data on the upstream emissions of our wagon parts? This will provide a calculation basis for integrating the costs of CO<sub>2</sub>, enabling us to evaluate potential measures such as the (partial) purchase of green steel.
- What is the share of recycled steel, and how can we increase it? This measure reduces the need for virgin steel production, a highly energy-intensive and emission-heavy process, thereby cutting down on emissions within the value chain.
- How can we minimize transportation emissions associated with intermediate products before they reach the assembly location?
- What strategies can we employ to enhance the environmental performance of our production site in Erfurt?

<sup>10</sup> More details in the section Material used.



# Greenhouse Gas Emissions and their Reduction

GRI 305 -1, -2, -3  
GRI 305 -5

## Emission from building terminals

Emissions resulting from the construction of terminals represent the largest single source of emissions for our organization. In 2022, no construction work commenced or concluded for a new terminal, and we will report on the emissions from future terminals once construction is complete. The next terminal is currently expected to be completed in 2025 in Kaldenkirchen.

Our initial approach is to optimize the design and layout of our upcoming terminal in Kaldenkirchen. By utilizing BIM models, we will analyze data related to the design, construction, and operation of our next terminal before the construction phase. This will provide us

with clearer insights into emissions, enabling us to take targeted actions to reduce them.

## Other emission

Other sources of emissions only account for a small proportion of our overall emissions. As a visible source of emissions in everyday life, we nevertheless strive to reduce these emissions. Measures we took in 2022 are:

- Adopting a new travel policy to reduce air travel by providing discount cards for frequent train travelers and requiring permits from executives for short haul flights.

- Educating our employees in sustainable behavior e.g. an inhouse training sessions and providing plant-based food at company events.
- Initiating a new process to integrate information on sustainability in each R&D project report.
- Integrating sustainability criteria into our internal regional assessment for strategic regional development to reduce CO<sub>2</sub> emissions.

# Monetarization of ESG Benefits

Another key component of our sustainability strategy is the French program Certificats d'économies d'énergie (CEE), which already enables us to significantly monetize the sustainability benefits of rail transport. Under the form TRA-EQ-108, we receive money from a party obligated under the program for all

trips that new wagons (rented or purchased) perform on French soil within a 6-month measurement period. The program enables us to build up our wagon fleet much more quickly thanks to the cash-back on new acquisitions it generates. This results in our ability to foster and grow our environmentally friendly and

efficient transport offer for our customers on existing and new French routes.

In 2022, we settled our 216 newly acquired CargoBeamer railcars under the CEE program, thereby generating a substantial portion of our revenue.

# Materials Used

GRI 301-1

As a logistics company, CargoBeamer AG understands the impact of growing consumption and resource scarcity on ecosystems. We are committed to aligning our company's strategy to material input with principles of sustainability. In 2022, the company had several inflows and outflows, which generated environmentally impacting material flows.

One of the major material flows in 2022 was due to wagon production in Erfurt, where more than 612t of different materials were purchased, including steel and other metal construction components. The steel components of the wagons are long-lasting and have a service life of more than 36 years, after which 90%

of them can be recycled. The other components are maintained and renewed based on predictive maintenance to extend the service life of the wagons with low material input.

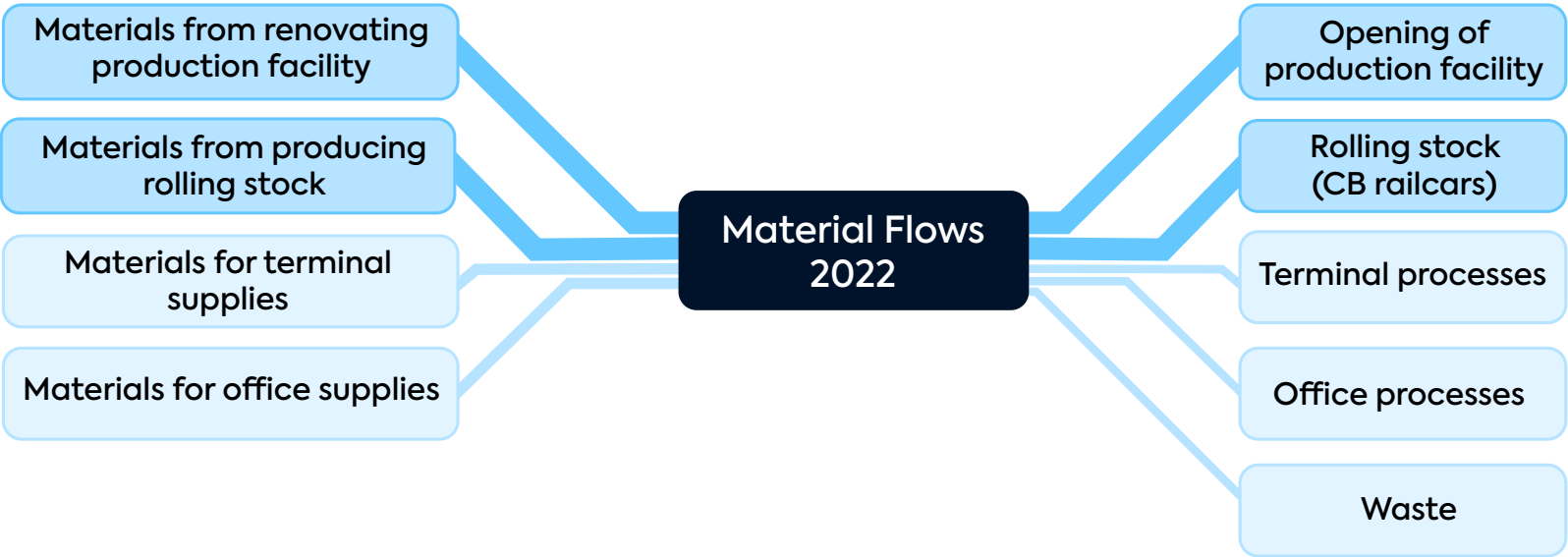
We chose the brownfield approach for locating our factory site in Erfurt, leveraging the benefits of repurposing existing infrastructure, reducing the demand for new construction materials, minimizing resource extraction, and reducing waste generation. We renewed the old floor inside the production hall and parts of the entry areas. During these processes, 415 t of steel, asphalt, and concrete were used.

At our terminals we use various lubricants to safeguard GateModules technology and ensure that the loading and unloading procedures run seamlessly. We began recording consumption data of lubricants in September 2022 to monitor usage precisely and plan to conduct a thorough analysis of the lubricants used in 2023 to explore the necessity and possibility of substituting them with more environmentally friendly alternatives.

Also, we adopted a purchasing policy for our office consumption, which mandates the exclusive purchase of sustainable office material such as eco-friendly paper or fair coffee from suppliers that have been comprehensively examined for their environmental impact during the manufacturing, usage, and disposal stages.

In simplified form, the graphic on the left shows material inflows and outflows in 2022 (energy flows are deliberately not shown because energy and standard-based material flow analyses are not included at this point).

Major and minor material flows in 2022





# Waste

GRI 306-5

We believe in the global policy of “reduce, reuse, and recycle” when it comes to waste management. We have taken the following steps regarding waste reduction:

- Digitalization has been a significant factor in reducing waste in our business processes with most of our processes now being digital. In 2022, our offices used 730 kg of paper.
- Proper waste disposal is essential and we ensure correct waste separation for safe disposal. Since

December 2022, we have been able to separate organic waste in addition to packaging, paper and cardboard, and residual waste in our office in Leipzig. This ensures that biodegradable waste is recycled, and nutrients are added back to the cycle.

- In addition, we have avoided waste and emissions by using water dispensers instead of 11,019<sup>11</sup> bottles of water at our office location in Leipzig.
- Our new policy for IT equipment aims to increase the lifespan of outdated devices. We have integrated

the dimension of IT lifespan into our asset management system and we have an end-of-life solution in place by donating equipment we do not use anymore to local non-profit associations.

In Erfurt waste generated in 2022 has been limited to scrap wood, packaging waste, and construction waste, the first two of which can be fully recycled. We are collecting data on the quantities, materials, and frequencies of waste generation in Erfurt.

<sup>11</sup>We conduct the counting automatically on-site in our Leipzig office. Considering the settings of the water dispenser, we subtract the savings from the previous year, resulting in a total of 11019 water bottles.

# Energy Consumed

Energy usage is a critical aspect of our company’s climate impact and an area where rail freight excels. Rail transportation stands out as an energy-efficient mode of freight transport. It requires less than half the energy consumed by road transportation to move goods from one location to another. As a result, our operations in Europe present a significant opportunity for energy savings in the transport industry.

Our company’s total energy consumption amounts to 291,064 GJ, with almost 99% attributed to our service-related activities such as traction and handling processes at terminals. Each terminal layout is unique and depends on local conditions such as available space and the configuration of railway connections. The layout has a significant effect on the energy demand of the individual processes. We assess

questions such as: How can GateModules be applied most effectively? How can shunting be minimized? What factors hinder Terbergs taking the shortest connection between parking trailers and GateModules?

The specific design and arrangement of the different functional areas of a terminal cannot be standardized using a “one-fits-all” approach. In each new terminal project, we explore various possibilities. However, this also means that we cannot solely prioritize the most energy-efficient layout for the terminal. We must always find a compromise between different variables and operational and environmental objectives.

Our FlexSim model, which simulates terminal processes, provides valuable insights into efficient workflows and potential improvements. It helps us finding a balance

between various factors and goals while striving for energy efficiency in terminal operations.

Our handling processes are already significantly more energy-efficient compared to third-party terminals, primarily due to our technological advantage of horizontal loading. The remaining energy consumption consists of the usage at our non-terminal locations. We procure electricity and heating for our offices and gas for our production site in Erfurt. Small portions also contribute to our vehicle fleet, including the company cars used by our employees. To reduce the energy demand in Erfurt the roof was insulated, and the renewal of the lighting and heat loss prevention measures are already planned for 2023.



# Social

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# Working Conditions and Benefits

At CargoBeamer, we assign great importance to the overall well-being at work. Thus, we are actively expanding our work-from-home options and we have implemented flexible work schedules, and part-time employment arrangements. In 2022, almost all our employees, who worked in our offices, made use of our work-from-home option.

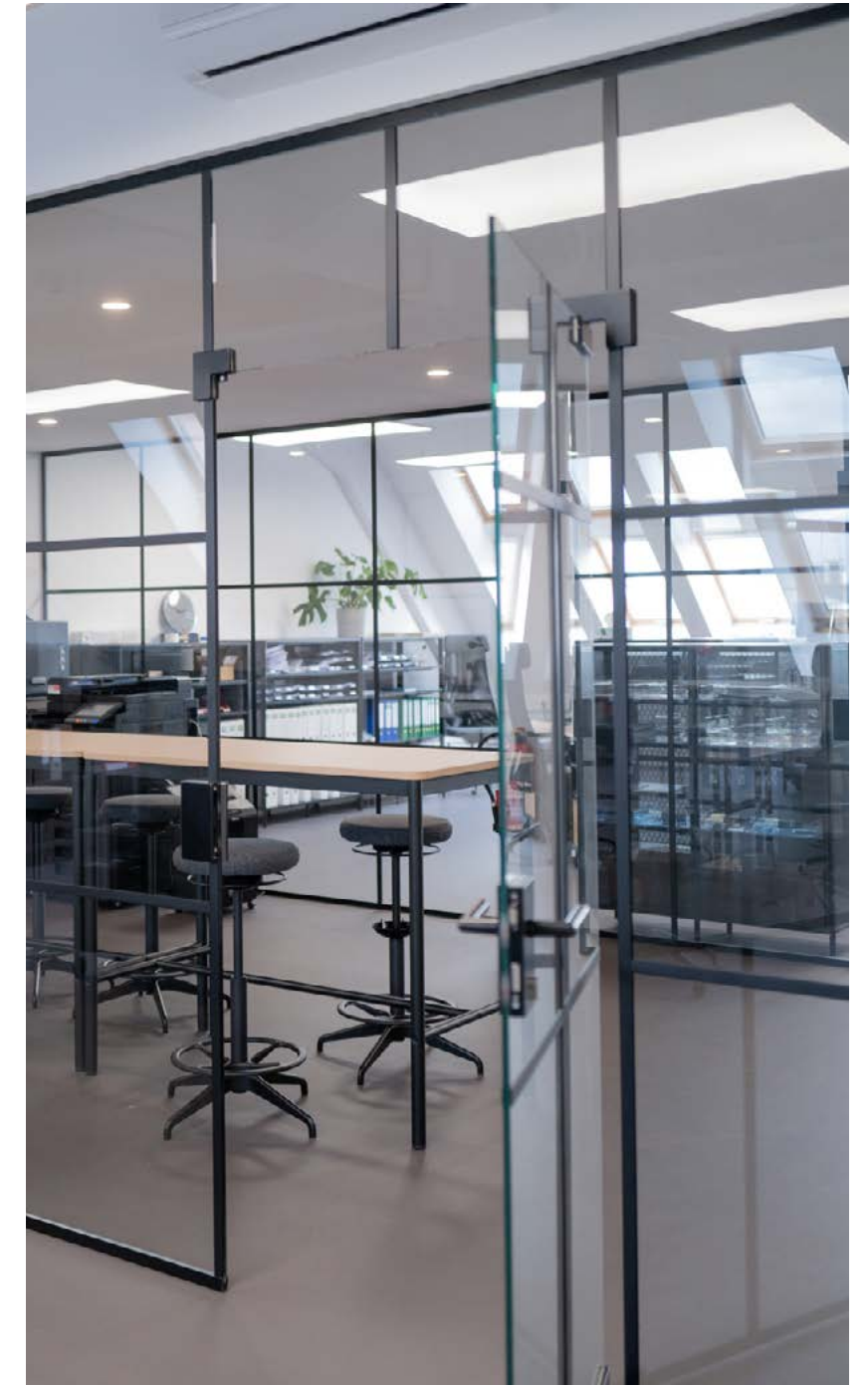
We provide a range of corporate benefits to our employees, including a free public transportation pass and JobRad bike leasing. In this way, our employees can combine climate protection and health promotion effectively. For almost one fourth of our employees, we provide a BahnCard 25, 50, or 100 for frequent travelling. Additionally, employees can opt for capital-forming benefits of €40 per month and company pension plans. We provide fresh fruits, coffee, and water at our offices for our employees.

We are a dynamic organization with a relatively large number of young employees (average age in 2022: 39 years), and we prioritize fostering an open corporate culture that promotes agility and open communication. Our flat hierarchies facilitate effective internal communication, continuous process improvement, and encourage employees to contribute their own ideas and suggestions.

Also, the previously announced measures<sup>12</sup> for a professional and employee-focused onboarding have all been successfully implemented: Since 2022, we have a dedicated onboarding website that facilitates the preboarding and onboarding process for our new recruits. It offers access to introducing company infor-

mation like an organizational chart, an explanation of benefits offered, and other introductory documents even before the first day of work. Also, we provide a dedicated section in our onboarding materials that outlines our sustainability initiatives and goals. By familiarizing new recruits about the importance of our corporate responsibility, we aim to foster a collective understanding and shared commitment. Additionally, we organize a whole onboarding week to create the best possible foundation for a seamless start with CargoBeamer. This week includes:

- A meeting with a Board member,
- Security and SAP trainings,
- Time to set up workspaces,
- Feedback sessions with our HR team,
- A meet-up with our IT specialist,
- A onboarding interview with the supervisor,
- Shared lunches, and
- A visit to our prototype terminal in Engelsdorf/Leipzig where our unique GateModules and our CargoBeamer technology is shown.



<sup>12</sup> See our CSR report 2021



# Health and Safety

GRI S 240

Our utmost priority is the health and safety of our employees, and we constantly strive to enhance our working conditions. As an instance, our staff participates in frequent training sessions aimed at promoting a safety-conscious culture and minimizing workplace accidents. CargoBeamer has implemented an Occupational Health and Safety Management System that includes the following measures:

- Provision of occupational health and safety training at the start of employment, and subsequently on an annual basis,
- Designation of employees as first-aid and fire safety assistants,
- Obligation to report occupational and commuting accidents by submitting a form to the HR department,
- Holding regular meetings between our occupational safety officers to ensure that our management system is functioning properly and to initiate measures for improvement.

Upon opening our production site in Erfurt, we recognized the significance of prioritizing optimal working conditions in our first-ever factory premises. To meet the needs of our production site employees and comply with occupational health and safety regulations, we devoted considerable effort to developing staffing plans that placed a primary emphasis on providing ergonomic and comfortable working conditions. For example, we provide roller stands for hands-free work, roller boards with head support for overhead work, and height-adjustable stools to prevent a stooped posture.

At our terminal in Calais, we are aware of the specific risks involved in handling trailers, performing maneuvers with the reachstacker, and rail shunting, all of which can result in accidents. To mitigate these risks, we have implemented several measures in 2022: We aim to minimize the number of different movements or maneuvers with trailers and optimize railway maneuvers. We have established clear procedures for each activity and defined a safety perimeter that must be respected during reachstacker movements. We ensure that our workers receive regular training

and on-site supervision to guarantee compliance with proper safety protocols. In the event of an incident, we immediately analyze the report and determine the origins and consequences. We then provide written feedback to our employees and managers and archive the event. We also conduct unannounced inspections in the field to ensure that our procedures are being followed.

We also prioritize the health and comfort of our office workers by providing large, height-adjustable desks, eye-safe screens, and optimizing the set-up of our offices to promote a healthy working environment.

# Diversity and Equal Opportunity

GRI S 250

By the end of 2022, CargoBeamer had a diverse workforce, with 103 employees (98.5 FTE) from 12 nationalities working in four different countries (Germany, France, Italy, Spain). We hired 54 employees in the course of 2022 while seven left the company. The mean age of all employees was 39 years by the end of 2022, and about 23% of the employees were female. Additionally, CargoBeamer employed 8 working students, 4 of whom completed their university degrees and started working full-time for the company. Moreover, 8 part-time employees and two persons within the inclusion aspect were employed by the company.

As we plan for our future development, we place a strong emphasis on equal opportunities in recruitment and employment. In our recruiting process, we welcome applications from all qualified persons regardless of ethnicity, gender, age, sexual orientation, possible disabilities, or religion. One key aspect of our approach will be the implementation of salary bands which play a vital role in ensuring fairness throughout our organization. We started this process in 2022 and are in the implementation phase. Rather than rigidly defining fixed salaries for specific positions, we have established salary ranges that correspond to different job levels and responsibilities. These salary bands provide us with the flexibility to determine appropriate compensation based on factors such as experience, performance, and market conditions. The use of salary bands in our compensation structure helps mitigate potential biases and discrimination by ensuring that employees in similar roles receive equitable compensation.

We promote gender equality, fostering an inclusive and equitable work environment. This commitment extends beyond the workplace, encompassing private spheres as well: In 2022, for instance, we had four male and one female employee on parental leave, emphasizing our support for work-life balance. Additionally, we encourage our employees to engage

in voluntary activities and ensure they have the necessary time and flexibility to do so. For example, we have employees who contribute to the local Volunteer Fire Department, and others who provide volunteer translation services for refugees dedicating their time and skills to serve the community.





# Training and Skills

GRI S 320

We prioritize the growth and development of our employees and are committed to help them achieve their personal and professional goals. To this end, we support continuing education by providing a range of programs that align with our business needs and the desired qualifications for each role. These programs typically include short-term leave from work to attend classes or training sessions. In 2022, on average 4.5h per FTE were taken for training. Our employees utilized this time to e.g. become certified welding experts or to enhance their programming skills.

Our junior and senior level employees work closely together to foster a strong sense of community and promote hands-on learning experiences, which contributes to a positive company culture. Through social learning and various training measures, including a quarterly Lunch&Learn session, employees can acquire new skills and gain a better understanding of the company. Lunch&Learn is a company-wide format where a delegate from changing departments presents and explains the procedures and challenges from their areas of responsibility to the whole company. In 2022, it covered the topics of challenges posed by climate change and our business model’s impact, the assessment of internal R&D projects, our position within the railway ecosystem in Europe, and sales processes and their future development. It is not only an internal training measure but also an ideal opportunity to eat vegan lunch provided by CargoBeamer, exchange and connect among co-workers and colleagues.

In 2022, we implemented regular employee feedback meetings and introduced a new digital feedback

process to encourage ongoing communication and collaboration between employees and executives. These structured feedback sessions are held on a semiannual basis and involve two-way feedback to promote development and growth for both employees and executives. The outcomes and agreements resulting from the feedback sessions are stored in the personal profiles of the employees on our digital HR platform. Access to this information is restricted to

the employee and their respective manager, ensuring that the process is productive and the insights gained are not lost. This way, our approach to feedback truly contributes to the development and growth of our employees and enables further development opportunities. Additionally, most of our employees have performance agreements that are linked to variable salary components.





A modern office interior with glass partitions, desks, and plants. The office is bright and airy, with large windows and skylights. The glass partitions are black-framed, and the desks are light-colored. There are several potted plants, including a large green one on the left. The floor is light-colored, and the walls are white. The overall atmosphere is professional and contemporary.

# Governance

Corporate Governance

Resilience to Climate Risks

Corruption

Privacy and Data Security

Child Labor and Human Rights

Corporate Behavior and Ethics

EU Taxonomy



# Corporate Governance

GRI S 210

To achieve our corporate goals, promote sustainable growth, and increase long-term corporate value, our company continuously improves corporate governance to ensure transparent, fair, and fast decision-making. Our CargoBeamer bylaws serve as our legal framework the define the rights, responsibilities, and procedures within the CargoBeamer group.

Our internal control system employs appropriate performance indicators and is continuously evolving. The system includes a range of weekly and monthly operational and financial reports, as well as ad-hoc reports. They include information about bookings, cancellations, quality KPIs, and allow for the monitoring of revenue developments and enable prompt action if necessary. They allow to oversee quality also outside the operational departments, what encourages shared responsibility for our company’s success.

We publish a quarterly report for investors and quarterly reports and newsletters for our staff. The financial and non-financial performance indicators used are based on standard industry management and control systems. The exchange between the executive board and the chairman of the Supervisory Board, happens weekly in a structured Jour-Fixeformat, fosteringtransparentcollaboration on major operational and strategic tasks. Our Executive Board convenes with all senior managers on a bi-weekly basis. These meetings aim to keep everyone updated, inform them about ongoing matters, and discuss upcoming decisions and voting processes.

The Executive Board is responsible for the operational management and strategic alignment of the Group. In consultation with the Supervisory Board and with the responsible departments, it defines the corporate goals and is responsible for achieving them. To enhance corporate governance effectiveness, we include non-financial topics in our board meetings.

In 2022, we achieved ISO 9001 certification for our Quality Management System (QMS), reaffirming our commitment to delivering high-quality products and services. Our certified QMS ensures robust quality control mechanisms, proactive risk mitigation, and continuous improvement initiatives. Also, TÜV Rheinland conducted a successful TSI Audit (Module SD) at our Erfurt facility. This certification demonstrates our compliance with quality requirements for our production and enables us to manufacture CargoBeamer Railcars.

With the TSI-SD Audit, CargoBeamer Rolling Stock Production GmbH is authorized to be listed as a manufacturer which is a prerequisite for applying for the “Authorization to Place onto Market” from the European Union’s Railway Agency, which we have successfully achieved.

Rapid growth in both our terminals and our rail-car fleet is an integral part of our business strategy for the next decade. This inevitably means that the demands on our sustainability strategy including governance principles and structure, and our transparency with regard to non-financial performance

indicators will also increase even more. We are confident that we can further enhance our strong environmental advantage over other modes of transportation, ensuring that our emissions do not increase linearly but rather decrease significantly relative to our transport performance.

# Resilience to Climate Risks

GRI S 230

Climate resilience refers to our ability to anticipate, prepare for, and respond to the various hazardous events, trends, or disturbances related to climate change.

As a rail infrastructure user, we are strongly dependent on the functionality of the railroad network. According to a study commissioned by DB and conducted by the Potsdam Institute for Climate Impact Research<sup>13</sup>, the railway network is affected by climate change and, hence, railway users depending on the network will face it's impact and consequences. The study shows that the DB Netz as infrastructure provider in Germany keeps a close regional focus on the development of heat waves, frost, and storms and how incidence of disruptions evolve in relation to these weather events across 34 traffic regions in Germany. This regional focus is new and the result of

this study and provides a significant advantage over previous data, as it allows for early detection and prevention of climate-related disruptions.

The research only considers regional data for Germany but the World Meteorological Organization<sup>14</sup> publishes less granular weather data about the expected development of the climate in central and southwest Europe. It remains uncertain whether similar precise regional datasets exist in other European countries where we operate, that allow the conclusion of comprehensive measures against climate change and their implementation by infrastructure providers. Our climate risk analysis (due in Q3/2023) will delve into this aspect.

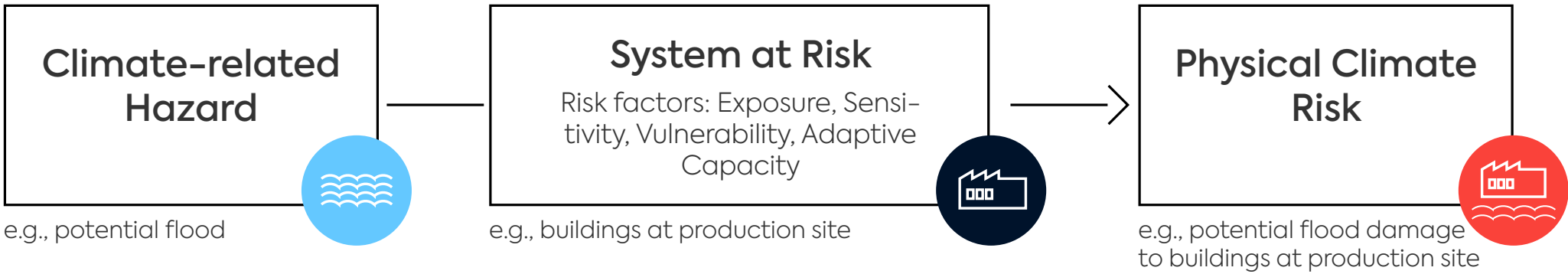
In 2022, CargoBeamer's rail freight transport was also confronted with extreme weather events. So

far, there were no losses or damages on our side. We evaluate data from previous years to incorporate various climate risks into our risk management system and analyze the impact of chronic and acute hazard and assess the risk to our business activities at

- our various own sites,
- third party terminals, and
- the locations along our value chain, e.g., locations of current suppliers.

<sup>13</sup> "Analyse des Klimawandels für die Deutsche Bahn: Studie zur räumlichen Ausprägung in Deutschland", Prof. Edenhofer, Dr. Hoffmann, 2021, (<https://www.pik-potsdam.de/~peterh/db2020/tab/>).  
<sup>14</sup> "State of the Global Climate 2021: WMO report", ([https://library.wmo.int/doc\\_num.php?explnum\\_id=11178](https://library.wmo.int/doc_num.php?explnum_id=11178)).

## Climate Risk Analysis for Single Assets





# Corruption

GRI S 260

Our company will never engage in actions that could be deemed to be bribery in its dealings with any of its business partners, government officials, and employees of government agencies (including international agencies), or any other parties.

We seek to earn and maintain the respect and trust of all our stakeholders, and we expect that each and everyone of our employees acts in a manner that is consistent with law, our policies and our values.

Our company has developed policies to help assure that we provide our employees with the tools to meet these expectations:

- At the end of 2022, we made the decision to introduce a new compliance training module as a mandatory part of our onboarding process. All employees are expected to complete this module, which covers a range of topics, including anti-corruption.
- We also implemented the dual control principle for all our business transactions. This involved transferring the power of representation from our management and board of directors, from individual authority to joint authority, which has been reflected in our commercial register.

- Additionally, we are currently developing a compliance guideline that addresses the issue of (anti-) corruption.

We encourage all our employees to speak up and share any concerns they might have. We will continue to hold ourselves to high standards and are always working to improve, so that we can meet or exceed high expectations.

# Privacy and Data Security

GRI S 280

The global increase in security threats and higher levels of professionalism in computer crime have increased the importance of effective IT security measures, including proper identity management processes to protect against unauthorized systems access. Nevertheless, given the very fast pace of technological change, the company’s systems, networks, products, solutions, and services remain potentially vulnerable. Cybersecurity remains a high priority, as cybersecurity attacks by nation states, phishing, ransomware, and supply chain attacks are becoming increasingly sophisticated.

Ensuring compliance with legal requirements in data protection, including the proper handling of personal data and IT security, is an essential component of our sustainability strategy. While our B2B customer base has historically led to a lower internal demand for data protection consulting, this need is growing. To meet the requirements of the General Data Protection

Regulation in our rapidly expanding environment, we established a partnership with an external data protection expert in 2022. This partnership demonstrates our commitment to handle sensitive information with the utmost importance and seriousness, particularly as we consider expanding our business activities to other European countries.

As part of our ongoing efforts to raise awareness about data protection, we incorporate trainings on this topic into our digital training platform for all employees and management. Our partnership with the external data protection officer also marks the beginning of the implementation of a professional data protection management system, which will ensure a consistently high level of data protection.

Our IT management works closely together with operational units to establish and implement ongoing IT security goals. Our level of protection is main-

tained through regular backups that are geographically distributed, proactive software updates to address security gaps, and other measures. We rely on the expertise of external service providers who provide advisory and operational support to ensure we maintain a high level of security. Administrative access to our systems is strictly limited to a small, named group of individuals.

Our current objective is to attain compliance with the industry standards set forth by the ISO 27001 family. Although this project is critical, it has experienced some delays since 2021 due to the multitude of high-priority projects that require attention. Nevertheless, our aim to achieve sustainable and measurable success in reaching our goals remains steadfast, along with our ceaseless endeavors to mitigate IT risks.



# Child Labor and Human Rights

GRI S 300

GRI S 290

We take a firm stance against any form of child or forced labor and also place a high priority on respecting human rights and upholding internationally recognized standards, such as the principles outlined in the UN Global Compact.

While the transport and logistics sector has greatly benefited from globalization, there are also numerous reports of human rights risks on Europe’s roads. Particularly in international road transport, the

working conditions of truck drivers are often characterized by low wages, unpaid overtime, and high time pressure. The road freight industry is heavily influenced by subcontracting, with many subcontractors originating from Eastern Europe. Despite being EU member states, they often fail to comply with applicable labor laws<sup>15</sup>. Even in the domestic part of global supply chains, the enforcement of national laws or internationally recognized obligations is by no means guaranteed<sup>16</sup>. One solution to address the

risk of human rights violations in the transport industry and improve the challenging working conditions experienced by truck drivers is to promote the adoption of combined transport that reduces reliance on a large number of human drivers and their services for long-distance transportation in Europe. This can be achieved by utilizing services like CargoBeamer.

<sup>15</sup> Policy Brief: ITF Supply Chain Principles | ITF Global.  
<sup>16</sup> 2023-05 Studie Logistik-online.pdf ([suedwind-institut.de](https://www.suedwind-institut.de)).

# Corporate Behavior and Ethics

GRI S 330

Our organization is dedicated to fair competition and takes measures to prevent and combat corruption and antitrust. In 2022, we have established the position of General Counsel to identify and reduce legal risks, providing management and employees with greater clarity and certainty in their actions. We also seek external legal advice, such as consulting with our external data protection officer when necessary.

# EU Taxonomy

In 2021, the European Green Deal was implemented, and the largest European companies became subject to the EU Taxonomy Regulation 2020/852, commonly referred to as the "Taxonomy". This regulation, published in the Official Journal of the European Union on June 22, 2020, took effect on July 12, 2020, and applies from January 1, 2021.

The Taxonomy Regulation introduces a standardized classification system aimed at determining the level of sustainability of investments, with the goal of directing capital towards financing the environmental transition in the EU. As a result, all economic activities included within the scope of the Taxonomy Regulation, known as "eligible" activities, undergo screening to assess their environmental impacts. This screening is based on the environmental criteria, known as the "Technical Screening Criteria," outlined in the Taxonomy Delegated Acts.

For an economic activity to be considered environmentally sustainable, it must substantially contribute to at least one of the following six "environmental objectives" while avoiding harm to others and complying with "minimal safeguards" related to human and labor rights:

- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control

- Protection and restoration of biodiversity and ecosystems.

Compliance with the Taxonomy Regulation is crucial for companies seeking to align their activities with the EU's environmental goals and attract sustainable investments. Delegated acts have been established for the environmental objectives of climate change mitigation and climate change adaptation under the Taxonomy Regulation. This regulation represents a significant milestone in the EU's goal of achieving climate neutrality by 2050. The freight transport sector, including CargoBeamer, is eligible for the Taxonomy in relation to these environmental objectives. Specifically, CargoBeamer's activities in railway freight transport (EU Tax. 6.2), construction, modernization, and operation of rail infrastructure (EU Tax. 6.14), as well as the production of low-carbon transport technologies (EU Tax. 3.3), fall within the scope of eligibility.

CargoBeamer is fully committed to meeting the requirements of the Taxonomy Regulation and aims to improve its performance in the coming years to contribute to the broader environmental transition in the EU. As part of our proactive approach, we are voluntarily preparing for the implementation of an EU taxonomy declaration.

Given our business model, we strongly believe that CargoBeamer aligns closely with the EU taxonomy objectives. We familiarize ourselves with the emerging system. Our objective is to assess the extent to which CargoBeamer's economic activities align with the ecological sustainability criteria defined by the taxonomy and to further align our business for a high future Taxonomy score.

To evaluate our alignment, we will analyze relevant metrics such as the share of revenue, capital expenditures (CapEx), and operating costs (OpEx). This analysis will provide insights into the extent to which our activities meet the ecological sustainability standards set by the taxonomy.

By undertaking these measures, CargoBeamer demonstrates its commitment to environmental sustainability and its dedication to playing a significant role in the EU's transition towards a greener and more sustainable future.





# KPIs

- Environmental KPIs
- Social KPIs
- Governance KPIs



# Environmental KPIs

All emissions are expressed in CO<sub>2</sub> equivalents (CO<sub>2</sub>e). Unless otherwise stated, all CO<sub>2</sub>e values are rounded to the nearest ton.

GHG Emissions		(Tons CO <sub>2</sub> )
Scope 1 and 2		290
Scope 3		8,190
Total		8,480
compensated		6,758
We use a conservative calculation approach and add a 10% safety buffer.		

Outside of Scope Emissions*		(Tons CO <sub>2</sub> )
Scope 3 Biogenic Emissions from Waste Disposal		1
*Our out-of-scope emissions are biogenic emissions coming from wood waste disposal.		

Energy Consumption by Source		(GJ)
Renewable		0
Non-Renewable		1,451
Electricity, Heating, Steam, Cooling		2,308
Total		3,759

Total Energy Consumption		(GJ)
Petrol		224
Diesel		540
Petrol Hybrid		143
Diesel Hybrid		74
Natural Gas		470
Electricity, Heating, Steam, Cooling		2,308
Energy for traction		276,940
Energy for terminal handling and shunting		10,365
Total		291,064

Water Consumption		(MI)
Water Withdrawn		0.7
Water Discharge		0.7

Waste Disposal (all non-hazardous)		(Tons)
Mixed Waste		9
Commercial and Industrial Waste		2
Packing Waste		0.3
Wood Waste		0.3
Total		12

Materials*		(Tons)
Concrete		2,227
Asphalt		29
Steel		81
Paper (recycled and non-recycled)		1
*Materials for terminal and office supplies apart from paper are not included.		

## System Boundary

The CO<sub>2</sub> emissions included in this report relate to CargoBeamer’s operations and economic activities. The period considered in this report is: 01.01.2022 – 31.12.2022. In accordance with the GHG Protocol Corporate Accounting and Reporting Standard, this report covers the accounting and reporting of seven greenhouse gases covered by the Kyoto Protocol: Carbon dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), Nitrous oxide (N<sub>2</sub>O), Hydrofluorocarbons (HFC), Perfluorinated hydrocarbons (PCF), Sulphur hexafluoride (SF<sub>6</sub>) and Nitrogen trifluoride (NF<sub>3</sub>).



# Social KPIs

## Health and Safety

Reported Health and Safety Incidents	0		
Reported Fatalities	0		
Reported Injuries (accident frequency)	2		
	2022	2021	2020
Sick days per employee	4.8	1.9	4.1

## Injury Rates

12.23 in 2022  
(Number of reported injuries per million hours worked)

## Health and Safety Management System

Is one implemented?	Yes
Required by law?	Yes

## Employee Statistics

	2022	2021	2020
FTE (end of year)	98.5	56	24.6
Share of women	23%	27%	31%
Average age (in years)	39	39	45.3
Nationalities	12	5	n.a.
Share of employees working part-time	9%	7%	8%

## Employee Statistics by Gender and Age

	<30	30-50	>50
Male Employees	15	51	13
Female Employees	6	15	3
Diverse Employees	0	0	0

## Hire and Leaver Statistics by Gender

	<30	30-50	>50
Male Employees	9	32	3
Female Employees	4	6	0
Diverse Employees	0	0	0
	Male	Female	Diverse
Leavers	5	2	0

	2022	2021	2020
Share of new employees	52%	41%	10%
Average duration of employment (in years)	1.9	1.8	3.1
Personal throughput rate (joining/ leaving)	5.1	3	1.9
Departing employees (as share of Total)	7 (7%)	9 (14%)	8 (n.a)

## Parental Leave Statistics

100% of parental leave takers returned to work

## Discrimination Incidents Data

Number of discrimination incidents: 0

## Training Hours by Gender

	Male	Female	Diverse	Total
Training	448	0	0	448

## Percentage of Staff with Performance Reviews

100% of staff receive regular performance reviews

\* New feedback processes implemented in Q4/2022.  
Company-wide role out between Q4/2022 and Q1/2023.

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# Governance KPIs

## Details of the Highest Governance Body

Name of the Body	Supervisory Board
Number of Members	6
Number of Executive Members	0

## Tenure of Highest Governance Body Members

Years	<2	2-5	5-10	>10
Number of Members	0	0	6	0

## Gender Composition of Highest Governance Body Members

	Male	Female	Diverse
Number of Members	5	1	0

## Representation Details of the Highest Governance Body

Number of members who represent vulnerable social groups	0
Number of members with environmental/social competencies	3
Number of members who represent stakeholder groups	5

## Top Level Remuneration Policy

Member or executive remuneration linked to environmental/social criteria?	No
Top-level remuneration policies disclosed?	No

## Human Rights Policies and Reviews

Implement policies or procedures relating to human rights?	No
Conduct human rights risk assessments in own operations?	No
Conduct Human rights supply chain risk assessments?	No

## Corruption Risks

Number of risks identified	0
Number of confirmed corruption incidents	0
Number of public legal cases brought against the entity or its employees	0
Number of public legal cases which were resolved	0
Number of employees with anti-corruption training*	0

\* Mandatory from 01/2023

## Privacy Complaints Data

Total substantiated complaints concerning breaches to customer security	0
Total substantiated complains from external/third party	0
Total substantiated complaints from regulators	0
Total number of leaks, thefts, or other losses of data	0

## Details of Legal Actions

Number of legal actions pending regarding anti-competitive behavior and violations of anti-trust and monopoly legislation	0
Number of legal actions completed regarding anti-competitive behavior and violations of anti-trust and monopoly legislation	0
Number of significant fines and non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area	0
Total number of leaks, thefts, or other losses of data	0



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# Publisher Details

**Publisher**

Executive Board of CargoBeamer AG

**Persons with key Sustainability Responsibility**

Nicolas Albrecht, Chief Executive Officer

Dr. Frederik von Paepcke, Head of Sustainability

Hanna Fiedler, Sustainability Manager

Sophie Stolz, Working Student Sustainability

[sustainability@cargobeamer.com](mailto:sustainability@cargobeamer.com)

**Media Contact Person**

Tim Krause, Communications & Marketing Manager

[press@cargobeamer.com](mailto:press@cargobeamer.com)

**Pictures**

CargoBeamer AG

**Contact Details**

CargoBeamer AG

Kreuzstraße 12

04103 Leipzig

[www.cargobeamer.com](http://www.cargobeamer.com)

+49 341 652 339 00

[info@cargobeamer.com](mailto:info@cargobeamer.com)

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