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Corporate Governance

Corporate governance principles

Nornickel's unwavering priority in corporate governance is balancing the interests of shareholders, the Board of Directors, management, employees, and other stakeholders.

The existing corporate governance framework is integrated into all of the Company's processes. It is underpinned by the applicable Russian laws and the Bank of Russia's Corporate Governance Code, which we are guided by in building our corporate governance practices at Nornickel. The

key principles of corporate governance are reflected in Nornickel's Articles of Association, Regulations on the Board of Directors, Anti-Corruption Policy and other by-laws¹.



Our key corporate governance principles:

1. Equitable and fair treatment of every shareholder;
2. Support for the shareholders to let them exercise their rights and lawful interests in the most reasonable and convenient manner;
3. Professionalism and leadership of the Board of Directors, and involvement of independent directors in governance;
4. Strategic management by the Board of Directors, its efficient control over executive bodies, and oversight of the risk management and internal control framework;
5. Sound, bona fide and efficient management of the Company's day-to-day operations by executive bodies accountable to the Board of Directors and the General Meeting of Shareholders;
6. Strong business ethics;
7. Zero tolerance to corruption;
8. Full, transparent, reliable and timely disclosure;
9. Robust risk management and internal controls;
10. Commitment to sustainability principles.

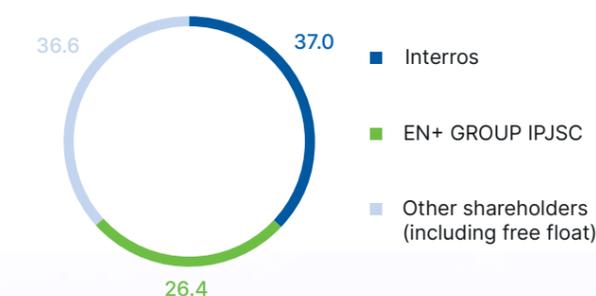
Share capital structure

In the reporting year, following respective resolution by the General Meeting of Shareholders, the Company's authorised capital was reduced to RUB 152,863,397 through the cancellation of 791,227 treasury shares repurchased in June 2021. The stakes held by the key shareholders reflect changes in the authorised capital.

As at the end of 2022, the authorised capital of Nornickel was made up of 152,863,397 ordinary shares with an aggregate market value of RUB 2,339 bn.

The Company's ordinary shares have been trading on the Russian market since 2001. Since 2014, the shares have been on the First Level quotation list of the Moscow Exchange (ticker: GMKN). American depositary receipts (10 ADRs represent one share) were also issued in 2001 and were traded on the LSE OTC market (ticker: MNOD) and over the counter in the US (ticker: NILSY). Trading in depositary receipts of Russian issuers on international stock exchanges has been suspended since March 2022.

Shareholding structure as at 31 December 2022 (%)



152,863,397 ordinary shares

the authorised capital of Nornickel as at the end of 2022 with an aggregate market value of

RUB 2,339 bn



¹ The full versions of the documents are available on [the Company's website](#).

Governance bodies

GRI 2-9, 2-10, 2-11, 2-12, 2-13

Nornickel has four key governance bodies.

Non-executive bodies		Executive bodies	
General Meeting of Shareholders, the Company's supreme governance body	Board of Directors, a collegial governance body in charge of strategic management of the Company and oversight of its executive bodies	Management Board, a collegial body that manages the Company's day-to-day operations	President, the sole executive body that manages the Company's day-to-day operations

Board of Directors

The key documents governing the Board of Directors are [the Articles of Association](#) and [the Regulations on the Board of Directors](#), which set out the procedure for convening and holding Board meetings and outline the Board's authority and formation process.

The Board of Directors has 13 members, who are elected at the Annual General Meeting of Shareholders for a period extending until the next Annual General Meeting of Shareholders. The current size of the Board of Directors is aligned with Nornickel's goals and objectives.

The Policy on Development and Approval of Vote Recommendations on Candidates Nominated to the Board of Directors contains qualifications that nominees are to meet to be nominated and selected¹.

Key qualifications for nominees to the Board of Directors

- Impeccable professional and personal reputation, excellent professional qualifications and understanding of the key principles underpinning the Company's business
- Professional qualification, experience and skills aligned with the Company's current and expected needs
- Interest in serving on the Company's Board of Directors, including availability of sufficient time to dedicate to their role as directors
- Knowledge and understanding of all legal responsibilities related to Board service
- No conflict of interest in any form
- Service on the board of directors of no more than five other public companies at the same time



As at 31 December 2022, the Board had six independent directors. They ensure efficient decision-making in line with the interests of all stakeholders and improve the quality of

adopted managerial decisions. Independent directors provide professional unbiased opinion on all agenda items.

6 independent directors
the Board had As at 31 December 2022



Composition of the Board of Directors as at 31 December 2022²

Independent directors

- Denis Alexandrov
- Alexey Germanovich
- Sergey Volk
- Alexey Ivanov
- Stanislav Luchitsky
- Evgeny Shvarts

Non-executive directors

- Alexey Bashkirov
- Sergey Batekhin
- Elena Bezdenezhnykh
- Andrei Bougrov
- Alexandra Zakharova
- Egor Sheibak

Executive directors

- Marianna Zakharova

¹ The full version of the document is available on [the Company's website](#).

² Marianna Zakharova holds the position of First Vice President, Corporate Governance, Asset Management and Legal Affairs. The other Board members hold no major positions within the Company. As at the end of 2022, the Board of Directors was chaired by Andrei Bougrov. For more details on members of the Board of Directors, please see [MMC Norilsk Nickel's Annual Report for 2022](#).

The Board of Directors meets as and when required, but at least once every six weeks. In 2022, the Board of Directors held 38 meetings (nine meetings in person and 29 meetings in absentia).

38 meetings

the Board of Directors held in 2022

GRI 2-12, 2-16

As part of these meetings, the Board of Directors considered 105 matters, including 51 corporate governance matters, 27 deal approvals, and 27 strategic, operational, social, environmental and other matters.

The Company's management keeps the Board of Directors updated on the most essential matters and issues. As part of its regular reporting to the Board of Directors, the management submits problems and concerns for preliminary discussion in order to ensure the most impartial and informed decision-making possible.

- In 2022, the key ESG-related matters submitted for discussion to the Board of Directors and its Committees included:
- investigations of fatalities and performance in occupational health and safety;
 - assessment of performance of corporate risk management and internal controls;
 - performance of the Environmental Department, the Centre for Monitoring Technical, Production and Environmental Risks, and the Environmental Monitoring Centre;
 - Nornickel's KPI system, including environmental and OHS indicators;
 - discussion of scenarios for global economy and for climate change.

Also, the Board of Directors meets on a quarterly basis to review the Company's financial results, operational performance, and OHS reports.

In overseeing the Company's management, financial and business affairs, the Board of Directors may instruct the managers on individual matters and monitor

implementation of resolutions and tasks. Authorised executives are vested with powers and responsibilities to address economic, environmental and social matters and may delegate their powers to other employees based on their competences and functions.

Committees of the Board of Directors

Nornickel's Board of Directors has five Committees. The Committee operations, structure, functions and membership are defined by the respective Committee Regulations.

105 matters

were considered by the Board of Directors in 2022



Key functions of the Board's Committees

GRI 2-9, 2-12, 2-13

Committee	Key functions
Audit Committee	<ul style="list-style-type: none"> • Reviewing matters related to financial statements • Overseeing risk management and internal controls • Overseeing external and internal audits • Preventing employee and third party wrongdoing • Reviewing HSE matters
Strategy Committee	<ul style="list-style-type: none"> • Preliminary review of matters pertaining to strategy development, investment planning, restructuring, and interaction with capital markets
Budget Committee	<ul style="list-style-type: none"> • Issuing recommendations to the Board of Directors in order to facilitate decision-making on the amount of dividends and on the record date to be suggested by the Board of Directors; taking into account information on the Company's financial results; approving the Company's budget
Corporate Governance, Nomination and Remuneration Committee	<ul style="list-style-type: none"> • Support in assessing, overseeing and improving Nornickel's corporate governance framework; succession planning for Nornickel's Board of Directors and Management Board; providing incentives, evaluating the performance of Nornickel's Board of Directors, Management Board, President, and Corporate Secretary, and setting relevant remuneration policies; supervising the development and implementation of Nornickel's information policy
Sustainable Development and Climate Change Committee	<ul style="list-style-type: none"> • Integration of the sustainable development principles, including climate change, into the Company's operations • Development and implementation of a strategy on sustainable development and climate change • Overseeing risk management and internal control in sustainable development and climate change • Overseeing the Company's internal reporting and disclosures on sustainable development and climate change • Overseeing external audit of the Company's sustainable development and climate change reports and activities

Composition of the Board's Committees as at 31 December 2022

The composition of the Board's Committees is determined by resolution of the Board of Directors.

Committees of the Board of Directors	Directors		Chairman		Share of directors, %	
	Independent	Non-executive	Independent	Non-executive	Independent	Non-executive
Audit Committee	5	+	+		80	20
Budget Committee	5	-	+		20	80
Strategy Committee	5	+	+		40	60
Corporate Governance, Nomination and Remuneration Committee	5	+	+		60	40
Sustainable Development and Climate Change Committee	5	+	+		80	20

Evaluation of the Board of Directors performance

GRI 2-18

Nornickel has developed the Performance Evaluation Policy for the Board of Directors in line with the Bank of Russia's Corporate Governance Code and global best practices. According to the Policy, the Company runs annual internal evaluation (self-evaluation) of the Board of Directors' performance in the form of an online questionnaire filled by each director based on a schedule approved by the Board of Directors. The questionnaire contains 87 questions, divided into 18 sections. All questions are graded on a scale from 1 to 10. For each question there is a text field where directors may enter additional comments. Answering all questions is mandatory.

Following the evaluation, the Corporate Governance, Nomination and Remuneration Committee prepares the Board of Directors' performance report for the year and develops recommendations for improving the Board functions that were scored below average. With the Committee's recommendations taken into account, the Board of Directors approves the report; the recommendations are communicated to all stakeholders.

In addition to internal evaluation, the Company organises an external independent evaluation of the Board of Directors' performance at least once every three years. In 2021, external evaluation of the Board of Directors' performance was carried out by the Professional Directors Association.

Survey and interview results served as the basis for conclusions and recommendations across four areas:

- role of the Board of Directors and corporate governance;
- composition and remit of the Board of Directors;
- Committees of the Board of Directors;
- operating model of the Board of Directors.

Following the evaluation, an opinion was prepared stating that in 2021, the Board was balanced in terms of professional qualification, experience and business skills of the directors; the composition of

the Board Committees was aligned with the Company's goals and objectives; the Chairman of the Board of Directors ensured efficient organisation of the Board activities and its interaction with other bodies of the Company and facilitated the optimal performance of the functions conferred on the Board.

In 2022, a number of activities were implemented to improve the Board processes, including activities recommended by the independent external consultant. Specifically:

- the report submitted to the shareholders ahead of the General Meeting of Shareholders was expanded to include more information on Board nominees, and the Board paid more attention to matters related to KPI improvement;
- the Company looks into ways to increase representation of women on the Board of Directors.

Director induction and training

GRI 2-17

Nornickel has in place the Professional Development Policy for Members of Board of Directors. In line with the Policy, newly elected Board members undergo onboarding by attending a series of meetings with executives and key officers of the Company. During the summer of 2022, a number of working meetings were held between the newly elected Board members and the management team to discuss key aspects of the Company's operations. The Corporate Secretary makes sure the new directors familiarise themselves with the existing by-laws of the Company and provides materials required under the Professional Development Policy. In 2022, an online session on leadership development in the area of safety culture was organised for the Board of Directors involving Andrew Sherman, a recognised expert in this field.

The Company also organises field sessions for its directors, which involve visits to the Company's production sites and meetings with heads of production units to address key issues locally. In the autumn of 2022, the Board of Directors travelled to Norilsk to visit the key production sites

of the Company's Polar Division and social infrastructure facilities included in the Company's charity programme.

Executive bodies

GRI 2-13

The President and the Management Board are the Company's executive bodies. In the reporting period, the position of the Company's President was held by Vladimir Potanin, who concurrently chaired the Company's Management Board. As at the end of 2022, Vladimir Potanin had held the position of the President (CEO before 2015) for 10 years and 13 days.

The remit of the Management Board members, who also hold the positions of Vice Presidents, includes the Company's impact on the economy, environment, and local communities. Members of the Management Board can delegate respective matters to other employees in line with their scope of responsibilities and job duties.

Prevention of conflict of interest

GRI 2-15

As part of its commitment to the principles of legality, impartiality, objectivity and confidentiality, Nornickel puts a special emphasis on managing conflicts of interest among its shareholders, members of the Board of Directors and top management. The Company has in place measures to prevent situations that may involve a conflict of interest.

Transactions involving a conflict of interest that meet the criteria for related-party transactions are executed in line with the procedure prescribed by laws on joint-stock companies. Also, under the Company's Articles of Association, transactions

involving a conflict of interest for a shareholder owning more than 5% of voting shares are subject to a special approval procedure. Such transactions can only be executed upon an approval by a qualified majority voting of the Board members (at least 10 out of 13).

In addition, the Company has adopted the Code of Conduct and Ethics for Members of the Board of Directors, which serves to uphold high standards of ethics and business conduct of the Board members and is a guidance to be relied on in case of ethical risks and conflicts of interest. The Code states that members of the Board

of Directors shall refrain from engaging in any activities that may cause a conflict of interest, and, if there is reason to believe such conflict may occur, notify the Corporate Secretary in writing.

If a director has a direct or indirect personal interest in a matter submitted for consideration by the Board of Directors, they shall inform the Board of Directors accordingly before the matter is considered or resolved and withdraw from any further discussions and voting on such matter.

Ensuring transparency and dialogue with stakeholders on corporate governance

GRI 2-29

Maintaining a focus on transparency and openness, Nornickel prioritises interaction between the Company's management and stakeholders. Stakeholder engagement in corporate governance helps Nornickel improve its governance system by adopting important resolutions that reflect the needs of the Company's stakeholders.

Nornickel has an active dialogue with a wide range of Russian and international investors. Public reporting is among the key communication channels for Nornickel. We strive to leverage global best practices to make all the necessary disclosures, which take the form of annual and sustainability

reports, press releases, presentations, statements of material facts, and interactive tools.

We disclose quarterly production results and accounting statements prepared under the Russian Accounting Standards (RAS) on the Company's website. Every six month, we publish IFRS financial statements, issuer reports, and affiliate lists.

We also maintain regular contact with investors and external stakeholders.

To improve internal communications, Nornickel organised traditional online dialogues between employees and the

top management as a way to identify key strengths and weaknesses and improve corporate governance. In March 2022, we held yet another Nornickel Live – a Q&A session for employees to ask questions and for the Company's Vice Presidents to respond and give their insights into the latest corporate developments and plans going forward. This time, the session focused on social support for employees in a turbulent economic environment. During the year, we also held a number of online one-on-one meetings, some of which were attended by the Company's top management.

Remuneration

GRI 2-19, 2-20

The Board of Directors' remuneration is set out in the Remuneration Policy for Members of the Board of Directors¹ approved by the General Meeting of Shareholders. The annual remuneration for non-executive directors includes:

- base remuneration of USD 120,000 for the Board membership;
- additional remuneration of USD 50,000 for membership in a Committee of the Board of Directors;
- additional remuneration of USD 150,000 for chairing a Committee of the Board of Directors;
- reimbursement of expenses incurred by directors in discharge of their duties.

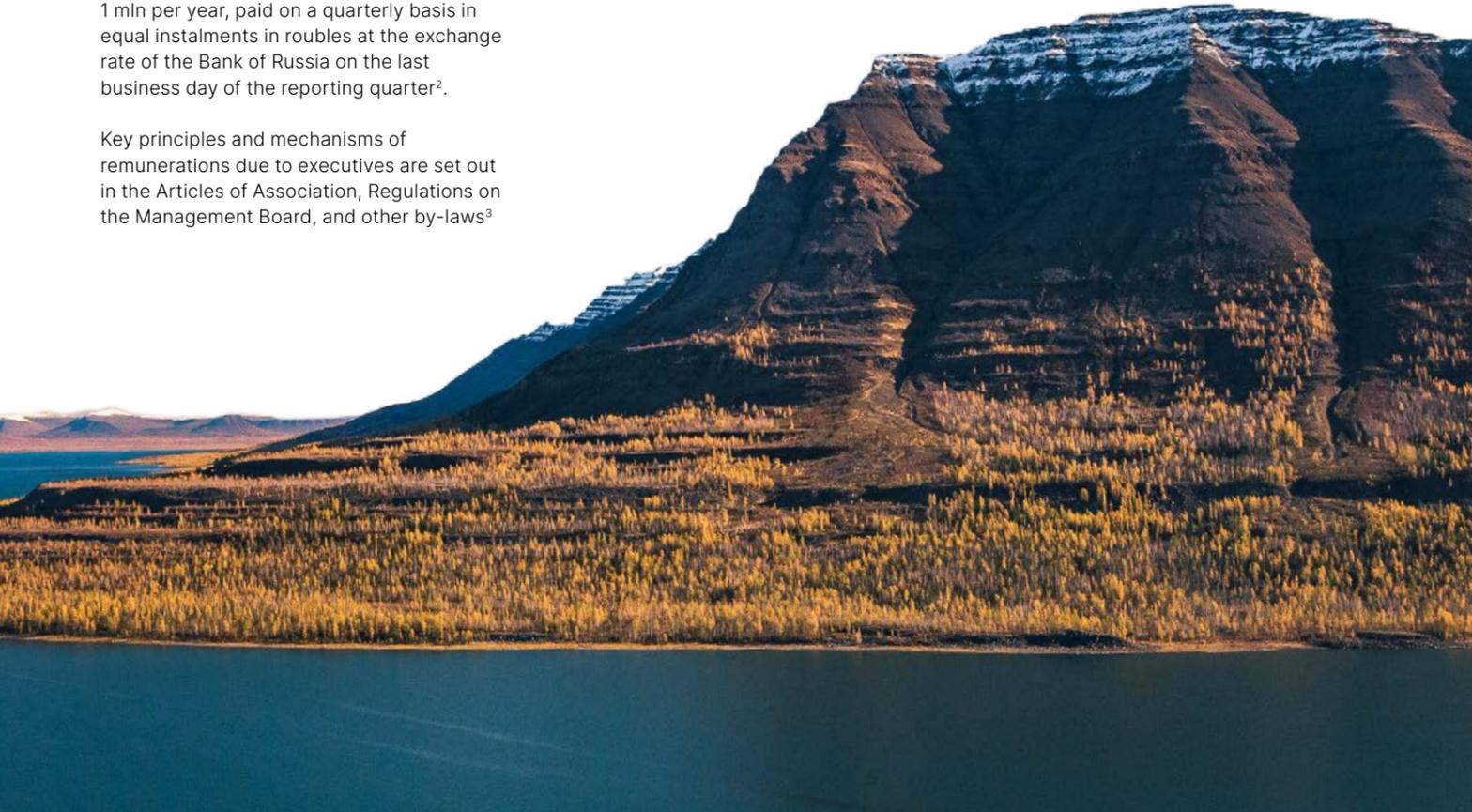
In 2022, the Annual General Meeting of Shareholders established remuneration for the Chairman of the Board of Directors, an independent director, in the amount of USD 1 mln per year, paid on a quarterly basis in equal instalments in roubles at the exchange rate of the Bank of Russia on the last business day of the reporting quarter².

Key principles and mechanisms of remunerations due to executives are set out in the Articles of Association, Regulations on the Management Board, and other by-laws³

of the Company. Nornickel's remuneration framework is continuously and closely monitored by the Board of Directors.

According to the Company's Articles of Association, decisions on remuneration and reimbursement payable to the Company's President and members of the Management Board are reserved to the Board of Directors. Total remuneration payable to senior executives comprises the base salary and bonuses. Bonuses are linked to the Company's performance, including both

financial (EBITDA, free cash flow) and non-financial (workplace injury rates, labour productivity, environmental performance) indicators.



Sustainability Management

GRI 2-24

Sustainability management and ESG integration are a major part of Nornickel's corporate governance system.

By promoting sustainable development practices, the Company adapts to the strategic landscape and changing market environment and contributes to effective risk management, while at the same time fostering a motivating and innovation-driven corporate culture and helping to secure stakeholder engagement positive for the Company.

To make sure sustainability principles are integrated at Nornickel across the board, the Company has adopted over 20 by-laws¹. At the strategic level, the Company has approved the Environmental and Climate Change Strategy, and the Social Development Strategy is currently being developed.

The Company relies on a matrix structure to manage its ESG aspects, with responsibility for specific ESG aspects split among all functional units of the Head Office, branches and entities. At the same time,

most of the matters are subject to oversight by the Management Board, Board of Directors, and respective Committees.

With this approach in place, ESG aspects can be successfully integrated into by-laws and day-to-day activities of all structural units and ensure development of new competencies that employees need to help Nornickel set corporate best practices in sustainable development.

To coordinate all sustainability-related processes, the Company established a dedicated Sustainable Development Department. It sets out Nornickel's ambitions and vision in the area of sustainability and monitors the alignment of the Company's operations with international standards and expectations of external stakeholders. At the senior executive level, this process falls within the remit of Vice President for Investor Relations and Sustainable Development. At the Board of Directors level, it is the Sustainable Development and Climate

Change Committee that is responsible for the development of the Company's ESG practices.

To engage its top executives in sustainability management, the Company increased the share of HSE targets in the annual 2022 team KPIs, bringing their aggregate weight to 50%. The Environmental Project Implementation indicator was selected as a KPI for the Long-Term Incentive Programme for the Group's Key Employees (total weight of 30%).

ESG-related KPIs of the top management

Period	Annual team KPIs		Long-term KPIs
Focus area	Occupational health and safety	Environment	Ecology and environment
KPI weight	30%	20%	30%
KPI target	Achievement of the OHS plan depending on FIFR	Reduction in GHG emissions	Delivery of environmental projects

¹ The full version of the document is available on [the Company's website](#).

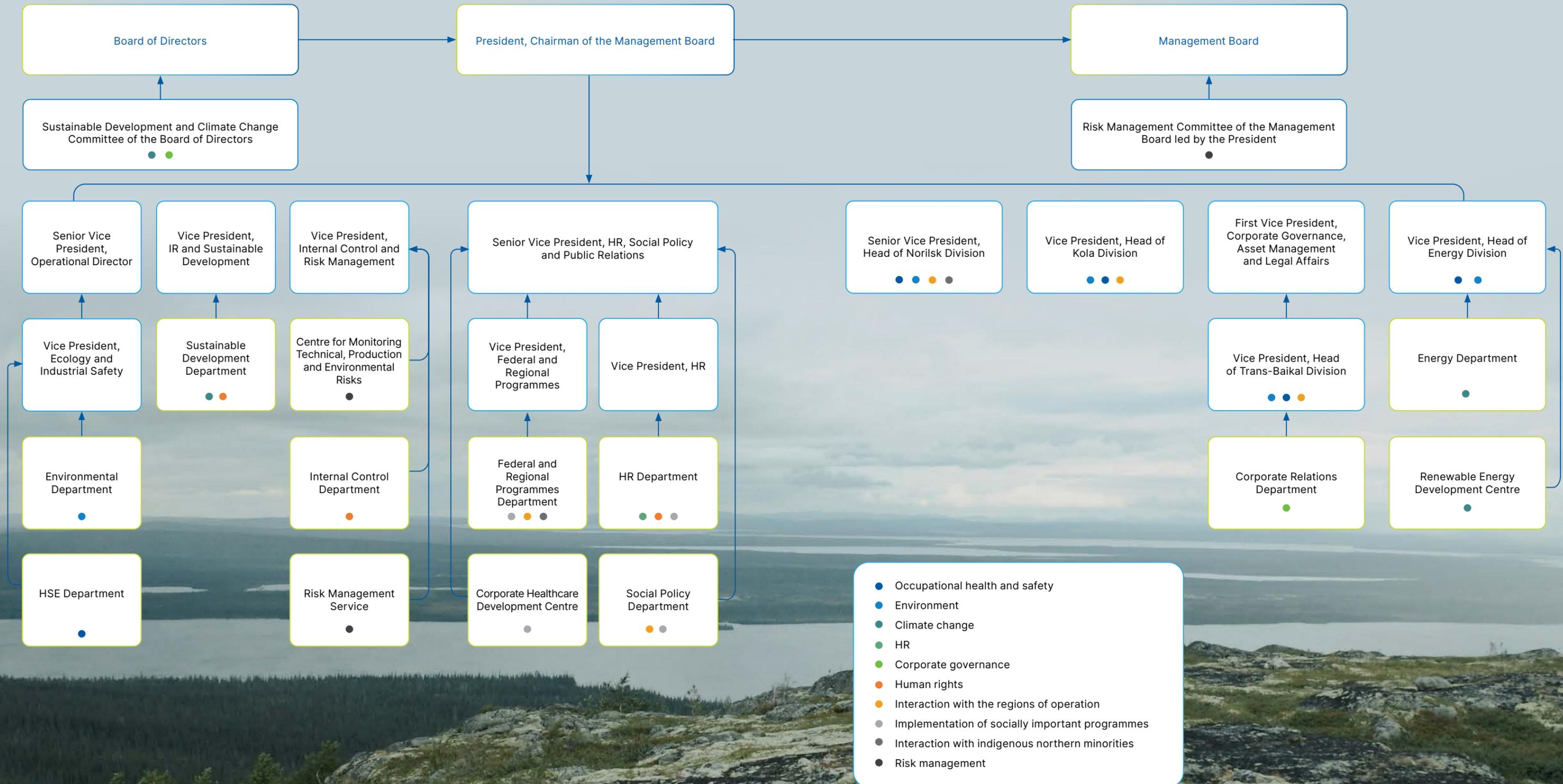
² This amount is after taxes withheld in accordance with the applicable Russian laws.

³ The texts of the documents are available on [the Company's website](#).

¹ The texts of the documents are available on [the Company's website](#).

Split of responsibilities for key areas of sustainable development

GRI 2-9, 2-12, 2-13



Compliance with international standards and best practices in ESG and quality management

To ensure and maintain strong governance practices in ESG, Nornickel regularly analyses experiences that peers rely on to comply with major international and national standards.

The Company's production assets are subject to regular certification and surveillance audits for compliance with international standards related to quality management, environmental management, labour protection, and information security.

➔ [For more details, please see the Certification of Corporate Integrated Management System appendix.](#)

Support of Russian and international sustainability standards and initiatives

We support leading global and national initiatives in sustainable development often pioneering integration of their requirements into our corporate practices.

Initiative	Status
UN Global Compact	Member since 2016
International Platinum Group Metals Association	Member since 1999
Nickel Institute	Member since 2005
Global Battery Alliance (GBA)	Member since 2021
Responsible Minerals Initiative (RMI)	In 2022, RMI suspended cooperation with the Company's Russian assets. Norilsk Nickel Harjavalta was included in the Conformant/Active Smelter & Refiner Lists following a RMAP assessment by RMI
Together for Sustainability (TfS) initiative	The Company meets the initiative's requirements based on results of a 2021 audit
Responsible Sourcing Blockchain Network (RSBN)	Member in December 2020 to July 2022; membership suspended by RSBN
ICMM initiative	The Company implements initiatives to ensure compliance with requirements to members
IRMA initiative	In 2022, IRMA suspended cooperation with Russian companies. In the same year, the Company conducted an independent assessment of its mining assets compliance and readiness for certification
National ESG Alliance	One of the founders since December 2022
Extractive Industries Transparency Initiative (EITI)	The Company has been disclosing data under the EITI since 2021
Global Reporting Initiative (GRI)	Annual reporting in line with the GRI Standards
TCFD (Task Force on Climate-Related Financial Disclosures) recommendations	The Company implements a roadmap to fulfil the TCFD recommendations; for more details ➔ please see the Climate Change and Energy Efficiency section

Assessment of mining assets readiness for IRMA certification

In 2022, Nornickel held an independent assessment to understand the degree to which its mining assets are ready for IRMA certification. The independent assessment was conducted by ENSOR Management Consultants LLC (formerly a branch of Environmental Resources Management, an international consultancy firm), which has many years of track record in assessing and managing environmental and social risks. The assessment perimeter included eight key mines of Norilsk and Kola divisions. Their activities were assessed based on four principles: business integrity, planning for positive legacies, social responsibility, and environmental responsibility.

The assessment showed that in the event of an official certification exercise, the Company would have likely met the requirements of the IRMA Transparency level. In 2023, a roadmap will be developed to put in place corrective actions so as to ensure compliance with the IRMA requirements.

Nornickel in ESG ratings

Description	Rating as at 31 December 2022
 SUSTAINALYTICS	ESG Risk Score: 43.9 out of 100 on a scale from 1 (low risk) to 100 (high risk)
 MSCI	ESG rating – "B", score of 3.0 (out of 10)
 ecovadis	ESG Score: 62.0 out of 100 on a scale from 1 (low) to 100 (high)
 IRAEX	ESG rating – A



Internal Control and Risk Management

Risk management framework

Integrated in all of Nornickel’s business processes, its corporate risk management framework enables risk-oriented decision-making at various levels to achieve strategic and operational goals.

Nornickel has the following key objectives of risk management:

- increase the likelihood of achieving the Company’s goals;
- make resource allocation more efficient; and
- boost the Company’s investment case and shareholder value.

The Company’s risk management practices are based on the principles and requirements of the Russian and

international laws and regulations and are also guided by professional standards, including:

- Corporate Governance Code recommended by the Bank of Russia;
- GOST R ISO 31000–2019 (Risk Management. Principles and Guidelines);
- COSO ERM (Enterprise Risk Management — Integrating with Strategy and Performance);
- Recommendations on risk management, internal controls, internal audit and the work of the Board of Directors’ (Supervisory Board’s) audit committee in public joint-stock companies (appendix to the Bank of Russia’s Information Letter No. IN-06-28/143 dated 1 October 2020).

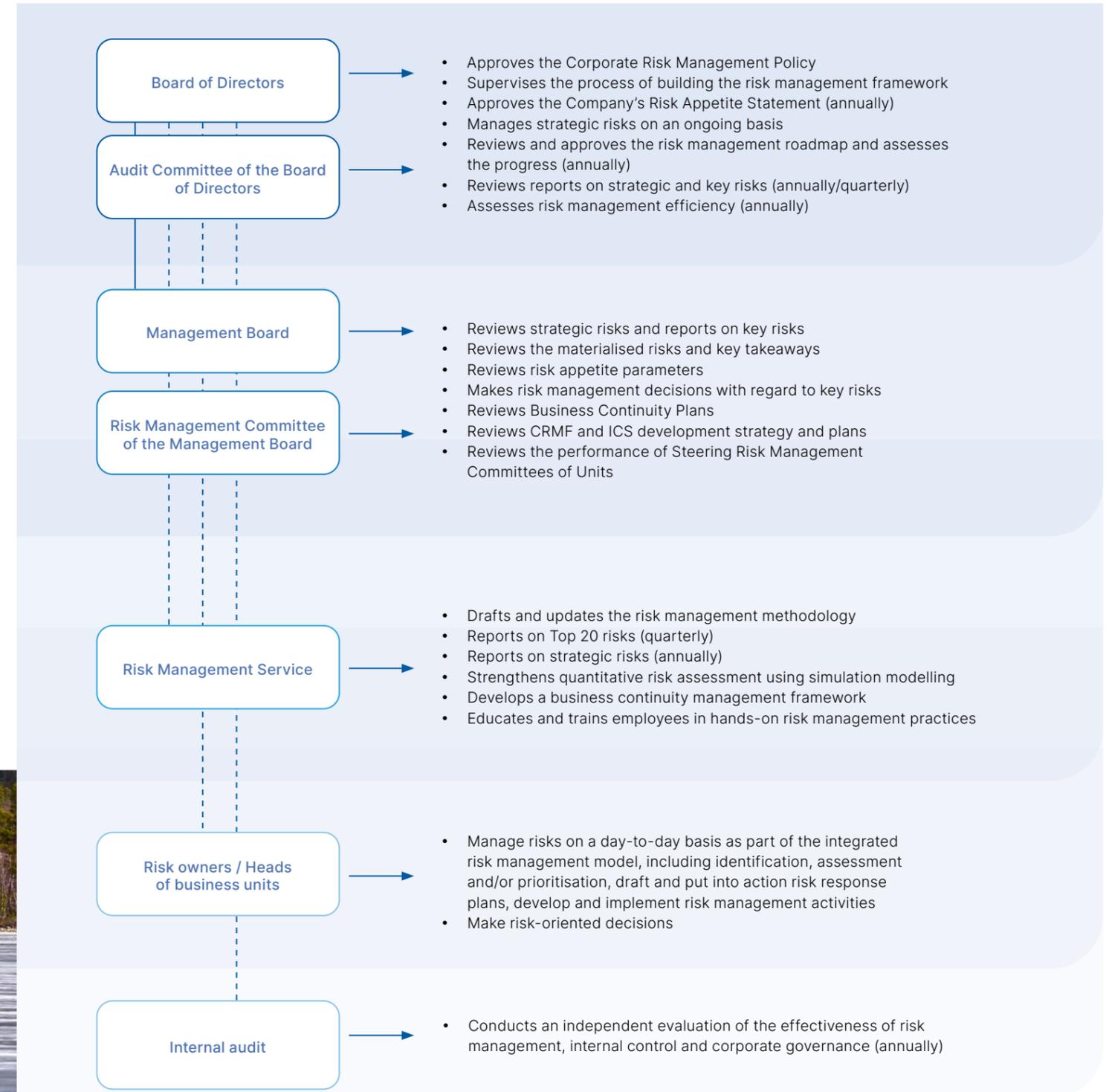
To manage production and infrastructure risks, the Company develops, approves, updates and tests business continuity plans designed to maintain and restore current operations.

Structure of the risk management framework

Nornickel’s key documents that set out the core principles and approaches in risk management, along with functional responsibilities of the key participants involved in the risk management process, are the Risk Management Policy and Risk Management Regulations.



GRI 2-9, 2-12, 2-13, 2-16



Improving the risk management framework

In 2022, the Company completed the following projects to enhance and maintain the maturity of its risk management framework:

- put into operation a GRC-type system to automate risk management processes, contributing to better integration of risk management and budgeting processes;
- conducted an additional external expert review, update and verification of risks associated with key assets;
- performed a quantitative assessment of the aggregate impact that key risks had on the Company's 2023 budget and evaluated its sensitivity to key risks;
- decomposed the Company's risk appetite to lower levels of the corporate structure and put in place monitoring of specific metrics, including in the ESG area;
- improved tools for quantitative assessment of operational risks;
- provided comprehensive employee training in divisions' companies/units to develop risk and continuity management skills;

- developed a professional competency model for the key roles in risk management;
- conducted a self-evaluation of the risk management framework's maturity level;
- kicked off a review of long-term climate change risks in line with the TCFD requirements.

To further improve the performance of its corporate risk management framework in the short term, the Company plans to:

- go ahead with automating processes and functionality of the risk management framework;
- use quantitative risk assessment in strategic and operational planning;
- enhance methodology to analyse, assess and manage various categories and types of risks;
- continue running projects to assess long-term climate change risks in line with the TCFD methodology.

Insurance

Insurance is Nornickel's key tool for managing risks and protecting the assets of the Company and its shareholders against any unforeseen losses related to its operations, including due to external hazards.

To ensure consistent application of the Group's uniform policies and standards, the insurance function is centralised. Every year, Nornickel approves a comprehensive programme that defines key parameters by insurance type, key business line and project.

The Group has a corporate insurance programme in place that covers assets, equipment failures and business interruptions, with the same terms and conditions applied to all facilities of the core production chain. The principles of centralisation and continuity also underlie our programmes for third-party liability insurance for directors and officers, other types of liability insurance, freight, construction and installation, and vehicle insurance.

Our insurance policies are issued by Russia's largest insurance companies.

To secure the best insurance and risk management terms, we monitor the mining industry's best practices and the latest trends in the insurance market.



Key sustainability risks

Nornickel is engaged in ongoing efforts to identify, assess and manage key ESG risks. The risks to the Company's sustainability goals are mainly related to occupational health and safety, power blackouts at

production and social facilities in the Norilsk Industrial District, environmental and conservation legislation, social and labour relationships, information security, and climate change. The most significant risks

in terms of their impact on the Company's goals are shown on the map of key sustainability risks.

Map of key risks, including changes in assessment introduced in 2022



Risk

- Price risk
- Market risk
- Financial risks
- Technical and production risk
- Risks of investment project
- Occupational health and safety risks
- Soil thawing
- Compliance risk
- Information security risks
- Environmental risks
- Risk of insufficient water resources
- Social risk
- Supply chain risks

Risk: The effect of uncertainty on objectives (ISO / GOST R 31000).
Risk source: An element which alone or in combination has the potential to give rise to risk (ISO / GOST R 31000). The assessment takes into account whether external or internal factors prevail. The Risk Effect on Objectives scale describes the risks' relative impact.

- Risk level higher vs the previous year
- Risk level lower vs the previous year
- Risk level unchanged vs the previous year
- New risk

In 2022, risk trends reflected changes in the Company's external environment. During the year, the Company faced a variety of external challenges, which caused a review of the impact coming from external risk factors.

In 2022, Kola MMC saw the materialisation of a risk that had been identified before, i.e. equipment risk loss, following fire at the electrowinning shop of the cobalt section of the nickel tankhouse. To remedy the consequences, Kola MMC took a number of

steps to restore the process of producing metallic cobalt. The Company also implements activities to prevent accidents like that, including projects to upgrade and restore fire safety systems across the facilities.

Climate change risks

Nornickel is aware of the importance of climate change risks and the threat they represent for sustainable development. The Company engages in consistent ongoing efforts to identify climate risk factors in its corporate risk management framework. Among other things, Nornickel implements activities as part of a Roadmap to comply with the TCFD Recommendations in order

to integrate best practices in climate risk management into the Company's business processes. The Company reviews all information related to climate change risks on a quarterly basis.

→ For more details on the methodology to identify and assess climate change risks and on climate change scenarios, please see the [Climate change and energy efficiency section](#).

Key sustainability risks



1. Market risk

Reduced ability of the Company's products to compete in the market may reduce their liquidity and result in sales at discounts to the market price and a decrease in the Company's income.

Risk effect: high
Risk source: combined
Risk level change: increase

Key risk factors	Key mitigants
<ul style="list-style-type: none"> Higher market standards for ESG compliance and product quality Competition from producers of cheaper nickel Growing role of transport electrification programmes Replacement of metals made by the Company with alternative materials Introduction of external trade restrictions by foreign regulators with negative implications for Nornickel's operations 	<p>To mitigate this risk, the Company:</p> <ul style="list-style-type: none"> monitors and reviews market requirements to product quality and ESG compliance; takes steps to support and boost demand for its key metals; monitors transportation development trends by type of engine; searches for new palladium applications; diversifies its metal sales by industry and geography; improves and diversifies its product range; promotes cooperation with sectoral institutions to maintain access to relevant metal sales markets; collaborates with Russian ministries and agencies to prevent/minimise negative impact from country-specific and international regulatory measures; implements an ESG roadmap; considers partnerships with key producers of cathodes for Li-ion batteries; enters into strategic partnerships with automakers built on guarantees of long-term palladium supplies.



2. Technical and production risk

Technical and production risk relates to events that can be caused by technical, production-related, or natural factors that can have a negative impact on the progress of the production programme and result in equipment breakdowns or damage to third parties that will require compensation.

Risk effect: high
Risk source: combined
Risk level change: increase

Key risk factors	Key mitigants
<ul style="list-style-type: none"> Harsh weather and climatic conditions, including low temperatures, storm winds, snow load Unscheduled stoppages of key equipment due to excessive wear and tear Release of explosive gases and flooding of mines Collapse of buildings and structures Infrastructure breakdowns 	<p>To mitigate this risk, the Company:</p> <ul style="list-style-type: none"> properly and safely operates its assets in line with the requirements of the technical documentation, technical rules and regulations as prescribed by the local laws across its footprint; develops ranking criteria and criticality assessment for the Group's key industrial assets; rolls out an automated system for managing reliability, efficiency and risks associated with production assets; timely replaces its fixed assets to ensure that production safety is at the required level; rolls out a geotechnical monitoring system across operations to perform ongoing monitoring of its buildings and structures; uses satellite monitoring of its facilities with subsequent analysis of the monitoring data; introduces automated systems to control equipment process parameters, uses modern engineering control systems; improves the maintenance and repair system; trains and educates its employees both locally, on site, and centrally, through its corporate training centres; systematically identifies and assesses technical and production risks, implements a programme of organisational and technical actions to mitigate such risks; continuously monitors the current status of the industrial asset management system; has risks reviewed by collegial bodies at all governance levels; develops the technical and production risk management system, including by engaging independent experts to assess the system efficiency and completeness of data; develops and tests business continuity plans outlining the steps that need to be taken by the Company's personnel and internal service providers where technical and production risks cause the largest possible damage. The plans aim to ensure that the Company resumes its production as early as possible; annually engages independent surveyors to analyse the Company's exposure to disruptions in the production and logistics chain and assess related risks.



3. Occupational health and safety risks

Failure to comply with the Group's health and safety rules may result in threats to employee health and life, temporary suspension of operations and property damage.

Risk effect: high
Risk source: internal
Risk level change: none

Key risk factors

- Unsatisfactory organisation of operations
- Process disruption
- Exposure to hazardous factors

Key mitigants

- Pursuant to the Occupational Health and Safety Policy approved by the Board of Directors, the Company:
- continuously monitors compliance with occupational health and safety (OHS) requirements;
 - improves working conditions for its own and contractors' employees deployed at the Company's production facilities, including by implementing new technologies and labour saving solutions and enhancing industrial safety at production facilities;
 - provides staff with certified modern personal protective equipment;
 - improves the system of fixed gas analysers and furnishes staff with portable gas analysers;
 - implements preventive healthcare measures and sanitary and hygienic practices to reduce the potential impact of hazardous and dangerous production factors;
 - provides its employees with regular training and instructions and assesses their performance in OHS, conducts corporate workshops, where, among other things, special simulation equipment is used;
 - strengthens the methodological framework in OHS, including by developing and introducing corporate standards;
 - improves the risk assessment and management framework at the Group companies and production facilities as part of the Risk Control project;
 - reviews the competencies of line managers at the Company's production facilities, develops OHS training programmes and arranges relevant training sessions;
 - holds OHS competitions;
 - provides all employees with updates on the circumstances and causes of accidents, conducts ad hoc themed instruction sessions;
 - introduces frameworks to manage technical, technological, organisational and HR changes.



4. Soil thawing

Loss of pile foundation bearing capacity may cause deformation of buildings and structures leading to their destruction.

Risk effect: medium
Risk source: external
Risk level change: none

Key risk factors

- Climate change, average annual temperature increase (over the last 15–20 years)
- Increased depth of seasonal thawing

Key mitigants

- To mitigate this risk, the Company:
- regularly monitors the condition of foundation beds and structural parts of buildings and structures;
 - runs geodetic control of changes in buildings' positions;
 - uses satellite monitoring of the Company's facilities with subsequent analysis of the monitoring data to identify potential risks of deformations in the earth's crust, if any;
 - implements ongoing monitoring of the Company's buildings and structures by scaling up a corporate information and diagnostics system (including deployment of automated monitoring points to control parameters essential for the safe operation of buildings and structures);
 - monitors soil temperature at foundations of buildings and structures;
 - monitors the facilities' compliance with operational requirements for buildings and structures erected in the Northern climate zone;
 - puts in place corrective actions and adaptation measures to bring buildings and structures into safe operating conditions.





5. Compliance risks

GRI 205-1

This risk relates to legal liability and/or legal sanctions, significant financial losses, suspension of production, revocation or suspension of licences, loss of reputation, or other adverse effects arising from the Company's non-compliance with the applicable regulations, instructions, rules, standards or codes of conduct.

Risk effect: medium
Risk source: combined
Risk level change: none

Key risk factors

- Discrepancies in rules and regulations
- Considerable powers and a high degree of discretion exercised by regulatory authorities

Key mitigants

- To mitigate this risk, the Company:
- develops and updates regulatory and procedural guidelines on anti-corruption and combating unlawful use of insider information and market manipulation;
 - implements initiatives to ensure compliance with the applicable laws;
 - ensures that its interests are protected during surveillance inspections or in administrative offence cases;
 - defends its interests in courts and when court rulings are executed;
 - includes in contracts provisions protecting its interests;
 - implements initiatives to combat corruption, money laundering, and financing of terrorism and proliferation of weapon of mass destruction, and to manage conflicts of interests;
 - takes actions to prevent unlawful use of insider information and market manipulation;
 - ensures timely and reliable information disclosures as required by the applicable Russian and international laws;
 - gives its employees training in dealing with insider information and combating corruption;
 - conducts induction briefings on anti-corruption;
 - supports the operation of the Corporate Trust Line set up to handle reports of future or past cases of corruption, fraud, theft or other wrongdoings;
 - assesses the effectiveness of anti-corruption controls in the Group.



6. Information security risks

This group of risks includes, among other things, potential cyber crimes, potential unauthorised transfer, modification or destruction of information assets, disruption or lower efficiency of IT services, business, technological and production processes of the Company.

Risk effect: medium
Risk source: combined
Risk level change: increase

Key risk factors

- Growing external threats
- Unfair competition
- Rapid development of IT infrastructure and automation of production and business processes
- Employee and/or third-party wrongdoings
- Switch to remote working and engagement of remote workforce outside the regions of the Company's operation

Key mitigants

- To mitigate this risk, the Company:
- complies with applicable Russian laws and regulations with respect to personal data and trade secret protection, insider information, and critical information infrastructure;
 - implements MMC Norilsk Nickel's Information Security Policy;
 - categorises information assets and assesses information security risks;
 - plans and controls the compliance of information systems with the corporate information security standards;
 - raises employee awareness in information security;
 - replaces imported tools of information protection that have limited functionality due to sanctions;
 - protects assets using technical means and manages information access;
 - monitors threats to information security and the use of technical protection means, including vulnerability analysis, intervention testing, cryptographic protection of communication channels, controlled access to removable media, protection from confidential data leakages, mobile device management;
 - develops information security regulations;
 - procures that the corporate information security management system is set up and duly certified;
 - takes measures to provide secure remote access.



7. Environmental risks

This group of risks includes events that cause hazardous substances to be present in the environment, as well as events that are not part of the approved production processes and outside of the Russian laws and regulations and affect the Company's achievement of its environmental protection goals.

Risk effect: medium
Risk source: combined
Risk level change: none

Key risk factors

- Non-compliance with environmental protection laws and regulations when running the Company's facilities
- Poor internal management and controls
- Failure to implement environmental protection programmes and activities on time
- Natural phenomena and climate-related events

Key mitigants

- To mitigate this risk, the Company:
- develops, implements and improves business processes to protect the environment and introduces best practices and approaches;
 - creates an incentive framework and develops employee expertise in environmental protection;
 - implements the Environmental and Climate Change Strategy;
 - goes ahead with the Company's environmental action plan;
 - oversees compliance with environmental laws and regulations and implementation of programmes and activities on environmental protection.



8. Risk of insufficient water resources

Water shortages in storage reservoirs of the Company's hydropower facilities may result in failure to achieve necessary water pressure at HPP turbines leading to limited power production and drinking water shortages in Norilsk.

Risk effect: medium
Risk source: external
Risk level change: none

Key risk factors	Key mitigants
Abnormal natural phenomena (drought) caused by climate change	To mitigate this risk, the Company: <ul style="list-style-type: none"> • builds a closed water circuit to reduce water withdrawal from external sources; • performs ongoing hydrological monitoring to forecast water level in rivers and water bodies; • in cooperation with the Federal Service for Hydrometeorology and Environmental Monitoring sets up permanent hydrological and meteorological monitoring stations to ensure more accurate water level forecasting in its regions of operation; • dredges the Norilskaya River and reduces energy consumption at the production facilities, should the risk materialise; • replaces equipment at one of its two hydropower plants to increase power output through improving the performance of hydroelectric units.



9. Social risk

The risk relates to increased tension among the workforce due to the deterioration of social and economic conditions in the Company's regions of operation.

Risk effect: medium
Risk source: combined
Risk level change: none

Key risk factors	Key mitigants
<ul style="list-style-type: none"> • Projects that have an impact on headcount/staffing • Failure of some employees and/or third parties to share the Company's values • Limited opportunities for annual wage indexation • Dissemination of false and inaccurate information about the Company's plans and operations among the Group's employees • Reallocation of spending on social programmes and charity 	To mitigate this risk, the Company: <ul style="list-style-type: none"> • strictly abides by the collective bargaining agreements made between the Group's companies and employees; • actively interacts with civil society institutions, and employee representative bodies; • runs programmes in accordance with its corporate social policy and the World of New Opportunities charitable programme to support and promote regional public initiatives, including those geared towards the indigenous peoples of the Taimyr Peninsula, and the Plant of Goodness corporate volunteering programme; • puts in place infrastructure to enable accelerated development and improved quality of life across the Company's regions of operation in cooperation with the Norilsk Development Agency, the Second School Centre for community initiatives in the Pechengsky District, and the Monchegorsk Development Agency; • implements regular social monitoring across the Group's operations; • conducts opinion polls among Norilsk's communities to learn more about their living standards, employment, migration trends and general social sentiment, and identify major challenges; • implements social projects and programmes aimed at supporting employees and their families, as well as the Company's former employees; • engages in dialogues with stakeholders and conduct opinion polls while preparing public sustainability reports of the Group; • implements a set of social support initiatives for the personnel facing redundancies as part of Kola MMC's social programmes and develops roadmaps for the social and economic development of the Pechengsky District.



10. Supply chain risks

Supply chain disruption in existing transportation and logistics schemes.

Risk effect: medium
Risk source: combined
Risk level change: none

Key risk factors	Key mitigants
<ul style="list-style-type: none"> • Harsh physical and climatic conditions of the regions of operation • Transportation and logistics limitations • Higher inflation and exchange rates, pricing pressure from suppliers, improper planning and other factors • Improper performance of contractors 	To mitigate this risk, the Company: <ul style="list-style-type: none"> • proactively partners with domestic manufacturers to strengthen competition; • enters into long-term contracts/agreements and sets optimal fixed prices for the long term for equipment, materials and spare parts at the most favourable terms possible; • makes lists of critical equipment and materials suppliers and takes steps to prevent supply disruptions and monitor the business of said partners; • runs logistics expansion programmes.



Tax strategy

GRI 207-1

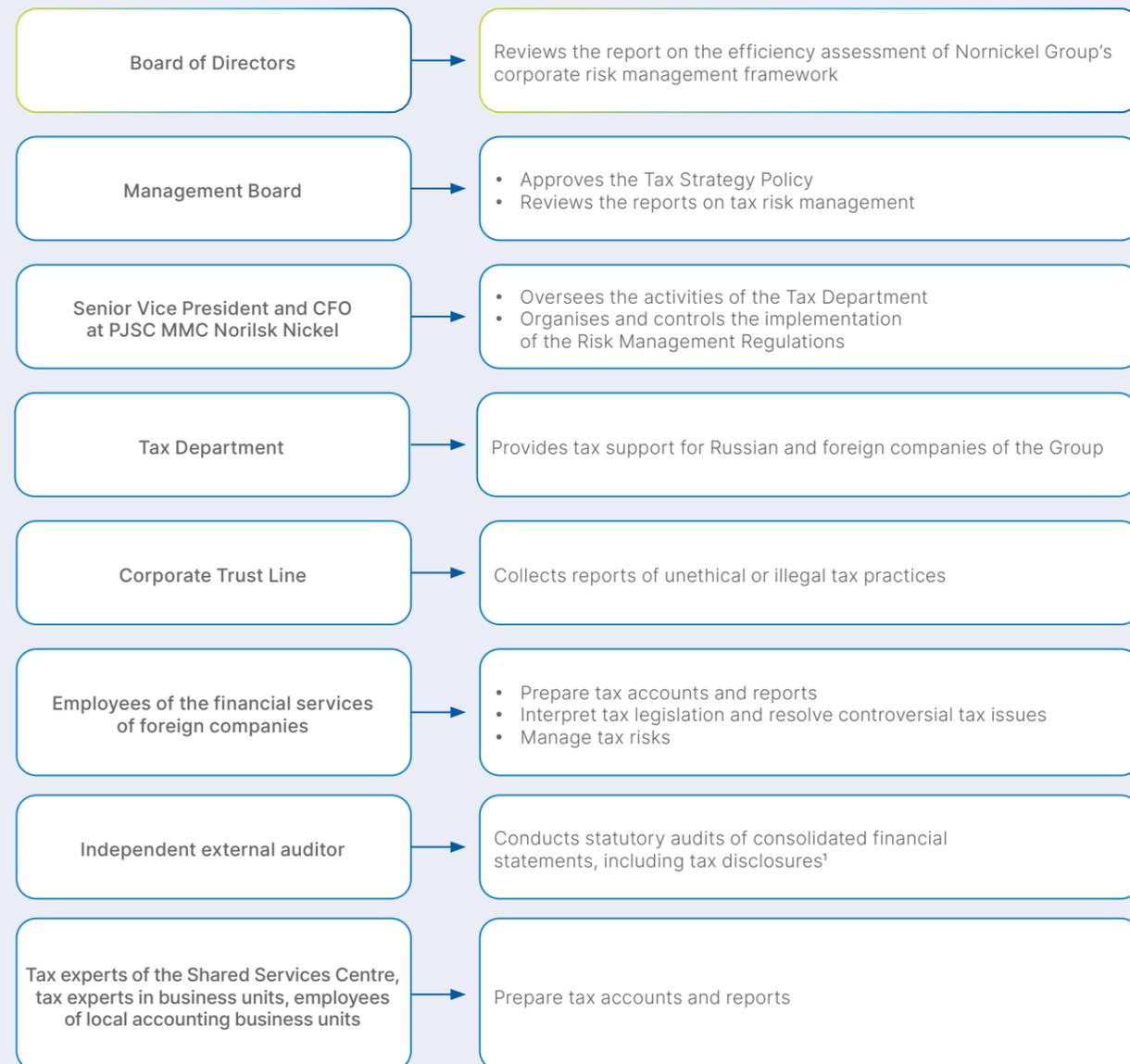
Nornickel is one of the largest taxpayers in the Russian metals and mining industry. The Company ensures strict compliance with tax laws and pays all taxes on time.

The Group's Tax Strategy Policy sets general operating principles for the tax functions of MMC Norilsk Nickel and its subsidiaries and improves the efficiency of their financial and economic operations by managing the tax

burden and tax risks. The Policy is the key document that governs all taxation aspects at the Company.

Tax management at Nornickel Group

GRI 2-9, 2-12, 2-13, 207-2



¹ For more details, please see our [consolidated financial statements](#)

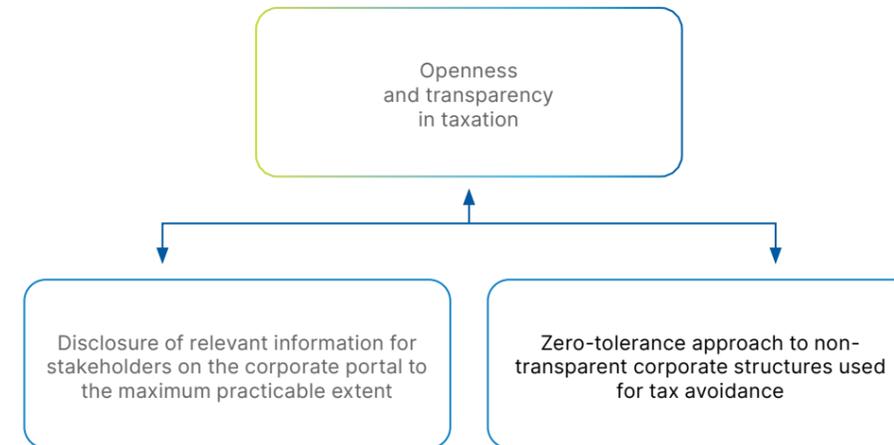
The Head of the Tax Department, who reports to Nornickel's Senior Vice President and CFO, is in charge of the Tax Strategy development. The tax strategy and any substantial amendments thereto are subject to approval by Norilsk Nickel's Management

Board. Updates and significant changes are introduced as needed, but at least once every three years.

The Company's Tax Department prepares internal regulations based on the current legislation, arbitration practice, regulatory clarifications and other circumstances,

and communicates them to the Group's business units. If necessary, the Tax Department requests specific clarifications from competent authorities or a reasoned opinion of the tax authority required for the companies participating in tax monitoring.

Approach to taxation



As a responsible company, Nornickel is committed to openness and transparency in its taxation aspects.

Intra-group transactions between the Group's companies are made using market prices. In terms of transfer pricing, the Group complies with the basic principles set out in the Organisation for Economic Cooperation and Development (OECD) Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations and follows the laws and regulations of Russia and other countries of operation.

Nornickel takes a conservative approach to all controversial tax issues arising in all jurisdictions across the Group's footprint. The Group considers unacceptable any use of aggressive tax planning schemes.

The Group's foreign entities interpret applicable tax legislation and resolve controversial tax issues independently.

Cooperation with tax authorities

GRI 207-3

The Group's companies interact with tax authorities as part of tax control, when obtaining clarifications on the current legislation, and when signing pricing agreements.

Nornickel interacts with tax authorities on an ongoing basis using the tax monitoring framework, which provides tax authorities with real-time access to the Company's tax and accounting data. By giving tax authorities direct access to its corporate accounting system, the Group clearly demonstrates its highly professional and ethical approach to tax matters.



2022 tax payments breakdown¹ (RUB mln)

Indicator	Income tax	Mineral extraction tax	Licences and similar payments	Total
MMC Norilsk Nickel Group	68,114	66,334	23	134,471
South Cluster	4,394	5,989	0	10,383
Kola MMC Group	0	2,286	0	2,286
NN Harjavalta	137	0	0	137
GRK Bystrinskoye	112	457	0	569
Other mining businesses	546	0	0	546
Other non-metals businesses	1,172	0	0	1,172
Total	74,475	75,066	23	149,564

2022 tax payments by country (RUB mln)

Indicator	Income tax	Mineral extraction tax	Licences and similar payments	Total
Russia	73,166	75,066	23	148,255
Finland	137	0	0	137
Switzerland	1,035	0	0	1,035
Other countries	137	0	0	137
Total	74,475	75,066	23	149,564

Information on the Company's tax payments is disclosed in line with the Extractive Industries Transparency Initiative (EITI) requirements.

¹ Income tax payments are reflected in accordance with the taxpayer's belonging to the reporting segment. Income tax payments for the consolidated taxpayers group are, therefore, reflected in MMC Norilsk Nickel Group reporting segment due to the affiliation of the responsible member of the consolidated taxpayers' group to this segment. Here, MMC Norilsk Nickel Group means the operating segment which includes mining, processing and metallurgy operations, as well as transportation, energy, repair and maintenance services on the territory of the Taimyr Peninsula. Kola MMC Group means the operating segment which includes mining and processing operations, metallurgy, energy and mineral exploration operations on the territory of the Kola Peninsula. The data include Norilsk Nickel Harjavalta.

Business Ethics and Anti-Corruption

Nornickel is committed to conducting business in a transparent, honest and ethical manner. This approach is not only beneficial in building trust-based relationships with investors, partners,

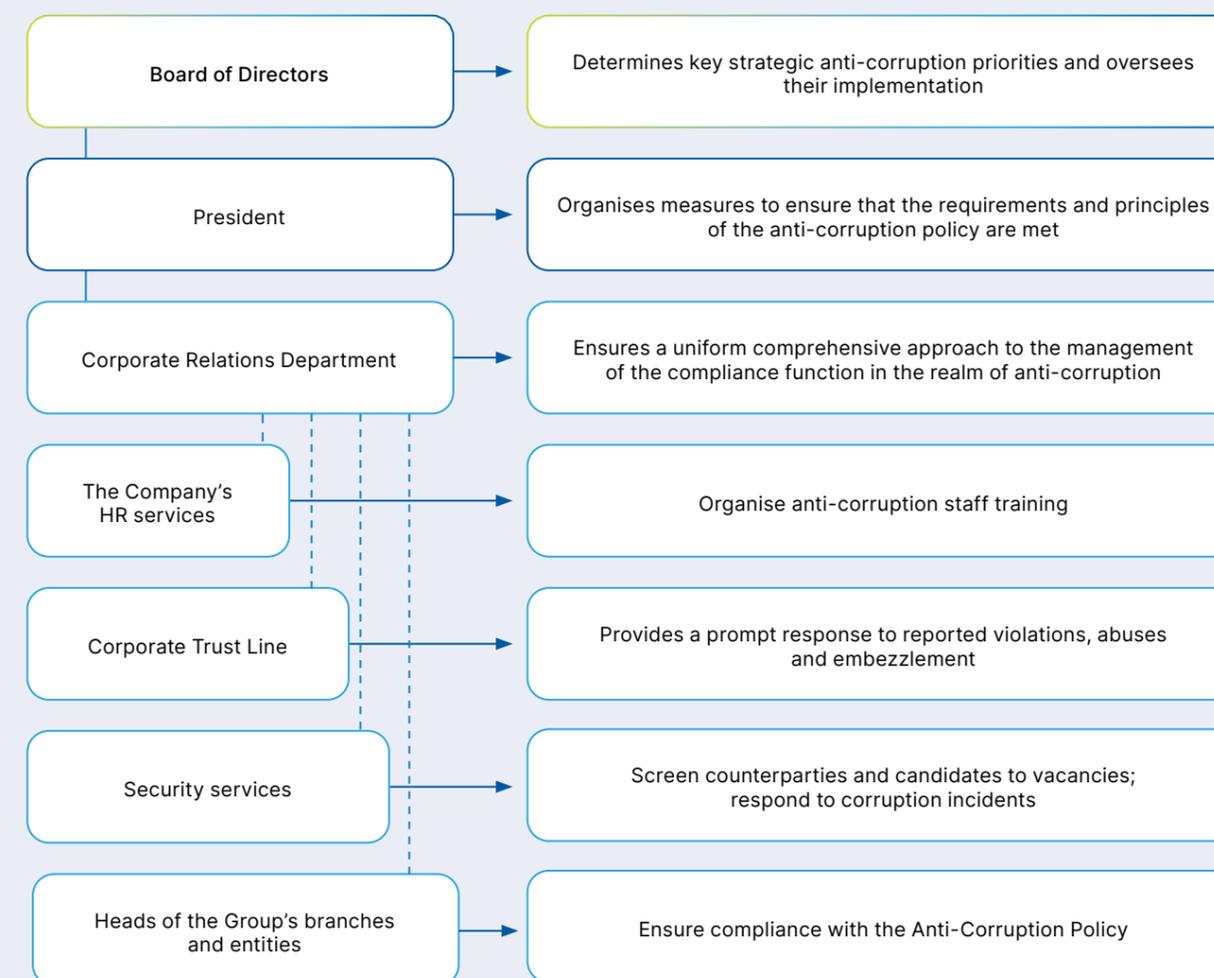
employees, and other stakeholders, but is also instrumental in improving social and economic conditions for the Company.

Nornickel sets the bar high for its employees and partners with respect to integrity and responsible business conduct, and has

zero tolerance to any form of corruption at all levels. With an anti-corruption and compliance framework in place, the Company works to eliminate any and all unethical and corrupt practices.

Anti-corruption practices: allocation of responsibility

GRI 2-9, 2-12, 2-13



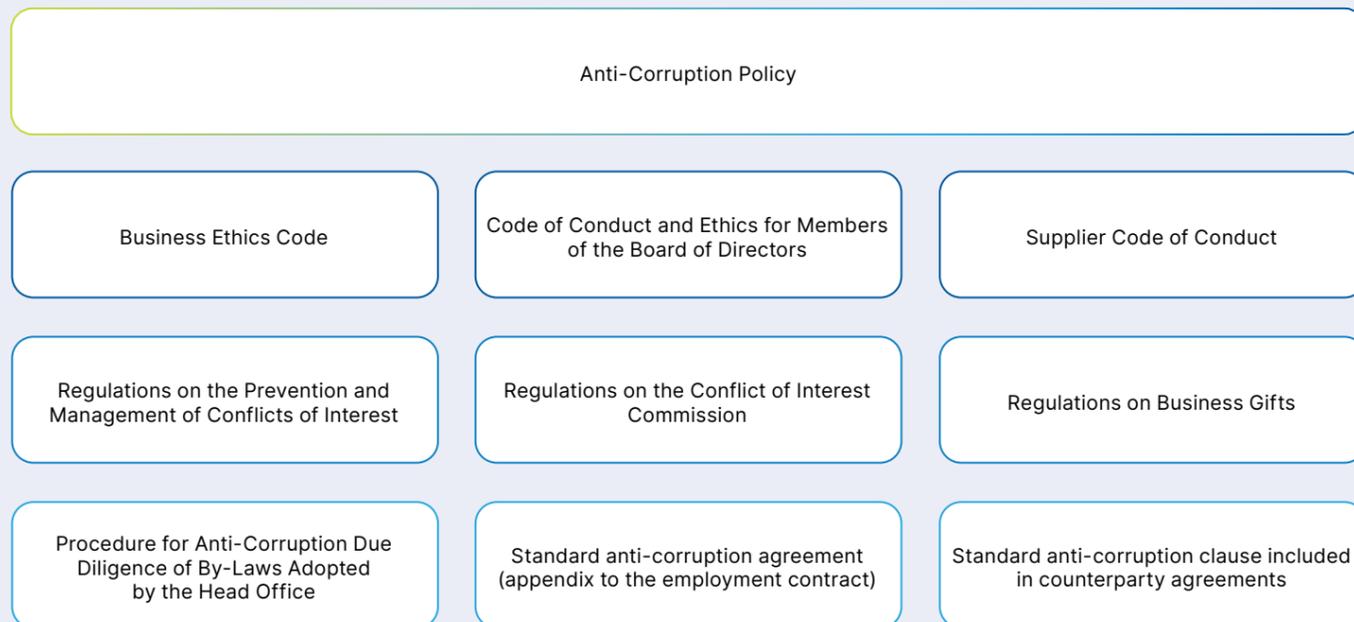
Guided by the United Nations Convention against Corruption, Nornickel also ensures compliance with Federal Law No. 273-FZ On Combating Corruption dated 25 December 2008.

Nornickel's Anti-Corruption Policy is the key internal document that governs the anti-corruption and corruption risk management efforts in the Company. The policy seeks to ensure compliance with

anti-corruption laws, as well as to prevent, identify and eliminate causes of corruption. The document applies to both Company employees and third parties, including foreign public officials and officials of public international organisations. The respective anti-corruption responsibilities are stipulated in agreements made with contractors or are expressly provided for by the applicable laws.

Nornickel Group's Russian business units adopt and implement their own anti-corruption regulations in line with the Company's anti-corruption policy. We also do our best to ensure our foreign operations comply with the key anti-corruption principles and requirements.

Key anti-corruption regulations



Our principles of business and ethical conduct are articulated in the Business Ethics Code that applies to the employees of all levels performing their job duties.

In 2014, Nornickel joined the Anti-Corruption Charter of the Russian Business. Once every two years, we submit a declaration to prove our compliance with anti-corruption

requirements as prescribed by the Anti-Corruption Charter of the Russian Business. Our anti-corruption initiatives are regularly covered in corporate press releases.

Every year, we take part in the Russian Business Anti-Corruption Rating compiled by the Russian Union of Industrialists and Entrepreneurs. Following a comprehensive

independent assessment in 2022, the Company received the highest A1 rating class. This is a proof of how much effort the Company's management invests in improving the anti-corruption system.

Preventing and fighting corruption

GRI 205-3, SASB EM-MM-510a.1

The key initiatives designed to develop and improve the anti-corruption compliance system in 2022 included:

- approving a uniform approach to the adoption of anti-corruption regulations and control mechanisms across the Group;
- conducting a training campaign on the basics of anti-corruption compliance for the Group's employees responsible for relevant practices;

- revising and updating the Company's anti-corruption regulatory and procedural guidelines.

In addition, the Company runs a wide range of internal initiatives on an annual basis.

In 2022, no corruption practices were revealed.

Focus areas



As regards the previously identified cases that involved Nornickel Group employees, court judgements were passed in 2022. Nornickel took disciplinary action in the form of dismissal against these employees in strict compliance with the law. Following convictions under these accusations, the Company conducted mandatory preventive talks with the staff on the unacceptability of law violations and zero tolerance for any unlawful acts, including corruption. The topics also cover the Business Ethics Code and the inevitability of penalty for any crimes¹.

Prevention efforts enable Nornickel to take adequate and timely action not just in identifying the wrongdoings, but also in avoiding them, which is one of the main goals of the Company's responsible units.

In addition, to further boost efficiency and improve anti-corruption performance, the employees of the Anti-Corruption Compliance Department at the Head Office are annually assigned individual performance indicators.

Corruption risk management

GRI 205-1

The Company performs an annual analysis of existing anti-corruption risks and ensures that business processes are monitored on a quarterly basis. The key risk areas are reviewed and the existing corruption risk map is updated as necessary. The Company identifies a number of key risks associated with the occurrence or possible occurrence of anti-corruption violations in its interactions with contractors, employees and government officials. Other sensitive areas include procurement, business gifts and hospitality expenses, charity projects, as well as the recruitment and hiring processes.

Nornickel aims to exclude any compliance risks, including contractor-related ones. To this end, Nornickel's Security Service performs a contractor due diligence review to identify corruption incidents or involvement in any corruption incidents, inclusion in the register of fraudulent suppliers and pending administrative proceedings. In case of negative findings, the Corporate Relations Department assesses the risk of relations with the contractor in question and recommends mitigants if applicable.

Regardless of the outcomes, the Company signs a standard master agreement containing an anti-corruption clause with all selected suppliers and contractors.

Anti-corruption monitoring

In 2022, we implemented an anti-corruption monitoring initiative to see how anti-corruption procedures are actually being put into practice across the Group. At the beginning of 2023, 91% of Russian business units of Nornickel Group adopted the key anti-corruption regulations and procedures. The Company continues to integrate anti-corruption procedures across the Group, including the newly created companies.

In 2022, to check compliance with Federal Law On Combating Corruption, we organised a random check across the Group's branches and Russian business units to look into procedures of entering into employment and contractor agreements with former government officials.

Following a previous internal audit into the efficiency of anti-corruption controls, the Group updated its anti-corruption regulatory and procedural guidelines while also eliminating the flaws in, and tightening control over preventive procedures.

Anti-corruption training

GRI 205-2

Nornickel provides regular training to its employees to raise awareness on anti-corruption practices. All new hires receive an induction briefing in this area. When recruited, they also need to familiarise themselves with the corporate Anti-Corruption Policy and sign an addendum to their employment contract that sets out anti-corruption responsibilities.

There is an online anti-corruption course taken by all employees and a dedicated course on compliance with anti-corruption laws for our HR function. The new approach to raising personnel awareness of anti-corruption procedures resulted in stronger employee training indicators in 2022. In addition, there was a major three-day training session for employees responsible for implementing anti-corruption procedures.

Educating and training employees on Nornickel's anti-corruption policies and practices in 2022, by region

Indicator	Norilsk Industrial District	Krasnoyarsk Territory (excluding the Norilsk Industrial District)	Murmansk Region	Moscow and other regions of Russia	Trans-Baikal Territory	Total
Number of employees made aware of the Group's anti-corruption policies and practices	54,837	3,429	12,375	7,999	2,852	81,492
Share of employees made aware of the Group's anti-corruption policies and practices, %	100	100	100	100	100	100
Number of employees trained on the Group's anti-corruption policies and practices	22,975	821	3,995	3,133	101	31,025
Share of employees trained on the Group's anti-corruption policies and practices, %	42	24	32	39	4	38

Educating and training employees on Nornickel's anti-corruption policies and practices in 2022, by category

KPI	Managers	White-collar employees	Blue-collar employees	Total
Number of employees made aware of the Group's anti-corruption policies and practices	12,868	18,170	50,454	81,492
Share of employees made aware of the Group's anti-corruption policies and practices, %	100	100	100	100
Number of employees trained on the Group's anti-corruption policies and practices	4,246	6,399	20,380	31,025
Share of employees trained on the Group's anti-corruption policies and practices, %	33	35	40	38

In 2022, the assessment of corruption-related risks² covered 81 business units, which is

98 % of the total number of the Group's business units.

¹ For more details, please see [Nornickel's 2021 Sustainability Report](#).

² Corruption-related risks were assessed for the aspects of anti-corruption activities significant for the Group.

Managing conflicts of interest

The Company pays special attention to timely identification and prevention of conflicts of interest. With the Regulations on the Prevention and Management of Conflicts of Interest at MMC Norilsk Nickel in place, the Company seeks to prevent and minimise the risk of employees' personal interests influencing

the business decision-making process. In addition, the Company approved the standard declaration form for reporting conflicts of interest, to be filled in by candidates applying for vacant positions and by individuals acting as independent contractors. There are also permanent Conflict of Interest Commissions working to ensure compliance with the principles of legality and improve corporate culture.

In 2022, we established a conflict of interest reporting process for the employees of Russian business units hired before the Regulations on the Prevention and Management of Conflicts of Interest came into effect.

Anti-money laundering and counter-terrorist financing initiatives

For the purposes of anti-money laundering / counter-terrorism financing / prevention of proliferation of weapons of mass destruction (AML/CFT/CPF), the Company has put in place internal controls in strict compliance with Russian laws and its own by-laws:

- Federal Law No. 115-FZ On Anti Money Laundering and Combating the Financing of Terrorism dated 7 August 2001;
- MMC Norilsk Nickel Internal Control Rules on Combating Money Laundering, Financing of Terrorism and Proliferation of Weapons of Mass Destruction.

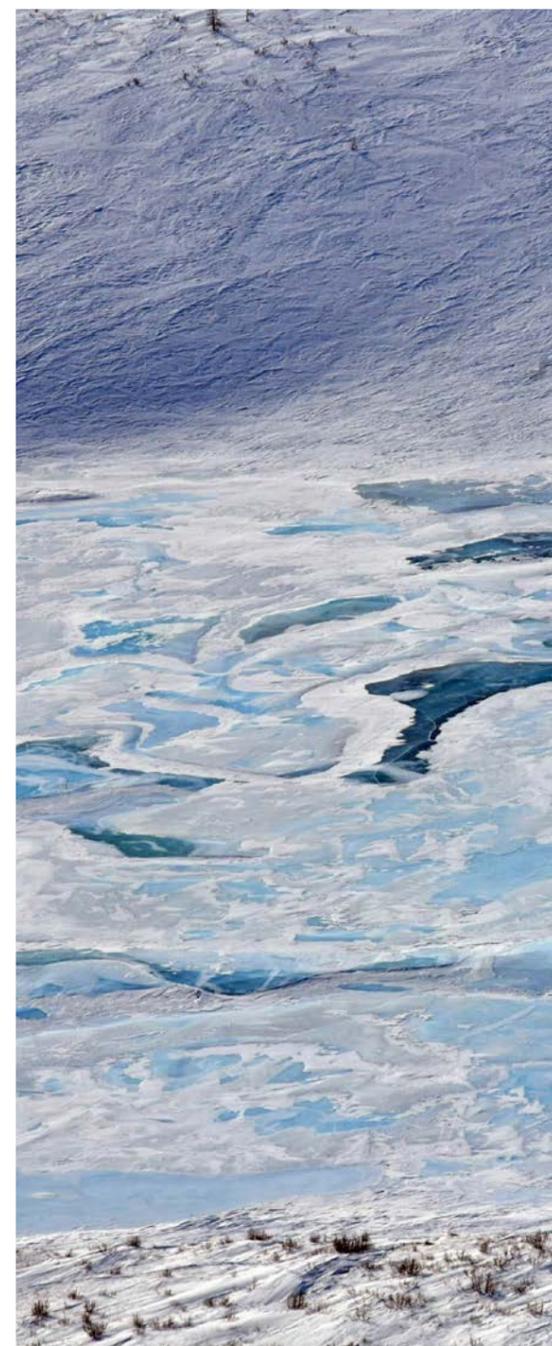
- taking measures to mitigate the AML/CFT/CPF risks and their potential effects, among other things, by engaging all employees, within their competences, in identifying risk criteria for suspicious transactions;
- systematic employee training.

Other AML/CFT/CPF efforts include due diligence of customers prior to entering into contracts, identification of beneficial owners, analysis of customers' business reputation and other reasonable and available measures depending on the risk exposure.

In 2022, the Internal Control Rules were updated to reflect Federal Law amendments.

The key principle of internal control for AML/CFT/CPF purposes is the risk-based approach that covers:

- customer identification and due diligence;
- assessing the risk of suspicious transactions made by customers;
- assigning a risk group;



Grievance policy

GRI 2-16, 2-25, 2-26, 207-2

Corporate Trust Line

In 2010, Nornickel launched its Corporate Trust Line (CTL) as a primary tool to manage complains and queries. Available to a wide range of stakeholders, the line helps to quickly respond to their concerns relating to the protection of assets and corporate interests, prevention of abuse, theft and other violations.

The CTL is accountable to the Internal Control Department and operates in line with the Company's by-laws. Responsible for the service are its operator and head along with the Director of the Internal Control Department.

Report statistics (broken down by Group company) are submitted to units in charge on a quarterly basis. CTL performance is reviewed by the Board's Audit Committee. CTL is subject to assessment by the Vice President for Internal Control and Risk Management, the Board's Audit Committee and employees taking part in an engagement survey named "Let Everyone Be Heard. What Do You Think?".

Persons in charge of the CTL have individual KPIs such as a timely and proper processing of incoming communications and reporting on CTL performance to interested users.

Key principles

CTL is guided by the following principles designed to prevent retaliation against or pressure on whistle-blowers:

- guaranteed confidentiality for whistle-blowers;
- independent consideration of reports;
- timely and unbiased consideration of all incoming reports irrespective of the position and employment period of the person mentioned therein.

Any stakeholder may contact the CTL reporting both potential corruption and a wider range of matters related to violations of procedures and by-laws, including with respect to human rights, environment, labour relations, etc.

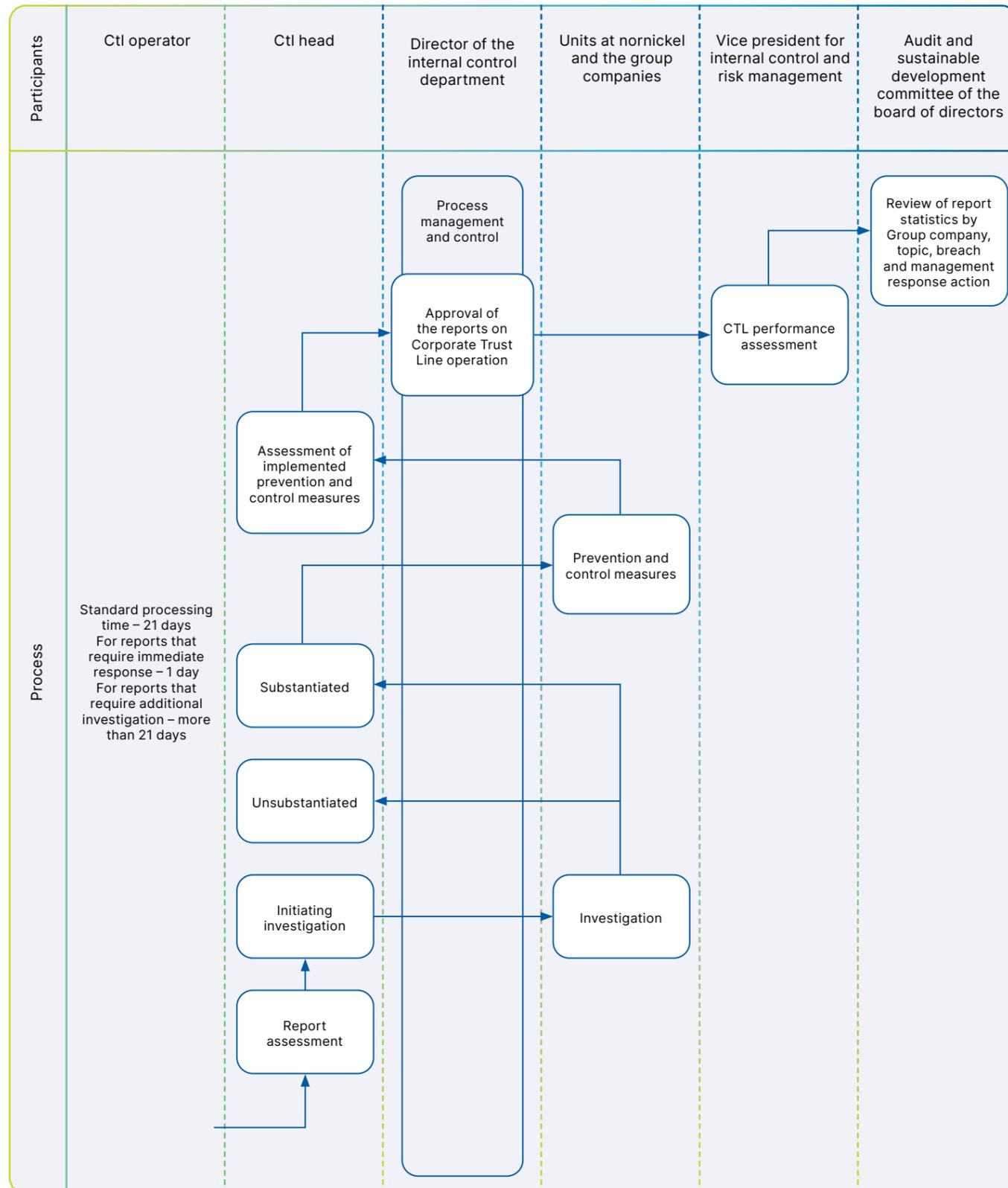


For everyone wishing to make a report, toll-free channels are available 24/7:

- +7 800 700 1941 and +7 800 700 1945;
- e-mail: skd@nornik.ru;
- online form at <https://www.nornickel.com/sustainability/corporate-hotline/>

The procedure provides for the operator to fully handle the report (from registration in the information system to review by a dedicated function and assessment of the response by the Head of the Corporate Trust Line) within 21 business days. The exceptions are reports that require immediate action or additional investigation. If found substantiated, the report triggers a set of control measures, and if a violation is confirmed, steps are taken to correct the situation, eliminate any negative consequences, and inform stakeholders.

Framework for registering and reviewing reports by the Corporate Trust Line



CTL procedures provide for sending a response explaining the results of the review to the applicant only upon their request. In late 2022, the Company prepared a draft update of the Corporate Trust Line Procedure. Among other things, the update provides for informing applicants about the registration of their complaints or queries and the review outcomes upon their request and availability of contact details.

In 2022, the Corporate Trust Line received 1,463 reports, with 589 accepted for review, 556 resolved and released from control (out of which 159 were confirmed and 397 not confirmed). Most reports had to do with labour relations and commercial and contractual activities. As at 1 January 2022 and 31 December 2022, 70 and 103 reports were at the processing stage, respectively.

In 2022, the Corporate Trust Line received

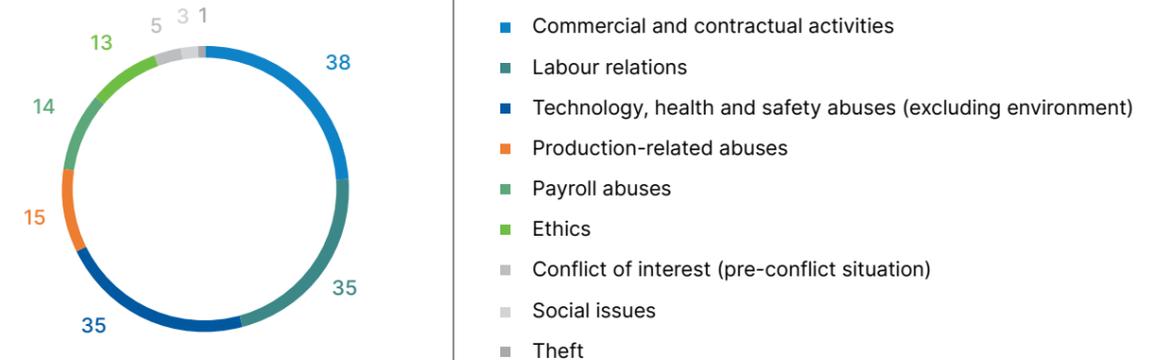
1,463 reports

All employees are kept thoroughly informed of this service through information displays and stands, payslips, corporate calendars, brochures, etc.

Reports received in 2022 by type of reported abuse (589 in total)



Reports confirmed in 2022 by type of reported abuse (159 in total)



Grievance Mechanism

In 2022, the Company introduced additional corporate procedures to improve the Grievance Mechanism and its accessibility to external stakeholders (local and indigenous minority communities, suppliers or contractors, etc.). Company employees and other stakeholders can continue using the Corporate Trust Line and other channels for grievance purposes (telephone numbers, an online form on the Company’s website or an e-mail). The Mechanism does not replace any existing statutory or corporate rights protection mechanisms.

The new Mechanism provides for pre-trial dispute resolution based on dialogue and mediation. It is not mandatory and does not limit the right to statutory remedies, such as legal action.

The Grievance Mechanism serves the following purposes:

- receiving, reviewing and resolving complaints about adverse impacts either caused or contributed by, or directly linked to, our own activities and business relationships;
- early prevention, identification and elimination of social and human rights risks, in addition to supporting continuous improvements in the Company’s operations, to strengthen the relationships between the Company and its stakeholders in the long run.

The Mechanism is not intended to address any pre-existing social, economic, or cultural issues affecting local communities across the Company’s operations. The Company continues to resolve them using other mechanisms and social programmes.

Complaints are filed through CTL channels, community liaison offices, and Company executives. A complaint may be submitted by the initiator or with the help of company representatives and independent experts in case of any difficulties.

The standard review period is 21 business days when filed through the Corporate Trust Line and 30 calendar days for other channels. If more time is needed for review and resolution, the initiator is notified to this effect within 30 days.

Initial assessment of the information received from the applicant involves determining which division head should receive the complaint, whether additional information and investigation are required, and whether the complaint should be considered by an independent expert group or redirected to government authorities. This means that the grievance mechanism has three levels such as internal, independent (expert) and government:

- if the review identifies signs of non-compliance which require the complaint to be referred to government authorities, or violations of applicant rights requiring

referral to an independent expert group for further consideration, the complaint is redirected as appropriate;

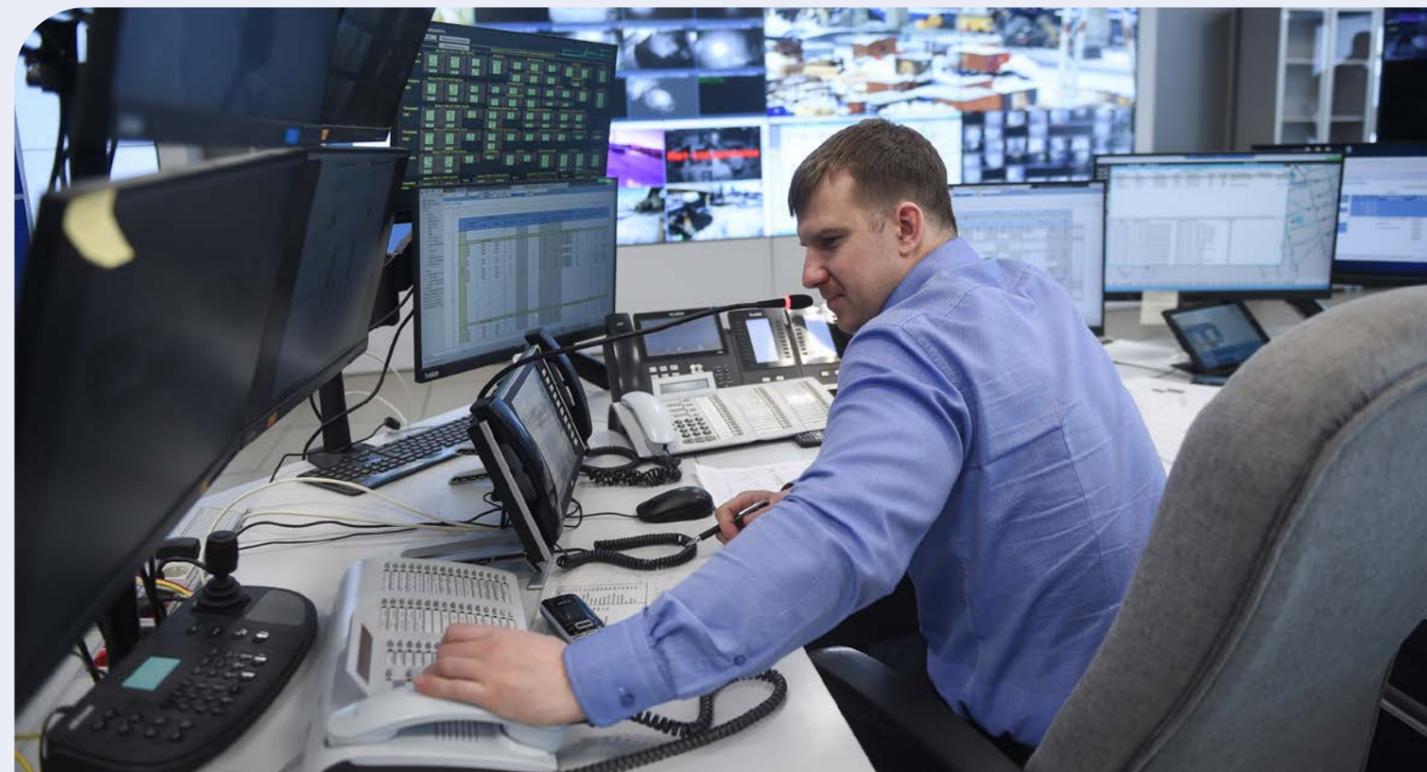
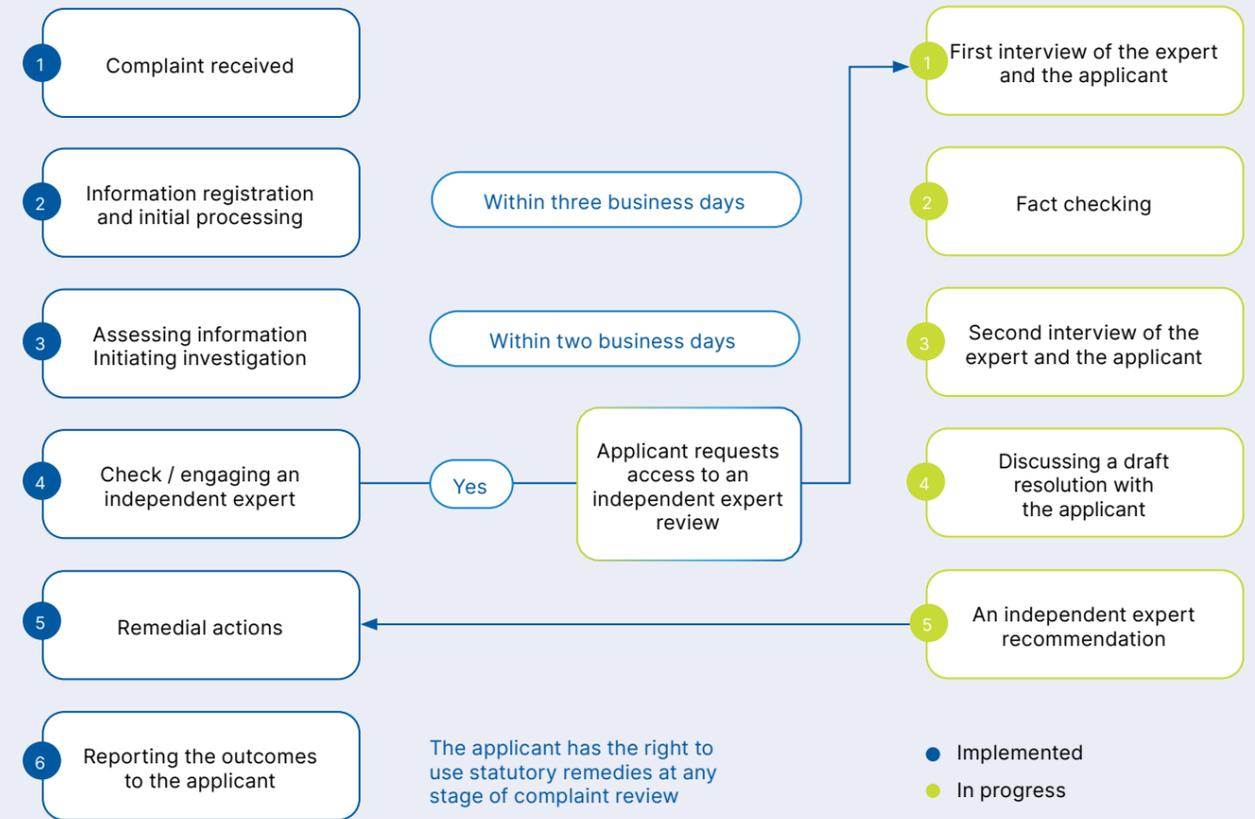
- internally, complaints are reviewed in accordance with the Company’s by-laws. Remediation and restoration of stakeholder rights are handled by the Company’s Head Office and Russian business units.

To monitor the performance of the Mechanism, we collect feedback from complaint initiators and assess the level of satisfaction on an ongoing basis and annually by analysing the feedback received during consultations with stakeholders across the Company’s footprint and at the Head Office.

In 2022, we held discussions with stakeholders on options for improving the corporate Grievance Mechanism. Having assessed the human rights impact, external experts recommended that the Mechanism be updated and stakeholders provided with an effective access to an independent expert review to obtain a full, credible, and objective third-party (independent) decision. By developing this grievance mechanism, the Company becomes one step closer to improving the human rights due diligence system in 2023

➔ [For more details, please see the Respect for human rights section.](#)

Grievance process flow



Supply chain responsibility

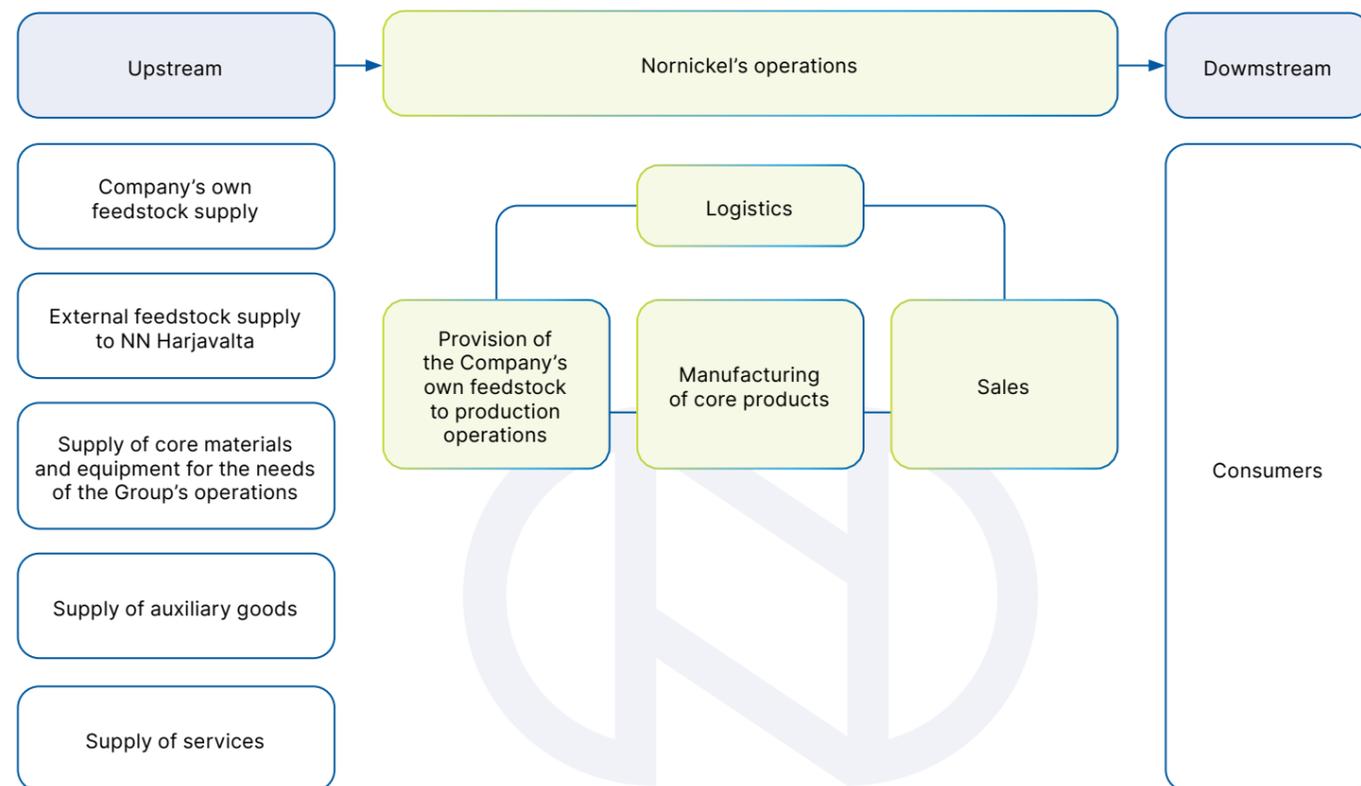
Managing the ESG aspects along the entire value chain is an essential element of Nornickel's management culture which helps manage relevant risks and respond to growing consumer needs. The continuity of the operations and operating results of the entire Group hinges on a sustainable supply chain.

Nornickel's supply chain management includes both interaction with mineral feedstock suppliers in the upstream sector and control over sustainability of their practices and procedures and ensuring high product quality in the downstream sector. Going forward, the Company plans to expand its supply chain management processes to cover suppliers of goods and services as well. Stakeholder engagement is an essential component in building a responsible supply chain.



Key elements of Nornickel's supply chain

GRI 2-6



Responsible procurement

Nornickel has set three main goals in responsible procurement management:

01

Making sure the key suppliers and contractors comply with the core ESG requirements.

Our cooperation with suppliers on the ESG front coupled with modern production practices ensure a sustainable and careful treatment of natural resources, in addition to reducing adverse impact on the environment. Taken together, these efforts directly contribute to making our processes more environmentally-friendly.

In 2021, MMC Norilsk Nickel approved its Responsible Sourcing Policy¹ and its Supplier Code of Conduct², which reflect the Company's responsible sourcing principles.

02

No business relations with contractors in serious violation of sustainability principles.

The Policy defines Nornickel's approach to responsible supply chain, stating the principles to be followed by the Company and its suppliers. The Code introduces procedures for the responsible selection of suppliers based on the principles outlined in the Policy, and motivates Nornickel's suppliers to implement processes that ensure a responsible and transparent supply chain.

03

Building long-term business relationships with the most responsible contractors.

In case of supplier non-compliance with the Policy or the Code, the Company takes measures to manage the risks of cooperating with that contractor, and can potentially reconsider its relationship with such suppliers.

With an extensive range of by-laws, Nornickel is able to effectively mitigate the operational and financial risks and costs, reduce the working capital, make supplies more reliable, and improve the delivery cycle.

¹ The Policy is available on [the Company's official website](#).

² The Code is available on [the Company's official website](#).

Nornickel's by-laws on responsible procurement

Key procurement by-laws	<ul style="list-style-type: none"> • Regulations on the Product Procurement Procedure for Nornickel Group Companies • Procurement policies by category (group of similar products) • A standard master agreement signed with every supplier • Policy Regarding Support for Small and Medium Enterprises • Efficiency improvement programme
Policies setting out ESG requirements for the Company's suppliers and contractors ¹	<ul style="list-style-type: none"> • Responsible Sourcing Policy • Supplier Code of Conduct • Business Ethics Code • Community Engagement Policy • Occupational Health and Safety Policy • Working Conditions Policy²; • Indigenous Peoples' Rights Policy • Human Rights Policy • Anti-Corruption Policy • Climate Change Policy

Checking suppliers for compliance with ESG requirements

Nornickel expects suppliers to meet the mandatory and target requirements and expectations set out in the Code.

The Company also provides responsible supply chain training for employees of the Company's Head Office and the Group companies, as well as for mineral feedstock suppliers.

For information and preparation purposes, in 2022, 1,313 contracts and general agreements with suppliers were updated to include an ESG compliance clause, which also notifies suppliers that they can reach out to Nornickel's Corporate Trust Line. The clause requires compliance with the UN Global Compact principles, the Code and the Policy.

In late 2022, this clause was added to the general terms and conditions and standard contract forms.

Contracts with suppliers were also updated to include an anti-corruption clause:

- designed to ensure that contracting parties are on the same page as regards zero tolerance to corruption;
- obliging contracting parties to inform the other party in a timely manner about the identification of possible corruption risks and relevant checks;
- providing grounds for termination or other liability if the contractor violates the anti-corruption clause and/or is involved in unlawful activities.

To monitor suppliers' compliance with the Code, Nornickel started developing a due diligence management system (DDMS) in 2021. The system focuses on compliance with the requirements and guidelines of:

- the London Metal Exchange for responsible sourcing;
- the standards and principles of industry-leading sustainability initiatives: ICMM, IRMA, RMI (including JDDS), as well as guidance from the China Chamber of Commerce of Metals, Minerals

If suppliers refuse to comply with the Code or do not clearly demonstrate their continuous improvement in terms of compliance with its requirements, Nornickel may reconsider its relationship with such suppliers.

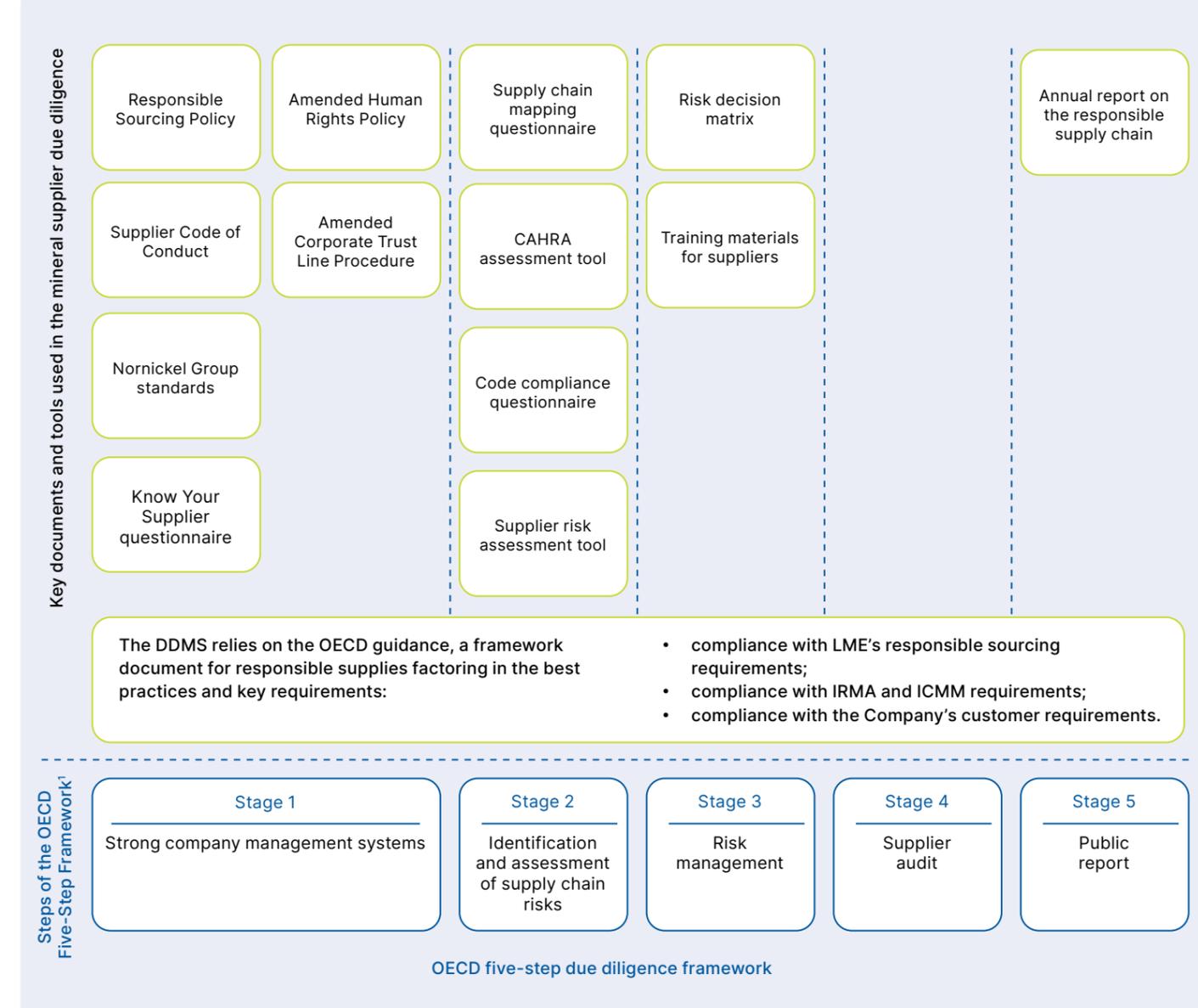
- & Chemicals Importers & Exporters (CCCCMC) regarding the due diligence process for responsible mineral supply chains;
- the Company's major customers.

The Policy and the Code are the underlying documents of the supply chain due diligence system. The methodological basis for developing the system is the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas as well as OECD Five-Step Framework for Risk-Based Due Diligence in the Mineral Supply Chain.

¹ All of the above policies have been reviewed and approved by the Company's Board of Directors and are publicly available on [the official website](#).

² Among other things, this policy specifies working hours and rest periods, adopts zero tolerance to child and forced labour, and sets out the approach to remuneration.

Mineral supply chain due diligence management system



The system focuses primarily on identifying potential risks that could impact the stability and transparency of mineral supply chain processes, and on minimising the following risks:

- violations of human rights and freedoms;
- support for non-state armed groups;
- illegal mine control and feedstock trafficking;

- corruption and bribery;
- misinformation across the supply chain from ore mining to product delivery to consumers.

DDMS tools make it possible to collect more data on participants along the mineral supply chain, including their environmental, social and corporate governance (ESG)

practices. An accurate mapping and identification of suppliers, provided they comply with the Code, in turn, contributes to a more effective decision-making, ensures a responsible mineral supply chain and high-quality products, and strengthens our position on global markets.

¹ OECD Five-Step Framework is the Five-Step Framework giving OECD guidance on risk-based due diligence for responsible supply chains of minerals from conflict-affected and high-risk areas

As part of the first step from the OECD Five-Step Framework for Due Diligence in the Mineral Supply Chain, Nornickel developed and released the Code and the Policy, which are public documents available on the Company's official website, and revised the Human Rights Policy¹ and Corporate Trust Line Procedure.

The Company developed DDMS tools focusing on mineral supplier due diligence (Know Your Supplier questionnaire) and on assessing how well a supplier complies with the Code, which help collect key information about the suppliers and their ESG practices. Other tools include the CAHRA² assessment tool, a supply chain mapping questionnaire, risk assessment tools (including supplier risk assessment tool and risk decision matrix), as well as template reporting documents, including a template internal monitoring report for DDMS purposes serving to analyse its efficiency and the need to amend it. To implement DDMS in the divisions, the Company also developed standards that are part of the supply chain due diligence system and conducted due diligence on both internal (being part of Group) and external suppliers.

Since 2021, the Company has been conducting due diligence on mineral suppliers in accordance with steps 2 and 3 of the Five-Step OECD Due Diligence Guidance. In 2021, Kola MMC developed the Mineral Supplier Due Diligence standard, and conducted a supply chain due diligence procedure in 2021–2022. The Polar Division also adopted a similar standard and performed due diligence on mineral suppliers in 2022. At Bystrinsky GOK, a due diligence standard was adopted during the reporting period, but no due diligence took place as the subsidiary does not have any mineral suppliers.

In 2022, Nornickel completed the DDMS development, rolled it out across all divisions and implemented all the steps covered by the OECD Framework. The due diligence involved existing suppliers only, as there were no new suppliers of mineral feedstock during the reporting period. Following the due diligence of 100% suppliers of metal-containing mineral feedstock for the Group's Russian assets, no risks were confirmed. Step 5 involved the release of a public responsible supply chain report³ for 2021–2022 for greater transparency of Nornickel's efforts to build a responsible supply chain.

In addition to the due diligence, annual RSBN (Responsible Sourcing Blockchain Network) audit was conducted at the Kola and Norilsk divisions, as well as the Head Office during the reporting period. This audit focused on the development of the supply chain due diligence system and the Company's compliance with the key responsible sourcing requirements. These audits were first conducted at the Company's sites in 2021, when Nornickel joined the international Responsible Sourcing Blockchain Network. This initiative brings together sellers and buyers of across the minerals supply chain. Based on the 2022 audit results, the Company delivered a 35% improvement in performance on a year-on-year basis.

In 2022, Nornickel's 2021 RFA⁴ reports relating to five metal brands were sent to the London Metal Exchange. Their acceptance by LME proves the high compliance level of the Company's practices with the LME responsible sourcing policy.

During the first stage, Nornickel's DDMS covered suppliers of metal-containing mineral feedstock. In 2023, the Company

plans to expand the system to suppliers of goods and services by launching a new tool — a supplier self-assessment questionnaire (the "supplier questionnaire"). Focused on the environmental, social, and governance (ESG) matters, the supplier questionnaire will be used to determine to what extent the suppliers of all categories meet the Code requirements. Going forward, after analysing supplier feedback, the Company plans to make this document part of the supplier selection process used to evaluate ESG maturity.

In addition to the DDMS measures, Nornickel traditionally performs detailed sustainability compliance control as part of its major procurement procedures. Nornickel's actual and potential contractors undergo mandatory checks for reliability, solvency and financial resilience. This check comprises a set of measures allowing us to sufficiently ensure that working with these contractors is not very risky in terms of compliance with contractual obligations and applicable laws, and will not damage our business reputation.

Contractor due diligence relies on a comprehensive approach in accordance with the Organization for Economic Cooperation and Development (OECD) Guidelines, international standards, as well as Russian laws and regulations.

According to the results of the 2022 audits, the Company improved its performance

by **35%**

Monitoring ESG factors in interaction with suppliers and contractors as part of procurement procedures

Procurement procedure stage	Key control tools	Control of ESG factors
Procurement initiation	Scope of supply/work: legal and regulatory requirements of the Company, mandatory and recommended specifications of products and services, covering health, safety and environment, etc.	● ● ● ●
	Procurement documents: provisions for no signs of bankruptcy, overdue taxes and charges, and no criminal records in the biographies of top managers	● ● ● ●
	Procurement policies for certain product categories: quality assurance procedures for supplies	●
Procurement procedure	Qualification of suppliers: default risk assessment and compliance with the Company's initial requirements (scope of supply/work, specifications, etc.)	● ● ● ●
	Corporate Security's checks into business reputation, reliability and solvency of potential counterparties	●
	Analysis and evaluation of bids submitted , including track record of similar projects and qualifications of key employees	●
Contracting procedure	Inclusion of an anti-corruption clause in the contract	●
	Inclusion of product and service specifications in the scope of supply/work	● ● ● ●
Contract performance by suppliers	Corporate Procedure for Organising and Conducting High-Hazard Operations: control over contractors' compliance with health and safety requirements	●
	Control over compliance with the Company's initial requirements (scope of supply/work, specifications, etc.) and environmental regulations during work and upon acceptance	● ● ●

- ESG factors:**
- Quality of products, works and services
 - Environmental protection
 - Occupational health and safety
 - Legal compliance

¹ The Policy is available on [the Company's official website](#).

² CAHRA means conflict-affected and high-risk areas.

³ The report is available on [the Company's official website](#).

⁴ RFA means Red Flag Assessment.

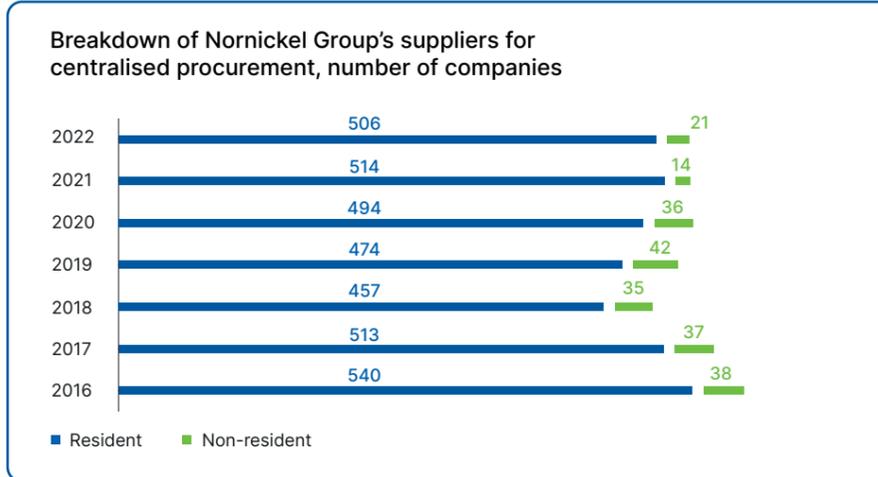
Ensuring procurement efficiency and transparency

The Company and the Group as a whole handle both centralised and decentralised procurement using SAP SRM, an automated system for supplier relationship management. In 2022, 26 Group companies and MMC Norilsk Nickel divisions had joined the SAP SRM system and over 10,000 potential suppliers had registered in it, of

which over 9,500 had been certified to work in it. Nornickel's current and potential suppliers can communicate online with procurement specialists for all categories of products purchased through Nornickel's SRM Procurement Management System and receive up-to-date information regarding ongoing procurement. Sign-up for the Supplier Relationship Management (SRM) system is free of charge and does not impose any obligations on users.

In addition, our website has a dedicated Suppliers section, which provides key information on the Group's procurement principles and procedures and planned needs. The page also features announcements and invitations to participate in the Company's tenders. For more details on SAP SRM-based procurement, please see the Procurement Procedures tab in the Suppliers section on Nornickel's official website.

In 2022, the Company signed over **4.4** thsd contracts for centralised procurement of materials and equipment worth around **180.6** bn RUB



Product quality and supply reliability

Product quality assurance

As a producer, Nornickel is responsible for compliance with HSE laws and requirements during its production process.

The Company makes sure that its products comply with applicable regulations, takes into account the relevant requirements of consumers, and works to improve the chemical composition, appearance and

packaging of its products, while also looking to create new forms of products and expand the product line.

Nornickel's efforts in managing product quality are underpinned by the principles highlighted in international standard ISO 9001:2015.

The Company's senior executives manage the risks and opportunities that can affect how much Nornickel's products and services meet consumer expectations, and ensure that the business focuses on improving customer satisfaction. Product quality related goals and objectives are in line with the Company's strategic goals and are formulated in the management's resolutions based on annual performance reviews of the Corporate Integrated Management System.



Corporate Integrated Management System (CIMS)

Nornickel maintains a Corporate Integrated Quality and Environmental Management System (CIMS), which is subject to continuous update and improvement in accordance with international standards ISO 9001 and ISO 14001.



¹ Updated in 2017
² Updated in 2021
³ Updated in 2020
⁴ Updated in 2022

The CIMS is viewed as a set of interrelated and interacting processes, activities, procedures, rules, organisational structure and resources required for achieving the Company's goals and fulfilling the Company's ambitions and commitments articulated by the senior management in the quality, environmental, occupational health and safety policies.

In 2022, a number of recertification and surveillance audits were conducted at Nornickel's divisions. The audit confirmed CIMS compliance with ISO 9001, 14001, 45001.

➔ For more details, please see the [Certification of the Corporate Integrated Quality Management System appendix](#).

Corporate quality management training

In 2022, close to 200 employees of various levels received training in the integrated management system. Some of the key training topics included GOST and ISO compliance, development and deployment of an integrated management system, nonconformity management, and management of opportunities in the context of risk-based thinking.



The research centres and laboratories, which, as part of Nornickel's divisions and Group companies, analyse the ore feedstock, semi-products and saleable products, have quality management systems certified for compliance with GOST ISO/IEC 17025-2019 General Requirements for the Competence of Testing and Calibration Laboratories.

Nornickel products are not subject to mandatory certification. Consumer properties of each product are defined in the relevant specifications and contractual documentation in full compliance with Russian and international laws.

The Company's goods are labelled to keep the customers and carriers informed about key properties of the products (including those meant for exports). The labelling rules are set out in product-specific regulations and take into account the GOST 14192-96 (Cargo Labelling) requirements and contractual obligations.

NORILSK brand copper cathodes produced by Nornickel's Polar Division are registered on the London Metal Exchange and meet the requirements of GOST 546-2001, "Copper Cathodes. Technical Specifications", GOST 859-2014 "Copper. Grades", for the M00k grade. In 2022, the Company rebranded and registered its copper cathodes under the new NORNICKEL brand instead of the NORILSK brand previously used at the London Metal Exchange.

Electrolytic nickel of the H-1u, H-1, and NORNICKEL grades, produced by Kola MMC is listed at the London Metal Exchange, with the H-1u and H-1 nickel grades also listed at the Shanghai Futures Exchange. Electrolytic cobalt was listed on the London Metal Exchange in 2019.

Nickel brands of NORILSK NICKEL HARJAVALTA CATHODES and NORILSK NICKEL HARJAVALTA BRIQUETTES are also registered on the London Metal Exchange.

Throughout the history of Nornickel Group, it had never failed to meet its obligation to deliver products to consumers.

Ensuring reliable and uninterrupted supplies

Nornickel's sales strategy is focused on strengthening its positions in the market, with the Company seeking to achieve a balanced ratio of nickel supplies to stainless steel producers and other industries. As the largest palladium producer, Nornickel is implementing a strategy of direct long-term contracts with its end users (with a focus on the automotive industry) in order to maintain a long-term and sustainable demand for palladium.

Factors ensuring reliability and continuity of Nornickel Group's product shipments



Customer satisfaction

Nornickel is committed to building a reliable supplier reputation. To improve mutual understanding with customers, determine the degree of their satisfaction and identify areas for possible improvements in customer satisfaction with the quality of products/services, the Company conducts annual customer surveys and continuously monitors the performance of contractual obligations. These data are used to analyse customer requirements and expectations and their satisfaction with the Company's products.

Customer satisfaction is assessed using a scale from 1 to 3. The key to positive survey results is maintaining or exceeding target customer satisfaction level at 2.50 points

(out of 3 points). According to the 2022 survey, the customer satisfaction level stood at 2.85 points, which fully meets the target.

Regardless of the score achieved, survey results serve to improve the quality of products, processes and the management system. To reduce the risks affecting product quality and customer satisfaction, the Company annually develops a comprehensive action plan to improve customer satisfaction.

In 2022, the Company received 16 complaints and grievances about its product or service quality and achieved out of court settlement for all of them by meeting the demands of consumers (13 complaints

According to the 2022 survey, the customer satisfaction level stood at

2.85 points

were deemed unfounded). In addition, three complaints received in 2021 were settled in 2022, with two of them deemed unfounded. After all the claims received had been reviewed, remedial action plans were developed to address eight complaints (including two rejected ones).

Research and development, digital technologies

Nornickel's contribution to the Science and Universities national project

Relevant UN SDGs



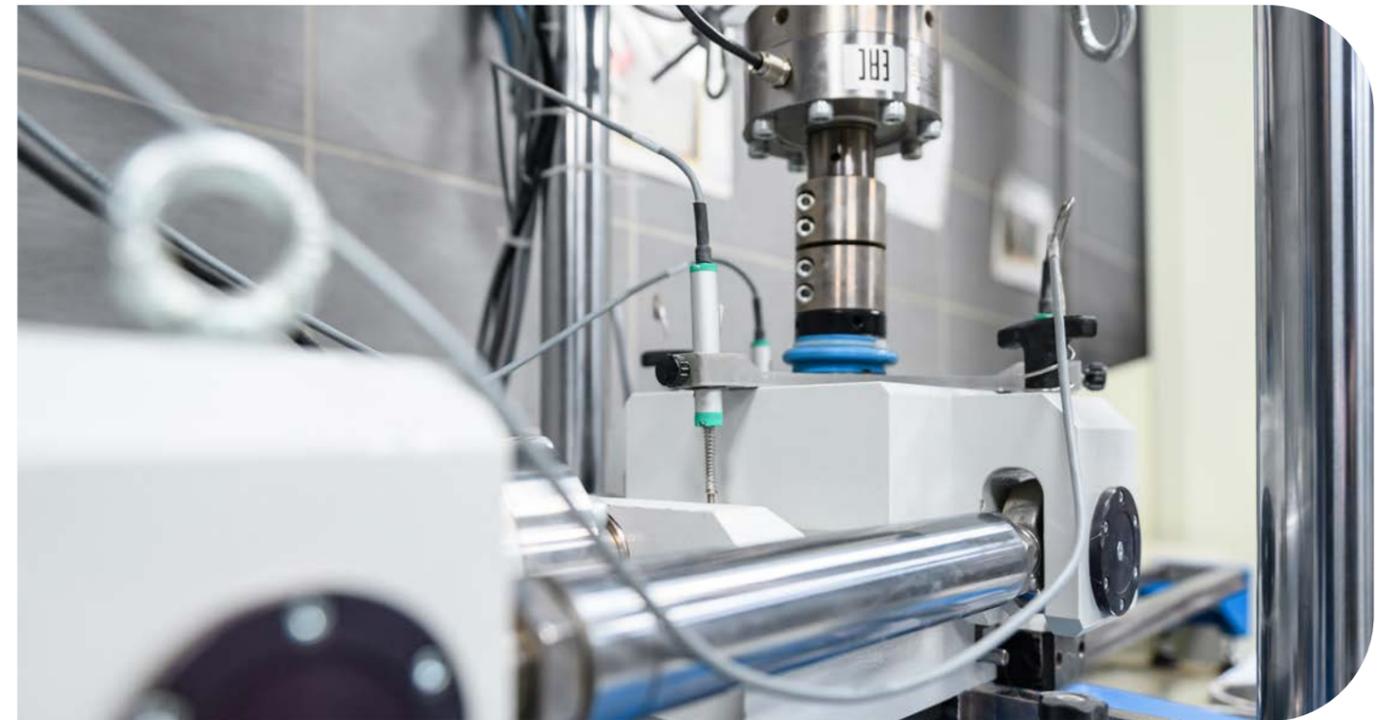
Related federal projects

- Development of science and scientific-and-production cooperation;
- Development of advanced research and development infrastructure.

Key initiatives and focus areas

- Activities of Gipronickel Institute and Nornickel Digital Lab;
- Cooperation with universities to develop and test advanced technologies and train highly skilled staff;

- Support for graduates of vocational education institutions;
- Development of cooperation with the Russian Academy of Sciences.



Research and development

R&D activities — research, development, feasibility studies and innovative projects — are a must for achieving the Company's strategic priorities.

Nornickel has adopted an R&D Management Policy defining the setup and implementation of relevant initiatives.

The key principles underpinning our R&D management:

- developing and fostering the Company's R&D potential;
- identifying priority areas as regards research, technology and engineering, and resource allocation to such areas;
- putting into action a production and technical development strategy by upgrading capacities to improve production and management quality and implementing cutting-edge, cost-effective and eco-friendly technologies developed in-house.

Nornickel's key research and development projects and feasibility studies (R&D and FS) continue to focus on fundamental

environmental improvements, the development and implementation of projects set to upgrade existing operations, build new facilities, and maintain the Company's financial strength.

Since 2013, Nornickel has had an R&D Panel working to improve the quality of the scientific and technical solutions.

Gipronickel Institute is Nornickel's core R&D platform, one of Russia's largest research and design centres for mining, concentration, and metallurgy. The institute studies samples of ore deposits and rocks, as well as valuable non-ferrous feedstock, such as nickel, cobalt, copper, aluminium, tin, tungsten, molybdenum, mercury, sulphur, etc. The Company also engages domestic and foreign R&D and engineering companies, and collaborates with numerous Russian universities.

Gipronickel performs a substantial amount of work both for the Company, including the Head Office and Polar Division, and for Russian business units, such as Kola MMC, Medvezhy Ruchey, Arctic Palladium, and

In 2022, the Group's R&D projects and feasibility studies received a total of

RUB **84.3** mln

in financing

GRK Bystrinskoye. A significant part of the work is focused in some way or other on addressing environmental issues.

In addition to research within the Group, Gipronickel also provides R&D services to third parties, mainly in the metals and chemical industries.

In 2022, Gipronickel Institute completed a wide scope of work on the mining, concentration, and smelting operations of MMC Norilsk Nickel.

For example, for Polar Division's Skalisty Gluboky mine, using advanced technical solutions for autonomy and comprehensive automation to minimise headcount in mine workings, research was carried out to select the most efficient configuration of mine workings, optimal mining plan based on

mining capabilities and ventilation, as well as the possibility for sequential mining of disseminated ores as rich ores are retired, to ensure that the mine's annual output is maintained at the same level without major drops.

In order to solve the environmental problems of the Norilsk Industrial District by shutting down the existing converter operations, Copper Plant is proceeding with the construction of a continuous converting facility consisting of two units connected in series: the Vanyukov converter furnace which continuously smelts granulated copper matte to produce blister copper, liquid converter slag and process gases, and the Vanyukov slag cleaning furnace, which continuously cleans converter slag by its deep reduction to produce metallic copper-nickel alloy containing iron and cobalt, as well as waste slag and process gases. The continuous converting technology will solve the main environmental problems of copper production by transferring the sulphur content of the feedstock into a continuous stream of highly concentrated gases ready for disposal as contemplated by the new converting process.

Kola MMC continued to implement its copper production project using the roast-leach-electrowin technology. This technology is designed to process sulphide copper concentrates from flotation-based matte separation by using a modern and environmentally friendly technology, with the output to total 150 kt of marketable-quality copper cathodes. The roast-leach-electrowin technology will:

- reduce the cost of finished products by cutting operating costs, losses, and turnover;
- ensure that regulatory environmental standards are met through obtaining a flow (constant by composition) of gases containing SO₂ and their capturing;
- increase direct copper extraction for marketable products.

In 2022, Nornickel launched a number of projects to improve environmental performance:

- pilot tests to treat Komsomolsky Mine's drained water kicked off. The project envisages simultaneous operation of several reverse osmosis and electro dialysis units;

- we tested an innovative technology of obtaining modified sulphur, which has good prospects of becoming the feedstock for the construction industry and reducing atmospheric sulphur emissions. We got test samples of asphalt, with prototypes already used to check if asphalt concrete blends can withstand climate of the Far North;
- as part of our effort to combat climate change and reduce GHG emissions, we studied the ability of tailings to absorb CO₂ from the air. We will keep developing the engineered mineralisation technology and testing accelerated mineralisation of tailings.

Major R&D and feasibility studies in 2022

Initiative	Achievements of 2022	Expected effects
Development of a technology for the preparation of aerated filling compounds at Polar Division	<ul style="list-style-type: none"> A technological process for the production of aerated filling compounds and their delivery to mine workings was developed; The current status of hydraulic transport at the mines of Polar Division was reviewed; A general overview of hydrotransport systems was prepared and types of hydraulic fluids are described; The hydraulic flow modes were described; Sedimentation properties of the filling compound were analysed. 	<ul style="list-style-type: none"> Increased intensity of mining operations; Increased rate of strength gain of the artificial backfill mass formed; Minimisation of cement costs while maintaining the standard strength of the backfill mass; Lower water consumption for pipeline flushing.
Pilot tests of the first Allflot flotation machine at Norilsk Concentrator	Data were obtained to provide rationale for the re-equipment of scavenging operations at Norilsk Concentrator with impellerless pneumatic flotation machines	Due to the energy efficiency of flotation machines, the expected economic effect will amount to RUB 5.5 mln per year
Research to assess the impact of more frequent extreme weather events and degradation of permafrost rocks due to climate change on the Company's hydraulic engineering facilities (tailing dumps)	<ul style="list-style-type: none"> The forecast until the middle of the 21st century was prepared based on calculations using 40 CMIP5 generation climate models for two GHG emission scenarios, RCP8.5 and RCP4.5; Stability of dams at hydrotechnical structures was reassessed due to expected climate change; Quantitative assessment of factors that may trigger accidents at hydraulic structures caused by climate change was carried out 	Implementation of the Company's environmental policy to comply with ICMM and TCFD requirements; assessment of risks related to the operation of the Company's tailing dumps.
Research to obtain synthetic binders from sulphuric acid and carbonate rock in the Norilsk region and test them in filling compounds	The Company started working on a technology to produce a synthetic binder from sulphuric acid and carbonate rock in the Norilsk Industrial District to be used in filling compound as a substitute for natural anhydrite	The potential effect is up to RUB 2 bn per year in OPEX on natural anhydrite mining
Adjustment of operating procedures to design a technology for the production of rich selective precious metal concentrates at Kola MMC	Fine-tuning of high-scale operations for processing semi-products concentrating precious metals in the process cycle to adjust Operating Procedures for designing new precious metals production facilities.	Reduction of SO ₂ emissions by 1,200 tpa

Digital technology

Nornickel's contribution to the Digital Economy national project

Relevant UN SDGs



Related federal projects

- Information infrastructure;
- Information security;
- Digital technology.

Key initiatives and focus areas

- Norilsk Nickel's Robotisation Service;
- Implementation of the Technological Breakthrough project pipeline;
- Automation of management and operating processes;

- Creation of the Data Lake digital platform;
- Development of communication systems and electronic communications for employees and local communities.

Technological progress and promotion of innovative tools are essential elements for streamlining business processes and enhancing industrial safety at Nornickel.

In 2022, amid geopolitical risks and external challenges, the Company continued to run digital projects, while taking measures to maintain business continuity. Thanks to

proactive management decisions in the reporting year, the Company managed to achieve high IT stability despite great uncertainty and external pressure.

Data Lake and artificial intelligence



Technology-wise, non-ferrous metal mining is one of the most complex industries. From the mine to the marketing of the finished product, terabytes of data are collected and processed to bolster productivity and improve working conditions. To collect, process Big Data at production sites and foster cutting-edge developments, the Company has implemented the Data

Lake digital platform project. Data Lake is essentially a technology platform to address business challenges using Big Data and artificial intelligence / machine learning.

In 2022, the infrastructure for launching several AI use cases was designed on the basis of Data Lake. For example, we launched a prototype of a predictive

algorithm for managing dissolution and filtration processes in the nickel tank-house at Kola MMC.

A dedicated environment is also being created to develop machine learning solutions. The environment helps handle tasks such as data mining, development of machine learning applications.

Ensuring technological independence



Initiatives to ensure technological independence became a new and high-priority focus of Nornickel's digital development strategy.

In 2022, the Company assessed its IT landscape, and systems based on foreign software accounted for 18%, of which one third need to be replaced. The remaining systems can be used without significant risks for several years.

In 2022, Nornickel's IT systems were isolated well in advance of mass failures; equipment and spare parts available in stock in Russia were additionally procured. Project ranking criteria were developed for Nornickel's IT portfolio based on the

impact of restrictions with a focus on the availability of Russian counterparts, in-house development capabilities, and already purchased licences.

Extensive measures were taken to ensure the technological independence of industrial automation systems. In 2022, a special laboratory was established at Polar Division to test domestic solutions for the automated process control system.

In the reporting year, Nornickel adopted a Strategy for Ensuring Consistency of Measurements, which includes an initiative to improve technological independence. In the process of sourcing local counterparts, more than 360 manufacturers were

reviewed across 119 major groups of gauges. In particular, a counterpart of PR-1K, a domestic radioisotope density meter, was found and tested in the real production environment on the Medvezhy Ruchey site.

With the assistance from Russian infrastructure solutions market players, Nornickel tested the replacement critical systems and IT equipment for compliance with the corporate standards and information security requirements, as well as for compatibility with the existing IT landscape. The replacement solutions enabled the Company to continue performing critical tasks.

Communication network development



In 2022, the Company continued its programme to build and upgrade its networks.

In conjunction with a number of Russian manufacturers, the development of a network switch with enhanced performance and data transfer speed to be deployed in the mines is underway. The combination of performance and rugged

body requires effort from the development teams, but this solution will not only meet today's needs, but will also support the future growth of traffic from unmanned mine technologies and remotely controlled equipment.

Digital technology training



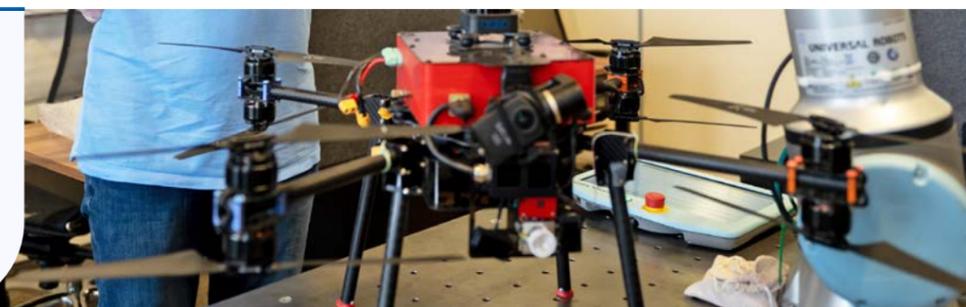
Improving employees' digital literacy remains one of the Company's strategic priorities. Various training formats are used to develop digital competencies: workshops, online courses, webinars, and business games. At the same time, we foster creative potential of and involve our employees' children in the training process, immerse teenagers and youth in the IT profession in the cities where the Company operates.

To develop young professionals, the Company has launched a master's programme, AI Transformation in Industry, jointly with the MIPT centre for educational programmes.

This is unique programme, as it was created directly for the needs of the mining company. Students receive multidisciplinary training in mathematics, programming and IT, and gain practical experience by continuously

applying knowledge in addressing the Company's current business needs. In 2022, the first group of MIPT students completed more than 70% of their field internship at Nornickel.

IT infrastructure: continuity and reliability



The Company has launched a major initiative to pilot and gradually integrate a multifunctional Linux-based infrastructure solution into the corporate environment. Migration to the target environment is planned with an increased focus on business processes and will be phased in via a

heterogeneous environment combining hardware running Microsoft and Linux operating systems.

Projects previously initiated to develop enterprise data centres continued this year with revisited goals and approaches

to implementation. Jointly with IXcellerate, site preparation for a new data centre and IT equipment support systems in Moscow was completed. Concepts for data centres in Monchegorsk and Norilsk were designed.

Digital solutions in occupational health and safety



In 2022, Nornickel together with Rostekhnadzor participated in the Russian Government's experiment to launch a system for remote control over industrial safety.

Nornickel actively deploys systems to improve occupational health and safety using AI-based video analytics. In 2022, the system for monitoring personal protective equipment of production personnel was further developed:

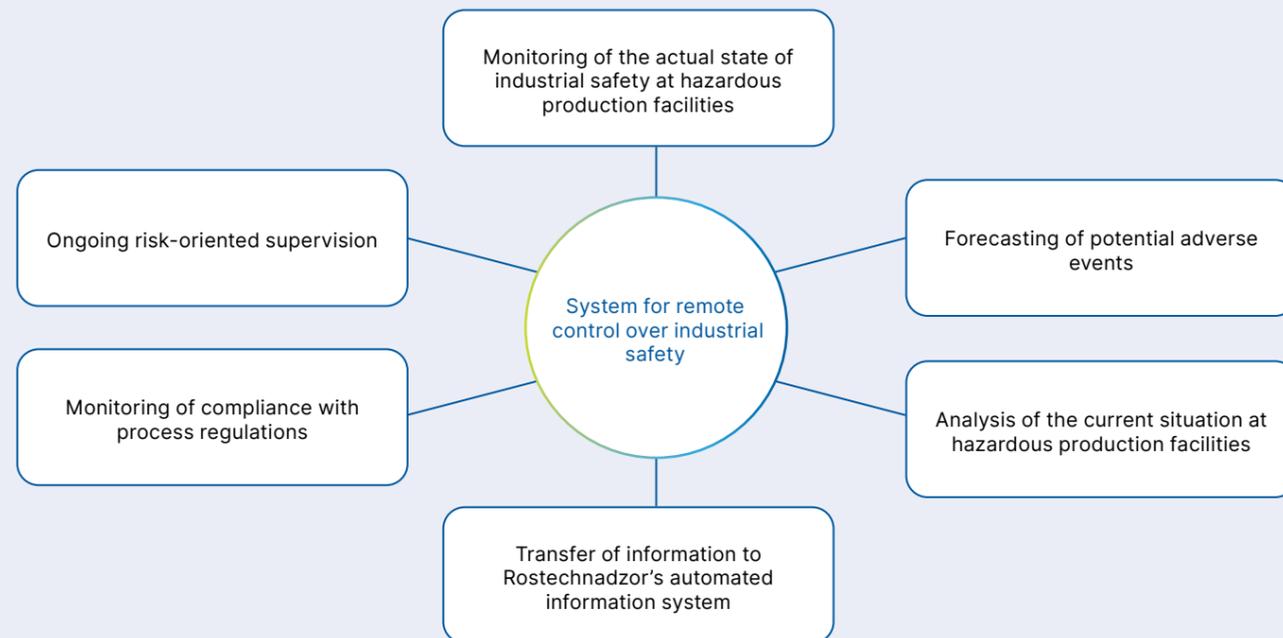
- new detection types and parameters were added;

- the solution was integrated with personnel positioning and face recognition modules from third-party Russian software vendors.

Development of this system boosts the effectiveness and quality of safety compliance monitoring and the level of safety culture in production. In 2023, we plan to continue pilot tests of the technology from several advanced vendors at the production facilities and construction sites of Norilsk Division.

In 2022, design of a digital engineering and operating model (3D model) was completed at Kola MMC. This model helps improve tracking and positioning of employees and vehicles, monitor conditions in special areas using video cameras and video stream projection onto the model, and track changes on a timeline using laser scanning. The Company plans to make a transition from the 3D model to a full-fledged digital twin of Kola MMC.

Functions of the system for remote control over industrial safety



Digital environmental solutions



Nornickel is developing a prototype environmental monitoring system based on the digital twin of Nadezhda Plant. The pilot will be our first step towards designing an integrated information and analytical system using a unified methodology for calculating environmental impact indicators. The system will be able to interpret and verify the data obtained, produce forecasts

and reports, and create mathematical and simulation models of environmental processes.

Copper Plant had a test launch of the system for automated control of pollutant emissions that have an adverse impact on the environment. The pilot solution will help assess whether domestic equipment can

be used, taking into account the nature of the Company's production chains and conditions.

Also, Nornickel will start developing a mathematical model of industrial emissions in 2023. The software package will replace expensive and complex tools of instrumental emission control.

Digital solutions to improve business processes



The Company continues its Integrated Document Management programme set to fully automate and digitally transform business processes for handling electronic legal documents and data. In 2022, key work aimed at digitalising contract-related business processes was completed.

Nornickel operates a Tax Monitoring System. Following the transition to this platform, over 90% of the Group's turnover has been monitored by the tax authorities in real time since 2021, and the platform continues to evolve.

Interaction with the Company's suppliers and contractors is also integrated into the digital system. Competitive procurement procedures, contract execution processes and feedback are managed through a dedicated section for suppliers on the Company's website, while conferences are held via an automated SRM system. In 2021–2022, new functions were introduced in the supplier online account in the processes of contract negotiation and execution enabling special payment terms for goods or services between the buyer and the supplier to accelerate

payment in exchange for a reduced price or discount. The solution is integrated with electronic document management to speed up verification and generation of accounting documents for works/ services and inventory and with the Oracle Transportation Management solution to simplify the transport ordering process and the data exchange system to store archived documents. To date, more than 650 different companies across the country have been invited to use the new service.

Digitalisation in regions of operation



GRI 203-1, 203-2

The City Online project is set to improve the quality of life of people living in small and medium-sized towns in the Far North and the Far East by providing infrastructure and digital services in various areas of life and making habitual services more accessible to remote areas.

The platform is available as a website and a mobile app in five cities: Norilsk, Dudinka, Monchegorsk, Murmansk, and Krasnoyarsk. Currently, the web and mobile versions of the platform offer 28 and 16 services, respectively. The most popular are GO.Media, Playbill, Broadcasts (web version only), Map, and Transport. In the near future, we plan to develop services that will help municipal employees promptly interact with each other and with residents of the city in the shared information space.

Major City Online infrastructure services include:

- a city air monitoring programme with a predictive environmental assessment model in Norilsk, Monchegorsk, Nickel, and Zapolyarny seeking to improve the urban environment quality and the comfort of people's lives;

- a mobile school education system in the Murmansk Region. The system was deployed in 2022 and has already made a better and more equal level of education available to different social groups and minimised the impact of downtime days during school period.

To meet the Company's production needs with high-speed communication and to improve the quality of life in the Norilsk Industrial District by creating conditions for broadband Internet access, enhancing the quality of services and expanding the range of communication services provided, Nornickel implements the Fibre Optic Communication Line (FOCL) Construction Project in Norilsk. The project involves the construction of a 956 km fibre optic communication line from Novy Urengoy to Norilsk.

In 2022, in response to growing demand from the population in the Norilsk District, the bandwidth of the transport network was increased from 40 Gbps to 200 Gbps, which now enables customer traffic to grow to 85 Gbps, with less than 1% of traffic used for the Company's needs.

As mobile and fixed-line Internet access remains one of the key conditions for high quality of life in the modern world and is the driver behind digital services, in order to improve the availability of high-quality communications, we held a promotion campaign in 2022 for telecom operators providing services to end users, involving an average discount of 15%. The new tariff policy helped develop high-speed tariff plans of operators in the city and resulted in a twofold more affordable pricing on average in 2022. In addition, 15 schools in the Norilsk Industrial District were connected to the Internet on preferential terms.

More than **180** thsd users registered on the platform

Almost **1.5** million unique visitors

About **55** thsd mobile app installs

Corporate security

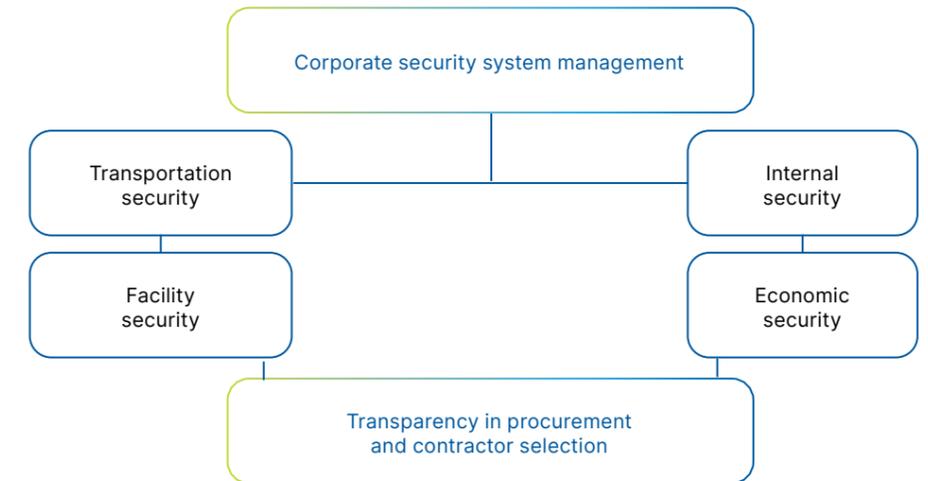
The corporate security system underpins the sustainability of Nornickel's business processes. The Company has developed a comprehensive corporate security management system comprising five main blocks.

The Company has a dedicated Corporate Security Unit to manage corporate security issues. In addition, the Company has established and is expanding a network of analytical situation centres. The regulatory framework in this area is defined by the Russian laws, applicable international norms and internal standards, and Nornickel's by-laws.

All senior managers of the Company, including the Board of Directors and the Management Board, are involved in the processes of drafting and improving regulatory documents aimed at ensuring corporate security. In March 2022, the Board of Directors approved PJSC MMC Norilsk Nickel's Policy on Countering Corporate Fraud. The requirements of the Policy are in line with the principles of honest and responsible business conduct, emphasising the Company's commitment to improving its corporate culture and adherence to best corporate governance practices and high ethical standards.

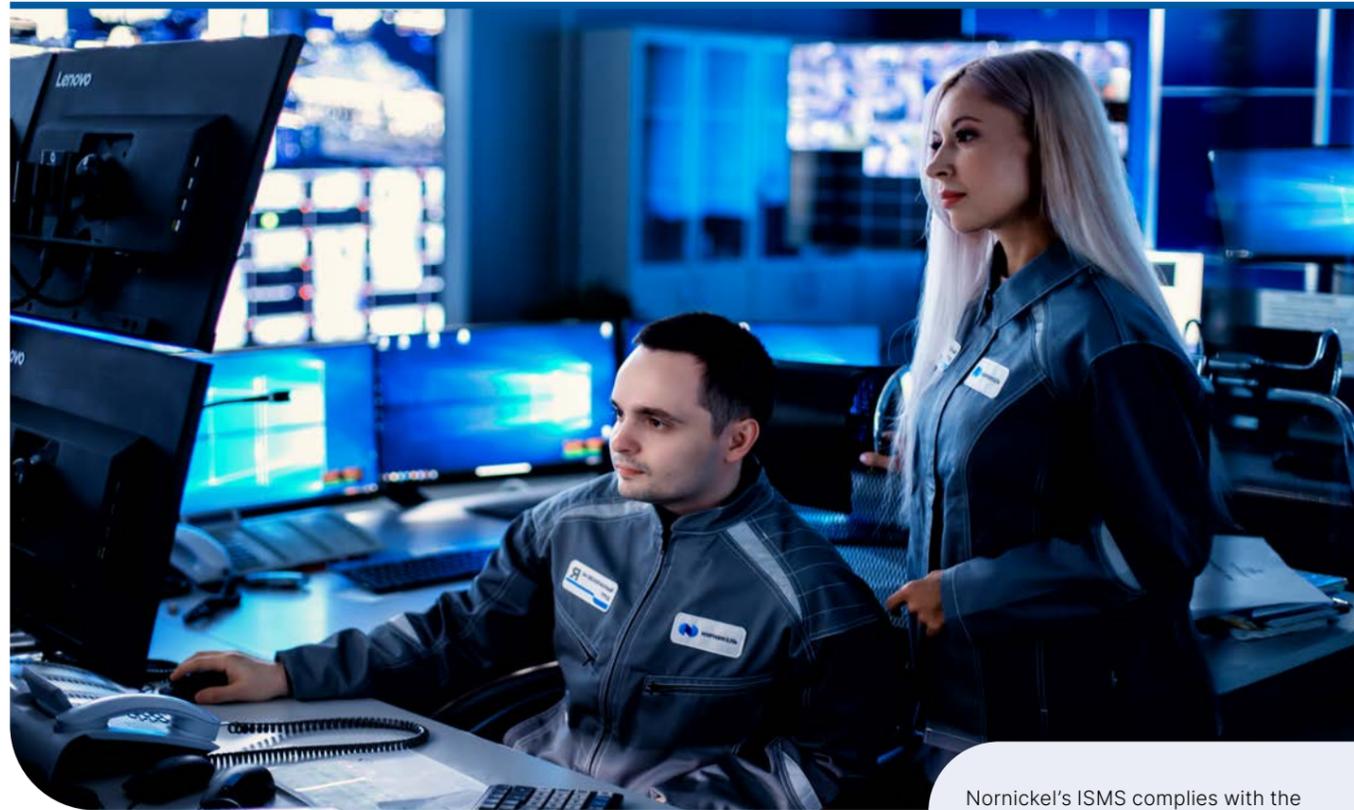
The Policy unifies a set of systemic measures for the prevention, detection and counteraction to corporate fraud.

Corporate security management system



Objectives of the Policy on Countering Corporate Fraud

- 1 Preventing, detecting and mitigating the risk of corporate fraud. Protecting legitimate interests of the Company, its subsidiaries, their shareholders/participants, and safeguarding assets.
- 2 Reaffirming zero tolerance to any form or manifestation of corporate fraud.
- 3 Creating a consistent, Company-wide understanding of the essence of fraud, as well as a uniform standard of conduct for the prevention and suppression of fraud.
- 4 Preventing violations of laws on combating corporate fraud by the Company or its subsidiaries or employees.



Ensuring information security

Nornickel has a highly integrated information system for all of its businesses. Information is a valuable resource for the Company, while information security guarantees business continuity. Nornickel has its own Information Security Management System (ISMS) in place. The ISMS covers day-to-day production management, supplies of feedstock and process materials, as well as control over production and finished product shipment targets.

To support robust information security, the Company is subject to regular ISMS audits for compliance with personal data and critical infrastructure protection requirements and international standards on cyber security management, testing and assessment of data protection, vetting inspections to check information security in river and marine navigation, and other control procedures.

Nornickel’s ISMS complies with the norms and requirements of ISO/IEC 27001:2013. In 2022, [four of Nornickel’s sites](#) confirmed the high efficiency of their information security management processes:

- 1 Murmansk Transport Division;
- 2 Nadezhda Metallurgical Plant;
- 3 Copper Plant;
- 4 Talnakh Concentrator.

The external auditor noted the facilities’ high preparedness to new threats and challenges. The Company demonstrated risk control effectiveness and readiness for unexpected changes, confirming its ability to achieve goals related to securing production processes.

In addition to analytical situation centres, the Company has in place an Information Security Incident Response Centre. If any suspicious content or activity is detected by users, the relevant notice is given to the Response Centre. The Centre assesses the possible negative impact on the Company’s information systems and takes measures to prevent and eliminate the consequences of incidents. In its work, the Centre relies on the best domestic and global practices of cyber security process management and advanced technological solutions.

In 2022, there was a significant increase in cyber attacks on Russian companies. To minimise the risks, Nornickel took additional comprehensive measures, including proactive ones, to ensure the security of its information infrastructure. In the reporting year, over 20,000 information security events and more than 1,000 incidents were handled by the Response Centre staff.

The Company’s confidential information is protected by special technical protection tools that allow detecting unauthorised access attempts through the main channels, including email and file exchange. If unauthorised attempts to withdraw confidential information are identified, an internal review and investigation procedure is initiated in accordance with the Company’s regulations.

The Company recognises the risk of incidents and emergencies affecting the stability of Nornickel’s information systems. To ensure the continuity of the Company’s operations, Nornickel developed and

documented information security processes and procedures. These procedures are tested at least quarterly to ensure that they are up-to-date.

To protect the personal data of various types of subjects, including the personal data of third parties, the Company applies a set of organisational and technical measures. Technical protection is ensured by means of anti-virus protection, prevention of information leaks, control of removable media, analysis of security events. The Company also has a Personal Data Processing Policy and a number of by-laws regulating the processing and protection of personal data.

Information security training

In accordance with the Rules of Raising Awareness in Information Security, all employees of the Company are regularly trained in information security.

All new employees of Nornickel are familiarised with by-laws governing information security requirements and undergo additional induction training. In 2022, some 7,400 newly hired employees were familiarised with by-laws on information security, and approximately 4,300 new employees received additional information security induction training.

Nornickel develops annual staff training plans based on current trends and newly identified risks and cyber threats. Employees of Nornickel’s Head Office and

In 2022, almost were trained
18.5 thsd employees

facilities across the Company’s footprint take regular knowledge tests. In 2022, there were about 70 scheduled and 5 unscheduled e-learning training sessions for almost 18,500 Group employees.

The knowledge gained is further applied to combat information security threats. To this end, the Company arranges recurrent training and workshop sessions dealing, among other things, with simulated fishing attacks and other threats to IT infrastructure. It helps test the quality of cyber security systems, practice employee actions in case of an information security threat, and improve the overall level of the corporate information security system. Analysis of training session results helps us revise existing and develop new instructions for employees. Information updated after training sessions is included in a quarterly newsletter circulated among the heads of the Company’s units. Employees are informed of what to do via by-laws pertaining to information security if suspicious activity is detected.

In addition, there are regular newsletters to inform employees about current information security threats and digital hygiene rules. In 2022, we circulated 27 themed newsletters among all employees of the Group.