



FOLLOWING OUR

NATURE

SUSTAINABLE DEVELOPMENT
REPORT

2021

About the report

GRI 102-1

Russian Railways Sustainable Development Report 2021 (the "Report") highlights our contribution to the country's economic development, well-being of employees and the general population, combating climate change and protecting the environment.

The Report is a key tool for communications on sustainable development between the Company and its stakeholders.

It provides information on:

- the Company's commitment to responsible interaction with its employees, consumers, business partners, and society as a whole;
- environmental responsibility and sustainable use of natural resources;
- management approaches i.e. specific initiatives and KPIs to ensure sustained economic, environmental, and social development of the Company.

The key theme of the 2021 Report is the Company's environmental responsibility. Russian Railways declared 2021 a Year of the Environment, its central idea being eco-friendliness across the board. The Company puts a premium on sustainability and environmental excellence, with environmental protection integrated into all processes.

GRI 102-54

This Report has been prepared based on the Global Reporting Initiative Standards (the "GRI Standards"), Core option. It also discloses the Company's contribution towards the UN Sustainable Development Goals (the "SDGs").

GRI 102-51, 102-52

The Russian Railways Sustainable Development Report 2021 is the sixteenth annual report on the Company's sustainable development activities (pre-2014 – corporate social responsibility report). The previous Report was published in September 2021.

GRI 102-50

Reporting period: 1 January to 31 December 2021.

GRI 102-56

Independent professional audit certification:

 <https://eng.rzd.ru/api/media/resources/1886112?action=download>

GRI 102-46

The Company determined the Report content using the applicable standards and guidelines¹ in collaboration with its stakeholders. The list of material topics has been updated to reflect stakeholder needs.

GRI 102-32

The Report was prepared under the supervision of the Russian Railways Environment and Technosphere Safety Department.

¹ Recommendations on Disclosure by Public Joint-Stock Companies of Non-Financial Information Pertaining to Their Activities (Annex to Information Letter of the Bank of Russia No. IN-06-28/49 dated 12 July 2021); Recommendations for the Board of Directors of a Public Joint-Stock Company to Consider ESG Factors and Sustainable Development Issues (Information Letter of the Bank of Russia No. IN-06-28/96 dated 16 December 2021); Moscow Exchange's ESG Best Practice Guide for Issuers.

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Material topics

Determining material topics

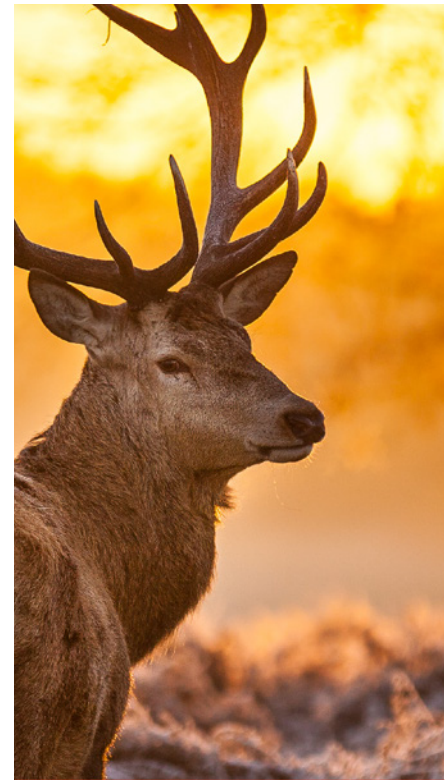
GRI 102-40, 102-42

To identify topics that are relevant for stakeholders, Russian Railways monitors the global sustainable development agenda through the lens of the goals and objectives set out in the UN General Assembly's "Transforming our world: the 2030 Agenda for Sustainable Development" action plan, as well as the list of tasks and national projects in the Russian President's Order No. 204 On National Goals and Strategic Objectives of the Russian Federation through 2024 dated 7 May 2018.

To really home in on the most important topics, we also analyse the activities of a wide range of investors, partners, and suppliers as they relate to the priority development areas of the Russian transport industry. We pay special attention to assessing risks and opportunities that have a bearing on the Russian Railways Group's development through 2030.

By continually interacting with many stakeholders throughout the reporting period, we are able to arrive at a pool of issues that are key to ensuring the Company's sustainable development.

When preparing the 2021 Report, we assessed the relevance of the previous reporting period's material topics in an online survey among the Russian Railways management.



Materiality assessment

GRI 102-44, 102-47

The survey identified topics that had a significant impact on the Company's performance in the reporting year. The following projects have been deemed the most significant for the purposes of the Sustainable Development Report 2021:

- Implementation of the Year of the Environment activities at Russian Railways
- Implementation of a number of climate-related projects
- Commissioning of the Baikalsky Tunnel
- Delivery against targets to improve labour productivity
- Introduction of the digital service for monitoring smart contracts
- Implementation of the Eurasian Agroexpress project on the development of accelerated container transportation of agricultural and food products by rail

The material topics that were disclosed in the 2020 report have been ranked based on their relevance in the 2021 reporting year

High priority:

- Promotion of innovations and efficiency improvement
- Higher quality and responsible provision of services
- HR management approach
- Employee training and development
- Terms of employment, employee rights (collective bargaining agreements)
- Environmental impact management
- Air pollutant emissions
- Noise and vibration
- Energy efficiency improvement
- Utilisation of renewable energy sources
- Personnel structure
- Diversity, equity, and inclusion
- Health, Safety and Environment (HSE) management approach
- Emergency preparedness and railway safety

- Waste management
- Climate impact management
- Respect for human rights

Medium priority:

- Business ethics and information security
- Corporate governance
- Workplace safety
- GHG emissions reduction
- Supplier and contractor relationship management
- Charity
- Biodiversity

Low priority:

- The spread of COVID-19
- Local community relations
- Contribution to local communities
- Interaction with suppliers on social and environmental matters
- Water consumption
- Interaction with local suppliers

Environmental impact management

Employee training and development

Efficiency improvement

Message from the Chief Executive Officer – Chairman of the Management Board of Russian Railways

GRI 102-14



The Group is the largest employer in Russia, with its railway network covering almost the entire country. Having a footprint as big as that, we are well aware of our responsibility towards our employees, their families, the nation at large, and, ultimately, the home we all share – the planet.

Dear partners and colleagues,

In 2021 – the Company’s Year of the Environment – we continued making strides on our sustainable development journey.

The bedrock of all our activities are people, their material and social well-being, and the Russian Railways Human Capital Development Programme until 2025 clearly reflects that.

Our goal is to build a full-fledged green economy within the Company that would see environmental protection integrated into each and every process. This is about creating a new paradigm, one where social responsibility is closely intertwined with the environmental security of present and future generations.

To that end, Russian Railways is implementing a wholesale transition to green logistics. Such transformation encompasses solutions to reduce electricity consumption, digitalise production processes, and take advantage of new fuel technologies.

In the Year of the Environment, we polished the image of Russian Railways as a green company. The Company is well ahead of the targets set in the

Instruction of the President of the Russian Federation to achieve a 30% reduction of GHG emissions by 2030 versus 1990, with emissions down 45% in 2021. Our goal is to achieve carbon neutrality by 2050.

The Year of the Environment also saw us make significant headway in biodiversity conservation. Working with experts from nature reserves and R&D institutes, we introduced measures to preserve endangered flora and fauna: wild reindeer, white-tailed eagle, Amur falcon, Asian spruce grouse, Oriental stork, east-dwelling great bustard, saker falcon, fritillaria ruthenica plant, and other species. We also supported a scientific expedition to study the Baikal seals, which serve as an indicator of Lake Baikal’s environmental health.

Russian Railways’ proactive stance on environmental protection contributes to its strong investment case. The Group is the largest issuer of green bonds and a key player representing Russia in the sustainable finance market.

We see companies moving away from greenwashing and focusing on follow-through under sustainable development goals – this is not merely a matter of reputation, but an objective

need. Big businesses cannot afford to skirt the issue of sustainability any longer.

I am confident that the culture of environmental protection and all the change it entails will soon trickle down to each individual employee across our company and become part of all production processes.

Bolstered by its R&D and operational capabilities and guided by sustainable development principles, Russian Railways keeps moving forward towards a better future for all. The Company’s excellent performance stems from the vast experience of its professional team, ambitious goals we set for ourselves, diligent long-term planning, and timely and consistent execution in line with the country’s mandate.

I hope this sustainability report proves informative and useful for all stakeholders. The Company welcomes honest and constructive dialogue.

Oleg Belozеров,
Chief Executive Officer –
Chairman of the Russian Railways
Management Board

ABOUT THE COMPANY

The Company ensures transportation of vital goods to remote parts of the country

Improving performance
for more details see p. 14-15

Following the chosen strategy
for more details see p. 16-17

Improving efficiency
for more details see p. 18-19

Providing the most
**affordable means of
transport** to millions
of people.



Company profile

Russian Railways¹ is the largest railway carrier in the Russian Federation, an owner and developer of common-use railway infrastructure.








GRI 102-4, 102-5

The Company ensures transportation of vital goods to remote parts of the country and provides the most affordable means of transport to millions of people. Russian Railways operates in 77 regions of Russia.

The Russian Federation is the founder and sole shareholder of Russian Railways. The Long-Term Development Programme of Russian Railways until 2025 aims to meet the strategic national goals by expanding the transport infrastructure and enhancing economic links among Russian regions.

GRI 102-2

Operations of Russian Railways:

-  freight transportation, locomotive traction and infrastructure;
-  container solutions
-  long-haul and suburban passenger transportation
-  rolling stock repairs
-  logistics
-  engineering
-  railway R&D



Russian Railways' infrastructure includes:

85,600 KM
of railway lines

44,300 KM
of electrified lines

Russian Railways' infrastructure accounts for:

46.3%
of total freight turnover

23.7%
of total passenger turnover

Russian Railways is Russia's largest employer:

Providing jobs to
696.3
THOUSAND PEOPLE

¹ Date and place of registration: 23 September 2003, Moscow. Registration authority: Moscow Interdistrict Inspectorate No. 39 of the Ministry of the Russian Federation for Taxes and Levies. OGRN 1037739877295.



GRI 102-7

The Company is a global leader by energy efficiency of freight services¹ and other performance indicators:

NO. 1
globally by freight and passenger traffic density per km of main line network

NO. 2
globally by freight turnover

NO. 3
globally by operational length of railway lines

NO. 4
globally by passenger turnover

¹ According to the International Energy Agency.

Geography of operations

GRI 102-4, 102-6

Russian Railways in Russia













With its vast territory and ample natural resources, Russia needs a robust railway transportation system. Railways are the main type of transport nationally, connecting 77 Russian regions, servicing the largest cities and making a difference for their growth, industrial development, and regional integration.





Russian Railways globally

Russian Railways is a global company committed to working with partners in Eurasia, Africa, and Latin America. As at 31 December 2021, Russian Railways had representative offices in 12 countries:

-  **Belarus**
(Minsk)
-  **Hungary**
(Budapest)
-  **Germany**
(Berlin)
-  **China**
(Beijing)
-  **North Korea**
(Pyongyang)
-  **Poland**
(Warsaw)
-  **Slovakia**
(Bratislava)
-  **Ukraine**
(Kiev)
-  **Finland**
(Helsinki)
-  **France**
(Paris)
-  **Estonia**
(Tallinn)
-  **Japan**
(Tokyo)

Performance highlights

In 2021, we recorded a gradual recovery in economic activity after a significant slowdown in 2020.

The year saw an increase in demand for railway transportation with freight handling and turnover growing by 3.2% and 3.1% y-o-y, respectively. The key driving force behind passenger transportation recovery was the relaxation of pandemic-related restrictions. Passenger turnover rose by 32.4% to 103.4 bn pkm, with 1,054 m people transported.






GRI 102-45

The concerted efforts of all units of Russian Railways helped achieve growth in operating and key financial indicators. In 2021, we recorded an increase in both revenue and profit. Cost optimisation and robust debt portfolio management helped generate a net profit of RUB 18.8 bn against RUB 0.3 bn in 2020.

Operating results






Freight handling

| mt

2021		1,282.8
2020		1,243.6
2019		1,278.1
2018		1,289.6
2017		1,261.3






Freight turnover

| bn tkm

2021		3,320.3
2020		3,221.0
2019		3,305.0
2018		3,304.8
2017		3,176.7






Passenger turnover

| bn pkm

2021		103.4
2020		78.1
2019		133.4
2018		129.4
2017		122.9

Passengers transported






| m people

2021		1,053.6
2020		872
2019		1,197.8
2018		1,157.2
2017		1,117.9

Financial results¹






Income

| RUB bn

2021		1,963.6
2020		1,813.1
2019		1,848.1
2018		1,798.4
2017		1,697.6





Income from transportation

| RUB bn

2021		1,751.2
2020		1,615.3
2019		1,641.9
2018		1,585.1
2017		1,493.6






Net profit

| RUB bn

2021		18.8
2020		0.3
2019		53.5
2018		18.4
2017		17.5

EBITDA

| RUB bn

2021		428.2
2020		402.3
2019		417.2
2018		380.2
2017		353.9

¹ Under RAS.

Sustainability metrics

GHG emissions per transportation volumes

| kg of CO₂ equivalent / 10 thousand

2021	77.4
2020	77.5
2019	77.85
2018	78.74
2017	79.52

Health and safety improvement expenses

| RUB bn

2021	29.0
2020	28.5
2019	23.9
2018	22.6
2017	20.1

Emissions from stationary sources

| kt

2021	43.0
2020	46.8
2019	53.7
2018	58.9
2017	62.4

Charity expenses

| RUB bn

2021	6.3
2020	6.0
2019	4.6
2018	3.1
2017	2.9

Average monthly salary across all operations

| RUB

2021	65,770
2020	61,375
2019	58,504
2018	54,934
2017	50,404

Investment in environmental protection

| RUB bn

2021	7.3
2020	6.3
2019	8.1
2018	8.5
2017	5.0



Strategy

Mission

The mission of the Russian Railways Group is to develop an efficient transportation business that will be competitive on the Russian and international markets and focus on effectively meeting the Group's objectives as a national freight and passenger carrier and owner of the public railway infrastructure.

Development Strategy until 2030

Accomplishment of the Group's mission will rely on the achievement of the 2030 strategic goals in six focus areas.

In 2021, the Strategy was implemented in line with Russian Railways' Long-Term Development Programme until 2025¹.

¹ Approved by the Russian Government (Order No. 466-r dated 19 March 2019) and the Board of Directors of Russian Railways (Minutes No. 14 dated 8 April 2019).

Transportation and logistics services

- maintain leadership in Eurasia's rail freight transportation, enhance the appeal of rail transport to customers, and ramp up cargo transportation volumes;
- increase the share of transportation and logistics services in the portfolio;
- improve customer satisfaction by enhancing the quality of services while also maintaining competitive transportation prices;
- provide high-quality services for the global supply chains of major Russian and international customers and expand the transportation and logistics business in Eurasia.

Passenger transportation

- maintain the existing share in Russia's overall passenger turnover and ramp up passenger transportation volumes;
- develop high-speed and ultra high-speed transportation.

Railway infrastructure

- maintain global leadership in efficiency, safety, and quality of infrastructure services;
- ensure consistent asset upgrade through cutting-edge technologies and solutions relying on the efficient life cycle cost management and availability/reliability of fixed assets.



Strategic
until 2030

Programme implementation in 2021

Due to macroeconomic headwinds, in 2021 the Company fell short of some of its KPI targets under the Long-Term Development Programme. At the same time, certain KPIs were exceeded, including procurement from small and medium-sized businesses (43 pp over the target), the volume of transit container transportation (22.1% over the target), and the average loaded car

delivery speed (8.6% over the target), which was due in part to Russian Railways' active work to develop container transportation.

The integral KPI for innovation efficiency, and labour productivity growth in transportation operations exceeded the respective targets by 14.7% and 2.9 pp, respectively.

The KPI for the length of public railway lines with limited throughput was achieved as planned.

 For more details on Russian Railways' Development Strategy, Long-Term Development Programme until 2025, and progress against KPIs in 2021, see [Russian Railways' 2021 Annual Report](#).

International operations

- pave the way for the further unlocking of Russia's transit potential;
- become a global leader in infrastructure construction with a long-term order portfolio and project excellence.

Social policy

- make it to the Top 5 of Russia's most attractive employers from among large businesses;
- engage the top talent by offering competitive salaries, better working conditions and best-in-class social benefits;
- prioritise green technologies and mitigate the environmental footprint.

Financial policy

- increase market cap;
- gradually optimise the Group's portfolio in line with its strategy, focus on core and most efficient operations, and ensure robust synergies of all the components.



Innovations and efficiency improvement

Innovation driven development

The Russian Railways Group's R&D activities and innovation driven development follow the priorities set forth in the Company's Long-Term Development Programme until 2025, as well as the Group's Research and Development Strategy until 2025 and further until 2030 (the "White Book"), in line with the country's strategic development goals and global R&D trends.

The Comprehensive Innovative Development Programme (CIDP) until 2025² includes 11 groups of key projects and proposals for streamlining innovation activities and establishes partnership mechanisms underpinned by open innovation principles.

In 2021, 142 innovation projects were being implemented under the CIDP, with the portfolio of innovation

projects growing by 42. In 2021, the Group invested a total of RUB 166 bn in innovation projects, including R&D, under the CIDP until 2025.

Key innovation projects in 2021

- Quantum Communications Platform for Digital Economy, hardware and software solution.
- Technological management system for suburban passenger transportation to streamline planning and organisation of current operations, facilitate transition to paperless processes and ensure effective planning of repairs.
- Automated unit for plate bearing tests to reduce the cost and duration of testing.

- Hybrid traffic management system at the pilot section of the Moscow Central Circle (Andronovka – Lefortovo – Cherkizovo) for six Lastochka ES2G electric trains (12 control cars).

In 2021, the Company signed strategic partnership agreements with Rostec and RUSNANO. The documents are aimed at joint manufacturing of high-tech import-independent products for the railway transport at Rostec facilities. The priority cooperation areas include the development of elements for microprocessor-based traffic management systems, innovative rolling stock running on alternative energy sources (hydrogen), and technology to reduce the environmental impact of railway transport.

Efficiency improvement

Improving the efficiency of infrastructure

To improve the efficiency of its infrastructure, the Company focuses on the following areas:

- repairs and upgrade of infrastructure facilities;
- streamlining the freight traffic schedule;

- improving performance at operating domains;
- streamlining the schedule for passenger trains;
- developing infrastructure to support growing transit container volumes.

¹ Approved by Russian Railways' Order No. 769/r dated 17 April 2018.

² Approved by the Company's Board of Directors (Minutes No. 13 dated 26 February 2020).

New Baikalsky Tunnel

The reporting year saw the launch of the new 6.7-kilometre-long Baikalsky Tunnel.

- Construction period 2016–2021
- Total costs RUB 35.9 bn
- Length 6.7 km (6,685.3 m)
- Depth up to 300 m

The tunnel was built as part of Baikal–Amur Mainline upgrade ordered by the Russian President Vladimir Putin to boost the carrying capacities of the railway infrastructure in the Eastern direction.

The Baikalsky Tunnel is key to expanding the throughput of the 17-kilometre-long Delbichinda–Daban section of the Baikal–Amur Mainline’s western sector. Its launch will increase the section’s throughput from 17 to 85 train pairs per day.

Once the new tunnel is in operation, it will be a 100% two-track section. Also, the section’s carrying capacity will be up 2.5 times, from 13.2 mt to 32.4 mt of freight per year, enabling the Company to accommodate additional and potential transportation volumes.

Higher traction stock efficiency

Heavy-duty traffic and higher weight standards of freight trains are key to optimising the transportation process in terms of increasing the carrying capacity, enhancing performance of locomotives and locomotive crews and reducing energy consumption for train traction.

Innovations for process improvements

- Introduction of the technology of driving freight trains without assistant. To that end, in 2021 locomotives were retrofitted with KLUB-U dedicated safety devices (414 items), telemechanic solutions for driver drowsiness detection (465 items), locomotive radio stations (759 items), and SAUT-K automatic braking control system (120 items).
- Development and introduction of virtual coupling – a wireless inter carriage link technology. In 2021, the technology was put into commercial operation in the Eastern Operating Domain. The ISAVP-RT-M auto driving system to minimise intervals was installed on 221 locomotives. The system was also integrated into 145 locomotives during construction.

- Development of a device to control the length of any breaks in communication between the shunting master and the locomotive driver. The aim is to create a device that will automatically inform the locomotive driver that a specified period of time has elapsed after the last communication with the shunting master (20 seconds).

For more details on projects to improve the efficiency of infrastructure and traction rolling stock see [Russian Railways' 2021 Annual Report](#), the Railway Transportation and Infrastructure section.



#case study

GREEN

Eco-friendly rolling stock

TRAFFIC

Russian Railways is actively engaged in a number of projects to create eco-friendly traction stock running on alternative energy sources.

This will allow for substituting

11 % of diesel fuel
with natural gas by 2025,
with the figure to increase
TO 25 % by 2030



Natural gas

In 2021, we continued to work on configuration and key equipment options to convert shunting and mainline diesel locomotives into gas-powered ones. Another work stream underway is the development of new locomotives running on natural gas.



Hydrogen cells

In Sakhalin, Russian Railways started piloting trains running on hydrogen fuel cells. The project seeks to create a comprehensive hydrogen technology comprising hydrogen production and transportation, train operation and maintenance, as well as building an expert and training centre. The advantages of hydrogen-based power sources include lower noise from rolling stock and no GHG emissions.

Testing of the first locomotive
is scheduled for

Q3 2022

Commercial production
of locomotives is expected
to begin

IN 2023



Batteries

In 2021, we finalised design documents and started pilot manufacturing of two hybrid EMKA2 shunting locomotives. We are also designing a Lastochka-based hybrid electric train powered by lithium-ion batteries.





SUSTAINABLE DEVELOPMENT MANAGEMENT

Committed to the UN Sustainable Development Goals, Russian Railways belongs to the leading Russian companies that apply sustainable development principles.

We contribute significantly to the UN Sustainable Development Goals in accordance with the nature of our business, placing a particular emphasis on 13 out of the 17 SDGs.

[for more details see p. 26-30](#)

Giving ear to stakeholders.

[for more details see p. 32-37](#)



Management approach

GRI 103-2, 103-3

Russian Railways is committed to the principles of the UN Global Compact. Its strategic priority in terms of sustainability is to contribute to the achievement of the UN Sustainable Development Goals, which is reflected in the Company's efforts to ensure economic stability, environmental safety and social security.

Russian Railways is a member of the National Network of the Participants to the Global Compact for Implementing the Principles of Responsible Business in Corporate Practice Association.

The Company complies with the principles of socially responsible business practices enshrined in the Social Charter of the Russian Business adopted by the Russian Union of

Industrialists and Entrepreneurs and is a regular contributor to the RSPP's Corporate Practices Collection.

In pursuing its corporate social responsibility policy, the Company complies with international treaties, laws and regulations of the Russian Federation, as well as its own policies and procedures

ESG ratings

An ESG rating evaluates environmental and social risks associated with the Company's business, as well as risks related to corporate governance. We need an ESG rating to identify risks and opportunities for our long-term resilience.



Russian Railways in 2021 ESG ratings

MSCI	Russian Railways received an ESG rating of B from MSCI
Sustainalytics	Sustainalytics reduced Russian Railways' ESG risk level to 23.5 out of 100 (the lower the better), which corresponds to the Medium ESG Risk.
ISS ESG	ISS gave Russian Railways a Corporate ESG grade of C, decile rank 2 ¹
RAEX-Europe	Russian Railways was included in the Top 15 of the ESG Ranking of Russian Companies 2021 by RAEX-Europe

¹ The decile rank indicates in which decile (tenth part of a total) the individual corporate rating ranks within its industry from 1 (highest – the company's rating is in the first decile within its industry) to 10 (lowest – the company's rating is in the tenth decile within its industry).

Participation of the Board of Directors in sustainable development management

GRI 102-26

Sustainable development management is an essential part of the Board's activities. Within its scope of authority, the Board of Directors reviews and approves the Company's regulatory documents and monitors their implementation.

In 2021, the Board adopted the following resolutions on sustainable development matters:

- to approve Russian Railways' investment programme for 2022–2024, which provides for a number of investment projects to improve the lives of Russian citizens, create a comfortable and safe environment for life and development of tourism (infrastructure development projects at Central and St Petersburg transport hubs, and the South cluster);
- to approve the size of Russian Railways' charity and sponsorship fund and the key initiatives to be supported;
- to donate social, educational, sports and cultural facilities to municipal and regional public law entities.








The Board of Directors regularly reviews reports on the implementation of the Charity and Sponsorship Policy, the Group's Comprehensive Innovative Development Programme, and the Consolidated Programme to Improve Operational Efficiency.

In 2021, the Strategic Planning Committee of the Board of Directors considered Russian Railways' draft Environmental Strategy through 2030.





Role of the Board of Directors and the management in overseeing the achievement of the UN Sustainable Development Goals

GRI 102-19

UN Sustainable Development Goals	Role of the Board of Directors and the management
 <p>3 GOOD HEALTH AND WELL-BEING</p> <p>Goal 3. Ensure healthy lives and promote well-being for all at all ages.</p>	<p>Russian Railways' Healthy Lifestyle Concept for 2020–2025 (approved by Resolution No. 40 of the Management Board dated 6 June 2020).</p>
 <p>4 QUALITY EDUCATION</p> <p>Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p>	<p>Russian Railways' Action Plan to Enhance the Quality of School Education Provided by Educational Institutions through 2030 (approved by Russian Railways' Order No. 658/r dated 30 March 2021)</p> <p>The Framework for the Reform of the Russian Railways Preschool and School Education for 2017–2020 (Minutes No. 9 dated 11 September 2017).</p>
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p> <p>Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.</p>	<p>In 2019, Russian Railways' Long-Term Development Programme until 2025 was approved in order to achieve the national goals and strategic objectives of the Russian Federation.</p> <p>Its provisions are fleshed out in the financial plan and investment programme for 2022–2024 (Minutes No. 8 dated 23 December 2021).</p>
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> <p>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.</p>	<p>Russian Railways' investment programme for 2022–2024 (Minutes No. 8 dated 23 December 2021) aims at developing and upgrading the railway infrastructure of the Russian Federation, including in major metropolitan areas.</p>
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p> <p>Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.</p>	
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> <p>Goal 12. Ensure sustainable consumption and production patterns.</p>	<p>The Board of Directors approved the Consolidated Programme to Improve Operational Efficiency and Optimise Costs in 2019–2025 (Minutes No. 20 dated 28 June 2019).</p> <p>Reports on the programme implementation are reviewed by the Board of Directors on a regular basis.</p>
 <p>13 CLIMATE ACTION</p> <p>Goal 13. Take urgent action to combat climate change and its impacts.</p>	<p>The Board of Directors approved the Group's Comprehensive Innovative Development Programme through 2025 (Minutes No. 13 dated 26 February 2020), which contains a set of measures (including KPIs) aimed at improving energy efficiency and reducing greenhouse gas emissions.</p> <p>Reports on the programme implementation are reviewed by the Board of Directors on a regular basis.</p> <p>The Board's Strategic Planning Committee reviewed Russian Railways' draft Environmental Strategy through 2030 ahead of its consideration by the Company's Board of Directors.</p>

The Company's contribution to the achievement of the UN Sustainable Development Goals (SDGs)

Russian Railways contributes significantly to the UN Sustainable Development Goals in accordance with the nature of its business, placing a particular emphasis on 13 out of the 17 SDGs.

SDGs	Russian Railways' activities towards achieving the SDGs	To contribute to the SDGs, in 2021 the Company:
<p>Goal 3: Ensure healthy lives and promote well-being for all at all ages</p> 	<p>Caring for the health of its employees, their families and the retired remains a core priority of the Company's social policy.</p> <p>Health resort treatment, recreation and rest are available at corporate health resorts, holiday hotels, recreational centres and camps.</p> <p>The Company's employees have access to healthcare and cardiovascular disease prevention programmes.</p> <p>The Company consistently promotes healthy lifestyle and creates opportunities for sports activities.</p>	<ul style="list-style-type: none"> • approved the Plan for Implementing a Risk-oriented Approach to Reducing Cardiovascular Diseases among Russian Railways Employees; • held about 6,000 events in nine areas under the Russian Railways Healthy Lifestyle Concept for 2020–2025; • conducted health training sessions; • had a task force that took active steps to prevent the incursion and spread of the coronavirus to ensure a continuous passenger service. • Russian Railways' Healthy Lifestyle Concept project became a winner of the BRICS Solutions for SDGs Awards in the Good Health and Well-being category
<p>Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p> 	<p>The Company's professional training framework relies on 15 education centres. Our Corporate University trains specialists with higher education and secondary vocational education in cooperation with industry-based higher education institutions (the Programme of Russian Railways' Interaction with Railway Universities).</p> <p>Russian Railways has a remote learning system in place, offering a choice of more than 400 courses.</p> <p>The Group is a founder of 97 educational institutions and operates 25 children's railways. Children's railways include six Kvantorium science parks that encourage innovative thinking and strengthen IT competencies.</p> <p>Russian Railways created specialised classes at 88 hub schools in 39 Russian regions.</p>	<ul style="list-style-type: none"> • Provided training to over 229,000 managers and office workers in 2021, of whom over 115,000 employees attended courses at the Russian Railways Corporate University. • Opened the Far Eastern Branch of Russian Railways' Corporate University, which provided training to more than 1,400 line heads of the Far Eastern Railway functions in 2021. • Took the Best Corporate University Overall award by the Global Council of Corporate Universities for its Corporate University. • Trained 43,000 employees in key jobs, including 34,500 in vocational education centres. Over 185,700 employees completed training as part of professional development programmes, including 146,200 in vocational education centres. • Set up 27 training classes at dedicated universities to prepare locomotive specialists. • Updated the distance learning system. • Made it possible for 60% of students of Russian Railways' schools and children's railways to enter specialised universities and colleges

SDGs

Russian Railways' activities towards achieving the SDGs

To contribute to the SDGs, in 2021 the Company:

Goal 5: Achieve gender equality and empower all women and girls



Russian Railways has zero tolerance for any types of discrimination, including gender discrimination, in recruitment, staff development and promotions.

The Company implements the Action Plan to improve the conditions of work, leisure, and social support of women in 2021–2025.

The Company consistently expands the list of railway jobs available to women.

- Continued efforts as part of the Coordination Council tasked with improving the conditions of work, leisure, and social support of women;
- expanded the list of railway jobs available to women;
- had first female assistant drivers join the Russian Railways locomotive crews on long-haul and suburban routes

Goal 6: Ensure access to water and sanitation for all



Russian Railways is implementing a Clear Water investment project to upgrade water supply systems and bring the quality of water supplied to consumers in line with standards set by Russian sanitation and environmental laws.

The Company is on track to introduce modern water recycling solutions.

- used 67.35 mcm of water, a decrease of 3.45% y-o-y (target – 2.3%);
- cut wastewater discharges on land and into surface water bodies to 4.66 mcm, a reduction of 14% y-o-y (target – 4%);
- ensured that 0% of untreated wastewater was discharged into surface water bodies

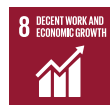
Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all



Russian Railways is working on transitioning to alternative and renewable energy sources to make the railway transport even more environmentally friendly.

- Received the BRICS Solutions for SDGs Awards in the Affordable and Clean Energy category for its project Cogeneration Plant Using Old Year Wooden Sleepers as Fuel

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



Russian Railways provides jobs for over 1% of employed Russian citizens.

GRI 102-41

Russian Railways' Collective Bargaining Agreement for 2020–2022 provides for social protection of employees, their families and the non-working retired and offers effective tools for employee engagement and incentivisation.

Russian Railways has a number of corporate programmes supporting certain categories of personnel, including young, retired and soon-to-be-retired employees.

- Offers above average wages in almost all Russian regions¹;
- Increased salaries by 5.2% as part of indexation;
- Paid success bonuses to 14,400 employees for implementing economically efficient projects

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation



Russian Railways' investment programme for 2021–2023 is focused on developing and upgrading the railway infrastructure and promoting high-speed and ultra high-speed railway transportation.

The Group's Comprehensive Innovative Development Programme and the Digital Transformation Strategy until 2025 include projects to develop transportation management systems based on artificial intelligence, introduce innovative rolling stock, and other initiatives. The Company promotes partnerships with scientific institutions, manufacturers, and small and medium-sized businesses based on the principle of "open innovation".

- Carried on with projects to create a digital twin of the Russian railway network, develop transportation management systems based on artificial intelligence, and introduce innovative rolling stock.
- Continued to implement the programme Far Eastern Railway as an Accelerated Development Domain, with results measured against ESG metrics using a performance monitoring system.
- Relied on the upgraded corporate mobile communication system to conduct 645,000 video conferences involving about 40,000 participants. Russian Railways commissioned nearly 4,000 high-speed data transmission centres

¹ Except for the Yamal-Nenets Autonomous Area and the Sakhalin Region, Moscow, and St Petersburg.

SDGs

Russian Railways' activities towards achieving the SDGs

To contribute to the SDGs, in 2021 the Company:

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable



The Company is the main provider of suburban passenger transportation in Russia. They are integrating suburban transport into urban transport systems and actively developing multi-modal routes and transport interchange hubs to enhance the mobility of urban population.

- Launched 14 new suburban route.
- Commissioned the Vostochny railway station (Cherkizovo terminal) capable of handling over 24,000 passengers a day.
- Renovated 27 railway stations
- Refurbished waiting rooms at 23 railway stations.
- Revamped approximately 700 passenger platforms.
- Transported 150,900 passengers via SPC multimodal routes in 2021, up 63.2% y-o-y

Goal 12: Ensure sustainable consumption and production patterns



Company divisions use waste recycling technologies to reduce the negative environmental impact of railway industry-specific waste.

The Company recognises its environmental and social responsibility and fulfils a self-assumed obligation to ensure selective collection of secondary materials (paper, glass, plastic, and household aluminium waste) in its office buildings and at railway stations.

- Replaced mercury vapour lamps with mercury free energy-efficient lighting.
- Sent for reuse recyclables (paper, cardboard, glass, plastic, and household aluminium waste).
- Collected used batteries from the Company's employees and passengers.
- Encouraged the cleaning and outsourcing passenger service companies to take part in the selective collection of paper, glass, plastic, and household aluminium waste as part of the Company's efforts to reduce landfilled waste

Goal 13: Take urgent action to combat climate change and its impacts



GHG emissions reduction is an integral element of Russian Railways' Environmental Strategy.

- Implemented initiatives under the Energy Savings and Energy Efficiency Programme, as well as measures aimed at transitioning heat supply utilities to alternative energy sources;
- Purchased modern Russian-made rolling stock with improved environmental performance, including 277 electric locomotives (264 freight and 13 passenger ones);
- Worked on projects to create environmentally friendly traction rolling stock

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



Russian Railways is a major natural resource user operating in 77 regions of Russia.

Its impact on the environment is associated with the operation of railways, as well as production and infrastructure facilities, resulting in factors that disturb local fauna and erode biodiversity. The preservation and rehabilitation of ecosystems remain an environmental priority for the Company.

- Implemented 42 biodiversity conservation projects aimed at protecting rare and endangered species listed in the Red Book.
- Planted 630,000 trees

SDGs

Goal 16: Promote just, peaceful and inclusive societies, ensure equal access to justice for all and develop effective, accountable and transparent institutions at all levels



Goal 17: Revitalise the global partnership for sustainable development

**Russian Railways' activities towards achieving the SDGs**

A zero tolerance for corruption in any form or manifestation is indispensable for the Company's sustainable development. We take all necessary steps to ensure compliance with international and Russian anti-corruption laws both in this area and beyond.

Russian Railways signed the Declaration on Sustainable Mobility of the International Union of Railways (UIC). The Company makes an active contribution to the development of sustainable "green" transport and the implementation of the Paris Agreement on climate change mitigation.

The Group's business abroad helps build long-term partnerships with international organisations and associations, and coordinates interaction with foreign partners with a view to providing international transport services and developing infrastructure (including abroad) and promoting sustainable development.

To contribute to the SDGs, in 2021 the Company:

- Ensured full compliance of its operations with the ISO 37001:2016 international anti-corruption standard and the provisions of the Russian Anti-Corruption Charter for Business for the second year in a row.
- Achieved the top A1 rating as a company with the highest level of anti-corruption efforts and a minimum level of corruption risks, associated with a minimum threat to investors, creditors, business partners, and other stakeholders
- Entered into a memorandum on facilitating sustainable development of transit potential and environmental safety of the EAEU members' railway shipments.
- The document was signed by heads of railways of the Russian Federation, the Republic of Belarus and the Republic of Kazakhstan.
- Placed a particular emphasis on improving environmental balance in railway transportation and logistics free of CO2 emissions

Sustainable financing

Russian Railways places green and social bonds in accordance with best sustainable financing practices. Proceeds from such placements are used to fund projects that align with the Company's Green Financing Framework, Framework for Financing Sustainable Development Projects, Social Financing Framework and the UN Sustainable Development Goals.

In 2021, Russian Railways used a new finance instrument for the transport industry – an international ESG loan linked to environmental KPIs. The loan amount is CHF 585 m over seven years. The interest rate was linked to the achievement of Russian Railways' sustainability targets.

Leader of Russia's sustainable finance market

In March 2021, Russian Railways reaffirmed its leadership in the domestic ESG finance market as it became the first Russian issuer of green perpetual eurobonds. The deal value totalled CHF 250 m.

In September 2021, Russian Railways placed another issue of green perpetual eurobonds worth CHF 200 m.

Thus, the total volume of eurobonds issued in that series rose to CHF 450 m. This remains the only

precedent of green perpetual bonds placed in the international market by a company from Russia and the CIS.

The issue was arranged in accordance with the International Capital Markets Association's Green Bond Principles. Both issues were certified as meeting the Climate Bond Standard of the Climate Bonds Initiative (CBI). They secured refinancing of the costs incurred by green projects running under Russian Railways' Green Financing Framework.



Russian Railways' green and social bonds outstanding as at the end of 2021

Type	Issue parameters	ISIN	External assurance	Target projects
2019 green eurobonds	EUR 500 m, 2.2% interest rate, maturity in 2027	XS1843437036	Sustainalytics 2019	Purchase of Lastochka electric trains in line with Russian Railways' Green Financing Framework
2020 green eurobonds	CHF 250 m, 0.84% interest rate, maturity in 2026	CH0522690715		
2020 green local bonds	RUB 100 bn, perpetual	RU000A102564	Expert RA 2020	Purchase of electric locomotives in line with Russian Railways' Framework for Financing Sustainable Development Projects
2020 social eurobonds	RUB 25 bn, 6.598% interest rate, maturity in 2028	XS2271376498	Sustainalytics 2020	The Company's social projects in line with Russian Railways' Social Financing Framework
2021 green eurobonds	CHF 450 m, 3.125% interest rate, perpetual	CH1100259816	Sustainalytics 2021	Green projects in line with Russian Railways' Green Financing Framework

Green project to purchase Lastochka trains


Lastochka is an electric high-speed passenger train used for both suburban and long-haul transportation.

The purchase of Lastochka trains meets the criteria of a clean

transportation project outlined by ICMA's Green Bond Principles.

As proven by the Company's indicative measurements of the environmental impact from Lastochka trains, rail passenger transport boasts a significant advantage over motor vehicles.

RUB 16.9 BN
was spent on Lastochka trains in 2021.

 For more details on sustainable financing see [Russian Railways' website](#)

Stakeholder engagement

GRI 102-21, 102-43, 102-44

The needs of Russian Railways' stakeholders are closely intertwined with the global sustainability agenda the key issues facing the transportation industry. At Russian Railways, we know that trust and open dialogue help to respond promptly to social and environmental challenges and strengthen our reputation as a

responsible business domestically and worldwide. Stakeholder engagement principles.

- Transparent, reliable, and complete information about the Company's operations.
- Focus on both external and internal stakeholders, such as employees.
- A balanced and all-inclusive approach to stakeholder interests, and prompt response to stakeholder concerns, most importantly, when it comes to government tariff regulation and active introduction of innovation.

Employees

What they expect	Engagement approach	How we engage
Decent pay and benefits	Ensuring decent pay	Russian Railways' Employee Service Portal (blogs, chat, news feed, Active Worker channel, surveys, and Manager's Online Desk)
Equal professional and career growth opportunities	Additional social benefits available under the collective bargaining agreement	Communications events
Protection of human and civil rights in line with the Russian law	Establishing an efficient human capital training and development system	Corporate messengers and social media
Occupational health and safety	Proactive approach to preventing the spread of COVID-19	Forums and trade union meetings
Professional training and development opportunities	Full compliance with employment contracts	Hotline for Russian Railways' employees
Introduction of sustainability best practices	Ensuring occupational health and safety	Social surveys of the Company's employees
Tackling COVID-19 impact	Transparency and efficient feedback	Townhall and personal management meetings
	Comfortable working environment and equal opportunities	E-mail communications
	Environmental education and awareness raising for all staff members	Corporate media (including the Gudok newspaper, RZD TV)

Passengers

What they expect	Engagement approach	How we engage
Fair and reasonable pricing	High-quality and safe services	Passenger surveys and interviews at railway stations
Accessible, comfortable, and reliable services	Competitive pricing	Russian Railways Unified Information Service Centre
Railway safety	Railway station services	Enquiries via the mobile app
User-friendly services (ticketing, railway stations, services en route, etc.)	Passenger transportation services	Russian Railways' website
Compliance with environmental and social responsibility standards and best practices	Catering on board	Unified Passenger Transportation Call Centre, part of Russian Railways Customer Support Centre
Initiatives to prevent the spread of COVID-19	Non-financial/sustainability reporting	Surveys at www.opros.fpc.ru and on Sapsan trains
Support during the coronavirus pandemic	Passenger satisfaction surveys	Passenger satisfaction surveys
	Compliance with regulations	Personal meetings with the public
	Making COVID-19 prevention measures part of the Company's production and management processes	

Freight customers

What they expect	Engagement approach	How we engage
Fair and reasonable pricing	High-quality and safe services	Unified Freight Transportation Call Centre, part of Russian Railways Customer Support Centre
High-quality offering	Competitive pricing	Customer's personal account
Uninterrupted supply of products and services	Basic freight transportation services	RZD-Gruz 2.0 mobile app
User-friendly services	Transportation and logistics services related to basic freight transportation services, including public railway infrastructure services	Freight section of the Russian Railways website
Compliance with HSE standards	Russian Railways information services	Sales offices
Support during the coronavirus pandemic and in case of changing logistics and redirected cargo flow	Customer satisfaction surveys	RZD Market platform
	Provision of a wide range of discounts and exemptions during the pandemic	Freight Transportation electronic trading platform
	Introduction of sustainability best practices	ETRAN system for transportation documents
	Calculation of the cost and environmental impact of freight transportation	Shipper satisfaction surveys

Suppliers, contractors, and business partners

What they expect	Engagement approach	How we engage
Compliance with contractual obligations	Competitive tenders	Electronic trading and procurement platform
Transparent selection process	SME partnership programme	Conferences, forums, industry unions and associations
Ethical approach to doing business	Engagement of contractors and suppliers in OHS	RZD Partner agency delivering sector-specific information
	Recognition and assessment of environmental requirements for products, raw materials and supplies purchased by Russian Railways' business units	Supplier hotline
		Russian Railways' website

Shareholders, investors, and rating agencies

What they expect	Engagement approach	How we engage
Economic and financial stability	Financial and non-financial reporting (annual report, statutory financial statements)	Corporate reporting and disclosure
Funding and delivering green/ environmental and social projects	Consolidated financial statements and sustainable development report	Conferences and investor meetings
Focus on solvency and compliance with contractual obligations	Timely disclosure of key information on the Russian Railways' website and on the websites of accredited news agencies	E-mails, conference calls and video conferences
Solid reputation	Open dialogue and efficient feedback	Regular working meetings at various levels
Corporate governance excellence		Disclosures through presentations and press releases on the website
Credit quality		Rating agency questionnaires
Transparency of information and disclosure of key facts		
Prudent dividend policy		
The Company's sustainable development		

Government authorities

What they expect	Engagement approach	How we engage
Statutory compliance	Statutory compliance and contribution to improving the legislative framework related to the Company's operations	Participation in federal and regional events
Timely payment of taxes	Transparency of tax payments and tax disclosures	Social and economic cooperation agreements with local authorities
Social and economic development of local communities	Accessible and comfortable transport services	Regular working meetings, transport coordination boards, committees, etc.
Reducing environmental impact	Development of investment projects and infrastructure, including projects designed to reduce the Company's environmental footprint	Organising train days
	Cooperation with federal and regional authorities	Input to the law-making process
	Regional economic development, including investment projects, procurement, and new jobs	

Community partners

What they expect	Engagement approach	How we engage
Open and meaningful dialogue	Engagement with national and international NGOs as regards achieving the UN SDGs	Participation in conferences and industry-specific events
Enabling a socially beneficial environment	Joint events with national and international NGOs	Creation of specialised RZD classes for secondary schools
Social protection of employees and retirees	Consideration of initiatives, including those related to federal laws governing social and employment relations	Support for universities as part of the Programme of Russian Railways' Interaction with Railway Universities until 2025
	Liaising with industry trade unions in ensuring social security of employees and retirees	Regular meetings with trade unions
	Advancement and support of education across our footprint	Input to the work of educational institutions from Russian Railways' employees
	Support of vulnerable groups, environment-related and awareness-raising projects	Joint academic, educational, and sport events
		Support for non-commercial organisations

Local communities

What they expect	Engagement approach	How we engage
<p>Local jobs</p> <p>Minimising environmental impact</p> <p>Support in addressing social, environmental, and economic issues</p>	<p>Providing accessible and comfortable transport services</p> <p>Local employment</p> <p>Social infrastructure development across our regions of operation</p> <p>Support and emergency assistance for vulnerable people</p> <p>Volunteer and charity projects, philanthropy</p>	<p>Development of healthcare infrastructure</p> <p>Volunteer and charity projects</p> <p>Educational initiatives</p> <p>Promotion of sports and healthy lifestyle</p>





ENVIRONMENTAL ASPECT

Russian Railways is on track to build a full-fledged green economy where environmental actions are integrated into all processes.

Summing up the Year of the Environment
for more details see p. 40-43

Managing waste efficiently
for more details see p. 59-61

Contributing to climate action
for more details see p. 50-55

Managing water resources responsibly
for more details see p. 62-64



Year of the Environment at a glance

Russian Railways designated 2021 as a Year of the Environment, with eco-friendliness across the board being the central theme

In today's world, safe and energy efficient transport is increasingly important. The high degree of electrification makes railways one of the most eco-friendly transport modes.

As a national railway company and owner of railway infrastructure, Russian Railways is committed to maintaining a high level of environmental safety and responsibility in its operations.

Year of the Environment in figures

RUB 7.25 BN
invested by Russian Railways in environmental protection in 2021

BY 1.6 PP
waste sent to landfills shrank¹

42%
of electricity consumed by Russian Railways obtained from low-carbon sources and sources with zero GHG emissions:

25.8%
generated by hydropower plants

16%
generated by nuclear power plants

0.2%
generated by wind turbines

86%
of freight transportation electric-driven

14.8%
of waste sent to landfills

0%
of untreated wastewater discharged into surface water bodies

200
environmental awareness raising campaigns completed involving over 41 thousand children

¹ Compared to 2021.



720 THOUSAND
fingerlings released into water bodies

BY 8%
pollutant emissions from
stationary sources fell¹

BY 3.45%
water use reduced¹

632 THOUSAND
trees planted across an area
equivalent to 160 football pitches

BY 14%
wastewater discharges on land
and into surface water bodies
went down¹

BY 21%
paper, cardboard, glass, plastic
and household aluminium sent for
disposal grew¹



Eco-friendliness across the board

Russian Railways is on track to build a full-fledged green economy where environmental actions are integrated into all processes.



Green financing

Russian Railways is the leader of Russia's sustainable finance market. The Company places green and social bonds in accordance with international best practices in sustainable financing. These include perpetual bonds, a unique instrument which has a distinctive feature of being classified as equity.

[For more details see p. 31-33](#)



Innovation for eco-friendly solutions

Leveraging innovations to reduce energy consumption.

[For more details see p. 55-56](#)

Leveraging innovations to generate affordable and clean energy.

[For more details see p. 54](#)



Environmental campaigns and volunteering

Jointly with administrations of specially protected territories, forestry farms, and non-governmental organisations, Russian Railways conducted more than 200 environmental protection events with large-scale involvement of employees and volunteers.

[For more details see p. 86](#)



Eco-friendly rolling stock

In partnership with the machine building industry, Russian Railways is actively engaged in a number of projects to create eco-friendly traction stock running on alternative energy sources.

[For more details see p. 20-21](#)



Russian Railways' eco calculator

Aware of just how important environmental matters are, we calculate the Company's GHG emissions and help our shippers do the same.

[For more details see p. 105](#)

Russian Railways' environmental performance in 2021

Reliable Partner – Environment, a national contest of regional environmental practices.

Russian Railways ranked first in five categories:

- Digitalisation of production and consumption waste management – special nomination
- Best project in efficient industrial waste management

Project to process rubber product waste generated during the disassembly of dual gauge track.

Recyclables are used to make rubber granules for the production of rubber flooring.

- Best project in mitigating the adverse impact of industrial facilities, housing and utilities on water bodies
- Best environmental awareness raising project

Raising environmental awareness among passengers:

lectures on selective collection of paper, passenger surveys, young artists' exhibitions, and more

- Best project in energy savings and energy efficiency

Vernadsky National Environmental Award, Sustainable Energy category

Moscow High-Speed Transportation Directorate was awarded for its project titled Regenerative Braking on Lastochka Electric Trains.

Regeneration is a vivid example of leveraging innovations to reduce energy consumption,

with Moscow Central Circle's Lastochka trains regenerating about 50% of the energy consumed and sending it back as input power. Since 2017, GHG emissions have dropped by more than 40 kt of CO₂ equivalent.

BRICS Solutions for Sustainable Development Goals Awards 2021, Affordable and Clean Energy category

Winner for its project titled Implementing of a Cogeneration Plant Using Old Year Wooden Sleepers as Fuel.

 For more details on the project see the Waste Management Section.

Russian Railways won the following contests:

- All-Russia Environmental Leader Award
- Environmental Culture. Peace and Reconciliation International Project
- Leaders of Russian Business: Dynamics, Responsibility, Sustainability, a contest organised by the Russian Union of Industrialists and Entrepreneurs (RSPP)

#case study

STRIKING THE RIGHT BALANCE

Action plan to protect Lake Baikal

GRI 304-3

Russian Railways pays special attention to Lake Baikal, a World Heritage Site.

About 200 people took part in the activities, including

160

VOLUNTEERS

from among the Company's employees



Clean shores

The Company conducted The Clean Baikal Shores, an environmental campaign covering offshore strips of the lake, the Circum-Baikal Railway, and the settlement of Tankhoy.



Clean water

Currently, all wastewater generated by Russian Railways' infrastructure in the Central Zone of Lake Baikal Protected Areas undergoes pre-treatment. As part of the Eastern Operating Domain development, the Company continues its efforts to prevent the pollution of the Baikal basin water courses.

To this end, Russian Railways:

- builds **TREATMENT FACILITIES**
- enhances its **ENVIRONMENTAL MONITORING NETWORK**
- industrial **CONTROL**

🔗 For details on projects of Baikal biodiversity conservation see the [Biodiversity Conservation chapter](#)

🔗 For details on the Water of Russia on Baikal Shores see the [Volunteer movement chapter](#)

Russian Railways is bringing into life the Action Plan developed jointly with the Ministry of Natural Resources and Environment to protect Lake Baikal's natural territory during the construction and upgrade of the Baikal-Amur and Trans-Siberian Railway infrastructure.

2021 highlights:

The Company put in place benchmark environmental protection procedures for facilities located in the Central Zone of Lake Baikal Protected Areas, including the development of a regulatory framework and a monitoring system

The Baikal-M digital module to monitor and accumulate environmental data passed the testing stage. We deploy mobile units to continuously monitor the environment around the construction site in the Baikal territory. The monitoring data go straight to digital systems operated by the Russian Ministry for Natural Resources and Environment. This testifies the environmental transparency of Russian Railways

The East Siberian Railway saw a new industrial environmental laboratory launched in Severobaikalsk

Video cameras were installed in the Central Zone of Lake Baikal Protected Areas to monitor construction in real time

Containers were installed for separate waste collection at railway stations and transport stops, on the territory of the Slydyanskoye Lake and Shamansky Cape regional natural monuments, and on construction sites



Environmental management

GRI 103-2, 103-3

Management approach

Railways are the most eco-friendly mode of transport. Russian Railways' share in the total adverse environmental impact of companies operating in Russia is less than 1%, including

0.9%

in air pollutant emissions,

0.05%

in wastewater discharge to surface water bodies,

0.02%

in waste generation

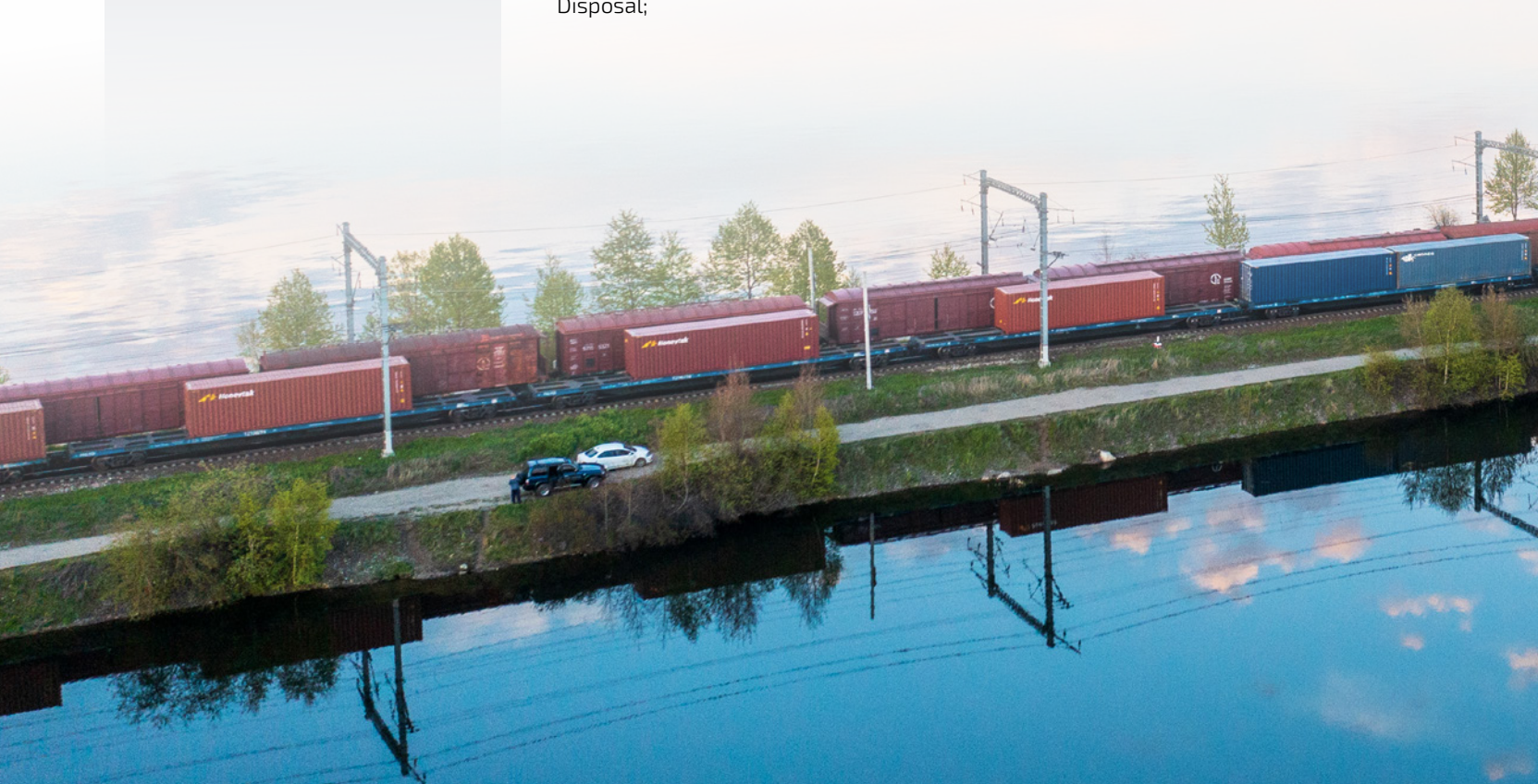
Russian Railways' environmental efforts are governed by the following documents:

- Health, Environmental, Industrial and Fire Safety Policy of the Russian Railways Group;
- Russian Railways' Environmental Strategy through 2030;
- Declaration on Comprehensive Approach to the Protection of Lake Baikal when Implementing Investment Projects for the Eastern Operating Domain Development.

Key international environmental treaties followed by the Company in its environmental management:

- Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal;

- Convention on Biological Diversity;
- Bucharest Convention on the Protection of the Black Sea against Pollution;
- UN Framework Convention on Climate Change;
- Kyoto Protocol to the UN Framework Convention on Climate Change;
- Agreement on Cooperation in the Sphere of Timber Industry and Forestry;
- Agreement on Cooperation in the Field of Environmental Protection among the Member States of the CIS;
- Agreement on Cooperation in the Field of Environmental Monitoring among the Member States of the CIS;
- Stockholm Convention on Persistent Organic Pollutants;
- Paris Climate Accords.



As a major natural resource user covering the territory of 77 Russian regions, the Company is continuously working on reducing its environmental footprint.

Environmental transparency and disclosure

As an environmentally responsible company, Russian Railways contributes to the protection of the environment and is committed to voluntary environmental stewardship. As part of its contribution to environmental development, Russian Railways adheres to the principle of enhanced transparency and openness by disclosing its strategy and operating results in non-financial reporting. To demonstrate its environmental commitment to stakeholders, the Company prepares and publishes annual sustainable development reports.

In order to respect the constitutional right of individuals to have access to information on the environment and to increase the effectiveness of public

control and transparency of data on environmental safety, Russian Railways has approved its Internal Environmental Transparency Regulations. The Regulations define the principles, forms and transparency requirements for information related to the Company's environmental footprint. The Company has established a general procedure for responding to public inquiries about its impact on the environment, as well as the environmental information disclosure procedure that governs environmental disclosure by Russian Railways' units. In addition, information on the Company's environmental efforts is disclosed and from time to time is updated using Russian Railways' information resources.

Calculating the environmental footprint of a trip

Russian Railways' official website offers the functionality for calculating the environmental footprint of a trip in the ticket purchasing section. Customers can access charts that show resource and fuel consumption, CO₂, SO₂, NO₂, non-methane hydrocarbon and particulate pollutant emissions by trains, planes and cars. It is obvious from the charts that railways are more environmentally friendly across all parameters.



Environmental management framework

GRI 102-11

Russian Railways' environmental management framework includes Health, Environmental, Industrial and Fire Safety Policy of the Russian Railways Group, planning, implementation of new processes, control and analysis by the management.

Russian Railways follows the principle of precaution and seeks to minimise its impact on the environment by focusing on the following critical areas:

- employing innovative technologies to protect air and water, reducing the amount of industrial and consumer waste landfilled, reducing greenhouse gas emissions and noise exposure;
- improving the environmental management framework;
- ensuring industrial environmental control and monitoring of the Company's environmental impact.

The monitoring exercise involves internal environmental audits and inspections in line with corporate requirements. When developing its investment projects, the Company conducts environmental impact surveys for a better understanding of natural and human-related conditions on the site, evaluating the environment and its vulnerability to human impact, forecasts potential changes in the environment due to the construction and operation, prepares recommendations to prevent environmental disturbance, and conducts environmental monitoring.

Russian Railways operates as many as 55 stationary industrial environmental laboratories accredited by the national accreditation system, 65 motor-vehicle laboratories, and 12 laboratories based on railway cars.

The laboratories have up-to-date analytical equipment and express analysis equipment for scheduled and

unscheduled site visits to monitor environmental pollution by Russian Railways' units.

The laboratories collect samples and conduct quantitative chemical analysis of natural and waste water samples, soil, and industrial waste, measure natural physical factors in residential housing areas and habitable areas.

In 2021, the Company conducted over 250,000 measurements, including more than 106,000 analyses of wastewater quality and water treatment equipment efficiency, over 43,000 measurements of pollutant emissions by stationary and mobile sources, over 13,000 analyses of railway infrastructure impact on adjacent territories, as well as other measurements.

The Company implements compensatory measures to preserve natural ecosystems.

Environmental strategy

The Environmental Strategy through 2030 with an outlook through 2035 approved by Russian Railways' Management Board seeks to minimise the environmental impact from Russian Railways' operations, ensure sustainable use of natural resources and enhance environmental safety.

Russian Railways' Environmental Strategy reflects the Company's commitment to the global UN Sustainable Development Goals (UN SDGs). Out of 17 SDGs, the Company focuses on six linked to the environment.

Russian Railways' approach is aimed at comprehensive mitigation of the adverse environmental impact of its operations and sustainable use of natural resources with gradual implementation of circular economy. The Company believes that the most important aspects are the reduction of water consumption and waste sent to landfills, minimisation of air pollution, including in large cities and metropolitan areas, as well as decrease in water pollution; elimination of accumulated environmental damage; maintaining natural ecosystems and biodiversity across Russian Railways'

footprint, and reducing physical impacts, such as noise and vibration, on the environment and human health.

Russian Railways keeps improving its environmental management framework and updating its environmental and climate policy.

The key focus areas of the Environmental Strategy are:

-  lower GHG emissions and low-carbon development
-  reducing negative environmental impact
-  development of the environmental management framework
-  upgrade and implementation of the best available technologies in environmental protection

While implementing its Environmental Strategy in 2007–2021, on the back of growing transportation volumes, the Company:

Reduced pollutant emissions from stationary sources and wastewater discharges


> **x3**


Reduced pollutant emissions from mobile sources, volumes of water consumption and waste generation

> **BY x1.5**

Reduced the carbon intensity of its operations

> **BY 30%**

 **6** CLEAN WATER AND SANITATION
Clean water and sanitation

 **7** AFFORDABLE AND CLEAN ENERGY
Affordable and clean energy

 **9** INDUSTRY INNOVATION AND INFRASTRUCTURE
Industry, innovation and infrastructure

 **12** RESPONSIBLE CONSUMPTION AND PRODUCTION
Responsible consumption and production

 **13** CLIMATE ACTION
Climate action

 **15** LIFE ON LAND
Life on land

Training

Russian Railways attaches particular importance to the professional development of its managers and employees responsible for environmental safety. Over 3,000 people are trained in environmental programmes every year.

Key topics of the training programmes:

- environmental safety,

- environmental safety of facilities,
- environmental safety in treating classes I–IV waste.

All employees of the Company dealing with environmental matters enhance their qualifications at specialised educational institutions, Research and Production Centre for the Environmental Protection – a branch

of the Company, and Russian Railways' Corporate University. In addition, the Company provides its employees with additional environmental safety training related to GHG emissions reduction and implementation of the environmental management system. Internal communication on environmental issues is provided through posters, leaflets, and booklets.



Climate action

GRI 103-2, 103-3

Management approach

Due to the increased importance of climate protection for the international and domestic agenda, lower GHG emissions and climate action were singled out as an independent area of the Environmental Strategy, which is a priority for the development of Russian Railways and an integral part of the Company's policy in the field of environmental protection.

The reduction of GHG emissions, as an independent area of Russian Railways corporate policy, was included in the Environmental Strategy as a target parameter. The climate is a comprehensive aspect that covers all elements and stages of the transportation process and railway infrastructure development. We consistently reduce GHG emissions, paying more attention to improvements in the GHG emissions management and accounting system, as well as introducing and deploying low-carbon technologies. Russian Railways responsibly implements a programme for reducing GHG emissions in its operations.

Russian Railways has in place and develops a system of GHG emissions monitoring, reporting and control. Since 2017, Russian Railways has been listed among state-owned companies involved in reducing GHG emissions¹ and submits annual reports on respective activities and performance to authorised agencies of the Russian Federation.

Every year, environmental issues become increasingly important. In 2021, Federal Law No. 296-FZ On Limiting Greenhouse Gas Emissions dated 2 July 2021 was adopted and the Strategy for Socio-Economic Development of Russia with a Low Level of Greenhouse Gas Emissions until 2050 was approved².

The Company launched a review of documents underlying its strategic planning with respect to the climate policy, primarily the Environmental Strategy.



Industry, innovation and infrastructure



Climate action

¹ Approved by the Russian Government's Order No. AKh-P9-5761 dated 31 August 2017.

² Approved by the Russian Government's Order No. 3052-r dated 29 October 2021.

GHG emissions calculation methodology

Russian Railways calculates GHG emissions on the basis of the Methodology for GHG Emissions Volume Measurement at Russian Railways¹ prepared in line with applicable Russian methodological guidelines on the calculation of direct emissions² and indirect energy-related emissions³, as well as methodological guidelines of the Intergovernmental Panel on Climate Change (IPCC). Emissions are

calculated in relation to CO₂, without taking into account other greenhouse gases, according to data on the consumption of energy resources. Such approach is permitted by both Russian regulations and methodological guidelines of the IPCC.

The methodology involves the calculation of two GHG emissions categories:

- direct emissions from burning carbon-containing fuel on stationary and mobile equipment in Russian Railways' operations (Scope 1 under the Greenhouse Gas Protocol⁴);

- indirect energy-related emissions associated with the purchase of electricity and heat by Russian Railways' units from third parties (Scope 2 under the Greenhouse Gas Protocol).

Currently, the Company does not calculate any indirect GHG emissions associated with the purchase of construction materials, rolling stock and supplies, as well as any other goods (Scope 3 under the Greenhouse Gas Protocol).

Climate change risks

The Company pays special attention to climate change risks, analysing the climate change impact and taking it into account when planning its activities. The key potential threat to the Company's business is damage to infrastructure in permafrost areas, growing number of meteorological hazards that jeopardise railway operations, including heavy rains and snowfalls, very low and high temperatures, extreme temperature swings, glaze, rime and greater impact of dangerous hydrological phenomena, such as spring floods and freshets, etc.

The main external risks of anthropogenic origin or naturally occurring which Russian Railways is exposed to include:

- damage and accidents at sites supporting the Company's operations;
- industrial accidents involving associated transport modes (primarily in sea port water areas and at highways);
- fires and natural disasters in the Company's areas of operation..

To mitigate these risks to infrastructure, the Company constructs various strengthening solutions (anti-washout slab covers, rock dumping, rock anchorage) and structures for protection of the track bed from natural hazards (such as mudflows, landslides, avalanches and rockfalls).

In 2021, as part of its R&D plan, Russian Railways started comprehensive analysis of exposure of the Company's infrastructure to external factors. The work will result in the creation of a hardware and software system based on Russian Railways' Geoinformation Platform to forecast and take account of changing environmental and anthropogenic factors affecting the technical condition of the engineering structure during its operating lifetime. As part of the above work, a methodology is being developed to calculate the impact of external risk factors on the condition and reliability of engineering structures.

¹ Approved by Russian Railways' Order No. 1602r dated 8 August 2017.

² Approved by Order of the Russian Ministry of Natural Resources and Environment No. 300 dated 30 June 2015.

³ Approved by Order of the Russian Ministry of Natural Resources and Environment No. 330 dated 29 June 2017.

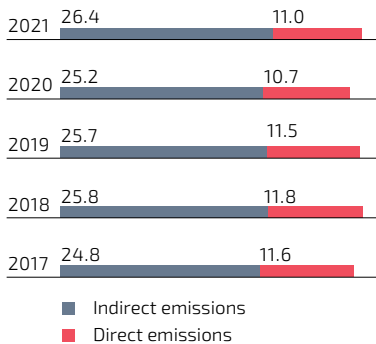
⁴ Greenhouse Gas Protocol. Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

GHG emissions

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

The dynamics of GHG emissions depend first of all on transportation growth and corresponding increase in the consumption of fuel and energy resources for train traction. However, the growth in transportation has helped Russian Railways reduce its total GHG emissions by 45% to 37.4 mt of CO₂ emissions vs 1990 with comparable traffic volumes. This means that the Company achieved its target to reduce the national GHG emissions to 25% compared to 1990 in pursuance of Presidential Executive Order No. 752 On the Reduction of Greenhouse Gas Emissions Volumes dated 30 September 2013

Direct and indirect energy-related emissions | mt of CO₂

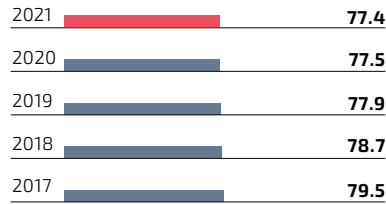


Indirect energy-related emissions make up more than half of the aggregate emissions in terms of mass. In 2021, their share reached 71% on the back of exponential growth in electric-driven transportation compared to that driven by diesel, and gradual increase in the percentage of electricity in the Company's energy mix.

GRI 305-4

GHG emissions per transportation volumes

| kg of CO₂ equivalent. / 10 thousand gross tkm



The parameter of Russian Railways' carbon intensity is a specific indicator of total direct and indirect energy emissions of greenhouse gases per unit of work performed (gross tonne-kilometre), and it was on a downward trend in 2015–2021. This indicator most accurately reflects the Company's efforts related to low-carbon development, as it does not depend on the volume of services provided.

In 2015–2021, Russian Railways decreased its carbon intensity by 8.8% to 77.4 kg of CO₂ equivalent / 10 thousand gross virtual tkm. This is currently one of the lowest levels of GHG emissions per unit of work among the world's largest railway companies. This is mostly driven by a high degree of electrification of Russian Railways' infrastructure, with more than 51% of the total operating length of railways electrified. At the same time, the positive trend in carbon intensity reflects the effect of measures to save energy, increase energy efficiency, and change the energy mix.

The achieved reduction in carbon intensity of Russian Railways' services primarily rests on activities implemented under the Company's Energy Savings and Energy Efficiency Programme. The following two areas made the most significant contribution:

- enhancing controls and traffic control technologies;
- optimisation of operation patterns and upgrade of heating systems in stationary power generation.

Target: achieve carbon neutrality by 2050

Other important contributors were efforts to improve energy efficiency and the performance of locomotives; higher energy efficiency of processes and infrastructure facilities; and higher level of energy recovery on electric traction.

Electrification of railway infrastructure reduced the volume of diesel-powered operations on a number of railways.

In addition, we implemented several renewable energy projects:

- hot water supply systems based on solar collectors were introduced with the elimination of electric water heaters within the boundaries of the Kuibyshevskaya and Krasnoyarsk railways;
- geothermal and air-to-air heat pumps were introduced for heating and air conditioning to replace liquidated low-power coal-fired boilers in a number of units of the Privolzhskaya, North Caucasus, Kuibyshevskaya, Kaliningrad and South Eastern railways;
- a pilot 30.7 kW solar power plant was built at the Svetlograd railway station (North Caucasus Railway).

While these projects do not yet have a significant impact on the overall energy consumption mix and carbon intensity indicators, they are very promising in terms of testing the use of renewable energy technologies and potential contribution to the Company's low-carbon development going forward.

Plans to promote the use of low-carbon energy sources include:

- expanding the operating domain of electrified lines
 - electrification of existing non-electrified road sections and construction of a new electrified railway line
- promoting the use of natural gas and other alternative fuels as a motor fuel
 - promoting the use of natural gas and liquefied natural gas, including expanding the use of gas powered locomotives (gas turbine locomotives, gas powered diesel locomotives used in shunting operations)
 - creating experimental trains and locomotives using hydrogen fuel cells
 - creating traction rolling stock with hybrid power plants using Russian-made lithium-ion batteries
- promoting the use of natural gas and other alternative fuels in stationary power generation
 - developing the Company's own power generation based on renewable energy sources (solar and wind power plants)
 - using renewable energy sources in heat supply and hot water supply systems (heat pumps, solar collectors), generation of thermal energy using waste from old wooden sleepers).

Cogeneration plant using old wooden sleepers as fuel

The Chernyakhovsk railway station of the Kaliningrad Railway operates a mobile cogeneration unit for heat supply to production facilities. The unit uses hard fuel from old wooden sleepers. This way the unit generates inexpensive and green heat energy.

The cogeneration unit utilises the technology of fuel gasification with subsequent firing of the resulting gases.

The technology makes the content of harmful substances in a sanitary protected zone with a radius of up to 50 metres 6–10 times lower than usual.

This solution also improves the environmental safety of railway facilities due to:

- liquidation of the inventory of old wooden sleepers unsuitable for re-laying,
- cutting the cost of heat generation for the Company's railway facilities.

Effect:

- liquidation of more than 35,000 old wooden sleepers per year,
- economic effect of more than RUB 16 m a year.

Energy efficiency

GRI 302-1, 302-3, 302-4

Russian Railways maintains leadership in energy efficiency and environmental friendliness among global freight and passenger railway companies.

Every year, the Company implements the Energy Savings and Energy Efficiency Programme as part of the Company's Energy Strategy through 2020 and potentially through 2030. In

2021, the Company set out to develop its new Energy Strategy through 2025 with an outlook through 2035, with a view to updating the priorities of the Russian Railways' energy management and the targets of the Company's energy efficiency.

Tools for the Company's efforts to save energy are its industry-specific programmes aimed at upgrading the Company's branches and its

investment project titled "Introduction of Resource-Saving Technologies in Railway Transport". In 2021, the Company went through with all of its essential energy saving activities covering both train traction and stationary units, which made it possible to achieve the targets for energy savings and energy efficiency improvement under the Long-Term Development Programme.

Energy efficiency and energy intensity of Russian Railways' operations in 2021, %

Target	Target for 2021	Actual for 2021
Reduction in the energy intensity of operations	-0.6	-0.6
Energy efficiency improvement	0.6	0.6

In the reporting year, the Energy Efficiency Programme helped achieve fuel and energy savings of 4,221.6 TJ, or RUB 4.0 bn.

In 2021, initiatives implemented by the Company's divisions as part of the Energy Efficiency Programme saved:

- 460.0 m kWh of electricity;
- 32.2 kt of diesel fuel;
- 0.8 kt of petrol;
- 1.8 kt of fuel oil;
- 8.8 kt of coal;
- 8.6 mcm of natural gas;
- 63,900 Gcal of heat.

The activities improving energy efficiency of the transportation process served to save RUB 2.9 bn, including 347.0 million kWh of electricity and 27.4 kt of diesel

fuel. The bulk of savings was achieved by improving traffic management procedures (41.3%) and locomotive operation (40.4%). The improved performance of traction power supply saved 23.7 m kWh, or RUB 81.5 m.

Energy efficiency improvement at stationary power facilities saved RUB 1.1 bn, including:

- activities to boost energy efficiency of thermal generation and heating systems facilities, which served to save fuel and energy resources in the amount of RUB 337.6 m;
- initiatives aimed at improving energy efficiency of the workflow and infrastructure, resulting in fuel and energy savings in the amount of RUB 247.6 m;

- introduction of LED devices, energy-efficient lighting fixtures, optimisation of the lighting operation patterns at the station railyards, terminals, technical and administrative buildings, and warehouses, with the resulting economy of RUB 208.7 m.

Despite a decline in the capacity for fuel and energy saving, the rate of Russian Railways' energy intensity reduction is quite stable due to Russian Railways' investments in energy saving.

Russian Railways is carrying out innovative development to use liquefied natural gas as an alternative energy source for train traction, in line with the Russian President's and the Russian Government's instructions. The Company seeks to replace 25% of diesel fuel consumed by autonomous locomotives with natural gas by 2030.

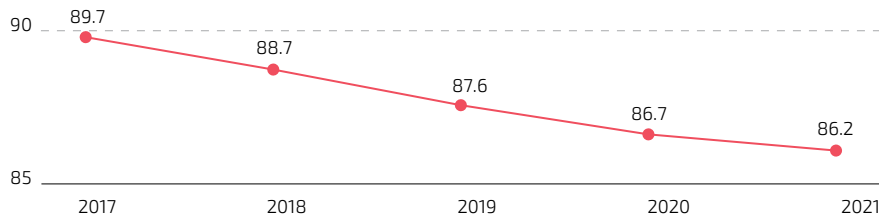
These efforts are part of the cooperation agreement with locomotive manufacturers that focuses on using natural gas as a motor fuel. The programme stipulates development,

production and maintenance of new gas powered locomotives, as well as deploying liquefied natural gas supply infrastructure and drafting regulations. Another work stream envisaged by the programme is the upgrade of mainline and shunting locomotives, which will enable them to run on natural gas. The 2021 savings from using the resource-efficient technologies deployed in 2020 amounted to RUB 176.4 m, or 130% of the target. In 2021, the Company:

- introduced 405 and supplied 122 resource-efficient onboard locomotive systems to save fuel and energy resources for train traction;
- implemented IoT-based energy-efficient lighting systems;
- replaced fuel oil and diesel fuel with alternative fuels in nine boiler houses, including three completed in 2021;

- introduced the innovative technology of remote acoustic sensing of long linear assets in interval train traffic control systems between Rzhev-Baltiysky and Velikiye Luki (three sections between Monchalovo and Olenino);
- put into operation 59 metering devices for fuel and energy resources;
- replaced an obsolete coal boiler with a heat pump at the Penza II railway station and supplied 13 pumps to the Privolzhskaya and North Caucasus railways;
- supplied five VPV-135K scale test cars;
- procured 32 units of reference equipment for different measurements for railways' metrology centres.

Energy intensity of Russian Railways' operations | kJ / virtual tkm net



Targets for reducing energy intensity of operations, kJ / virtual tkm net:

- to 84.5 by 2025
- to 82.7 by 2030
- to 81.5 by 2035

Air protection

In its operations, Russian Railways seeks to minimise air pollutant emissions from stationary and mobile sources. The Company uses environmental monitoring points furnished with diagnostics facilities to conduct regular internal checks

of mainline and shunting diesel locomotives and track maintenance equipment for compliance with technical standards for air pollutant emissions. Emissions are measured as part of diesel locomotive rheostat testing following repairs.

GRI 305-7

Emissions by category | kt

	2017	2018	2019	2020	2021
Stationary sources					
Solids	14.1	13.5	11.8	10	9.4
Carbon monoxide (CO)	23.3	22	20.8	18.5	17.4
Sulphur dioxide (SO ₂)	14.2	13.3	11.9	10.5	9.6
Nitrogen oxides (NO ₂)	7.4	7.1	6.8	5.7	4.9
Hydrocarbons (C _n H _m)	0.1	0.1	0.1	0.1	0.1
Volatile organic compounds	2.9	2.7	2.2	1.9	1.5
Other gases and liquids	0.3	0.3	0.1	0.1	0.1
Mobile sources (diesel locomotives)					
Carbon monoxide (CO)	30.2	31	30.7	28.7	29.4
Hydrocarbons (C _n H _m)	15.4	15.9	15.7	14.6	15.1
Nitrogen oxides (NO _x)	111.4	114.6	113.5	105.5	108.8
Soot	6.8	7	6.9	6.4	6.6



Industry, innovation and infrastructure



Sustainable cities and communities



Responsible consumption and production

Stationary sources

Emissions from stationary sources make up around 25% of all emissions by Russian Railways.

The decrease is due to energy efficiency and saving initiatives, including upgrades and the use of alternative fuel in boilers. At present, gas boilers

produce as much as 44% of heat energy, and we are increasing the share of alternative energy used in hot water and heat supply systems (solar collectors and heat pumps). We replaced small coal and diesel boilers with 44 boilers running on pellet fuel, and piloted a

solar power plant at the Svetlograd railway station (North Caucasus Railway).

The Company is also reconstructing and installing new dust collection and gas purification facilities.

Mobile sources

Emissions from mobile sources make up around 75% of gross emissions of which 90% come from mainline and shunting diesel locomotives.

Initiatives to make transportation more energy efficient helped us reduce diesel driven transportation, cut downtime and time to cover delay for passenger trains, and decrease per unit diesel consumption in train traction. These steps resulted in lower per unit air emissions from mobile sources, with upgrades of the rolling stock acting as a key contributor.

Modern Russian-made rolling stock with improved environmental performance

In 2021, the fleet received 535 diesel locomotives, including 277 electric locomotives (264 freight and 13 passenger). The purchase of 258 new series diesel locomotives in the reporting year served to cut air emissions. By putting into operation 2TE25KM mainline locomotives we achieved a significant decrease in such emissions – 3.2 kt or 75% of the 2021 total.

Today, Russian Railways uses electric traction to transport more than 86% of cargo and 85% of passengers. For instance, CO₂ emissions generated by one passenger travelling from St Petersburg to Moscow by train are nearly four and five times lower than those from the same trip by car and plane, respectively.



Waste management

GRI 306-1, 306-2

Russian Railways views efficient waste management as a prerequisite for transitioning to the circular economy.

In the long run, the Company seeks to minimise waste sent to landfills by increasing its processing.

Production and consumption waste

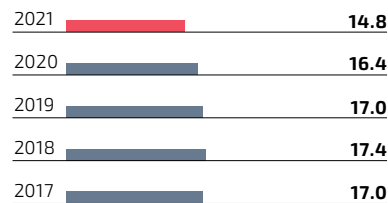
GRI 306-3, 306-4, 306-5

In 2021, Russian Railways generated 1.412 mt of production and consumption waste, of which 0.066 mt was disposed of or decontaminated by the Company's units. Given the waste generated by other business units in 2021, 1,482 mt of waste was transferred to third parties, including:

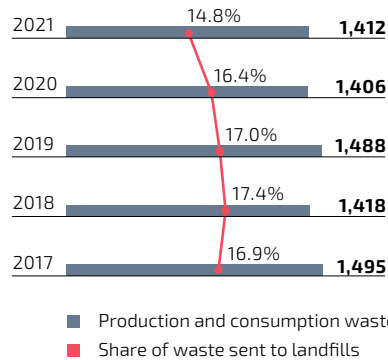
- 1.098 mt for subsequent disposal;
- 0.16 mt for decontamination;
- 0.224 mt for dumping.

In 2021, the share of production and consumption waste sent to landfills amounted to 14.8%, which is 1.6 pp below 2020 (16.4%).

The share of production and consumption waste sent to landfills¹ | %



Waste generation | kt



¹ The share is calculated based on waste generated (taking into account waste accumulated as at the beginning of the period) and sent to landfills (including MSW transferred to a regional operator) in the reporting period in accordance with the 2-TP federal statistic form (waste) as regards reporting of industrial and consumer waste generated, processed, disposed of, decontaminated and sent to landfills.



Industry, innovation and infrastructure



Sustainable cities and communities



Responsible consumption and production

Up to 80% of the waste generated by Russian Railways is decontaminated, reused or recycled. Most of it (ferrous and non-ferrous scrap metals and used petroleum products) is handled by waste processing professionals. Waste is also reused within the Company, including waste hazard classes 5 and 2–4 as per the waste management licence reissued to Russian Railways¹.

Russian Railways is adopting and promoting new waste management approaches and circular economy principles, including by recycling sleepers, used oil, and ferrous and non-ferrous metal scrap, to reduce its environmental footprint.

In 2021, we took various steps to increase the share of reused or recycled waste.

- October, Moscow, Gorky and Sverdlovskaya Railways operate facilities to recycle reinforced concrete sleepers into crushed aggregate for construction and clean scrap reinforcement steel. We processed 49,000 reinforced concrete sleepers.
- The Ukladochny and Perm-Sortirovochnaya railway stations (the West-Siberian and Sverdlovskaya Railways) operate two disposal units for industrial rubber products. The units recycled 444 t of waste, producing 269 t of rubber granules and 7,100 sq m of rubber flooring.
- Thermal neutralisation facilities of the Research and Production Centre for the Environmental Protection located in Yaroslavl and at the Tagul railway station decontaminated 3.042 kt of industrial and medical waste, along with 91,300 used wooden sleepers.
- The reporting year saw a cogeneration unit at the Chernyakhovsk railway station of the Kaliningrad Railway consume hard fuel made of 36,800 wooden rails, generating 5,469 Gcal of heat and saving 744,190 cu m of natural gas.
- Russian Railways scouted intellectual property across technologies that focus on disposal of waste hazard classes II–IV containing petroleum products.
- As part of its efforts to digitalise waste management, the Company's single control centre for environmental, industrial and fire safety introduced a new 2-TP statistic form (waste) for the purposes of waste management reporting.
- To reduce the amount of landfilled waste, we engaged cleaning and outsourcing companies in the passenger transportation sector to take part in the selective collection of paper, glass and plastic.
- In October, the Company approved standard separate waste accumulation solutions used at railway stations.
- The reporting year saw 1.854 kt of paper, cardboard, glass, plastic, and household aluminium waste sent for disposal (up 0.3 kt or 21% y-o-y). Among secondary materials, paper and cardboard are most often sent for recycling. To reduce the volumes of waste paper, we take steps to introduce electronic workflow.

In 2021, the Railway Stations Directorate started furnishing the Moscow and St Petersburg railway stations with reverse vending machines.

¹ No. L020-00113-77/00114264 dated 21 December 2021.

We are also considering a bonus system for passengers who will use these machines to send packaging for recycling, and taking steps to collect used chemical current sources (batteries) from passengers and employees. The Administration and Maintenance Department installed 24 containers at 15 Russian Railways office locations to collect used batteries. Such containers were also put in place at the Irkutsk-Passazhirsky, Angarsk and Usolye-Sibirskoye railway stations (the West-Siberian Railway Stations Directorate) and the Kazan railway station (the Moscow Railway Stations Directorate).

In December 2021, an expert group under Russian Railways' R&D Council held a meeting attended by the Russian Ministry of Natural Resources and Environment, scientists, NGOs and major waste disposal operators. The participants resolved to develop a concept for using Russian Railways' recyclables as part of the waste management system (with an action plan extending to 2035), and to identify priority technologies to be implemented following the scouting for intellectual property across waste management solutions.

Separate waste collection on Sapsan trains

Russian Railways implemented separate collection of paper (newspapers and magazines) and plastics on its high-speed Sapsan trains. Cars feature labelled stationary containers to collect recyclables. Trains also have specially designed mobile collection trolleys. During the trip, passengers are encouraged to separate waste into two groups.

In 2021, Sapsan trains collected and sent 17.6 t of paper and plastic waste for recycling.

On 20 December 2021, the Company approved standard separate waste collection solutions used on trains and at operational sites owned by the High-Speed Transportation Directorate.

The Directorate raises awareness about Russian Railways' environmental initiatives by means of on-board videos, publications in newspapers and magazines, social media and on-board catering activities.



Water resources

GRI 303-2



Clean water and sanitation



Industry, innovation and infrastructure



Responsible consumption and production

The main goal of Russian Railways in water resources management is to curb water use and reduce wastewater discharges on land and into surface water bodies. The Company withdraws water from surface and underground sources solely in accordance with the applicable laws (under water use agreements and extraction licences), without causing any significant impact on the environment. None of the regions of the Company's operations are classified as areas with water stress.

- The target reduction to be delivered in water resources use is 28% by 2030¹
- The target reduction to be delivered in wastewater discharges on land and into surface water bodies is 50% by 2030²

The Company aims to achieve the reduction by upgrading wastewater treatment facilities, phasing in the best available technologies and engaging the academic community to implement best practices in the area.

Water consumption

GRI 303-5

In 2021, Russian Railways used 67.35 mcm of water. The Company reduced its consumption after introducing water consumption control and instrumental measurement, dismantling or renovating facilities with a high level of wear and tear, replacing technical building systems and equipment (installing circular water supply systems, replacing water compressor cooling with those using oil cooling, introducing electric heating in buildings, etc.), and carrying out organisational and technical initiatives designed to save water. Scaling down

Changes in water use

| million cu m

2021	67.35
2020	69.70
2019	77.90
2018	79.16
2017	82.33

our operations in 2020 was another factor contributing to lower water consumption.

In 2022, the Company plans to reduce its water use by 2.3%.

¹ Compared to 2018, according to the Long-Term Development Programme.

² Compared to 2018, according to the Long-Term Development Programme.

To ensure sanitary and epidemiological safety for consumers, the Railway Hygiene and Epidemiology Centre performs regular drinking water quality checks¹ the Company's facilities.

Russian Railways is implementing a Clear Water project to upgrade railway water supply systems and

align the quality of water supplied to consumers with standards set by the Russian sanitation and environmental laws. The project is part of Russian Railways' Programme for Improving Drinking Water Supply at Railways. The programme features the construction of new and renovation of existing water supply networks; the implementation

of de-ironing systems; the procurement and installation of both modular water treatment plants and local industrial water treatment systems. The purpose of the programme is to ensure the quality of the drinking water supply at any sources of Russian Railways' centralised water supply in line with sanitation and environmental laws.

Wastewater discharge

GRI 303-4

Pursuant to decisions on granting water bodies for use, Russian Railways conducts scheduled in-process quarterly audits of wastewater discharged into both surface water bodies and centralised water disposal networks.

In 2021, the wastewater discharges on land and into surface water bodies stood at 4.66 mcm across the Company, down 14% (0.8 mcm) y-o-y (target – 4%). In 2022, the Company plans to bring down its wastewater discharge into water bodies by 4.5%.

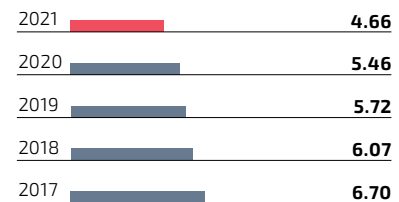
The most pronounced effect from cutting wastewater discharges into the environment was achieved by the initiatives and projects aimed at the

construction and reconstruction of treatment facilities. Also, a significant input came from installing additional filters and equipment, repairing and maintaining treatment facilities as well as construction and comprehensive upgrade of water disposal networks followed by their connection to treatment facilities. Optimising water consumption and saving also had a positive effect.

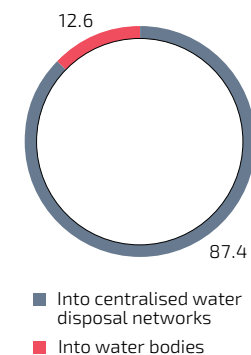
In 2021, the Company put into operation eight wastewater treatment facilities at the following stations: Smolensk, Moscow Railway, Maloshuyka, Northern Railway, Vekovka, Gorky Railway, Georgiyevsk, North Caucasus Railway, Otrzhka and Belgorod, South-Eastern Railway, Chelyabinsk, South Urals Railway and Syzran-Gorod, Kuybyshevskaya Railway.

Decrease in wastewater discharges into surface water bodies and on land²

| million cu m



Proportion of wastewater discharge | %



¹ In accordance with SanPiN 2.1.4.1074-01 Drinking Water. Hygienic Requirements for Water Quality of Centralised Drinking Water Supply Systems. Quality Control.

² The volume is calculated based on water withdrawn from natural sources and received from suppliers, used and consumed by Russian Railways' units in the reporting year in accordance with the 2-TP federal statistic form (water) as regards reporting of consumed water.

Innovative water treatment technology at Vekovka

Cutting-edge modular facilities for biological wastewater treatment were built at Vekovka as part of the Environmental Safety investment project and became the final component of the station's system of heat supply and water disposal.

Thanks to the new technology, the Gorky Railway decreased the discharge of insufficiently treated wastewater by 58,000 cu m in 2021.

At Vekovka, the cutting-edge modular facilities for biological wastewater treatment helped save more than RUB 700,000. Every year, the discharge of insufficiently treated wastewater will be reduced by 90,000 cu m on average. The Gorky Railway is the only mainline with this wastewater treatment method in place. The new treatment facilities use the membrane bioreactor

technology, which eliminates issues arising at conventional wastewater treatment plants. For example, the innovation provides high-level mechanical and microbiological treatment for household and industrial wastewater. When treated, the water can be discharged in fishery water bodies.



Noise and vibration

Transport is the most widespread and powerful source of acoustic discomfort in urban areas. Hence, the Company, as part of its environmental commitment, places special emphasis on minimising adverse physical factors and takes steps to reduce acoustic impact and vibration.

Minimising noise and vibration is a top priority for the Company's environmental strategy. Russian Railways keeps launching new, more efficient technologies and cutting-edge solutions to minimise or eliminate the causes of noise and vibration, protect people from acoustic impact, enhance passenger comfort and ensure that its acoustic impact meets applicable standards.

The Company's employees from industrial environmental laboratories receive training in measuring and assessing noise impact in adjacent housing areas. In addition, railway experts are trained in operating the Ecologist-Noise software to create and develop proprietary systems for monitoring noise and mapping areas adjacent to railway infrastructure.

In 2021, Russian Railways launched a large-scale project of noise mapping in the most critical areas to assess the noise pollution impact and distribution in urban areas near railway infrastructure.





The Company regularly handles public queries and outlines comprehensive measures to mitigate acoustic discomfort within metropolitan areas. This includes transferring locomotive sites to a remote distance from residential areas, regulating sound signals, checking and adjusting the loudspeaker operation modes, etc.

In 2021, the Company was engaged in developing technologies of sound insulation materials for the internal surfaces of VL locomotive bodies, with the project testing scheduled for 2022. Technical requirements for main types of traction rolling stock are currently being updated.

Every year, Russian Railways implements measures to reduce noise and vibration both at the noise source (wheel-rail interface) and along the route of transmission to the protected object. In 2015–2021, the Company:

- laid 103,000 km of continuous welded rails;
- ground 413,000 km of rails;
- laid 213 million anti-vibration pads;
- installed 302 km of noise protection screens;
- replaced 39,000 interlocked turnouts;
- ground 17,000 interlocked turnouts.

Installation of noise protection screens | km

2021		43.6
2020		61.0
2019		26.2
2018		46.7

In 2022, the Company plans to install more than 99 km of noise screens as part of the comprehensive railway upgrade and construction.

Russian Railways also looks for innovative solutions to reduce noise and vibration in the infrastructure.

The Company is piloting technologies to reduce acoustic impact at marshalling yards, including the use of a composite braking bar of a car retarder with damping steel gaskets, an automatic noise reduction system, small noise protection screens, etc.

In 2022, the Company plans to finalise the technology of applying sound insulation materials to internal surfaces of VL locomotive bodies. The materials will be installed in 2023 as part of the programme for improving operational reliability and bringing the railway infrastructure in line with Russian Railways' requirements.

#case study

**SAFE AND
SECURE****Biodiversity conservation**

GRI 304-2, 304-3

During the Year of the Environment, the Company carried out 42 biodiversity conservation projects aimed at protecting rare and endangered species listed in the Red Book.

Key Projects

- Salt licks made for wild reindeer at the Baikal Nature Reserve;
- Artificial nesting sites set up for white-tailed eagle in the Kabansky Reserve and Amur falcon in the Altacheysky Reserve;
- A scientific expedition undertaken to study the Baikal seals, which serve as an indicator of Lake Baikal's environmental health;
- Camera traps installed to monitor great bustards;
- Monitoring studies of the Russian fritillary's coenopopulation.

IN 2021,

Russian Railways also provided charitable support to maintain the population of the Amur tiger and the Far Eastern leopard





Protecting the forest

An ongoing video monitoring system installed in the Bolon Nature Reserve to observe the nesting sites of the Oriental stork also helps detect and prevent natural and man-made fires at a distance of up to 6 km

Jointly with administrations of specially protected territories, forestry farms, and non-governmental organisations, the Company conducted

MORE THAN
200
ENVIRONMENTAL PROTECTION EVENTS

with the involvement of its employees to clean grounds, waterfronts and parks, as well as plant trees

720,000

fingerlings released into rivers and the Selenga River, Lake Baikal and the Irkutsk reservoir



SOCIAL

Given the scale and geography of Russian Railways' activities, social matters are our top priority. The Company is pursuing the policy of social responsibility towards employees, community, and the state.

Developing human capital
for more details see p. 80-81

Improving customer service
for more details see p. 99-105

Creating the best working conditions
for more details see p. 91-94

Contributing to local
development
for more details see p. 107-109

Caring about safety
for more details see p. 95-97



Personnel development

HR management

Approach to HR management

GRI 103-2, 103-3

A key focus of Russian Railways' social and HR policy is to develop human capital. The Company runs projects promoting continuous training, employee motivation and occupational health, as well as projects aiming to shape a stable and favourable working environment.

Russian Railways provides jobs for more than 1% of employed Russian citizens, which makes it the largest employer in the country and imposes high requirements on its social and HR policy.

The Company's HR management system is based on seven key principles:

- respect: for employees, the Company's business units, and the state;
- feedback: constant monitoring of feedback from employees and business units;
- efficiency: prompt response to business unit requests and external challenges;
- proactivity: providing employees with proactive services;
- engagement: involving managers in HR management processes;
- innovation: using advanced technologies and practices;
- digitalisation: focus on maximum digitisation of routine operations and increased process efficiency.

Underlying HR management documents

International and domestic documents:

- UN Universal Declaration of Human Rights
- UN Global Compact
- International Labour Organisation (ILO) conventions
- Labour legislation in the countries of operation

- Social Charter of the Russian Business developed by the Russian Union of Industrialists and Entrepreneurs (RSPP)

Corporate documents:

- Russian Railways Group's 2030 Development Strategy
- Russian Railways' Human Capital Development Programme until 2025¹
- Russian Railways' Collective Bargaining Agreement
- Russian Railways' Code of Business Ethics²
- Russian Railways' Programme on Employee Development and Training System Improvement until 2025³
- Programme of Russian Railways' Interaction with Railway Universities until 2025⁴
- Russian Railways' Youth Target Programme for 2021–2025⁵
- Regulation on Private Pension Schemes for Employees of Russian Railways
- Russian Railways' Housing Policy Framework
- Regulation on Professional Training at Russian Railways⁶
- Russian Railways' Framework for Promotion of Professional Guidance until 2025⁷

¹ Approved by Russian Railways' Order No. 2757/r dated 14 December 2020.

² Approved by Russian Railways' Order No. 1143/r dated 6 May 2015.

³ Approved by Russian Railways' Order No. 2827/r dated 18 December 2020.

⁴ Approved by Russian Railways' Order No. 58 dated 22 January 2020.

⁵ Approved by Russian Railways' Order No. 2767/r dated 15 December 2020.

⁶ Approved by Russian Railways' Order No. 907r dated 17 April 2013.

⁷ Approved by Russian Railways' Management Board (Minutes No. 9 dated 11 February 2019).

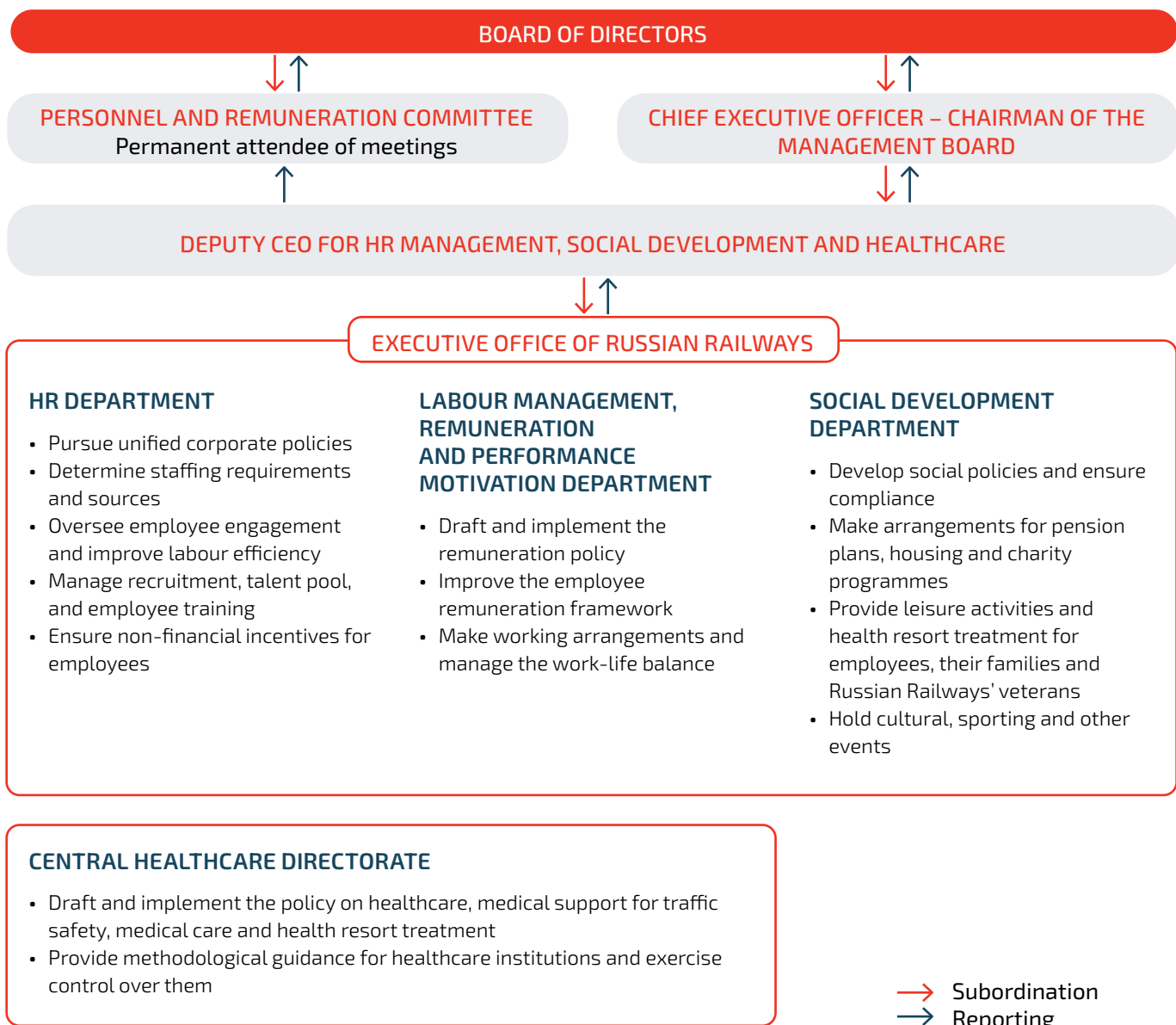
HR management structure

Progress against strategic HR management goals is monitored by Russian Railways' Board of Directors. The Human Resources, Remuneration and Corporate Governance Committee under the board of directors at Russian

Railways' subsidiary is primarily designed to assist Russian Railways' Board of Directors in setting up governance bodies and developing transparent remuneration policies for their members.

Russian Railways' Deputy CEO for HR Management, Social Development and Healthcare is in charge of managing human capital in the Group, whereas

key human capital management responsibilities are allocated among the business units of the Company's Executive Office, including the HR Department, Labour Management, Remuneration and Performance Motivation Department, Social Development Department, and the Central Healthcare Directorate.



Social risks

The Company addresses social risks with regard to its employees and retirees as well as other social partnership entities. As regards the risk of ineffective social policy, we primarily aim at creating sustainable working environment, fulfilling obligations under the Collective Bargaining Agreement and supporting a positive image of Russian Railways to prevent weakening of labour productivity, staff motivation and overall performance, as well as avoid collective labour disputes and strikes. The key areas of social risks

include HR management, incentives and compensation, social development and healthcare.

In 2021, the following measures were taken to mitigate these risks:

- employee training;
- improvement and development of social benefits and guarantees for Russian Railways' employees and retirees;
- revision/update of Russian Railways' regulations;

- analysis of performance under the Collective Bargaining Agreement;
- adjustment of the strategy for the social policy to factor in external and internal factors;
- staff monitoring, continuous information sharing through corporate media, addressing public queries, participation in employee meetings;
- development/fine-tuning of automated accounting and reporting systems.

Stronger employer brand

Russian Railways ensures the consistency of its communications as an employer by conveying the key attributes of its value proposition such as scale, opportunities, technological sophistication and care.

The main goal of building a stronger employer brand is to enhance the appeal and competitiveness of Russian Railways in the labour market, while also communicating the Company's values to the outer target audiences (job applicants, university and school students).

In 2021, Russian Railways continued promoting its Career Portal (team.rzd.ru), which had proved its efficiency as the key information platform for job applicants, university and school students. The Company launched an updated portal version with a new interface. Overall traffic exceeded 1.6 million people.

In 2021, the number of students enrolled in the RZD.GENERATION programme increased to 71,000 (up 51% y-o-y), with the participants tackling 40 challenges facing Russian Railways' business units.

As part of the Year of the Environment agenda, the Company staged Russian Railways' Ecothon. The event garnered over 1,000 applications, while the selected participants proposed 64 environmentally friendly solutions.

Russian Railways also held the Supply Chain Cup, a case competition bringing together 1,500 students from the leading universities to address transportation logistics challenges.

In 2021, the Company won the golden status in Forbes' rating of the best Russian employers. This year's rating placed a heavy emphasis on the companies' efforts to reduce their carbon footprint and make a socially significant difference.

According to the Russian Public Opinion Research Centre (VCIOM), Russian Railways holds the second place in the people's rating of the most attractive Russian employers for the third year running.

An employer attractiveness survey among students of the Russian universities shows that the Company tops the FutureToday and Changellenge ratings in the logistics category.

Attractive employer

Russian Railways traditionally ranks among the most attractive employers.

Intracorporate communications

The key objective of developing intracorporate communications is to improve employee satisfaction and engagement levels by raising personnel awareness, enhancing feedback channels within the Company, and promoting corporate values among the staff.

Russian Railways' Employee Service Portal

Russian Railways' Employee Service Portal (www.my.rzd) remains one of the key personnel communication channels. A shared information space facilitates contacts between the employer and workers, provides staff with corporate updates, and serves as a one-stop shop for over 50 services.

The number of authorised users exceeds 600,000, while peak daily traffic comes in at 150,000 unique users.

In 2021, the Company developed and rolled out new communication tools such as Blogs, Chat, Achievements, Active Worker, and Manager's Online Desk.

Active Worker enables employees to submit their portal improvement proposals and vote online on their colleagues' submissions. Since its launch, the service has:

- registered over 2,500 proposals,
- held six votes among more than 118,000 employees.

Manager's Online Desk unlocks additional opportunities for an on-spot dialogue by streamlining communications between an employee and a manager. Each employee can contact the manager of their business unit directly to ask a question, put in a request or submit a proposal.

In 2021, Manager's Online Desk:

- registered over 1,000 submissions from employees,
- including 760 submissions addressed straight away,
- and 448 submissions closed with a positive review (93.3% of all reviewed messages);
- while the average manager care score across the Company came in at 4.4 (out of 5).

The number of "Thank you" icons sent by the Company's employees to each other reached

1 MILLION

Team-Based Dialogue

In 2021, the Company launched Team-Based Dialogue, a new form of internal communications supported by a live voice chat for connecting with Russian Railways' managers. This tool enables employees from across the country to ask their questions in the real-time mode. Discussion topics are selected by employees.

Social and HR Hotline for Russian Railways' employees

GRI 102-17

In order to maintain a socially and psychologically favourable working environment and receive regular feedback from Russian Railways' employees, the Company has put in place the Social and HR Hotline, an integrated 24/7 information and counselling service.

In 2021, the number of registered calls exceeded 43,000.

Achievements in 2021

- Russian Railways' Employee Service Portal won the top prize of the international Digital Communication Awards (Germany) in the nomination for the Best Internal Channel.
- The Company won the second place as the Internal Communications Team of the Year in the prestigious Stevie Awards for Great Employers (USA).
- Russian Railways took the top prize of the prestigious HR TECH AWARD (Digital Pyramid 2021) in the nomination for the HR Tech Solution of the Year in recognition of the Company's success in developing employee-friendly online services for the Service Portal

Corporate culture

The corporate culture of Russian Railways rests on our rich history and traditions, the scale and global nature of our business, knowledge and experience continuity, and expertise and skills of the Company's employees.

The Company has a Code of Business Ethics¹ in place, which sets forth unified corporate values, norms and rules of conduct for employees. Russian Railways' Code of Business Ethics establishes the corporate standards and rules of conduct mandatory for the Board of Directors and all employees, and sets out the relations with shareholders, government authorities, legal entities and individuals.

The Business Ethics Committee assists in resolving conflicts, including violations of the norms and rules established by the Code, and develops recommendations and proposals on business ethics for Russian Railways' employees.

Values and ethical principles

GRI 102-16

Every employee of Russian Railways is guided by the brand values and ethical principles.

Our values



People

We create an effective environment to develop and support our big team and nurture everyone's self-fulfilment and recognition. We put a primary focus on people, collaboration and attention to the needs of customers, colleagues and partners.



Partnership

We strive for creative and successful partnerships based on mutual respect and trust coupled with a responsible attitude towards nature and resources. We value everyone's contribution to a common goal



Openness to innovation

We are open to innovation and keep advancing our competencies to meet the challenges of an ever-evolving world. For us, innovation is key to shaping the quality of our work.

The ethical principles of Russian Railways underpin the Company's corporate culture and ensure trust and mutual respect, fair competition, social responsibility, objectivity and honesty when making personnel-related decisions.

Our ethical principles are as follows:



Make people our top priority

People are the Company's main asset. We see real people – employees, passengers, and clients – behind the statistics. Everything that we do is about people's welfare and comfort.



Do our best

We work hard to perform our duties to the letter, deliver on all promises, achieve the targets, while having zero tolerance for any kind of corruption, and measuring up to the privilege of being part of Russian Railways.



Be proud to work at Russian Railways

Every Russian Railways employee feels honoured to be part of a company that has a unique history, rich traditions and ambitious plans for the future. We respect traditions and pay tribute to industry veterans. We strive to maintain and augment Russian Railways' reputation as a rapidly growing national transportation company.



Promote teamwork

Being part of a team means being considerate and honest with colleagues, managers and subordinates, putting the Company's interests before our own. Mutual trust and well-coordinated teamwork are our main strengths.



Rely on experience

We learn from our predecessors and use their experience in a creative way to excel in what we do and develop professional skills and competencies, and pass it on to young talent.



Be result-oriented

In following this principle, we always keep in mind that we work to deliver specific results such as higher profits for Russian Railways, completion of new projects, client satisfaction and people's trust.



Make well-informed decisions

As our decisions can affect many people and organisations, we always carefully think them through, focusing on safety and risk mitigation, as well as economic feasibility and commercial interests of Russian Railways.

¹ Approved by the Company's Board of Directors (Minutes No. 3 dated 30 March 2015).



Promote commercial interests of Russian Railways

We develop the culture of continuous improvement, multiply and save our earnings to the extent that does not contradict law and ethics, or affect quality and safety.



Be a leader

As Russian Railways is a leading Russian company, we expect our employees to have leadership qualities to set the pace, embrace changes, and serve as role models for colleagues and people outside Russian Railways.



Aspire to change and evolve

We constantly strive for excellence, seeking ways to improve efficiency, introduce innovations, acquire new knowledge, and develop personal and professional skills. Innovations are key to Russian Railways' growth and prosperity and personal development of our employees.

Ethics advice and ethical issue prevention mechanisms

GRI 102-16

The responsibility for ethics advice and ethical issue prevention mechanisms rests with the Group's Business Ethics Officer.

All employees who have grounds to believe that someone's actions violate the Code of Business Ethics of Russian Railways, as well as the Russian laws, the Company's Charter or regulations must inform their immediate superiors or the Business Ethics Officer.

The Company guarantees confidentiality of any report made and anti-retaliation protection. The Company does not consider anonymous reports regarding violations of Russian Railways' Code of Business Ethics.

One can report violations of the Code of Business Ethics by calling Russian Railways' Hotline for employees (an integrated information and counselling service) or by emailing etics@rzd.ru.

In 2021, the Hotline operators received and processed:

318 REPORTS
regarding business ethics issues
(0.7% of all reports);

7,517
REPORTS
regarding the Company's
treatment of its employees
(17% of all reports);

17 REPORTS
on anti-corruption
(0.04% of all reports).

The rest were requests for information and questions not related to the Company's business ethics, social responsibility and corporate culture; those were handled by operators in real time thanks to the vast knowledge base.

Comprehensive study of Russian Railways' corporate culture

2021 saw a comprehensive study of Russian Railways' corporate culture and relations with external partners, including 20 interviews with the top management (members of the Management Board, heads of regional railways), 15 focus groups with employees at regional and line levels, 10 focus groups with partners and customers, and an online survey of 8.7 thousand managers with respect to 62 thousand employees.

> **200** PROPOSALS
were prepared to update Russian Railways' Code of Business Ethics and the ethical principles of the target corporate culture.

The survey helped identify the corporate culture's strengths to be further maintained and nourished along with problems and gaps to be addressed in the coming years. One of the first steps here is to update the ethical principles of employee behaviour and the Company's Code of Business Ethics. The latter will be reviewed in line with cutting-edge standards and best practices in corporate governance, sustainable development and corporate culture.

Ensuring equal rights for employees

GRI 406-1

In its operations, Russian Railways adheres to the principles of the UN Global Compact and the Social Charter of the Russian Business developed by the Russian Union of Industrialists and Entrepreneurs (RSPP). The Company strictly complies with the Russian labour and civil laws and builds relations with employees based on mutual respect and commitment. The Company encourages and supports the social and cultural diversity of its employees, providing them with equal opportunities for employment, remuneration and promotion regardless of their differences and beliefs.

In accordance with Russian Railways' Code of Business Ethics, heads of the Company's branches and business units ensure equal rights and opportunities for all persons when they apply for a job or work their way up the career ladder, regardless of their gender, age, race, nationality, language, origin, financial and employment status, place of residence, religious and political beliefs. The Company takes a tolerant attitude towards ideological, personal and physiological differences of its employees.

Russian Railways does not tolerate harassment, insults, threats, or psychological abuse.

In the event of human rights violations or discrimination, employees are entitled to contact the Hotline and make a complaint.

GRI 405-1

Headcount by employee gender, age and category is provided in [Annex 136-137](#).

New career opportunities for women

The Company considers changes in the list of jobs available to women to be an important step towards equal opportunities.

Since 1 January 2021, the list includes assistant drivers on certain types of traction stock. In 2021, 61 women completed training to become assistant drivers, with all graduates currently employed at the Company. Five women applied for training as drivers. During a six-month practice-oriented course, they acquired basic theoretical knowledge as well as practical skills.

In November 2021, the women successfully passed the Company's internal tests and an exam for a rolling

stock driver's licence at the Federal Transportation Inspection Service to be awarded the electric train driver qualification.

The Russian Railways Group worked hard to prepare the infrastructure and rolling stock for the return of women to the profession. To that end, we:

- identified the routes and types of rolling stock for female drivers,
- created comfortable conditions for work and rest between shifts,
- designed and made uniforms,
- developed a special social package.

Many other occupations that had traditionally been associated with men are available for women at the Company, from truck driver to overhead lines repair person.



Supporting employees amid the COVID-19 pandemic

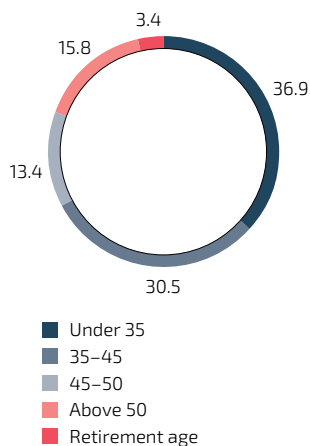
- In 2020, the Company introduced remote working for over 115 thousand employees in no time, while keeping their jobs and taking security measures.
- The Group provided its employees with personal protective equipment and carried out disinfection measures in line with recommendations issued by the Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing (Rosпотrebnadzor).
- To protect employees performing the most specific railway functions, we organised their transportation by company vehicles.
- Russian Railways set up a 24-hour hotline to advise company staff on issues related to the spread of the coronavirus infection and created volunteer teams to support our veterans and employees in need.
- Railway workers took an active part in the immunisation programme: by late 2021, more than 88% of employees at Russian Railways were vaccinated, herd immunity exceeded 93%, 22% of employees underwent revaccination.

Personnel structure and turnover

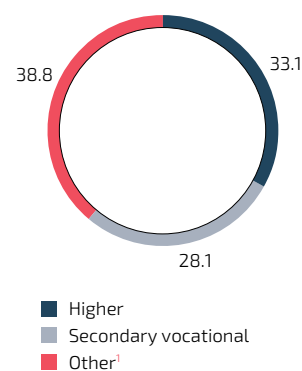
GRI 102-8

As at the end of 2021, Russian Railways had 696.3 thousand employees. The share of employees under 35 years of age was 36.9% of the total headcount, which is in line with the targets of Russian Railways Human Capital Development Programme until 2025. The share of employees with higher education was 33.1%, those with secondary vocational education – 28.1%, and employees with secondary (complete and incomplete) and first-level vocational education – 38.8%.

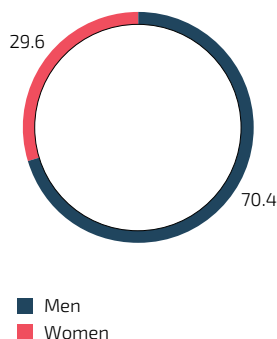
Age structure | %



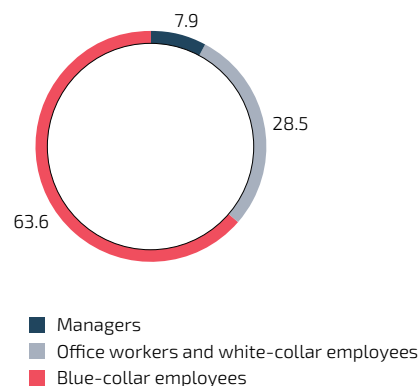
Education | %



Gender composition | %



Personnel categories | %



¹ Incomplete secondary, complete and first-level vocational education.

In 2021, 80.3 thousand people were hired, including 6.7 thousand graduates of industry higher and secondary vocational education institutions, as required by Russian Railways' branches.

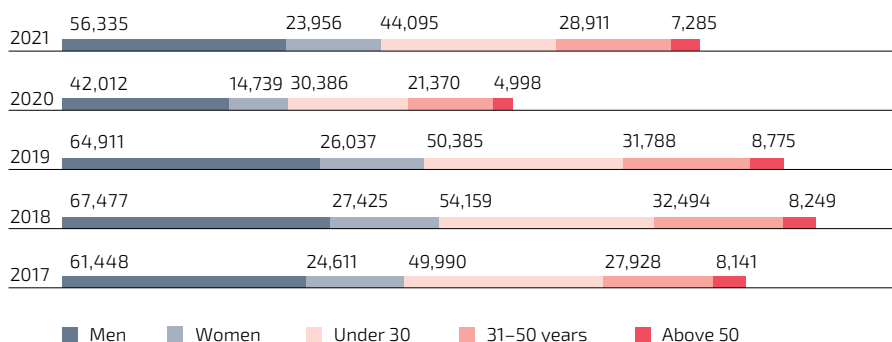
The staff turnover rate is one of the key performance indicators for the Company's officers.

The staff turnover threshold is set at 8% as per the internal calculation methodology. The indicator is consistently below the threshold: in 2021, it was within the set target values and amounted to 7.7%.

Russian Railways monitors employee turnover by separate unit on an ongoing basis. In addition, the Company carries out a detailed analysis of the reasons behind staff turnover in the first year of employment, by personnel category, and by age group (under 35 years of age). Questionnaires filled out by quitting and dismissed employees are used to collect data on staff turnover causes and develop roadmaps and retention programmes.

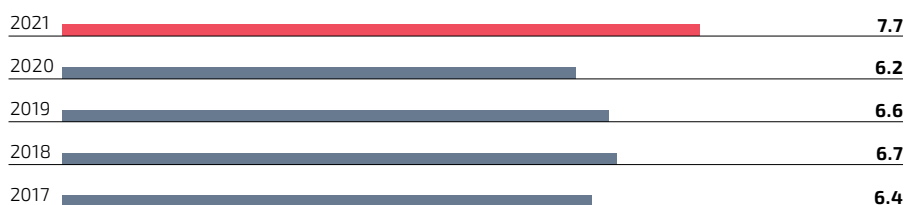
New hires by gender and age | persons

GRI 401-1



Personnel turnover

GRI 401-1



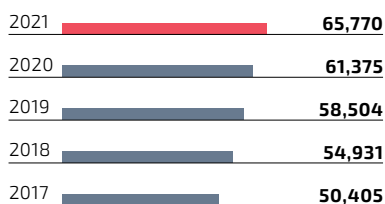
Remuneration and incentive system

As part of its social policy, the Company takes an ongoing, focused effort to improve its remuneration and incentive system. This results in increased labour productivity and higher operating performance, while also helping us retain highly qualified personnel.

In 2021, in accordance with the collective agreement and given the high rate of inflation, the Company indexed employee salaries three times: by 1.3% starting 1 March, 2.4% starting 1 August, and 1.4% starting 1 October.

Salary

Average monthly salary across all operations | RUB.



In 2021, the average monthly salary across all Russian Railways operations amounted to RUB 65,800, up 7.2% compared to 2020. Real salaries increased by 0.5%.

The Company offers wages 15% above the national average and the highest pay level across Russian regions¹.

The Company's approach to the financial incentive system is a classic combination of regular remuneration and bonuses. The former is aimed at financially motivating employees to achieve both individual and collective KPIs, while bonuses serve to laser-focus personnel on specific tasks.

¹ Except for the Yamal-Nenets Autonomous Area and the Sakhalin Region, Moscow, and St Petersburg.

The Company keeps incentivising its personnel for implementing cost-efficient projects. In 2021, it allocated RUB 413 m to the remuneration of 14,400 employees.

The corporate remuneration system, including its hourly rates (for blue-collar jobs) and monthly salaries (for management and white-collar jobs), compensation and incentive payments, applies to all Russian Railways employees regardless of their gender.

Labour productivity

Increasing labour productivity is a major priority for Russian Railways, which it advances through its Labour Productivity Improvement Programme that includes deploying cutting-edge equipment and technologies and upgrading those currently in use.

In 2021, productivity in transportation operations increased by 7.9% y-o-y, exceeding the Long-Term Development Programme AAGR of 5%.

The productivity growth rate at Russian Railways is almost 3.3x higher than that across the country and fully aligns with targets set by Russian leadership. After the 2020 pandemic-induced dip in labour productivity, the 2021 gains put the Company back on track in this area.

Employee training and development

The Company has a comprehensive ongoing training and development system for its employees, from entry level to top management.

Key documents:

- Russian Railways' Human Capital Development Programme until 2025;
- Regulation on Training and Development of Russian Railways Managers and Office Workers;
- Russian Railways' Programme on Employee Development and Training System Improvement until 2025;
- Rules for Organising Employee Training and Professional Development at Russian Railways;
- Regulation on Professional Training at Russian Railways.

Key achievements in 2021:

- The Company approved the Rules for Organising Employee Training and Professional Development at Russian Railways. The Rules introduce a new approach to planning professional development with a focus on training skills and competencies that urgently need improvement.

- We organised job training for over 43,000 employees and professional competencies development for over 185,700 white- and blue-collar staff members.
- We arranged dedicated training at railway transport universities for 29,200 students.
- We provided retraining and professional development for around 229,000 Russian Railways managers and office workers.
- We continued to hold professional skills competitions. As part of the Corporate Championship that included 21 contests, the Company conducted 134 regional events across the railways involving over 4,000 employees.
- In 2021, we launched the Far Eastern Branch of Russian Railways' Corporate University to ensure accelerated training and professional development of managers in the Eastern Operating Domain.
- The Company's corporate education system was highly acclaimed by the international community in 2021:
 - Russian Railways' Corporate University received a gold award and was named the Best Overall

Corporate University by the Global Council of Corporate Universities (GlobalCCU).

- Russian Railways' Corporate University took the silver award at the Facilitation Impact Awards for the Welfare Routes project aimed at improving social welfare for employees and retirees and implemented together with the Company's Social Development Department as part of the Russian Railways Human Capital Development Programme until 2025.

Personnel onboarding

GRI 404-2, 404-3

Onboarding is a comprehensive procedure to help new hires adapt to workplace practices and rules, develop professional knowledge and skills and learn about the corporate culture, as well as encourage them to be diligent, responsible, hard-working, loyal and proud to be part of the Russian Railways team.

All Russian Railways employees undergo onboarding in line with a dedicated plan.

Employees responsible for traffic safety and the most sophisticated technological processes complete an onboarding internship (also job onboarding).

In 2021, 16 railways held corporate Onboarding Days for Young Professionals (39 events with over 6,000 attendees) to provide a holistic view of the Russian Railways Group, its corporate culture and values. The Onboarding Days covered 79% of the newly hired young specialists in the reporting year.

To assess onboarding efficiency, the Company approved a procedure for conducting targeted polls among the new hires. The polls help evaluate employee satisfaction and quality of onboarding during their first year at Russian Railways.

In 2021, the Company developed a set of introductory materials for new employees, including a Welcome to Russian Railways booklet and an updated New Hire's Guide with all the necessary information on the Company and career opportunities.

We also created a New Hire's Checklist with a set of steps to better introduce employees to the Company's processes and job specifics.

To streamline communication with new employees, the Company drafted guidelines and tools for holding monthly onboarding days both online and offline.

Training and development of blue- and white-collar employees

The corporate vocational education system is based on 15 vocational education centres with 67 branches covering the whole country, from Kaliningrad to Sakhalin.

In 2021, the Company trained 43,000 employees in key jobs, including 34,500 in vocational education centres. Over 185,700 employees completed training as part of professional development programmes, including 146,200 in vocational education centres. Teaching skills and technology courses were offered to 309 vocational centre instructors.

In 2021, the Company carried out the following measures to improve its employee training and development system:

- implemented a practice-oriented approach to personnel training and development
- developed and approved 58 comprehensive educational programmes with implementation instructions and assessment tools
- amended professional standards
- acquired modern equipment, including:
 - 40 simulators
 - 262 units of equipment (interactive stands and VR sets)
- built a new teaching block in Kandalaksha and a dormitory in Tula.

Management and office workers training

According to the Russian Railways Human Capital Development Programme until 2025, the main goal of white-collar employees training and development is to boost efficiency by ensuring accessibility, quality and focus of educational opportunities aimed at building all kinds of corporate and professional competencies.

In 2021, over 229,000 Company's managers and office workers received training, including over 115,000 trained at the Russian Railways Corporate University.

The Corporate University serves as a centre of excellence in carrying out programmes to develop the Russian Railways Group talent pool, personnel assessment, methodology of new educational programmes, implementing innovative technologies in education, and promoting best management practices and business initiatives.

Talent pool

In 2021, we reviewed our approaches in talent pool training and development. For instance, we updated the comprehensive framework of programmes that includes:

- three levels of improving managerial competencies
- functional programmes to develop high-potential managers in the Company's key business areas
- a corporate MBA programme.

In addition to the framework for talent pool development, we also have in place a set of programmes to support management tools upon request from relevant business units and in line with the Company's strategic goals (for example, digitalisation, process approach, traffic safety culture, risk management, and customer focus).

Corporate programmes

In 2021, we launched the Far Eastern Branch of Russian Railways' Corporate University on Russky Island. The branch will focus on the accelerated professional development of managers in the Eastern Operating Domain, taking into account local specifics of industry development projects and the Asian-Pacific economy. In 2021, over 1,400 line heads of the Far Eastern Railway functions completed training at the Far Eastern Branch of Russian Railways' Corporate University.

To provide more opportunities to its talent pool, the Company builds partnerships with universities. Six transport universities continued to implement the Basics of Competency Management and Basics of Lean Production programmes for linear managers. A new programme Basics of Traffic Safety kicked off at the Far Eastern State Transport University. In 2021, over 1,600 managers received training under partner programmes.

Together with the Far Eastern Federal University in Vladivostok, Russian Railways' Corporate University implemented one of the corporate MBA programme modules.

We also carried on with the Master-Club Programme for the Management Board members, directors, heads of departments, railways and regional directorates of Russian Railways.

Managers and employees of the Russian Railways Group receive training in health and safety, environmental safety, civil defence and emergency protection to fully comply with mandatory statutory requirements for the relevant areas.

We also run a set of programmes dubbed A New Look at the Social Policy for the Company's social development managers as part of educational support for the key objectives of the Russian Railways Human Capital Development Programme until 2025

Distance learning

To improve personnel performance and ensure continuous professional development, we have in place the distance learning system. In 2021, to provide more opportunities for self-development, we introduced a new interface, added new services to the system and developed a mobile app.

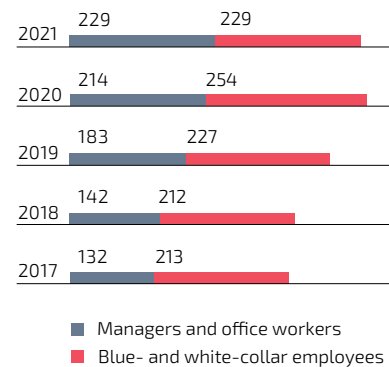
The Company also launched a Knowledge Hour project to develop professional competencies. It focuses on keeping the personnel competencies at a required level by dedicating one working hour per month to training. In 2021, 363 distance learning courses became available as part of the system, and the Knowledge Hour project covering 335,000 employees kicked off at eight Russian Railways branches.

The Knowledge.Live project (ongoing since 2020) brings together Corporate University instructors and internal and external experts, who share their expertise on topics relevant to all employees every week. Over two years, they held 73 workshops attended by over 85,000 employees.

All of the Company's employees have access to the Sustainable Development Concept: the Well-being of Future Generations course on the Russian Railways' Corporate University open portal. The course covers the key sustainability aspects, contribution of the society, state and business to sustainable development goals, and practices of Russian companies implementing ESG initiatives.

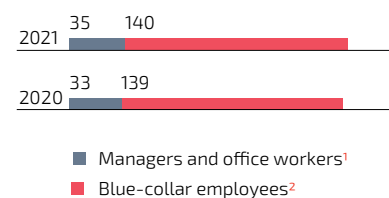
Every Russian Railways employee has an opportunity to create an individual development plan to be factored in when planning training programmes for the next year, study individually using the Russian Railways Distance Learning System, and participate, including as a speaker, in open workshops run by the Corporate University professors on relevant topics.

Employees who completed training | thousand people



GRI 404-1

Average hours of training per year per employee trained | man-hours



¹ Calculations take into account the duration of in-person and combined in-person and distance training.

² Calculations take into account average planned training hours (80 and 400 academic hours for professional development and training programmes respectively).

Social support

Collective Bargaining Agreement

GRI 102-41

Russian Railways' Collective Bargaining Agreement covers 100% of the Company's employees and is an important motivation tool within its recruitment and retention framework.

Its key functions include:



social protection of employees



maintaining social stability among employees



boosting Russian Railways' attractiveness as an employer



developing social partnership

Overall, Russian Railways delivered on its obligations for 2021 under the Collective Bargaining Agreement 2020–2022, meaning the Company maintained its status as a socially responsible employer. There were no collective labour disputes. The decisions on securing employment and personnel earnings ensured social stability among employees.

Social projects implemented in 2021 received a number of awards at international and domestic social policy competitions and contests (HR Tech Forum & Award, Russia's Best Social Projects, BRICS Solutions for SDGs Awards, Crystal Pyramid, We are Together, etc.).

Supporting women

Russian Railways' Coordination Council to Improve the Conditions of Work, Leisure, and Social Support of Women holds regular on-site meetings, online and offline events for female employees and organises video conferences with railway coordination councils. These events are an effective communication tool and a perfect platform to build a dialogue between the company and its female employees.

In late 2020, Russian Railways approved the Action Plan to improve the conditions of work, leisure, and social support of women in 2021–2025.

In 2021, we performed the following activities under the Plan:

- improved sanitary conditions and amenities for women;
- expanded the list of railway jobs available to women;
- carried out the annual survey of the working conditions of Russian Railways female employees. The findings were that 77.5% women were satisfied with their employment at the Company (against 76.7% in 2020);
- transferred over 32,000 women to flexible working hours and remote work to protect them during the COVID-19 pandemic;
- provided a "woman's leave" to over 3,000 female employees (under Russian Railways' Collective Bargaining Agreement, a woman is entitled to an unpaid day off once a month for personal reasons);
- opened 33 rooms for functional and emotional unwinding;
- carried out the How To Be Successful and Happy online corporate social event for female employees and an in-person session at the Zeleny Gai health resort;

- approved the procedure for partial reimbursement of employee expenses on their children's fitness and sports sessions at the Company's social facilities;
- increased the amount of financial assistance for those taking an annual paid leave to 15%;
- made amendments to the rules for issuing transportation certificates of Russian Railways for travel on public railway transport. Children of Russian Railways employees aged three and up can now travel free of charge on an individual seat in long-haul trains using a transportation certificate. Previously, employee children could travel for free from the age of five (since 2019 – from the age of four).

In June 2021, we held the second Forum to Improve the Conditions of Work, Leisure, and Social Support of Women in Yekaterinburg. It was highly praised by the Company's management and female employees and proved to be a useful tool for developing new initiatives.

In total, we held over 4,800 events attracting more than 960,000 participants over the year. Apart from women, the Company's measures cover their families, children and industry veteran.

Youth policy

Employees under 35 years of age account for 36.9% of Russian Railways' total headcount. This makes social support of young talent even more important.

The reporting year saw over 1,240 activities and projects carried out as part of Russian Railways' Youth targeted programme (2021–2025) in order to ensure comprehensive development of and acquisition of

industry-specific competencies by young employees, engage them in improvement of Russian Railways' operations, and build a youth-oriented corporate culture. About 370,000 young employees from across the Group took part in the events.

The Company adopted the Regulation on Russian Railways Youth Councils, which outlines their goals, objectives and principles. Among the year's major events was the annual Youth Conference of Russian Railways. It brought together around 600 young managers and specialists from across the Russian Railways Group, as well as young railway professionals from 11 countries in Europe and Asia. The conference focused on technological and cultural changes in Russia and the world, employee contributions to managing change, and awareness of their role in the transportation process.

Corporate pension system

GRI 201-3

All of the Company's employees can benefit from the corporate non-government pension system. In terms of its goals and purpose, a private (corporate) pension is an additional measure of social support to workers regardless of the state pension system. Its strategic target is to ensure a replacement rate of at least 40% of an employee's lost earnings.

In 2021, the number of the Company participants to the plan totalled almost 568,000. Over 297,000 retired railway workers currently receive corporate pensions in addition to the state ones.

In 2021, pensions were granted to 10,469 Russian Railways employees, and the average corporate pension stood at RUB 9,401.

Russian Railways' corporate pension is operated by the Blagosostoyanie Private Pension Fund. The key principles of the corporate pension system:



shared employee/ employer contribution to the employee's future pension



full financial security of corporate pensions



lifelong payments under the programme

Support for retirees

The Company's social responsibility efforts include benefits to senior retirees of railway enterprises not eligible for a corporate non-government pension. They receive social support from the Honour charitable foundation.

In 2021, over 68,700 people received monthly financial aid for a total of RUB 429.5 m, with an average payment currently amounting to RUB 532.

Retirees receive medical care at Russian Railways' corporate health centres in line with local compulsory health insurance programmes, and high-cost treatment according to the list of services stipulated by the Company.

Retirees in need can have their household fuel expenses compensated by the Company. In 2021, we covered RUB 513.8 m in fuel expenses for over 35,900 veterans.

We provide premises, phone connection, and stationery for veteran councils and arrange for car transportation to visit disabled people and lonely retirees.

Chairmen of the veteran councils receive monthly financial aid. In 2021, a total of RUB 155.9 m was allocated to support 4,608 council chairmen and deputy chairmen.

The Company also provides monthly financial aid to keepers of local and site railway museums. In 2021, a total of RUB 16.3 m was paid to 243 keepers.

The Company holds corporate celebrations of the Victory Day and Day of Older Persons, organises trains to visit the sites of labour and battle glory, and holds workshops to exchange field experience between veteran organisations.

In 2021, the Company provided financial support of nearly RUB 19.2 m to 15,400 veterans of the Great Patriotic War, prisoners of concentration camps and home front workers to mark the Victory Day.

All in all, financial support paid to veterans by the Honour charitable foundation exceeded RUB 1.2 bn.

Russian Railways' Veterans targeted programme received RUB 40 m.

Housing policy

The Company cares about the comfort and well-being of its employees, offering corporate benefits to help improve their living conditions and buy housing:

- a low mortgage rate of 2–4.5%;
- a partial compensation of a subsidised mortgage loan for families with new-born or adopted children;
- corporate housing for employees of rare and sought-after professions;

- a compensation of up to 70% of rental fees for employees hiring third-party housing;
- subsidies to purchase housing for vulnerable population groups: single parents, multichild families, people with disabilities caused by a workplace injury, and employees who lost their housing as a result of an emergency or a natural disaster.

In 2021, 1,936 employees improved their living conditions with the Company's support.

Health protection

GRI 403-6

Protecting the health of the Company's employees is one of the top priorities of the corporate social policy. We operate a broad range of healthcare facilities, health resorts and children's recreational camps all across Russia available for all of the Company's employees and their families.

RZD-Medicine system comprises 134 private healthcare facilities, including standalone ones: 104 in-patient (15,663 beds for 24/7 care) providing specialised health services and 144 outpatient facilities providing first medical aid.

These private healthcare facilities serve around 2.4 million patients, including 29.9% of employees and 13.9% of Russian Railways retirees.

Since 29 December 2021, the Company has had a new Voluntary Health Insurance Agreement in place. The

In 2021, doctors made some

29,422,692

VISITS

agreement term has been extended to five years, and the coverage amount increased by 7%.

Preventing cardiovascular diseases

In line with the Presidential Decree No. 474 On the National Development Goals of the Russian Federation through 2030 dated 21 July 2020, the Company developed and approved the Plan for Implementing a Risk-oriented Approach to Reducing Cardiovascular Diseases among Russian Railways Employees until 2030.

The Plan sets a target to increase the share of Russian Railways employees with a low or no risk of cardiovascular diseases from 18.1% in 2021 to 20.8% in 2030.

The Plan has four focus areas:

- creating and maintaining a single register of patients with the risk of cardiovascular diseases,
- improving cardiovascular services within the RZD-Medicine system,
- preventing cardiovascular diseases,
- improving the talent pool of the RZD-Medicine system.

The Plan sets measures to help forecast and prevent the disease risks, and reduce morbidity, disability and fatality from cardiovascular diseases.

Health resort treatment

Health resort treatment, recreation and leisure activities are available at 60 corporate health resorts, holiday hotels, recreational centres and camps across Russia (from Kaliningrad to the Russian Far East).

In 2021, 75,300 employees and their family members received recreational services. When distributing and subsidising the tours for health resort treatment, the Company places a special focus on employees directly responsible for railway traffic safety. For most employee categories, the share of the tour price compensated by the Company may range depending on the quarter of the year when the tour takes place (10–40% for employees and 20–60% for their family members).

Children's recreational facilities

In 2021, Russian Railways organised children's recreational activities at 60 corporate children's camps, eight third-party children's camps, including two on the Black Sea coast, eight corporate schools and children's railways. A total of 38,000 kids took part in the children's summer recreational campaign.

Due to Rospotrebnadzor's restrictions on the existing capacity utilisation at children's camps, the actual tour price in 2021 was 75% higher than expected for the year. To prevent additional financial burden on employees, the Company decided to keep the tour price at the planned level.

Healthy lifestyle

The Company implements the Russian Railways' Healthy Lifestyle Concept for 2020–2025 with nine focus areas:

- living tobacco-free,
- reducing alcohol consumption,
- healthy diet at workplace,
- doing more physical exercise,
- maintaining mental health and well-being,
- preventive medicine,
- healthy working conditions,
- raising awareness,
- motivation.

2025 targets:

increase the share of Russian Railways employees doing sports and exercising regularly

TO 55%

reduce the share of smokers among employees

BY 10%

In 2021, Russian Railways' Healthy Lifestyle Concept project was ranked second at the BRICS Solutions for SDGs Awards in the Good Health and Well-being category.

In 2021, we held over 18,000 events attracting around 4 million attendees from among the Company's employees, their family members, and industry veterans.

To promote corporate healthy lifestyle culture and motivate our employees to follow it, we organise dedicated events, volunteer campaigns to raise awareness about healthy living, Healthy Lifestyle Week and Summer, health marathons, and the Strong Health programme at children's recreational camps.

We also conduct health training sessions and hold sports events for the Company's employees and their families. Major competitions include championships in cross-country skiing, football, chess, badminton, table tennis, basketball and cross-country running.

In 2021, 850 mass sports events took place bringing together around 54,000 people. Railway sports facilities accommodate over 1,000 clubs for the most popular sports with 23,200 members, of whom 20,800 are railway employees and their family members.

In 2021,

73,400

railway workers had their fitness expenses partially compensated.

The Company has sports clubs in place to encourage our employees to exercise regularly. There are currently 591 sports clubs across the railway infrastructure attended by some 26,000 railway workers.

Employee mental health

We place a special emphasis on maintaining employees' mental health and well-being as part of the Healthy Lifestyle Concept.

During the Mental Health Week in 2021, we organised over 3,000 activities for more than 100,000 employees, including:

- talks with psychiatrists and addictionists on how to prevent substance abuse,
- team games and lectures with psychotherapists on reducing the risk of emotional exhaustion,
- art therapy,
- a hotline to answer questions about mental health and many more.

Russian Railways branches and business units open dedicated rooms for emotional unwinding. In 2021, we made available 33 such rooms.

Volunteer movement

In 2021, Russian Railways headed the Corporate Volunteering Commission at the Russian Chamber of Commerce and Industry, which helped increase the number of corporate volunteer activities by 50%. We also joined forces with other companies to hold 10 volunteer campaigns and design social policy recommendations and projects for the Government of the Russian Federation. Russian Railways' volunteers participated in the international #WeAreTogether forum. The Company's Donor Leaders blood and blood component donation project became a runner-up for the #WeAreTogether award.

In 2021, the Company co-organised a number of socially important events, including joint campaigns with the Ministry of Natural Resources and Environment (the Water of Russia project) and the All-Russian Movement of Medical Volunteers (Be Healthy! project), a business session at the Sustainable Development of Regions and Human Potential international ESG forum, and others.

All in all, we staged 354 large-scale social events across the railway infrastructure and plan to hold twice as many in 2022. All of them were proposed by corporate volunteers and are highly relevant.

Water of Russia on Baikal Shores

During of the Year of the Environment, Russian Railways held one of largest and most exciting events – the Water of Russia on Baikal Shores campaign. It took place in September 2021 as part of the Environment national project and the Preservation of Unique Water Bodies federal project. The Company partnered with the Ministry of Natural Resources and Environment of Russia and took an active part in staging and carrying out the campaign.

Over 460 volunteers from among the railway personnel, employees of respective business units of Russian Railways' Executive Office, and NGOs were involved in campaign preparations.

They cleaned up more than four kilometres of Lake Baikal shores and collected over 45 cu m of mixed

waste, 170 kg of plastic, 96 kg of glass and 112 kg of metal, which were than sent for recycling.

The shoreline underwent improvement with recreational areas set up near Shamansky Cape, and the Tankhoy and Staraya Angasolka settlements.

On Russian Railways' initiative, the campaign included the opening of the Tankhoy Mile nature trail, which became a fresh addition to the historical display of the Baikal Nature Reserve visitor centre and part of the tourism infrastructure.

The event received a lot of positive feedback. It is of utmost importance both as an environmental campaign to protect unique Lake Baikal and as an initiative to preserve historical heritage, foster an environmental culture, and develop educational tourism.



Health and safety

Approach to management

GRI 103-2, 103-3, 403-1, 403-4

Health and safety is among the most important HR priorities for Russian Railways. The implementation of new instruments and measures to prevent workplace injuries within Russian Railways' health and safety management system helps to reduce the annual injury frequency rates regardless of severity.

Key goals in health and safety for Russian Railways:

- improvement of working conditions:
 - construction, upgrading and repairs of sanitary amenities and facilities;
 - equipping of heating units and lunch rooms;
 - installation, upgrading and repairs of lighting, ventilation, etc. systems;
 - equipping locomotive cabs with improved durability glasses, vibration isolated seats, etc.;
 - reduction in the share of manual labour, including work to mechanise operations, track maintenance and construction..

On an annual basis, health and safety activities account for at least 0.7% of Russian Railways' total annual expenses by main type of activity net of the costs related to workwear, PPE, and medical check-ups.

- State-of-the-art certified personal protective equipment helps to considerably reduce occupational morbidity and workplace injury rates. Russian Railways complies with Model Industry Standards for Free Provision of Workwear, Footwear and Other Personal Protective Equipment to Employees of Federal Railway Enterprises.
- Reduction in workplace injury rates, inter alia, by removing employees from hazardous operating areas and by implementing technical solutions that prevent injuries.
- Reduction in occupational morbidity. To that end, mobile occupational pathology and occupational suitability expertise centres are set up at hospitals of the railways' sector, with modern medications and latest diagnostic and treatment equipment in place to early identify occupational diseases and take measures as needed.
- individual and collective responsibility for compliance with health and safety principles is nourished and promoted;
- each employee is aware of their individual responsibility for compliance with health and safety principles;
- health and safety risks are managed.

Health and safety management system

GRI 403-3

The health and management safety system is part of the governance framework and helps ensure a comprehensive approach and a single health and safety procedure across all Company levels. Russian Railways manages health and safety at three levels: central, regional, and linear. Corporate health and safety management is the responsibility of the corporate governance centre and regional centres for corporate governance. Health and safety matters are within the remit of the Environment and Technosphere Safety Department, while at railways, these are the responsibilities of occupational health and safety functions.

Policies and procedures

The health and safety management system is aligned with the Company's health, environmental and industrial safety policy approved by the Management Board of Russian Railways, and prioritises the lives and health of employees. The Company is guided by Vision Zero, an international concept that Russian Railways adopted in December 2017.

On an annual basis, the Company develops a list of internal regulations on health, environmental, industrial and fire safety and non-occupational injuries.

Russian Railways has more than 250 internal regulations on health and safety, which are updated on a regular basis. In 2021, the Company developed and updated 48 internal regulations on health and safety (standards, rules, instructions, etc.).

In 2021, Russian Railways took part in developing the new Rules for Training and Examination in Health and Safety¹, and considered a number of draft regulatory documents developed by the Ministry of Labour of Russia in pursuance of Federal Law No. 311-FZ On Amendments to the Labour Code of the Russian Federation dated 2 July 2021.

Occupational risk analysis and assessment

GRI 403-2

The health and safety management system is based on a risk-oriented approach that provides for a shift from reactive (i.e. damage compensation) to proactive measures by minimising employee exposure to production risks, and harmful and hazardous factors.

Branches of Russian Railways conduct annual assessments of occupational risks for the main types of hazardous occupations.

Occupational risks are calculated and assessed for each branch of Russian Railways with a breakdown by regional directorate and structural unit using the Occupational Risk Analysis and Assessment for Russian Railways Employees automated system.

Structural units of Russian Railways branches carried out a comprehensive assessment and laid down acceptable levels of occupational risks for 2022 and developed lists of unacceptable and undesirable risks.

The measurement results were then evaluated and rated by the regional directorates and summarised in risk matrices for the main types of hazardous occupations.

Based on occupational risk assessment, activities were developed to manage risks classified as unacceptable and undesirable. The activities were planned as part of a health and safety improvement programme for 2022.

Vision Zero

Russian Railways is a member of the Vision Zero global campaign, which has completely reshaped corporate approaches to health and safety management. This strategy requires actors at all levels, from executives to employees, to act with awareness in order to prevent any work-related accidents.

Based on the Vision Zero Framework, Russian Railways developed the respective implementation programme for 2019–2021².

In 2021, the Company implemented the following measures in line with the Programme:

- developed a VR simulator to train overhead lines repair personnel in health and safety using smart training solutions;
- put into permanent use a model virtual classroom to train health and safety managers and personnel in developing an interactive educational environment, which helps automate the key operations related to examinations;

- continued efforts to examine health and safety knowledge of middle level managers and to train moderators for examinations.

¹ Approved by Decree of the Russian Government No. 2464 dated 24 December 2021.

² Approved by Russian Railways' Order No. 1179/r dated 13 June 2019.

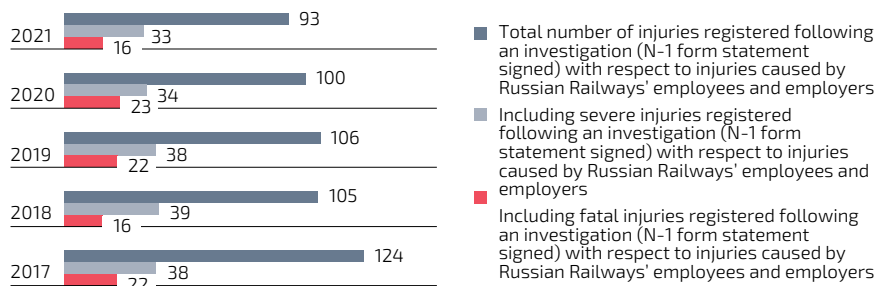
Occupational injuries

GRI 403-9

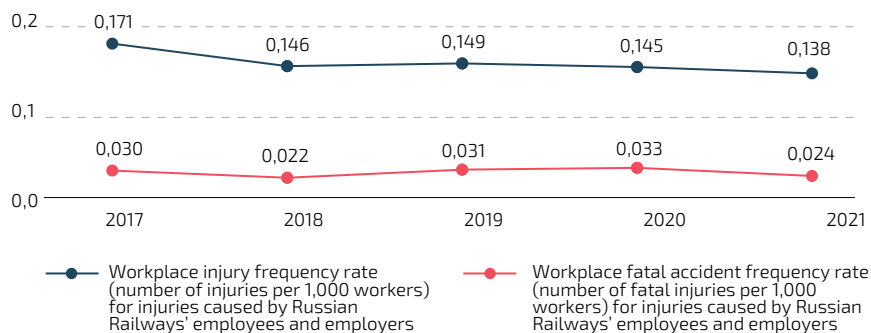
The consistent policy of Russian Railways in health and safety

seeks to ensure zero fatal occupational injuries caused by the Company's employees. The Company engages in comprehensive efforts to prevent accidents, occupational diseases, and fatalities.

Rates of occupational injuries caused by employees and employers (Federal Statistical Observation Form No. 7 (Injuries): Occupational Injury and Occupational Disease Data)¹ | persons



Evolution of workplace injury frequency rate



The reporting year saw the following levels of workplace injuries across the Company in 2021:

- overall injury rate (total number of injuries) up by 6%
- fatal injury rate (number of fatal injuries) up by 21%
- severe injury rate down by 15%
- workplace injury frequency rate (number of injuries per 1,000 workers) up by 8.7%
- fatal workplace injury frequency rate (number of fatalities per 1,000 workers) up by 25%.

¹ Data based on Federal Statistical Observation Form No. 7 (Injuries): Occupational Injury and Occupational Disease Data (in line with the instructions on the completion of federal statistical observation forms).

At the same time, occupational injury rates caused by employees of Russian Railways were down as follows:

- total injuries (number of injuries in accidents confirmed to be caused by employees and managers of Russian Railways) down by 5%
- fatal injuries (number of fatalities in accidents confirmed to be caused by employees and managers of Russian Railways) down by 18%
- severe injury rate down by 10%
- frequency rate of workplace injuries caused by Russian Railways (number of injuries per 1,000 workers) down by 3%
- frequency rate of fatal workplace injuries caused by Russian Railways (number of fatalities per 1,000 workers) down by 19%.

The lost time rate, which is a measure of the number of lost working days per 1,000 workers (due to workplace injuries), continues to go down. Compared to 2020, the decline reached 14%.

The workplace injury frequency rate at Russian Railways is five times lower than the average in Russia. As at the year-end, 92% of units of Russian Railway's branches most prone to injuries remain committed to health and safety for over five years in a row: no fatal injuries across all units, while 828 units (64%) recorded zero injuries.

The main types of fatal accidents in 2021 were as follows:

- traffic accidents;
- electrocution;
- accident involving moving rolling stock;
- falls from a height.

Primary causes of occupational injuries are:

- poor procedures of, and control over, operations;
- violations of operational procedures;
- violations of labour and operating discipline..

Following each severe or fatal injury involving a Russian Railways employee, all Company branches receive updates about the injury and its causes. Each fatality is reviewed by branch managers, with development of preventive steps and identification of employees who caused the accident.

Injuries of contractors

Accidents involving contractors at Russian Railways sites are at all times reviewed by the Company. However, due to its size and structure, Russian Railways keeps no records of contractors' injuries. The procedure of contractor authorisation is always aligned with the Company's internal regulations.

Prevention of occupational injuries

Health and safety management mode depending on occupational injury rate

In 2021, units of Russian Railways branches continued introducing contingency health and safety management modes depending on occupational injury rates as a tool to prevent occupational injuries.

In order to prevent future occurrences of the circumstances and root causes of workplace accidents, an additional

set of measures was carried out whenever a contingency health and safety management mode was put in place.

Control over health and safety management system

In 2021, seven targeted inspections (at the Central Directorate for Heat and Water Supply and six operating domains at railways) and two internal audits (at Transenergo and Far Eastern Railway) were held.

The results of the targeted inspections and internal audits were reported to and reviewed by senior executives of the units under review, with summary reports submitted to heads of relevant branches, corrective measures put in place, and disciplinary action taken against employees who caused violations of health and safety requirements.

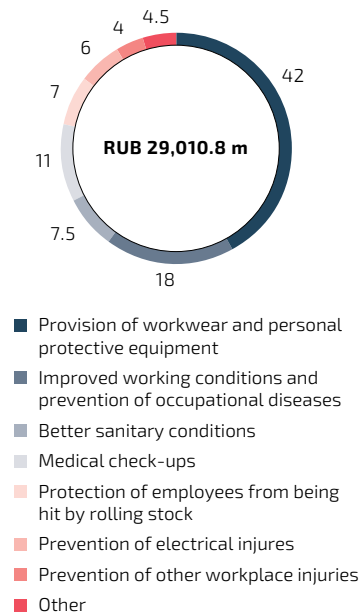
Public control over health and safety compliance

The Company has positions of a health and safety officer of the primary trade union organisation of Russian Railways. In 2021, there were a total of 15,300 health and safety officers at the Company.

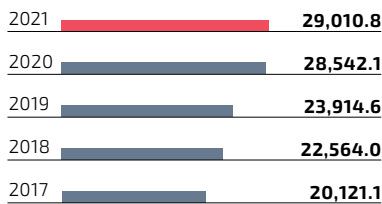
Those of them who are strongly engaged in measures to ensure the safety of Russian Railways employees are recognised as the Best Health and Safety Officers in Railway Industry. In 2021, the award was given to 48 employees of structural units at Russian Railways branches.

Working conditions and occupational safety improvement

Breakdown of expenses on working conditions and occupational safety improvement in 2021, by category¹ | %



Working conditions and occupational safety improvement expenses | RUB m



In 2021, Russian Railways spent a total of over RUB 29 bn on health and safety improvement initiatives. Expenditures related to working conditions and occupational safety improvement at Russian Railways averaged RUB 46,890 per employee (compared to RUB 41,500 in 2020).

Working conditions improvement

GRI 403-7

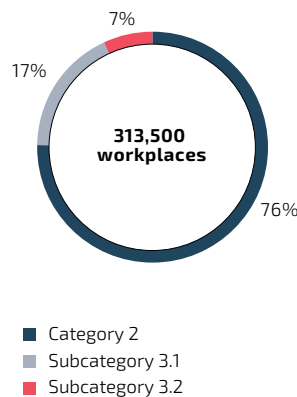
As at the end of 2021, Russian Railways had 76,700 workplaces with hazardous working conditions.

The number and share of positions with hazardous working conditions were as follows: 55,000 workplaces, or 17% of total, in category 3.1, 21,700 workplaces, or 7% of total, in category 3.2.

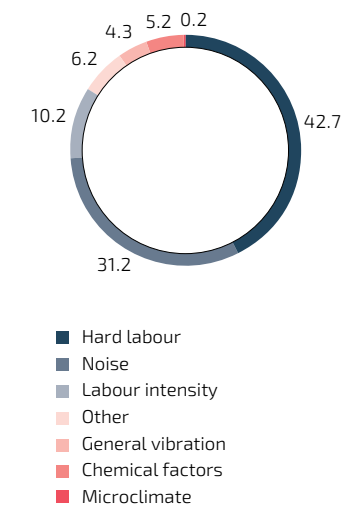
The largest share of the total number of workplaces with hazardous working conditions is made up by those characterised by the following factors: hard labour – 42.7%, noise – 31.2%, labour intensity – 10.2%, general vibration – 4.3%, chemical factors – 5.2%, microclimate – 0.2%, other – 6.2%.

In 2021, the Company implemented a work environment improvement project targeting 43,900 workplaces, covering a total of 199,700 employees.

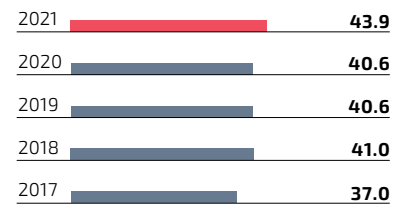
Workplace breakdown by working conditions



Breakdown of workplaces with hazardous working conditions by factor

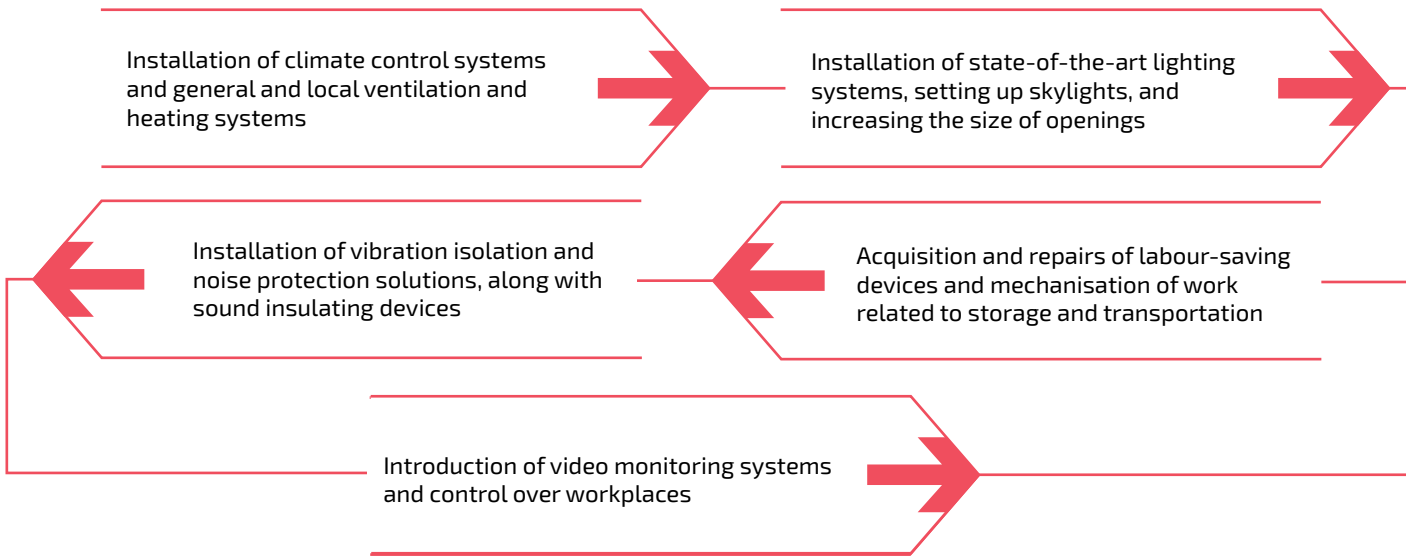


Number of workplaces with improved working conditions | '000



¹ Including mitigation of impact from hazardous chemical factors and non-ionising radiation, maintenance of microclimate, lighting, noise and vibration levels as required by applicable standards, reduction in workload and work intensity.

List of key activities to improve working conditions:



In 2021, initiatives focused on:

- creating a microclimate that complies with all applicable requirements, activities to reduce workload and work intensity, and activities to align lighting levels with applicable requirements
- aligning noise and vibration levels with applicable requirements
- reducing the impact of hazardous chemical factors and aerosols
- reducing the impact of non-ionising radiation

In 2021, a special assessment of working conditions was carried out at 48,300 workplaces, which comprised 105.7% of the plan for the year.

Control over working conditions

In line with a respective plan, in 2021, branches of Russian Railways held laboratory tests at 234,800 workplaces, with financing allocated to that end totalling RUB 182.4 m. Laboratory tests held as part of control over working conditions and special assessments of working conditions covered all workplaces with hazardous working conditions.

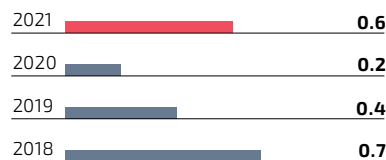
Work-related ill health

GRI 403-6, 403-10

Workplaces classified as category 3.1 or higher¹ following a special assessment of working conditions are deemed hazardous for the health of employees.

In 2021, 41 employees and 17 retirees of Russian Railways developed 58 occupational diseases as a result of exposure to work-related hazards (compared to 16 employees and 29 retirees in 2019). In 2021, the level of occupational morbidity totalled 0.6 per 10,000 employees.

Level of occupational morbidity per 10,000 workers



The main types of occupational diseases were:

- sensorineural hearing loss caused by extreme noise pollution;
- hand-arm vibration syndrome;
- myotonic syndrome.

To enhance the quality of medical support for traffic and production safety, in 2021, three new occupational pathology and occupational suitability centres opened their doors at PHFs² of RZD-Medicine; today, 29 centres focus on expert assessment of occupational suitability, connection of morbidity with the profession, development and improvement of work-related ill health prevention, diagnostics and treatment, and scientific and methodical work.

134 medical assessment boards are in place at RZD-Medicine PHFs. In line with their work plans, they completed 1.61 m medical examinations in 2021.

¹ According to the classification of working conditions as per Federal Law On Special Assessment of Working Conditions No. 426-FZ dated 28 December 2013.

² Private healthcare facilities.

In 2021, in partnership with the Ministry of Transport, Ministry of Labour and the Russian Social Insurance Fund, Russian Railways took part in a pilot project in line with decree of the Russian Government No. 401 dated 18 March 2021 On Pilot Project to Establish Interagency Interaction to Prevent Occupational Diseases and Create System for Employee Health Monitoring.

Selected for the project were 70 members of locomotive crews that following regular medical check-ups were classified as at risk for developing sensorineural hearing loss. The outcomes of the pilot project showed a positive trend, i.e. stabilisation of initial signs of noise impact on the employees' hearing ability.

Interagency interaction continues strongly underway in order to continue activities of the pilot project, with the expansion of the list of occupational diseases to be covered by preventive steps, and development of a financing mechanism using borrowed funds from the Social Insurance Fund.

Provision of personal protective equipment

In 2021, Russian Railways spent RUB 12.2 bn on procuring workwear, footwear and other PPE, which makes up 42% of all expenses on health and safety activities. Employees of Russian Railways are fully provided with workwear, footwear and other PPE.

As a way to expand the workwear collection, technical requirements were approved in February 2021 for seven models of fur items (13 types), along with technical requirements for SIGNAL – RZD, high visibility clothing that includes six models (36 types) of workwear for winter and summer periods.

The workwear collection for Russian Railways employees comprises 43 models (132 types), of which 16 models (52 types) are designed for women.

The footwear collection includes 65 models, including 32 models for women. This collection has been made available to all Russian Railways branches since March 2021.

In line with an action plan to introduce an updated workwear collection for Russian Railways employees, starting October 2021, an updated collection is shipped to all units of the Company's branches located within the Eastern Operating Domain (Krasnoyarsk, East Siberian, Zabaykalsk, and Far Eastern Railways). Starting January 2022, the updated workwear will be rolled out across all the branches of Russian Railways.

In 2021, the Company assessed the quality of cold weather models of the workwear: 68% of the employees rated them as excellent or good, with 30% describing them as satisfactory.

There are potential plans to introduce a control system to make sure that employees properly use their PPE to protect from induced voltage and the thermal component of the electric arc. To that end, an electronic safety control device is expected to be integrated into the PPE kit to ensure that safety properties are retained and intact before and after any work is commenced, and that PPE are used properly.



Health and safety training for employees

GRI 403-5

In 2021, more than 47,000 Company's employees took associated mandatory training with a subsequent knowledge check at education centres, including:

- over 14,000 managers,
- 11,000 line employees,
- over 3,000 health and safety officers,
- ca. 19,000 other employees (middle level managers, etc.).

In 2021, the Ministry of Labour approved new health and safety rules, prompting over 450,000 employees of the Company to complete ad hoc examinations in health and safety.

Efforts continued to test managers of Russian Railways upon their appointment. In 2021, at the Environment and Technosphere Safety Department, a total of 14 managers were tested, while at the level of Russian Railways branches 569 managers were covered by the testing.

Against the backdrop of restrictions introduced in response to the COVID-19 pandemic, the Central Committee of the Russian Railways on Health

and Safety Examinations among Managers held three meetings. Ad hoc examinations involved managers of Russian Railways units where fatal occupation injuries took place or health and safety violations were identified.

In 2021, 176 employees of operational departments of the Company's branches underwent retraining in health and safety at the Corporate University, with more than 55,000 managers and employees trained in health and safety, environmental safety, civil defence and emergency protection in order to fully comply with the mandatory statutory requirements for the relevant areas.

Training sessions continued with a view to fostering a safety culture. In 2021, these covered 160 employees of the Company's central and regional management levels.

In 2021, the Russian University of Transport (MIIT) provided health and safety training and knowledge checks for 56 middle level managers at units of the Company's branches related to the October and Moscow Railways.

To roll out this kind of education, the Company continues to train moderators to oversee examinations, with 205 employees undergoing this training in 2021. To automate the examination process, the Interactive Educational Environment project is underway, providing case problems on health and safety for students to solve.

In 2021, a VR training simulator was developed and implemented to train overhead line repair personnel in health and safety, helping them adopt safe methods and approaches to installing earthing sticks of the overhead line. Employee training using the simulator is now in place.

Health and safety railcars

Russian Railways has 18 health and safety railcars, which are part of a single system to train railway employees. Health and safety railcars are mobile training facilities designed to provide on-site methodology and organisational support in training and examinations in health and safety using audio, video and computing equipment, as well as help with prevention measures in health and safety.

Industrial safety

In order to ensure the Company's industrial and fire safety:

- the Safety First rule is observed, with safety placed above other performance indicators;
- employees receive training and improve their skills and competencies in health and safety;
- individual and collective responsibility for compliance with health and safety principles is nourished and promoted;
- each employee is aware of their individual responsibility for compliance with health and safety principles;
- health and safety risks are managed.

Industrial safety of hazardous facilities

Russian Railways operates 5,805 hazardous facilities, including 582 facilities of hazard class 3 and 5,223 facilities of hazard class 4. None of these facilities reported any accidents in 2021.

In 2021, the Company developed the Risk Management Guidelines for Hazardous Facilities. Risk assessment methods for hazardous facilities set out in the Guidelines enable the Company to substantiate and specifically plan activities on industrial safety in order to reduce accident and non-compliance risks.

Fire safety

Russian Railways has a fire safety management system aligned with the Company's "to-be" state. Various units within the Company follow a unified

Traffic safety

Russian Railways has in place the Strategy for Guaranteed Transportation Safety and Reliability, which lays out the general principles that are underpinned by safety management and culture. The strategy seeks to develop a safety management system throughout the life cycle of infrastructure facilities and rail vehicles and to create a methodological framework for transportation safety management by introducing digital platforms and improving the offering of quality, highly reliable and safe services.

approach to fire safety thanks to the efforts of central and regional fire safety commissions. Fire prevention activities at the Company's facilities and rolling stock, along with fire extinguishing in the traffic area, are the responsibility of the Departmental Security Service of the Railroad Transport.

Fire trains

Fire trains are classified as part of a single public system for emergency prevention and response and are engaged by the EMERCOM of Russia in order to extinguish fires across the country. Fire trains are designed for fire extinguishing and ensuring fire safety as part of response to emergencies with hazardous cargos at facilities of structural units of Russian Railways branches, at all types of rolling stock, and in railway infrastructure areas where possible. The rolling stock of fire trains is updated as part of the Fire Safety project.

Traffic safety priorities include:

- improving the reliability and safety of equipment that is part of infrastructure and rolling stock;
- reducing the likelihood of traffic accidents;
- preventing or reducing fatalities and injuries;
- reducing property damage and other losses;
- preventing any adverse impact on the environment.

In 2021, a new fire extinguishing module was launched for an MTSO-2-based fire train.

Emergencies with environmental implications

In 2021, the Company's infrastructure saw five major emergencies with environmental implications, including:

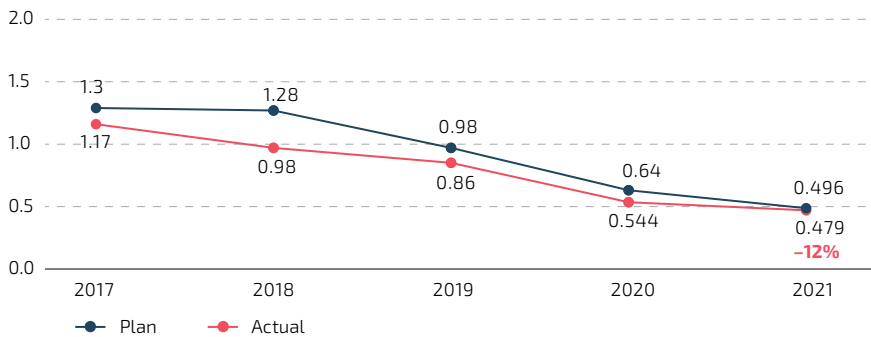
- railcar derailment with oil product spills
- railcar derailment with diesel fuel spills
- railcar derailment with aviation fuel spills, etc.

Clean-up measures helped to respond to the emergencies as needed. All emergency sites are subject to ongoing laboratory monitoring of water resources and soil, with samples taken and tested on a regular basis.

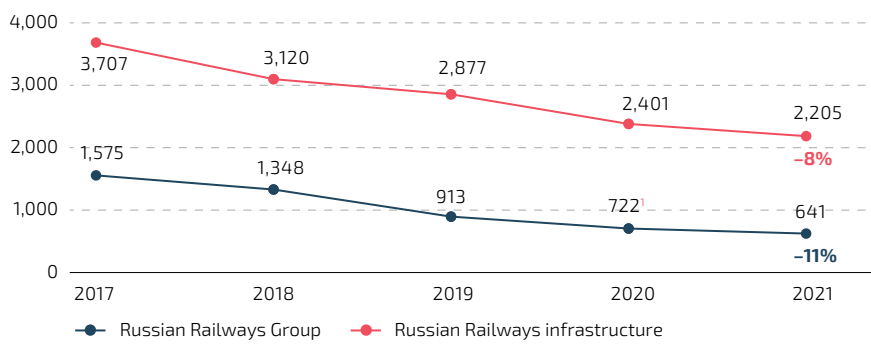
2021 results

In 2021, the target safety level across the Russian Railways Group was achieved, with a 12% reduction vs 2020. The number of traffic accidents and incidents across the overall railway infrastructure and those caused by the Russian Railways Group shrank by 8% and 11% y-o-y, respectively.

Traffic safety target, accidents per million train kilometres



Safety violations across Russian Railways infrastructure¹



The risk level with respect to traffic safety across Russian Railways' infrastructure is by 27% below the acceptable level. Among major external events that influence this risk is the environmental and climatic factor (87% of all losses caused by external events) based mainly on hydrometeorological hazards. At the same time, our efforts reduced the above hazards by 72% y-o-y.

In 2021, Russian Railways fully implemented the programmes to ensure traffic safety and bring its infrastructure in line with operations and maintenance requirements. The programme costs amounted to RUB 223.2 bn.

The Company annually certifies the traffic safety management system in order to engage employees and ensure continuous improvements in traffic safety and railway transport operation. In 2021, the safety culture's maturity gained 3.89 points, which means that safety procedures are consistent, documented and follow the existing practice; however, diversions from the procedures can be observed.

For the fourth year in a row, the Company's safety level is benchmarked against European and North American railways based on international indicators. At Russian Railways, Global Safety Index (GSI) measured as an integral traffic safety indicator amounts

to 5.15, which puts us among top global railway companies when looking at safety of our services. The index includes 1,800 incidents at Russian Railways infrastructure, of which 97% were caused by external factors: incidents involving individuals in the train traffic area and incidents at level crossings.

When benchmarked against the Russian passenger transportation industry (based on insurance companies' data), the number of injured Russian Railways' customers is at 2.9 per 10 m passengers. It is only the urban electric transport that has a lower per unit indicator. The findings confirm Russian Railways' leadership among foreign railway companies and in the Russian transport industry when it comes to service safety.

In line with our innovative project aimed at boosting traffic safety, the following initiatives were implemented:

- 28 units to control passing trains and 82 safety units to prevent runaways were purchased, four level crossings were equipped with barriers, 17 locomotives were retrofitted with dedicated safety devices;
- equipment for transport accident recovery work was upgraded, including two breakdown cranes with a lifting capacity of 150 t, 30 special freight cars to transport traction equipment, and eight sets of hydraulic equipment.

¹ The benchmarking draws on comparable data and excludes violations by RRC-2 (no longer part of the Russian Railways Group).

Non-occupational injuries

Causes of non-occupational injuries in 2021

1,654 ^(84.3)

PERSONS
unauthorised walking along railway tracks with a train approaching

203 ^(10.3%) **PERSONS**
footway injuries

77 ^(3.9%) **PERSONS**
unauthorised attempts to climb (jump off) a platform

5 ^(0.3%) **PERSON**
being caught by automatic doors

9 ^(0.5%) **PERSONS**
being on / falling off the train car roof

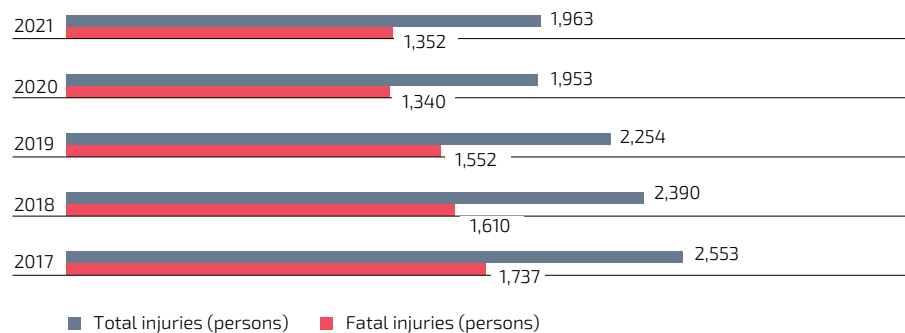
15 ^(0.7%) **PERSONS**
falling through the gap between the platform and the train, getting injured by the moving train while on the platform

GRI 416-1, 416-2

Every year, the Company implements measures to prevent non-occupational injuries for both its employees and the public. Accident prevention efforts are structured along the following lines:

- Organisational action: raids (together with local police and railway guard teams) on places of unauthorized congregation; in collaboration with municipal authorities – themed events that mainly seek to prevent child injuries and include lectures and talks, as well as sending letters to educational institutions, businesses, executive bodies, and the State Traffic Safety Inspectorate (GIBDD);
 - Awareness solutions: informing the public about the dangers inherent in train traffic through things like posters, signs, videos, booklets, messages at railway stations, in trains, and in the media.
 - Technical solutions: construction, fit-out and maintenance of pedestrian crossings, pedestrian bridges and tunnels, putting up guardrails around train traffic and so on;
 - Legal solutions: legislative proposals, participation in the development of new regulations.
- Over the past five years, there has been a decrease in the number of injuries, with the total metric going down by 23.1%, and fatal injuries – by 22.2%.

Non-occupational injuries | persons



Prevention of Injuries among the Public at Railway Infrastructure Facilities: a Russian Railways investment project

Since 2009, the Company has been implementing an investment project to prevent injuries among the public at railway infrastructure facilities. The project provides for the construction of railway track-level pedestrian crossings equipped with light and sound alarms, as well as the installation of fences along railway lines. These measures are

necessary to reduce the risk of injury at railway crossings and prevent civilians from accessing infrastructure facilities.

Over the 13 years the project was in effect (2009 to 2021), injuries among the public decreased by 55.9%, or 2.3x.

In 2021, it saw the commissioning of 51 pedestrian railway crossings and 21 km of fencing.

Russian Railways' 2021 investments in public injury prevention across its infrastructure amounted to RUB 913.7 m (2020 – RUB 524.1 m).

Technical measures in 2021:

- 1,674 pedestrian crossings, 119 footbridges, 10 pedestrian tunnels, 88 passenger platforms overhauled (repaired); 2,037 linear metres of railway fences built;
- 42 train approach announcers installed, 651 systems of sound and light auto alarms at pedestrian crossings brought in line with the specifications;
- lighting at 605 pedestrian crossings brought in line with the specifications, lighting on 1,785 platforms improved;
- 622 pedestrian crossings brought in line with the specifications, 27,970 posters reattached, 28,710 safety signs reinstalled.



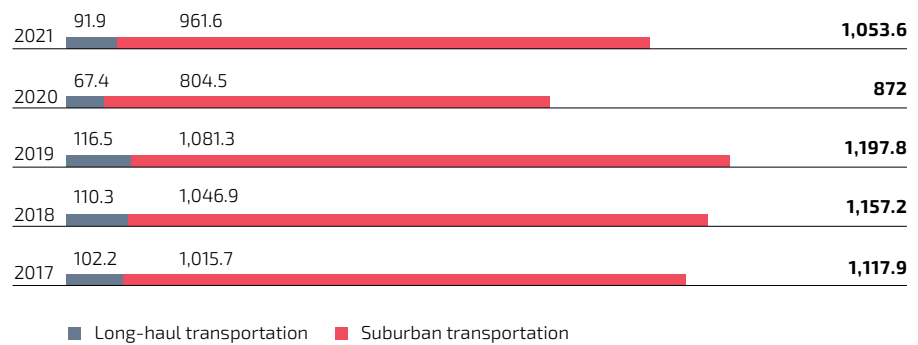
Customer relations

Passengers

The primary objective of Russian Railways is to provide all Russian regions with affordable passenger transportation. Along with suburban transportation comprising multimodal routes, the Company is developing long-haul passenger services, including high-speed and ultra high-speed transportation between metropolitan areas. The Company's priorities include continuous improvement of customer experience, development of new products and services, digitalisation, and creation of a comfortable transport environment affordable to all categories of passengers.

- We actively develop and offer tourists various options for travelling the country. In 2021, passengers could choose from 22 itineraries.
- We continued our intensive efforts to safeguard passengers' health and curb the spread of COVID-19 at all passenger facilities and trains.
- We launched new comfortable Lastochka routes, including cross-border ones.
- The Company expanded the geography of double-decker trains.
- We launched 14 new suburban routes.
- We commissioned the new Vostochny railway station (Cherkizovo terminal).
- Russian Railways consistently follows its policy for restoring and preserving the architectural and historical appearance of railway stations.

Passengers transported by Russian Railways | m people



In 2021, adherence to departure schedules for passenger and suburban trains stood at 99.37% and 99.15%, respectively.

COVID-19 response

The Company took steps to shield passengers from epidemiological risks, raise their awareness, and enhance standards of comfort.

- We installed temperature screening points at the station entrances, developed schemes for dividing passenger flows within the premises of railway stations, and arranged "green corridors" to facilitate access for groups of children.
- We allocated dedicated premises for the temporary placement of passengers with symptoms of contagious diseases.

- We refunded unused tickets (including non-refundable ones) to all passengers who cancelled their trips during the lockdown, while also reducing the cancellation fees by 100 times.
- We introduced quick customer response tools and expanded the range of remote travel management opportunities.

Through federal and regional mass media, the Company launched regular awareness-raising campaigns to inform general public about its compliance with applicable improvement orders and requirements, and to share the details of its pandemic response.

Development of railway station infrastructure

In 2021, the Company renovated and repaired 114 railway station infrastructure facilities (54 railroad stations and 60 passenger platforms with a total floor area of 126,000 sq m).

Russian Railways completed the renovation of the Kiyevsky railway station, reconstructed the Petrozavodsk and Kirov stations, modernised the Yekaterinburg, Moskovsky (St Petersburg) and Nizhny Novgorod stations, repaired the buildings of the Tulun, Irkutsk Passazhirsky, Cheremkhovo, Shimanovsk, and Murmansk stations, beautified the Samara station's premises and repaired the station's facilities, and renovated waiting areas at 23 railway stations.

The Company also completed a large-scale revamp of the Arzamas-2 railway station building. For passengers with reduced mobility, the station now has an induction system for the hearing-impaired and a special ticket window.

Finally, Russian Railways completed the reconstruction of the Petrozavodsk railway station, an officially recognised cultural heritage site.

Customer service

The Company aims to offer its customers a new level of service quality in a timely manner. Russian Railways Customer Support Centre provides information on the Company's passenger services.

We are constantly upgrading our sales systems. In 2021, the share of e-tickets sold through digital channels came in at 69%, up 6.2% y-o-y.

In 2021, the Company placed great emphasis on the development of new services for passengers, including digital ones.

- Food Delivery to the Train Car is now available at 52 railway stations. Passengers can place an order when they purchase their ticket on the Russian Railways website or through the RZD Passengers mobile app (available for iOS and Android). Another option is to add an order to the ticket purchased earlier by going to your Personal Account or the Add Services to the Ticket section. Passengers can use this option even after boarding the train (by scanning the QR code displayed on information stickers in long-haul trains).
- Sapsan trains implemented a facial recognition payment technology at their quick service restaurants; Student, a new conceptual tariff, was introduced to allow university students to buy unsold train seats at a discount; recently developed interactive educational courses for passengers (PROgress towards Success) were added to Sapsan's infotainment system.
- Sapsan trains introduced Business Travel Passes, a new marketing offering for legal entities enabling them to buy travel documents through non-cash payments where the required amounts are debited from the unified personal account. On top of that, Sapsan trains expanded their passenger insurance coverage to include such risks as train delays, loss of personal belongings, third-party liability, missing connections to other transport services, etc.

Given the growing demand for domestic tourism in 2021, Russian Railways started promoting new tourist routes combining a rail ride and an excursion, as well as rail tours by hotel trains. At the same time, the Company preserved its traditional retro tours on steam

locomotives. 2021 saw the launch of a new tourist route – Pskov–Veliky Novgorod–Rybinsk–Yaroslavl.

RZD Bonus loyalty programme

RZD Bonus is Russian Railways' loyalty programme that enables long-haul passengers to earn points by making trips and exchange them for tickets. Currently, RZD Bonus counts more than 7 m members.

In 2021, the Company:

- attracted over 1 m loyalty programme participants;
- carried out more than 30 marketing activities;
- implemented 13 promotions for RZD Bonus participants;
- grew the audience of its Discount Railcar telegram channel to 150,000 people (more than 37 times).

 See RZD Bonus website at <https://rzd-bonus.ru/>

Russian Railways' mobile app for passengers

In addition to the [website](#) and free 24/7 telephone counselling service (+7 800 250 1520), Russian Railways' customers can use the RZD Passengers mobile app to buy or return their tickets.

The RZD Passengers mobile app has all a traveller would need and more:

- long-haul and suburban train schedules;
- tickets sold for long-haul and suburban trains;
- refund for tickets purchased via the website or mobile app;
- help information about railway stations;
- train running status information;
- Russian Railways' help information and news.

Care for people with reduced mobility

Russian Railways attaches particular importance to the accessibility of railway services for disabled people and other groups of passengers with reduced mobility.

2021 results

111 railway stations (9%) and 297 transport stops (3%) were outfitted for accessibility. Other facilities were partially accessible, with functional areas made available for certain categories of passengers with reduced mobility.

Long-haul trains included administrative locomotive traction cars specifically designed for passengers with disabilities, with 91% of administrative cars accessible to

such people. The share of suburban electric trains adapted for people with reduced mobility was increased to 22%. 100% of high-speed and ultra high-speed passenger trains were fully accessible.

The Company also expanded the coverage of its Mobility Assistance Centre from 1,500 to 10,000 railway stations and transport stops.

The number of passengers with reduced mobility serviced by the Company exceeded 227,000 people. Russian Railways' website has a dedicated section for passengers with disabilities or reduced mobility where they can find a railway station accessibility map containing information on the accessibility of functional areas for the main categories of passengers with reduced mobility featuring photos and the necessary explanations.

Video information terminals were installed at 194 railway stations, enabling the servicing of hearing-impaired passengers, including in the Russian sign language. Geo-information service software is currently being configured at 40 railway stations to help passengers with reduced mobility find accessible and barrier-free routes.

Accessibility improvement plans

In 2016, the Company started assessing the accessibility of transport infrastructure facilities, rail vehicles and transportation services for people with disabilities. Based on the assessments, Russian Railways determines the current accessibility level and works out ways to improve it. The Company developed a roadmap focusing on the steps that need to be taken to enhance the accessibility of its facilities, rolling stock and services for disabled passengers.

Key deliverables under the Roadmap

	2022	2030	2035
Share of railway stations accessible for disabled people	10%	40%	77%
Share of railcars accessible for disabled people in long-haul trains	94%	100%	
Share of railcars accessible for disabled people in suburban trains	23%	60%	90%
Share of high-speed and ultra high-speed passenger trains accessible for disabled people	100%	100%	100%

Monitoring of service quality

Since 2017, the Company has been surveying the satisfaction of railway passengers with the quality of provided services¹.

Passenger surveys are conducted in the form of personal interviews. The questions are grouped to match the eight types of services provided by Russian Railways to its passengers. The surveys are conducted on a quarterly basis, i.e. four times a year.

As per the recent surveys, the most important criteria for passengers assessing the quality of services include the following::

- long-haul routes – cost of services, comfort during travel, and technical condition of the train;
- suburban routes – train speed, cost of services, and safety.

Consolidated customer satisfaction index in 2021 | points

	Q1 2021	Q2 2021	Q3 2021	Q4 2021
Long-haul	84.1	82.0	82.6	84.4
Suburban	81.3	81.9	81.7	82.8

¹ Pursuant to the Integrated Methodology for Evaluating Passenger Satisfaction in Rail Transportation.

Freight customers

Russian Railways operates railway infrastructure, owns rolling stock (through subsidiaries and affiliates) and provides both basic transportation and 3PL/4PL services. The Company is applying advanced logistics technologies, implementing an automated customer relationship management system and a uniform freight transportation service catalogue, and expanding its geography, while also continuing to develop and introduce new services for shippers.

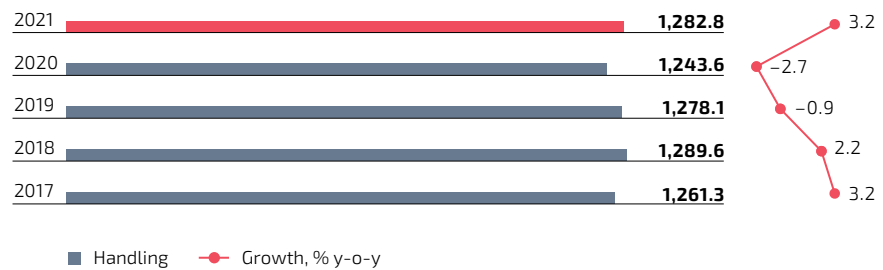
- Transit transportation (including empty railcars) demonstrated a significant increase (up 40.6%).
- The total container-based transit (including shipments under the new logistics schemes) added 34.3%.
- Russian Railways hit an all-time high with some 6.5 m TEU containers transported in 2021, up 12.1% y-o-y.
- Container services were launched along the Baku–Tbilisi–Kars transport corridor to deliver cargo from Turkey to Russia.
- The first container train with 41 ft containers was dispatched from Finland to Japan along the Trans-Siberian Railway.
- The Company also launched the first container train travelling along the International North-South Transport Corridor.

COVID-19 response

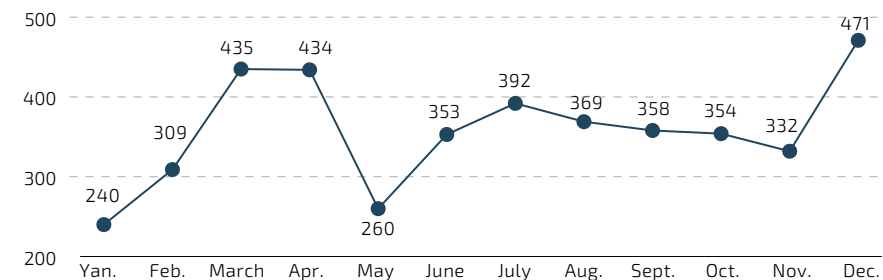
We supported shippers by introducing the following:

- electronic workflow;
- free container storage services for up to 30 days at 6 container terminals for the accumulation of container trains;
- 5% discount for cargo handling and storage services ordered via the Freight Transportation electronic trading platform;

Handling volumes evolution | mt



Customer acquisition in 2021



- Hot Summer loyalty programme covering a broad range of cargoes handled as part of domestic, export, and transit shipments;
- preferential 90% discount to customers for the storage of crushed aggregate at 71 freight yards.

The cargo delivery solution is based on the integration of RZD Market with the Freight Transportation electronic trading platform.

RZD Market unlocks new opportunities for Russian Railways, as the Company can now tap into new sales markets, increase its rail freight volumes, and diversify income-generating sources.

Improvements in the quality of shipping services

RZD Market

In 2021, Russian Railways launched one of its promising digital projects – a marketplace called “RZD Market”.

RZD Market brings together customers and sellers from a wide variety of markets enabling them to find, sell, and buy products with an option of last-mile delivery. The key objective of the marketplace is to provide a shopping platform offering railway delivery

Freight Transportation electronic trading platform

The Freight Transportation electronic trading platform integrates transportation, rolling stock supply, terminal, warehousing and logistics services of Russian Railways’ subsidiaries into a single marketplace. The platform enables non-discriminatory access for shippers to handling facilities and transit and other transportation services, and offers end-to-end logistics solutions, including multimodal transportation

and warehousing and cloud services. It currently connects over 125 service providers (up 20% y-o-y).

In 2021, we introduced a new feature for suppliers that permitted bidding to supply rolling stock for export routes. Having joined forces with FFC, we introduced a service to provide its rolling stock to SMEs. The first digital rail cargo delivery from Russia to Belarus took place.

Digital service for monitoring smart contracts

The digital service for monitoring smart contracts in the freight transportation sector is designed as an electronic support platform for shipment contracts.

The "to-be" state envisages a shared digital space offering a wide range of capabilities for all transportation stakeholders, including service orders, monitoring of performance under contractual obligations, and fully automated financial calculations (without any human involvement).

In 2021, the service for monitoring smart contracts was implemented at eight railways, with 12 customers (including EVRAZ, FESCO, LUKOIL and Gazprom Neft Logistics) choosing to join it.

Cargo safety and integrity

In order to ensure the safety and integrity of cargoes transported by Russian Railways across Russia, the Company uses two types of electronic devices for sealing railcars and containers:

- electronic locking and sealing device (ELSD);
- electronic navigation seals (ENS).

For transportation within Russia, we apply Big Lock ELSD (in use since 2016).

For the purposes of transporting "sanctioned" goods that are in transit through Russia to third countries, we use ENS¹.

Russian Railways has established close working contacts with the ELSD manufacturer / ENS operator and the Departmental Security Service of the Railroad Transport / Russian customs and regulatory authorities to facilitate the application of ELSD/ENS (during sealing/unsealing and as part of their operation controls along the entire route in the Russian territory).

Developing the Eurasian Agroexpress project

The Eurasian Agroexpress project seeks to boost the shipments and exports of agricultural products between the EAEU member states, on the one hand, and China, Uzbekistan, and other Asian countries and regions, on the other hand, including through the integrated

use of transport infrastructure in the EAEU countries and the neighbouring nations and investments in the EAEU transportation and logistics projects.

The project leverages cutting-edge logistics, digital and tracking technologies.

The advantages for shippers include shorter delivery times, assistance for manufacturers in accessing the export markets, and a wide range of digital services offered by the project's unified platform.

Improvements in the quality of service for shippers

To improve the quality of transportation services, Russian Railways opened a total of 68 sales offices across its network in Russia. As a way to maximise efficiency, sales offices open in locations with the greatest concentration of cargo traffic in each particular region. In 2021, Russian Railways acquired 3,684 new customers who signed contracts for opening unified personal accounts (up 14% y-o-y), and continued to gradually digitalise its comprehensive railway transportation service. To facilitate customer feedback, Russian Railways built a multi-step system for assessing the quality of services provided by rail freight transport, which includes in-house surveys and independent research by VCIOM and RZD-Partner.

In 2021, VCIOM released the following findings based on the Comprehensive Assessment of Services Provided by Rail Freight Transport:

Comprehensive assessment of services provided by rail freight transport (VCIOM)

Respondent categories	Overall satisfaction index among customers using Russian Railways' rail freight services	
	February–April 2021	October–November 2021
Freight owners	61.8	60.9
Transportation and logistics companies	60.1	61.7

In 2021, the RZD-Partner magazine released the following findings based on its independent Quality Index survey:

Customer satisfaction survey focusing on consumer assessments of service quality in the rail freight market (RZD-Partner)

	Q1 2021	Q2 2021	Q3 2021	Q4 2021
Quality index	66	64	59	58

In 2021, Russian Railways released the following findings based on its Assessment of Service Quality in the Rail Freight Market:

Assessment of service quality in the rail freight market (Russian Railways' research)

	Q1 2021	Q2 2021	Q3 2021	Q4 2021
Overall satisfaction score among Russian Railways' customers	3.3	3.3	3.3	3.4

In 2021, the Company started working to introduce RZD Bonus – Freight Transportation, its own loyalty programme for the segment. Integrated services will enjoy the greatest demand among SME customers. The launch of the programme is scheduled for 2022.

Contribution to the Consumer Council

The Consumer Council on Operations of Russian Railways and its Subsidiaries and Affiliates² is a working body of the Governmental Commission on Transport in charge of public scrutiny. Russian Railways and the Consumer Council mainly interact through the Company's representatives that

attend meetings of the Council and its committees to consider Russian Railways' key activities.

In 2021, the Consumer Council focused on:

- regulatory framework improvements affecting railway operations and development;
- consideration of the draft Transport Strategy of the Russian Federation until 2030 with an outlook for 2035;
- tariff regulation for railway services;
- assessment of customer satisfaction with the quality of provided services;
- Russian Railways' major investment projects;
- transport safety enhancement.

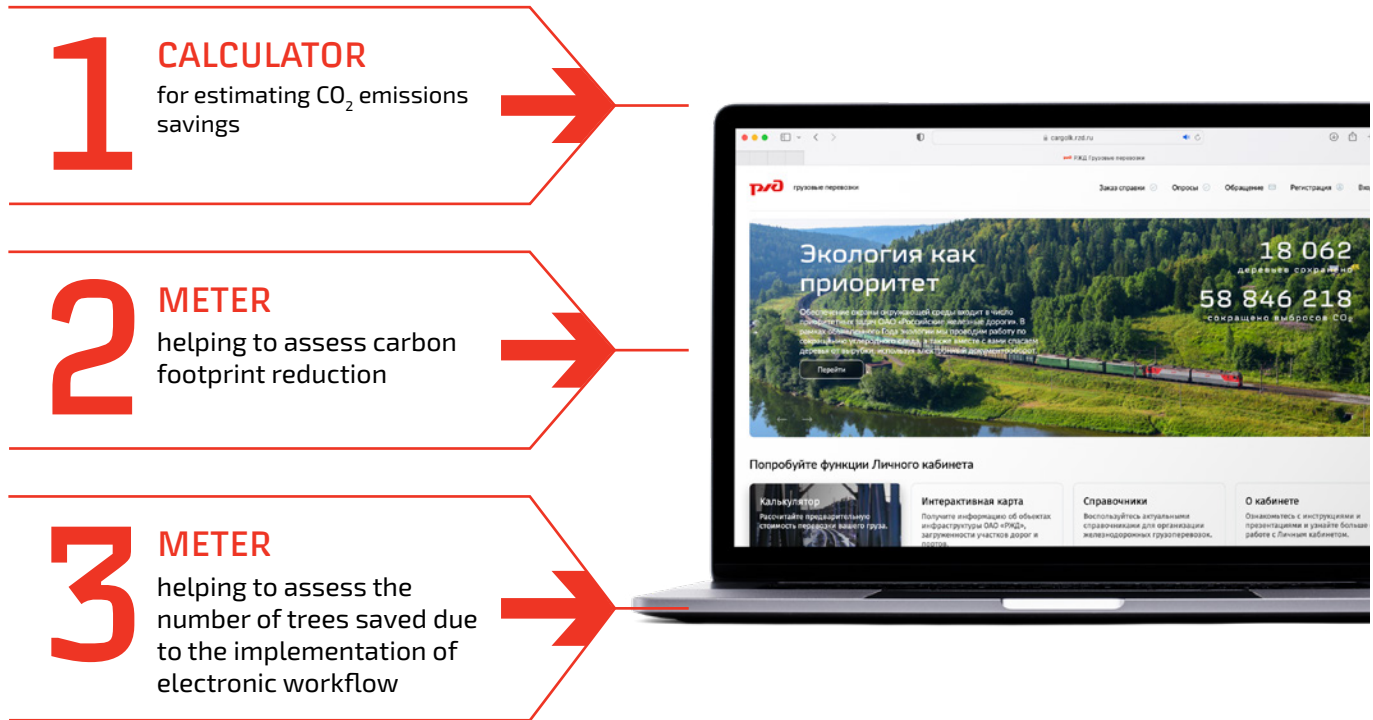
Environmental Calculator

As Russian Railways attaches great importance to environmental issues, the Company gave shippers an opportunity to calculate their environmental impact.

¹ Pursuant to Resolution No. 1877 of the Russian Government dated 27 December 2019. The application of ENS is regulated by Russian Railways' Order No. 2800/r dated 18 December 2020.

² Established in accordance with the Russian Government's Order No. 1689-r dated 19 September 2013 with a view to exercising public scrutiny over Russian Railways' operations and striking the right balance between the interests of consumers and Russian Railways.

Environmental Calculator



In 2021, Russian Railways offered its customers the Environmental Calculator in their personal accounts. This tool helps to determine the extent to which GHG emissions are

reduced as a result of choosing rail transport for any given shipment. The Company also launched a meter telling customers how many trees they saved by switching to electronic

workflow. In 2021, more than 90% of shippers chose to use electronic workflow, which reduced paper consumption and saved over 2,000 trees per month.

Local communities and charity

GRI 413-1

Russian Railways operates in 77 Russian regions across all federal districts. In many regions the Company is a major employer and taxpayer.

Management responsibilities related to the contacts with local communities are allocated among several business units of Russian Railways' Executive Office, including:

- Department for Federal and Regional Government Relations (in matters related to the operation and development of rail transport);
- Corporate Communications Department for Charitable and Social Activities;
- HR Department (focusing on the comprehensive youth policy, specifically contacts with educational institutions, including universities, schools and pre-school facilities);
- Social Development Department (in matters related to the implementation of corporate social projects, contacts with culture and sports institutions, and organisation of awareness-raising, sporting and other events).

Corporate documents:

- Charity and Sponsorship Policy.
- Russian Railways' Code of Business Ethics.
- Russian Railways' Youth Target Programme for 2021–2025;
- Framework agreements with regions of operation.
- Mid-term agreements on social and economic cooperation.

Cooperation with local communities

The details of cooperation with local communities are set out in partnership and collaboration agreements signed with Russian regions to support rail transport, social and economic development. There are two types of such agreements: framework (perpetual contracts formalising the key aspects of cooperation) and mid-term agreements (focusing on the key areas of cooperation with amendments made when and if needed).

So far, Russian Railways and Russian regions have entered into 78 framework agreements. In 2021, the Company signed 21 mid-term agreements (with the Leningrad, Pskov, Murmansk, Tula, Orel, Kursk, Nizhny Novgorod, Vladimir, Rostov, Kirov, Ivanovo, Belgorod, Astrakhan, Volgograd, Saratov, Orenburg, Kurgan, and Amur regions, the Jewish Autonomous Region, the Republics of Karelia, Mari El, Khakassia, Sakha (Yakutia), the Udmurtian and Kabardino-Balkarian republics, and the Altai Territory).

In the regions of its operations, Russian Railways is actively involved in socially focused charity in line with the objectives and principles set out in its Charity and Sponsorship Policy. The Company builds relations with local communities based on the respect for their rights and freedoms and does not tolerate any forms of discrimination or infringement.

Contribution to local communities

GRI 203-1

Russian Railways is the largest taxpayer to local budgets and Russia's biggest employer. The Company is a major consumer of goods produced by Russian businesses, with its orders providing employment to an average of 0.1–1.5% of labour force in the Russian regions hosting transport engineering hubs.

Russian Railways is responsible for long-haul and suburban passenger traffic in 72 Russian regions and freight traffic in 77 of the country's regions (including such critical transportation operations as the Northern Supply Haul and shipment of commodities from the regions producing raw materials). The Company also maintains local social infrastructure, effectively acting in the capacity of a government agency. In some regions, for example, Archangelsk, Amur and Tomsk, there are destinations where railway remains the only available type of transportation.

The Company and its subsidiaries are the main providers of suburban passenger transportation in Russia. They are integrating suburban transport into urban transport systems and actively developing multi-modal routes and transport interchange hubs to enhance the mobility of urban population.

Russian Railways' investment programme for 2021–2023 is focused on developing and upgrading the railway infrastructure and promoting high-speed and ultra high-speed railway transportation.

Major investment projects include¹:

- development of railway infrastructure in the Eastern Operating Domain (investments of RUB 78 bn in 2021);
- development of railway infrastructure in the Central Transport Hub (investments of RUB 97 bn in 2021).

For more details on the Company's investment projects, see the Investment Activities section of [Russian Railways' 2021 Annual Report](#)

Improving the quality of life in local communities

Jointly with regional governments, Russian Railways is pressing ahead with a development plan for settlements, under which it pays close attention to places with the greatest concentration of the Company's employees. The plan is designed to improve the quality of life in local communities. It is of particularly relevance for inhabited areas situated far away from administrative capitals.

The plan sets out 411 initiatives to be implemented in 2021–2035 in 68 localities from 33 Russian regions. These initiatives focus on improvements in culture, sports, healthcare, education, and social environment.

261 initiatives are expected to be financed by the governments of Russian regions, while the remaining 147 will receive funding from the Company.

In 2021, Russian Railways provided financing for 49 projects, including:

- acquisition of new audio and lighting equipment for the community centre at the Abakan railway station's MPS settlement;
- creation and fit-out of sports clubs at Petrov Val, Kinel, Berezniki, Salym, Yuktali, Litovko, Etyrken and other railway stations.
- refurbishment of healthcare facilities in Murmansk, Barnaul and the Krymskaya railway station, procurement of medical equipment for them;
- acquisition of remote control modules for pre-travel medical screening offices at the Yuktali, Verkhnezeysk, Khani, Tyрма and Dipkun railway stations;
- refurbishment of kindergartens and schools at the Novy Uoyan, Amazar, Yuktali, Verkhnezeysk and Dipkun railway stations; procurement of equipment for refurbished kindergartens and schools.

¹ Actual spending based on accounting statements.

Development of the Eastern Operating Domain

Russian Railways is implementing four target programmes designed to upgrade social infrastructure and improve the living standards of the Company's employees:

- Far Eastern Railway as an Accelerated Development Domain (programme until 2025);
- Plan to Attract and Retain Personnel at Russian Railways' Facilities along the Baikal–Amur Mainline (section between Lena and Komsomolsk-on-Amur railway stations) until 2025;

- Long-Term Plan to Increase the Efficiency of Production Verticals along the Trans-Baikal Railway;
- Programme to Develop Localities with a Heavy Concentration of Russian Railways' Employees.

In 2021, Russian Railways allocated

RUB 900.2 M

for these purposes under its investment programme

Far Eastern Railway as an Accelerated Development Domain

In 2021, the Company continued implementing the Far Eastern Railway as an Accelerated Development Domain programme, which is expected to run until 2025 as part of a more ambitious project to develop the Far East's railway network. Over 260 initiatives are scheduled under the programme, with funding exceeding RUB 410 bn. The programme envisages a wide range of necessary changes – from infrastructure and production-related modifications to social, cultural and management transformation.






Progress on the programme is assessed against ESG metrics under a dedicated performance monitoring system.



Charity

In order to foster and maintain a favourable social environment in the regions of its operation, Russian Railways actively engages in charitable and socially focused activities in line with the principles set out in the Charity and Sponsorship Policy and recommendations received from the Company's Board of Directors. The Company seeks to integrate its charitable and social initiatives into a comprehensive social responsibility policy instead of focusing on one-off donations.

Charity expenses | RUB bn

2021		6.3
2020		6.0
2019		4.6
2018		3.1
2017		2.9

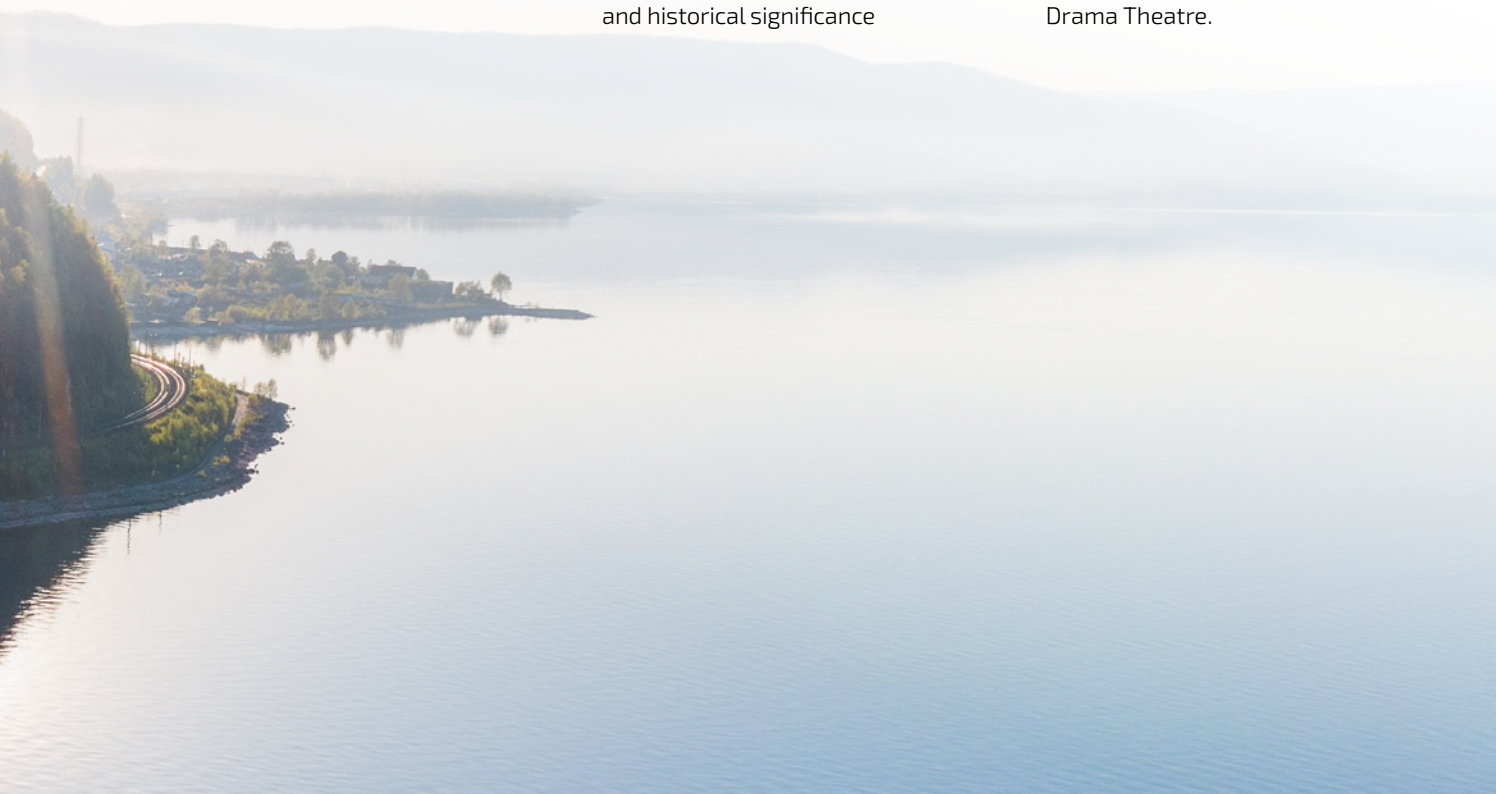
In 2021, our charity initiatives focused on:

- implementing social projects and initiatives in communities across the Siberian and Far Eastern Federal Districts with consideration for these region's complex climate conditions and the situation in the social sector;
- financing expensive surgical treatment, medication, and rehabilitation of Russian Railways' employees, including those retired, providing social support for victims of natural disasters or other calamities, promoting family values;
- promoting education, facilitating vocational education and improving education quality through financial help to industry-specific universities and vocational schools, providing equipment and samples for laboratory classes;
- donating to disabled persons, including support of the Children's Hospice autonomous non-profit organisation, So-Edinenie Support Fund for the Deaf-Blind, and Obereg autonomous non-profit organisation;
- supporting charitable projects for restoration and conservation of Russian historical and architectural landmarks, including churches and monasteries of cultural and historical significance

(St Seraphim of Sarov Charitable Foundation, Voskresensky Novodevichy Convent in St Petersburg, Orthodox Parish of the Elevation of the Holy Cross Church in Tiraspol, the Peresvet Foundation for the Support of Orthodox Church Construction in Bogotol, and the foundation that helps the construction of and supports the Church of the Intercession of the Theotokos in Chusovoy;

- supporting environment-related causes;
- promoting healthy lifestyle, children's and mass sports, including by providing support for the Locomotive ice hockey team based in Yaroslavl, Locomotive-Kuban professional basketball team, Locomotive-Novosibirsk volleyball team, Lokomotiv Russian Fitness and Sports Society, Kuban-Region Sports Club, Krasnodar Territory's Basketball Federation, Krasnodar Territory's Centre for Young Basketball Players, Locomotive-Kaliningrad Region volleyball team.

Russian Railways continued to follow a good tradition of providing support for the work of Valery Gergiev, Yuri Bashmet, and for Tovstonogov Bolshoi Drama Theatre.



Children and youth policy

Russian Railways' educational system encompasses the entire range of educational institutions – from pre-school to higher education facilities. The Company is a founder of 97 private educational establishments (21 general education and boarding schools and 76 kindergartens) attended by more than 23,000 children.

Russian Railways for schoolchildren

Russian Railways operates 25 children's railways that are used as unique professional guidance hubs for recruiting young talents into the Company. Schoolchildren can also visit six RZD Kvantorium children's science parks designed as hi-tech platforms for training young highly skilled engineers, and developing, testing and implementing cutting-edge technologies and ideas.

In 2021, 844 attendees of children's railway classes (75% of total graduates) were admitted to dedicated educational institutions.

To help children get a better understanding of Russian Railways, the Company launched RZDclass, an educational project offering a wide range of opportunities, including more than 20 learning and professional guidance activities. By the end of 2021, RZDclasses were available in 88 educational institutions from 39 Russian regions.

In the modern educational system, aspiring engineers need to be professionals with highly developed research, design, and entrepreneurial skills. That is why all of the Company's projects and programmes for young talents nurture innovative and creative approaches in children, while also teaching them how to conduct research and complete design assignments.

Partnership with universities

Russian Railways actively cooperates with nine dedicated universities scattered across Russia. Under the Programme of Russian Railways' Interaction with Railway Universities until 2025 the Company works to upgrade the universities' infrastructure and R&D capabilities, streamline learning processes and improve the skills of university management and professors.

2021 highlights:

- Eight dedicated universities (including their branches) opened 27 simulation training facilities to prepare locomotive professionals.
- 138 colleges and technical schools completed assessment focusing on the opportunities for future improvements.
- Dedicated universities upgraded 259 training programmes for secondary vocational, higher and continuing professional education providers.

- Russian Railways awarded four grants to support industry-specific education, and five grants to develop academic research schools specialising in rail transportation.
- Russian Railways awarded 200 grants to the students of dedicated universities for their graduation theses.
- All dedicated universities held the Around Russian Railways in 9 Universities round tables, bringing together over 1,300 students.
- More than 5,000 students from dedicated universities participated the nationwide Your Turn competition.
- An integrated programme was drafted to promote Russian dedicated universities abroad.

In 2021, Russian Railways continued cooperation with dedicated educational institutions to train specialists with higher and secondary vocational education. At the end of 2021, more than 29,000 students were taking courses at railway universities sponsored by Russian Railways, whereas the number of sponsored students studying in non-industry specific universities reached 966, including 809 medical students.

Environmental initiatives in the regions of operation

Russian Railways pays close attention to the environmental awareness of its employees, young talents enrolled in children's railways, and students studying at the Company's educational institutions. We place an equally heavy emphasis on raising general public awareness through the infrastructure facilities of our subsidiaries and affiliates.

Green Trains

Each of the Company's 16 railways has Green Trains. Those are comfortable electric trains offering passengers visual environmental information, including posters on waste sorting and resource efficiency, images of fairy tale characters from the Eco-Pupils, Friends and Defenders of Nature series, as well as audio and video announcements. The Company's rail network currently operates 42 eco-friendly electric trains.

Environmental Action Teams

General education facilities and children's railways have set up 130 environmental action teams designed to promote healthy lifestyles, protect

the environment, provide assistance to veterans and orphanages, and stage charitable, clean-up and festive events. Children do not only learn the theoretical fundamentals of the environmental science, but also gain hands-on experience by participating in environmental protection initiatives and publishing the Eco newspaper.

Some of the 2021 highlights included:

- nationwide contest The Health of Our Planet Is in My Hands; Eco-Pupils, Young Defenders of Nature, a nationwide environmental competition for schoolchildren; nationwide festival BrighterTogether;
- Annual International Environmental School at Lake Baikal and MOST, an International School for Intercultural Dialogue;
- Nationwide Conference on Environmental Education (organised by Vladimir Vernadsky Foundation).

The Company runs the following social and educational projects focusing on environmental protection: Eco-Pupils – Pre-Schoolers, Eco-Pupils, and Eco-Pupils, Young Defenders of Nature. As part of these projects, Russian Railways holds the annual Day of Eco-Pupils and Eco-Pupil contests.

Green Friday

Green Friday is a monthly event designed to reduce the environmental impact. The Company's business units have been organising Green Fridays since July 2013 as a way to increase environmental responsibility, foster environmental culture in employees, save fuel and energy resources, reduce pollutant emissions, cut water consumption, and minimise waste sent to landfills.



MANAGERIAL ASPECT

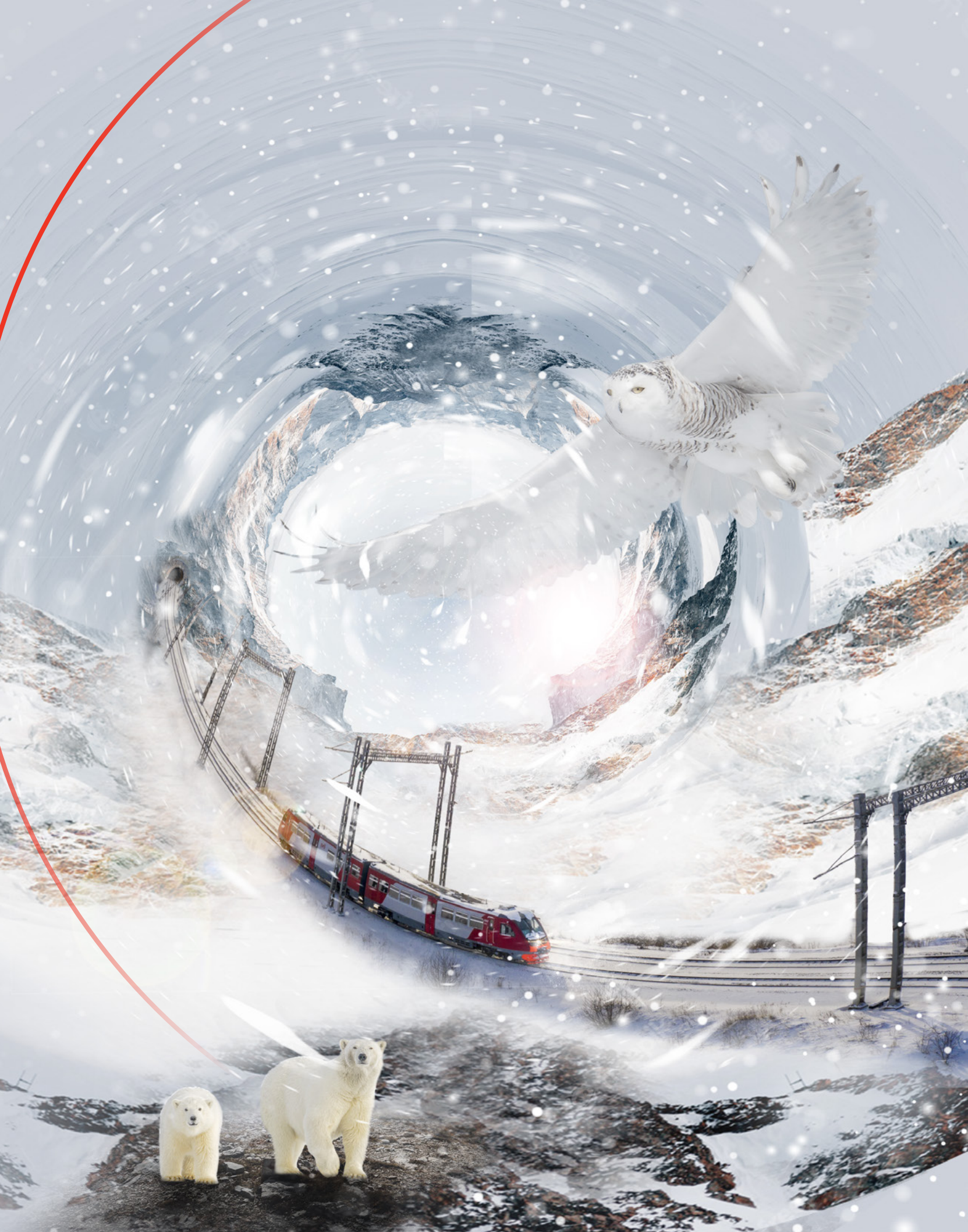
The Company focuses on implementing best corporate governance practices and boosting decision-making efficiency.

Managing risks effectively
for more details see p. 117-119

Contributing to the national budget
for more details see p. 128-129

Managing contractor relationships responsibly
for more details see p. 128-133

Taking anti-corruption measures
for more details see p. 120-126



Corporate governance

The Company's approaches to effective corporate governance are based on applicable standards and the nature of its operations and governance as a 100% state-owned single economic entity¹. Instructions of the Russian Government, which places a special

focus on improving the quality of corporate governance in state-owned companies, are of critical importance for shaping the corporate governance practice in the Company. In implementing its corporate governance framework and tools, Russian Railways

also complies with documents issued by the Bank of Russia as the regulator and the Federal Agency for State Property Management as the corporate governance methodologist for state-owned companies.

Governance structure of Russian Railways GRI 102-18

General Meeting of Shareholders

The supreme governance body of Russian Railways. The Russian Federation, represented by the Russian Government, is the sole shareholder of Russian Railways



Audit Commission

Board of Directors

Elected by Russian Railways' shareholder. Pursues a policy that supports the Company's dynamic growth, improves sustainability and increases profits



Committees of the Board of Directors

Corporate Secretary

CEO, Chairman of the Management Board

Appointed by the Government of the Russian Federation



Advisory bodies under the Chief Executive Officer – Chairman of the Management Board

Management Board

Russian Railways' collective executive body. Members are appointed by the Board of Directors, with the exception of Chairman of the Management Board – Chief Executive Officer



Advisory bodies run by members of the Management Board

Executive Office

Departments, divisions and other units of the executive office responsible for operational management



Advisory bodies run by heads of departments and other executives

¹ As defined by Federal Law No. 29-FZ On the Specifics of Administration and Disposal of Railway Transport Property dated 27 February 2003.

General Meeting of Shareholders

The supreme governance body of Russian Railways is its General Meeting of Shareholders. As all of the Company's voting shares belong

to the sole shareholder, the Russian Government, all resolutions on matters reserved to the General Meeting of Shareholders are adopted in writing by

the Russian Government and take the form of the sole shareholder's orders and resolutions.

Board of Directors

The Board's key objective is to ensure the Company's general management and determine its business priorities and development strategy. The Board approves the Company's long-term development plans, core programmes, function strategies, budget and investment programme, while also defining general principles of and approaches to risk management in the Company.

In line with international corporate governance practices, independent directors have been elected to the Board of Directors of Russian Railways since 2008. Independent directors have the professional skills, competencies and experience to form their own opinions and make objective judgements not influenced by the Company's executive bodies and shareholder. Independent directors are members of all committees of the Board of Directors of Russian Railways.

 For more details on the Board of Directors see [Russian Railways' 2021 Annual Report](#), Board of Directors section.

Remuneration of the Board of Directors

GRI 102-35, 102-36

In 2021, the Annual General Meeting of Shareholders of Russian Railways adopted a resolution to pay remuneration to the Company's directors for the 2020–2021 corporate year in the amount recommended by the Board of Directors in its resolution dated 28 June 2021 (Minutes No. 13) and in the manner prescribed by the Regulation on Remuneration and Compensation Paid to Members of the Russian Railways Board of Directors.

Remuneration of a member of the Company's Board of Directors consists of the basic and additional components. The basic component is calculated depending on the participation of directors in Board meetings. The maximum basic remuneration for a member of the Board is RUB 4,000,000. For taking on additional responsibilities, Board members are paid additional remuneration calculated as the basic portion of remuneration multiplied by the following ratios:

- 3.5 – for the functions performed by the Chairman of the Board of Russian Railways (excluding individuals who perform the functions of the Chairman of the Board of Directors of Russian Railways in their absence);
- 1.5 – for the functions performed by the chairman of a Board committee of Russian Railways;

- 0.5 – for the functions performed by a member of a Board committee of Russian Railways.

Additional remuneration for participation in the work of the Board committees is paid subject to the director personally attending (producing a written opinion for) at least 75% of the in-person committee meetings held over the course of the corporate year.

If a member of the Board of Directors performs the functions of a member and/or the chairman of a Board committee on more than two committees, additional remuneration is paid for the functions performed on two committees only. Additional remuneration is calculated and paid for the period of actual performance of additional functions.

A Board member may waive their remuneration in full or in part. The Regulation on Remuneration and Compensation Paid to Members of Russian Railways' Board of Directors does not apply to directors who are members of the executive bodies of Russian Railways or who are restricted or prohibited by Russian laws from receiving any payments from commercial organisations.

In the reporting year, the Annual General Meeting of Shareholders of Russian Railways resolved to allocate a total of RUB 45.37 m in remuneration to members of the Russian Railways Board of Directors.

Committees of the Board of Directors

For the purposes of preliminary consideration of the most important matters and preparation of relevant recommendations, the Russian Railways Board of Directors has the following committees in place:

- Strategic Planning Committee;
- Audit and Risk Committee;
- Personnel and Remuneration Committee;

- Digital Transformation and Innovation Committee.

The committees are elected by Russian Railways' Board of Directors and act in accordance with the regulations on the committees approved by the Company's Board of Directors¹.

 For more details on committees of the Board of Directors see [Russian Railways' 2021 Annual Report](#), Committees of the Board of Directors section.

Management Board

As a collective executive body, the Company's Management Board handles the general management of business operations (except for matters that are reserved to the General Meeting of Shareholders, the Board of Directors or the CEO and Chairman of the Management Board as per the Federal Law On Joint Stock Companies and the Company's Charter, unless otherwise stated by the Charter).

In line with its key responsibilities, the Management Board is tasked with developing proposals on the Company's business strategy, implementing its

financial and business policy, making decisions on the most important matters of its day-to-day operations and coordinating activities between its divisions, improving the effectiveness of the internal control and risk monitoring systems, and ensuring respect of shareholder rights and their legitimate interests.

The Management Board carries out its activities in accordance with the laws of the Russian Federation, the Company's Charter, resolutions of the General Meeting of Shareholders and the Board of Directors, the Regulation

on the Russian Railways Management Board, and the Company's internal regulations. The Management Board acts in the Company's interests and reports to the Company's General Meeting of Shareholders and the Board of Directors.

Members of the Russian Railways Management Board are appointed by the Company's Board of Directors (with the exception of the Chairman of the Management Board, who is appointed by the Government of the Russian Federation).

¹ The Regulation on the Strategic Planning Committee of Russian Railways' Board of Directors was approved by resolution of the Board of Directors dated 25 April 2014 (Minutes No. 8) and amended by resolution of the Board of Directors dated 19 November 2020 (Minutes No. 1). The Regulation on the Audit and Risk Committee of Russian Railways' Board of Directors was approved by resolution of the Board of Directors dated 25 April 2014 (Minutes No. 8). The Regulation on the Personnel and Remuneration Committee of Russian Railways' Board of Directors was approved by resolution of the Board of Directors dated 25 April 2014 (Minutes No. 8). The Regulation on the Digital Transformation and Innovation Committee of Russian Railways' Board of Directors was approved by resolution of the Board of Directors dated 30 May 2019 (Minutes No. 17) and amended by resolution of the Board of Directors dated 19 November 2020 (Minutes No. 1).

Remuneration of the Management Board

GRI 102-35, 102-36

The remuneration system is focused on improving the effectiveness of the individual and collective performance of the Management Board members and based on the achievements, personal performance assessment of each member, and performance assessment of the Management Board and Russian Railways as a whole. The KPI development principles, KPI structure and list, as well as the procedure for approving, monitoring and controlling the implementation of KPIs are established in the Regulation on Key Performance Indicators of Russian Railways¹.

In 2021, the remuneration of the members of the Russian Railways Management Board was paid in accordance with the Regulation on the Remuneration System for Members of Russian Railways' Management Board² and the Regulation on the Total Annual Personal Remuneration for Members of Russian Railways' Management Board³. In 2021, the Company's Board of Directors approved the Regulation on the Total Annual Personal Remuneration for Members of Russian Railways' Management Board, which changes the way the fixed and variable components of the remuneration are calculated. The total remuneration of the Management Board members accrued and paid in 2021 was RUB 2,314.965 m, including RUB 939.228 m in salaries and RUB 1,375.736 m in bonuses (including RUB 631.7 m in

long-term bonuses for 2019–2020). The annual bonus for 2020 was paid to the Management Board members in accordance with the resolution of Russian Railways' Board of Directors (Minutes No. 14 dated 30 June 2021). The long-term bonus for 2019–2020 was paid to the Management Board members in accordance with the resolutions of Russian Railways' Board of Directors dated 22 July 2021 (Minutes No. 1) and 30 September 2021 (Minutes No. 4).

🔍 For more details on the Management Board see [Russian Railways' 2021 Annual Report](#), Management Board section.

🔍 For details on the Audit Commission, internal control and audit see [Russian Railways' 2021 Annual Report](#), Audit and control section

Risk

management system

GRI 102-15, 102-30, 102-31

Risk management and internal control system

As part of its corporate governance, Russian Railways strives to manage risks more responsibly and efficiently, continuously streamlining risk management processes and integrating them not only into its operations but also into project activities and strategic planning, improving the effectiveness of identification and assessment of risks

and their triggers, as well as enhancing their timely treatment through the review and refinement of business processes with account of the growing influence of external factors.

The Company has in place a risk management and internal control system ("RMICS") which ensures

sustainable development, a more efficient use of internal resources, successfully responds to external challenges, supports revenue growth and helps save resources by fostering a risk-oriented culture.

¹ Approved by the Company's Board of Directors (Minutes No. 9 dated 28 December 2021).

² Approved by the Board of Directors of Russian Railways on 18 December 2019 (Minutes No. 11), not valid since 1 July 2021.

³ Approved by the Board of Directors of Russian Railways on 22 July 2021 (Minutes No. 1) to take effect starting from 1 July 2021.

Risk management process

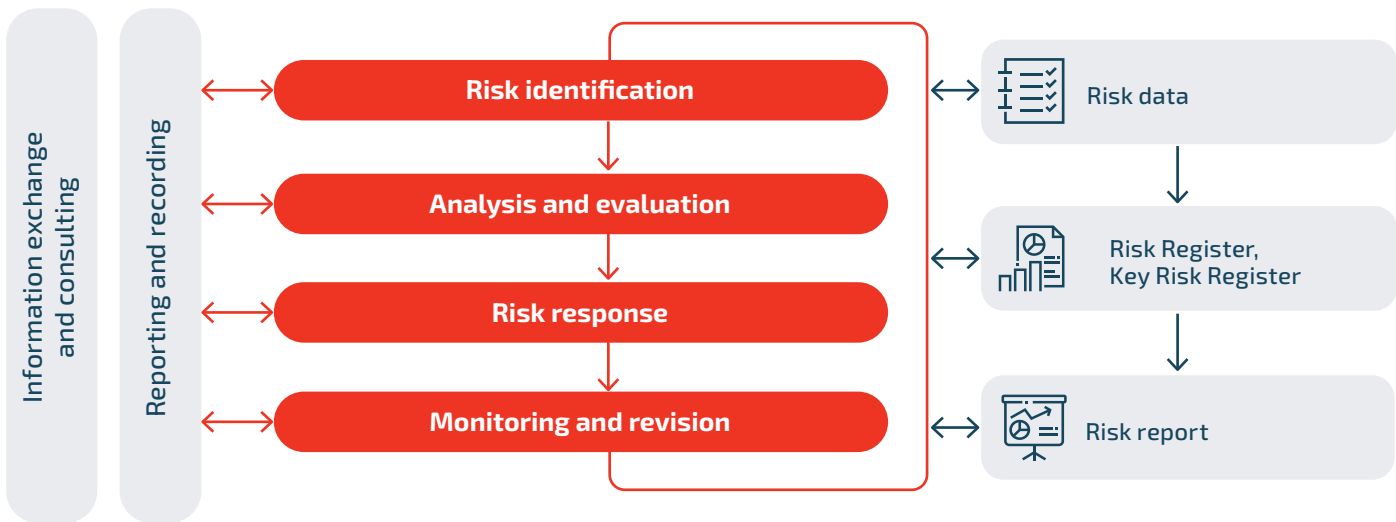
The overall coordination and methodological support of RMICS risk management process are led by the Risk Management and Internal Control Centre, whose performance in 2021 was disclosed in Russian Railways' Annual Report.

Risk management process is governed by internal regulatory documents of the Company. The RMICS process generates

risk reports, which are reviewed and approved by the executive bodies, the Audit and Risk Committee, and the Board of Directors of Russian Railways. The reports include information about the risks, risk mitigation measures, and RMICS performance. The Board sets the risk appetite for, among other things, sustainable development areas such as procurement from small and medium-sized businesses, health,

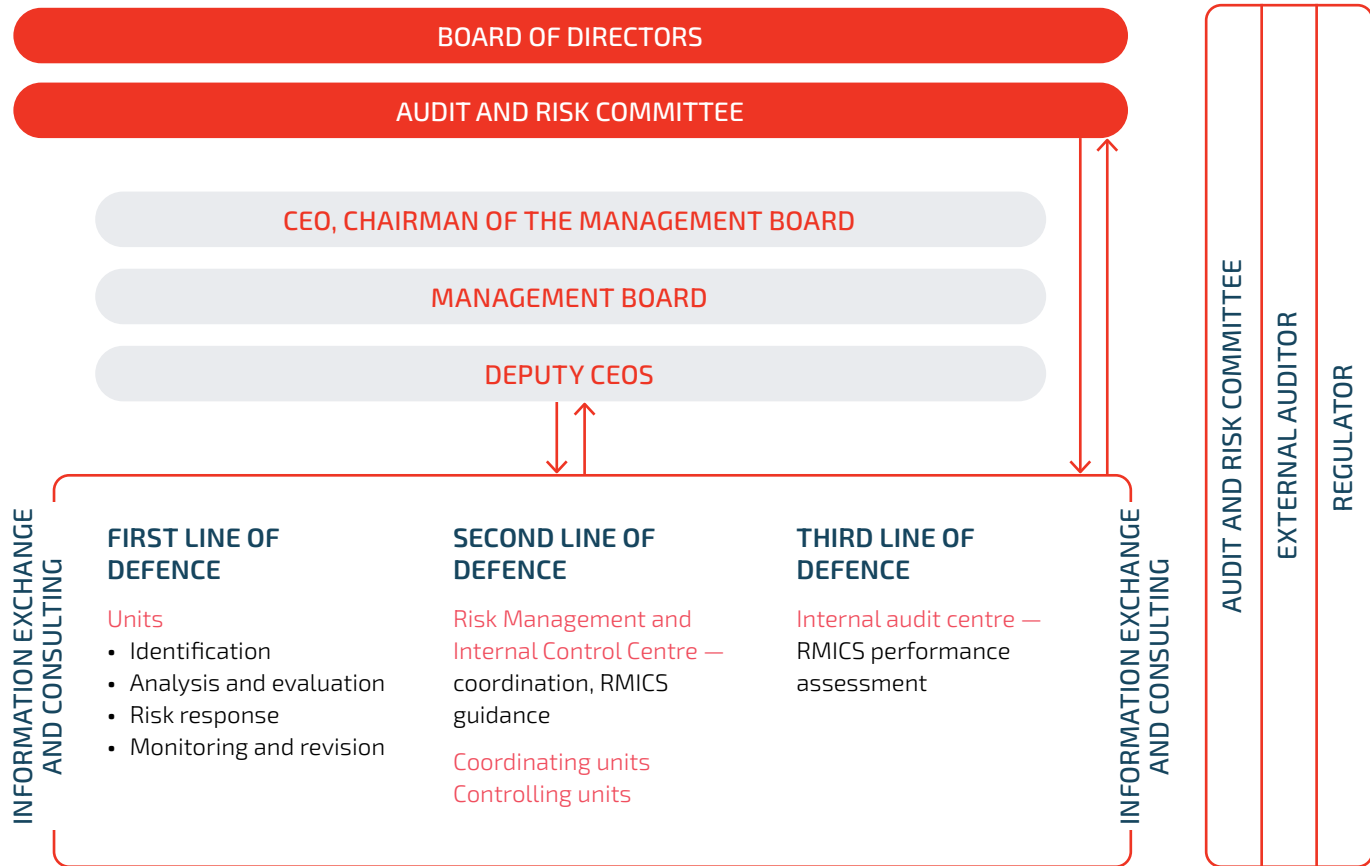
environmental, industrial and fire safety, traffic safety, IT security, anti-corruption measures, finance, and social policy.

Information exchange, consultations, vertical and horizontal interaction of participants are not limited by reporting periods due to continuous risk management and internal control.



Participants of the Russian Railways' risk management and internal control system

For more details on risk management, key risks and risk assessment see [Russian Railways' 2021 Annual Report](#)



Sustainability risks

Russian Railways pays particular attention to sustainability risks. Sustainable development of the Company is underpinned by its economic, environmental and social performance as one of Russia's major economic entities.

The Company analyses international sustainability trends, reviews and improves its activity with due account

of ESG principles, which makes it possible to identify growth drivers and leverage sustainability potential, balancing the opportunities and respective risks.

Information on sustainability risk management is available in respective sections of the Report:

📍 [Social risks \(the Personnel Development section\)](#)

- 📍 [Health and safety risks \(the Health and Safety section\)](#)
- 📍 [Corruption risks \(the Anti-Corruption section\)](#)
- 📍 [Climate change risks \(the Climate Action section\)](#)
- 📍 [Procurement risks \(the Procurement Management section\)](#)
- 📍 [Cybersecurity risks \(Annexes\)](#)

Anti- corruption

Russian Railways' anti-corruption policy¹ enables the Company to achieve its sustainability goals and is based on a set of interrelated principles and procedures designed to prevent and combat corruption and respond to corruption risks. It is intended to ensure that the Company's managers and employees, as well as its directors, the investment community and other stakeholders, are aligned around the idea of zero tolerance to corruption.

Russian Railways' anti-corruption policy outlines the following priorities:

- to ensure that the Company's employees, directors and stakeholders have a uniform understanding of the zero tolerance approach to corruption in all its forms and manifestations;
- to communicate the importance of compliance with the principle of publicly declared zero tolerance for corruption and bribery in business;
- to maintain compliance of Russian Railways' activities with the Russian anti-corruption legislation.

Russian Railways' anti-corruption policy is underpinned by the following principles:

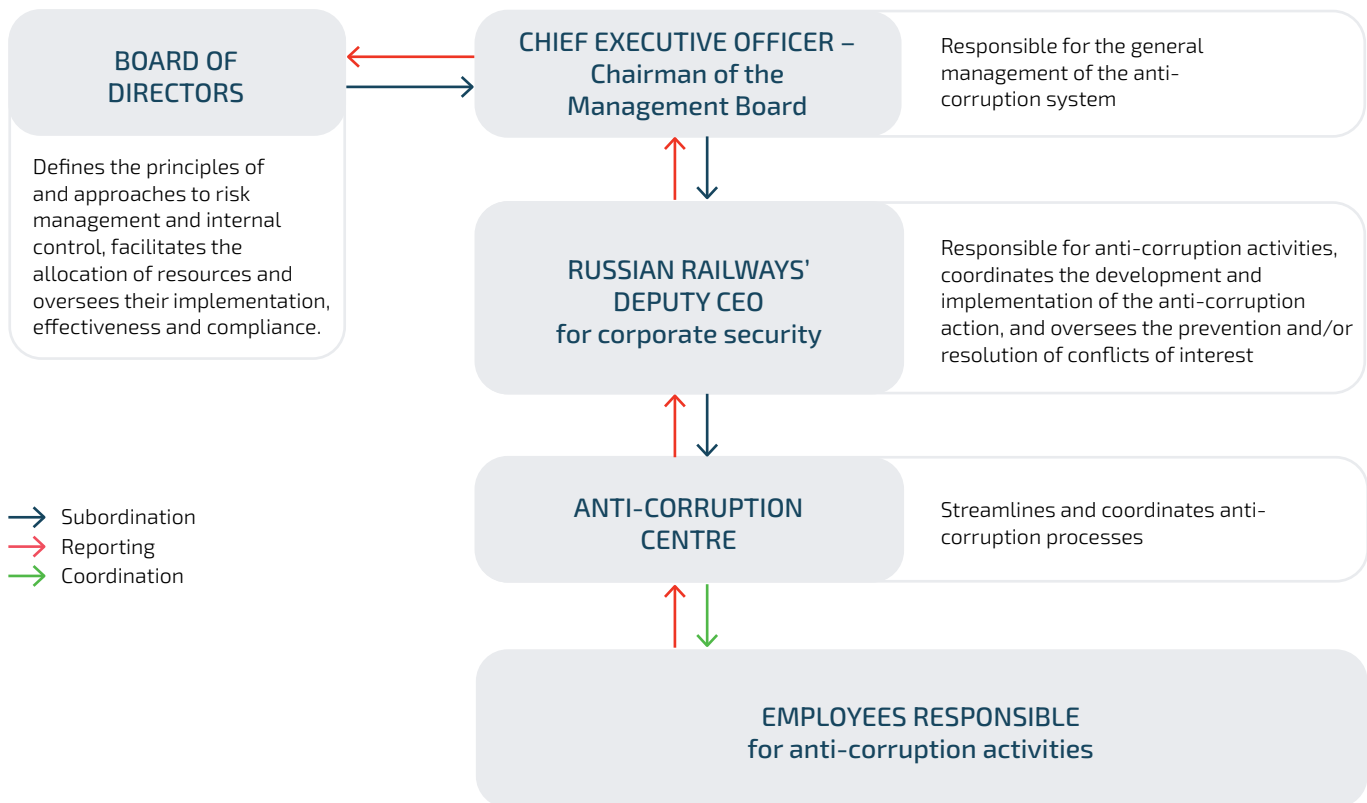
- the Company declares zero tolerance for corruption and its commitment to compliance with local laws;
- the Company takes a systematic approach to assessing corruption risks as a way to inform an adequate response to corruption;
- the Company regularly monitors the effectiveness of its anti-corruption practices;
- the Company exercises due diligence in all its activities and management decision-making;
- the Company's employees receive regular training in anti-corruption.

The principle of zero tolerance for corruption set out in Russian Railways' anti-corruption policy prohibits Russian Railways' directors, employees and counterparties, acting directly or through third parties, from engaging, or procuring anyone to engage, in corruption, whatever the business practices are in any particular country.

A set of preventive measures are based on the Company's anti-corruption standards that establish responsibilities, limitations and prohibitions. These are included in model employment contracts and are binding on employees and directors at all levels. In accordance with law, the Company's employees may be subject to disciplinary, administrative and criminal liability for committing corruption offences.

Each year, Russian Railways carries out a scheduled audit of internal control and risk management systems to identify potential corruption vulnerabilities at its business units.

¹ Russian Railways' Order No. 472r dated 24 February 2015 (as amended by Russian Railways' Order No. 2277r dated 8 November 2017).



Governance structure

To address and prevent corruption, the Company has a vertically integrated organisational and functional structure with designated officers responsible for streamlining work at all corporate governance levels. Over 6,500 employees are involved in these activities¹.

As part of its efforts to ensure a uniform approach to implementing the anti-corruption policy, in 2021 the Company developed criteria for identifying Russian Railways' controlled entities that are required to comply with the Company's anti-corruption regulations and approved the list of such companies and the list of the binding regulations².

¹ Russian Railways' Order No. 2051/r dated 16 September 2019.

² Russian Railways' Order No. 2063/r dated 22 September 2021.

Russian Railways' Anti-Corruption Action Plan

Russian Railways' Anti-Corruption Action Plan approved for the relevant period in accordance with the National Anti-Corruption Plan¹ and the respective Instructions of the Russian Government is a fundamental document providing a legal and organisational framework for the Company's anti-corruption action.

Key focus areas of Russian Railways' Anti-Corruption Action Plan for 2021–2024²:

- corruption risk management;
- prevention and resolution of conflicts of interest;
- reporting any inducement to corruption to the employer;
- reporting receipt of gifts by the employee;
- anti-corruption compliance in real property management;
- engagement with law enforcement agencies;
- analysis of anti-corruption measures in procurement;
- expert review of draft contracts to identify and eliminate corruption risks;
- assessment of RMICS from an anti-corruption perspective;
- Anti-Corruption Hotline;
- anti-corruption awareness raising;
- staff training and development;
- analysis of anti-corruption whistleblower protection practices;
- improvement of digital technologies in anti-corruption activities;
- social surveys on anti-corruption..

Corruption risk management

Russian Railways' corruption risk management is an integral part of the Company's risk management and internal control system. It is implemented in line with the Guidelines for Corruption Risk Management³ as amended in 2021, Risk Management and Internal Control Policy⁴ and other documents.

Russian Railways' Board of Directors⁵ approved the anti-corruption risk appetite statements under which the Company follows the principle of zero tolerance for corruption in any form or manifestation.

The Company's business units conducted an annual assessment of their corruption risks and compiled registers of such risks for 2021, with mitigation action underway.

To assess the effectiveness of the risk management and internal control system from an anti-corruption perspective, the Company carries out an annual internal audit and regularly reports to the Audit and Risk Committee of Russian Railways' Board of Directors on the results of anti-corruption monitoring and the effectiveness of the implemented anti-corruption

measures. The Code of Ethics for Internal Auditors⁶ establishes main ethical norms and rules, including the objectivity principle, the 'no conflict of interest' principle and the unified mandatory rules of conduct for internal auditors.

In addition, for internal control purposes, Russian Railways' business units and controlled entities managing regional and functional units carried out over 100 anti-corruption compliance audits, with follow-up corrective activity underway.

¹ Approved by the Russian President's Decree No. 478 dated 16 August 2021.

² Russian Railways' Order No. 2106/r dated 28 September 2021.

³ Russian Railways' Order No. 192/r dated 1 February 2021.

⁴ Approved by the Company's Board of Directors (Minutes No. 17 dated 27 May 2019) and enforced by Russian Railways' Order No. 1223/r of 18 June 2019.

⁵ Minutes No. 6 dated 30 November 2021.

⁶ Russian Railways' Order No. 3034/r dated 25 December 2019.

The established system requires that due diligence be conducted on companies intending to enter into contract with Russian Railways, including bidders competing in a tender or auction for a contract to supply goods, work or services for Russian Railways' needs.

In accordance with Russian Railways' regulations, the counterparty is required to include a beneficial owner certification form in its submissions for concluding a contract, which is also reflected therein. All draft contracts require approval of the Security Department that can be granted after the successful completion of a comprehensive security audit.

Contracts with counterparties also include anti-corruption and tax clauses that require the parties to comply with the relevant regulations and provide for the termination of the contract if the counterparty is found to engage in corruption.

Conflict of interest

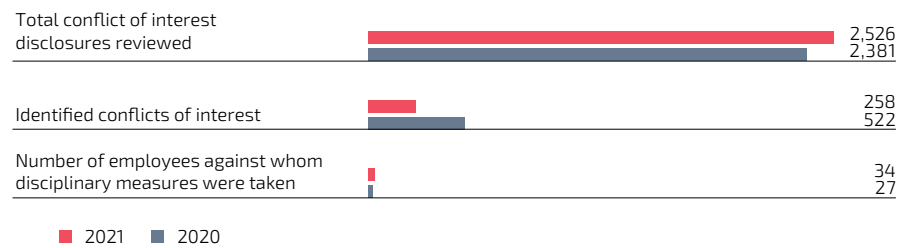
GRI 102-25

Preventive measures, including the prevention and resolution of conflicts of interest, remain an overarching priority for Russian Railways.

2021 saw an increase in the number of conflict of interest disclosures reviewed, which is attributable to improvements in awareness-raising and ethical behaviour across the Company.

The number of conflict of interest disclosures in 2021 at all corporate governance levels increased by 6% y-o-y to 2,526 disclosures from 2,381 disclosures in 2020. The number of identified conflicts of interest almost halved from 522 to 258 cases. The Company applied disciplinary actions for failure to comply with anti-corruption rules to 34 employees (22 employees were admonished, 10 employees were reprimanded, and 2 were dismissed).

Conflict of interest resolution



The Company has a Conflict of Interest Commission established to protect the legitimate interests of the Company and its employees. In 2021, the Commission held two meetings in respect of three executives from the Company's central corporate governance structures.

The railways of the Company have regional conflict of interest commissions, which held 39 meetings on 58 employees. The vast majority of the reviewed cases (over 80%) concerned the resolution of conflicts

of interest arising from a subordinate relationship with a relative, as well as equity participation in and holding management offices at companies doing business with Russian Railways.

Work is ongoing to incorporate digital solutions into conflict of interest resolution processes in the Declarant AIS, an automated reporting system. In 2021, the Company developed and visualised modules for preparing and collecting statistical reports, with the system becoming easier to use thanks to being integrated into the Employee Service Portal.

Anti-Corruption Hotline

The Company has a whistleblowing hotline in place to report corruption in the Russian Railways Group (including anonymously, if the reporting person does not wish to provide their personal details). In 2021, Russian Railways approved an amended version of the Anti-Corruption Hotline Rules¹, which provides updated information about available contact channels and procedures to be followed by the persons responsible for receiving, processing and considering reports. The contact channels are available in the Anti-Corruption section of Russian Railways' website.

The Anti-Corruption Hotline is open 24/7 and has a voicemail service. All reports are received and processed by the Company's Anti-Corruption Centre. At the end of each quarter, a detailed Anti-Corruption Hotline report on

cases investigated and actions taken² is submitted to Russian Railways' Deputy CEO for corporate security.

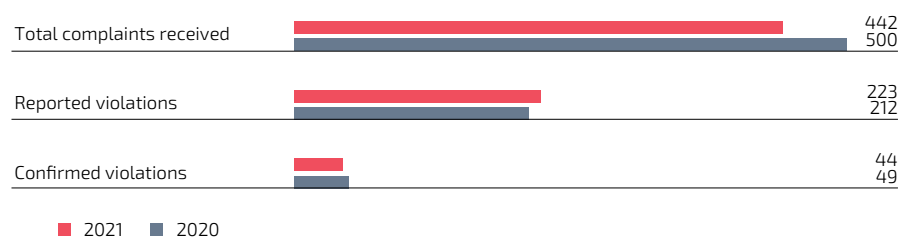
GRI 205-3

Out of the 442 messages received via the hotline in 2021, 223 messages reported potential corrupt behaviour, with a major share of them relating to potential fraud (29.5%). Having investigated these reports, the Company took disciplinary action

against 26 employees, including 23 reprimands or disciplinary penalties and 3 dismissals. Ten reports were escalated to law enforcement agencies.

In accordance with Russian Railways' Code of Business Ethics, the Company's anti-corruption policy aims to ensure confidentiality and protect whistleblowers from negative consequences arising from their reports of potential corruption in the Company.

Anti-Corruption Hotline performance



¹ Russian Railways' Order No. 1729/r dated 04 August 2021.

² Information about reports received via the Anti-Corruption Hotline is included in Russian Railways' 2021 Annual Report and is publicly available on the Company's website.

Zero tolerance for corruption

GRI 205-2

Staff training and awareness raising on anti-corruption regulations

Russian Railways' centralised system of mandatory anti-corruption training remains one of the key instruments for fostering zero tolerance culture,

with the Company's employees obliged to undertake relevant training once every three years.

In 2021, almost 50,000 employees completed relevant courses on Russian Railways' distance learning platform, including 42,597 people who took the general course and 6,613 people took a special course geared towards executives and employees whose responsibilities included anti-corruption activities. 510 employees of the Company responsible for anti-corruption activities upgraded their

qualifications through an educational programme at the Law School of the Russian University of Transport (MIIT).

In addition to the above, the Company has a procedure in place requiring all employees to read and sign Russian Railways' Code of Business Ethics, anti-corruption policy and other internal anti-corruption regulations when accepting employment and to get acquainted with any amendments thereto by reading and signing them in a hardcopy, digital¹ or electronic format.

Anti-corruption promotion programme

To foster responsible behaviour among the Company's employees and ensure compliance with the ethical standards that forbid illegal corruption-related activities, in December 2020, the Company approved a Comprehensive Anti-Corruption Promotion Programme for 2021–2023² to be integrated into the current anti-corruption action taken by the Company's business units.

For the purpose of raising awareness, the Programme leverages corporate TV, press, intranet, internet, digital learning courses, visual campaigns, themed videos, posters, leaflets, quick guides, booklets and brochures.

Anti-corruption insights and updates regularly appear in the Gudok newspaper and newspapers for

passengers, while Russian Railways's anti-corruption portal and the Group's career portal (team.rzd.ru) provide a detailed explanation of the Company's anti-corruption rules.

Promotion of anti-corruption practices is included in the agendas of key events under Russian Railways' Youth (2021–2025) programme (Youth Mentoring, Russian Railways' Volunteers, Annual Youth Conference of Russian Railways).

The Company also conducted a survey to explore how Russian Railways' employees perceive its anti-corruption activities. The findings showed that the majority of respondents (61%) consider the Company's anti-corruption policy to be effective, including 11% who noted

positive developments in 2021 and 88% who said that they knew what to do when encountering a potential corruption situation.

To make its anti-corruption activities open and transparent, the Company publishes regular updates in the Anti-Corruption section of its website. The Company's employees can also access all anti-corruption regulations, rules, guidelines and updates from their personal accounts on the Service Portal.

¹ Via the uniform automated document management system.

² No. 1955 dated 24 December 2020.

Engagement with stakeholders on anti-corruption

As part of the Company's relations with the government authorities, expert and business communities, Russian Railways is represented on expert task forces of the Prosecutor General's Office, the Russian Ministry of Labour and Social Protection, the Anti-Corruption Compliance and Business Ethics Council of the Chamber of Commerce and Industry of the Russian Federation, and Rosstandart's technical committee on the development of the Anti-Corruption Activities standard.

These efforts provided a tailwind for the initiatives aimed at the improvement, harmonisation and application of legislation, promotion of anti-corruption practices and the development of incentives for organising, digitalising and automating anti-corruption procedures.

Anti-Corruption Rating of Russian Business

Russian Railways participates in the Anti-Corruption Rating of Russian Business awarded by the Russian Union of Industrialists and Entrepreneurs based on compliance with the ISO 37001:2016 international anti-corruption standard (Anti-bribery management systems – Requirements with guidance for use) and the provisions of the Russian Anti-Corruption Charter for Business.

Similarly to the previous year, in 2021 Russian Railways was assigned the top A1 rating as a company with the highest level of anti-corruption efforts and a minimum level of corruption risks associated with a minimum threat to investors, creditors, business partners, and other stakeholders.



Responsible tax policy

GRI 207-1, 207-2, 207-3

Russian Railways is a key contributor to Russia's budget as well as social and economic growth. As a systemically important company, a large employer and a major taxpayer, we are aware of our responsibility towards the government, shareholders, and employees, and are committed to fulfilling our tax liabilities in good faith.

We calculate and pay all applicable taxes, insurance fees, levies and charges required by the Russian laws, in particular VAT, corporate income, property, land, and transportation taxes, insurance fees, MET and others.

The Company adopted the Declaration on Tax Strategy Objectives and Principles¹ ([tax strategy](#)) in line with the Russian Railways Group's values, mission, strategic priorities, and growth targets.

In managing its liabilities, the Company complies with all tax laws and relies on the following principles:

Taxpayer's good faith

As a responsible taxpayer we take all steps to comply with tax laws, among other things by fulfilling the obligation to pay all applicable taxes and levies in time and in full. We file tax accounts and other documents within the prescribed time frames.

Tax disclosure

We disclose tax information in accordance with the laws of our countries of operation and international treaties.

Higher tax transparency

We take every effort to improve our tax transparency, including through tax monitoring to ensure accurate calculation (withholding), and full and timely payment of taxes, levies and insurance fees.

Tax risk management

Russian Railways has put in place a comprehensive system to identify, in time and in full, assess and manage tax risks by taking adequate response measures.

Consistency of tax accounting methodology

Russian Railways seeks to adopt consistent approaches to taxation to ensure the consistency of tax accounting for its business transactions and fair presentation of taxes in its reporting.

We do our best to mitigate tax risks and liaise with tax authorities, among other things by requesting clarifications from relevant government agencies and reasoned opinions of tax authorities as part of tax monitoring.

Tax burden planning

The Company has a tax planning system in place to have tax authorities informed of planned tax accruals and to ensure the complete and timely payment of taxes and levies across its operations as required by applicable laws. The Company collaborates with the Russian government agencies to determine a fair tax burden on the rail transportation industry taking into account the need to strike a balance between the interests of different stakeholders.

¹ Russian Railways' Order No. 1309/r dated 15 June 2021.

Due diligence and mitigating risks of unjustified tax benefits

Russian Railways exerts every effort to stay within the limits as regards the right for determining tax base and calculating taxes when entering into transactions with its counterparties. We check whether actual business transactions are correctly classified

for tax purposes to avoid any risk of having such transactions qualified as designed to obtain unjustified tax benefits. The Company has put in place internal controls and procedures for collecting and analysing documents and transaction terms to mitigate tax risks.

Tax function automation and digitalisation

In its efforts to enhance performance and relieve employees of routine tasks, Russian Railways seeks to improve its tax management processes by means of continuous automation and digitalisation.

Taxes and insurance fees paid in 2021

The total amount of taxes and insurance fees accrued in accounting statements for 2021 stood at RUB 321.1 bn, or 108.9% of the previous year's figure, including:

- RUB 27.7 bn (148.8%) owed to the federal budget;
- RUB 128.9 bn (108.3%) owed to regional and local budgets;
- RUB 164.5 bn (104.7%) owed to extra-budgetary funds.

📄 For more details on taxes and insurance fees see [Russian Railways' 2021 Annual Report \(Annex 6\)](#)



Procurement management

Approach to management

GRI 102-9

Russian Railways' procurement activities are governed by Federal Law No. 223-FZ On Procurement of Goods, Work and Services by Certain Types of Legal Entities dated 18 July 2011, other procurement laws and regulations for state-owned companies, and the Regulation on the Procurement of Goods, Work and Services for the Needs of Russian Railways¹.

In its relations with suppliers and contractors, the Company seeks to provide equal access to procurement, foster fair competition, and ensure openness and transparency in compliance with the Procurement Law, Federal Law No. 135-FZ On Protecting Competition dated 26 July 2006, the Regulation on the Procurement of Goods, Work and Services for the Needs

of Russian Railways, and procurement documentation. Russian Railways complies with anti-corruption and tax clauses, and no conflict of interest requirements. Suppliers may be included in the register of bad faith suppliers on the grounds and in the manner set forth by applicable Russian laws.

Procurement risks

Key procurement risks include:

- procurement of materials and supplies at inadequate prices;
- procurement of materials and equipment in volumes insufficient for Russian Railways' units;
- failure to procure from small and medium-sized businesses as required;
- violation of laws when arranging and holding procurement procedures;
- violation of laws when making procurement disclosures;

- improper preparation of documents for competitive procurement.

To manage these risks, the Company:

- analyses market prices and monitors initial (maximum) prices;
- considers/plans procurement taking into account the requirements for purchases exclusively from small and medium-sized businesses;
- monitors if its units fulfil the requirements for procurement from small and medium-sized businesses;

- monitors legislative changes and amends its procurement regulations;
- monitors changes in the functions of information systems;
- standardises documents to arrange and hold procurement procedures;
- trains its employees;
- makes sure that planning, procurement and contracting are timely;
- automates processes and improves the functions of information systems;
- provides timely responses to queries on procurement.

¹ Approved by the Company's Board of Directors on 28 June 2018.

Procurement in 2021

GRI 102-10

In 2021, we worked to make our procurement more transparent and engage more players from various economic sectors.

We made a number of amendments to the Regulation on the Procurement of Goods, Work and Services for the Needs of Russian Railways to improve, streamline and increase the transparency of our procurement activities and make them more attractive for market players. We also sought to facilitate bidding for small and medium-sized businesses (SMEs). These measures included:

- posting details on competitive procurement in excess of RUB 500 m on our official website to inform market players on the upcoming tenders and invite bids (specifications and characteristics of goods, work and services);
- designing new, simplified mechanisms of non-competitive procurement, determining relevant

requirements and procedures (competitive negotiations which include talks between the customer and suppliers (vendors or contractors), when the best offer is selected and a contract is signed. To meet the requirement for the minimum procurement of Russian-made goods, we established a different procedure for non-competitive procurement);

- streamlined the procedure for changing the size of the contract security to reflect changes in volumes and procurement timelines for goods, work or services;
- facilitated signing contracts with number two bidders in case the contract with the winning bidder is terminated for some reason.

Russian Railways takes consistent measures to raise market players' awareness of its procurement activities:

- created an Information for SMEs section on its corporate website;

- took part in workshops on notifying market players of procurement activities and SME support held by the SME Corporation across Russia. The reporting year saw 86 open workshops which welcomed 6,482 participants;
- on the initiative of the SME Corporation arranged for individual meetings between SME representatives and Russian Railways' units procuring goods, work and services from SMEs.

Russian Railways tops the loyalty rating of major customers procuring from SMEs in 2021¹.

2021 results

In the reporting year, Russian Railways procured goods, work and services for RUB 1,195.7 bn. Key procurement results:

- 68.1% of all procurement activities are competitive;
- an average number of bids is 3.5;
- savings from competitive procurement amount to RUB 7.3 bn or 3.9% of the sum of initial (maximum) bid prices.

In 2021, competitive procurement made up 68.1% (RUB 814.8 bn) of total procurement.

The share of non-competitive procedures was 31.9% (RUB 380.9 bn), including:

- single-source procurement – 31.6%;
- e-procurement marketplace – 0.2%;
- competitive negotiations – 0.1%.

Single-source procurement is special-purpose procurement for the railway industry (contracts for the supply, servicing and maintenance, upgrade and repairs of the rolling stock worth RUB 219.5 bn). Russian Railways engages mostly in competitive e-procurement. As part of e-procurement we signed contracts worth RUB 786.0 bn, which make up 96.5% of the competitive procurement amount (up 94.4% y-o-y).

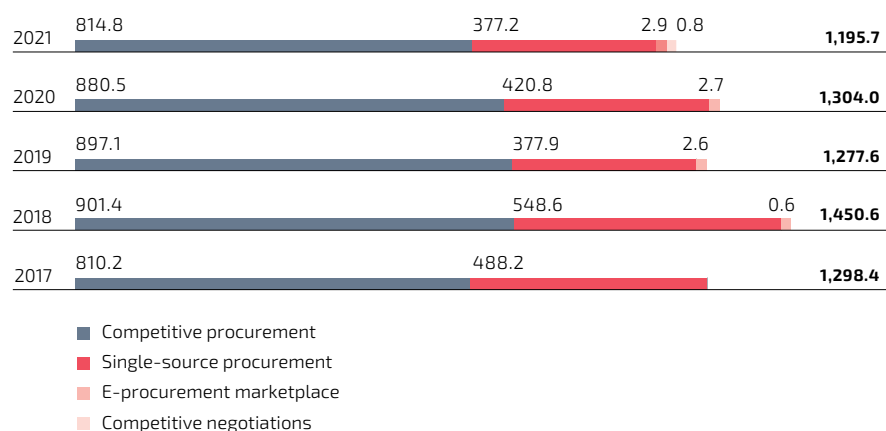
¹ SME Corporation rating

Key procurement indicators

Indicator	2020		2021	
	RUB bn	%	RUB bn	%
Total procurement	1,304.0	100.0	1,195.7	100.0
• based on competitive bidding	880.5	67.5	814.8	68.1
• based on Russian Railways executive documents	136.5	10.5	119.5	10.0
• based on other legitimate grounds	287.0	22.0	261.4	21.9
Based on open electronic bids (% of the competitive procurement amount)	368.8	41.9	299.1	36.7
Share of procurement from SMEs	241.5	63.5	225.1	61.0
Share of procurement involving SMEs only	73.7	19.4	69.9	19.0
Procurement savings (% of the sum of initial (maximum) bidding prices)	11.5	4.6	7.3	3.9

According to the procurement breakdown by type of goods, work and services, goods have the largest share in total procurement (47.1%), with materials and supplies, rolling stock and equipment representing sizeable 25.3%, 11.0% and 7.2%, respectively. Work accounts for 34.8%, of which the largest share is attributable to upgrades, repairs and maintenance of the rolling stock (14.4%) and construction and installation (9.0%). Services make up 18.1% in total procurement, including security, transportation, outsourcing, financial services, water supply and disposal, heating, gas and heat supply, and rolling stock maintenance (10.7%).

Procurement | RUB bn



Procurement from small and medium-sized businesses

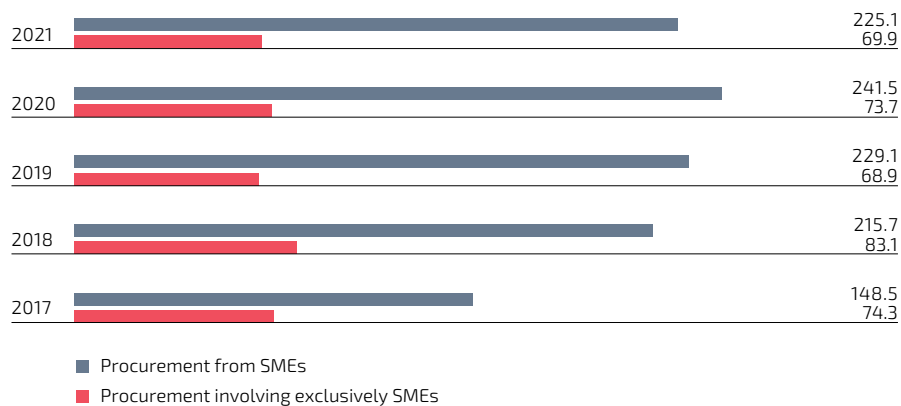
In its procurement activities, Russian Railways complies with legislative requirements for sourcing from SMEs.

We run a permanent partnership programme for SMEs which was designed to provide information and methodological support to our partners.

To attract more SMEs, we made it easy for them to join the programme.

In 2021, procurement activities involving only SMEs made up 19% against the legally required 18% per year, while the total share¹ of procurement from SMEs stood at 61.0% against the annual statutory requirement of 20.0%.

Procurement from small and medium-sized businesses | RUB bn



[For more details on procurement from small and medium-sized businesses go to the Information for SMEs section of our official website.](#)

Import substitution

In 2021, in furtherance of the Russian government directives, the Russian Railways Group continued with its efforts to replace foreign products with domestic ones of equivalent performance and properties in its operations as part of a comprehensive import substitution programme until 2025².

Priority import substitution areas:

- reducing dependency on imported complex technical systems such as signalling and telematics equipment, including digital interlocking systems

at stations, centralised traffic control systems, dispatcher control, automatic cab signalling, automation and telematics equipment at railway sections, and automatic road switching;

- reducing railway industry dependency on imports;
- preferred use of domestic software;
- equipping railway infrastructure with import-independent hardware and software;
- scheduled replacement of foreign products with domestic ones.

GRI 204-1

In 2021, domestically sourced equipment, work and services made up 96.9% in total Russian Railways' procurement.

¹ The share is calculated based on the amount paid in the reporting year as per the 2021 report on procurement of goods, work and services from small and medium-sized businesses by certain types of legal entities.

² Approved by Russian Railways' Order No. 3125/r dated 31 December 2019.

Sustainable development and supplier engagement

Occupational health and safety

The Company relies on the Regulation on OHS Relations of Russian Railways with Contractors to ensure safe work of contractors on its sites. The Company stipulates OHS requirements for contractors in service contracts, putting relevant branches, where contractors perform work, in charge of overseeing compliance. In case of violations the contractor is penalised as provided for by the contract. Contracts for work on Russian Railways sites and premises include the following:

- OHS provisions regulating responsibilities of the customer and contractors, including contractor liability for breaching safety rules when doing work or staying near railways;
- provisions on contractor staff compliance with Russian Railways' OHS requirements;

- provisions on the timely notice to the customer of all accidents, injuries, health impairment and illnesses of employees, and other work-related emergencies.

Supplier environmental responsibility

The Company adopted an in-house methodology to assess supplier environmental responsibility. To monitor contractor compliance with environmental requirements, we use the Methodology for the Recognition and Assessment of Environmental Requirements for Products, Raw Materials and Supplies Purchased by Russian Railways' Business Units. This methodology regulates compliance with additional requirements to reduce the environmental footprint, improve working conditions and increase the Company's economic indicators through better energy and resource efficiency.

Supplier hotline

Russian Railways has put in place a procurement hotline to support its suppliers. The hotline ensures that legal entities and individuals exercise their right to access information about Russian Railways procurement of goods, work, services and to participate in relevant procurement activities.

It is available 24/7.





ANNEXES



To the Personnel Development section

Ratios of standard entry level wage compared to local minimum wage

GRI 202-1

Region	Local minimum wage, RUB	Minimum wage at Russian Railways, RUB	Ratio, %	Comments
Russia	Statutory minimum wage as at 1 January – RUB 12,792	1 January – RUB 12,792	100	Employees of Russian Railways who have worked the required standard hours and met the required labour standards in the respective period are paid extra payments to bring their wages on par with the minimum wage established in the respective Russian region
Smolensk Region	1 January – RUB 12,792	1 January – RUB 12,792	100	
Saratov Region	1 January – RUB 12,792	1 January – RUB 12,792	100	
Sverdlovsk Region	1 January – RUB 12,792	1 January – RUB 12,792	100	
Novgorod Region	1 January – RUB 12,792	1 January – RUB 12,792	100	

New employee hires in 2021 by category, gender and age

GRI 401-1

	Total new hires in 2021	Men	Women	Under 30	30-35	36-50	Over 50
Total across Russian Railways	80,295	56,338	23,957	44,097	9,592	19,321	7,285
Graduates	3,954	2,657	1,297	3,953	1	0	0
Discharged servicemen	1,501	1,501	0	1,501	0	0	0
Interns and apprentices	7,240	5,579	1,661	7,210	19	11	0
Seasonal workers	7,205	2,974	4,231	3,091	493	1,821	1,800

Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity

GRI 405-1

	2020			2021		
	Managers	Office workers	Technical workers	Managers	Office workers	Technical workers
Headcount	57,015	211,536	454,969	54,919	198,711	442,666
by gender						
Men	40,751	79,151	382,967	40,319	76,939	372,619
Women	16,264	132,385	72,002	14,600	121,772	70,047
by age group						
Under 30	5,012	43,408	104,831	4,519	38,913	95,923
30–50	40,449	129,775	267,286	38,924	121,871	262,786
Over 50	11,554	38,353	82,852	11,476	37,927	83,957
by vulnerable group membership						
People with disabilities	247	1,389	2,125	262	1,505	2,371

To the Energy Efficiency section

Consumption of fuel and energy resources by Russian Railways in 2020–2021 by key type

GRI 302-1

No.	Resource type	Physical unit of measurement	2020	2021	Change (±%)
1	Electrical energy, total	m kWh	49,149.8	51,460.4	4.7
1.1.	for train traction	m kWh	42,806.6	44,735.2	4.5
	incl. other owners of multiple units	m kWh	812.6	991.6	22.0
1.2.	for non-traction use	m kWh	6,343.1	6,725.1	6.0
2.	Diesel fuel, total	kt	2,488.2	2,551.5	2.5
2.1.	for train traction	kt	2,305.3	2,367.6	2.7
2.2.	for non-traction use	kt	182.9	183.8	0.5
	excluding consumption by service companies	kt	151.9	155.8	2.6
3.	Coal	kt	612.5	600.1	-2.0
	excluding consumption by utilities	kt	558.6	547.4	-2.0
4.	Fuel oil	kt	231.5	222.9	-3.7
5.	Natural gas	m cu m	390.8	421.9	8.0
6.	Petrol	kt	36.5	37.0	1.5
7.	Third-party heat energy	m Gcal	2.1	2.2	9.0

Energy resources used for heat generation at Russian Railways' BUs in 2020–2021

GRI 302-1

Resource type	Unit of measurement	2020	2021
Coal	kt	501.7	484.2
Natural gas	m cu m	401.2	420.8
Fuel oil	kt	220.5	222.3
Diesel fuel	kt	5.1	6.5
Electrical energy	m kWh	205.6	166.6
Other sources	kt	4.9	1.9

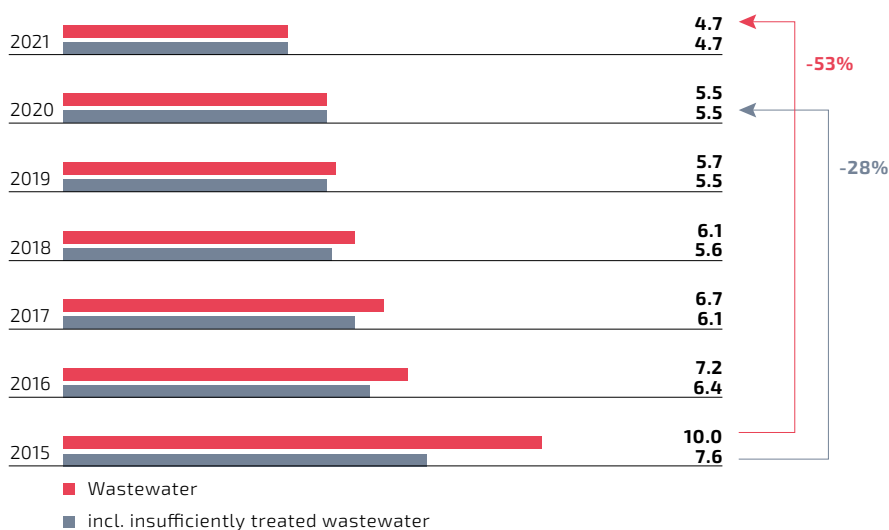
To the Waste Management section

Waste generation and management in 2021 | kt

Hazard class	Waste generation in the reporting period	Waste transfers to third parties					
		for treatment	for recycling	for decontamination	for storage	for landfilling (excl. MSW)	for handling by regional MSW operators
Total:	1,411.783	0.431	1,097.476	159.930	0.232	67.629	156.052
Class 1	0.118	0.000	0.005	0.110	0.000	0.000	0.000
Class 2	0.123	0.001	0.066	0.046	0.000	0.000	0.000
Class 3	125.303	0.000	30.475	119.296	0.000	0.058	0.000
Class 4	191.710	0.326	4.863	40.123	0.152	31.626	110.668
Class 5	1,094.529	0.104	1,062.068	0.355	0.080	35.945	45.384

To the Water Resources section

Wastewater discharges into water bodies and onto the ground surface | m cu m



To the Risk Management section

Cybersecurity risks

Managing information security risks is an essential priority. If they materialise, information security threats may disrupt or suspend IT services, the process flow and operations of the Company, including leakage of restricted information.

The main risk factors related to the security of Russian Railways' information infrastructure include tampering by third parties to gain unsanctioned access to the information of the Company and its counterparties, including hacker and virus attacks, as well as internal threats of employee misconduct and analysis and SIEM tools failure.

The key information security measures implemented by Russian Railways include:

- classification and categorisation of Russian Railways' systems, information security threat modelling, development of information protection requirements (based on the classification of information assets, information security threats, and the requirements of applicable Russian laws on information protection);
- proper arrangement of information infrastructure components with due account of information security, design and implementation of relevant protection systems in the Company's information infrastructure, assessment of

Russian Railways' systems for compliance with information security requirements;

- employee training in information protection
- ensuring the security of Russian Railways' information systems in use, identification and handling of information security incidents, conducting internal investigations into information security violations;
- arrangement of the Company' workflow with due account of information security requirements;
- enhancement of the Company's information security policies and guidelines.

Risk management initiatives in 2021 included:

- development of functional requirements to set up a single centre for monitoring of Russian Railways' information security;
- implementing initiatives aimed at developing access control hardware and software for privileged and other users;
- taking steps to analyse the security level (penetration tests, security control, source code analysis) and ensure compliance with information security requirements when developing and running Russian Railways' systems;
- developing Russian Railways' information security management system and its components, including the anti-virus protection system

and the migration of the Information Security Management System of Russian Railways to a new platform, as well as implementation of the Targeted Attack Protection System, the Information Transmission Monitoring and Control System, and the Security Control System hardware and software.

Risk management initiatives planned for 2022:

- improving Russian Railways' internal regulations on information security;
- developing the Information Security Management System of Russian Railways, developing and implementing the ID Management System, rolling out the Information Transmission Monitoring and Control System, and privileged/other access control hardware and software;
- implementing the framework to set up a single centre for monitoring of Russian Railways' information security;
- implementing information security systems for standard data processing centres of Russian Railways; upgrading of the centralised node of access to information systems of Russian Railways;
- implementing Perimeter, the DoS attack prevention hardware and software product.

GRI content index

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3	Ethics and integrity			
102-16	Values, principles, standards, and norms of behaviour		Corporate culture, Ensuring equal rights for employees	P. 74, 75
102-17	Mechanisms for advice and concerns about ethics		Corporate culture	P. 73
4	Corporate governance			
102-18	Governance structure		Corporate governance	P. 114
102-19	Delegating authority		Participation of the Board of Directors in sustainable development management, Board of Directors Annual Report: Board of Directors	P. 26
102-21	Consulting stakeholders on economic, environmental, and social topics		Stakeholder engagement	P. 33
102-24	Nominating and selecting the highest governance body and its committees		Annual Report: Corporate governance	
102-25	Conflicts of interest		Conflicts of interest	P. 123
102-26	Role of highest governance body in setting purpose, values, and strategy		Annual Report: Corporate governance	
102-28	Evaluating the highest governance body's performance		Annual Report: Corporate governance	
102-29	Identifying and managing economic, environmental, and social impacts		Annual Report: Corporate governance	
102-30	Effectiveness of risk management processes		Sustainability risks Annual Report: Risk management	P. 117

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102-31	Review of economic, environmental, and social topics		Letter from the CEO and Chairman of the Management Board The Company's contribution to the achievement of the UN Sustainable Development Goals (SDGs)	P. 117
102-32	Highest governance body's role in sustainability reporting		About the report	P. 2
102-33	Communicating critical concerns	Any critical concerns are addressed at meetings of the Board of Directors	Annual Report: Board of Directors	
102-35	Remuneration policies		Board of Directors, Management Board	P. 115, 117
102-36	Process for determining remuneration		Board of Directors, Management Board	P. 115, 117
5	Stakeholder engagement			
102-40	List of stakeholder groups		Stakeholder engagement	P. 4
102-41	Collective bargaining agreements		Stakeholder engagement, Social support	P. 28, 82
102-42	Identifying and selecting stakeholders		Material topics	P. 4
102-43	Approach to stakeholder engagement		Stakeholder engagement	P. 33
102-44	Key topics and concerns raised		Material topics, Stakeholder engagement	P. 5, 33
6	Reporting practice			
102-45	Entities included in the consolidated financial statements		About the report	P. 14
102-46	Defining report content and topic boundaries		About the report	P. 2
102-47	List of material topics		Material topics	P. 5
102-48	Restatements of information	No significant restatements of information from the 2020 reporting were made during preparation of this Report		
102-49	Changes in reporting / Significant changes in the list of material topics	No significant restatements of information from the 2020 reporting were made during preparation of this Report	Material topics	
102-50	Reporting period		About the report	P. 2

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102-51	Date of most recent report		About the report	P. 2
102-52	Reporting cycle		About the report	P. 2
102-53	Contact point for questions regarding the report		Contact details	P. 150
102-54	Claims of reporting in accordance with the GRI Standards		About the report	P. 2
102-55	GRI content index	GRI content index		
102-56	External assurance		About the report	P. 2
103	Management Approach 2016			
103-1	Material topics and boundaries		Material topics	P. 4
103-2	Management approach and its components		Sustainable development management: management approach Environmental management: management approach Climate action: management approach Personnel development: management approach Health and safety: management approach	P. 24, 46, 51, 70, 87
103-3	Evaluation of the management approach		Sustainable development management: management approach Environmental management: management approach Climate action: management approach Personnel development: management approach Health and safety: management approach	P. 24, 46, 51, 70, 87
201	Economic Performance 2016			
201-3	Defined benefit plan obligations and other retirement plans		Corporate pension system	P. 83

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	202	Market Presence 2016		
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Partially disclosed Wages, Annexes	P. 136
	203	Indirect Economic Impacts 2016		
	203-1	Infrastructure investments and services supported	Local communities and charity: Contribution to local communities Annual Report: Investment activities	P. 107
	204	Procurement practices 2016		
	204-1	Proportion of spending on local suppliers across significant locations of operation	Procurement management: Import substitution	P. 132
	205	Anti-corruption 2016		
	205-1	Operations assessed for risks related to corruption	Sustainability risks Anti-corruption	
	205-2	Communication and training about anticorruption policies and procedures	Anti-corruption: Zero tolerance for corruption	P. 125
	205-3	Confirmed incidents of corruption and actions taken	Anti-corruption: Anti-corruption hotline	P. 124
	207	Tax 2019		
	207-1	Approach to tax	Responsible tax policy	P. 127
	207-2	Tax governance, control and risk management	Responsible tax policy Annual Report: Risk management	P. 127
	207-3	Stakeholder engagement and management concerns related to tax	Responsible tax policy	P. 127
	302	Energy 2016		
	302-1	Energy consumption within the organisation	Climate action: Energy efficiency, Annexes	P. 55, 138
	302-2	Energy consumption outside of the organisation	Reporting not required by law	
	302-3	Energy intensity	Climate action: Energy efficiency	P. 55
	302-4	Reduction of energy consumption	Climate action: Energy efficiency	P. 55

	GRI standard	Comments	Report section	Page
303	Water and Effluents 2018			
303-2	Management of water discharge-related impacts		Water resources	P. 62
303-4	Water discharge		Water resources: Wastewater discharge Annexes	P. 63
303-5	Water consumption		Water resources: Water consumption	P. 62
GRI 304	Biodiversity 2016			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Russian Railways does not own, lease or manage any operational sites in areas of natural value or specially protected areas		
304-2	Significant impacts of activities, products, and services on biodiversity	No significant direct or indirect impact of Russian Railways on sensitive ecosystems and biodiversity was recorded in the reporting period	Biodiversity conservation	P. 66
304-3	Habitats protected or restored		Action plan to protect Lake Baikal, Biodiversity conservation	P. 44, 66
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Russian Railways does not keep record of the IUCN Red List species and national conservation list species with habitats in areas affected by its operations due to its vast geographical presence		
GRI 305	Emissions 2016			
305-1	Direct (Scope 1) GHG emissions		Climate action: GHG emissions	P. 53
305-2	Energy indirect (Scope 2) GHG emissions		Climate action: GHG emissions	P. 53
305-3	Other indirect (Scope 3) GHG emissions	The Company currently does not calculate any indirect GHG emissions associated with the purchase of construction materials, rolling stock and supplies, as well as any other goods (Scope 3)		
305-4	GHG emissions intensity		Climate action: GHG emissions	P. 53
305-5	Reduction of GHG emissions		Climate action: GHG emissions	P. 53

	GRI standard	Comments	Report section	Page
305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	Partially disclosed	Air protection	P. 57
GRI 306	Waste 2020			
306-1	Waste generation and significant waste-related impacts		Waste generation	P. 59
306-2	Management of significant waste-related impacts		Waste generation	P. 59
306-3	Waste generated		Waste generation, Annexes	P. 59
306-4	Waste diverted from disposal	Partially disclosed. No breakdown for hazardous and non-hazardous waste is provided	Waste generation, Annexes	P. 59
306-5	Waste directed to disposal	Partially disclosed. No breakdown for hazardous and non-hazardous waste is provided	Waste generation, Annexes	P. 59
GRI 307	Environmental Compliance 2016			
307-1	Non-compliance with environmental laws and regulations			
GRI 401	Employment 2016			
401-1	New employee hires and employee turnover		Personnel development: Personnel structure and turnover, Annexes	P. 78, 136
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Benefits provided to employees do not depend on their status or employment terms		
GRI 403	Occupational Health and Safety 2018			
403-1	Occupational health and safety management system		Health and safety: management approach	P. 87
403-2	Hazard identification, risk assessment, and incident investigation		Health and safety	P. 88
403-3	Occupational health services		Health and safety	P. 87
403-4	Worker participation, consultation, and communication on occupational health and safety		Health and safety	P. 87

	GRI standard	Comments	Report section	Page
403-5	Worker training on occupational health and safety		Health and safety: Health and safety training for employees	P. 94
403-6	Promotion of worker health		Health and safety: Working conditions and occupational safety improvement Personnel development: Social support	P. 84, 92
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		Health and safety: Working conditions and occupational safety improvement	P. 91
403-9	Work-related injuries		Health and safety	P. 89
403-10	Work-related ill health		Health and safety: Work-related ill health	P. 92
GRI 404	Training and Education 2016			
404-1	Average hours of training per year per employee		Personnel development: Employee training and development	P. 81
404-2	Programmes for upgrading employee skills and transition assistance programmes		Personnel development: Employee training and development	P. 79
404-3	Percentage of employees receiving regular performance and career development reviews		Personnel development: Employee training and development	P. 79
GRI 405	Diversity and Equal Opportunity 2016			
405-1	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity		Personnel development: Ensuring equal rights for employees Annexes	P. 76, 137
GRI 406	Non-Discrimination 2016			
406-1	Incidents of discrimination and corrective actions taken	Russian Railways has rules in place to ensure non-discriminatory access of customers to transportation services. No incidents of discrimination were recorded in 2021	Personnel development: Ensuring equal rights for employees	P. 76

	GRI standard	Comments	Report section	Page
	GRI 408 Child Labour 2016			
408-1	Operations and suppliers at significant risk for incidents of child labour	Russian Railways and its suppliers do not use child labour in their operations. No incidents involving the use of child labour were recorded by the Company in 2021		
	GRI 409 Forced or Compulsory Labour 2016			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	No incidents involving the use of forced or compulsory labour were recorded by the Company in 2021		
	GRI 411 Rights of Indigenous Peoples 2016			
411-1	Incidents of violations involving rights of indigenous peoples	No incidents of violations involving rights of indigenous peoples were recorded by the Company in 2021		
	GRI 413 Local Communities 2016			
413-1	Operations with local community engagement, impact assessments, and development programmes	Partially disclosed. Russian Railways does not evaluate performance related to local community engagement	Local communities and charity	P. 106
	GRI 415 Public Policy 2016			
415-1	Political contributions	Pursuant to its Code of Business Ethics, Russian Railways does not finance or otherwise support any political parties and non-profit organisations engaged in political activities. The Company neither finances nor otherwise supports any individuals, including its employees, engaged in political activities		
	GRI 416 Customer Health and Safety 2016			
416-1	Assessment of the health and safety impacts of product and service categories	Partially disclosed	Health and safety: Non-occupational injuries	P. 97
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Partially disclosed	Health and safety: Non-occupational injuries	P. 97

Contact details

GRI 102-53, 102-3

We will be happy to answer any additional questions about this Report and welcome feedback from all our stakeholders on how to develop and improve the content of our future public reporting.

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