PKP CARGO Group's ESG Strategy for 2024-2028

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ABBREVIATED VERSION





We will actively shape the rail market as the most sustainable form of freight transport, through investment, innovation, market education and the pursuit of excellence in management

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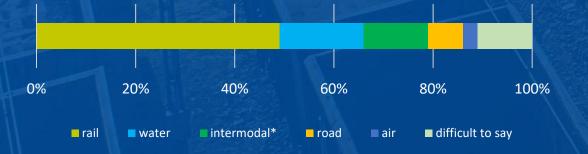
Rail is the greenest form of freight transportation

Rail transport is already a means to reducing the carbon footprint of freight operations and cutting down on emissions of dusts and other pollutants. Assuming that the average haul of 1 ton of freight by rail in 2022 was 251.5 km and the total freight volume was 248.5 million tons, transportation of such a volume of cargo would require 10,355,919 trips by trucks*. The total operational work would be more than 2.6 billion kilometers.

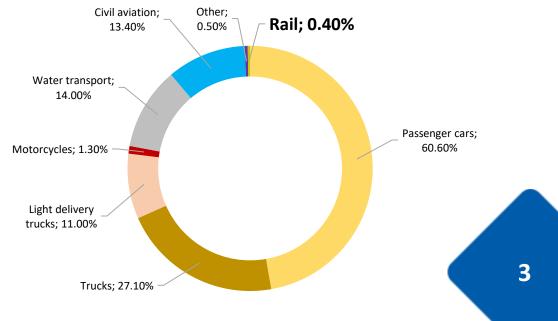
*assuming a truck payload of 24 tons.

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Which of the modes of transport should be considered the most environmentally friendly (producing the least pollution for the same volume of freight) [%]?

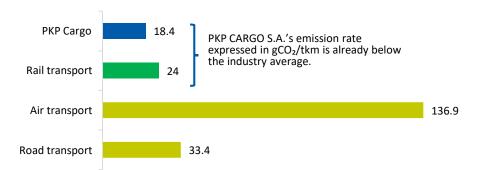


* Source: IBRIS Green Rail survey, 2021 https://prokolej.org/raporty-grafiki-stanowiska/raporty/ A survey on a nationwide sample of 109 large companies (with at least 250 employees and annual turnover of more t PLN 200 million) *CO*₂ emissions in the EU's transport sector - emissions breakdown by type of transport



Transport and Environment Report 2022 of the European Environment Agency (EEA)





Source: https://www.cer.be/cer-facts-figures/railway-to-a-green-future and data of the PKP CARGO Group, data for 2022

8 operational objectives of the ESG Strategy

5

criteria into rolling stock modernization and procurement process, taking into account the need to decarbonize the Group's key business areas

We will implement the principles of a circular economy and reduce consumption of resources

We will strengthen human capital by attracting the best talent and creating a safe, comfortable and diverse workplace

3

6

We will strive to change the energy consumption model towards increasing the share of renewable energy, taking into account the unique requirements of the rail transport market

We will raise awareness of the benefits of sustainable transformation both within the organization and in its environment, including our value chain

We will build a sustainable service offering based on ESG activities

We will deepen our dialogue with stakeholders to better address their needs and build partnerships

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We will optimize business and transport processes for ESG by using digital tools



Objective 1.

We will integrate ESG criteria into rolling stock modernization and procurement process, taking into account the need to decarbonize the Group's key business

PKP CARGO S.A. is involved in the implementation of the "Sustainable and Smart Mobility Strategy -European transport on track for the future" published in 2020. Many of our activities are already in line with this strategy, such as the purchase of modern electric locomotives and wagons or the modernization of our structures.

At the same time, out of concern for profitability and performance levels, the Group is paying close attention to identifying sources of financing to enable the implementation of ambitious investment plans.

REGULATORY FACTORS Addressing the stringent requirements of new regulations, including the CSRD

MARKET FACTORS

areas

Meeting the expectations of customers, most of whom are already engaged in decarbonization activities within their value chains, will be important for building our competitive advantage.



As many as 42% of companies in Poland declare they will increase the volume of rail freight if this mode of transportation achieves carbon neutrality and is powered by renewable energy.*

WHAT HAVE WE DONE ALREADY?

PKP CARGO calculates and reports on:

- scope 1 (direct) greenhouse gas emissions arising from the operation of diesel locomotives, coal combustion in steam locomotives, fuel combustion in boiler plants, cars and emissions from refrigerant losses in air conditioning systems.
- scope 2 (indirect) greenhouse gas emissions arising from the consumption of electricity in electric locomotives and the consumption of non-traction electricity and heat (hot water in facilities and equipment); the market-based and locationbased method.

At the end of 2022, the most modern part of the company's fleet included 31 electric locomotives with converter drive and AC motors, including 21 multisystem EU45 and EU46 series locomotives (DC or AC powered), which may cross the borders of European countries without stopping. By the end of 2023, their number will increase by 5.

In recent years, there has been a gradual increase in the share of modernized diesel locomotives that consume less traction fuel in freight turnover and shunting operations.

521,120.84 tCO₂e Scope 1 and 2 emissions (market-based method) at PKP CARGO S.A. in 2022

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53.1 thousand wagons used at the end of Q2 2023 1.565 Locomotives used at the end of Q2 2023

* Source: IBRIS Green Rail survey, 2021 https://prokolej.org/raporty-grafiki-stanowiska/raporty/ A survey on a nationwide sample of 109 large companies (with at least 250 employees and annual turnover of more that PLN 200 million)

> Objective 1.

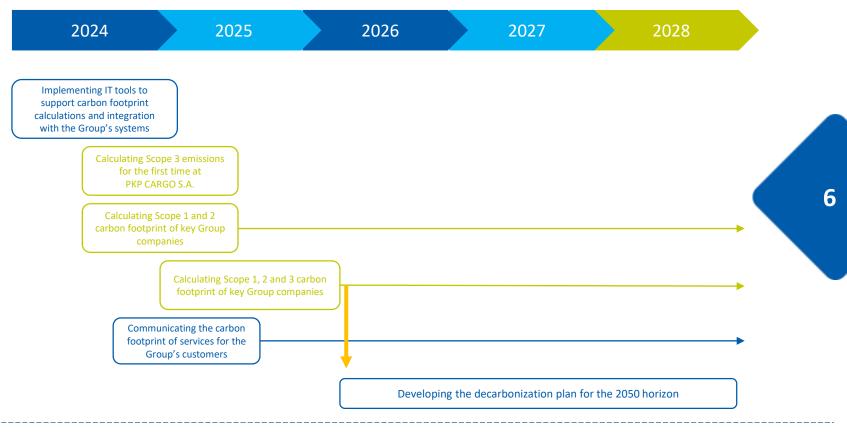
We will integrate ESG criteria into rolling stock modernization and procurement process, taking into account the need to decarbonize the Group's key business areas

- Calculating the carbon footprint of key Group companies
- Modernization and development of rolling stock - locomotives
- Modernization and development of rolling stock - wagons

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The Group's carbon footprint is affected primarily by the structure of fuels and other primary energy sources used to generate the electricity purchased to power electric locomotives. An increase in the percentage of renewable energy supplied by the traction energy producer will translate into a clear drop in emissions.

Investment decisions aimed at decarbonizing the business will be based on carbon footprint calculations in all three scopes carried out in key Group companies using IT tools.



 Implementing IT systems supporting carbon footprint calculations in the Group by the end of 2024

SUCCESS

METRICS:

- Calculating Scope 1, 2 and 3 carbon footprint for PKP CARGO S.A. by the end of 2024
- Developing the decarbonization plan by the end of 2028

Objective 1.

We will integrate ESG criteria into rolling stock modernization and procurement process, taking into account the need to decarbonize the Group's key business areas

- Calculating the carbon footprint of key Group companies
- Modernization and development of rolling stock - locomotives
- Modernization and development of rolling stock - wagons

*Calculated value refers to direct emissions from fuel combustion in diesel locomotives.

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Indirect greenhouse gas emissions from traction energy calculated using the location-based method - from electric traction (GHG emissions in tCO₂e)



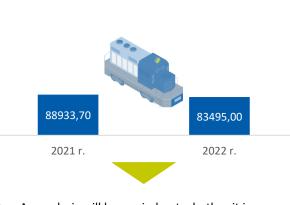
- Continuation of investments in the purchase of modern electric locomotives, including multi-system locomotives and units with a diesel combustion module (which allows them to operate on nonelectrified tracks) and an energy recovery function.
- Continued modernization of older units, to optimize energy consumption for traction purposes and to measure actual consumption (which could potentially lead to a change in the Group's energy purchasing model)

THIS INITIATIVE IS DEPENDENT ON THE ABILITY TO RAISE **EXTERNAL FUNDING**

>90% of freight turnover in 2022

was done with

Direct greenhouse gas emissions from Diesel traction (GHG emissions in tCO₂e)*



- An analysis will be carried out whether it is justified to modernize any more diesel locomotives (by replacing engines with modern, more environmentally-friendly four-stroke units, replacing installations and power generators, installing fuel consumption measurement systems)
- **Diesel locomotives are being phased out** as electric networks are gradually implemented on rail lines (through physical decommissioning and sale).
- Continue to train locomotive drivers on conservation of energy and fuel, and analyze the justification for implementing additional digital tools to support train drivers
- Continue to monitor the development of new rail technologies, including hydrogen and biofuel propulsion, and take part in partnerships.

SUCCESS METRICS:

- As a result of new purchases and upgrades of existing locomotives: reaching the number of metered rolling stock and volume of collected consumption data to enable a change in the energy purchasing model.
- Planning investments and maintenance operations with a view to increasing CapEx and OpEX in compliance with the Taxonomy Regulation.

> Objective 1.

We will integrate ESG criteria into rolling stock modernization and procurement process, taking into account the need to decarbonize the Group's key business areas

- Calculating the carbon footprint of key Group companies
- Modernization and development of rolling stock - locomotives
- Modernization and development of rolling stock - wagons

Looking to the future and the inevitable changes in the mix of goods transported, the Group is purchasing modern freight cars.

A large part of these are intermodal platforms, which improve the efficiency of rail freight.

Wagon braking systems are equipped with K-type composite brake blocks,

which are characterized by lower

noise emissions than traditional cast

NUMBER OF MODERN INTERMODAL PLATFORMS PURCHASED IN 2020-2022

278

in 2022

400 428 in 2020 in 2021

The listed and planned purchases are carried out as part of two key projects:

- "Multi-system locomotives and wagons for intermodal transport"
- "Purchase of flat wagons for intermodal transport by PKP CARGO S.A."

Refinancing from EU funds -Operational Programme Infrastructure and Environment 2014-2020 under Measure 3.2 Priority Axis III

ALL NEW WAGONS ARE FACTORY EQUIPPED WITH K-TYPE BRAKE BLOCKS

MODERNIZATION - INSTALLATION OF COMPOSITE BRAKE BLOCKS IN OLDER WAGONS

11,523	13,146	13,886
in 2020	in 2021	in 2022

18,746

660

purchases planned

in 2024-2026.

projection of wagons equipped with composite brake blocks by 2028

8

SUCCESS METRICS:

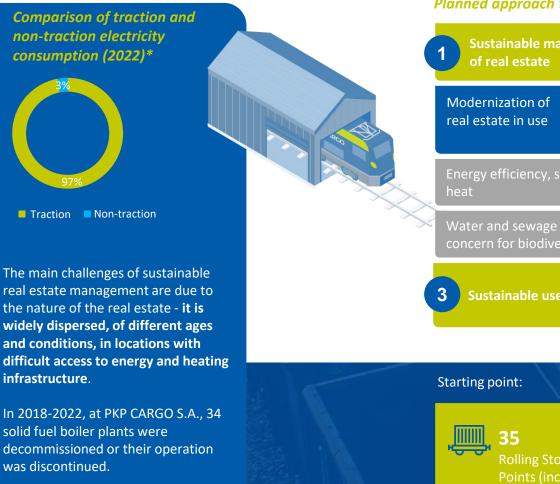
iron brake blocks.

By the end of 2028, 100% of the Group's wagons in service equipped with brakes with ceramic brake blocks

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Objective 2. We will limit the consumption of resources and implement the circular economy principles



Planned approach to sustainable management of real property and rolling stock



Rolling Stock Maintenance



> Objective 2.

We will limit the consumption of resources and implement the circular economy principles

 Sustainable management of real estate Diverse legal grounds of the use (leasehold vs. freehold)

Varying technical condition

 Sustainable management of rolling stock

Resource management

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Dispersion of properties and varying access to power and heating networks



Collecting data on carbon footprint and energy efficiency

Analysis of the real estate portfolio with a view of using more environmentallyfriendly energy sources (PV installations, heat pumps), taking technical restraints into account

Analysis of opportunities for thermal modernization of buildings

Analysis of the impact of real estate management on biodiversity (herbicides, noise accompanying operations)

Analysis of possible improvements based on the purpose of a given facility (example: wagon washing facilities based on circular economy principles) Assumptions for new investments under the ESG Strategy

Green assumptions for investments – environmental and social impact analysis of investments

Analysis of availability of energy and heat sources and justification of investments in own energy sources (PV installations, heat pumps)

Commitment to circular economy principles



SUCCESS METRICS:

- Incorporating ESG (environmental and social nuisance) criteria into decision-making process to keep or sell the property.
- Analysing of the real estate portfolio in terms of the ability to be powered by green electricity and heat sources (including own generation sources) by the end of 2028.

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> Objective 2.

We will limit the consumption of resources and implement the circular economy principles

- Sustainable management of real estate
- Sustainable management of rolling stock
- Resource management

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rchase of new comotives and agons	Modernization of ones in use	Operation	Disposal / sale of parts	
ombustion module bility to carry out perations on non- lectrified sections in the pontext of reducing the umber of diesel icomotives	Replacement of engines and generators Modernizing diesel locomotives to reduce carbon footprint and costs	Maintenance overhaul Use of refurbished parts from scrapped units	Scrapping Increasing the share of the company's plants in the scrapping, disposal and recovery of reusable parts	
Energy recovery ability to return energy from praking to the grid in the context of a possible change in the energy purchase aystem.	CAN BE IMPLEMENTED AS PART OF MODERNIZATION	Green approach to rolling stock maintenance		
Energy consumption sensors Ability to change the energy purchase system and to carry out environmentally- friendly optimization of the way depots operate	EFFORTS	Consumables Review of lubricants, oils against environmental criteria Management of hazardous was Safeguards going beyond the procedures red		
Composite brake blocks possibility to reduce noise accompanying the provision of transport services				

- SUCCESS METRICS:
- Reviewing the environmental impact of maintenance activities by 2026
- Incorporating environmental criteria in the procurement of consumables

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> Objective 2.

We will limit the consumption of resources and implement the circular economy principles

- Sustainable management of real estate
- Sustainable management of rolling stock
- Resource management

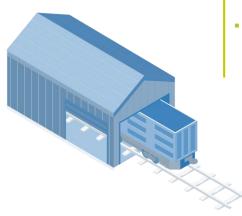
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Reducing water consumption by modernizing the wagon washing facility at the Central Unit.

- Condition: obtaining external cofunding
- Implementation horizon: 2024
- Environmental impact: considerable reduction in water consumption
- Other benefits: obtaining necessary water permit and no increase in bills

Building water and sewage facilities - one location within the Southern Unit

- Condition: allocation of funds in the budget
- Implementation horizon: 2026
- Environmental impact: reduction of pollution generated
- Other benefits: ability to obtain necessary water and sewerage permits and no increased fees



Connecting one location to the municipal sewer system within the Western Unit

- Condition: allocation of funds in the budget
- Implementation horizon: 2025-2028
- Environmental impact: reducing pollution produced, abandoning the discharge of pollutants
- Other benefits: obtaining necessary water permit and no increase in bills

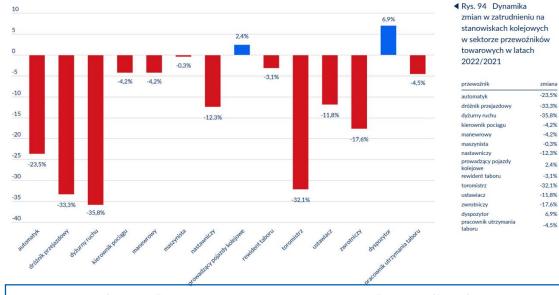
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SUCCESS METRICS: Fully regulated formal and legal status of sewage removal and no increased bills on this account

> Objective 3.

We will strengthen human capital by attracting the best talent and creating a safe, comfortable and diverse workplace

In a survey of employees on ESG strategic directions, activities for own employees were rated the highest: **4.69/5*.**



The data comes from the "Rail Transportation Market Report 2022" by the Office of Rail Transport Despite an increase in overall employment levels, there was a decrease in the number of workers employed in regulated occupations in 2022. PKP CARGO Group employees expect changes in managing the workplace In the survey, they identified the following as key issues:*

- Further improvements in organizational culture, including integration and prevention of mobbing
- Increasing transparency in the process of setting salaries, granting bonuses and jubilee awards
- Increasing transparency in terms of development path and promotions
- Increasing the attractiveness of social benefits and non-wage benefits
- The need for education, training and development programs, more retraining opportunities within the Group.

Starting point**:

20,086

Number of Group employees at the end of 2022

PLN 69,309.52

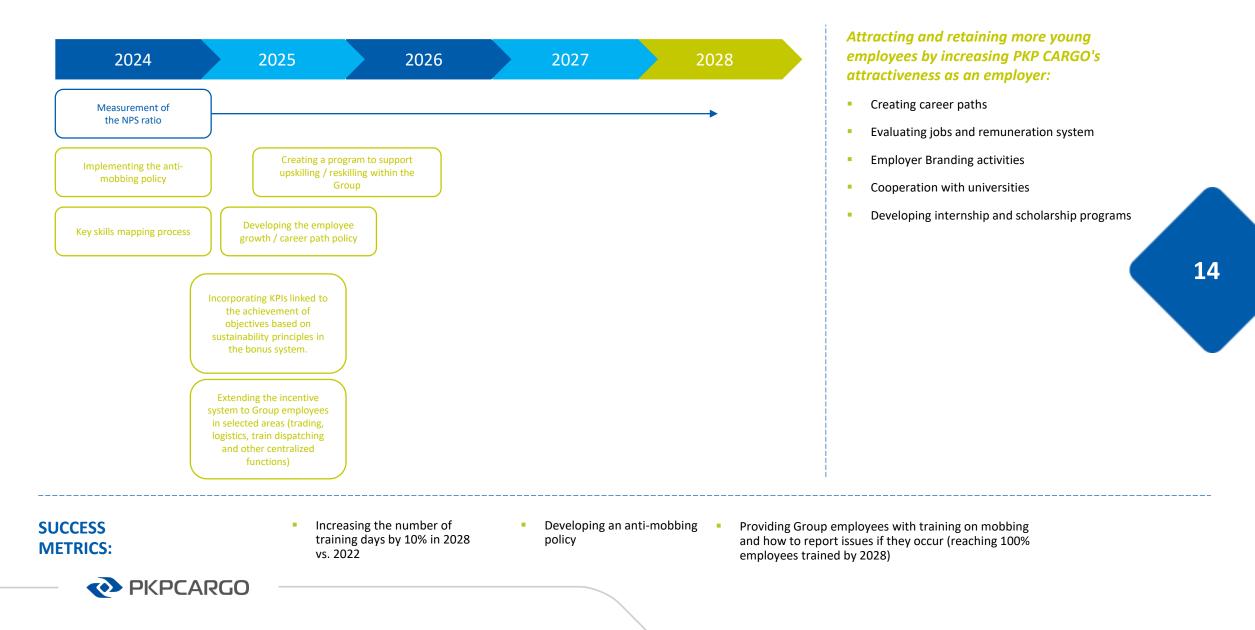
Median total annual remuneration of all Group employees (excluding highest paid individuals) in 2022. **10%** Group employee turnover in 2022



- * The survey was conducted in Q3 2023 and included 719 respondents from the PKP CARGO Group.
- ** Based on the Sustainability Report of the PKP CARGO Group for 2022

> Objective 3.

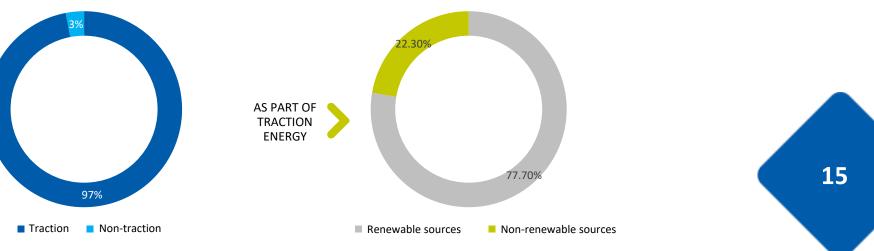
We will strengthen human capital by attracting the best talent and creating a safe, comfortable and diverse workplace



> Objective 4.

The Group's carbon footprint is affected primarily by the structure of fuels and other primary energy sources used to generate the electricity purchased to power electric locomotives. We will strive to change the energy consumption model towards increasing the share of renewable energy, taking into account the unique requirements of the rail transport market Comparison of traction and non-

Percentage of primary energy carriers used to generate traction electricity (2022)



Source: Report on the state of environmental and climate protection at PKP CARGO S.A. for 2022

traction electricity consumption (2022)





We will strive to change the energy consumption model towards increasing the share of renewable energy, taking into account the unique requirements of the rail transport market

Any increase in the share of energy generated from RES provided by the traction energy producer will translate into the most visible drop in emissions. CO₂ emission indicators for electric traction should improve continuously given the plans to increase the share of renewable energy produced by electricity generators and in accordance with declarations of the current owner of PGE Energetyka Kolejowa.

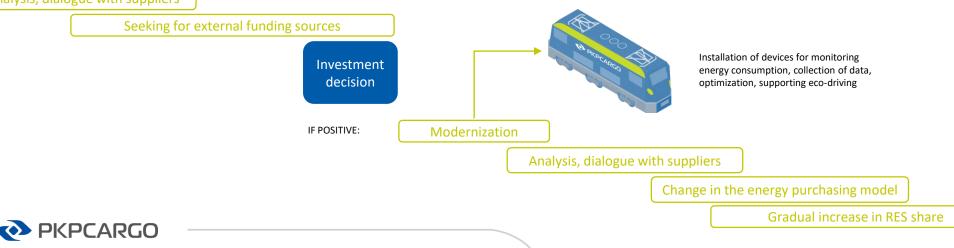
In 2022, despite a higher share of renewables in the fuel mix of electricity purchased from generators, PGE Energetyka Kolejowa S.A., as a seller of traction energy, has a higher carbon intensity of energy compared to 2021, which directly impacts the Group's carbon footprint.

2024 - 2028 (ESG strategy horizon)

Horizon for the next strategy

Changes in the energy mix of domestic energy suppliers are independent of PKP CARGO Group's actions (including an increase in the share of RES).

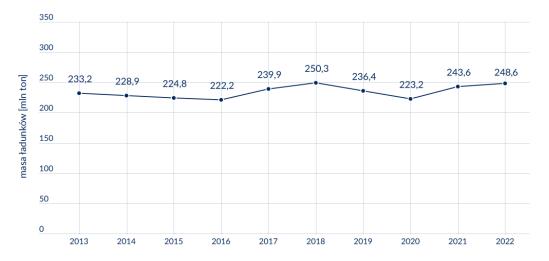






Office of Rail Transport

We will raise awareness of the benefits of sustainable transformation both within the organization and in its environment, including in our value chain



Source: Railway in 2022 in the context of four last years in passenger and cargo transport,

Freight weight in rail transport in 2013-2022

According to the Office of Rail Transport, the weight of rail freight has not changed significantly in recent years. The increase in the EU reduction target to -55% in 2030 will require a 16% reduction in emissions in the non-ETS sector, which includes transport, compared to the previous figure of 7%. Rail, which is already one of the most energy-efficient and low-carbon modes of transport, has great potential to contribute to the achievement of these targets*.

* H. Brdulak, Why we need Green Railway? Developing Green Railway in support of transition of the Polish transport sector towards low emission, [in:] Green railway in Poland - climate, energy, transport, UNGC 2022, p. 57.

 Starting point:

 Loga

 Published the Sustainability

 Report

 Dublished the Integrated

 Report

> Objective 5.

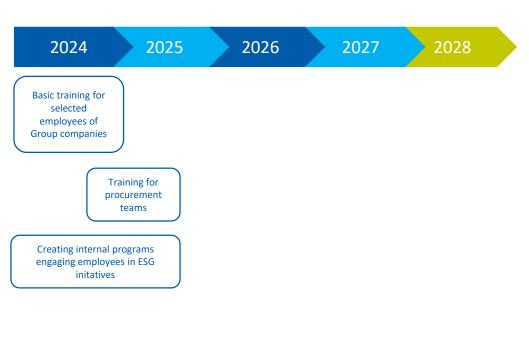
We will raise awareness of the benefits of sustainable transformation both within the organization and in its environment, including our value chain

- Building awareness of sustainability issues among employees
- Improvement of non-financial reporting

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Sustainable supply chain

An important element in implementing the ESG strategy will be to integrate its assumptions into internal education. This is a multi-faceted project that includes technical aspects (involvement of people handling the rolling stock, infrastructure and IT resources), legal aspects (procedures and policies to be developed) and commercial aspects (integration of ESG topics into sales processes and marketing messaging).



- Training employees of key companies in the basics of climate protection
- Creating a program to encourage employees to get involved in ESG initiatives (e.g., biking to work, participating in charity events, delivering track safety training for children).
- Continuing the training of locomotive drivers in energy-efficient driving, supported by an increasing number of locomotives equipped with measuring devices
- Raising awareness among staff responsible for procurement processes



SUCCESS METRICS: Basic training for representatives of all Group companies by the end of 2024



We will raise awareness of the benefits of sustainable transformation both within the organization and in its environment, including our value chain

 Building awareness of sustainability issues among employees

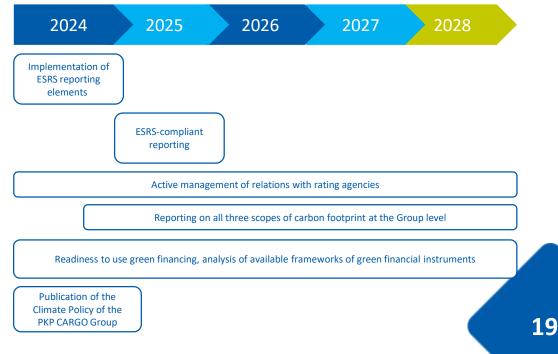
Improvement of non-financial reporting

Sustainable supply chain

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Non-financial reporting is increasingly influencing the market's perception of companies, contributing to their investment appeal, credibility in the eyes of financial institutions and impacting their valuation. The implementation of the CSRD, which places even greater demands on the growing group of companies required to report in accordance with the ESRS, is a significant qualitative change.

For the PKP CARGO Group, development of non-financial reporting is both a challenge (due to the increasing burden of a growing catalogue of disclosures) and an opportunity, because the market will be looking for contractors that can provide data on the environmental and social impact of their operations.



Tasks planned for PKP CARGO S.A.

- Adopt mechanisms for monitoring climate issues, assess climate risks regularly in accordance with the Risk Management Policy
- Identify the Management Board's role in managing climate-related issues
- Prepare general assumptions of the Climate Policy for 2023-2050, with a view to subsequently clarify it and extend to subsidiaries
- Prepare responses to surveys required by clients, banks and institutions publishing ESG rankings/ratings.

SUCCESS METRICS: Positive assurance from external auditor on the first audited ESRS-compliant report

- Repeat the CDP ESG rating, obtain the S&P Global ESG rating
- Expanding the scope of data reported by the Group's subsidiaries in order to standardize the type of presented data as much as possible (e.g. employment structure, employee well-being initiatives, carbon footprint, company approach to combating corruption and bribery).

Objective 5.

We will raise awareness of the benefits of sustainable transformation both within the organization and in its environment, including our value chain

- Building awareness of sustainability issues among employees
- Improvement of non-financial reporting

Sustainable supply chair

One of the ESRS disclosures required is G1-2: *Management of relationships with suppliers*, according to which an undertaking discloses information on the management of relationships with suppliers and its impact on the supply chain.

Tasks for the Group:

- Adopt a Supplier Code of Conduct for the Group, which includes ESRS G1-2 disclosure issues, including:
 - Entity's approach to relationships with suppliers, in the context of the risks of the supply chain for the entity and sustainability issues
 - Whether and how the entity takes into account social and environmental criteria for the selection of its suppliers
 - Communication with key suppliers regarding the increased expectations of Group entities
 - Conducting training for the procurement division

For PKP CARGO S.A.:

- Implement the supplier climate impact assessment system (by 2030)
- Implement a policy for purchasing low-carbon raw materials and products to reduce emissions that are independent of the Group (by 2040)
- Eliminate purchases of carbon-intensive raw materials and products (by 2050).

20

1 Establish

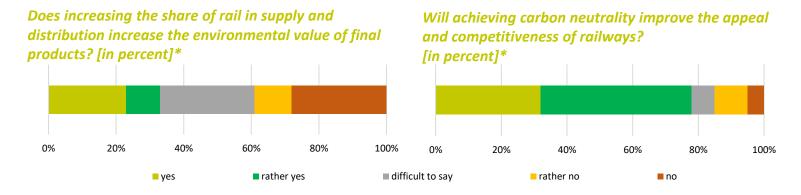
SUCCESS METRICS:

- Commencing work on supplier climate impact assessment system
- Adopting a Supplier Code of Conduct for the PKP CARGO Group
- Reducing the percentage of carbonintensive materials and products purchased

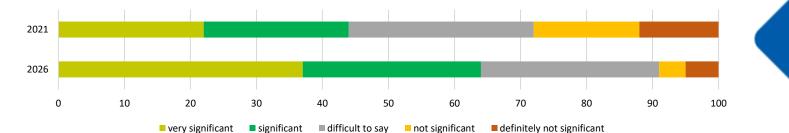
> Objective 6.

We will build a sustainable service offering based on ESG activities

Market research shows that safety and punctuality of delivery are the most important factors in selecting a transport service provider. The speed and cost of the service, as well as the availability of loading and unloading points, come in second. These factors are currently the main areas in which rail operators are competing. The situation will change significantly under new regulations, in particular the CSRD, which in the coming years will emphasize the importance of the sustainability aspect of transport services and the reporting of the carbon footprint accompanying the provision of services.



Assessment of the importance of carbon footprint as a criterion for selecting a mode of freight transport*



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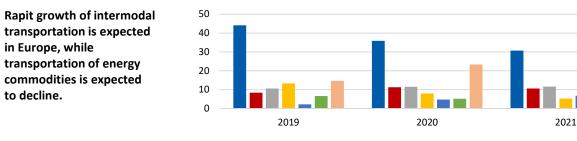
Objective 6.

We will build a sustainable service offering based on ESG

The role of ESG factors in building advantage on the highly competitive intermodal transport market

2022

Share of operators in the intermodal transport market by mass [%]

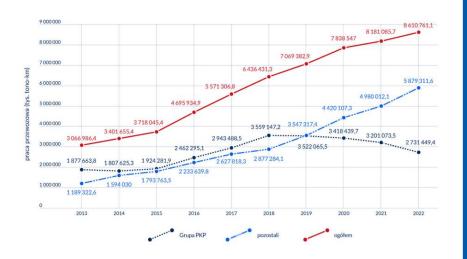


PKP CARGO DB Cargo Polska PCC Intermodal Captrain Polska Ecco Rail LTE Polska Others

In recent years, the PKP CARGO Group has been losing market share in Poland. The new business strategy assumes recovery of its share in the Polish market and expansion on international markets. The ESG strategy incorporates advantages related to sustainable growth in marketing messages and in the sales and customer service process.

22

Intermodal transport by rail in Poland



In 2022, only the following portions of the PKP CARGO Group's consolidated results were considered Taxonomy-aligned:

- 34.0% of total revenues
- 30.8% of capital expenditures (CAPEX)
- 15.2% of operating expenses (OPEX) related to products or services

Improvement of these ratios in connection with European Green Deal mechanisms will affect the Group in the following ways:

- Potentially lower costs of financial services (loans, insurance)
- Greater ease in raising green funding (e.g. bonds, loans)
- Credibility in the eyes of investors, better position in ESG ratings and rankings



25.18%

PKP CARGO's share of the intermodal transport market in 2022, by mass (vs. 30.73% in 2021)



23

rail operators carried out



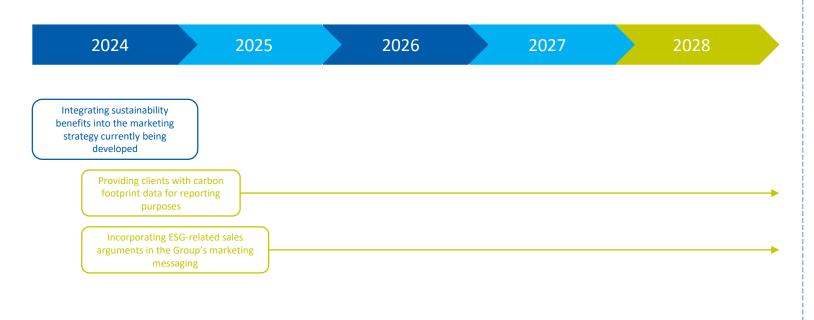
intermodal terminals



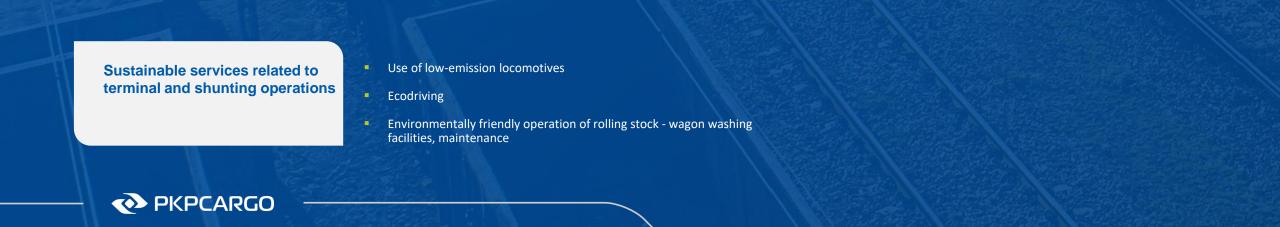


> Objective 6.

We will build a sustainable service offering based on ESG activities



- Sharing a GHG emission intensity index for customers to use when estimating their own Scope 3 carbon footprint.
- Publishing a calculator of "emissions avoided" on the PKP CARGO website, including a comparison with other modes of transport and the average carbon intensity of the rail market.
- Incorporating ESG in marketing messaging (the website, sales materials, offers, etc.)
- Conducting training for sales teams decarbonization of the transport value chain
- Marketing and education campaigns, education of journalists
- Efforts to educate decision-makers



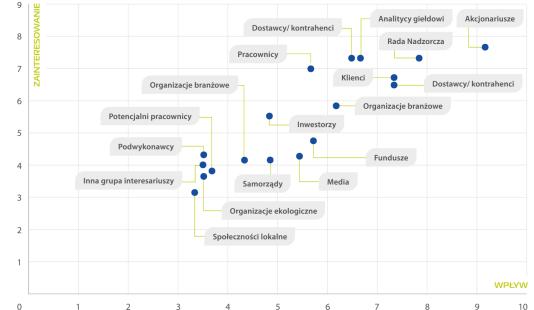
> Objective 7.

We will deepen our dialogue with stakeholders to better address their needs and build partnerships

- As a result of the workshop work, the following topics have been identified as key in the context of the ESG strategy
- Employment and local communities
- Building a corporate brand among employees and local communities of a company that is committed to improving their quality of life
- Reaching out to the local community and attracting new skilled employees



Stakeholder Map of the PKP CARGO Group





Objective 7.

We will deepen our dialogue with stakeholders to better address their needs and build partnerships

Implementing the employee volunteerism program

Implementing a corporate volunteerism program within the Group

- Identification of a social engagement target to be pursued by employee volunteering
- Voluntary participation and transparency of activities
- Campaigns in which employees will participate, to be selected on the basis of their suggestions and opinions
- Use of the organization's resources (people, facilities, IT infrastructure)

Directions of activities:

- Participation in projects pursued by the PKP Foundation
- Participation in local charitable activities organized in the vicinity of the Units
- Supporting biodiversity in cooperation with local communities: planting trees/flower meadows, cleaning up forests
- Skills-based volunteering giving lessons in schools about railway work and railway safety

We will strengthen human capital 2 by attracting the best talent and creating a safe, comfortable and diverse workplace

- Further cooperation within the framework of partnerships and industry initiatives
 - International Union of Railways UIC Sustainable **Development Platform**
 - Community of European Railway and Infrastructure Companies - participation in the CER Environmental Group
 - International Rail Transport Committee/CUI
 - International Coordinating Council on Trans-Eurasian Transportation
 - Train Europe Forum participating in projects or committees
 - participation of PKP CARGO S.A. in the work on the development of AVV (General Contract of Use for Freight Wagons) since 2006
 - Center for Railway Energy Efficiency (CEEK).
 - Polish Association of Listed Companies
 - Railway Cooperation Organization (depending on the evolution of the armed conflict in Ukraine)
- Commitment to improving railway safety, for example through cooperation with the international UIC Trespass and Suicide Prevention Network (TreSP-Network) group or through support for initiatives such as the campaign accompanying the celebration of the International Level Crossing Awareness Day

Increasing collaboration with other companies to develop new 3 technologies, including the use of hydrogen fuel to power locomotives

- During the International Railway Fair TRAKO in 2021, a Letter of Intent was signed between Grupa Azoty, PKP CARGO S.A. and PESA for joint innovative investment projects related to the commercial use of hydrogen fuel.
- In 2022, PKP CARGO actively participated in the development of the CER position paper "Hydrogen propulsion in the European railway sector".
- The first Polish hydrogen-powered locomotive was created on the basis of a locomotive purchased from PKP CARGO.

Tasks of PKP CARGO S.A.

- Cooperate with the infrastructure manager (PKP PLK S.A.) to improve the energy efficiency of rail transport (e.g. by reducing the number of unscheduled stops, increasing commercial speed of trains)
- Involvement in research and development projects aimed at developing optimal ways of using hydrogen to power rail vehicles and methods of transporting hydrogen and refueling rail vehicles.

SUCCESS METRICS:

Updating the objectives of the employee volunteering program by the end of 2024.

PKPCARGO

> Objective 8.

We will optimize business and transport processes for ESG by using digital tools

The activities of the PKP CARGO Group are aimed at developing a wide range of logistics services, including freight, terminal services, distribution and warehousing, as well as other support services. This includes universal digitalization which offers more opportunities to serve customers effectively and comprehensively.

Actions taken

- In 2021, PKP CARGO S.A. signed an agreement to implement the SAP Transportation Management System, which will allow it to manage transport operations and support all areas of the transportation process through a single platform. The implementation of the system is expected to be completed in 2026.
- In 2022, the Group also invested in cybersecurity solutions, such as the purchase of VPN gateways, and upgraded existing solutions, such as the Electronic Consignment Note. Group companies do not use a unified cybersecurity system (for example, PKP CARGO International and PKP CARGOSPED Terminal Braniewo use systems than are different from the one used by the parent company).

Tasks of PKP CARGO S.A.

- Cooperate with the infrastructure manager (PKP PLK S.A.) to improve energy efficiency of rail transport (by reducing the number of unscheduled stops, increasing the commercial speed of trains, etc.)
- Involvement in research and development projects aimed at developing optimal ways of using hydrogen to power rail vehicles and methods of transporting hydrogen and refueling rail vehicles.

Internet of Things – IoT	
Big Data Analytics – BDA	
automation and robotization	
cloud computing	



PKPCARGO

13% increas

increase in the operator's transportation potential through the application of preventive maintenance*



420 km

of railway lines included in the European ERTMS Implementation Plan, under which Poland should implement and commission the ETCS system on approximately 2,750 km of rail lines as part of the core TEN-T network**

* Digital transformation of the railway. **Report on the functioning of the rail transport market in 2022.

> Objective 8.

We will optimize business and transport processes for ESG by using digital tools

Establishment and continuous updates of a rolling stock diagnostics and maintenance support system by the IT function Exploring solutions to integrate data at Group level. Matching horsepower to tonnage with BIG DATA tools - Horsepower Tonnage Analyser.

Metering of locomotives in terms of energy consumption

Collection of data could be a prelude to changing the approach to the energy purchasing model towards a higher share of renewable energy.

Optimization - minimizing empty

wagon runs

Using IT solutions, including Big Data and AI, using optimization in sales communications (green railway logistics, calculation of emissions avoided in this way)

Digital Automatic Coupling (DAC)

The Group is monitoring plans for the implementation of the solution in Europe, carrying out tests and economic analyses

Development of hydrogen

propulsion

PKP CARGO S.A. and PESA signed a letter of intent for joint innovative investment projects focused on the commercial use of hydrogen fuel. In 2022, PKP CARGO actively participated in the development of the CER position paper "Hydrogen propulsion in the European railway sector".

The company is closely monitoring the development of the technology towards its commercialization.

SUCCESS METRICS: Creating the accountability, procedures and internal processes needed to **implement green innovation**



Implementation of Sustainable Development Goals through ESG Strategy goals

	ESG Goal 1	ESG Goal 2	ESG Goal 3	ESG Goal 4	ESG Goal 5	ESG Goal 6	ESG Goal 7	ESG Goal 8	
12 ODPOWIEDZIALNA KONSUMPCJA IPRODUKCJA	X	x		X	x	х			-
7 CZYSTAIDOSTEPNA ENERGIA				x		x	x	x	_
3 DOBRE ZDROWIE JAKOŚC ZYCIA	X	x	x						
8 WZROST GOSPODARCZY I GODNA PRCA	X		x						_
9 PNOWACYJNOŚĆ, PRZZMYSŁ NFRASTRUKTRA	X					x			

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> Tasks for Sustainable Development Goals



7 CZYSTAIDOSTEPNA ENERGIA 3.9 Reduce substantially the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination by 2030

7.2 Increase substantially the share of renewable energy in the global energy mix by 2030

7.3 Double the rate of improvement in energy efficiency globally by 2030

7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology, and promote investment in energy infrastructure and clean energy technology



INNOWACYJNOŚĆ. PRZEMYSŁ INFRASTRUKTURA

2 ODPOWIEDZIA KONSUMPCJA IPRODUKCJA 8.2 Achieve higher levels of productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labor-intensive sectors

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

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

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

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

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

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature



