

# KEY RISKS

Nornickel's risks are all inherent to its strategic and operational development and business continuity goals. Key risks have a varying degree of impact on Nornickel's ability to achieve its goals. Some risks also affect several goals at a time.

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## PRICE RISK

Potential decrease in sales revenues due to lower prices for Nornickel metals is subject to actual or potential changes in demand and supply in certain metals markets, global macroeconomic trends, and the financial community's appetite for speculative/investment transactions in the commodity markets.



Impact on goals:  
**high**



Source of risk:  
**external**






Year-on-year change in risk:  
**stable**

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
<p>Lower demand for metals produced by Nornickel. A slowdown in the global economy in general and in the economies consuming Nornickel metals in particular. Supply and demand imbalance in metals markets.</p>	<p>Enhancing Nornickel's leadership in the nickel and palladium markets.</p>	<p>Nornickel is consciously accepting the existing price risk for now. To manage this risk, Nornickel:</p> <ul style="list-style-type: none"> <li>continuously monitors and forecasts supply and demand dynamics for key metals</li> <li>secures feedstock supplies for key consumers through long-term contracts to supply metals in fixed volumes</li> <li>as a member of the global Nickel Institute and the International Platinum Group Metals Association, works with other nickel and PGM producers to maintain and expand the demand for these metals.</li> </ul> <p>Should the price risk materialise, Nornickel will consider cutting capital expenditures (revising the investment programme for projects that do not have a material impact on Nornickel's development strategy).</p>

## MARKET RISK

Lower competitiveness of Nornickel products in the market may result in their lower liquidity, discounts to the market price and a decrease in Nornickel's income.

 Impact on goals: **high**
 Source of risk: **mixed**
 Year-on-year change in risk: **stable**

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
<p>Stricter market requirements on product quality and ESG compliance.</p> <p>Competition from producers of cheaper nickel.</p> <p>More aggressive transport decarbonisation programmes.</p> <p>Changes in consumption patterns for high-tech products.</p> <p>Foreign regulators imposing new foreign trade restrictions that impact Nornickel's activities (tariff and non-tariff regulatory measures).</p>	<p>Enhancing Nornickel's leadership in the nickel and palladium markets.</p>	<p>To manage this risk, Nornickel:</p> <ul style="list-style-type: none"> <li>• cooperates with other market participants to monitor and analyse changes in market requirements on product quality and ESG compliance</li> <li>• promotes global industrial and investment demand for its metals</li> <li>• monitors the development of transport electrification</li> <li>• searches for new applications and uses for palladium</li> <li>• diversifies its metal product sales across industries and geographies</li> <li>• improves and diversifies its product range</li> <li>• cooperates with industry institutions to maintain access to relevant sales markets for its metals</li> <li>• cooperates with Russian ministries and agencies to prevent/mitigate negative impacts of local or international regulation</li> <li>• implements an ESG road map</li> <li>• seeks partnership opportunities with key producers of batteries for electric vehicles</li> <li>• maintains strategic partnerships with car makers based on guarantees of long-term palladium supplies.</li> </ul>

## TIGHTER ENVIRONMENTAL REGULATIONS

Environmental regulations are tightening, including environmental permitting process and stricter governmental control over environmental compliance.

 <p>Impact on goals: <b>medium</b></p>	 <p>Source of risk: <b>mixed</b></p>	 <p>Year-on-year change in risk: <b>stable</b></p>
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Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
<p>Domestic and international focus on environmental protection and sustainability. Extensive changes in environmental laws and regulations. For example, the environmental permitting framework for category 1 facilities was amended on 1 January 2019, introducing a single environmental permit and a new system of standards setting out technological limits. Technological restrictions related to mine water and industrial wastewater treatment. An experiment to use emission allowances run across 12 Russian cities (Federal Law No. 195-FZ dated 26 July 2019), including Norilsk and Krasnoyarsk in 2020–2024. Tighter environmental control: use of a risk-based approach to industrial facility audits, spot checks during unfavourable weather conditions no longer require authorisation from prosecuting authorities.</p>	<p>Compliance by Nornickel and Norilsk Nickel Group entities with the applicable laws, regulatory requirements, corporate standards, and business codes.</p>	<p>To manage this risk, Nornickel:</p> <ul style="list-style-type: none"> <li>• carries out an environmental action plan to reduce emissions and discharges, as well as to ensure timely waste management</li> <li>• has in place the Environmental Performance Improvement Programme for category 1 facilities in the Polar Division. Nornickel's Environmental Performance Improvement Programme was approved by the relevant state interdepartmental commission</li> <li>• has prepared documentation packages to obtain a single environmental permit for category 1 facilities in the Polar Division and filed them with the relevant authorities</li> <li>• takes measures to reduce emissions during unfavourable weather conditions as per the plan agreed with the Ministry of Ecology and Environmental Management of the Krasnoyarsk Region</li> <li>• ensures the collection and transfer of baseline data on emissions across the Polar Division and the Russian division to provide inputs for summary estimates of emission concentrations for Norilsk as part of the experiment to use emission allowances run across 12 Russian cities</li> <li>• involves its employees in working groups of dedicated committees, regional ministries, and government agencies</li> <li>• takes part in joint projects with nature reserves located within Nornickel's regions of operation.</li> </ul>

## FX RISK

US dollar depreciation against the rouble, including due to changes in the Russian economy and the policy of the Bank of Russia, may adversely affect Nornickel's financial performance, as most of its revenues are denominated in US dollars, while most of its expenses are denominated in roubles..



Impact on goals:  
**low**



Source of risk:  
**mixed**



Year-on-year change in risk:  
**stable**

### Key risk factors

### Impact on Nornickel's development goal and strategy

### Mitigation

Increase in Russia's balance of payments, relatively lower imports, and steadily growing oil exchange prices. Country-specific macroeconomic changes, sovereign credit rating upgrade. Lower volatility in the financial markets of Russia and other emerging markets, making the rouble more attractive to investors.



Maintaining investment-grade credit ratings. A debt portfolio with a well-balanced profile in terms of maturity, currency composition, and sources of financing.

To manage this risk, Nornickel:

- maintains a balanced debt portfolio with USD-denominated borrowings prevailing
- implements regulations that limit pricing for expenditure contracts with prices fixed in foreign currencies
- uses derivatives to mitigate its exposure by balancing USD-denominated cash flows from revenues and cash flows from liabilities denominated in currencies other than the US dollar.

## INVESTMENT RISK

Risk related to time and budget overruns, and performance targets of Nornickel's major investment projects.

 Impact on goals: **medium**
 Source of risk: **mixed**
 Year-on-year change in risk: **stable**

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
<p>Changes in forecasts of ore volumes, grades and properties resulting from follow-up exploration.</p> <p>Changes in investment project timelines (including due to the pandemic).</p> <p>Further changes to budgets of investment projects.</p> <p>Amendments to project performance targets in the course of implementation</p>	<p>Strategic goal: growth driven by Tier 1 assets.</p> <p>Developing the mining, concentration and metallurgical assets.</p> <p>Developing the mineral resource base and upgrading core production processes at Nornickel's Tier 1 assets.</p>	<p>To manage this risk, Nornickel:</p> <ul style="list-style-type: none"> <li>• carries out proactive exploration and updates performance targets and the mining plan (a long-term production plan) based on the progress of its major investment projects developing the mineral resource base</li> <li>• conducts resource, geomechanical and hydrogeological modelling</li> <li>• holds external expert audits of geological data</li> <li>• develops an in-house geological and mining information system</li> <li>• models mining options in geological and mining information systems</li> <li>• as part of the project assurance process, conducts internal (cross-functional) audits of major investment projects at each stage in their life cycle</li> <li>• improves incentives to drive project delivery and build skills and capabilities (including staff certification, identification of improvement areas and provision of tailored training)</li> <li>• improves project delivery standards, develops tools to digitise technical document management and project controls</li> <li>• promotes the use of pilot units across all technically challenging and unique processing stages.</li> </ul>



## WORK-RELATED INJURY RISK

Failure to comply with Nornickel's health and safety (H&S) rules may result in threats to health and life or temporary suspension of operations, or cause property damage.



Impact on goals:  
**high**



Source of risk:  
**internal**



Year-on-year change in risk:  
**stable**

### Key risk factors

### Impact on Nornickel's development goal and strategy

### Mitigation

Suboptimal methods of work organisation.  
Disruptions in technological processes.  
Exposure to hazards.

Health and safety.

Pursuant to the Occupational Health and Safety Policy approved by the Board of Directors, Nornickel:

- continuously monitors compliance with H&S requirements
- improves the working conditions for its employees and contractors deployed at Nornickel's production facilities, including by implementing new technologies and labour-saving solutions, and enhancing industrial safety at production facilities
- provides employees with certified state-of-the-art personal protective equipment
- improves the system of stationary gas analysers, provides employees with portable gas analysers
- carries out preventive and therapeutic interventions and enforces hygiene protocols to reduce the potential impact of harmful and hazardous production factors
- regularly trains and briefs employees on health and safety, assesses their health and safety performance and conducts corporate workshops, including by deploying special simulator units
- enhances methodological support for H&S functions, including through the development and implementation of corporate standards
- improves the risk assessment and management framework at the Group's production facilities as part of the Risk Control project
- reviews the competencies of line managers at Nornickel's production facilities, develops H&S training programmes and arranges relevant trainings
- holds H&S competitions
- communicates the circumstances and causes of accidents to all Nornickel employees, conducts ad-hoc safety briefings
- introduces frameworks to manage technical, technological, organisational and HR changes.

## RISK OF EPIDEMICS

Risk related to the spread of infectious diseases and the subsequent preventive, safety and response measures.

 <p>Impact on goals: <b>medium</b></p>	 <p>Source of risk: <b>external</b></p>	 <p>Change in risk: <b>increasing</b></p>
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### Key risk factors

### Impact on Nornickel's development goal and strategy

### Mitigation

Spread of viral infections. Anti-epidemic restrictive measures imposed by federal and regional authorities.

Social responsibility: comfort and safety of people living in Nornickel's regions of operation. Efficient delivery of finished products (metals) in line with the production programme. Timely supply of products to consumers.

Nornickel has implemented a range of measures to mitigate the risk impact, including:

- 100% of salaries maintained, with additional compensation for employees working on sites and in offices
- work from home for office employees
- personal protective equipment, tests, medical devices, sanitisers, etc. provided to all sites
- purchases of medicines and medical equipment (including 412 ventilators, 15 mobile and 2 stationary labs, 7 ambulances, and over 372 thousand tests)
- assistance in expanding local hospital capacity
- support for SMEs
- support for local volunteers who help employees requiring regular health monitoring
- arrangements for mandatory COVID-19 testing
- establishment of an emergency response team
- two-week quarantine for employees coming to the Norilsk Industrial District
- increased shifts for shift workers in Chita and Norilsk.



## INFORMATION SECURITY RISK

Potential cybercrimes may result in an unauthorised transfer, modification or destruction of information assets, disruption or reduced efficiency of Nornickel's IT services, business, technological and production processes.



Impact on goals:  
**high**



Source of risk:  
**mixed**



Year-on-year change in risk:  
**stable**

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
<p>Growing external threats. Unfair competition. Rapid development of Nornickel's IT infrastructure and automation of technological and business processes. Unlawful acts by employees and/or third parties. Shift to work from home and hiring remote employees outside Nornickel's regions of operation</p>	<p>Mitigation of the information security risk and risk of cyberattacks on Nornickel's information systems and automated process control systems.</p>	<p>To manage this risk, Nornickel:</p> <ul style="list-style-type: none"> <li>• ensures compliance with applicable Russian laws and regulations with respect to the protection of personal data, insider information, trade secrets and critical information infrastructure</li> <li>• implements MMC Norilsk Nickel's Information Security Policy</li> <li>• categorises information assets and makes information security risk assessments</li> <li>• embeds and monitors compliance with corporate information security standards within information systems and automated process control systems</li> <li>• raises information security awareness among employees</li> <li>• uses technical means to ensure information security of assets and manage access to information assets</li> <li>• ensures information security of the automated process control system</li> <li>• monitors threats to information security and the use of technical protection means, including vulnerability analysis, penetration testing, cryptographic protection of communication channels, controlled access to removable media, protection from confidential data leaks, and mobile device management</li> <li>• develops an information security framework</li> <li>• sets up and certifies the Company's information security management system</li> <li>• implements measures to ensure safe remote access.</li> </ul>




## TECHNICAL AND PRODUCTION RISK

Technical, production, or natural phenomena which, once materialised, could have a negative impact on the implementation of the production programme and cause equipment breakdown or to need to compensate damage to third parties and the environment.



Impact on goals:  
**medium**



Source of risk:  
**mixed**



Year-on-year change in risk:  
**stable**

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
<p>Harsh natural and climatic conditions, including low temperatures, storm winds, and snow load. Unscheduled stoppages of core equipment caused by fixed assets' wear and tear. Release of explosive gases and flooding of mines. Collapse of buildings and structures. Infrastructure breakdowns.</p>	<p>Efficient delivery of finished products (metals) in line with the production programme.</p>	<p>To manage this risk, Nornickel:</p> <ul style="list-style-type: none"> <li>• ensures proper and safe operation of its assets in line with the requirements of technical documentation, as well as technical rules and regulations as prescribed by local laws across Nornickel's geographic footprint</li> <li>• develops ranking criteria and criticality assessment for the Norilsk Nickel Group's key industrial assets</li> <li>• implements an automated system for managing reliability, efficiency, and production asset risks</li> <li>• ensures timely replacement of fixed assets to consistently achieve production safety targets</li> <li>• regularly monitors the condition of Nornickel's buildings and structures via an information system for conducting geotechnical surveys</li> <li>• uses satellite technology to monitor Nornickel's assets and further analyse the data</li> <li>• implements automated systems to control equipment process flows, uses state-of-the-art engineering controls</li> <li>• improves the maintenance and repair system</li> <li>• trains and educates its employees both locally, on site, and centrally, through its corporate training centres</li> <li>• systematically identifies, assesses and monitors technical and production risks, implements a programme of organisational and technical measures to mitigate relevant risks</li> <li>• develops the technical and production risk management system, including by engaging independent experts to assess the system's performance and completeness of risk data</li> <li>• develops and tests business continuity plans which set out a sequence of actions to be taken by Nornickel's personnel and internal contractors in case of technical and production risk causing maximum damage. These plans are aimed at the earliest resumption of Nornickel's production operations</li> <li>• engages, on an annual basis, independent surveyors to analyse Nornickel's exposure to disruptions in the production chain and make assessments of related risks.</li> </ul> <p>In 2020, insurance was taken out against key technical and production risks as part of the property and business interruption (downtime) insurance programme, with emphasis on best risk management practices in the mining and metals industry.</p>



## POWER OUTAGES

Failure of core equipment at generating facilities and transmission grid facilities may result in power, heat or water shortages at key production and social facilities in the Norilsk Industrial District.



Impact on goals:  
**medium**



Source of risk:  
**mixed**



Year-on-year change in risk:  
**stable**

### Key risk factors

### Impact on Nornickel's development goal and strategy

### Mitigation

Isolation of the Norilsk Industrial District's power grid from the national grid (Unified Energy System of Russia).  
Harsh natural and climatic conditions, including low temperatures, storm winds, and snow load.  
Length of power, heat and gas transmission lines.  
Wear and tear of core production equipment and grid infrastructures.

Efficient delivery of finished products (metals) in line with the production programme.  
Timely supply of products to consumers.  
Social responsibility: comfort and safety of people living in Nornickel's regions of operation.

To manage this risk, Nornickel:

- operates and maintains generating and mining assets as required by the technical documentation, industry rules and standards, and applicable laws
- monitors the technical condition of linear facilities, including with the involvement of external experts
- ensures timely construction and launch of transformer facilities, as well as timely replacement of transmission towers
- ensures timely retrofits (equipment replacement) of TPP and HPP power units
- ensures timely upgrades and repairs to trunk gas and condensate pipelines and gas distribution networks.

## COMPLIANCE RISK

The risk of legal liability and/or legal sanctions, significant financial losses, suspension of production, revocation/suspension of a licence, loss of reputation, or other adverse effects arising from Nornickel's non-compliance with the applicable laws, regulations, instructions, rules, standards or codes of conduct.

 Impact on goals: **medium**
 Source of risk: **mixed**
 Year-on-year change in risk: **stable**

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
<p>Discrepancies in rules and regulations. Considerable powers and a high degree of discretion exercised by supervision agencies</p>	<p>Compliance by Nornickel and Norilsk Nickel Group entities with the applicable laws, regulations, corporate standards, and business codes</p>	<p>To manage this risk, Nornickel:</p> <ul style="list-style-type: none"> <li>ensures its compliance with the applicable laws</li> <li>defends its interests during regulatory inspections and administrative proceedings</li> <li>uses pre-trial and trial remedies to defend its interests</li> <li>ensures that agreements signed by Nornickel contain clauses safeguarding its interests</li> <li>implements anti-corruption, anti-money laundering, counter terrorist financing, and counter proliferation financing initiatives</li> <li>takes actions to prevent unlawful use of insider information and market manipulation</li> <li>ensures timely and reliable information disclosures as required by the applicable Russian and international laws</li> <li>has its employees attend insider information management and anti-corruption training courses</li> <li>ensures that all employees receive anti-corruption induction briefing.</li> </ul> <p>In addition, the following internal documents have been developed and approved in 2020:</p> <ul style="list-style-type: none"> <li>Regulations on Claims Management at MMC Norilsk Nickel (new version)</li> <li>Procedure for Payables and Receivables Management at MMC Norilsk Nickel (new version)</li> <li>Guidelines for Disclosing Performance Results of MMC Norilsk Nickel in the Unified State Federal Register of Information about Corporate Developments of Legal Entities (new version)</li> <li>MMC Norilsk Nickel's Internal Control Rules for Preventing, Detecting and Stopping the Unlawful Use of Insider Information and/or Market Manipulation</li> <li>Regulations on Procedures for Access to Insider Information of PJSC MMC NORILSK NICKEL, and Rules for Protection of Insider Information Confidentiality and Control over Compliance with the Requirements of Laws Related to Combating Insider Information Unlawful Use and Market Manipulation (new version)</li> </ul>



## SOCIAL RISK

Tensions may escalate among the workforce due to the deterioration of social and economic conditions in Nornickel's regions of operation.



Impact on goals:  
**medium**



Source of risk:  
**mixed**



Year-on-year change in risk:  
**stable**

### Key risk factors

### Impact on Nornickel's development goal and strategy

### Mitigation

Headcount/staff composition optimisation projects.  
Rejection of Nornickel's values by individual employees and/or third parties.  
Limited ability to perform annual wage indexation.  
Dissemination of false and inaccurate information about Nornickel's plans and operations among the Group's employees.  
Reallocation of funds originally intended for social programmes and charity.

#### Social responsibility:




- Partnering with regional and local authorities to develop a social infrastructure that supports a safe and comfortable living environment for local communities
- Facilitating the employees' professional and cultural development and building up talent pools across Nornickel's regions of operation
- Implementing long-term charity programmes and projects

#### To manage this risk, Nornickel:

- strictly adheres to the terms and conditions of collective bargaining agreements between the Group entities and their employees (the Group has signed a total of 23 collective bargaining agreements)
- actively interacts with regional authorities, municipalities and civil society institutions
- fulfils its social obligations under public-private partnership agreements
- implements the World of New Opportunities charity programme aimed at supporting and promoting regional civil initiatives, including by indigenous peoples of Taimyr
- implements infrastructure projects to support the accelerated development of the service economy and improved living standards across Nornickel's regions of operation through the Norilsk Development Agency, the Second School Centre for community initiatives in the Pechengsky District, and the Monchegorsk Development Agency
- implements regular sociological monitoring across its operations
- surveys Norilsk residents on living standards, employment, migration trends, and general social sentiment to identify major issues
- implements social projects and programmes aimed at supporting employees and their families, as well as Nornickel's former employees
- maintains dialogues with stakeholders and conducts questionnaire surveys when preparing the Group's public sustainability reports
- provides a range of social support measures to redundant staff under Kola MMC's social programmes and develops the Social and Economic Development Strategy of the Pechengsky District.

## CHANGES IN LEGISLATION AND LAW-ENFORCEMENT PRACTICES

Changes in legislation may cause financial damages (extra costs to ensure compliance with stricter requirements, a heavier tax and levy burden, etc.). Changes in law-enforcement and judicial practices, uncertain legal treatment of certain matters may hamper Nornickel's business, entail extra expenses and delay or raise the cost of its investment projects.

 Impact on goals: **medium**
 Source of risk: **external**
 Year-on-year change in risk: **stable**

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Unstable legal environment (including lack of codified/uniform regulations in various areas). Frequent changes to legislation. Complicated geopolitical situation. Lack of treasury funds (the government needs to boost its tax and other revenues).	Compliance by Nornickel and Norilsk Nickel Group entities with the applicable laws, regulations, corporate standards, and business codes.	To manage this risk, Nornickel: <ul style="list-style-type: none"> <li>continuously monitors changes in legislation and law-enforcement practices across all of its business areas</li> <li>conducts legal review of draft laws and regulations as well as relevant amendments</li> <li>participates in discussions of draft laws and regulations, both publicly and as part of expert groups</li> <li>engages its employees in relevant professional and specialist training programmes, corporate workshops, and conferences</li> <li>cooperates with government agencies to ensure that new laws and regulations take into account Nornickel's interests.</li> </ul>



## LACK OF WATER RESOURCES

Water shortages in storage reservoirs of Nornickel's hydropower facilities may result in failure to achieve required water pressures at HPP turbines, leading to lower power output and to drinking water shortages in Norilsk.



Impact on goals:  
**medium**



Source of risk:  
**external**



Year-on-year change in risk:  
**stable**

### Key risk factors

### Impact on Nornickel's development goal and strategy

### Mitigation

Extreme weather events (droughts) caused by climate change.

Efficient delivery of finished products (metals) in line with the production programme.  
Timely supply of products to consumers.  
Social responsibility: comfort and safety of people living in Nornickel's regions of operation.

To manage this risk, Nornickel:

- implements a closed water circuit to reduce water withdrawal from external sources
- carries out regular hydrological observations to forecast water levels in rivers and other water bodies
- cooperates with the Federal Service for Hydrometeorology and Environmental Monitoring (Rosgidromet) on setting up permanent hydrological and meteorological monitoring stations in order to improve the accuracy of water level forecasts for major rivers across Nornickel's regions of operation
- dredges the Norilskaya River and prepares its production facilities for reducing their energy consumption in case of risk occurrence
- refurbishes its hydropower plants to increase power output through improving the hydroelectric units' performance (implementation period: 2012–2021).

## PERMAFROST THAWING

Loss of bearing capacity by pile foundation beds may lead to deformation and collapse of buildings and structures.



Impact on goals:  
**medium**



Source of risk:  
**external**



Year-on-year change in risk:  
**stable**

### Key risk factors

### Impact on Nornickel's development goal and strategy

### Mitigation

Climate change, average annual temperature increases over the last 15 to 20 years. Increased depth of seasonal permafrost thawing.

Efficient delivery of finished products (metals) in line with the production programme. Social responsibility: comfort and safety of people living in Nornickel's regions of operation.

- To manage this risk, Nornickel:
- regularly monitors the condition of foundation beds underneath buildings and structures built on permafrost
  - performs geodetic monitoring of the movement of buildings
  - uses satellite technology to monitor Nornickel's assets and further analyse the data
  - regularly monitors the condition of Nornickel's buildings and structures via an information system for conducting geotechnical surveys
  - monitors soil temperature in buildings' foundations
  - monitors the compliance of its facilities with operational requirements for crawl spaces
  - takes corrective actions to ensure safe operating conditions for buildings and structures.