MMK is a company with a long and proud history of leadership

Our values, traditions, and expertise have been passed down through generations, and this makes us different from our peers around the world

For more information on our approach to sustainability please visit https://mmk.ru/en/sustainability/

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- Approach to sustainability management
- Sustainability risk management
- Sustainability strategy and goals
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Responsible practices

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- Business ethics, anti-corruption, and feedback mechanisms
- Information security and cyber risks
- Innovation, research, and digitalization
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- Product quality and customer relations
- Plans for 2023 and the medium term

Environmental responsibility

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- Energy consumption and efficiency
- Approach to environmental management
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- Water management
- Efficient use of resources and waste management
- Biodiversity conservation
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- About the Report
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Q&A with the CEO

MMK Group has actively followed ESG principles in recent years. How did the situation develop in 2022? Can we assume that the Group’s priorities in this area have changed?

A

Over the past year, the entire Russian economy was in a state of fairly high uncertainty and had to face new challenges. In one way or another, 2022 was a year of change for many of us. However, I can say with confidence that this has not affected our ESG activities. We continue to integrate best practices and principles into the Group’s operations and maintain our focus on sustainable development. We believe that abandoning ESG would be detrimental to our performance, so we remain focused on social development, addressing environmental issues, and improving corporate governance. MMK Group will adhere to the development vector set out in its strategy as it adapts to the new market reality.

What are the Group’s current sustainability priorities? How do you see the Group’s sustainability prospects?

A

As a responsible and sustainable company and a leader in the metals industry, a top priority for the Group is its Development Strategy: 2025 remains in effect, as does our commitment to sustainability and the highest standards of health and safety. MMK Group’s strategy is supported by three key initiatives: the Zero Injuries initiative targets creating a safe production culture, automating safety systems at industrial sites, and reducing fatalities; the Zero Infections initiative targets creating the highest standards of health and safety; and the Corporate Culture of Opportunities initiative promotes engagement and innovation within the Company and provides a cutting-edge environment for employees to realise their professional and personal potential. Lastly, the Group annually verifies GHG emissions as part of its Continuous Improvement of Environmental Performance and Reduction in CO2 Emissions initiative. In 2022, it was also important to deal with logistics and import substitution issues without compromising MMK Group’s performance.

How has the Group’s corporate governance changed?

A

Corporate key performance indicators (KPIs) were embedded in the bonus system for top management in the reporting year. Annual bonus indicators for managers at the level of chief specialists, production director, and workshop manager were approved for 2022. And, specifically, a performance indicator for meeting the environmental safety requirements was set for all managers. In connection with the changes in the standard logistics arrangements, an import substitution group has been operating at MMK since March 2022. It determines equivalents of the main critical equipment and tools for new solutions to purchase sanctioned material and technical resources.

What are the areas of social support for employees in 2022?

A

Social support for employees and their families, as well as residents of MMK Group’s regions of operation, has been systematic and long-term. These activities are recognised and reflected in professional ratings. For example, at the end of 2022, MMK was the leader in the social policy and HR module, having achieved the highest score among all participants in the sustainability ranking of the Expert magazine, and came top in several employer ratings. In 2022, the plant was a finalist of the Investors in People Awards, a prestigious international HR award.

What environmental and sustainability achievements can be highlighted in the reporting year?

A

In 2022, the Group continued to provide employees with access to a wide range of medical services and implement comprehensive medical programmes, compensate the cost of health resort treatment and children’s leisure, support healthy lifestyle and expand sports and physical training opportunities, stimulate birth rates, support maternity and large families, and meet its housing, youth, educational, and other voluntary social commitments.

Have the events of 2022 affected innovation, technology, and digitalisation at the Group? What projects were implemented during the reporting year?

A

Digitalisation and upgrading the plant to the best available technology remain our key focus areas. In 2022, despite the challenging market situation, we implemented 36 digital projects. One of them was launching the computerised system for digitalisation management MMK-Tal (MMK-Tal). The Total Optimisation System at Hot-Rolling Mill 2000 in Sheet Rolling Shop 810 was recognised as the digital project of the year as part of the Digital Olympus corporate award. Its implementation has already had an economic effect of USD 165.79 million, while the total confirmed economic effect from implemented digital projects in 2022 was USD 84.7 million.

MMK Group also continues with its previously planned R&D activities. In 2022, the Company entered into 17 new contracts with R&D organisations, the most significant of which aim at developing and implementing new steel grades and rolled steel production technologies.

How do you see the MMK Group’s sustainability prospects?

A

We will continue to actively adopt best practices and integrate ESG principles into all aspects of the Group’s operations while implementing the planned projects. In particular, we intend to automate the data collection process for ESG reporting and implement the measures outlined in the roadmap for the development of corporate reporting, management and disclosure of information on sustainability issues.

Pavel Shilyaev, Chief Executive Officer
For 90 years, MMK has been one of the world’s largest steelmakers

1932:
The first blast furnace was built in just 19 months. The first pig iron was produced on 1 February 1932. Since then, this date has been considered to be MMK’s date of birth.

1933:
On 8 July 1933, the first Magnitogorsk steel was produced at open-hearth furnace No. 1. This was the beginning of steelmaking at MMK. The second open-hearth furnace was brought into operation on 18 August 1933. In total, four furnaces became operational that year.

1934:
On 8 August 1934, MMK commissioned its first medium-plate Mill 500 in Magnitogorsk, and so became an enterprise encompassing the entire production chain.

1935–1940:
In 1937, MMK began sinter production, commissioning Sinter Plant No. 1. In 1940, the enterprise comprised four blast furnaces, 16 open-hearth furnaces, two blooming mills, and six long products mills. MMK accounted for 21% of pig iron, 12% of pig iron and 10% of steel production in the USSR.

1941–1945:
During the Second World War, MMK became the largest supplier of metal products for the country’s needs. During the war, the plant expanded its production capacities with two blast furnaces, two sinter units, four coke-oven batteries, five open-hearth furnaces, and two mills to produce armour plates.

1946–1989:
After the war, MMK remained the flagship of Russia’s iron and steel industry. Steel production had skyrocketing growth rates, with new capacities commissioned almost every year. By the end of the 1980s, MMK ramped up its production to 16 million tonnes of steel or 10 open-hearth furnaces and 12 million tonnes of finished rolled products.

1990–2000:
In 1990, MMK commissioned the cutting-edge oxygen-converter steel production method. In 1992, MMK was privatised and became an open joint stock company. In 1994, the largest Hot-Rolling Mill 2000 was put into operation. In 1999, MMK commissioned the third converter at the BOF Shop and a comprehensive coke gas cleaning shop. The Company modernised its blast furnace and sintering operations and increased its coated steel capacities.

2001–2015:
In April 2007, MMK completed its initial public offering (IPO) for more than USD 1 billion. In 2009, MMK completed one of the largest projects in its history, launching Hot-Rolling Mill 5000. Also in 2009, the Belon coal company (later renamed MMK-COAL) joined the Group, which contributed an increase in self-sufficiency in coal concentrate. In 2011, the acquisition of shares in the metallurgical complex in Turkey, which became a part of the Group as MMK Metalurji. In 2011 and 2012, MMK commissioned Phases 1 and 2, respectively, of Cold-Rolling Mill 2000.

2022:
Today, MMK is an integrated high-tech steelmaking company. We continue to improve, develop and strive for a sustainable future, leveraging our many years of expertise and professionalism throughout generations, as well as our culture and traditions.

Today, MMK stays true to its traditions and continues to improve, forming a sustainable future.
By sharing knowledge, developing talent, and building a strong culture...

SOLID FOUNDATIONS

LONG-STANDING VALUES THAT ENDURE TODAY

The early days of MMK coincided with the emergence of the Stakhanov movement and the two shared many values. For example, the movement’s principle of rewarding employees for increased productivity was an important basic tenet for MMK. Similarly, a commitment to the “common cause”, perseverance in achieving goals, courage, competitiveness, a thirst for knowledge, desire to improve professional standards, and responsibility for oneself and the team were established as founding principles for MMK and remain so today.

EMPLOYEE TRAINING AND MOTIVATION

During the reporting period, the Group paid special attention to the training of its employees and conducted thematic courses to develop their skills. We also continued our cooperation with universities and opened two training centres on the basis of G. I. Nosov Magnitogorsk State Technical University for the training of highly qualified specialists in the engineering and technical fields. Thanks to the initiatives we implemented, we have achieved success and were awarded the President of the Russian Federation’s “For Success at Work” prize. In 2022, we improved responsible HR practices. The MMK Group conducted a sociological study of employee well-being in order to analyse the factors of employee tension. Based on the results of the study, we have taken measures to reduce tension among employees. The Group is increasing the involvement of employees in its activities by implementing the MMK Innovators project. Any employee in the Group can take part in the project and propose an innovative idea. In this way, we confirm that the opinions of our employees are of particular value to us.

CONFIDENT FUTURE

Employees are our main asset, as the successful development of the Group depends on them. We therefore strive to create the most favourable conditions for maintaining their professional, social and physical well-being and for developing MMK’s human resources potential.
The second half of the 1930s was an endurance test for the young MMK plant. Its fortunes were closely followed both internationally and within the USSR. Soviet newspapers reported its every achievement and it was used as an example for other enterprises in the country. 1934 was a landmark year for MMK: ‘Mill 500’ was brought into operation. With this, the first medium-sized rolling mill coming online, MMK had mastered the full metallurgical cycle. By July 1936, over a million tonnes of Magnitogorsk rolled products had been produced. The metal that Magnitogorsk produced before the Second World War was used in the construction of the Moscow Metro, the White Sea Baltic Canal and the Moscow-Volga Canal. It was also supplied to thousands of enterprises that made locomotives, tractors, machine tooling units, cars, ships, and combine harvesters, for the Soviet Union.

For many years, we have maintained a leading position in the Russian market by investing in highly efficient production and developing a portfolio of high-quality premium products. MMK steel finds application in the implementation of national and infrastructure projects that are drivers of the country’s economic growth.

Launch of new products: 877 ths tonnes
2021: 961 ths tonnes

MMK’s share in the premium products market: 24%
2021: 24%

LEADER IN A GROWING MARKET

The cumulative growth of metal consumption by 2025 in all sectors of the Russian economy will be about 23% by 2025¹. At the same time, the consumption of premium products, for which there is a significant potential for import substitution, will grow at a faster pace. MMK Group offers unique premium products on the market, which make up 40-50% of our product portfolio. In 2022, we continued to develop new types of products, focusing on new markets. Magstrong steel meets modern trends in the field of carbon footprint reduction, cold-resistant grades have the necessary characteristics for ice-resistant platforms and LNG. Thus, MMK Group strives to fully meet the growing demand in Russia for premium metal products in the long term.

¹ According to the basic forecast of the Ministry of Industry and Trade of Russia in the updated "Strategy for the development of the metallurgical industry of the Russian Federation for the period up to 2030".
Despite the difficulties of 2022, we continued to implement our strategic projects and assessed their economic efficiency. Simultaneously with the development of its own projects, MMK Group continues to cooperate with the innovation centers “Skolkovo”, “Innopolis University”, “Artificial Intelligence Cluster”. MMK Group’s digital projects are also aimed at solving environmental and social issues. For example, in 2022, we continued to work on the implementation of an automated system for analysing emissions of pollutants in order to record the level of emissions in real-time and, if necessary, implement corrective measures. MMK Group will continue to implement innovations in order to contribute to solving global problems.

A GREAT EXPERIMENT

Magnitogorsk Iron and Steel Works began as a great experiment. Over the course of many decades, it became a massive laboratory, as well as a source of ideas and initiatives that enriched not only Russia’s metals industry, but that of the world. Many of the initiatives that were “made in Magnitka” were applied in a huge variety of industrial spheres and over time, MMK came to be a hallmark of quality. These ideas were shared with future generations through teaching at the Mining Faculty at Magnitogorsk Metallurgical Institute (MMMI).

In these years, MMK not only produced the best value steel and many highly qualified specialists, but also generated brilliant engineering ideas. In the 1960s and 1970s, MMK was called “The Magnitka School” and “The Academy of Metallurgy.” It shared its experience widely, not only with Russian enterprises, but also with foreign ones. Magnitogorsk metalworkers worked in Poland, Bulgaria, Hungary, India, the UAE.

SIX Core Values

- Quality
- Safety
- Innovation
- Sustainability
- Customer Focus
- Ethics

DIGITALISATION AND INTRODUCTION OF NEW TECHNOLOGIES

From the Industry 4.0 concept, we have transformed a set of our strategic initiatives into the MMK Group Digitalisation Strategy until 2025. Despite the difficulties of 2022, we continued to implement our strategic projects and assessed their economic efficiency. Simultaneously with the development of its own projects, MMK Group continues to cooperate with the innovation centers “Skolkovo”, “Innopolis University”, “Artificial Intelligence Cluster”. MMK Group’s digital projects are also aimed at solving environmental and social issues. For example, in 2022, we continued to work on the implementation of an automated system for analysing emissions of pollutants in order to record the level of emissions in real-time and, if necessary, implement corrective measures. MMK Group will continue to implement innovations in order to contribute to solving global problems.

SOLID FOUNDATIONS

PROVIDING FOR OUR COMMUNITIES

Even before the Second World War, MMK paid great attention to the social sphere. In 1931, families of first builders were officially settled in Magnitogorsk. Construction works on nurseries and schools began, as well as hospitals, canteens, clubs, libraries and theatres. The 1950s and 1960s saw extensive transformation of Magnitogorsk’s social sphere. It was in this period that MMK built holiday homes on Lake Bannoye and in Abzakovo for metalworkers and their families, and opened health-spas in Yalta and Essentuki. There were also children’s recreation camps, as well as dachas for kindergarten age children.

Well-being of local communities are directly influenced by MMK Group’s operations. Therefore, we strive to improve ourselves not only to achieve high financial results, but also to ensure favorable environment, decent level of development and socioeconomic stability for the regions where we operate.

Social investments:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>$15.3 mln</td>
</tr>
<tr>
<td>2022</td>
<td>$16.3 mln</td>
</tr>
</tbody>
</table>

Total costs for implementation of environmental activities:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>$309.1 mln</td>
</tr>
<tr>
<td>2022</td>
<td>$196.3 mln</td>
</tr>
</tbody>
</table>

Comprehensive Air Pollution Index:

<table>
<thead>
<tr>
<th>Year</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>5.7 units</td>
</tr>
<tr>
<td>2022</td>
<td>5.8 units</td>
</tr>
</tbody>
</table>

... to build a strong foundation for sustainable future for all.

SOCIAL RESPONSIBILITY IN THE DEVELOPMENT OF LOCAL COMMUNITIES

MMK Group strives to take care of the environment and reduce its negative impact so that local residents in the regions of presence have access to clean water and air. We support sports events, develop industrial tourism, and hold educational events for young people. In 2022, we continued to implement charitable projects together with the Metallurg Charitable Foundation. The Foundation regularly collects feedback, and according to the results of a survey in 2022, more than 80% of beneficiaries noted the level of project implementation as high.
About MMK Group
We use high-tech and top-end solutions to produce premium quality steel products.
Our asset base with a full production cycle from extraction and processing of raw materials to production of steel products makes us one of the most cost-effective steelmakers in the world. MMK’s shares are traded on the Moscow Exchange under the ticker symbol MAGN.

MMK – is a leading Russian metals company
- Supplier of steel to the domestic market
- Producer of premium steel products
- Supplier of steel to the automotive industry
- Supplier of galvanised and polymer-coated steel
- The only producer of tinplate in Russia

2022 HIGHLIGHTS

OPERATIONAL
Steel output
11.7 M TONNES
2021: 10.6 M tonnes
Sales of metal products
10.7 M TONNES
2021: 12.3 m tonnes

SUSTAINABILITY
Share of premium products in group sales
44.0%
2021: 46.8%
GHG intensity
2.19 T CO2E/T OF STEEL
2021: 2.01 T CO2E/T OF STEEL
LTIFR
0.54
2021: 0.66
LYIFR
18.95
2021: 23.20

Share of MMK Group in the supplies to the Russian market
16.2%

Steel segment Russia is focused on the market of Russia and the countries of Former Soviet Union (FSU)
The Russian steel segment includes the main asset MMK located in Magnitogorsk, Chelyabinsk Region. The segment also includes an iron ore production and processing facility, a top-three metalware producer in Russia and one of Russia’s largest producers of polymer-coated steel products with a unique high-quality coating.

Steel segment Turkey produces and sells steel products in the markets of the Middle East, Europe and Asia
The Turkish segment includes an enterprise with a compact strip production facility producing hot-rolled products, cold-rolled and coated steel products from facilities and its own port.

Coal mining segment meets MMK Group’s needs for coal concentrate
Coking coal concentrate from our Kemerovo mines is used in Magnitogorsk to produce coke for steelmaking.

MMK’s prime geographical location means it is ideally-placed to supply its products to the regions of Russia and FSU where levels of metal consumption are highest

MMK group sales
10,703 THOUSAND TONNES
Domestic market sales
9,176 THOUSAND TONNES
Export market sales
1,526 THOUSAND TONNES

Share of MMK Group in the supplies to the Russian market
16.2%

Key SDGs:

INVESTMENT IN LOCAL COMMUNITIES AND CHARITY

EMPLOYEE ENGAGEMENT

Investment in local communities and charity

$15.3 MILLION

1 At the end of 2021, the method to calculate injury rates was introduced. Accidents registered in MMK Group’s industrial site were used for calculation including outside companies.
2 Hereafter, the share is calculated as a percentage of steel products sales in tonnes.
3 For Russia Steel Segment, the domestic market includes Russian and FSU markets that are geographically close to MMK Group.
4 Including the sales of Turkey Steel Segment.
5 Georgia, Armenia, Tajikistan, Kyrgyzstan and other.

Additional highlights:
- MMK group sales
- Domestic market sales
- Export market sales

Appendices

Iskenderun
Georgia
Armenia
Azerbaijan
Kazakhstan
Uzbekistan
Turkmenistan
Tajikistan
Belovo
Magnitogorsk
Lysva
Turkey
Russia
Belarus
Other FSU countries
Russia
Uzbekistan
Kazakhstan
Belarus
Other export destinations
Middle East
Europe
Asia
Africa
Other export destinations
**Business model**

MMK brings together the processes that shape integrated and efficient production: an innovative approach to raw materials production and methods of use, operational efficiency culture, digital innovations to ensure sustainable growth.

### Financial
- The strongest balance sheet in the sector
- A large portfolio of available, undrawn credit facilities
- Prudent capital allocation

**CAPEX:** $1,098 million

### Production
- **Pig iron:** 10 million tonnes per year
- **Steel (3 BOF):** 10 million tonnes per year
- **Pig iron (8 blast furnaces):** 8 million tonnes per year
- **Production in eight oxygen-converter shops:** 6 million tonnes per year

### Raw materials
- We use our own iron ore and coal.

### Existing suppliers database
- Divisions of own sales network:
  - Steel (2 electric arc furnaces and 1 double-hearth furnace)
  - 6 million tonnes per year

### Charities investments
- **Innovative approach to raw materials:**

**MMK brings together the processes that shape integrated production and methods of use, operational efficiency culture, digital innovations to ensure sustainable growth.**

---

### RESULTS

<table>
<thead>
<tr>
<th>Products</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pig iron production</td>
<td>9.1 MT</td>
</tr>
<tr>
<td>Crude steel production</td>
<td>11.7 MT</td>
</tr>
<tr>
<td>Crude steel production</td>
<td>10.7 MT</td>
</tr>
<tr>
<td>Sales of premium products</td>
<td>4.7 MT</td>
</tr>
</tbody>
</table>

**Gross air emissions:** 157.1 kt

---

### Social and relationships
- **Stakeholders:** customers, suppliers, contractors
- **Stakeholders:** employees, customers

### Intellectual
- **Patent applications:** 3
- **R&D expenses:** $15.3 million
- **Number of patents:** 2,143
- **Employee training was taken:** 53,191 man-courses of OHS training and development:
  - 64% of our sales are made within the domestic market (Russia and FSU countries)

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  - 64% of our sales are made within the domestic market (Russia and FSU countries)
## MMK and MMK Group’s contribution to the UN SDGs in 2022

### Environmental protection, combating climate change and improving energy efficiency

<table>
<thead>
<tr>
<th>Targets</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.9.</strong></td>
<td>Continued construction of Coke Battery Complex #12 that will significantly reduce environmental impact and CO2 emissions.</td>
</tr>
<tr>
<td></td>
<td>Commissioned the dust suppression system for the high-flue bunkers of Blast Furnace #10. With the system efficiency of 80%, it made it possible to reduce dust emissions into the air by 55 tonnes per year.</td>
</tr>
<tr>
<td></td>
<td>12 automatic systems installed to measure emissions. Two dust meters installed. Currently, more than 63% of emissions are controlled through the environmental monitoring complex.</td>
</tr>
<tr>
<td></td>
<td>New dust exhausting units constructed for electric arc furnaces (EAF-1, EAF-2) at the electric arc furnace shop. Dust exhausting units are in pilot operation. The environmental effect is to reduce dust emissions by 200 tonnes per year.</td>
</tr>
<tr>
<td></td>
<td>Three stations of the MMK monitoring network commissioned in Bruskoy, Tatarskoye, and Nizhnekamsk, on the border of the sanitary protection zone, an additional mobile environmental station acquired.</td>
</tr>
<tr>
<td><strong>6.3.</strong></td>
<td>Increased the share of recycled and reused water.</td>
</tr>
<tr>
<td></td>
<td>Commissioned the newly built final wastewater treatment facilities at the Chertskaya-Koksovaya mine for pilot operation. The environmental monitoring complex covers all production processes affecting the environment.</td>
</tr>
<tr>
<td></td>
<td>Constructed a wastewater aeration and oil recovery system at the sediment basin of the northern industrial wastewater channel. The environmental effect is to reduce oil product discharge into the recirculating water supply system by 50 tonnes per year.</td>
</tr>
<tr>
<td><strong>6.b.</strong></td>
<td>Participated in the 27th and 28th meetings of the Urals Basin District Council (the Basin Council).</td>
</tr>
<tr>
<td></td>
<td>Changed the system for the limestone quarry water disposal to terminate quarry operations in the Magnitnaya Mountain; an additional mobile environmental station acquired.</td>
</tr>
<tr>
<td><strong>7.3.</strong></td>
<td>Started pilot operation hourly planning of coke, blast furnace and natural gas consumption with the corresponding deviation analysis. The purpose is to reduce losses of coke and blast furnace gas at gas-discharge units (GDUs).</td>
</tr>
<tr>
<td></td>
<td>Completed the lighting fixture revamping in the general lighting systems of the technological workshops during the hours of maximum and minimum rates for electric power.</td>
</tr>
<tr>
<td></td>
<td>Executed energy service contracts while implementing the lighting fixtures revamping project in the general lighting systems of the technological workshops (phase IV).</td>
</tr>
<tr>
<td></td>
<td>Started a project on monitoring the environmental situation in Magnitogorsk under various operating conditions at technological units and depending on the technical condition of the equipment and environmental protection facilities. The environmental monitoring complex makes it possible to continuously control the state of pollution sources, the air and water bodies in the MMK’s environmental impact zone, forecast changes in the level of man-made impact on the air in Magnitogorsk, under various operating conditions at technological units and depending on the technical condition of the equipment and environmental protection facilities. The environmental monitoring complex covering all production processes affecting the environment.</td>
</tr>
<tr>
<td></td>
<td>Implemented a unified environmental management system of the environmental monitoring complex covering all production processes affecting the environment.</td>
</tr>
<tr>
<td></td>
<td>Established a unified environmental management system of the environmental monitoring complex covering all production processes affecting the environment.</td>
</tr>
<tr>
<td><strong>8.4.</strong></td>
<td>Established a unified environmental management system of the environmental monitoring complex covering all production processes affecting the environment.</td>
</tr>
</tbody>
</table>

### Ensure healthy lives and promote well-being for all at all ages

<table>
<thead>
<tr>
<th>Targets</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12.2.</strong></td>
<td>Worked on the project to reclaim the decommissioned Western Quarry in the Magnitogorsk Mountain. Reclamation work is underway at the Podmoskovny deposit, as well as decommissioning of the Eastern Quarry in the Magnitogorsk Mountain, etc.</td>
</tr>
<tr>
<td></td>
<td>Changed the system for the limestone quarry water disposal to terminate quarry wastewater discharge into the Ural River.</td>
</tr>
<tr>
<td><strong>12.4.</strong></td>
<td>Constructed a plant for lubricant/coolant recycling at rolling shops.</td>
</tr>
<tr>
<td><strong>12.5.</strong></td>
<td>Reduced MMK Group’s waste generation as a result of its operations by 14.6% compared to 2020.</td>
</tr>
<tr>
<td><strong>12.6.</strong></td>
<td>Improved position in the World Wildlife Fund ranking in the categories of Environmental Management and Environmental Impact. Sixth place in the environmental transparency ranking of mining and metals companies.</td>
</tr>
</tbody>
</table>
**Development of the region of presence and local communities**

<table>
<thead>
<tr>
<th>Targets</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.3.</td>
<td>Implemented 36 digital projects</td>
</tr>
<tr>
<td>8.4.</td>
<td>Implemented a project to upgrade the rolling mill 2000 at Sheet Rolling Shop #10</td>
</tr>
<tr>
<td>9.2.</td>
<td>Implemented two infrastructure projects to build industrial IoT networks as part of implementing Industry 4.0 concept</td>
</tr>
<tr>
<td>9.5.</td>
<td>Concluded 17 new R&amp;D contracts with research organisations. The most significant of them are the three contracts to develop and introduce a technology for producing new special alloy steel, six contracts to develop a technology for producing rolled steel withoutpickling with niobium</td>
</tr>
<tr>
<td>9.6.</td>
<td>Implemented a project to develop a state-of-the-art technology to produce hot-rolled sheet with 1090/1500 and 1500/1500 grades and 345 and 440 strength grades of the new generation</td>
</tr>
<tr>
<td>9.7.</td>
<td>Developed and introduced a new end-to-end process to produce high-strength thick sheets of Kh80 (Kh100, Kh250, K70) grades</td>
</tr>
</tbody>
</table>

**Responsible practices**

<table>
<thead>
<tr>
<th>Targets</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2.</td>
<td>Implemented 36 digital projects</td>
</tr>
<tr>
<td>8.4.</td>
<td>Implemented a project to upgrade the rolling mill 2000 at Sheet Rolling Shop #10</td>
</tr>
</tbody>
</table>

**HR management**

<table>
<thead>
<tr>
<th>Targets</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4.</td>
<td>Continued implementation of MMK Health Leaders Project</td>
</tr>
<tr>
<td>3.7.</td>
<td>Introduced a modern information system (MIS) that has changed the way medical services are managed and improved the efficiency and quality of patient services</td>
</tr>
<tr>
<td>3.8.</td>
<td>Introduced a modern information system (MIS) that has changed the way medical services are managed and improved the efficiency and quality of patient services</td>
</tr>
</tbody>
</table>

**Occupational health and safety**

<table>
<thead>
<tr>
<th>Targets</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8.</td>
<td>Continued implementation of the large-scale development strategy for Central Clinical Medical Unit approved until 2026. A new cardiology centre, an ophthalmology centre, and a rehabilitation centre were put into operation in 2022, while a modern information system (MIS) was implemented to change the medical services management process</td>
</tr>
<tr>
<td>3.9.</td>
<td>Promoted employee self-training in business ethics using knowledge testing terminals installed in workshops</td>
</tr>
<tr>
<td>3.9.</td>
<td>Developed VR training at MMK’s Safety School</td>
</tr>
<tr>
<td>3.9.</td>
<td>Arranged for OHS training at a specialised organisation</td>
</tr>
<tr>
<td>3.9.</td>
<td>Rolled out the Safety Navigator, an automated system to identify hazardous activities and conditions at Group entities</td>
</tr>
</tbody>
</table>

**Appendices**

**Our commitment to Region, Society and Environment**

<table>
<thead>
<tr>
<th>Targets</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</td>
<td></td>
</tr>
<tr>
<td>8.5.</td>
<td>Revised tariffs twice at PJSC MMK, by 2% in January and by 10% in June. Most of the Group entities raised their tariff rates as well</td>
</tr>
<tr>
<td>8.6.</td>
<td>Offered internships to young specialists undergoing training at the corporate Young Specialist Onboarding School</td>
</tr>
<tr>
<td>8.6.</td>
<td>Offered internships to young workers and their mentors</td>
</tr>
<tr>
<td>8.8.</td>
<td>Developed a programme to familiarise all employees with the Code of Ethics</td>
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</table>
Sustainability management

ESG aspects have been incorporated into the MMK Group’s Development Strategy. Their priority is confirmed by the fact that the Group factors the sustainability principles into its operations by focusing on environmental protection, industrial safety, employees’ health and well-being, as well as local community development, ethical business conduct, and effective corporate governance.

In 2022, MMK Group continued to implement the Strategy to 2025 in accordance with the priorities and the approved strategic initiatives portfolio. MMK Group stays constantly focused on sustainable development and makes its decisions accordingly. One of the Group’s goals is to ensure the most positive contribution to the social and economic development of the regions of presence, as well as to reduce the negative impact on the community and the environment.

The Group continues to develop a unified environmental management system. The goal of reducing specific GHG emissions to 1.8 tonnes of CO₂ equivalent per tonne of crude steel was included into the Development Strategy. The system of top management remuneration stipulates the achievement of company-wide KPIs including the specific GHG emissions indicator.

MMK Group makes efforts to ensure employees’ safety and reduce the number of accidents. The goal is to reduce the LTIFR to 0.45 by 2025. The Group strives to achieve the goal of zero injuries.

The Group began transferring its interaction with non-profit organisations (NPOs) to the grant system. The first grant contest of social projects for NPOs with the allocation of monetary grants to the winners was held at Metallurg CF. The top 10 projects selected by the expert jury received grants from MMK to implement their ideas on improving the social protection of the population.

Since March 2022, in connection with sanctions, the Group has been actively working on import substitution and restructuring of standard logistics arrangements. A special import substitution group was created to find new solutions for selecting equipment and procurement of resources. New procurement and supplier risks have arisen and need to be minimised, changes to and deferral of agreed delivery deadlines for equipment, materials and raw materials due to sanctions and changes in standard logistics chains, and uncoordinated changes in the technical and qualitative characteristics of the subject matter of the procurement.

Despite the external circumstances, the Group has successfully implemented the planned projects and started new ones. In 2022, 17 new R&D contracts with research organisations were concluded, 36 digital projects were implemented, one of those was launching MMK-Tsifra (MMK-Digit), computerised system for digitalisation management. The overall economic effect of previously implemented digital projects reached USD 8.47 million.

Approach to sustainability management

In order to achieve MMK Group’s goals and high sustainability results, its management focuses on the integration of the sustainability management system into the Company’s overall corporate governance system.

YAROSLAVA VRUBEL
Head of ESG
The Board of Directors ensures strategic management and supervision of sustainability activities and controls the implementation of plans. Reports on the Group’s sustainability activities are regularly provided to the Board of Directors at least annually.

The Committees of the Board of Directors support the Board in determining and monitoring the achievement of MMK’s strategic goals.

The Nomination and Remuneration Committee is responsible for the professional composition of the Board of Directors and succession planning, fair remuneration of the Board and senior management, establishing incentives for successful performance of the members of the management bodies, and ensuring the KPIs are integrated into the OHS strategy and indicators.

The Strategic Planning Committee monitors implementation of the Development Strategy, considers the impact of changes in the economic environment on the implementation in MMK’s strategic areas, and approves investment and innovation activities.

The Audit Committee evaluates the effectiveness of internal control and risk management systems, monitors the quality of financial and non-financial reporting, and ensures independence and objectivity of external and internal audits.

The Health, Safety and the Environment Committee is responsible for the MMK Group’s compliance with the safety standards, considers implementation of measures aimed at improving the OHS management system, monitors issues, and determines vectors of activity in the fields of environmental protection and occupational health.

The CEO manages sustainability activities, takes decisions and monitors the effectiveness of the MMK Group’s Development Strategy. The CEO delegates responsibility for managing sustainability matters to directors and heads of business areas.

The Sustainable Development working group is responsible for monitoring and implementing sustainability initiatives, collecting information from responsible business units and preparing non-financial reporting.

The Company also has special commissions for various areas of sustainable development to ensure effective allocation of responsibility and more detailed consideration of issues in specific areas.

Structural divisions facilitate the development of responsible practices at the level of Group subsidiaries. They focus on a variety of sustainability issues, including production, health and safety, environmental protection, HR management and economic sustainability. Structural divisions ensure compliance of internal measures with legal requirements and standards, are responsible for implementing initiatives and integrating sustainability principles into the operations and activities of contractors, monitoring and preparation of reporting.

The Sustainability governance framework of the Group

- Auditor
- General Shareholders’ Meeting
- Corporate Secretary
- Board of Directors
- Secretary to the Board of Directors
- Nomination and Remuneration Committee
- Strategic Planning Committee
- Audit Committee
- Health, Safety and the Environment Committee
- Management
- CEO
- Production Director
- Sales Director for the Russian Federation
- Corporate Matters and Social Programmes Director
- Minister of Internal Affairs of the Russian Federation
- Financial Officer
- Head of Financial Resources
- Security Director
- Director for Strategy and Development
- Chief Legal Officer
- Director of the Capital Construction Directorate
- Economics Director
- Human Resources Director
- Deputy CEO for External Communications
- Chief Specialist for Innovation
- Chief Power Engineer
- Commission for Accounts Payable and Accounts Receivable
- Commission for the Preservation of Property and Combating Corporate Fraud
- Commission for Labour Protection
- Commission for Ethics
- Commission for Labour Disputes
- Commission for Anti-terrorism
- Commission for Overheads
- CEOs of Group companies

LEVEL OF MMK’S COLLEGIATE BODIES

LEVEL OF COMPANIES OF THE GROUP

LEVEL OF COMPANIES OF THE GROUP

Organisational link

Functional areas and divisions of Group companies

Sustainability Report 2022
Sustainability risks, including economic, social and environmental risks, are managed in accordance with the MMK Group’s Risk Management Policy. Regulation is governed by the requirements of Russian laws and international standards, in particular:
- ISO 14001:2015 Environmental management systems – environmental risk management
- GRI 2-24 Low HR management approach
- GRI 2-29 Medium Occupational health and safety
- GRI 3-20 Medium Business ethics, anti-corruption and feedback mechanisms
- GRI 3-29 Medium Procurement and supply chain management

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The Group’s key sustainability risks changed slightly in 2022. Risks related to the environment and a decrease in the price spread have come to the fore. New risks also include risks related to sanction restrictions on work with suppliers and the production of products of inadequate quality. For each of the key risks, the factors determining its occurrence, as well as the list of measures to mitigate it, have been identified. Within the framework of the risk management system, MMK Group performs relevant measures for each risk group.

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### Stakes of interest

#### Employees
- Development of a unified approach to providing bonuses for the performance of project activity and for paying for project management without exemption from main duties
- Improvement of the social benefits package
- "D3777 persons trained in various areas.
- "27,244 persons trained in OHS.

#### Investors
- Transfer of investor relationships to the Sustainable Development team
- MMK held more than 400 offline and online meetings with investors.
- Replacement bonds were issued at the end of 2022 and the payments to more than 60% of investors holding Eurobonds were restored.

#### Customers
- Expansion of the customer service area: regional
- MMK held more than 400 offline and online meetings with investors.
- Replacement bonds were issued at the end of 2022 and the payments to more than 60% of investors holding Eurobonds were restored.

#### Suppliers and contractors
- Adding sanctions restrictions to internal sales
- Prioritization factors when working on foreign sales markets
- 0.67 – LTFR among contractors.
- 90% of supplies are from Russia.
- 88% – share of purchase from the Russian suppliers.

#### Local communities
- Implementing the first stage of the "Pryazhevskiy" project (multi-functional park complex).
- Holding the first grant contest of social projects for non-profit organisations (NPOs) with the allocation of monetary grants to the winners.
- Focus on the development of sailing. During the year Magnitogorsk hosted several sailing competitions at once, including competitions at the all-Russian level.
- 5.7 – Comprehensive Air Pollution Index (CAPI) in Magnitogorsk.
- $0.3 million – investments in the development of local communities and charity.
- 46% – share of subsidies implementing community engagement programmes.
- $10.7 million – support for NGOs, NPOs and charitable organisations.

#### Government bodies
- Implementing the first stage of the cultural municipal park complex "Pryazhevskiy" in Magnitogorsk.
- Participation in the "Transport Central Asia – 2022" International Industrial Exhibition.
- "Economic performance and market presence.
- Compliance with laws, including anti-corruption laws.
- Social and economic development of the region and provision of employment.
- Timely payment of taxes in full.
- Legislative improvement.

#### Environmental responsibility
- Worker remuneration and social benefits.
- Maintenance of the work position.
- Career growth and development opportunities.
- Safe working conditions.
- Ensuring OHS of producer (technological) processes.

#### Occupational health and safety
- Participation in the "Innoprom. Central Asia – 2022" Industry Exhibition.
- Implementation of the first stage of the "Pryazhevskiy" project (multi-functional park complex).
- Holding the first grant contest of social projects for non-profit organisations (NPOs) with the allocation of monetary grants to the winners.
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- 46% – share of subsidies implementing community engagement programmes.
- $10.7 million – support for NGOs, NPOs and charitable organisations.

#### Corporate governance
- Fair and transparent terms of participation in procurement procedures.
- Deliveries on contractual obligations.
- Safety culture development.
- Business ethics and anti-corruption matters.
- Support for OHS processes performed by contractors.

#### Anti-corruption and ethics
- Economic performance and market presence.
- Compliance with laws, including anti-corruption laws.
- Social and economic development of the region and provision of employment.
- Timely payment of taxes in full.
- Legislative improvement.
- Meeting environmental obligations.

#### Economic performance
- Social and economic development of the region and provision of employment.
- Timely payment of taxes in full.
- Legislative improvement.
- Meeting environmental obligations.
Membership in associations and organisations

MMK Group actively interacts with industry organisations: cooperation demonstrates the willingness to improve its own sustainability practices. MMK Group is a member of the following associations:

- Russian Union of Industrialists and Entrepreneurs (RSPP)
- Russian Steel Association
- Association of Industrialists of the Mining-Metallurgical Complex of Russia (AMROS)
- Chelyabinsk Regional Public Organisation “Union of Industrialists and Entrepreneurs”
- National Union of Internal Auditors and Controllers (NUIAC)
- Institute of Internal Auditors
- Union of Construction Companies of the Urals and Siberia (UCCUS)
- Social Charter of Russian Business
- Russian Business Ethics Network.

The Group also follows the TCFD recommendations (TCFD Suppliers list).

AWARDS OF THE GROUP IN 2022

- **Reliable Partner – Environment**
  MMK was awarded for its contribution to environmental protection due to the launch of new dust exhausting systems in the reporting period, which correspond to the best available technologies and have a treatment efficiency of more than 99%.

- **Ecotech-Leader 2022**
  MMK was the winner in the Reducing Harmful Air Emissions nomination.

- **Priority 2022**
  MMK was the winner in the ESG practices nomination for the environmental programme implementation and climate risk management.

- **Investors in People Awards 2022**
  MMK was the winner in the Reducing Harmful Air Emissions nomination.

- **Energy Management Insight Awards**
  MMK received an international award in energy saving and improvement of energy efficiency of production in accordance with international standard ISO 50001.
High standards of business conduct are at the heart of trusting relations with stakeholders. MMK Group adheres to the established principles and standards of fair conduct and expects the same commitment from all its stakeholders. To ensure compliance with the key principles of business conduct, the Group assesses compliance risks and takes measures to raise employee awareness.

One of the Group’s primary goals is to meet the needs of its customers. Through innovation and digital transformation, the Group is able to offer consumers new products that are unparalleled in the market. MMK’s responsible approach to building the supply chain and its well-developed quality management system help the Group effectively manage production at each stage of the life cycle.

### MATERIAL TOPICS
- Economic performance
- Corporate governance quality
- Anti-corruption and business ethics
- Human rights
- Compliance with sustainability principles in the supply chain

### CONTRIBUTION TOWARDS SDGs

<table>
<thead>
<tr>
<th>SUSTAINABILITY RISKS</th>
<th>MATERIAL TOPICS</th>
<th>2022 KEY HIGHLIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Corporate fraud</td>
<td>- Economic performance</td>
<td>100% of the employees were familiarised with the Anti-Corruption Policy</td>
</tr>
<tr>
<td>- Cyber risk</td>
<td>- Corporate governance quality</td>
<td>$8.83 million invested in R&amp;D and digitalisation</td>
</tr>
<tr>
<td>- Sanctions for violation of laws</td>
<td>- Anti-corruption and business ethics</td>
<td>128 reports received through the Security Directorate Hotline</td>
</tr>
<tr>
<td>- Defective products</td>
<td>- Human rights</td>
<td>94% share of Russian suppliers</td>
</tr>
<tr>
<td>- Decrease in the price spread</td>
<td>- Compliance with sustainability principles in the supply chain</td>
<td></td>
</tr>
<tr>
<td>- Non-fulfilment of obligations by buyers and customers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Sanction restrictions related to work with suppliers</td>
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</tr>
</tbody>
</table>

Responsible business practices make MMK Group a consistently reliable partner and employer.
**Business ethics, anti-corruption and feedback mechanisms**

**ETHICS AND ANTI-CORRUPTION MANAGEMENT**

**GRI 2-23, GRI 2-24, GRI 205-3**

MMK Group adheres to high standards of ethical business conduct and complies with the Russian laws on business ethics and anti-corruption.

The main regulatory document is the **MMK Corporate Code of Ethics** that establishes the principles of relations with clients, business partners, shareholders and investors, and between the Group’s employees. In December 2022, the Code of Ethics was updated in line with the amendments introduced into the MMK Group’s Strategy, as well as anti-corruption and anti-competition laws. The approval of the Code of Ethics is planned for 2023. The dedicated Commission for Ethics monitors compliance with the standards of business conduct set forth in the Code of Ethics.

Anti-corruption management is based on the **Anti-Corruption Policy**. The Security Directorate of the FSC MMK is responsible for the overall management of these issues. The Security Directorate oversees the assessment of corruption risks, performs conflict of interest checks and processes reports received through the Hotline.

MMK Group also has a dedicated subsidiary responsible for ensuring compliance with the laws of the countries where the Group operates.

In 2022, MMK Group continued to implement its anti-corruption compliance system. As part of this project, 19 new regulations were developed and 9 existing ones were supplemented. These documents are currently being approved.

The Group’s success in improving approaches to managing ethics issues and combating corruption is confirmed by the fact that there were no corruption offenses in 2022.

**COMPLIANCE RISK MANAGEMENT**

**GRI 205-1**

Compliance risks are managed as part of the Group’s risk management and internal control system. These risks are factored in when preparing the MMK Group’s annual risk map. Currently, the map contains the compliance risk "Sanctions for violation of laws on the use of mineral resources".

Under the project to create the anti-corruption compliance system, corruption risks were included into a separate group. In 2022, MMK Group developed the Regulations on Assessing Corruption Risks that are being approved now. No corruption risk assessment was performed in the reporting period.

Corruption risks are also inherent in the Group’s procurement operations. To strengthen control over third parties, MMK Group requests an expanded set of documents to check the integrity of counterparties and introduces new criteria for assessing their reliability. Anti-corruption checks of business partners and employees are also being worked out as part of the implementation of the anti-corruption compliance system.

**RAISING STAKEHOLDER AWARENESS**

**GRI 205-2**

A key element in ensuring compliance with ethical standards is timely communication of established requirements and operating principles to employees and external stakeholders.

MMK Group’s employees are regularly familiarized with internal documents on business ethics and anti-corruption. In 2022, the approach to teaching and learning the Code of Ethics to and by the MMK employees was revised. All managers and specialists in the Company’s business units received the relevant training. Moreover, in the reporting period, 603 people were tested on their knowledge of the Anti-Corruption Policy.

MMK Group’s stakeholder engagement is based on the principles of openness and trust. To this end, MMK Group operates a 24-hour anonymous Hotline of the Security Directorate through which the Group’s employees and external stakeholders may send their reports on potential or committed violations related to business ethics and anti-corruption. The Hotline operation is regulated by the Anti-Corruption Policy. According to this document, MMK Group guarantees that employees will not be subjected to retaliation or sanctions for reporting corruption.

In 2022, 128 reports were received through the Security Director’s Hotline, 9 of them were related to the quality of procurement tenders. As a result of conducted inspections, the terms of five tenders were adjusted and the control over the relevant counterparties was tightened.

The Group also has a separate Ethics Hotline to collect reports on compliance with business ethics. Incurring reports are processed by the Commission for Ethics on a confidential basis. During the reporting period, 2 reports on unethical behaviour when communicating with employees and counterparties were received through the Hotline. Awareness-raising discussions were held with the employees who committed these violations.

**MANAGEMENT OF CONFLICTS OF INTEREST**

**GRI 2-13**

The Board of Directors formulates the policy to identify, prevent, and resolve conflicts of interest. MMK Group maintains a register of stakeholders and accounts for interested party transactions. To keep the register of stakeholders up to date, the Group regularly updates questionnaires and notifications for members of the Group’s governing bodies. The Board of Directors approves the Report on Interested Party Transactions in the Reporting Year on an annual basis.

To prevent conflicts of interest, the Group’s employees are familiarized with the requirements of internal documents on identifying and monitoring conflicts of interest with signed acknowledgment.

In 2022, one conflict of interest was identified, and the employee involved was transferred to another position as a result of the investigation.
Information security and cyber risks

MMK Group complies with the laws of the Russian Federation and implements all the necessary measures to ensure security and safety of critical infrastructure facilities and personal data. The Group has a streamlined information security management system, but due to major changes in the external environment (including changes in Russian IT laws) it has focused its efforts on improving the operating model for information security management.

RISKS

- Attacks against information infrastructure
- Consequences of Computer Attacks

MEASURES

- Commission for technical protection of information and automated process control systems (APCS)
- Chair by Chief Information Technology Specialist

Protection of critical information infrastructure

- Commission for categorising and ensuring the security of MMK’s critical information infrastructure
- Chair by Deputy CEO for Production

Protection of personal data

- Commission for protection of personal data
- Chair by Human Resources Director

To effectively regulate information security issues, MMK Group has developed and applies a number of internal documents, standards and guidelines, including the Information Security Policy, the Guidelines for Managing Incidents in MMK Corporate Information System and at the MMK Group’s Subsidiaries, and the Plan for Responding to Computer Incidents and Eliminating Consequences of Computer Attacks. The Regulations on the Procedure for Processing Personal Data at RSC MMK were also updated in 2022. A well-developed system of internal documents enables MMK Group to clearly determine the approach to information security management and promptly identify and respond to possible incidents.

The Information Security Policy of PJSC MMK is available on the corporate website (in Russian). MMK Group regularly implements information protection measures. In 2022, the Group undertook the following measures to mitigate cyber risks:

- Tightening of information security policies at end points (anti-virus protection, anti-spam filters) and information security tools (firewalls, intrusion detection and prevention, remote access access)
- Inventory and blocking of remote access of contractors and service organisations to the infrastructure
- Blocking of network traffic from unfriendly countries
- Decommissioning of certain categories of software of foreign origin

Innovation, research and digitalisation

APPROACH TO DIGITALISATION AND INNOVATION

MMK Group understands that it stands to gain competitive advantage and become a market leader by introducing digital technologies. Furthermore, innovations increase business process efficiency and overall productivity and significantly improve production safety and environmental efficiency. MMK Group makes full use of digitalisation opportunities to improve its business sustainability and ensure market leadership in a competitive environment.

• Chaired by Human Resources Director

The Digital Committee and the Expert Group on Digitalisation (EGD) continued their work in 2022. The Digital Committee deals with issues related to implementation of digital initiatives and projects, and the EGD is responsible for previewing those issues. In the reporting period, the composition of the Digital Committee was updated and approved. The Chief IT Specialist took over the EGD leadership.

The Information Security Policy of PJSC MMK is available on the corporate website (in Russian). The goal of the Strategy is to create additional opportunities for implementing MMK Group’s strategic priorities through advanced technology solutions and a comprehensive approach to digitalisation in line with the Industry 4.0 concept. Despite the difficulties encountered as a result of the foreign RPA platform with a Russian platform for robot development. A large-scale project was implemented to migrate all functioning RPA robots to Russian software. The approved robotic automation schedule for 2022 was completed on a domestic platform, the licences for which were also acquired. These measures helped not only completely replace foreign software with Russian software in the ERP system, but also meet the previously approved 2023 budget.

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companies’ withdrawal from the Russian Federation, MMK Group continued its operations under the Strategy with 36 digital projects already implemented.

MMK Group considers internal and external factors when setting digitalisation and innovation goals. The 2022 digitalisation goals were adjusted to reflect the changes in the external environment during the reporting period.

USD 12.72 million for digital project costs
USD 8.47 million of economic benefit from previously implemented projects.

MMK’s Digital Transformation Plan for 2022

<table>
<thead>
<tr>
<th>GOAL</th>
<th>PROGRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active business engagement, development of new ways to generate ideas</td>
<td>• A mechanism for rewarding MMK employees for suggested business process digitalisation ideas was developed</td>
</tr>
<tr>
<td></td>
<td>• Twenty new digital initiatives were considered at meetings with digital leaders</td>
</tr>
<tr>
<td>Development of project management processes, methodologies and tools</td>
<td>• The procedure for post-investment monitoring of digital projects was launched to determine the actual economic efficiency of the Digitalisation Strategy in 2021 and 1H 2022</td>
</tr>
<tr>
<td></td>
<td>• The Regulations on Digitalisation Project Management were approved in addition to MMK’s project management standard</td>
</tr>
<tr>
<td></td>
<td>• The MMK-Tsifra (MMK-Digit) computerised system for digitalisation management was launched</td>
</tr>
<tr>
<td>Development of employee competencies and information support for digitalisation</td>
<td>• More than 50 specialists participating in digital projects under the Design Thinking, Business Process Optimisation, System Analysis for Solutions Development, and Change Management programmes were trained</td>
</tr>
<tr>
<td></td>
<td>• The Digital Olympus contest to identify the best digital idea, initiative, and project was held</td>
</tr>
<tr>
<td></td>
<td>• Winners in personal nominations among the digitalisation process participants were determined</td>
</tr>
</tbody>
</table>

Environmental Projects

Using innovative technologies as part of environmental management enables MMK Group to mitigate its negative impact on the environment. The project to monitor the environmental situation in Magnitogorsk and inform the population thereof was implemented in 2022. The information is posted on PISC MMK’s website in real time and displayed on information boards in Magnitogorsk.

In 2022, MMK Group continued to implement the project to create the automated information system (AIS) “Analysis of CO emissions from coke production.” To date, more than 30 video cameras have been installed to monitor and record gas leaks through doors at Coke-Oven Batteries R7 and R8 and gas leaks from gas exhaust ducts at superstructures of Coke-Oven Batteries R7, R8, and R9 and at a 24/7 basis. This solution is planned to be implemented at batteries Nos. 4 and 9 in 2023.

Environmental Monitoring Complex

At present, MMK is developing the environmental monitoring complex (EMC), a unified environmental management system that will cover all production processes affecting the environment.

The complex continuously controls the state of emission sources, monitors the air and water bodies in the area of MMK’s environmental impact, forecasts changes in the level of the man-made impact on the air in Magnitogorsk under various operating modes of technological units and depending on the technical condition of equipment and environmental facilities.

Thanks to the environmental monitoring complex, MMK employees will be able to promptly take remedial measures if emissions exceed the limit. This will be another important stage of our massive efforts to reduce the Group’s environmental impact.

Rationalisation

A key aspect of the MMK Group’s scientific and technological activities is the development of its employees’ technical creativity, so rationalisation has come to stay on the list of priorities. The efforts made in this area are systemic. The number and quality of suggested ideas are growing every year. For example, in 2022, expert panels analysed 22.5% more ideas than in 2021. 5,204 ideas, or 73.1% of the suggested total, were approved for further implementation. In 2022, the number of implemented innovation proposals reached 3,917, which is 26.2% more than in 2021.

To motivate employees, the Group’s management organizes contests, workshops, and other events. Every quarter, business units hold contests for the “Best Ideas for Solving Problems,” with prizes and material incentives awarded to authors. Another effective tool for engaging a wide range of employees in creative activity is the “Fresh Idea” promotional campaign timed to coincide with the Day of Instructors and Inventors. The goal of this traditional event is to increase the creative potential of the Company’s employees and engage them in innovation and inventive activity.

Digital Transformation of Maintenance and Repairs

Digital solutions are also implemented in maintenance and repairs. As part of the “Leadership in production efficiency” strategic initiative, measures have been developed to upgrade the equipment of PISCO MMK during the period up to 2025, aimed at increasing the efficiency of the equipment and reducing maintenance and repair costs. These measures help reduce the number of equipment failures thanks to upgrades. A total of 82 measures are planned under the programme.

MMK on the Road to Digitalisation

In December 2022, the second “MMK on the Road to Digitalisation” conference was held where the winners of the Digital Olympus corporate awards were announced.

• The project to implement the trim optimisation system at Hot-Rolling Mill 2000 in Sheet Rolling Shop No. 10 was recognised as the Digital Project of the Year.
• The economic benefit from implementing the project is USD 164,800.
Procurement and supply chain management

**PROCUREMENT AND SUPPLIER MANAGEMENT**

A reliable and responsible supply chain ensures stability of the MMK Group’s operations. The supply chain is built on the principles of openness, transparency, and trusting relations with business partners.

The procurement process is managed by the Commercial Directorate that consists of two units: category-based procurement and operations. Since March 2022, an import substitution group has also been operating at MMK. It determines equivalents of the main critical equipment, prepares relevant designs and looks for new solutions to purchase sanctioned material and technical resources.

**SUPPLIER SELECTION PROCESS**

- **Conflicts of interest, anti-corruption, and ethics**
- **Social responsibility and stakeholder engagement**
- **Occupational health and safety**
- **Environmental protection**
- **Consumption of natural resources, emissions of pollutants, assessment of transportation services**
- **Confirmation of compliance with legal requirements related to responsible procurement of raw materials or resources, social responsibility for environmental impact**
- **Assessment of environmental or climate risks when manufacturing products**
- **Availability of management systems and their maintenance in working order, including ISO 14001 certification**
- **Availability of the maintenance service for supplied equipment, products and services, including for the purpose of managing environmental issues arising when the consumer receives non-conforming products**
- **Disposal of packaging and containers after the use of products**
- **Participation in biodiversity restoration and climate change programmes**
- **Application of the principle of responsibility when building their own supply chain.**

MMK Group has developed the Supplier Code that sets out requirements in the following five essential areas:

- Environmental protection
- Human rights and favourable working conditions
- Occupational health and safety
- Social responsibility and stakeholder engagement
- Conflicts of interest, anti-corruption, confidential information protection, charity and business ethics.

The Code is expected to be approved in 2023. In addition to the Supplier Code, the Group has developed a wide range of documents governing the procurement management process. For more information on key procurement and supply chain management documents, see the “For Suppliers” page of the corporate website.

The procurement process is managed by the Commercial Directorate that consists of two units: category-based procurement and operations.

**Category-based procurement**

- Development of category-based strategies to achieve the economic benefit
- Development of criteria for selecting suppliers, including MMK’s electronic trading platform
- Conclusion of contracts and establishment of long-term relationships with partners
- Organisation and support of supplies
- Control over procurement for investment projects
- Optimisation of the document flow and settlement of claims

**25TH MOSCOW INTERNATIONAL SALON OF INVENTIONS AND INNOVATIVE TECHNOLOGIES “ARCHIMEDES”**

In 2022, MMK took part in the 25th Moscow International Salon of Inventions and Innovative Technologies “Archimedes” and presented four inventions for participation in the contest. MMK won three gold and one silver medal and was awarded the Diploma of Gratitude and Respect for its active participation in organising and holding the Archimedes 2022 event.

**INTERNATIONAL INVENTION AND DESIGN COMPETITION “IIDC 2022”**

The Company took part in the International Invention and Design Competition “IIDC-2022.” The competition was held in Hong Kong with the support of the International Federation of Inventors’ Associations. Four inventions by MMK were demonstrated as part of a collective presentation by Russian inventors and innovators. Gold medals were awarded to all the presented innovations.

**Operations**

- Development of category-based strategies to achieve the economic benefit
- Development of criteria for selecting suppliers, including MMK’s electronic trading platform
- Conclusion of contracts and establishment of long-term relationships with partners
- Organisation and support of supplies
- Control over procurement for investment projects
- Optimisation of the document flow and settlement of claims

**SUSTAINABILITY**

The procurement process is managed by the Commercial Directorate that consists of two units: category-based procurement and operations.
Product quality and customer relations

QUALITY MANAGEMENT

High quality of products is one of the main competitive advantages in the market. To ensure financial stability and consumer loyalty. The Group’s approach to quality management is defined in its Strategy. To effectively manage the quality of manufactured products, the Group has implemented a quality management system (QMS) that includes internal documents for each business process, including customer relations and product quality control. In 2022, the MMK Group’s QMS was successfully accredited for compliance with national standard GOST R ISO 9001:2011. The Group’s auditors also inspected products of production units. The inspections showed that all products met the requirements of the relevant order. MMK Group regularly assesses and analyses product quality risks in order to timely identify and eliminate the causes of poor quality. In 2022, as the external environment changed, a new factor affecting the quality risk appeared sanctions restrictions.

Thanks to the quality management system, MMK Group managed to maintain the composite quality indicator at the same level of 1.81% compared to 1.82% in 2021.

CUSTOMER RELATIONS

PRODUCT QUALITY

The MMK Group’s sales priorities are driven by economic feasibility and market strategy. The Group’s product strategy is aimed at increasing sales of goods with high added value and niche products, maximising high diversification of the product portfolio. The main segments of the Group’s presence in the domestic market are automotive, fuel and energy, machine building, construction and construction materials. The products for machine building include high-strength steel produced under the Group’s own brand – Magatrong.

Due to the geographical position of MMK Group, the markets in Russia (primarily the Urals, the Volga region, and Western Siberia) and Kazakhstan remain a priority for the Company because of the shortest distance to these areas. In 2022, sanctions restrictions in foreign markets became another factor to keep domestic sales a priority. The Group’s sales are aimed at timely satisfaction of consumer needs and provision of high-quality rolled steel to them. There are several distribution channels for the most comprehensive coverage of different customer groups:

- Direct wholesale supplies to customers in the Russian Federation and the FSU countries
- Small-scale wholesale and retail sales through a Group’s subsidiary, including electronic sales through MMK’s own marketplace – market.mmk.ru
- Wholesale supplies to foreign countries through trading companies.

In addition, the customer service area was expanded in the reporting period regional representatives now go to any region of the Russian Federation, the CIS, and foreign countries, and new regional representatives of RSC MMK were engaged to deal with issues of quality of metal products in the Sverdlovsk, Rostov, and Moscow regions.

Video conferences are organised to resolve current issues with customers. Working Groups hold regular meetings attended by heads and specialists from the Group’s various functions. Where necessary, Working Groups visit counterparties’ production sites to resolve technical issues.

The Group has a permanent system of dealing with customer requests. This system helps make decisions to develop new types of products and full orders for customised products. The Group has a claim settlement procedure. Its results are factored in when making changes to the production and delivery technology in order to improve its quality. In 2022, there were complaints about surface defects and logistics defects. The Group took deterrent and corrective measures, including under the 8D method.

The electronic system for implementing the 8D method on the basis of the “Claims and complaints” information system continued to function in the reporting period. MMK Group took a number of improvement measures:

- The Database of Detectors, Corrective and Preventive Actions was created and improved. This database helps accumulate and retain experience in implementing corrective actions and apply it in subsequent work to improve product quality.
- The procedure for analysing the need to make amendments to the QMS documents was determined.
- The procedure for monitoring the current status of 8D requests using a m-e-tools to ensure uninterrupted implementation of the procedure was improved.

MMK Group is committed to developing customer loyalty. To this end, the Group regularly performs customer satisfaction analysis and subsequently considers its results to improve the quality of products and services.

According to the 2022 survey, the customer satisfaction score was 8.76. The planned targets were achieved.

Thanks to extensive use of various communication mechanisms, MMK Group receives the most complete information on the needs of its customers. This information forms the basis of the action plan to improve product quality.

Business ethics and anti-corruption

- Improve the Group’s corporate culture, the ethical literacy of the Group’s employees
- Arrange for training, sociological surveys, and tests to check the knowledge of the Group’s corporate values and ethical principles
- Test anti-corruption awareness (anti-corruption analysis of counterparties, candidates, conflict of interest declarations, preparation of a corruption risk test map)
- Establish a Commission for Ethics and Compliance
- Launch a unified anti-corruption compliance system

Information security and cyber risks

- Develop business continuity and IT solution protection plans
- Implement a Security Operations Centre (SOC)
- Ensure compliance with changing requirements of Russian laws on information security

Innovation, research and digitalisation

- Further implement the digitalisation strategy with a focus on increasing the number of digital ideas and the speed of exploring them
- Launch new R&D projects on new topics from the 2023 Programme
- Review the Temporary Procedure for Organisation and Performance of R&D
- Get new employees involved in innovation activities

Customer relations

- Maintain high sales volumes in the domestic market
- Participate in major investment and state infrastructure projects
- Consolidate the competitive position by improving customer service, promoting sales of niche products with high-added value, further developing the corporate marketplace and warehouse trading through a Group’s subsidiaries

Plans for 2023 and the medium term

Responsible business practices are key to the long-term development of MMK Group. In 2023 and in the medium term, the Group plans to continue to develop its management practices, implement innovative solutions and improve the quality of customer relations.

- Launch a unified anti-corruption compliance system
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Environmental responsibility

**APPROACH**

MMK Group strives to reduce its environmental footprint by taking environmental protection measures and implementing technical upgrade programmes involving reconstruction and construction of new technical facilities.

The upgrade projects meet the requirements of the best available technologies and are designed to improve the efficiency of production processes, including energy efficiency.

In 2022, the emphasis was on air protection, resulting in reduced pollutant emissions. MMK also continued to successfully implement waste reuse, biodiversity conservation, and enhancement activities in its region of operations.

**SUSTAINABILITY RISKS**
- Environmental risk
- Climate risk

**MATERIAL TOPICS**
- GHG emissions and climate change
- Energy efficiency
- Air emissions
- Water management
- Waste management
- Biodiversity
- Occupational health and safety
- Economic performance
- Human rights
- Corporate governance quality
- Compliance with sustainability principles in the supply chain

**CONTRIBUTION TOWARDS SDGs**

**2022 KEY HIGHLIGHTS**

1. **$309.1 million**
total costs for implementation of MMK Group’s environmental activities

2. **1.7%**
reduction in the Comprehensive Air Pollution Index (CAPI)\(^1\) in Magnitogorsk

3. **11.2%**
reduction in the MMK’s total emissions of air pollutants

4. **5.3%**
increase in the share of waste reused by MMK

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\(^1\) Excluding the Turkish asset MMK Metalurji.

\(^2\) Calculated based on the sum of five marker pollutants (suspended particles, carbon monoxide, nitrogen dioxide, formaldehyde and benz(a)pyrene) with the absolute values of substances converted to maximum permissible limits (MPM). The CAPI shows how many times the total level of air pollution exceeds the permissible value for the considered set of pollutants as a whole.
Climate change

APPROACH TO CLIMATE CHANGE

MMK Group recognises its responsibility for contributing to climate change processes and supports global initiatives to reduce GHG emissions into the atmosphere.

As part of its commitment to SDG 13: Climate Action and the goals of the Paris Agreement to limit the global average annual temperature rise by 1.5–2 °C compared to pre-industrial levels, the Group sets targets to reduce climate impact from its production activities and implements a set of measures to achieve them.

The Company’s obligations to manage climate risks and opportunities, reduce the carbon footprint of products, and maximise recycling of secondary energy resources are set out in MMK’s Environmental Policy.

In its efforts to reduce GHG emissions, MMK Group focuses on improving energy efficiency and upgrading its production processes.

SHARING EXPERIENCE IN GHG MANAGEMENT

In 2022, the Group took part in the UN Climate Change Conference (COP27) held in Sharm El Sheikh between 6 and 20 November and in the Abu Dhabi Sustainability Week to share knowledge in GHG management and sustainable development, including identification of development strategies and implementation of modern technologies in these areas.

At the Russian Steel Metallurgical Summit held in Tula in 2022, MMK reported on the specifics of implementing GHG emission reduction projects and the results achieved, as well as on the progress and current work of MMK in the area of climate risk management.

MANAGEMENT STRUCTURE

SMALL

All levels of the organisational structure of MMK Group, senior management included, are involved in climate change management.

Climate change management at the level of organisational and structural units of MMK Group

ORGANISATIONAL UNIT ROLE IN CLIMATE CHANGE MANAGEMENT

Supreme management bodies of MMK Group

Board of Directors (BoD)
- Determines strategic vision and focus areas for climate change management
- Monitors performance against the targets as part of the implementation of the Strategy 2025
- Annually monitors GHG emissions

BoD Committees
- Controls the achievement of the established CO₂ emissions target for the year
- Assess the impact of climate risks on the Company’s strategy
- Consider integration of climate change management KPIs with the Company’s strategy and environmental indicators

Management Board
- Quarterly reviews climate impact reduction activities and achievement of CO₂ reduction target

CEO
- Controls the functioning of the environmental management system in terms of climate change management
- Assesses climate change risks and opportunities

Special Working Group on Climate
- Discusses climate change issues and their impact on the Group’s operations

MMK level

Director for Health, Safety and Environment
- Develops and implements GHG reduction measures at FSC MMK
- Participates in GHG emissions assessment, development and verification of MMK’s carbon reporting
- Prepares information on MMK Group’s environmental impact on GHG emissions and decarbonisation

Director for Strategy and Development
- Develops MMK’s strategy, strategic initiatives and action programmes for GHG emissions reduction and decarbonisation
- Interacts with climate change organisations and communities (SBTi, etc.)
- Prepares carbon reporting

MMK Group subsidiaries

Dedicated specialists of the enterprises
- Functional management of climate impact reduction

1 The 27th Conference of the Parties

Science Based Targets initiative of the UN Global Compact, CDP (Carbon Disclosure Project), WRI and WWF developed to help companies set targets to reduce GHG emissions.
In 2022, the RoD Committees considered the following topics:

- GHG emissions dynamics
- Implementation of MMK’s programme to reduce CO2 emissions until 2025 and key investment projects implemented in 2022
- Environmental measures in the area of climate impact management planned for 2023

MMK has developed and maintains a system of bonuses for top management, heads of structural divisions, and specialists, that includes company-wide and individual key performance indicators (KPIs). In 2022, one of the company-wide KPIs for top management was Specific CO2 Emissions.

In 2022, the new features in the climate change management structure were:

- Adding the responsibilities for interaction with organisations and communities on climate change (SBR, etc.) and preparation of carbon reporting to the functions of the Director of Strategy and Development
- Introducing the position of the lead specialist on estimating GHG emissions and decarbonisation in the Health, Safety and Environment Department
- Eliminating the position of the Director of the Department of Project-Oriented Business Development and the Ecological Analysis Group, redistributing their functions between the Strategy and Business Development Department and the Health, Safety and Environment Department.

**CLIMATE RISKS**

MMK Group acknowledges that climate risks may have a direct impact on its financial performance and ability to operate in the long term. The Group defines climate risks as risks arising from climate change and the potential steps towards a low-carbon economy, as well as the subsequent increase in upgrade costs, tougher environmental legislation, shifts in product supply and demand, and growth of other costs.

MMK Group is committed to best practices in climate change management. In 2023, the Company identified climate risks based on a retrospective analysis of data for the last 10 years and a qualitative and quantitative risk assessment using the methodology developed in line with the recommendations of the TCFD.

**CLIMATE RISK ASSESSMENT METHODOLOGY**

Following the assessment methodology, the Company considers two types of climate risks:

- Physical climate risks – related to adverse natural events or arising from gradual climate change;
- Transitional climate risks – related to the transition to a low-carbon economy.

Physical climate risks are divided into chronic and acute ones. The impact of physical risks on MMK’s production activities was analysed based on the data from the interactive climate change atlas. Under the following scenarios:

- SSP 120 – the Paris Agreement scenario (+1.8°C by 2000);
- SSP 245 – interim scenario (+2.8°C by 2000);
- SSP 585 – the worst-case scenario of climate change (+4.4°C by 2100).

Physical risks are assessed qualitatively. The level of consequences of the realisation of the risk (low, medium and high scale) was used as a criterion for assessing physical risks. The assessment results are included in the climate risk register that contains physical risks and their factors relevant for MMK.

The consequences of the physical risk manifestation may include:

- Disruption to production processes
- Loss of profits due to underproduction
- Impaired environment
- Incidents resulting in injuries to employees
- Reputational losses
- Fines and penalties

In addition, risk factors (events that increase the probability of negative consequences and risk manifestation) were analysed for the three scenarios.

**Transitional risks** are identified within four possible groups, and the following data are analysed:

- Political and legal risks – carbon regulations, international standards and initiatives
- Technological risks – information on the best available technologies in the industry, in particular technologies aimed at reducing GHG emissions
- Market risks – climate strategies of competitors, investor requirements, customer behaviour
- Reputational risks – ESG rating criteria, requirements of financial institutions

Transitional climate risks are measured based on selected criteria (e.g., project CAPX, currency forecasts, production and emissions volumes, etc.).

**Changes in acute and chronic risk factors relevant for MMK**

<table>
<thead>
<tr>
<th>RISK FACTOR</th>
<th>UNIT OF MEASUREMENT</th>
<th>SIGNIFICANCE FOR THE CURRENT REPORTING PERIOD</th>
<th>CHANGES IN RISK FACTORS UNDER SCENARIOS RELATIVE TO 2014 BASELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in precipitation</td>
<td>Change in average annual precipitation, % of baseline</td>
<td>🟢</td>
<td>10</td>
</tr>
<tr>
<td>Abnormal heat</td>
<td>Change in the number of days above 35°C relative to baseline</td>
<td>🟢</td>
<td>74</td>
</tr>
<tr>
<td>Abnormal wind</td>
<td>Change in wind speed, % of baseline</td>
<td>🟢</td>
<td>-0.9</td>
</tr>
<tr>
<td>Snowfall</td>
<td>Change in snowfall intensity, relative to baseline, mm/day</td>
<td>🟢</td>
<td>-0.4</td>
</tr>
<tr>
<td>Rise in average annual temperatures</td>
<td>Change in average annual temperature, °C relative to baseline</td>
<td>🟢</td>
<td>1.8</td>
</tr>
</tbody>
</table>

- High risk significance
- Medium risk significance
- Low risk significance

**Transitional climate risks relevant for MMK**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>RISK</th>
<th>CONSEQUENCES OF RISK MANIFESTATION</th>
</tr>
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<tbody>
<tr>
<td>Political and legal</td>
<td>Increased cost of fossil fuels relative to carbon-free types due to the introduction of the CBAM 2</td>
<td>Increased fuel resources purchase costs</td>
</tr>
<tr>
<td>Technological</td>
<td>Rising costs of low-carbon and energy-efficient technologies</td>
<td>Capital expenditures on implementing new technologies</td>
</tr>
</tbody>
</table>

- Long-term modelling until 2050.
- The Carbon Border Adjustment Mechanism
- CCS technologies (Carbon Capture and Storage)
Climate risks relevant for MMK caused by acute risk factors

<table>
<thead>
<tr>
<th>RISK</th>
<th>RISK FACTOR</th>
<th>RISK SIGNIFICANCE IN VARIOUS SCENARIOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SSP126</td>
</tr>
<tr>
<td>Pits, mines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restriction of ore extraction regime</td>
<td>Reduced visibility due to deteriorating weather conditions</td>
<td>▲</td>
</tr>
<tr>
<td>Equipment failure</td>
<td>Deteriorated equipment reliability as a result of operation in extreme conditions</td>
<td>▲</td>
</tr>
<tr>
<td>Sludge dump</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damaged sludge dump integrity</td>
<td>Increased wear (erosive activity) of pipelines caused by high temperatures</td>
<td>▲</td>
</tr>
<tr>
<td>Environmental pollution caused by sludge spill</td>
<td>Overflow of the sludge dump caused by intensified precipitation</td>
<td>▲</td>
</tr>
<tr>
<td>Groundwater contamination with components of sludge dump</td>
<td>Groundwater rising due to increased precipitation</td>
<td>▲</td>
</tr>
<tr>
<td>Ore processing plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interrupted production</td>
<td>Transmission line breaks by increased wind loads</td>
<td>▲</td>
</tr>
<tr>
<td>Lack of water resources for the beneficent production processes</td>
<td>Rising average annual temperatures, drought</td>
<td>▲</td>
</tr>
<tr>
<td>Boiler stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiler station disruption due to fuel supply shortages</td>
<td>Fuel supply disruptions (coal, fuel oil, gas) due to breaches in logistics infrastructure</td>
<td>▲</td>
</tr>
<tr>
<td>Transportation routes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interrupted supplies for production of resources (fuel, raw materials, raw materials) and finished concentrate</td>
<td>Deteriorated quality of route/roads due to increased frequency of difficult weather conditions (snow, icy roads)</td>
<td>▲</td>
</tr>
<tr>
<td>Reduced visibility due to deteriorating weather conditions</td>
<td>▲</td>
<td>▲</td>
</tr>
<tr>
<td>CHPP, CPP, BFGPP, SPFW, generation of own fuel and energy resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power plant disruption due to fuel supply shortages</td>
<td>Fuel supply disruptions due to breaches in logistics infrastructure</td>
<td>▲</td>
</tr>
</tbody>
</table>

- ▲: high risk significance
- ▲: medium risk significance
- ▲: low risk significance

1. MMK’s Central Power Plant
2. MMK’s blast furnace gas power plant
3. MMK’s steam-power workshop
In 2022, the Company continued to implement the project on comprehensive analysis and assessment of climate risks in line with the TCFD recommendations. The Group’s approach to climate risk management is integrated into the general risk management process implemented by various departments. Business process-specific risk dashboards and MMK Group’s risk map are used to record and track climate risk throughout the risk management process.

MMK Group makes efforts to mitigate climate risks by reducing gross GHG emissions from its operations through:
- Upgrading the equipment as part of the responsible practices (for details, see the Measures to reduce GHG emissions section).
- Developing the R&D potential (for details, see the Measures to reduce GHG emissions section).

MEASUREMENT OF GHG EMISSIONS

MMK Group has been recording GHG emissions since 2006, while gradually improving the quality and completeness of the disclosure. Since 2021, MMK has expanded the scope for measurement of GHG emissions to 12 key production enterprises of the Group.

For all the categories of direct emissions (Scope 1), including mobile combustion, GHG emissions are calculated in accordance with the national methodology for measurement of GHG emissions based on Order No. 371 of the Ministry of Natural Resources and Environment of the Russian Federation dated 27 May 2022.

To select GHG emission factors for imported energy (Scope 2) and supply chain (Scope 3), the Group uses data from specialized public sources.

Every year since 2019, the results of calculating GHG emissions have been verified by independent organisations. In 2023, MMK has engaged the Russian representative office of the international group TÜV AUSTRIA to verify GHG emissions.

MEASURES TO REDUCE GHG EMISSIONS

In 2020, the Group benchmarked the carbon intensity of production processes and determined the potential for reducing GHG emissions. It resulted in a list of potential projects and initiatives for further analysis and possible implementation in 2020-2030. The medium-term target is to reduce MMK’s emissions to 1.8 tonnes of CO₂ per tonne of steel by 2025 (against the 2019 baseline).

MMK also sets annual GHG emissions targets. In 2022, the GHG emissions targets changed due to a change in production structure and a decrease in the share of electric steel from 1.95 tonnes to 2.24 tonnes of CO₂ per tonne of steel.

In order to reduce GHG emissions, MMK Group implements a number of major investment projects to introduce cutting-edge technologies, including the construction of Coke-Oven Battery #2 (for details, see the Air quality section).

In 2020, MMK projects reduced GHG emissions by 18.7% and 7.9%, which was 12% higher than in 2021. This trend is related to a disproportionate reduction in steel production and GHG emissions in the reporting year by 18.7% and 7.9%, respectively.

MMK’s gross GHG emissions for Scopes 1 and 2 in 2022 were 24.96 million tonnes of CO₂e, which is 8% less than in 2021. This change was the result of a decline in steel production in 2022.

The total 2022 GHG emissions for MMK Group for Scopes 1, 2 and 3 were 44.0 million tonnes of CO₂e, which also fell by 4% YoY (46.0 million tonnes of CO₂e in 2021).

PLANS FOR THE MEDIUM TERM

MMK Group plans to introduce the following key measures in 2023 and the medium-term:
- Climate change
  - To further development and implement an automated system for calculating GHG emissions.
  - To implement investment projects to construct Coke-Oven Battery #2 and retrofit gas-cleaning units at steelmaking operations with recovery of converter gas.
  - To develop projects to decarbonise blast furnace production.

AUTOMATED GHG MEASUREMENT SYSTEM

In 2022, the Company began developing an automated GHG emissions measurement system (AEMS). The purpose of the AEMS is to provide the Company’s management and stakeholders with complete and objective information on GHG emissions, the carbon footprint of products and assessment of their changes as the production decarbonisation initiatives are implemented.

The AEMS is a single information environment connecting various software modules and applications for automation purposes:
- Measurement of GHG emissions of all scopes.
- Dynamic calculation of current (monthly) data on GHG emissions by reporting periods.
- Calculation of carbon footprint of products and assessment of the amount of carbon tax on exported products.
- Processes for modelling and projecting changes in GHG emissions and carbon footprint of products in the event of a change in the production programme and/or structure of technological processes.
- The process of preparing regular reporting and infographics.

The AEMS is developed in line with the requirements of international standards and MMK’s best industry practice in cooperation with Kept specialists.

In 2022, the project activities were aimed at creating a mechanism for collecting source data from the MMK corporate information system and its subsequent transfer to the AEMS computation modules.
## Energy consumption and efficiency

### ENERGY CONSUMPTION MANAGEMENT

**Goal:**
The goal of sustainable consumption of energy resources is stipulated by the [MMK Environmental Policy](#) and the tools to achieve it are detailed in the Energy Policy.

In addition to the strategic goal of reducing energy expenses in the cost of production, the implementation of energy-saving measures is an important aspect of minimizing the environmental footprint as part of reducing greenhouse gas emissions.

### Key energy saving and efficiency areas

- Developing information technologies to set the rate of, forecast and control energy consumption
- Implementing energy-efficient solutions when upgrading equipment
- Increasingly using secondary energy
- Enhancing employee engagement, their knowledge, and competencies
- Improving the energy management system (EMS), including internal documentation
- Implementing energy saving programmes and measures under energy service contracts

**MMK’s CEO annually approves targets for saving key energy resources,** as well as a programme of energy saving and energy efficiency improvement measures at MMK Group companies.

To assess progress towards targets, MMK maintains an Energy Performance Register that includes initiatives to reduce energy consumption broken down by business unit and resource type, and the results are analyzed once a month.

### DEVELOPING THE ENERGY MANAGEMENT SYSTEM

Energy efficiency management at the company is based on the energy management system (EMS) that meets the requirements of the national standard GOST R ISO 50001. The company undergoes annual external EMS supervisory or certification audits (once every three years), and performs internal checks in structural units to prepare for the audit. The company also regularly monitors and controls energy consumption at MMK Group subsidiaries.

In 2022, MMK implemented the internal audit programme in full with recommendations issued following audits to eliminate the identified inconsistencies. This allowed MMK to successfully complete GOST R ISO 50001 certification, which confirmed that the EMS is effective and fully compliant with the standards requirements.

To develop the energy saving and efficiency management system, the company also introduced two updated standards in 2022 that determine the procedure for managing energy-efficient projects and thermal insulation systems during the transportation of energy sources, respectively.

### IMPROVING THE MMK ENERGY MANAGEMENT PLATFORM

The MMK Energy Management Platform is a special-purpose electronic module that combines sub-systems with various functions to improve energy consumption and energy efficiency management.

**Analytics (energy efficiency control)**
- **Supporting employees’ energy efficiency suggestions**
- **Monitoring energy consumption by equipment**
- **Modeling and improving energy consumption**

An energy efficiency map — a prompt analysis and adjustment tool for fuel and energy resources consumption — was introduced as part of the Analytics sub-system. In 2022, an energy efficiency map was extended to cover not only all MMK units, but also the Group’s subsidiaries and external companies receiving fuel and energy resources from MMK networks under power supply contracts.

In 2022, MMK continued to implement a project aimed at managing capacity consumption of MMK’s production structural units during the hours of maximum and minimum rates for electric power. The company developed a methodology to assess the effectiveness of measures adopted to regulate electric load and an information and analytical module to generate reports on the efficiency of capacity usage in various times of day.

Another significant event in 2022 was the introduction of the Platform’s additional features to automatically calculate the impact of energy efficiency measures on reducing CO₂ emissions.

### GLOBAL ENERGY MANAGEMENT AWARD

In 2022, MMK won the global Energy Management Insight Awards for leadership in energy management and raising global awareness of the ISO 50001 certification.

The case study prepared by MMK was an example of successfully integrating the energy management system into the company’s existing business systems. Launching that system improved energy management efficiency, helped with maintaining the achieved savings, and ensured a constant increase in energy efficiency indicators.

**$3.65 m** expected total effect of implementing energy-efficient suggestions proposed in 2022 by employees of MMK and the Group’s subsidiaries

**126 days** time to analyse energy efficiency improvement suggestions submitted by employees (16 days less than in 2021)
Implementation of key energy saving and energy efficiency measures in 2022

**SUSTAINABILITY REPORT**

**Energy consumption management**
- Implementing a programme for sustainable heat use by consumers to reduce consumption of heating water and, as a result, electricity for internal needs of power plants (for heating, water pumping)
- Improving power equipment operation at power stations by reducing loads during the hours of minimum electricity rates and scheduling repairs for weekends and holidays
- Regulating capacity consumption of MMK production units during the hours of maximum and minimum rates for electric power

**Power equipment upgrade**
- Upgrading of the compression flowpath of the steam-air power plant with reduced steam consumption
- Replacing the screen system of CHP boiler heating surface with reduced consumption of natural gas for hot steam production
- Improving operation of boiler superheater at the central power plant with reduced consumption of natural gas
- Adding three compressors, an air dehydration unit, and a pressure control unit on the pipeline with reduced electric power consumption to compressor station №2 of the oxygen plant

**Lighting equipment upgrade**
Completing the lighting fixtures revamping in the general lighting systems in the workshops of the Chief Power Engineer’s Office (12,374,600 kWh saved during the year) and moving on to similar projects for the technological workshops under the energy service contract

**RESULTS OF IMPLEMENTING THE GROUP’S ENERGY SAVING AND ENERGY EFFICIENCY IMPROVEMENT PROGRAMME IN 2022**

<table>
<thead>
<tr>
<th>GRI 302-4</th>
<th>ASSESSMENT OF SAVINGS / EMISSION REDUCTION ACHIEVED DURING THE YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>90,500 GJ aggregate effect</td>
<td>22,928 t CO₂ emissions reduced</td>
</tr>
<tr>
<td>40,700 GJ thermal power</td>
<td>2,309 tms³ air separation products</td>
</tr>
<tr>
<td>13,000 m³ potable water</td>
<td>799,800 m³ service water</td>
</tr>
</tbody>
</table>

**INCREASED EMPLOYEE ENGAGEMENT, THEIR KNOWLEDGE AND COMPETENCE IN ENERGY SAVING AND ENERGY EFFICIENCY**

In 2022, MMK developed and launched a Telegram chat bot to engage Group’s employees into identification and reporting of cases of improper use of fuel and energy resources such as leaks, drains, water discharge onto surfaces, ice built up on pipelines, to MMK Energy Saving Technologies Centre for prompt elimination of the revealed violations.

The same year the Company also held permanent training courses for employees: Energy Management System, Industrial Energy Saving, Management of Corporate Fuel and Energy Resources, and Workshop Energy Efficiency Management.

In addition, in 2022 MMK took part in the following events:
- A workshop of leaders and employees of energy services at Russian metals companies held by Chemet Corporation;
- Power Industry: Energy Efficiency sectoral forum in Chelyabinsk;
- Skolkovo Startup Village 2022 in Moscow.

**MMK Group’s total energy consumption in 2022 reached 320.18 million GJ, which is 8.4% lower than the total consumption for 2021. The decrease was due to a 4.44% reduction in steel production.**

The share of purchased electricity in total energy consumption in the reporting year reached 4.44%, which is slightly different from the previous reporting period (4.39%).

**Table 2. Total energy consumption at MMK Group, 2020–2022, million GJ**

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of non-renewable fuel and energy resources</td>
<td>322.67</td>
<td>341.67</td>
<td>313.50</td>
</tr>
<tr>
<td>Purchased energy consumption</td>
<td>28.07</td>
<td>16.15</td>
<td>14.81</td>
</tr>
<tr>
<td>electricity</td>
<td>2782</td>
<td>15.35</td>
<td>14.23</td>
</tr>
<tr>
<td>heat power in hot water</td>
<td>0.64</td>
<td>0.46</td>
<td>0.43</td>
</tr>
<tr>
<td>heat power in steam</td>
<td>0.35</td>
<td>0.34</td>
<td>0.16</td>
</tr>
<tr>
<td>Energy sold (or transferred) to third-party consumers, including:</td>
<td>8.05</td>
<td>8.19</td>
<td>8.13</td>
</tr>
<tr>
<td>electricity</td>
<td>0.02</td>
<td>0.08</td>
<td>0.09</td>
</tr>
<tr>
<td>heat power in hot water</td>
<td>779</td>
<td>786</td>
<td>773</td>
</tr>
<tr>
<td>heat power in steam</td>
<td>0.24</td>
<td>0.25</td>
<td>0.31</td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>343.59</td>
<td>349.63</td>
<td>320.18</td>
</tr>
</tbody>
</table>

1 Information for 2020 is not comparable with data 2021 and 2022 due to changes in the methodology – elimination of intra-group operations and consumption of secondary energy resources, use of other factors to convert energy resources to GJ.

2 When converting consumed fuel and energy resources from natural units to GJ, fuel values from the following sources are used: verified reporting data provided by MMK units, reports of Group subsidiaries and institutions of the Ministry of Natural Resources and the Environment of the Russian Federation dated 30 April 2015. Conversion of heat power from Gcal to GJ is made at the rate of 1.8688 GJ/Gcal. A standard rate of 0.0036 GJ/kWh is used to convert electricity consumed by MMK and subsidiaries in 2021.
In 2022, the consumption of non-renewable fuel and energy resources reached 313.5 GJ. Coking coal and natural gas account for the largest share in the structure of non-renewable fuel consumption – 52.2% and 46.9%, respectively.

USE OF SECONDARY ENERGY RESOURCES

MMK Group is committed to a step-by-step transition to comprehensive utilisation of secondary energy resources.

In 2022, the extent of using secondary energy resources increased compared to the previous year reaching 99.4% for blast furnace gas and 99.2% for coke gas, a 1.3% and 4.6% increase compared to 2021, respectively.

In 2022, the Company commenced pilot operation of the hourly planning system for coke, blast furnace, and natural gas consumption with the corresponding analysis of deviations, aimed at minimising losses of coke and blast furnace gas at gas discharge units. As a result of the work performed, the Company managed to reduce loss rate of gas discharge units to 0.58% for coke gas (from 3.14% in 2021, an 8.7% decrease) and to 0.75% for blast furnace gas (from 2.01% in 2021, a 2.7% decrease).

To support its production activities, MMK Group uses, among other things, internally generated energy resources such as electricity, heat, steam, condensed air and air separation products.

In 2022, the Company worked on the following key projects in this field:

- Construction of an oxygen unit at the end of the reporting period on a facility construction site was fully prepared, with a significant amount of work on the preparation of design documentation and manufacturing of contract equipment completed;
- Installation of Coke-Oven Battery #12 with steam generated by recycling the heat from five gases discharged from the coke drying chamber – construction and assembly work continued, as well as the supply of equipment as part of preparation for the commissioning of the first phase.

RENEWABLE ENERGY SOURCES

Renewable-energy development is one of the Group’s goals to reduce its carbon intensity.

MMK signed a memorandum with an energy group of companies on purchase of electricity from renewable sources (wind and solar power plants) and/or acquisition of 1 REC.\(^1\) The green certificates

PLANS FOR THE MEDIUM TERM

In 2023 and in the medium term, MMK Group plans:

- Conduct ESM audits with the requirements of national standard GOST R ISO 50001
- Implement an annual energy saving and efficiency improvement program
- Proceed with the project on regulating capacity consumed during the hours of maximum and minimum electricity rates, implementing an information and analytical module to generate reports on the efficiency of capacity usage in pricing day zones
- Continue construction of oxygen unit and Coke-Oven battery #12
- Equip drive motors of steam boiler feed water pumps at MMK CHP with supply voltage frequency controls under an energy service contract.

Approach to environmental management

The Group’s commitment to responsible use of natural resources and environmental safety in its operations is enshrined in the Environmental Policy of PJSC MMK, which is based on the following principles:

- Compliance with the best sustainable development practices
- Leadership in implementing the best available technologies
- Environmental safety across the life cycle of steel products

Environmental management covers the entire production and organisational activities of the Group, thereby ensuring comprehensive environmental protection. To manage an extensive list of processes in this area, the Group has an environmental management system (EMS) in place.

As part of the EMS, a set of corporate documentation has been developed and is in effect at all Group entities. In 2022, the EMS standards were updated for planning, environmental control, rating and accounting for adverse environmental impacts, management of environmental aspects and impact-related operations. Guidance was also revised on how to generate an ENS analysis report, address excessive discharges, and ensure the reliability and accuracy of emission control systems.

The EMS covers various processes of the Group’s operations, including:

- Main production processes: mining, processed products.
- Energy generation.
- Support processes.

The support processes covered by the EMS include the MMK units responsible for sales of finished products, as well as those structural units added to the EMS in 2022, such as the external acceptance area for raw materials, materials and equipment, the Product Control and Acceptance, Financial Resources, Information and Public Relations departments.

Key controls over EMS effectiveness and environmental performance

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SCOPE</th>
<th>EVENTS OF 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 14001 or national standard GOST R ISO 14001 certification</td>
<td>MMK and 10 subsidiaries of the Group</td>
<td></td>
</tr>
</tbody>
</table>
- MMK recertified according to GOST R ISO 14001 and ISO 14001 (extended to 2023)
- External EMS audits performed at 10 of the Group companies |
| Internal EMS audits | Group subsidiaries and MMK structural units | 
- All audits performed at MMK units and 5 audits at Group subsidiaries
- Results presented to MMK’s CEO
- Identifying and eliminating inconsistencies |
| Industrial environmental control | All production processes at MMK and subsidiaries | 
- Verification and compliance with applicable environmental laws
- Control pursuant to a programme approved by the CEO |
| Technical audit | All production processes at MMK and subsidiaries | 
- Failure in the operation of gas treatment facilities, water treatment facilities, waste disposal facilities identified and addressed in a timely manner
- Recommendations developed to improve the efficiency of environmental protection equipment |

All of MMK Group’s production facilities have developed emergency response plans that take into account the environmental aspects of production operations, and have assessed the relevant risks. In 2022, there were no accidents resulting in environmental damage.
Environmental management

<table>
<thead>
<tr>
<th>ORGANISATIONAL UNIT</th>
<th>ENVIRONMENTAL PROTECTION ROLE</th>
<th>FREQUENCY OF INVOLVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Directors (BoD)</td>
<td>• Discusses and approves strategic priorities and goals, considers planned environmental projects</td>
<td>Once a year</td>
</tr>
<tr>
<td></td>
<td>• Controls the achievement of environmental goals and the implementation of the Environmental Programme</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Decides on the relevance of the Environmental Policy</td>
<td></td>
</tr>
<tr>
<td>Health, Safety and the Environment Committee (HSE Committee)</td>
<td>• Coordinates the involvement of the Board of Directors in the environmental agenda</td>
<td>Twice a year</td>
</tr>
<tr>
<td></td>
<td>• Analyses environmental reporting</td>
<td>Four times a year</td>
</tr>
<tr>
<td>CEO</td>
<td>• Controls the effectiveness of environmental management</td>
<td>Once a year</td>
</tr>
</tbody>
</table>
| Laboratory (EPL) | • Directly manages environmental matters at MMK | Daily
| | • Sets unified requirements for the EMS | Once a year, before the Board of Directors, twice a year, before the Management Board, four times a year, before the HSE Committee |
| | • Conducts industrial environmental control at MMK production units | Daily |
| Heads of production units | • Directly manages the environmental matters of their units, monitors the implementation of environmental protection measures | Once a year |
| Responsible employees in production units | • Operate dust and gas collection units, water treatment facilities, account for and manage waste, maintain the EMS documents | Weekly |

MMK Group subsidiaries

| Responsible specialists at each enterprise | Carry out the functional management of environmental matters | Daily |

GOVERNANCE STRUCTURE

All levels of the organisational structure of MMK Group, senior management included, are involved in environmental management.

Environmental KPIs for MMK Group employees

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>POSITION</th>
<th>KPIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMK Group</td>
<td>The Group’s senior executives</td>
<td>Specific CO₂ emissions¹</td>
</tr>
<tr>
<td>MMK and subsidiaries</td>
<td>Heads of production units and chief specialists</td>
<td>Environmental safety indicators in one or more areas¹</td>
</tr>
</tbody>
</table>

MMK Group provides mandatory regular training for its employees on the environmental safety and EMS. In 2022, the production units professionals received training in the operation of dust and gas collection units and waste management.

New hires undergo training under the following programmes:
- ISO 14001:2015 environmental management system
- Risk management in quality management, environmental management and occupational safety and health management
- Environmental safety when managing waste of hazard classes I–IV

MMK’s 2025 targets

<table>
<thead>
<tr>
<th>INDICATOR (VERSUS 2017)</th>
<th>2022 RESULTS</th>
<th>ACHIEVEMENT AS AT THE END OF 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least 30% reduction of pollutant emissions (or reduction by 40.4 thousand tonnes)²</td>
<td>Emissions reduced by 40.1 thousand tonnes in 2017–2022</td>
<td>104%</td>
</tr>
<tr>
<td>Reduce emissions of extremely and highly hazardous substances (or by 90%)²</td>
<td>In 2022, benz(a)pyrene emissions were 0.063 tonnes, and formaldehyde emissions were 0.344 tonnes, down 58% and 36% respectively from the 2017 levels (0.131 and 0.510 tonnes)</td>
<td>58% and 36%</td>
</tr>
<tr>
<td>Reduce pollutant discharge into water bodies by 37.5 thousand tonnes</td>
<td>Discharge reduced by 40.5 thousand tonnes in 2017–2022</td>
<td>121%</td>
</tr>
<tr>
<td>Reduce at least 2.3 million tonnes of waste in own production each year</td>
<td>2.4 million tonnes of waste recycled in 2022</td>
<td>104%</td>
</tr>
<tr>
<td>Reclaim at least 6 hectares³ of abandoned quarries annually</td>
<td>7.6 hectares reclaimed in 2022</td>
<td>127%</td>
</tr>
<tr>
<td>Plant 11,000 seedlings of trees and shrubs under the Magnitogorsk greening programme</td>
<td>11,615 tree and shrub seedlings planted in 2017–2022</td>
<td>131%</td>
</tr>
<tr>
<td>At least USD 74.6 million invested into environmental activities on an annual basis</td>
<td>Investments in MMK’s Environmental Programme amounted to USD 303.3 million⁶</td>
<td>404%</td>
</tr>
</tbody>
</table>

¹ Including on the state of the air in Magnitogorsk, the effectiveness of reducing MMK’s impact on environmental components.
² In accordance with the schedule of the Industrial Safety Department approved by the CEO on an annual basis.
³ In accordance with the industrial environmental control schedule of the EPL approved by the CEO on an annual basis.
⁴ In accordance with corporate standard STO EMS MMK EPL-06.
⁵ In accordance with the EMS documentation.
⁶ Taking into account investments in environmental protection facilities of Coke Oven Battery #12.

Environmental TARGETS

MMK is the main source of the Group’s environmental impact. Separate targets have been set for it and are planned to be achieved by 2025. The environmental impact indicators for 2017 were taken as a baseline.

7.6 hectares reclaimed in 2022
There were no complaints from residents in 2022.

Without MMK Metalurji, the atmospheric air will be pursued further the next year. The largest target of MMK Metalurji’s pollution control work is to reduce air pollution.

The largest reduction plan is related to the release of silver carp fry into the Magnitogorsk Reservoir. In 2022, 50 thousand units of silver carp fry were released into the reservoir.

Other activities include: planting seedlings under the Magnitogorsk greening campaign, quarrying in Magnitnaya Mountain, and technical stage of damaged land reclamations of the Western Arc Furnace Shops.

In 2022, USD 309.1 million was allocated for the implementation of MMK Group’s environmental activities, 83% of which were aimed at MMK Group’s total spending on environmental protection measures in 2022 amounting to USD 371.9 million.

In 2022, fees for negative environmental impact (including the excessive one) equalled USD 0.92 million. In 2022, there were no inspections by state authorities due to the moratorium.

In 2022, MMK Group engaged with stakeholders on environmental protection, including the following areas:

- Participating in standard-setting activities in the area of environmental safety
- Sharing experience in professional communities
- Public hearings on major production upgrade and reclamation projects
- Recreational and processing reports from residents of population centres in the region
- Participating in initiatives to improve environmental awareness and public engagement in environmental activities.

In 2022, MMK joined the Chelyabinsk Region’s Environmental Standard Project.

In 2022, MMK took part in an environmental campaign initiated by the project office of the federal Clean Air project as part of the Ecology national project. The campaign was aimed at involving residents of the cities participating in the federal Clean Air project in the work to reduce air pollution. They were invited to select alternative means of outdoor mobility (e.g. walking, running, cycling, scooter, roll-aboard, skateboarding) over the use of private vehicles.

In 2022, MMK’s environmental activities were recognised with a number of awards: 1st place in the XIX industry contest “A Metals and Mining Company with High Social Performance”; the Environmental Activities and Resource Saving category; “I VOTE FOR CLEAN AIR” campaign; regional level that sets forth environmental requirements in addition to the current environmental legislation (e.g. voluntary insurance against environmental risk in terms of accidental environmental pollution). The goal of the project is to improve the environmental safety of large industrial enterprises and small and medium-sized businesses.

As part of the campaign, MMK provided information support to the project and conducted communications activities. The Company engaged about two thousand people in the campaign, organised five races and a cycling race, and filmed six videos.

At the end of the campaign, the organisers recognised MMK as one of the winners in the Most Active Enterprise category.

In 2022, the Group held public hearings on four projects. Public opinions will be considered when implementing the projects. In the reporting period, the Group representatives participated in discussions on the revision of environmental legislation within the Russian Steel Association, the Russian Union of Industrialists and Entrepreneurs, as well as in a number of professional community meetings on atmospheric air protection (for more details, see the Air quality section).
Air quality

**AIR PROTECTION MANAGEMENT**

**GRI 3-3**

Metallurgical production is associated with an intensive impact on atmospheric air, and MMK Group makes reducing that impact a strategic focus area for its environmental activities.

Most pollutants, such as sulphur, nitrogen, and carbon oxides, are emitted as a result of technological processes in the Sinter Shop, Coke and Chemical By-Products Plant and the steelmaking shops. Adding to that, all the key production processes of the Group’s enterprises are accompanied by emissions of particulate matter [dust], which are most intense in blast furnace and mining and processing operations.

Air protection measures are included in MMK Group’s Environmental Programme to 2030, annual environmental programmes, as well as the Action Plan to Meet the Emissions Quotas and the Comprehensive Plan to Reduce Emissions of Magnitogorsk under the federal Clean Air programme.

**Key air protection activities**

- **Upgrading gas cleaning equipment and facilities in accordance with the requirements of the best available technologies (BAT)**
- **Improving the performance of monitoring systems at sources of pollutant emissions**
- **Implementing dust suppression systems and reducing secondary dust load**

**MMK’S PARTICIPATION IN THE FEDERAL CLEAN AIR PROJECT**

The Company recognises its duty to maintain a favourable environment in the regions where it operates and, in addition to implementing internal environmental programmes, participates in the federal Clean Air project.

The overall environmental effect of MMK’s participation in the Clean Air project between 2017 and 2022 was a reduction of 42.2 thousand tonnes in gross air emissions, as well as a 2.8-fold reduction in benz(a)pyrene and 1.5-fold reduction in dust concentrations.

To assess the condition of atmospheric air in Magnitogorsk, the Comprehensive Air Pollution Index (CAPI) is used, that combines the contributions of various industrial enterprises of the city to air pollution. Bringing the CAPI down to a level below 5 units is a strategic goal of MMK. The updated Comprehensive Plan to Reduce Emissions of Magnitogorsk (in Russian) includes 23 measures implemented by the Group.

Since the start of the project, the CAPI has decreased by a factor of 2.7, reaching a value of 5.7 units in 2022, which is less than the figure for 2021.

**IMPLEMENTATION OF AIR PROTECTION ACTIVITIES**

As part of the equipment upgrade, two blast furnace stoves at the Blast Furnace Shop and two sinter machines at Sinter Plant #3 of the mining and processing operations were reconstructed in 2022. This resulted in annual CO emissions dropping by 2.1 thousand tonnes and 2.5 thousand tonnes, respectively.

In 2022, the Group continued its efforts to upgrade gas cleaning complexes of its industrial enterprises.

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**SUPPLIER ENVIRONMENTAL RESPONSIBILITY**

MMK Group’s care for the environment is also manifested in the selection of environmentally responsible suppliers that take into account various aspects of environmental safety in their operations.

In 2022, MMK introduced corporate standard STO CIS MMK OBP-02 comprising extended environmental requirements for contractors and suppliers. In particular, the requirements were supplemented in terms of annual submission by a supplier of greenhouse gas emissions (Scope 1, 2) and product carbon footprint reports, or a certificate of EMS compliance with ISO 14001 (if available).

The Group gives preference to suppliers with a certified EMS and insists on compliance with environmental requirements in the following areas:

**MMK Group’s requirements for suppliers of goods and services**

<table>
<thead>
<tr>
<th>SUPPLIER CATEGORY</th>
<th>SCOPE</th>
<th>GUIDELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppliers of materials and equipment</td>
<td>• Products • Packaging • Production process • Transportation of products</td>
<td>• MMK EMS Guidelines • MMK internal standard “Management of Business Processes (part 1.0): Products and Services Supplied by Third-Party Suppliers”</td>
</tr>
<tr>
<td>Suppliers of machinery and equipment</td>
<td>• Production • Packaging • Transportation • Operation</td>
<td>• Technical Regulations of the Customs Union “On the Safety of Machinery and Equipment”</td>
</tr>
<tr>
<td>Chemical suppliers1</td>
<td>• Product Safety Data Sheet • Corporate standard STO EMS MMK EPL-06-2022</td>
<td>• Russian standard GOST 31333-2007</td>
</tr>
<tr>
<td>Contractors</td>
<td>• Performance of work at MMK • Work monitoring</td>
<td></td>
</tr>
</tbody>
</table>

1 In the case of deliveries of untested innovative chemical products, MMK carries out additional research in accordance with procedures formalised in internal documents.

2 These requirements are incorporated in contractual provisions with contractors.

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**Implementation of air protection activities**

- Upgrading gas cleaning equipment and facilities in accordance with the requirements of the best available technologies (BAT)
- Improving the performance of monitoring systems at sources of pollutant emissions
- Implementing dust suppression systems and reducing secondary dust load

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**Air quality**

In order to reduce emissions, the Group implements a comprehensive approach by taking measures to protect atmospheric air in various ways.

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**Key air protection activities**

- Upgrading gas cleaning equipment and facilities in accordance with the requirements of the best available technologies (BAT)
- Improving the performance of monitoring systems at sources of pollutant emissions
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---

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In 2022, the Group continued its efforts to upgrade gas cleaning complexes of its industrial enterprises.
MMK’s Coke and Chemical By-Products Plant is one of the Group’s most significant sources of air pollution. The industrial gases of the plant include benz(a)pyrene, a hazard class I substance (extremely hazardous).
A key measure in reducing the impact of the plant on atmospheric air has been the implementation of an investment programme to construct Coke-Oven Battery (COB) #12, a new biochemical wastewater treatment plant and reconstruct the by-product recovery and processing shop.
In 2022, construction and installation work were conducted and equipment continued in preparation for the start-up of the first phase of COB #12. A staged start-up of the complex is planned for 2022, after which two obsolete batteries will be phased out.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>PROGRESS</th>
<th>PERFORMANCE INDICATORS</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMK’s Electric Arc Furnace Shop</td>
<td>✔</td>
<td><strong>300</strong> tonnes/year</td>
<td>≤10 mg/m² residual dust content</td>
</tr>
<tr>
<td>Oxygen Converter Shop of MMK’s steelmaking operations</td>
<td>✔</td>
<td><strong>500</strong> tonnes/year</td>
<td>≤10 mg/m³ residual dust content after aspiration</td>
</tr>
<tr>
<td>MMK’s Coke and Chemical By-Products Plant</td>
<td>✔</td>
<td><strong>6,3</strong> tonnes/year</td>
<td>≥97% effectiveness of the bag filter dry cleaning system</td>
</tr>
<tr>
<td>Chamotte Ware Shop of LLC Ogneupor</td>
<td>✔</td>
<td></td>
<td>≤6 mg/m³ figure at workplaces</td>
</tr>
</tbody>
</table>

**RESULTS OF MMK’S COKE AND CHEMICAL BY-PRODUCTS PLANT EMISSION REDUCTION PROGRAMME**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>PERFORMANCE INDICATORS</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>Chamotte Ware Shop of LLC Ogneupor</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

**OUTCOMES OF MMK’S COKE AND CHEMICAL BY-PRODUCTS PLANT EMISSION REDUCTION PROGRAMME**

Schedule activities to reduce emissions from the Coke and Chemical By-Products Plant were also continued in 2022:

**Detection and monitoring of emissions from COBs**
- Pilot operation of systems for automatic gas leak detection through doors and ducts of COBs #7, #8 with the use of a machine vision system (the precision of the results was 79%, while the standard value is 70%) |
- Experimental testing of doors with high gasproofness for further installation |
- Upgrade of 72 pieces of gas supply fittings |
- Elimination of coke gas leaks into the heating system of COBs #7 and #8 for 38 furnaces |

**Equipment repair and replacement**
- Redoing of 28 oven walls |
- Commissioning of a door lifter at COB #9, start-up work on a door lifter at COB #7, and installation of a door lifter at COB #4 |

The scheduled activities in 2022 resulted in the following:

**EXPECTED EFFECT FROM COB #12**

- **11 thousand tonnes** reduction in pollutant emissions |
- **1.2 million tonnes** reduction in CO₂ emissions |
- **12x** reduction in benz(a)pyrene emissions |
- **9x** reduction in formaldehyde emissions |

**11 thousand tonnes reduction in pollutant emissions**

**12x reduction in benz(a)pyrene emissions**

**1.2 million tonnes reduction in CO₂ emissions**

**9x reduction in formaldehyde emissions**

**RESULTS OF THE PROGRAMME TO REDUCE DUST AND SULPHUR DIOXIDE EMISSIONS FROM MMK’S MINING AND PROCESSING OPERATIONS**

Results of the programme to reduce dust and sulphur dioxide emissions from MMK’s mining and processing operations:

**Upgrade of gas cleaning facilities**
- Reconstruction of absorption systems 4, 5, 6, 8 of sulphur-filtration unit #3 |
- Installation of dust collectors at absorption systems 3, 4, 7, 8 of sulphur-filtration unit #3 |

**Improving the performance of monitoring systems at sources of pollutant emissions**
- Replacement of plastic pipes of chimney stacks at absorption systems, 3, 4, 7, 8 of sulphur-filtration unit #3 |

**Equipment repair and replacement**
- Replacement of plastic pipes of chimney stacks at absorption systems, 3, 4, 7, 8 of sulphur-filtration unit #3 |

As a result of the programme, there was a reduction in atmospheric air pollution in 2022:

- **71.5%** dust emissions reduction |
- **97.2%** reduction of sulphur oxide emissions |
- **45%** decrease in an average daily MPL for sulphur dioxide |

1. At the Coke and Chemical By-Products Plant in the area of COB #13 and #14. |
2. Average number of gas leak instances per day during the year. |
3. The values were recorded at station #34 (7 Mayakovsky Street) and in the Bruskovy settlement.
DUST SUPPRESSION SYSTEMS AND REDUCTION IN SECONDARY DUST LOSSES

MMK Group also aims to reduce air pollution from production sites, where significant amounts of dust are released as a result of the transportation of bulk substances and materials.

The functioning of dust suppression systems is based on fine water spraying in the air resulting in capturing dust particles, enveloping them and allowing them by increasing their weight. The dust suppression systems have a recorded effectiveness of between 70% and 85%.

**MEASURES TAKEN TO REDUCE SECONDARY DUST LOSSES IN 2022**

<table>
<thead>
<tr>
<th>SHOP AND UNIT</th>
<th>EQUIPMENT ELEMENTS</th>
<th>REDUCTION IN DUST EMISSIONS, TONNES/YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining and processing operations</td>
<td>8 dust suppression units and 2 snowmaking units</td>
<td>100</td>
</tr>
<tr>
<td>Sinter Plants</td>
<td>Sinter Shop dust removal system from hoppers using electric filters of absorption systems, 1, 2, 3, all the Sinter Shop</td>
<td>300</td>
</tr>
<tr>
<td>Coke and Chemical By-Products Plant</td>
<td>Dust suppression systems on the bin trestle of each furnace</td>
<td>200</td>
</tr>
<tr>
<td>Coal Preparation Shop, railcar dumper area and crushing area of the second block for coal preparation</td>
<td>Dust suppression units</td>
<td>200</td>
</tr>
<tr>
<td>Rolling operations</td>
<td>Dust suppression unit at sinter shop</td>
<td>40</td>
</tr>
<tr>
<td>Sheet Rolling Shops A4 and A10</td>
<td>Dust suppression unit per shop</td>
<td>40</td>
</tr>
<tr>
<td>Long Product Shop</td>
<td>Dust suppression unit at sinter shop</td>
<td>200</td>
</tr>
<tr>
<td>Blast furnace production</td>
<td>Dust suppression systems on the bin trestle of each furnace</td>
<td>150 (at furnace #10)</td>
</tr>
</tbody>
</table>

**CONTROL AND MONITORING OF AIR POLLUTANT EMISSIONS**

MMK monitors and controls emissions on a continuous basis to assess the effectiveness of air protection measures and to comply with maximum permissible emission standards.

The key measures in this area include equipping the main emission sources with automated control systems and establishing a unified environmental management system – an environmental monitoring complex (EMC).

**MMK’S ENVIRONMENTAL MONITORING COMPLEX**

Creation of the EMC has the following objectives:

- To ensure continuous control over pollutant emission sources using automated control systems;
- To monitor compliance with environmental standards and promptly take corrective managerial actions in case of exceeding the emission standards;
- To monitor atmospheric air and water bodies in MMK’s area of impact;
- To forecast changes in the level of the man-made impact on the air in Magnitogorsk under various operating modes of technological units and depending on the technical condition of equipment and industrial environmental facilities.

In 2022, 12 automated systems for measuring emissions and five dust counters were installed. At present, the EMC monitors over 65% of emissions, covering MMK’s main shops and industrial environmental systems.

As part of the project to implement the EMC, MMK Group is also developing a programme for collecting, storing and analysing the data received.

**INTRODUCTION OF MACHINE VISION TECHNOLOGY**

Since 2021, a system for detecting excessive emissions using machine vision technology has been in pilot operation at MMK’s Oxygen Converter and Electric Arc Furnace shops. The main purpose of this system is to reduce excessive emissions and improve the speed of elimination of detected violations.

In addition to controlling emissions at emission sources, MMK monitors the state of the air at the border of the industrial site and at the border of the sanitary protection zone.

In 2022, MMK’s network of stationary monitoring stations on the border of the sanitary protection zone was expanded with three more units. In the settlements of Bruskovy, Sementniki, and Novorotnya, MMK also acquired a mobile automated environmental monitoring station based on a GAZ car. All the stations are equipped with meteorological equipment, modern gas analysers and automatic sampling systems.

The system made it possible to consistently reduce monthly critical emissions during 2022 and to achieve their elimination in November and December 2022.

**ACTIVITIES TO REDUCE SECONDARY DUST LOSSES AT MMK**

Dust suppression measures also include minimising secondary dust losses. To this end, MMK organises:

- Road watering and cleaning
- Asphalting of the territories to enable their mechanised cleaning by special vehicles
- Cleaning and collection of road dust using vacuum sweepers (due to the 50% iron content, the dust is sent to the Sinter Shop where it’s reused in the production cycle)
OUTCOMES OF AIR PROTECTION ACTIVITIES

MMK’s gross air pollutant emissions in 2022 were 15,700,022 tonnes, which is 11.2% less than in 2021. The emission rates for MMK’s main groups of pollutants – nitrogen oxides, sulphur oxides, carbon oxides and dust – showed a positive trend. This change was due to a reduction in the production of steel, pig iron, sinter and coke and the implementation of MMK’s Environmental Programme.

Air pollutant emissions¹, 2020–2022, tonnes

<table>
<thead>
<tr>
<th>POLLUTANT TYPE</th>
<th>MMK GROUP 2020</th>
<th>MMK GROUP 2021</th>
<th>MMK GROUP 2022</th>
<th>MMK 2020</th>
<th>MMK 2021</th>
<th>MMK 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen oxides (NOₓ)²</td>
<td>15,776</td>
<td>17,310</td>
<td>14,997</td>
<td>16,335</td>
<td>15,709</td>
<td>14,046</td>
</tr>
<tr>
<td>Sulphur oxides (SOₓ)</td>
<td>5,836</td>
<td>6,824</td>
<td>5,039</td>
<td>5,666</td>
<td>5,371</td>
<td>3,784</td>
</tr>
<tr>
<td>Particulate matter (dust)</td>
<td>17,008</td>
<td>16,491</td>
<td>13,242</td>
<td>15,915</td>
<td>16,652</td>
<td>11,455</td>
</tr>
<tr>
<td>Volatile organic compounds (VOCs)</td>
<td>2,820</td>
<td>3,452</td>
<td>2,675</td>
<td>1,278</td>
<td>1,572</td>
<td>1,425</td>
</tr>
<tr>
<td>Hazardous air pollutants (HAP), including polycyclic aromatic hydrocarbons (PAHs)</td>
<td>144</td>
<td>192</td>
<td>114</td>
<td>134</td>
<td>138</td>
<td>113</td>
</tr>
<tr>
<td>Carbon monoxide (СΟ)</td>
<td>38,925</td>
<td>42,909</td>
<td>27,645</td>
<td>137,324</td>
<td>138,782</td>
<td>89,639</td>
</tr>
<tr>
<td>Other pollutants</td>
<td>45,848</td>
<td>56,027</td>
<td>70,576</td>
<td>658</td>
<td>540</td>
<td>406</td>
</tr>
<tr>
<td>Total freshwater withdrawal</td>
<td>134,765</td>
<td>132,869</td>
<td>129,764</td>
<td>120,475</td>
<td>118,975</td>
<td>116,878</td>
</tr>
</tbody>
</table>

¹ Hereinafter, in the section “Air quality”, the Group’s values in terms of water use for 2022 are given excluding the Turkish asset MMK Metalurji. In 2022, the data on MMK’s emissions were also adjusted due to a technical failure in the Buzuluzsky deposit’s mine and the implementation of a system of responsible water use with the aim of reducing water withdrawal and ensuring high quality of discharged wastewater. To this end, the Group continues to implement measures in the following key areas:

- Construction of new local recycling water supply circuits and reconstruction of the existing ones
- Reconstruction of wastewater disposal systems at mining facilities
- Elimination of the impact of repairs to wastewater treatment plants on the recycling water supply system

² Responsibility for compliance with wastewater treatment operating regimes is a shared responsibility of MMK Group companies, as well as employees responsible for the operation of wastewater treatment equipment.

The process management requirements for responsible water consumption are set out in a dedicated document I EMS MMK EPL-03-2022 and are also contained in many internal documents, including relating to the EMS system.

Accounting for water consumption by the Group’s enterprises is the responsibility of the Office of MMK’s Chief Power Engineer, while wastewater quality management is the responsibility of MMK’s Environmental Protection Laboratory (EPL). Responsibility for compliance with wastewater treatment operating regimes and water protection requirements during production activities lies with the heads of structural units of MMK Group companies, as well as employees responsible for the operation of wastewater treatment equipment.

Regular monitoring and control of wastewater quality, discharges and water withdrawal by the Group’s enterprises, as well as the condition of water bodies – the sources of withdrawals and wastewater receivers – is carried out on the basis of approved schedules of industrial environmental control.

As part of stakeholder engagement, MMK Group arranges public hearings on water withdrawal projects planned for implementation.

The Company also participates in initiatives to improve the regulatory framework for the protection of water resources, with its representative being a member of an interdepartmental working group under the Federal Water Resources Agency. At meetings of the local Irap Blagoveshchensk City Council twice a year, together with representatives from various levels of government, water users and public associations, MMK discusses issues related to the sustainable use and protection of water bodies in the basin district.

WATER WITHDRAWAL

MMK withdraws water from the Magnitogorsk Reservoir on the Ural River, the level of which is constantly monitored. The required water level in the reservoir is maintained by water releases from the Venikirskoe Reservoir on the Ural River. Together, both bodies of water represent the Group’s main water user, which accounted for 90% of the total water withdrawal in 2022. The vast majority of water withdrawals are from surface water sources and are used for production purposes. Water from underground water resources is used for drinking.

The Group’s main water user is MMK, which in 2022 was 129,765,022 cubic metres (thousand m³). In 2022, the total volume of water withdrawn was 129,765,022 cubic metres (thousand m³).
In 2022, total water reused by the Group amounted to 3,340,264 megalitres. The share of water recycled and reused in MMK’s closed water system remained high at 96.5% in 2022.

Key measures to reduce pollutant discharges by MMK Group in 2022

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>MMK GROUP</th>
<th>MMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface water</td>
<td>34,705</td>
<td>21,724</td>
</tr>
<tr>
<td>Groundwater</td>
<td>1,120</td>
<td>1,000</td>
</tr>
<tr>
<td>Seawater</td>
<td>167</td>
<td>100</td>
</tr>
<tr>
<td>Total freshwater discharge</td>
<td>42,812</td>
<td>31,551</td>
</tr>
</tbody>
</table>

**Water reuse by the Group, 2020–2022, megalitres**

<table>
<thead>
<tr>
<th>Division</th>
<th>Measure</th>
<th>Environmental Effect</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the Chief Power Engineer</td>
<td>Construction of a wastewater aeration and oil recovery system at the sediment basin of the northern industrial wastewater channel</td>
<td>50 tonnes per year reduction in the discharge of oil products into the recycling water supply system</td>
<td>✔</td>
</tr>
<tr>
<td>MMK’s Blast Furnace Shop</td>
<td>Reconstruction of primary sediment basins of the recycling water supply system</td>
<td>500 tonnes per year reduction in the weight of pollutants discharged into the system</td>
<td>→ to be completed in 2024</td>
</tr>
<tr>
<td>MMK’s Coke and Chemical By-Products Plant</td>
<td>Upgrade of the mechanical and biochemical wastewater treatment unit of the recycling water supply system</td>
<td>Elimination of discharges and prevention of land pollution</td>
<td>→ to be completed in 2024</td>
</tr>
<tr>
<td>MMK mine</td>
<td>Improvement of the system for the limestone quarry water disposal</td>
<td>Discharge of clean standard-quality water into the Urals River</td>
<td>→ to be completed in the medium term</td>
</tr>
<tr>
<td>Chertinskoye- Koksarevskoe mine</td>
<td>Commissioning of mine wastewater final treatment facilities</td>
<td>44.5% reduction in the content of suspended particles</td>
<td>→ to be completed in 2024</td>
</tr>
</tbody>
</table>

**WATER MANAGEMENT IN REGIONS OF WATER SCARCITY**

According to the plan for comprehensive management and protection of the water bodies of the Urals River basin, the Magnitogorsk Reservoir, which is the main source of water withdrawal by MMK, is a region with no shortage of water resources.

MMK’s specific discharge of pollutants exceeded the indicator for 2021 by 16%, amounting to 1.6 kg/tonne of crude steel. This is due to a reduction in the volume of sediment-making with relatively constant volumes of discharge.

**Wastewater discharge by destination, 2020–2022, megalitres**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface water</td>
<td>34,705</td>
<td>30,000</td>
<td>29,987</td>
</tr>
<tr>
<td>Groundwater</td>
<td>1,120</td>
<td>1,524</td>
<td>1,799</td>
</tr>
<tr>
<td>Seawater</td>
<td>167</td>
<td>1,000</td>
<td>100</td>
</tr>
<tr>
<td>Water sent to other organisations</td>
<td>6,730</td>
<td>6,882</td>
<td>6,691</td>
</tr>
<tr>
<td>Total freshwater discharge</td>
<td>42,812</td>
<td>38,347</td>
<td>38,347</td>
</tr>
</tbody>
</table>

**RECYCLING WATER SUPPLY SYSTEM**

In 2022, total water reused by the Group amounted to 3,340,264 megalitres. The share of water recycled and reused in MMK’s closed water system remained high at 96.5% in 2022.

<table>
<thead>
<tr>
<th>Year</th>
<th>MMK</th>
<th>MMK Metalurji</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>3,323,861</td>
<td>3,323,861</td>
</tr>
<tr>
<td>2021</td>
<td>3,340,264</td>
<td>3,340,264</td>
</tr>
</tbody>
</table>

**IMPROVEMENT OF WASTEWATER QUALITY**

* According to GRI 303-5, irrecoverable water consumption is equal to the difference between total water withdrawal and total water discharge of the Group.

1. The criterion of the amount of available water was used. The plan has been prepared by the Russian Research Institute for the Integrated Water Management and Protection at the request of the regional division of the Federal Water Resources Agency.
**Efficient use of resources and waste management**

**GRI 306-1, GRI 301-1**

In terms of resource consumption and waste management, MMK Group considers it a priority to increase the share of waste used as secondary material resources. It is also important to ensure safety at all stages of waste management, from accumulation to reuse or environmentally friendly disposal.

The system of internal documents establishes waste management requirements and covers EMS documentation, technological instructions and regulations. A separate list of special documents contains requirements on waste disposal facilities, including monitoring and control over their condition and safety.

Measures in the efficient use of resources and waste management of the Group and target indicators for MMK are included in the annual MMK Group’s Environmental Programme approved by the CEO. Implementation of the Programme and compliance with waste management requirements is the responsibility of the heads of structural divisions of Group companies. The head of MMK Rudniki mining and processing division is responsible for subsoil use waste management.

### WASTE GENERATION AND MANAGEMENT FRAMEWORK

**GRI 306-1, GRI 301-1**

The Group uses various materials while producing its own products, the essential of which include: non-ferrous raw materials, pellets, coal concentrate, ferroalloys, scrap metal, aluminum, tin, zinc, paints and varnishes and fuels and lubricants, purchased coke, manganese ore, zinc oxides, cement, fluxes, clay, graphite, non-containing waste.

In 2022, the total MMK Group materials consumption amounted to 9,732 tonnes (where only 324 thousand tonnes refer to packaging). The Group used 4.2 thousand tonnes of renewable resources (where 97% goes to product packaging).

MMK Group companies generate hazardous wastes of classes 1 to 3; most of them are generated as a result of ore extraction and processing, manufacturing of products and as a result of electric steel smelting as a result of the decreasing steel-making volumes in 2022.

In 2022, MMK’s specific waste generation indicator was 902 kg/tonne of crude steel, while the specific hazardous waste generation indicator was 4.4 kg/tonne of crude steel, showing a negative trend compared to the 2021 values. That was due to a decrease in the share of electric steel smelting as a ‘greener’ steel (to first-processed materials are used during production).

### Efficient use of resources and waste management

In 2022, MMK Group generated 2,261 thousand tonnes of subsoil use waste, 1,055 thousand tonnes of tailings and 1,206 thousand tonnes of subsoil use waste (1,055 thousand tonnes refer to production). Cement and fluxes account for the largest share in the structure of material consumption (87% in 2022). The Group used 4.2 thousand tonnes of renewable resources (where 97% goes to product packaging).

MMK Group companies generate hazardous wastes of classes 1 to 3 and non-hazardous wastes of hazard classes 4 and 5.

**GRI 306-3, SASB EM-IS-150A.1**

<table>
<thead>
<tr>
<th>TYPE OF WASTE</th>
<th>MAIN WASTE GROUPS</th>
<th>SHARE IN THE STRUCTURE OF WASTE GENERATION</th>
<th>SHARE OF RETURN TO ECONOMIC TURNOVER</th>
<th>SHARE OF PLACEMENT AT WASTE DISPOSAL FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous</td>
<td>Hazard classes 1 and 2</td>
<td>0.4%</td>
<td>96.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td></td>
<td>Mercury lamps, used equipment and batteries, transformer waste, paints (fluoropolymer)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hazard class 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste oils, zinc waste, coolant waste, coke-making waste, oxygen converter slag</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-hazardous</td>
<td>Hazard class 4</td>
<td>99.6%</td>
<td>61.6%</td>
<td>38.4%</td>
</tr>
<tr>
<td></td>
<td>Blast furnace and steelmaking slag</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hazard class 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subsoil use wastes (tailings, barren rock and overburden)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In 2022, MMK generated 2,261 thousand tonnes of subsoil use waste (1,055 thousand tonnes of tailings and 1,206 thousand tonnes were waste and overburden). Of this volume, 417 thousand tonnes of tailings were put back to economic turnover by MMK, and the waste rock was placed in waste rock dump.

**SASB EN (S-IS-150A.1)**

In 2022, the share of hazardous and non-hazardous wastes returned to the Group’s economic turnover equaled 69.7%. The same indicator for MMK in 2022 was 77.1%, which is 3.5 percentage points higher than in the previous reporting period (73.8% in 2021).

Hazardous waste of classes 1 to 3 and non-hazardous wastes of hazard classes 4 and 5: Waste generation

<table>
<thead>
<tr>
<th>TYPE OF WASTE</th>
<th>MMK GROUP</th>
<th>MMK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous</td>
<td>2020</td>
<td>2021</td>
</tr>
<tr>
<td>Non-hazardous</td>
<td>2020</td>
<td>2021</td>
</tr>
<tr>
<td>Total waste generation</td>
<td>2020</td>
<td>2021</td>
</tr>
</tbody>
</table>

Waste generation by type, 2020–2022, thousand tonnes

**MMK Group’s specific waste generation, 2020–2022, kg/tonne of crude steel**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hazardous waste generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>0.4</td>
</tr>
<tr>
<td>2021</td>
<td>3.6</td>
</tr>
<tr>
<td>2022</td>
<td>4.4</td>
</tr>
</tbody>
</table>

1 Hereinafter, in the section “Efficient use of resources and waste management” the Group values for 2022 are given excluding the Turkish asset MMK Metalurji.

2 Accounting rules, protocols of acceptance, work completion certificates, control structures of wastes acceptance, laboratory analysis data, actual measurements, weighing, calculations based on specific standards, methods, etc.

3 Hereinafter, in the section “Efficient use of resources and waste management,” the Group values for 2022 are given excluding the Turkish asset MMK Metalurji.
Measures to increase the share of waste recycling

MEASURE | EFFECTS
--- | ---
Enrichment of iron-containing tailings at MMK's coke and by-product operations. | • Production of sale/run materials – iron ore concentrate with an iron content of more than 53% • Possible production on the basis of iron concentrate with a low content of iron minerals.
Slag recycling at subsidised facilities (both generated during the period and accumulated in dumps). | • Extraction of metal for its subsequent use in iron batch • Production of finished products for sale: granulated slag, crushed slag, crushed stone and sand mixture • Use of granulated slag for the remediation of the Group's abandoned iron ore mines • 10.7 million tonnes of slag recycled in 2022
Recovery (treatment) of used oils and solvents; lubricants/coolant recycling at rolling shops. | • Reduction of costs on the purchase of materials and waste disposal by third parties • Recovery of 1.406 thousand tonnes of used oils in 2022 • Construction of a new facility for oil recovery in 2022.
Processing of coke and chemical by-products at MMK's By-Product Recovery and Processing Shop. | • Use of coke gas as a secondary energy resource • Production of finished products: coal tar pitch, coal tar oil, anthracene, ammonium sulphate, sulphur, etc. • Use of heavy coal tar products formed in the by-product coking process as an addition to coal charge, coal tar oil for wood treatment.
Overburden rock processing at a crushing plant. | • Use of 746.5 thousand tonnes of building stone as a secondary product for sale to consumers.
Use of blast furnace waste, blast-furnace flue dust, scale, and sorted sludge in MMK's atemining operations. | • The possibility to use waste as components for inter production (the share of components represented by waste exceeds 10%) • Use of approximately 1.8 million tonnes of industrial waste in inter batch in 2022
Use of scrap metal in steelmaking. | • Reduction of costs on the purchase of scrap metal for production needs and disposal of waste by third parties.

EXPANSION OF WASTE RECYCLING PRACTICES

By the end of 2022, the Company reached the final stage of construction of a dry cooling system for blast furnace slag.

The technology involves the treatment of waste with air streams under pressure, which results in the formation of sound granules containing no moisture. This makes it possible to use them without preparation in various sectors, e.g. in road construction.

The launch of the new facility is scheduled for 2023. The expected environmental effect is expressed in a 10 tonne per year reduction in hydrogen sulﬁde emissions and a 100 tonne per year reduction in dust emissions.

The Company is also developing a project to launch recycling units for zinc-containing sludge. In 2022, the work on selecting the recycling technology continued.
MMK’s waste recycling indicators, 2020–2022, thousand tonnes

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume of slag recycled during the reporting period</td>
<td>3,410</td>
<td>3,696</td>
<td>3,276</td>
</tr>
<tr>
<td>Steelmaking</td>
<td>2,114</td>
<td>2,595</td>
<td>2,004</td>
</tr>
<tr>
<td>Blast furnace</td>
<td>1,296</td>
<td>1,301</td>
<td>1,272</td>
</tr>
<tr>
<td>Volume of accumulated slag recycling</td>
<td>6,079</td>
<td>6,376</td>
<td>9,417</td>
</tr>
<tr>
<td>Steelmaking</td>
<td>2,343</td>
<td>4,883</td>
<td>2,996</td>
</tr>
<tr>
<td>Blast furnace</td>
<td>3,737</td>
<td>1,636</td>
<td>6,421</td>
</tr>
<tr>
<td>Total volume of generated and accumulated slag recycling</td>
<td>9,489</td>
<td>10,215</td>
<td>12,843</td>
</tr>
<tr>
<td>Volume of slag recycling products shipped to consumers</td>
<td>1,350</td>
<td>1,851</td>
<td>4,577</td>
</tr>
<tr>
<td>Volume of metal extracted from slag</td>
<td>1,024</td>
<td>672</td>
<td>637</td>
</tr>
<tr>
<td>Volume of generated slag recycling products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of slag waste used for the remediation of abandoned quarries in Magnitnaya Mountain</td>
<td>9,026</td>
<td>9,417</td>
<td>9,643</td>
</tr>
<tr>
<td>Volume of industrial waste used in water batch of MMK’s mining and processing division</td>
<td>1,909</td>
<td>1,982</td>
<td>1,798</td>
</tr>
<tr>
<td>Volume of recovery (treatment) of used oils</td>
<td>1,29</td>
<td>1,86</td>
<td>1,11</td>
</tr>
</tbody>
</table>

Sludge dumps were created as a result of production activities prior to 2000. With the start of this period, XODS of steel slag is fully recycled and systematic work is performed to reduce the volume of accumulated slag. MMK has set a target of 19 million tonnes of accumulated slag by 2025.

In 2022, the residual volume of slag in the dumps was 34.2 million tonnes.

WASTE STORAGE AT SPECIALISED FACILITIES

GRI 3-3
The majority of MMK facilities are designed for storage of non-hazardous wastes of hazard classes 4 and 5. The mining and metals production is characterised by generation of a significant amount of one production and processing waste: Orwell and blast furnace tailings, sludge. MMK uses specialised facilities to store these wastes:

- Baren rock dumps of the Maly Kuybas quarry
- Two dumps of baren rock and limestone dolomite crumb (Agapovskoy limestone quarry and Ugarevskoy dolomite quarry)
- Sludge dump #2

MMK also has waste disposal facilities for industrial wastewater and the CHP’s waste: left-bank hydraulic waste disposal and the fourth disposal site cell of the CHP’s ash dump.

GRI 304-2
The operation of waste disposal facilities is associated with a potential negative impact on many components of the environment, therefore the following measures are performed at all waste disposal facilities:

- Technical audit to assess the state of the waste disposal facilities (once a week)
- Monitoring of the composition and properties of ground water (3-4 times a year)
- Monitoring of air pollutants (suspended particles and iron oxides) (4 times a year)
- Monitoring of soil quality (monitoring of the concentration of zinc, manganese, lead, copper, nickel, cadmium, pH level) (once a year)
- Radiation control (once a year)

At the end of 2022, the total area of biological reclamation was 33.5 ha on a cumulative total basis since 2012.

MMK’s technical and biological reclamation area, 2017–2022, ha

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological</td>
<td>15.5</td>
<td>20.4</td>
<td>28.5</td>
<td>36.1</td>
<td>51.4</td>
<td>51.4</td>
<td>51.4</td>
</tr>
<tr>
<td>Technical</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.0</td>
<td>8.1</td>
<td>7.6</td>
<td></td>
</tr>
</tbody>
</table>

Biodiversity conservation

GRI 3-1, GRI 304-1, GRI 304-2
The MMK Environmental Policy sets out obligations on conservation of biodiversity of natural landscapes and water ecosystems in the region of presence, as well as specially protected natural areas. In 2022, MMK Group allocated USD 1.9 million to implement biodiversity conservation measures.

IMPROVING BIODIVERSITY IN THE CHELYABINSK REGION

Starting from 2020, the Company has been implementing the Biodiversity Conservation and Improvement Programme in the Chelyabinsk Region, including the following measures:

- Restoration and development of the fish stock biodiversity in the Ural River and Magnitogorsk Reservoir
- Landscaping of urban space and MMK’s territory
- Comprehensive biodiversity assessment of the Chelyabinsk Region
- The assessment of the flora and fauna diversity was completed
- Developing, testing and implementing fishing measures to reduce the impact on fish populations
- Development of design documentation for the project on elimination of the Eastern quarry of wash ore
- 80,000 juvenile fish of silver carp and grass carp released in the reservoir
- 7,795 saplings planted in Magnitogorsk and on MMK’s sites
As part of the work on conservation and improvement of biodiversity of the territories and water areas adjacent to MMK’s facilities, in 2022, the Company continued its cooperation with the Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences. Based on a report on the performance of a comprehensive environmental examination and assessment of the flora and fauna diversity in the territories under review, an action plan will be developed to protect and increase biodiversity.

After discussing the proposed action plan with stakeholders, MMK Group plans to identify control points to assess its effectiveness and move on to the implementation of the planned measures.

IMPROVING BIODIVERSITY OF THE URAL RIVER AND MAGNITOGORSK RESERVOIR

The Magnitogorsk Reservoir – the main source of water withdrawal for MMK – is located on the Ural River in a top fishing basin.

After the completion of a large-scale project on the reconstruction of the circulating water supply system, which made it possible to prevent MMK’s wastewater from flowing into the reservoir and to reduce the negative environmental impact on the water body, the Company proceeded to stocking the reservoir with valuable fish species.

MMK’s systematic efforts to improve the water resources quality resulted in a high level of survivability of juvenile common carp released into the waters of the Magnitogorsk Reservoir as a compensatory measure to restore biodiversity. The control catch in 2021 recorded the juvenile fish survivability at a level above standard levels and a high number of species in the reservoir.

MMK is preparing to stock the Magnitogorsk Reservoir with common carp, silver carp, and grass carp – species with high potential survivability – as planned in 2021.

The Magnitogorsk Reservoir is the main source of water withdrawal for MMK. In 2022, 1,915 tree saplings were planted in Magnitogorsk, while 923 tree saplings and 4,957 shrub saplings were planted within MMK’s territory. In the reporting year, the 2025 target for planting tree and shrub saplings for the urban area landscaping in Magnitogorsk was exceeded.

LANDSCAPING

In 2022, 1,915 tree saplings were planted in Magnitogorsk, while 923 tree saplings

PROTECTION OF WATER BODIES

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LANDSCAPING

The landscaping of urban territories and the sites of the Group’s enterprises is one of the areas of biodiversity conservation.

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Plans for 2023 and the medium term

MMK Group plans to introduce the following key measures in 2023 and the medium term:

- Environmental Management System (EMS)
  - To implement a system within the EMS for managing environmental aspects related to CO2 emissions.
- Air protection
  - To implement the construction of a Coke-Oven Battery complex #12.
  - To construct gas treatment facilities of two mining units of the Electric Arc Furnace Shop.
- Water management
  - To complete the reconstruction of primary sediment basins of blast furnace operations and the installation of a unit for mechanical and biochemical treatment of wastewater of coke and chemical by-product processes.
- Rehabilitation of disturbed land
  - To develop a reclamation project for the Eastern quarry of waste rock.
  - To proceed with the technical reclamation stages at the Eastern quarry of Magnitnaya Mountain.
- Biodiversity conservation
  - To implement the project to eliminate the disposal site cell for waste of hazard class 3.
  - To develop a biodiversity conservation programme based on the results of a comprehensive study by the Severtsov Institute of Ecology and Evolution at the Russian Academy of Sciences and determination of control points to assess the effectiveness of the measures.
  - To stock the Magnitogorsk Reservoir with 180,000 juvenile grass carp and silver carp.
**Occupational health and safety**

MMK Group is committed to becoming a leader in the industry in terms of occupational health and safety (LTIFR is below the industry average, with the goal of achieving zero injuries), introduce best practice standards (ISO 45001) and strive for continuous improvement (automation, promoting safety culture).

**APPRAOCH**

For MMK Group, occupational health and safety are not a simple performance metric but an indicator of vital importance.

**2022 KEY HIGHLIGHTS**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTIFR, combined Lost Time Injury Frequency Rate (0.62 in 2021)</td>
<td>0.54</td>
</tr>
<tr>
<td>TRIFR, combined Total Recordable Injury Frequency Rate (3.06 in 2021)</td>
<td>2.81</td>
</tr>
<tr>
<td>LTISR, combined Lost Time Injury Severity Rate (23.20 in 2021)</td>
<td>18.95</td>
</tr>
<tr>
<td>Comprehensive Labour Safety Index at MMK (2.76 in 2021)</td>
<td>3.14</td>
</tr>
<tr>
<td>$4.72 million spent on technical measures to reduce incident and accident risks</td>
<td></td>
</tr>
<tr>
<td>27,244 MMK Group employees trained in OHS (24,554 people in 2021)</td>
<td></td>
</tr>
</tbody>
</table>

1 Per 1 million person-hours, including contractors.
2 Excluding the Turkish asset MMK Metalurji.

**SUSTAINABILITY RISKS**

- Industrial accidents and other incidents
- Accidents

**MATERIAL TOPICS**

- Occupational health and safety
- Human rights
- Supply chain
- Corporate governance

**CONTRIBUTION TOWARDS SDGs**

- Responsible practices
- Environmental responsibility
- Occupational health and safety
- Our employees
- Developing local communities

Appendices
The Board of Directors and the Board’s Occupational Health, Industrial Safety and the Environment Committee make strategic OHS decisions and monitor implementation of resolutions, achievement of goals, and overall results. In 2022, PJSC MMK held the following meetings to discuss the goal of achieving zero injuries and OHS results:
- one meeting of the Board of Directors;
- two meetings of the Board’s Occupational Health, Industrial Safety and the Environment Committee;
- two meetings of the Management Board.

The organisation of Occupational Health and Safety complies with all legislative requirements and is governed by the internal regulations of MMK Group. OHS main goals, principles and obligations are set forth in the Occupational Health and Safety Policy. The provisions of this Policy also apply to contractors’ employees.

The Occupational Health and Safety Management System (OHS Management System) covers ten companies (100% of employees) of the Group, including PJSC MMK. The OHS Management System is certified in accordance with ISO 45001.

MMK performs internal audits of the OHS Management System in structural units for compliance with the ISO 45001 requirements at ten Group companies. As part of monitoring the OHS Management System effectiveness, the Comprehensive Labour Safety Index (CLSI) is assessed on a quarterly basis in accordance with the established schedule. The CLSI increased to 3.14 in 2022 from 2.76 in 2021. To a large extent, the increase is due to the engagement of the structural units’ leaders and specialists in identifying and eliminating hazardous conditions, as well as the use of automated solutions, such as “Safety Navigator” and Motivation shift turnover system.

CEO is responsible for high-level management of the Group’s OHS. At the organizational level, the OHS agenda is coordinated by the relevant units subordinate to the Company’s management. Line managers are responsible for ensuring compliance with the OHS requirements at workplaces as part of their day-to-day duties.

Consistency in achieving zero injuries

MMK’s annual OHS targets¹ and progress

<table>
<thead>
<tr>
<th>OHS STRATEGY AND PRIORITIES OF THE GROUP</th>
<th>AS AT THE END OF 2022</th>
<th>TARGET ACHIEVED</th>
<th>AS AT THE END OF 2021</th>
<th>TARGET ACHIEVED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target 1. Reduce LTIFR (including contractors) to a certain level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Target: LTIFR of 0.6 or lower</td>
<td>Result: LTIFR = 0.6</td>
<td>✓</td>
<td>Result: LTIFR = 0.65</td>
<td>✓</td>
</tr>
<tr>
<td>- Target: LTIFR of 0.45 or lower</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target 2. Reduce LTISR to a certain level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Target: LTISR of 25.0 or lower</td>
<td>Result: LTISR = 23.08</td>
<td>✓</td>
<td>Result: LTISR = 25.31</td>
<td>×</td>
</tr>
<tr>
<td>- Target: LTISR of 20.0 or lower</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target 3. Raise CLSI to a certain level or higher</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Target: CLSI of 3.0 or higher</td>
<td>Result: CLSI = 3.14</td>
<td>✓</td>
<td>Result: CLSI = 2.76</td>
<td>✓</td>
</tr>
<tr>
<td>- Target: CLSI of 2.5 or higher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target 4. Confirm the OHS Management System compliance with ISO 45001:2018 based on the supervisory audit results in the reporting year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target 5. Ensure the OHS Management System compliance with the regulatory requirements that entered into force in the reporting year, including timely measures to eliminate identified inconsistencies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Target 6. Achieve a 100% fire safety performance across MMK Group</strong></td>
<td></td>
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</tr>
</tbody>
</table>

¹ Excluding contractors.
² The 2021 uptick was caused by longer sick leaves required due to the increased average age of the injured.

Approach to OHS management

OHS MANAGEMENT STRUCTURE

CEO

The Board of Directors

Deputy CEO for Production

Director for Occupational Health, Industrial Safety and the Environment

OHS Department

Head of occupational structural units

Board of Directors

OCCUPATIONAL HEALTH, INDUSTRIAL SAFETY AND THE ENVIRONMENT COMMITTEE

GRI 3-3

GRI 403-1, GRI 403-8

The Board of Directors and the Board’s Occupational Health, Industrial Safety and the Environment Committee make strategic OHS decisions and monitor implementation of resolutions, achievement of goals, and overall results. In 2022, PJSC MMK held the following meetings to discuss the goal of achieving zero injuries and OHS results:
- one meeting of the Board of Directors;
- two meetings of the Board’s Occupational Health, Industrial Safety and the Environment Committee;
- two meetings of the Management Board.

The organisation of Occupational Health and Safety complies with all legislative requirements and is governed by the internal regulations of MMK Group. OHS main goals, principles and obligations are set forth in the Occupational Health and Safety Policy. The provisions of this Policy also apply to contractors’ employees.

The Occupational Health and Safety Management System (OHS Management System) covers ten companies (100% of employees) of the Group, including PJSC MMK. The OHS Management System is certified in accordance with ISO 45001.

MMK performs internal audits of the OHS Management System in structural units for compliance with the ISO 45001 requirements at ten Group companies. As part of monitoring the OHS Management System effectiveness, the Comprehensive Labour Safety Index (CLSI) is assessed on a quarterly basis in accordance with the established schedule. The CLSI increased to 3.14 in 2022 from 2.76 in 2021. To a large extent, the increase is due to the engagement of the structural units’ leaders and specialists in identifying and eliminating hazardous conditions, as well as the use of automated solutions, such as “Safety Navigator” and Motivation shift turnover system.

CEO is responsible for high-level management of the Group’s OHS. At the organizational level, the OHS agenda is coordinated by the relevant units subordinate to the Company’s management. Line managers are responsible for ensuring compliance with the OHS requirements at workplaces as part of their day-to-day duties.

Consistency in achieving zero injuries

MMK’s annual OHS targets¹ and progress

<table>
<thead>
<tr>
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¹ Excluding contractors.
² The 2021 uptick was caused by longer sick leaves required due to the increased average age of the injured.
OHS RISK MANAGEMENT

Launched in 2021, the “Safety Navigator” mobile app was introduced in thirteen Group companies in 2022. In the reporting period, the managers of MMK’s production units performed 7,500 walkaround inspections using the automated “Safety Navigator” system. Walkaround inspections allowed eliminating almost 100% cases of hazardous working conditions (53,030 out of 53,052 identified).

Preventing occupational injuries

INJURY RATES

MMK Group uses the injury rate calculation methodology that covers all accidents at the Group’s production sites, including any that happened to or with the contractors’ employees. Implemented in 2021, the methodology extends to all units of PSC MMK, its subsidiaries, and the general contractor.

The injury rate calculation methodology that covers all accidents at the Group’s production sites, including any that happened to or with the contractors’ employees. Implemented in 2021, the methodology extends to all units of PSC MMK, its subsidiaries, and the general contractor.

<table>
<thead>
<tr>
<th>INJURY TYPE</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatalities</td>
<td>0.36</td>
<td>0.45</td>
<td>0.63</td>
</tr>
<tr>
<td>Severe injuries</td>
<td>1.81</td>
<td>2.22</td>
<td>2.90</td>
</tr>
<tr>
<td>Minor injuries</td>
<td>3.76</td>
<td>4.32</td>
<td>3.06</td>
</tr>
</tbody>
</table>

The injury rate calculation methodology that covers all accidents at the Group’s production sites, including any that happened to or with the contractors’ employees. Implemented in 2021, the methodology extends to all units of PSC MMK, its subsidiaries, and the general contractor.

The perimeter of companies does not include the Turkish asset MMK Metalurji.

“SAFETY NAVIGATOR”

The Group strives to minimize production risks and impacts on the safety of employees. All employees, including contractors’ employees, are notified regularly of the requirement to comply with the OHS requirements and instructions. Violations at some of MMK’s production sites are also recorded in real-time using machine vision and video analytics.

The Group’s employees and contractors are engaged in identifying and eliminating hazardous working conditions and actions on a daily basis. Any employee may refuse to perform work that, in their opinion, may lead to injury or deterioration in health. An employee may use anonymous hotline of the OHS Department to report hazardous working conditions and dangerous actions by others. In 2022, MMK Group invested USD 4.72 million to implement 74 technical measures to reduce incident and accident risks. Some of the outstanding measures were included in the 2023 draft programme.

The fatality rate reached 0.006 compared to the previous reporting year (0.003 in 2021) for the Group’s employees. For the general contractor, the indicator fell to 0.01 in 2022 (0.02 in 2021).

With deepest regrets, MMK Group reports the three fatalities at work. The first death was caused by the spill of liquid smelting products; the second one resulted from a cross-arm tripping onto an employee, the cause of the third fatality has not been reliably determined, and the employee’s fault has not been proved. Another fatal accident was recorded among contractors’ employees. All accidents were investigated, and corrective actions were taken. Corrective actions include a number of technical measures, such as installing additional protective barriers for the smaller and the filling trolley, installing crane scales equipped with a fixing device, changing the upper structural elements of the racks preventing cross-arm catching, installing video cameras to monitor personnel at work, etc.

In the reporting period, the Group had 59 lost-time injuries among its employees and contractors. Combined OHS indicators include employees of MMK Group and its contractors. The TRIR decreased by 12.9% at MMK Group, to 0.54 per 59 accidents (0.62 per 97 accidents in 2021). Falling from own height remained the main cause of accidents in 2022 but the number of such accidents decreased by 64% compared to the previous year.

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The perimeter of companies does not include the Turkish asset MMK Metalurji.

Apart from the general contractor the Group cooperates with other contractors: in 2022, 7 accidents among contractors’ employees were registered, of which 1 — a general contractor, 2.8 fatalities per 1,000,000 / (total hours worked).

Employees

2020 | 2021 | 2022
---|---|---
Fatality | 0.36 | 0.45 | 0.63
Severe injuries | 1.81 | 2.22 | 2.90
Minor injuries | 3.76 | 4.32 | 3.06

TRIR for Group’s employees, contractors, and a combined rate, 2020–2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees</th>
<th>General contractor</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>0.61</td>
<td>0.62</td>
<td>0.63</td>
</tr>
<tr>
<td>2021</td>
<td>0.66</td>
<td>0.67</td>
<td>0.66</td>
</tr>
<tr>
<td>2022</td>
<td>0.67</td>
<td>0.62</td>
<td>0.65</td>
</tr>
</tbody>
</table>

LTIFR for Group’s employees, contractors, and a combined rate, 2020–2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees</th>
<th>General contractor</th>
<th>Combined</th>
</tr>
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<tbody>
<tr>
<td>2020</td>
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<td>2.22</td>
<td>2.90</td>
</tr>
<tr>
<td>2021</td>
<td>2.06</td>
<td>2.36</td>
<td>3.06</td>
</tr>
<tr>
<td>2022</td>
<td>2.81</td>
<td>3.06</td>
<td>3.27</td>
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</tbody>
</table>

LTISR for Group’s employees, contractors, and a combined rate, 2020–2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees</th>
<th>General contractor</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>19.34</td>
<td>23.66</td>
<td>22.34</td>
</tr>
<tr>
<td>2021</td>
<td>30.13</td>
<td>34.85</td>
<td>33.79</td>
</tr>
<tr>
<td>2022</td>
<td>38.53</td>
<td>30.13</td>
<td>32.19</td>
</tr>
</tbody>
</table>

1 Fatality rate = (total number of fatalities) / (total hours worked).
2 TRIR = (total number of lost-time injuries) / (total hours worked).
3 LTIFR = (lost time injuries) / (total hours worked).
4 LTISR = (lost time injuries) / (total hours worked).
5 TRIR = (total number of recorded injuries, including micro injuries) x 1,000,000 / (total hours worked).
6 LTIFR = (lost time injuries) x 1,000,000 / (total hours worked).
7 LTISR = (lost time injuries) x 1,000,000 / (total hours worked).
**Promoting a safety culture**

MMK Group has various communication channels in place to exchange information with employees and stakeholders, including OHS issues. The following sources are available:

- Information on the Occupation Health and Safety page of the official website;
- Internal corporate portal;
- Trade union websites;
- Information stand;
- MMK mobile app;
- Corporate magazine;
- I work at MMK VKontakte group.

MMK actively uses social media to promote OHS awareness. MMK has an official VKontakte group, I work at MMK, that contains useful OHS materials, including relevant videos. MMK also analyses feedback from employees received through the social network.

In accordance with the new legislative requirements, MMK organised partial off-site training for employees (the last day of training is held in the form of an off-site training with practical skill drill) and the knowledge testing at “Personnel”, an employee corporate training centre. A similar training procedure is implemented at contractors’ sites. Previously, training and knowledge testing were held at work. The Company also expanded the training programme and updated its material base. A total of 6,952 MMK employees completed OHS training at the training centre in 2022, which accounted for 46% of all employees.

### Robotics and video analytics

- Robot automated solutions were introduced in three MMK units: Blast Furnace Shop, Oxygen Converter Shop, Sinter Batch Preparation Shop.
- Video analytics was launched in six MMK units: Oxygen Converter Shop, Thick-sheet Shop, Sheet-rolling Shops #4, #5, and #10, Magnitogorsk Mill Roll Plant.
- The system was launched in the Coke Shop. The implementation of these systems was started in the Blast Furnace Shop, Oxygen-converter Shop, and Electric Steel-smelting Shop according to the approved schedule.
- Electronic work permits were introduced at PJSC MMK and LLC United Services Company. Three contractors operating on the site of PJSC MMK launched electronic work permits in full-scale operation, while five contractors started pilot operation.

### Implementation of the safety system automation plans

#### Robot automation and video analytics

- Robot automated solutions were introduced in three MMK units: Blast Furnace Shop, Oxygen Converter Shop, Sinter Batch Preparation Shop.
- Video analytics was launched in six MMK units: Oxygen Converter Shop, Thick-sheet Shop, Sheet-rolling Shops #4, #5, and #10, Magnitogorsk Mill Roll Plant.

#### Electronic work permits

- Electronic work permits were introduced at PJSC MMK and LLC United Services Company. Three contractors operating on the site of PJSC MMK launched electronic work permits in full-scale operation, while five contractors started pilot operation.

---

**GRI 403-4**

Promoting a safety culture among employees of PJSC MMK and its contractors is one of the Group’s strategic goals for achieving zero injuries. MMK conducts annual OHS trainings, improves training methods, develops mobile apps and shares information through VKontakte social network.

In the reporting year, a system for express OHS training at the Safety School, people, 2020-2022

<table>
<thead>
<tr>
<th>Employee groups</th>
<th>People</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>OHS training</td>
<td>297,782</td>
<td>2020</td>
<td>2021</td>
<td>2022</td>
</tr>
<tr>
<td>Safety awareness</td>
<td>1,139,059</td>
<td>2020</td>
<td>2021</td>
<td>2022</td>
</tr>
<tr>
<td>VR training</td>
<td>7,109</td>
<td>2020</td>
<td>2021</td>
<td>2022</td>
</tr>
<tr>
<td>Electronic work permits</td>
<td>2,087</td>
<td>2020</td>
<td>2021</td>
<td>2022</td>
</tr>
</tbody>
</table>

**GRI 403-5**

In 2022, PJSC MMK implemented the first stage of a programme to mitigate occupational injury risks. The programme includes implementation of robot solutions and machine vision systems at production units. The purpose is to prevent employees from entering high-risk areas when performing hazardous technological operations. Using robots and video analytics makes for better safety and production performance and lower injury rates. In 2023, the Company plans to introduce video analytics solutions in the Blast Furnace Shop and implement this programme in 10 units.

**Promoting a safety culture**

MMK Group actively uses social media to promote OHS awareness. MMK has an official VKontakte group, I work at MMK, that contains useful OHS materials, including relevant videos. MMK also analyses feedback from employees received through the social network.

- Information on the Occupation Health and Safety page of the official website;
- Internal corporate portal;
- Trade union websites;
- Information stand;
- My MMK mobile app;
- Corporate magazine;
- I work at MMK VKontakte group.

**All plans announced for 2022 as part of the development of the safety culture of MMK’s and contractors’ employees have been delivered:**

- Safety Awareness trainings were organised for 25,402 employees of PJSC MMK and its contractors
- VR-based training programme was developed for the Safety School, 2,132 employees completed training
- 7,109 walkaround inspections performed using “Safety Navigator”; the system was implemented at the Company’s subsidiaries
- An advanced behavioural safety audit system
- Supervision is developing, the OHS status monitoring system for repairs in the Company’s units and capital facilities
- Video instructions for safe performance of hazardous technological operations were created and available in My MMK mobile app
- An incentive system for young workers and mentors is under implementation
MMK Group takes care of the health of its employees and creates conditions to prevent occupational and other diseases by organizing on a regular basis:

- pre-employment, scheduled and pre- and post-shift health checks, and a mental health check;
- a number of preventive programmes (cancer screening, Heart Control 24/7, post COVID-19 rehabilitation, etc.)

In 2022, MMK implemented a pre-shift health check automation plan, and equipped health centres were additional 48 automated remote health check systems, in addition to 65 existing ones. The equipment measures health parameters of an employee, and a responsible healthcare practitioner controls the process remotely and confirms/denies access to work. Health check results are recorded in the manager’s electronic log and sent to the responsible employees of the units by e-mail. Automation allowed accelerating the process and efficiency of pre-shift health checks resulting in elimination of queues.

MMK Group keeps records of occupational diseases among employees and contractors. A total of 13 instances of occupational diseases were identified among MMK employees and contractors in the reporting year, all of which are typical for the industry. The main cause of diseases is the impact of occupational hazardous substances, which are communicated to MMK’s and contractor’s employees as part of briefings. The Group has in place a special procedure for using chemicals and hazardous substances, outlined in local regulations, including production, technical and handling guidelines, as well as process sheets, which are developed in line with Russian laws. The procedure determines safety requirements for handling hazardous substances, which are communicated to MMK’s and contractor’s employees as part of briefings.

The Group has a comprehensive emergency response system and an action plan to localize and liquidate emergencies in accordance with the requirements of industrial safety legislation. The Group interacts with the Magnitogorsk city administration as part of the unified state system to prevent and respond to emergencies.

MMK Group has a comprehensive emergency preparedness plan, including:

- by phone on MMK’s corporate website,
- by sending a message in the Feedback section,
- by using MMK OHS Department hotline; and
- My MMK and Trade Union On-line apps

The Group’s preventive programmes, people, 2021-2022

<table>
<thead>
<tr>
<th>Number of participants of MMK Group’s preventive programmes, 2021-2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cancer screening</td>
</tr>
<tr>
<td>b. Musculoskeletal diseases prevention</td>
</tr>
<tr>
<td>c. Post COVID-19 rehabilitation</td>
</tr>
<tr>
<td>d. Heart Control 24/7</td>
</tr>
<tr>
<td>e. Health check</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>130</td>
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<td></td>
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Emergency preparedness

MMK Group has a comprehensive emergency response system and an action plan to localize and liquidate emergencies in accordance with the requirements of industrial safety legislation. The Group’s preventive programmes, people, 2021-2022

<table>
<thead>
<tr>
<th>Cases of occupational diseases among the Group’s and contractor’s employees, 2020-2022</th>
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<tbody>
<tr>
<td>d. Heart Control 24/7</td>
</tr>
<tr>
<td>c. Musculoskeletal diseases prevention</td>
</tr>
<tr>
<td>b. Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>a. Seasonal influenza</td>
</tr>
<tr>
<td>count</td>
</tr>
<tr>
<td>2020</td>
</tr>
<tr>
<td>11</td>
</tr>
</tbody>
</table>

MMK Group conducts preventive programmes for employees on an annual basis. Effective, the Heart Control 24/7 and Post COVID-19 Rehabilitation programmes were continued in 2022. The Company also launched cancer screening to prevent oncology diseases.

The Heart Control 24/7 programme held together with SberHealth service has proved to be successful. It helped more than 90% of patients reach their blood pressure targets. Heart Control 24/7 involves home care for patients with arterial hypertension allowing for further health examination of patients with high risks of development and progression of circulatory diseases.

In 2022, the Company continued to implement measures to prevent the spread of COVID-19, including booster vaccination, PCR tests, and body temperature monitoring. In the reporting year, more employees became participants of the Post COVID-19 Rehabilitation programme. All the rehabilitation, patients reported an energy surge, reduced shortness of breath, stopped cough, and improved overall health. No repeated cases of COVID-19 were recorded after the rehabilitation programme. The number of sick leaves among patients with chronic pulmonary diseases has decreased significantly.

In addition to coronary vascular diseases, cancer is another common cause of death in Russia’. MMK has launched a neoplasms screening programme as timely detection of cancer increases chances to survive.

Plans for 2023 and the medium term

The Group has scheduled a number of measures as part of the strategic initiative to achieve zero injuries, including:

- by sending a message in the Feedback section;
- by using MMK OHS Department hotline; and
- My MMK and Trade Union On-line apps

- Pilot operation of the automated safety system to detect an employee in a hazardous area in the Blast Furnace Shop.

- Implementing and pilot operation of robot automation and video analytics projects at 10 units.

- Developing and implementing programmes to enhance ergonomic characteristics of personal protective equipment and improve the state of the amenity facilities.

- Take a New Look at Safety: strategic sessions for various levels of management at MMK units and Group companies. The main goal is to assess the operating performance of existing occupational safety tools and make suggestion on their upgrade and improvement.

Healthcare Unit and integrating data into the digital healthcare system of the Russian Federation.

5,503 patients underwent screening in 2021-2022. 20 people had malignant tumours, of which 12 people (60%) had stage I cancer. All patients with malignant tumours are referred to a specialized cancer treatment centre.

Emergency preparedness

Post COVID-19 Rehabilitation and Musculoskeletal Diseases Prevention programmes are scheduled to be continued in 2023. MMK is also creating a patient’s integrated electronic medical record in the Central Clinic.
Our employees

Approach

MMK Group pays great attention to employees, ensures comfortable working conditions, a decent level of remuneration, career and personal development.

Achievements in HR management attest to the competent approach and effectiveness of the decisions taken, which appeals to young talents and makes it possible to develop business.

Approach

APPROACH

MMK Group pays great attention to employees, ensures comfortable working conditions, a decent level of remuneration, career and personal development.

Advantages in the field of HR management attest to a competent approach and the effectiveness of the decisions taken, which appeals to young talents and makes it possible to develop business.

Our employees

2022 Key Highlights

53,530 employees

Average Group headcount (53,285 employees in 2021)

25.6% of the Group's employees are women (25.3% in 2021)

100% of MMK's employees are covered by the collective bargaining agreement

86 person-hours of training per employee a year (89 person-hours in 2021)

Material Topics

- Social tension*
- Human rights
- Employee engagement
- Occupational health and safety
- Corporate governance

Sustainability Risks

- Social tension*

Contribution Towards SDGs

- SDG 8
- SDG 11

* Qualitative risk assessment is carried out. The risk is regularly monitored. Its current level is low.
Women in metallurgy

MMK does not distinguish employees on the basis of gender, but focuses only on their professional qualities, knowledge, and skills. Attention is also paid to creating and maintaining a gender balance. In many MMK's divisions, including production, women make up a significant proportion of the workforce. Women work as conveyor and machine operators, controllers and plant supervisors. There are also many female employees in human resources, financial management, strategy development, and stakeholder relation management, including relations with investors and local communities.

1931–1935

Since the establishment of MMK in Magnitogorsk there had been an active women’s movement to involve women in production and public life. Women’s councils engaged women to work in production, provided educational activities, organised vocational courses for women and monitored working and leisure conditions. The founder and first director of the library of the MMK trade union committee was a woman.

1941–1945

At the beginning of World War II, when men were to the front, a large number of women joined MMK. The need for labour grew, and women were involved in all kinds of education and professional training. In subsequent years, the trend towards active involvement of women in the work of MMK and its divisions continued.

Today

MMK is a city-forming production company that has a leading position among the best employers in the metallurgical sector due to its high level of social responsibility, stability and sustainability. Unlike other companies in the industry, MMK has a significant proportion of female employees.

Interaction with MMK’s female employees in the area of social security and support is carried out by the I Am a Woman Foundation (in Russian). The goals of the Foundation are to help women in difficult situations, to enhance their role and importance, to protect mothers and children, and to promote family values.

A public reception office has been set up within the Foundation, where women can receive advice on various issues: legal, psychological, housing, medical, etc.

The performance indicators of the MMK’s divisions where the majority of the team are women are in line with those of the divisions where the majority are men. MMK is committed to supporting women, providing opportunities for development, achieving high results in their careers and self-fulfilment.
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MMK’s HR management approach consists of two levels: Human Resources and the Nomination and Remuneration Committee of the Board of Directors and the HR Director reporting directly to CEO are responsible for developing and implementing the Company’s HR policy and strategy. At the lower level, HR matters are handled by the heads of business units.

The Group's Functional HR management is guided by the MMK recommended standards depending on the size and headcount of the enterprise, there are relevant units for the implementation of HR functions, headed by leading specialists.

The key HR management functions are as follows:

- To develop and implement the Group’s HR policy, HR management strategy and system;
- To acquire talents and recruit employees in accordance with the required qualification, education, and work experience;
- To organise the training process for the Company’s employees, elaborates the programme for the development of the leaders according to MMK and MMK Group requirements;
- To ensure compliance with the labour law by the MMK personnel as part of the HR department competence, etc.

The main functions of the Talent Management Department are:

- To develop the MMK’s organizational structure and the Group’s management structure;
- To ensure efficient organisation and remuneration of labour, organisation of management and regulation of activity at MMK;
- To recruit employees, arrange for their training, advanced training, and placement at the functions of MMK structural units;
- To plan and control of implementation of budgets and payroll estimates, control implementation of the norms and provisions of the personnel legislation of the Russian Federation, etc.

The HR management issues are governed by the MMK’s policies, and the provisions of those policies become an integral part of the local regulations. The key local regulations are:

- HR Policy;
- Youth Policy;
- Equal Opportunity Policy;
- Policy on Gender Equality in Wages;
- Policy on Pre-employment and Occupations Discrimination.

In 2022, a number of documents were updated, including standards governing employees’ remuneration and incentive issues, Instructions on Organising Internal Contract Training, the Regulations on Scientific and Technical Conference for Young Employees at RSSC MMK. In addition, the Regulations on Personal Data Processing were updated as well.

MMK Group identifies and analyses HR management risks and develops mitigation measures on an annual basis.

EMPLOYEE COMPOSITION

MMK’s average headcount was 53,530 people, as in the previous year. At the end of 2022, the headcount was 52,926 people. The majority of the Group’s employees (97%) is concentrated in the Russian regions, with 3% of all employees working in Turkey and other countries.

In 2022, 64.5% of the MMK Group employees were between 30 and 50 years old, 23.1% of the total headcount were above 50 years, and 2.6% were younger than 30 years.

In 2022, the Group hired 6,679 new employees, 30.3% of the new hires were women. And 7,223 employees were dismissed in 2022. The total employee turnover rate in the reporting period decreased by 0.5 percentage points compared to the previous year, to 7.8%, with the voluntary turnover rate of 7.1%.

In 2022, all the MMK Group employees worked full-time. The majority of employees (97.9%) have permanent employment contracts, while 2.3% of employees are on fixed-term employment contracts.

In the reporting period, the local employees’ account for 89.1% of the total headcount at MMK Group. The share of locals among top executives was 86.2% in 2022 (vs. 89.4% in 2021).

What is more, MMK Group gives non-staff personal involved subject to civil-law contracts. In the reporting period, there were 1,282 people working on such terms.

TALENT ATTRACTION, RETENTION, AND MOTIVATION

MMK Group actively interacts with educational institutions. The Company holds career guidance events at Magnitogorsk State Technical University and PJSC MMK; Young talents included in the Union of Young Metallurgists share insight on their profession with students.

In 2022, MMK Group continued to provide assistance to 46 municipal general education institutions in Magnitogorsk, including:

- 21 schools by RSSC MMK;
- 10 schools by the Group companies;
- 3 schools by RSSC MMK and the Group companies jointly;
- 10 schools by non-affiliated companies (the general contractors).

The Gifted Children of Magnitogorsk, a charity programme by MMK’s benefactor, owner, has been in effect since 2001 to provide material support to gifted graduates and students of higher education institutions of Magnitogorsk seeking professional training in Russia's higher educational institutions. Young talents and employment with MMK structural units.

In 2022, MMK Group has dedicated quotas on the annual budget of USD 14,6 from MMK. In 2022, USD 7,300 was spent on scholarships under this programme.

All participants receive a monthly scholarship at the rate of USD 14,6 from MMK. In 2022, USD 7,300 was spent on scholarships under this programme.

Each year, MMK enters into an agreement with the city of Magnitogorsk to transfer USD 4,500 of funds as charity support for repair work in the city’s schools before a new school year. In accordance with the agreement, USD 4,500 were used by schools to purchase construction materials, electrical goods, perform plumbing work, repair of water supply systems, water closets, roofs, staircases, etc.

The Company holds relevant conferences and other events to attract new employees studying at secondary and higher professional educational institutions. The open final stage of the XXI Scientific and Technical Conference was attended by 12 students (out of 86 participants). Seven of them were awarded prizes and valuable gifts. In 2022, the share of employees with a professional education employed by the Group was 67.8%.

The Group also cooperates with higher educational institutions. In the reporting year, 3,029 students had on-the-job training at MMK production structural units. In the reporting year, students of relevant education departments underwent introductory, on-site, production and pre-graduation internships at MMK's structural units, 1,692 students from higher education institutions, Multi-Disciplinary College of Magnitogorsk State Technical University and PJSC MMK. High-graduation young specialists may be employed by MMK and MMK Group production units in accordance with their professional skills and average diploma score.

Additional bachelor’s training Programme 4+ is in progress allowing students obtaining knowledge in addition to state educational standards and receiving scholarship from the Company. In 2022, 11 students received scholarships.

MMK Group has dedicated quotas on the staff for recruiting young talents. Every year, the Company hires 500–600 graduates of professional educational institutions and citizens who served in the army after graduation. In the reporting period, MMK Group hired 454 graduates from professional educational institutions.

MMK Group ensures decent working conditions, motivating employees to perform with high quality and effectiveness. Remuneration are regulated by the following minimal documents:

- Policy on Working Conditions;
- Policy on Work Performance;
- Policy on Gender Equality in Wages;
- Policy on Pre-employment and Occupations Discrimination.

1 Turnover = employees who leave the organization voluntarily or due to dismissal, retirement, or death in service. / Average headcount.

2 For MMK, the local employees are residents of the city of Magnitogorsk; for the Group, the local employees are residents of the regions where the Group’s companies are located.

3 Top managers include policy makers who define the strategy and provide general management of the development and delivery of products and services.
A significant location is Chelyabinsk Region, where the main production is situated. All the MMK employees receive salaries that exceed the statutory minimum monthly salary by 1.8 times. In January and by 1.0% in June. That indexation is established for managers and leading employees of the performance of advanced work and high effectiveness in accordance with certain criteria.

In 2022, most of the MMK Group companies adjusted tariff rates twice a year – by 2% in January and by 10% in June. That indexation was a part of the approved programme to increase the actual level of wages due to changing prices of a fixed set of consumer goods and services.

All the MMK employees receive salaries that exceed the statutory minimum monthly salary [SMMS]1. The minimum entry-level salary at PISC MMK exceeds the regional statutory minimum monthly salary by 1.8 times. Salaries are based solely on the employee’s experience, qualifications, knowledge and performance, and do not depend on the employee’s gender. The Company may pay remuneration on the contractual basis, which is established for managers and leading employees for the performance of advanced work and high effectiveness in accordance with certain criteria.

The new training centre offers state-of-the-art laboratories with high-tech equipment, including VR systems, for student to immerse in the real production processes of the metal industry. Educational programmes stipulate practice-oriented internships with further employment. In 2022, two major MMK Group companies and the general contractor took part in building a personnel training and production centre (cluster) for high-tech metals production facilities – Time of Competence and Professionalism.

In 2022, the share of women in the Group was 25.6% in 2022 (25.3% in 2021).

A larger share of men (74.4% in the reporting period) is due to the specifics of the metal industry and hazardous industrial work. The share of women in the Group was 25.6% in 2022 (25.3% in 2021).

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The Group uses key performance indicators (KPIs) approved by the MMK CEO and pays annual bonuses to directors of the production structural units. In 2022, the list of managers included in the KPI incentive system was expanded. In 2022, the share of managers at the level of chief specialist (rolling mill operator, metallurgist, power engineer), production director, and shop manager grades that achieved KPIs was 93.1%.

In addition, in the reporting year the Company developed a common approach to providing bonuses for the performance of project activity and paying for project management without exemption from man duties. The relevant amendments are made to MMK QMS corporate standard P-03 Remuneration of RSC MMK Employees and MMK QMS corporate standard P-04 Payment of Bonuses to RSC MMK Employees.

In 2022, MMK ranked among the top four Russianemployers by RBC Market Research. The rating included more than 80 Russian companies and non-profit organisations from various sectors.

Increasing employee engagement
MMK strives to maintain a high level of employee engagement and satisfaction. With this in mind, the Group conducts regular surveys of the engagement and satisfaction level.

In 2022, the methodology to assess MMK employee satisfaction and engagement remained unchanged. Based on the results of social surveys held at 8 structural units, the employee engagement level is 77.9%.

In 2022, 31 young leaders of MMK Group took part in the Talent Development New Shift Round 3 programme by Stockholm School of Economics (SSE Russia). The course is aimed at developing professional potential, process and operational management skills, as well as leadership skills of students. At the end of the training programme, the students made presentation of their diploma papers suggesting specific innovative solutions to be implemented by the Company. A total of 16 PIP leaders (including 4 women) completed the programme in three rounds. After the training, 88% of them had significant career changes.

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MMK encourages employees to improve their educational level on their own and supports employees receiving their first higher education by paying them their average salary on weekends used by employees for training sessions.

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The employee satisfaction level reflects the balance of the employee’s requirements on the content, nature and working conditions, and is calculated in accordance with the effective internal regulations.
The Company offers free of charge professional retraining for employees who have received work-related injuries in accordance with their business profile and new position.

**Talent pool**

MMK Group’s talent pool is built to develop and accumulate talent potential, promote career growth, ensure a uniform governance culture and the timely filling of qualified and motivated manager and specialist vacancies in units. The Regulations on the Creation and Preparation of a Managerial Potential is the main internal regulation on this issue. In 2022, 6,273 employees were added to the talent pool, a 9.3% increase compared to 2021.

**Career growth**

The Company regularly monitors and assesses employees’ potential. Twice a year, as part of the Corporate Culture of Opportunities strategic programme, employees at MMK’s business units are evaluated against the corporate competency model, and the assessment results are translated into individual salary growth percentage for each employee. In 2022, 93.7% of the MMK employees went through periodic performance and career development assessments. During the reporting year, the Company also continued its efforts to enhance employee engagement training and development, implementation of employees’ ideas, individual salary growth depending on the compliance with the corporate competency model.

MMK Group provides an opportunity to select a career path as part of the Development of an Interactive Training Platform project. The electronic platform helps identify the development goal for each employee, analyse the necessary requirements for his/her position, select training courses to improve competencies, and apply for inclusion in the talent pool or an internship in the relevant area. The project is expanded to cover the general contractor. The Management-talent pool. Power and authority. Career opportunities for a young talent course has been introduced at MMK Young Specialist Onboarding School for career development purposes.

**SOCIAL POLICY**

**GRI 203-3, GRI 401-2**

MMK Group pays considerable attention to maintaining the health and well-being of employees. The Group has a social security system in place. All categories of MMK Group employees are entitled to social benefits and guarantees. The social package cost per Group employee was USD 539. The Group has a number of internal social programmes for employees and their families:

- Life and health insurance, medical treatment and healthcare services
- Health centres for employees and their families
- Countryside health retreats for employees’ children
- Healthy lifestyle programmes
- Large cultural events
- Opportunities for better housing
- Support for large families, mothers and fathers, childbirth encouraging measures
- Support for retirees and disabled people
- All the MMK Group employees have access to the healthcare and prevention programmes as part of the voluntary health insurance (VHI). In the reporting year, the Group’s spending on employee social programmes amounted to USD 26.41 million.

MMK’s achievements were acknowledged recognised by the influential public awards:

- Top 4 best employers in Russia in 2022 according to RBC Market Research.
- Gold status in the Forbes 2022 ranking of Russia’s best employers.
- Winner in the HR Potential Development category of the Russian Business Leaders: Dynamics, Responsibility, Sustainability competition by the Russian Union of Industrialists and Entrepreneurs.
- Top 4 best employers in Russia in 2022 according to RBC Market Research.
MMK Group’s employees who have children and provides equal opportunities for both women and men, as well as equal rights to parental leave. In 2022, 385 employees took parental leave, of which 94.8% were women.

Human rights

MMK Group is committed to strict respect for human rights and freedoms, recognizing their special value. The principles of mutual respect and high responsibility are at the heart of interaction with the employees and other stakeholders. Human rights activities are governed by the following main documents:

- Code of Ethics
- Human Rights Policy based on the recommendations of the UN International Labour Organization
- HR Policy
- Policy on Working Conditions
- Equal Opportunity Policy
- Policy on Preventing and Combating Violations
- Policy on Preventing Sexual Harassment
- Abuse and Violence.

For more information, please visit the official MMK Group website: Human Rights.

In 2022, the Company introduced a programme to familiarise all employees with the Code of Ethics. Employees are familiarised with the Code of Ethics in case of its update, as well as all newly hired employees.

MMK Group takes all the measures available to prevent and mitigate human rights violations. There were no cases of discrimination in the reporting period. The Ethics Hotline is the principal human rights violation response tool. It is managed by the risk management and internal control group. In addition, reports in case of violation of labour and civil rights, professional interests are received through the hotlines of the primary trade union organisation of the MMK Group and the security service.

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In 2022, MMK Group implemented a programme to conduct regular trainings on compliance with labour standards.

Indigenous minority of Nagaybak

In 2021, MMK Group adopted the Policy on Providing Guarantees to Indigenous Peoples Living within the Territory of TUSC MMK. This document confirms the fundamental rights of indigenous people.

The indigenous ethnic minority of Nagaybak has the following rights in order to protect their original environment, traditional lifestyle and activities:

- to participate in environment impact assessments of MMK programmes on development of natural resources and environmental protection at their traditional places of residence and activity in Chelyabinsk region
- to maintain their traditions and perform religious ceremonies that do not contradict federal laws, laws of the constituent entities of the Russian Federation, MMK employment policies and procedures, as well as maintain and protect their ritual places
- to establish and develop relations with representatives of the Nagaybaks living in other constituent entities of the Russian Federation and outside Russia
- to participate in environment impact assessments of MMK programmes on development of natural resources and environmental protection at their traditional places of residence and activity in Chelyabinsk region

The Company’s operations do not affect their lifestyle or traditions. There were no cases of interaction with the indigenous minority of Nagaybak in 2022.
Developing local communities

SUSTAINABILITY RISKS

As a company committed to the development of its regions of operations, MMK has been providing a strong support for the local communities. Its contribution has been broad and diverse.

APPROACH

As a major employer and taxpayer, the Group provides jobs to local residents, initiates and assists in the implementation of charitable projects, and tackles many social issues.

The primary region of MMK’s operations is the Chelyabinsk Region and the city of Magnitogorsk. The initiatives implemented are driven by the ambition to ensure decent and comfortable living conditions in the region, improve infrastructure, and diversify recreational, sporting and cultural opportunities for local residents.

SUSTAINABILITY RISKS

• Social tension

MATERIAL TOPICS

• Local community development
• Human rights
• Employee engagement
• Occupational health and safety
• Corporate governance

CONTRIBUTION TOWARDS SDGs

2022 KEY HIGHLIGHTS

$15.3 m investments in the development of local communities and charity

92.3% of survey respondents were fully satisfied with the content and quality of social services provided by the Metallurg charitable foundation

11,320 people attended 626 industrial tourism excursions in 2022

60 submissions were made for the first grant competition for social projects held by the Metallurg charitable foundation

1 This amount includes the aggregate investment in infrastructure and expenditure on community and charitable causes. The value was recalculated at the average USD exchange rate for 2022. Applied exchange rate: 2022 – RUB 68.57 per $.
In 2022, the Group actively met and consulted with the Region’s government. The selection of projects rests with MMK’s social programme unit.

In 2022, a grant competition for non-profit organisations (NPOs), which MMK acts jointly with the Metallurg charitable foundation (CF), was added to the existing social investment management system.

The Company works closely with the government of the Chelyabinsk Region and the city of Magnitogorsk to implement social projects. Monthly meetings discuss city improvement and the budget and control over the implementation of projects with MMK’s social programme unit.

Despite the challenging economic situation, the social component of the Group’s activities did not undergo any changes, and all social programmes were implemented in full. Social support for pensioners and disabled persons accounted for the largest share of investments at 30%. The Group allocated funds to priority areas during the reporting period, with social investments amounting to USD 15.3 million.

The Metallurg CF hosted the first grant competition for social projects, with 60 applications tendered among the beneficiaries of the Metallurg CF to assess their satisfaction with the quality of assistance provided. The total number of the respondents was 900. The survey found that 90.3% of them were fully satisfied with the foundation’s programmes. Also, 86.7% of the beneficiaries noted the top quality of activities implemented by the foundation.

IMPROVING PUBLIC HEALTH

MMK has been providing strong support to activities to improve the healthcare system and has continued to implement the ambitious development strategy for the Central Clinic Healthcare Unit in 2022. During the reporting period, as part of the strategy, a new cardiology, ophthalmology and rehabilitation centre were commissioned; a floor angiography system, the latest magnetic resonance imaging machine and other modern medical equipment for disease treatment and diagnosis were purchased. In addition, new ambulances were bought for the healthcare unit and the premises of the outpatient clinic and the inpatient department were renovated. The Group deployed a modern medical information system (MIS) to manage the processes of health service provision, resulting in a better and more efficient patient care.

In 2022, the MMK Health Leaders Project entered the third annual phase, which is aimed at fighting COVID-19 and has continued to develop and improve their health. The necessity of vaccination as an organiser of several chess tournaments.

In May 2022, the second 200-participant season was launched and ran successfully with 60 applications considered. The aim of the competition is to encourage local NPOs to develop new social projects and improve the social welfare of the population.

The top 10 projects selected by the expert jury received grants from MMK. In 2023, MMK plans to further develop this approach by increasing the grant pool to empower NPOs, attracting more participants, as well as independent experts to serve on the expert jury.

In 2022, the Group actively met and consulted with various beneficiaries of social assistance, including NPOs, municipal social services and community organisations.
Corporate volunteering plays a significant role in the implementation of charity projects. In 2022, through the Union of Young Metallurgists, Group employees held over 50 events of various sizes, including assisting the Metallurg CF in unloading New Year presents for Magnitogorsk children, holding a stage of the Russian Motocross Championship, XCI Cycling Race, MMK Corporate Games, Water of Russia All-Russian Environmental Campaign, Victory Spelling Test All-Russian Patriotic Child Campaign, Magnitogorsk Day, City Day, etc. MMK contributes significantly to the development of sports clubs in Magnitogorsk. The Company finances physical training activities through Magnit physical training and wellness association (OFZ) and the Metallurg-Magnitogorsk Sports Club. Thousands of schoolchildren and students attend sporting events and clubs. Community development and the promotion of healthy lifestyles among young people on behalf of MMK is carried out by the Union of Young Metallurgists as part of the MMK Youth programme. The programme activities cover a wide range of ages and interests beyond sport – from launching strophospheric balloons with middle-school children and career guidance, to organizing competitions for young workers and international science and technology conferences for young professionals.

The Union of Young Metallurgists is also actively involved in organizing and volunteering for major sporting events:
- a friendly hockey tournament for the Cup of the Magnitogorsk Deputy Assembly’s Youth NGO, on the occasion of MMK’s anniversary, which was attended by 190 people
- Pledge Run event, with a total of 1,70 participants
- car audio and cycle competitions, with 150 participants
- mass bike gathering with the participation of 2,000 people
- Memory Candle event with 900 participants, etc.

In 2022, activist Sergey Popkov, an employee of MMK’s Long Product Shop, won a grant from the Metallurg CF’s The Alley of Kindness and Action programme for the implementation of the Corporate Volunteering Development Grant. The project is planned to go live in 2023 with the assistance of the Union of Young Metallurgists.

Corporate Volunteering Development Grant

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**MMK charity programmes**

**PROGRAMME**
**PURPOSE**
**STEPs**
**OUTCOMES**

**Mother and Child Welfare**
Support women during pregnancy and after childbirth, health care development, maintain the health of the MMK Group’s female employees.
- Build family awareness and emotional attachment of family members to each other, involve fathers and older children, along with women, in preparation for the birth of a newborn through the project Conscious Parenting as a Path to Family Harmony
- Childbirth one-off payment is USD 2,000
- Implementation of a set of measures to support women’s reproductive health
- Social and financial support for families with newborns and children up to the age of three
- Creation of an environment that improves the quality of life and moral and psychological condition of family members
- The childbirth one-off payment is USD 2,000, and the monthly allowance to support women while taking care of a child under 3 years old is USD 58
- Conducting classes and psychological training for family members

**Close Family**
Promote the prestige and role of a large family in society, protect mothers, children and fathers.
Support families of MMK Group employees with three or more children under the age of 18.
- Social and financial support for large families
- Improving the quality of life and health of large families
- Encouraging birth rates and supporting children and mothers
- Monthly financial aid of about USD 30 per family to large families
- Financial aid for birthdays, Children’s Protection Day, Knowledge Day and Mother’s Day
- Free summer trips to children’s health centres, Gymnya Ulybezh and Ulybezh Zoo
- Partial reimbursement of the cost of club classes
- Family recreation at the city water park for families with many children
- Organisation of family recreational activities, etc.

**Care Programme**
Provide assistance to MMK Group veterans.
- Assistance in more than 30 areas
- Health desk treatment
- Dental services
- Monthly subsidies
- Greetings and gifts for holidays and special occasions
- Sports, music and cultural and entertainment activities

Since 2004, the proportion of children born with health conditions, the infant mortality rate, and the share of completed births have been steadily above the national average. The rate of death in childbirth among women has decreased by 35% in the programme’s lifetime (to 2020).

Today, an average of 120 pregnant women are on record at the Maternity Centre each month. In 2022, 328 women received childbirth payments to buy necessary products for 321 children. Over 1,200 MMK Group female employees receive monthly child allowance. About USD 583,200 was spent on the programme during the year.

In recent years, there has been a trend towards self-sufficiency in large families, with the ratio of large families with incomes below the subsistence minimum decreasing.

As at 2022, about 2,000 large families of MMK Group were registered with the Metallurg CF. More than 5,500 children are being raised by these families. The programme provided USD 1,25 million in support.
In 2022, MMK Group plans to implement five major projects through the Union of Young Metallurgists:

1. Learning to Flight is a series of theoretical and practical training sessions for young people to operate an unmanned aerial vehicle (UAV). During the project, participants will learn about the legal aspects of the use of air space, the principles and rules for ensuring flight safety, and the theory of aerodynamics. They will also be able to understand in practice what UAV piloting means in various conditions. At the end, a competition among the participants is to be held, during which they will perform a flight task. The project will develop a culture of UAV piloting, simplify the process of obtaining permission to fly and involve young people in air sports and children's technical creativity.

2. Open Space is a series of activities for children, teenagers and young people of Magnitogorsk and nearby areas in two main areas – astronomical observations and aircraft modelling with subsequent launch into the stratosphere.

3. River Brothers Water Club provides training to working youth in water tourism techniques, wildlife first aid techniques, emergency survival skills. Rafting, water tourism festivals, and competitions will be organised.

4. Pedaling is a project aimed at promoting cycling among the population of Magnitogorsk and the surrounding areas through bike rallies.

5. The Corporate Volunteering School aims to develop corporate volunteering in Magnitogorsk through training and subsequent practice at city, regional, and international events.

The industrial tourism programme that has been developed by the Group for the last five years is gaining momentum. The goals are:

- to develop the tourism potential of Magnitogorsk;
- drive interest in the industrial history of the region;
- promote work in the metal industry.

The excursions in the reporting period were conducted in a face-to-face format as part of groups of up to 20 people and were very popular: A total of 11,320 people visited the Company in 2022. There are currently seven excursion routes on offer. In addition to the Victory Route project, launched in February 2021 and consisting of four excursions, a virtual excursion to MMK's mining and processing facilities was introduced.

In November 2022, a new route with the symbolic name Open Metallurgy was added. This route is designed specifically for people with disabilities. Now they can take a tour of the plant, see how MMK lives, and see one of the most modern workshops Rolling Workshop #1, whose products are used in the production of cars, household appliances and in the construction industry.

MMK Group and Nosov Magnitogorsk State Technical University have been working together for many years. In the reporting period, MMK participated in co-financing the equipping of the Quaternary and the Project School at the University. These developmental programmes are aimed at providing additional education and career guidance to schoolchildren. MMK Group participates in the projects not only financially, but also provides its employees as teachers.

The Children’s Health and Education Centre and the 5. G. Zhidomirskite Cultural Centre provide an opportunity for thousands of schoolchildren and students in the city to develop their creative potential.

MMK Group is working with the Magnitogorsk Region’s industrial enterprises to develop industrial tourism at MMK and the opening of Russia’s first Industrial Tourism Centre of Excellence; X International Tourism Forum Great Urals; The Russian Industrialist international tourism exhibition, the Let’s All Work at the Factory section, St Petersburg. Presentation of MMK’s experience in developing industrial tourism; participation of MMK speakers in the opening of the All-Russian School of Competencies to create a tourist route involving the Kemerovo Region’s industrial enterprises.

MMK Group promotes corporate volunteering through its social entities. For example, the Children’s Health and Education Centre and the S. Zhidomirskite Cultural Centre provide an opportunity for thousands of schoolchildren and students in the city to develop their creative potential.

MMK Group was one of the winners of the Industrial Tourism: Russia’s leaders 2022 national ranking. During 2022, MMK representatives also took part in the All-Russian Industrial Tourism Accelerator as part of the team from the Chelyabinsk Region. The Company was awarded a winner’s certificate in the Best Regional Strategy. The Region’s Industrial Potential and Best Platform for Industrial Tourism Experience Exchange.

The project in Magnitogorsk is implemented thanks to investments by the beneficial owner of MMK.
In 2022, as part of joint work with the Chelyabinsk Region government, amendments were made to regional legislation to allow the residents to take advantage of transport tax benefits (0%). The benefit package provided for residents for five subsequent tax periods. In the reporting year, to co-finance resident projects, MMK-INDUSTRIAL PARK made an advance payment of 50% to construct a block-modular boiler house under a previously submitted request from Metallist. The amount equaled USD 48,000 (4.7% of the management company’s investment in 2022).

42 companies have their businesses in the park, 6 of which joined the project in 2022.

**Plans for 2023 and the medium term**

The following is planned for 2023:
- Completion of the construction of a block-modular boiler house
- Dismantling of steel wire shop No. 2, the vitriol production building and the acid warehouse to clear the area for construction of a CJSC Magnitogorsky Zavod Poliatin shop producing rolls earlier imported
- Preparation of proposals to expand the prospective area of the industrial park, given the high occupancy rate at MMK Industrial Park
- Replacement of a 900 m long fire-fighting, drinking and service water pipeline with a diameter of 200 mm
- Replacement of asphalt-concrete pavement over an area of 10,000 m²
- Replacement of railway tracks with a length of 300 m
- Automation of the railway cargo recognition system

**Supporting SMEs in Magnitogorsk**

As part of its social activities, MMK Group maintains a strong focus on creating infrastructure for the development of small and medium businesses in Magnitogorsk and the Chelyabinsk Region.

Industrial park is a complex with an area of 66.5 ha with a developed railway network. MMK-INDUSTRIAL PARK residents are offered all the necessary infrastructure to enable them to launch production in the park as soon as possible.

In 2022, as part of joint work with the Chelyabinsk Region government, amendments were made to regional legislation to allow the residents to take advantage of transport tax benefits (0%). The benefit package provided for industrial parks can now be applied already in the current period, not only the subsequent periods, as before.

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APPENDICES

The PROCESS OF IDENTIFYING MATERIAL TOPICS

GRI 2-14, GRI 3-1

To prepare the Report, MMK Group identified material topics that are most relevant for the stakeholders of MMK and its subsidiaries, as well as for the Group, in terms of environmental, social, and economic aspects. Since 2021, the procedure for identifying material topics was changed due to the updated GRI standards. The process includes four steps: identification and assessment of impacts, prioritization and approval of the list of material topics.

First, the Working Group prepared a draft list of actual and potential impacts of MMK Group on the economy, environment, and society, including human rights. The list of impacts was determined using the summary method based on:

- Comparative analysis of the list of material topics disclosed in the reports of Russian and international metallurgical companies
- Analysis of information requests from external stakeholders and ESG rating agencies.

To assess the identified impacts in the second step, a survey was conducted among external and internal stakeholders. 155 people were interviewed, including MMK employees and managers, shareholders and investors, representatives of state authorities, suppliers, customers, and local communities.

The questionnaire included questions that made it possible to assess the list of the Company’s impacts by the key parameters recommended by GRI standards:
- Severity of impacts, with a breakdown into positive and negative effects
- Frequency and likelihood of impacts
- Scale and scope.

In the third step, average scores were calculated based on the results of the survey, and material topics were prioritized. The final step was to approve the list of 14 material topics on the economy, environment, and society.

To disclose each material topic in the Report, the Group complies with all the requirements of GRI standards, with a focus on completeness and details of the topics with the highest materiality.

This Report was reviewed by all the structural divisions of MMK Group involved in managing sustainability issues, it also passed the procedures of consideration and approval at the level of the Strategic Planning Committee and the Health, Safety and Environment Committee and was approved by the Board of Directors.

List of material topics disclosed in 2022

<table>
<thead>
<tr>
<th>ENVIRONMENTAL ASPECT</th>
<th>SOCIAL ASPECT</th>
<th>ECONOMIC ASPECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Biodiversity</td>
<td>8. Local community development</td>
<td>12. Anti-corruption and ethics</td>
</tr>
<tr>
<td>5. Air emissions</td>
<td></td>
<td></td>
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<tr>
<td>6. Water management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REPORTING BOUNDARIES

GRI 2-2

In 2022, sustainability information was disclosed for MMK and the Group’s 11 major subsidiaries that have the most significant environmental, social, and economic impacts. The amounts are consolidated at 100%, as the subsidiaries and associates are controlled by MMK Group. Certain social indicators are presented on a broader basis, as some companies are deconsolidated for the purpose of separate disclosure.

In future reporting periods, MMK Group plans to continue developing the processes of collecting and processing non-financial information and, as a result, expand the scope of disclosure.

Reporting boundaries

<table>
<thead>
<tr>
<th>PJSC MMK</th>
<th>SUBSIDIARIES OF THE GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental aspect</td>
<td></td>
</tr>
<tr>
<td>Energy consumption and efficiency</td>
<td>10 subsidiaries and Turkish asset MMK Metalurji</td>
</tr>
<tr>
<td>Biodiversity conservation</td>
<td>10 subsidiaries and Turkish asset MMK Metalurji</td>
</tr>
<tr>
<td>Resource efficiency and waste management</td>
<td>10 subsidiaries and Turkish asset MMK Metalurji</td>
</tr>
<tr>
<td>Combating climate change</td>
<td>10 subsidiaries and Turkish asset MMK Metalurji</td>
</tr>
<tr>
<td>Air quality</td>
<td>10 subsidiaries and Turkish asset MMK Metalurji</td>
</tr>
<tr>
<td>Responsible water consumption and water discharge</td>
<td>10 subsidiaries and Turkish asset MMK Metalurji</td>
</tr>
<tr>
<td>Social aspect</td>
<td></td>
</tr>
<tr>
<td>Occupational health and safety</td>
<td>10 subsidiaries, Turkish asset MMK Metalurji and general contractors</td>
</tr>
<tr>
<td>Human rights</td>
<td></td>
</tr>
<tr>
<td>Labor communities</td>
<td>10 subsidiaries, Turkish asset MMK Metalurji and general contractors</td>
</tr>
<tr>
<td>HR management</td>
<td>27 subsidiaries, Turkish asset MMK Metalurji and general contractors</td>
</tr>
<tr>
<td>Economic aspect</td>
<td></td>
</tr>
<tr>
<td>Corporate governance</td>
<td></td>
</tr>
<tr>
<td>Anti-corruption and ethics</td>
<td></td>
</tr>
<tr>
<td>Supply chain</td>
<td></td>
</tr>
<tr>
<td>Economic performance</td>
<td></td>
</tr>
</tbody>
</table>
FINANCIAL INDICATORS

Briefly, the report presents financial indicators for the year 2022. The financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS). The financial indicators are presented in the Report in US dollars, with the official exchange rates of the Russian Federation used by MMK Group. The report notes that the financial indicators are presented in accordance with the requirements for auditor independence. The Group engaged an independent practitioner to perform an independent limited assurance review of the selected non-financial indicators presented in the Report.

INDEPENDENT ASSURANCE REPORT

Current independent practitioner’s limited assurance report has been prepared for those charged with governance of PJSC MMK in relation to the Sustainability Report for the year ended 31 December 2022.

SCOPE OF LIMITED ASSURANCE ENGAGEMENT

We have performed an engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised). Assurance engagements other than Audits or Reviews of Historical Financial Information (the Standard) to express limited assurance that the Sustainability Report of PJSC MMK for 2022 (“the Report”) has been prepared in accordance with the requirements of Global Reporting Initiative Sustainability reporting standards (the GRI Standards) and with the implementation of Sustainability Accounting Standards Board’s Reporting Standards (“SASB Standards”), as well as regarding the accuracy of the selected non-financial indicators, as presented in section “Selected non-financial indicators for examination”.

LIMITED ASSURANCE PROCEDURES AND ROLES

Principal Procedures in a Limited Assurance Engagement

Our responsibility is to issue a report on the subject matter described above, based on our limited assurance engagement. We conducted our engagement in accordance with the Standard.

Our procedures in this engagement included, but were not limited to, the following:

- Obtaining an understanding of the overall corporate governance process and internal control system related to the identification and presentation of sustainability information and the selected non-financial indicators included in the Report;
- Interviewing employees of PJSC MMK responsible for sustainability policies and reporting relevant to subject matter of our report;
- Obtaining, on a sample basis, information supporting accuracy of non-financial indicators presented in section “Selected non-financial indicators for examination”;
- Reading the Report to assess the appropriateness of information included therein and management’s own statement on the preparation of the Report with reference to the requirements of GRI Standards, as well as the requirements of SASB Standards.

Inherent limitations

Inherent limitations exist in all assurance engagements due to selective testing of the information being examined. Therefore, fraud, errors and inconsistencies may occur and may not be detected. In addition, non-financial information, such as information included in reporting documents, is subject to more inherent limitations than financial information, given the nature and methods used for determining, calculating and sampling or estimating such information.

Our engagement provides limited assurance as defined in the Standard. The procedures performed in a limited assurance engagement are different in nature and timing from those in a reasonable assurance engagement and are less in scope than in a reasonable assurance engagement. Therefore, the level of assurance obtained in a limited assurance engagement is significantly lower than the level of assurance that would have been obtained had a reasonable assurance engagement been performed.

Roles and responsibilities

Those charged with governance are responsible for the preparation, accuracy, completeness and reliability of the information and sustainability statements contained in the Report, without material misstatements, prepared with reference to the requirements of GRI Standards, as well as the SASB Standards. Those charged with governance are responsible for defining PJSC MMK’s sustainability objectives, and for establishing, implementing and maintaining appropriate processes and internal controls applicable to the preparation of the Report that is free from material misstatements due to fraud or errors.

Our responsibility is to provide, based on the procedures performed and the evidence obtained, an independent practitioner’s report on the subject matter described above providing limited assurance as to the statement of those charged with governance regarding the preparation of the non-financial indicators presented in the “Selected non-financial indicators for examination” section and included in the Report.

Independence and quality control

We have complied with the independence and other ethical requirements of Auditor’s Independence Rules and the Auditor’s Professional Ethics Code, that are relevant to our engagement in the Russian Federation together with the ethical requirements of the International Ethics Standards Board for Accountants’ Code of Ethics for Professional Accountants (the “IESBA Code”), which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The firm applies the International Standard On Quality Management (ISQM) 1 Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements, which requires the firm to develop, implement and maintain a quality management system, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.
Selected non-financial indicators for examination

Our examination of the non-financial indicators included in the Report, in accordance with the procedures described above, was limited to the scope determined by those charged with governance of PJSC MMK, as presented below:

### Energy
- Electricity consumption, mln GJ
- Consumption of purchased electricity, mln GJ
- Electricity sold, mln GJ
- Consumed by the Group: heat, mln GJ
- Heat sold, mln GJ
- Total energy consumption, mln GJ and broken down by type of resource.

### Water resources
- Amount of water withdrawn, total thousand m³ and broken down:
  - by sources (indicating freshwater, thousand m³);
  - Percentage of water used in total water withdrawn, thousand m³;
  - Percentage of water withdrawn from all areas with water stress in total water withdrawn, %.

### Air emissions
- The total amount of air emissions, thousand tons and broken down:
  - by type of emissions.

### Waste
- Waste generated, total thousand tons and broken down:
  - by hazard classes (hazardous and non-hazardous).
- Percentage of waste generated that was recycled, %.

### Occupational and Industrial Safety
- Occupational injuries:
  - Number of injuries for the Group and its employees, pcs;
  - Number of severe injuries for the Group and its employees, pcs;
  - Number of minor injuries for the Group and its employees, pcs.

### HR management
- The total number of employees, and a breakdown by gender and by region;
- The total number of permanent employees, and a breakdown by gender and by region;
- The total number of temporary employees, and a breakdown by gender and by region;
- The total number of employees, and a breakdown of this total by gender and by region;
- Diversity of management bodies and employees:
  - Percentage of women within the organization’s governance bodies.

### Training and Education
- Average hours of training per year per employee:
  - Average number of training hours the Group’s employees have undertaken during the reporting period by gender, hours;
  - Average number of training hours within the Group’s employees have undertaken during the reporting period by gender, hours.

### Charity
- Funds allocated to the needs of society, charitable and social projects, million US dollars.

### Verification Statement

It is hereby verified by TÜV AUSTRIA Standards & Compliance:

**MMK PJSC**
93, ul. Kirova, Magnitogorsk Chelyabinsk region 455000 Russia

has calculated a greenhouse gases emissions based on:

**ISO 14064:2018 Greenhouse gases – part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals** with the following attributes assessed and confirmed:

<table>
<thead>
<tr>
<th>Organizational Boundary</th>
<th>Operational Control – see Appendix 1 for details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting period</td>
<td>1st January 2022 to 31st December 2022</td>
</tr>
<tr>
<td>Reporting boundary</td>
<td>Direct GHG emissions [Category 1], indirect GHG emissions from imported energy [Category 2], indirect GHG emissions [Categories 3, 4, 5, 6] – see Appendix 1 for details</td>
</tr>
<tr>
<td>Total GHG emissions</td>
<td>36,574,314 tCO₂e</td>
</tr>
<tr>
<td>Direct GHG emissions</td>
<td>24,360,840 tCO₂e</td>
</tr>
<tr>
<td>Indirect GHG emissions</td>
<td>12,213,473 tCO₂e</td>
</tr>
<tr>
<td>Gross GHG emissions</td>
<td>36,574,314 tCO₂e</td>
</tr>
<tr>
<td>Gross Indirect GHG emissions</td>
<td>12,213,473 tCO₂e</td>
</tr>
<tr>
<td>Gross Total GHG emissions</td>
<td>48,787,787 tCO₂e</td>
</tr>
<tr>
<td>Level of Assurance</td>
<td>Limited</td>
</tr>
<tr>
<td>Materiality level</td>
<td>5%</td>
</tr>
</tbody>
</table>

Statement No: TASC-V-202303310001
Issue date: 2023-03-31

The unit conducted the verification.

TÜV AUSTRIA Standards & Compliance

This verification was conducted in accordance with TÜV AUSTRIA Standards & Compliance Ltd. regulation and ISO 14064:2006 and confirm the data on GHG emissions for the above mentioned reporting period; all subsequent reporting periods are subject to additional verification.
**APPENDIX 1 TO THE CONCLUSION NO. TASC-V-20230331001**

**Organizational Boundary:**
The approach to defining inventory boundaries was chosen based on an analysis of the requirements of stakeholders and the practice of disclosing indicators by companies in the mining and metallurgical sector.

The approach to determining the organizational boundaries of the inventory is determined on the basis of operational control. The reporting boundaries include all GHG emissions and removals from sources that meet the following criteria:

- The presence of direct operational control by the Company;
- Belonging to assets where processes directly related to the production of metallurgical products are carried out.

The following production facilities were included within the Company’s organizational boundaries for the purposes of the greenhouse gas reporting:

- Mining and processing production (Malyl Kuznets quarry, lime stone quarry, dolomite quarry, one processing plant, crushing and roasting shop, sinter shop, sinter batch preparation shop);
- Coke production (local preparation shop, coke shop, chemical processing shop);
- Metallurgical production (blast furnace shop, oxygen converter shop, electric steel-melting shop);
- Rolling production (production of heavy plate products, production of coated metal, heat rolling shops, long products shop);
- Auxiliary production (central power plant, heat and power plant, steam-power station, locomotive workshop, railway transport workshop);
- Motor transport department.

**Reporting Boundary:**
Direct GHG emissions (Category 1):
- Emissions of carbon dioxide (CO₂) from fuel combustion in stationary units;
- Emissions of carbon dioxide (CO₂) from fuel combustion by mobile units;
- Emissions of carbon dioxide (CO₂) from lime and sinter production;
- Emissions of carbon dioxide (CO₂) from metallurgical production (production of iron and steel, coke production).

Indirect GHG emissions from imported energy (Category 2):
- Carbon dioxide (CO₂) emissions from imported electricity;
- Carbon dioxide (CO₂) emissions from imported heat.

Indirect GHG emissions converted to tonnes of carbon dioxide equivalent (CO₂e) from:
- Transportation of external resources (raw and other materials) used in the production of products (Category 3);
- Transportation of products to the buy side (Category 3);
- Production of external resources (raw and other materials) used in the production of products (Category 4);
- Use of products from the organization (Category 5);
- Energy consumption related to the production and transportation of fuel resources to MMK PJSC, not included in Categories 1 and 2 (Category 6).

**Exclusions from the reporting boundary:**
The following emission sources, emissions from which are less than 5% of the total GHG emissions, were excluded:

- Operation of refrigeration and climatic equipment;
- Anthropogenic biogenic GHG emissions (smoother decomposition of organic matter in solid waste landfill and in wastewater);
- Welding works outside the main technological processes;
- Emissions from detonation of explosives;
- Supply of materials, raw materials and finished goods, the weight of which does not exceed 5% of the total annual supplies of each company in the Group.

Due to the high uncertainty regarding the use of MMK Group products outside the Russian Federation, such emissions are not estimated, but emissions from transportation to parts/shipping points on the territory of the Russian Federation are taken into account.

**Verification Activities:**
The following were the verification activities undertaken:

- Evaluation of the monitoring and control systems through interviewing employees, observation & inquiry;
- Verification of the data through sampling, recalculating, revising, cross checking, reconciliation.

The quantification and reporting of the GHG emissions have been independently verified by TÜV AUSTRIA Standards & Compliance against the specifications defined in ISO 14064-1:2018.

The verification activity has been carried out in accordance with ISO 14064-3:2009 and the principles of ISO 14065:2020.

The verification activities applied in a limited level of assurance are less extensive in nature, timing and extent than in a reasonable level of assurance verification.

**Verification opinion:**
Verified with comments.

Based on the processes and procedures conducted, there is no evidence that the «MMK PJSC Greenhouse Gas Emissions Report 2022», March 2023, produced by MMK PJSC:

- Is not materially correct and is not a fair representation of GHG data and information;
- Has not been prepared in accordance with ISO 14064-1:2018 Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

**The quantification and reporting of the GHG emissions have been independently verified by TÜV AUSTRIA Standards & Compliance.**

**Category of GHG Emissions Sources**

<table>
<thead>
<tr>
<th>Category of GHG Emissions Sources</th>
<th>GHG Emissions CO₂</th>
<th>GHG Emissions CH₄</th>
<th>GHG Emissions N₂O</th>
<th>GHG Emissions TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect GHG emissions (Scope 1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1: Category 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct GHG emissions</td>
<td>24,360,030</td>
<td>–</td>
<td>–</td>
<td>24,360,030</td>
</tr>
<tr>
<td>Indirect GHG emissions from imported energy (Scope 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: Category 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect GHG emissions</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Indirect GHG emissions from fuel</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Indirect GHG emissions from products used by MMK Group (Scope 3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3: Category 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect GHG emissions from raw materials</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Indirect GHG emissions from products</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Indirect GHG emissions associated with the use of products manufactured by MMK Group (Scope 3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4: Category 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirect GHG emissions</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Indirect GHG emissions with energy consumption (Scope 3)</td>
<td></td>
<td></td>
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<tr>
<td>5: Category 5</td>
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</tr>
<tr>
<td>Indirect GHG emissions</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Scope 1 + Scope 2</td>
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<td>Indirect GHG emissions</td>
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<td>Scope 1 + Scope 2 + Scope 3</td>
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**Summary of MMK Group GHG Emissions for 2022:**

- Direct GHG emissions (Scope 1):
- Indirect GHG emissions from imported energy (Scope 2):
- Indirect GHG emissions from fuel combustion in stationary units:
- Indirect GHG emissions from raw materials:
- Indirect GHG emissions associated with the use of products manufactured by MMK Group (Scope 3):
- Indirect GHG emissions associated with energy consumption (Scope 3):
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1 The basic performance indicators of the RSPP are those recommended by the Russian Union of Industrialists and Entrepreneurs (RSPP) for use in the preparation of corporate non-financial reports, as well as in the company management systems to organically monitoring, control and assessment of key performance results. The indicators are included in the Report for 2022 in accordance with the guidelines Basic Performance Indicators. Recommendations on the Use in Management and, Corporate Non-financial Reporting Practice.

2 Indicators confirmed as part of a limited assurance engagement performed by “Business Solutions and Technologies” Joint Stock Company. See Appendix Independent Limited Assurance Review Report for more details.
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<td>GRI 213-2</td>
<td>Recycled input materials used</td>
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**Notes:**
- The Group's consumption of recycled materials in 2022 was 0.22 thousand tonnes, of which 0.29 thousand tonnes were used for production of products and 0.02 tonnes for packaging.
- The definition of recycled materials for the Group includes polyethylene and scrap metal (not generated as a result of own production).
- b. Renewable energy consumption in 2022 was 711,502 GJ (in terms of electric energy consumed by the Turkish asset MMK Metallurgik).
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<td>Significant impacts of activities, products and services on biodiversity</td>
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<td>a. Significant direct and indirect positive and negative impacts on biodiversity are not disclosed</td>
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<td>GRI 304-3</td>
<td>Habitats protected or restored</td>
<td>Not applicable</td>
<td>Environmental responsibility</td>
<td>b. Information on the external assessment of the effectiveness of the measures taken to restore affected lands is not disclosed</td>
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### GRI 305-1 Direct (Scope 1) GHG emissions

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<td>Direct (Scope 1) GHG emissions</td>
<td>a. Direct (Scope 1) GHG emissions in 2022 for the Group were 28.09 mln tonnes of CO₂-e.</td>
<td>Environmental responsibility</td>
<td>2.5. Greenhouse gas emissions</td>
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<td></td>
<td>c. CH₄ – 1.46 thousand tonnes of CO₂-e. emissions.</td>
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<td></td>
<td>d. N₂O – 0.05 thousand tonnes of CO₂-e. emissions.</td>
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<td></td>
<td>e. Biogenic emissions are not disclosed due to their absence.</td>
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<td></td>
<td>f. Global warming potential rates according to the Fifth Assessment Report of the IPCC were used:</td>
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<td></td>
<td>a. Other indirect (Scope 3) GHG emissions</td>
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### GRI 306-1 Waste generation and significant waste-related impacts

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<td>GRI 306-3</td>
<td>Waste generated</td>
<td>Not applicable</td>
<td>Environmental responsibility</td>
<td>c. Waste generated values for the Group in 2022 are without the Turkish asset MMK Metalurji.</td>
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<td>GRI 306-4</td>
<td>Waste diverted from disposal</td>
<td>Not applicable</td>
<td>Environmental responsibility</td>
<td>d. Waste diverted from disposal of the Group for 2022 are without the Turkish asset MMK Metalurji.</td>
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<td>31.2 Employees turnover</td>
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### GRI 403 Occupational Health and Safety

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**Appendices**

**Employees**

**Appendices**

**Appendices**
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EM-IS-100a.1 Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations.

EM-IS-100a.2 Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10, PM2.5), (5) manganese (Mn), (6) lead (Pb), (7) volatile organic compounds (VOCs), and (8) polycyclic aromatic hydrocarbons (PAH).

Energy Management

EM-IS-120a.1 Air quality Energy consumption and efficiency

Water Management

EM-IS-140a.1 Water management

Waste Management

EM-IS-150a.1 Amount of waste generated, percentage hazardous, percentage recycled

SOCIAL TOPIC

Workforce Health & Safety

EM-IS-320a.1 Occupational health and safety

Glossary

AEMS — Automated GHG emissions measurement system
AIS — Automated information system
APCS — Automated process control systems
BdD — Board of Directors
BFPP — Blast furnace gas power plant
CAPEX — Capital expenditure
CAPI — Comprehensive Air Pollution Index
CBAM — Carbon Border Adjustment Mechanism
CCS — Carbon Capture and Storage
CEO — Chief Executive Officer
CF — Charitable Foundation
CIS — Commonwealth of Independent States
CHFP — Combined heat and power plant
CLSI — Comprehensive Labour Safety Index
CPP — Central Power Plant
EAF — Electric arc furnaces
EIBITDA — Earnings Before Interest, Taxes, Depreciation and Amortisation
EGD — Expert Group on Digitalisation
ELA — Environmental impact assessment
EMC — Environmental monitoring complex
EMS — Environmental Management System
EPL — Environmental Protection Laboratory
ESG — Environmental, Social and Governance
GDUs — Gas-discharge units
GHG — Greenhouse gas
GRI — Global Reporting Initiative
HR — Human resources
HSE — Health, Safety and the Environment
IEC — International Electrotechnical Commission
IOT — Internet of Things
ISO — International Organization for Standardization
KPI — Key Performance Indicators

LLC — Limited liability company
LTIFR — Last Time Injury Frequency Rate
LTISR — Last Time Injury Severity Rate
MIS — Medical information system
NGO — Non-governmental organisation
NPO — Non-profit organisation
OHS — Occupational Health & Safety
OHSAS — Occupational Health and Safety Assessment Series
OHSMS — Occupational Health and Safety Management System
OTIF — On-time in-full
pp — Percentage points
PJE — Public joint stock company
QMS — Quality Management System
R&D — Research and development
RPA — Robotic process automation
SASB — Sustainability Accounting Standards Board
SMEs — Small and medium enterprises
SMMS — Statutory minimum monthly salary
SOC — Security Operations Center
SPW — Steam-power workshop
SPNA — Specially protected natural areas
SRM — Supplier Relationship Management
T — Tonne (1,000 kg)
TCFD — Task Force on Climate-related Financial Disclosures
TRIFR — Total Recordable Injury Frequency Rate
TRIR — Total Recordable Incident Rate
UAV — Unmanned aerial vehicle
UN SDGs — United Nations’ Sustainable Development Goals
VHI — Voluntary health insurance
VR — Virtual reality
WWF — World Wide Fund for Nature
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