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. An overview of goals affected by key risks is provided in the description of these risks below.

STRATEGIC RISKS


Impact on goals: high


Source of risk: external


Year-on-year change in risk: stable

PRICE RISK
(decline in the market prices for Nornickel metals due to the global market situation)

Potential decrease in sales revenues due to lower prices for Nornickel metals 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.

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
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	Enhancing and monetising Nornickel's leadership in the nickel and palladium markets	Nornickel is consciously accepting the existing price risk for now. To manage this risk, Nornickel: • continuously monitors and forecasts supply and demand dynamics for key metals • secures feedstock supplies for key consumers through long-term contracts to supply metals in fixed volumes • 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. 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)


Impact on goals: high


Source of risk: mixed


Year-on-year change in risk: stable

MARKET RISK
(lower competitiveness of Nornickel products)

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

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Stricter market requirements on product quality. Competition from producers of cheaper nickel. Car makers switching from palladium to platinum as the preferred catalyst in petrol engines. Sanctions	Enhancing and monetising Nornickel's leadership in the nickel and palladium markets	To manage this risk, Nornickel: • cooperates with other market participants to monitor changes in market requirements on product quality • diversifies its metal product sales across industries and geographies • improves and diversifies its product range • seeks partnership opportunities with key producers of batteries for electric vehicles • maintains strategic partnerships with car makers based on guarantees of long-term palladium supplies • reviews market requirements on product quality • seeks partnerships with key producers of batteries for electric vehicles


Impact on goals: medium


Source of risk: mixed


Year-on-year change in risk: stable

TIGHTER ENVIRONMENTAL REGULATIONS

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

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Domestic and international focus on environmental protection and sustainability. Extensive changes in environmental laws and regulations. For example, the environmental permitting framework 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	Compliance by Nornickel and Norilsk Nickel Group entities with the applicable laws, regulatory requirements, corporate standards, and business codes	To manage this risk, Nornickel: • carries out an environmental action plan to reduce emissions and discharges, as well as to ensure timely waste management • involves its employees in working groups of dedicated committees, regional ministries, and government agencies • takes part in joint projects with nature reserves located within Nornickel's regions of operation


Impact on goals: low


Source of risk: mixed


Year-on-year change in risk: stable

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.

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Increase in Russia's balance of payments, higher oil exchange prices, and lower imports. Country-specific macroeconomic changes. Change in ratings. Lower volatility in financial markets of Russia and other emerging markets	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 to ensure a natural hedge • 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 other currencies


Impact on goals: medium


Source of risk: mixed


Year-on-year change in risk: stable

INVESTMENT RISK

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

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Changes in forecasts of ore volumes, grades and properties resulting from follow-up exploration. Delays in implementing investment projects. Further changes to budgets of investment projects. Project performance targets revised in the course of project implementation	Strategic goal: growth driven by Tier 1 assets. Developing the mining, concentration and metallurgical assets. Developing the mineral resource base and upgrading core production processes at Nornickel's Tier 1 assets	To manage this risk, Nornickel: • carries out proactive exploration and updates the mining plan (a long-term production plan) based on the progress of its major investment projects developing the mineral resource base • holds external expert audits of geological data • develops an in-house mining and geological information system • as part of the project assurance process, conducts internal (cross-functional) audits of major investment projects at each stage in their life cycle • enhances incentives for project delivery • implements an integrated system for managing capital projects • ensures that short-term, mid-term and long-term planning processes for capital projects are in sync

OPERATIONAL RISKS


Impact on goals: high


Source of risk: internal


Year-on-year change in risk: stable

WORKPLACE INJURY RISK

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

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Suboptimal methods of work organisation. Disruptions in technological processes. Exposure to hazardous factors. Non-compliance with H&S laws regarding obtaining licenses to operate hazardous equipment in a timely manner	Occupational 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 • carries out preventive and therapeutic interventions 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 H&S 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 training sessions • provides training for managers under the programme to determine root causes of accidents using global best practices (Root Cause and Threat Tree, Five Whys, etc.) • 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


Impact on goals: high


Source of risk: mixed


Year-on-year change in risk: stable

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.

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
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	Mitigation of the information security risk and risk of cyberattacks on Nornickel's process control systems	To manage this risk, Nornickel: • ensures compliance with 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 makes information security risk assessments • raises information security awareness among employees • uses technical means to ensure information security of assets and manage access to information assets • ensures information security of process control systems • 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 • develops an information security framework • sets up and certifies the information security management system

 Impact on goals: medium

 Source of risk: internal

 Year-on-year change in risk: stable

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 reimbursable damage to third parties and the environment.

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
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	Efficient delivery of finished goods (metals) in line with the production programme. Timely supply of products to consumers	To manage this risk, Nornickel: • 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 • develops ranking criteria and criticality assessment for the Norilsk Nickel Group's key industrial assets • timely replaces its fixed assets to achieve production safety targets • implements automated systems to control equipment process flows, uses state-of-the art engineering controls • 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 measures to mitigate relevant risks • improves the system of stationary gas analysers, provides employees with portable gas analysers • develops the technical and production risk management system, including by engaging independent experts to assess the system's performance and completeness of data • 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 • engages, on an annual basis, independent surveyors to analyse Nornickel's exposure to disruptions in the production and logistics chain and make assessments of related risks. In 2019, 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


Impact on goals: medium


Source of risk: internal


Year-on-year change in risk: stable

POWER OUTAGES AT PRODUCTION AND SOCIAL FACILITIES IN THE NORILSK INDUSTRIAL DISTRICT

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

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 goods (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 • timely constructs and launches transformer facilities, timely replaces transmission towers • timely executes retrofits (replaces equipment) of TPP and HPP power units • timely upgrades and repairs trunk gas and condensate pipelines and gas distribution networks

 Impact on goals: medium

 Source of risk: mixed

 Year-on-year change in risk: stable

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.

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Discrepancies in rules and regulations. Considerable powers and a high degree of discretion exercised by supervision agencies.	Compliance by Nornickel and Norilsk Nickel Group entities with the applicable laws, regulatory requirements, corporate standards, and business codes	To manage this risk, Nornickel: • ensures its compliance with the applicable laws • defends its interests during regulatory inspections and administrative proceedings • uses pre-trial and trial remedies to defend its interests • ensures that agreements signed by Nornickel contain clauses safeguarding its interests • implements anti-corruption, anti-money laundering, counter-terrorist financing, and counter-proliferation financing initiatives • 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 • has its employees attend insider information management and anti-corruption training courses • ensures that all employees receive anti-corruption induction briefing. In addition, the following internal documents have been developed and approved: • Regulations on Antitrust Compliance with Respect to Economic Concentration in the Russian Federation • Procedure for Interaction between MMC Norilsk Nickel Units and Norilsk Nickel Group Entities in Preparing Securities Market Disclosures. Procedure for Maintaining and Accessing MMC Norilsk Nickel 's Permit Document Register


Impact on goals: medium


Source of risk: mixed


Year-on-year change in risk: increased

SOCIAL RISK

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

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. In 2018, MMC Norilsk Nickel signed a new collective bargaining agreement for 2018–2021 • 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 • implements the Norilsk Upgrade project to introduce innovative solutions for sustainable social and economic development of the region • 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 while preparing the Group's public sustainability reports • provides adequate social support to redundant staff under Kola MMC's social programmes and develops the Social and Economic Development Strategy of the Pechengsky District

 Impact on goals: medium

 Source of risk: mixed

 Year-on-year change in risk: stable

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.

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 proceeds)	Compliance by Nornickel and Norilsk Nickel Group entities with the applicable laws, regulations, corporate standards, and business codes	To manage this risk, Nornickel: • continuously monitors changes in legislation and law enforcement practices across all of its business areas • conducts legal review of draft laws and regulations as well as relevant amendments • participates in discussions of draft laws and regulations, both publicly and as part of expert groups • engages its employees in relevant professional and specialist training programmes, corporate workshops, and conferences • cooperates with government agencies to ensure that new laws and regulations take into account Nornickel's interests

CLIMATE CHANGE RISKS

Impact on goals: medium

Source of risk: external

Year-on-year change in risk: stable

LACK OF WATER RESOURCES

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

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Abnormal natural phenomena (drought) caused by climate change	Efficient delivery of finished goods (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 electricity consumption in an emergency case • refurbishes its hydropower plants to increase power output through improving the hydroelectric units' performance (implementation period: 2012–2021)

Impact on goals: medium

Source of risk: external

Year-on-year change in risk: stable

PERMAFROST THAWING

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

Key risk factors	Impact on Nornickel's development goal and strategy	Mitigation
Climate change, average annual temperature increase over the last 15 to 20 years. Increased depth of seasonal permafrost thawing	Efficient delivery of finished goods (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: • regularly monitors the condition of foundation beds underneath buildings and structures built on permafrost • performs geodetic monitoring of the movement of buildings • monitors soil temperature in buildings' foundations • monitors the compliance of its facilities with operational requirements for crawl spaces • develops recommendations and corrective action plans to ensure safe operating conditions for buildings and structures