



STRATEGIC REPORT

25%-35% growth in nickel and copper production (in 2030 vs 2017)

50%-60% growth in PGM production (in 2030 vs 2017)

~2x reduction of SO₂ emissions from the Polar Division by 2023; 10x by 2026

In 2021, SO₂ emissions from the Kola Division were reduced

tenfold.

USD 35 bn of projected investments through 2030, including USD 6 bn in environmental projects.



Nornickel's strategic goal is to achieve leadership in transitioning to the future green economy and in sustainability. This means not just full compliance with all national technical and legal requirements but also meeting the highest global environmental, industrial safety and climate change management standards.



DEPUTY CHAIRMAN'S LETTER

DEAR SHAREHOLDERS,

The past year was like no other in our recent memory.

On top of COVID-related remaining restrictions, we also had to deal with two industrial incidents. We express our deepest regret that lives of our employees have been lost. I can assure you that we have provided full support to their families and will do our best to eliminate the causes of such incidents. In fact, we are now putting zero fatalities into the top of our strategic priorities.

I would like to highlight that we have amended our KPIs to bring them more in line with our sustainable development targets. Our corporate governance has been considerably revamped over the past couple of years, raising emphasis on managing sustainable development in line with best international standards.

Despite sizeable operating disruptions in the first half of the year an exceptional commitment displayed by our employees helped us to recover production in the shortest possible time and mitigate an adverse impact on financial performance. The post-Covid economic recovery also provided a tailwind to our business as the

consumption of our products substantially increased following solid demand for metals needed for the transition to green economy. Our revenue was up 15% y-o-y to USD 17.9 billion, while EBITDA increased almost 40% to record high of USD 10.5 billion.

We believe that the more you earn the more you have to share with the communities. That is why we have increased our social expenditures to almost USD 1 billion with a specific focus on a long-term renovation programme of Norilsk's housing and social infrastructure to significantly improve the quality of life of all local communities including indigenous people.

Our environmental program has reached a number of new milestones this year in Kola division, whereas Sulphur project in Norilsk is on track. We have been successful at ramping up our capex this year, which increased 60% year-on-year. Our efforts in supporting expanded capital investment program, give us comfort that we deliver on our new even more ambitious environmental targets.

We also continued to make strong progress on our plans to mitigate climate risk at our production facilities with the establishment of a Permafrost monitoring center in Norilsk as well as position the company for success in a lower-carbon energy future on a global scale. Nornickel is perhaps uniquely positioned as a major mining house to contribute to the greatest existential challenge of the 21st century, namely global warming and its environmental consequences. Our metal basket is critical to support the global transformation to a net zero world and our core growth projects aim to deliver additional volumes of nickel, PCMs and copper to the market.

Despite the geopolitical challenges and uncertainties we face, our strategic goal remains the same: to navigate Nornickel to the premier league of the future green economy and to becoming a leader in sustainability. I would like to thank the Board, Management and all employees across the world for their dedication and hard work in these endeavours.



SERGEY BATEKHIN

Deputy Chairman of the Board of Directors
MMC Norilsk Nickel



PRESIDENT'S LETTER

DEAR SHAREHOLDERS,

2021 was yet another challenging year for Nornickel; however, the coordinated efforts of our big team helped us cope with every challenge.

OPERATIONAL AND FINANCIAL PERFORMANCE

The two underground mines and Norilsk concentrator have been successfully restored to their full capacity after industrial incidents. Amid the global economic recovery after the 2020's COVID-driven recession, the demand for our metals increased rapidly in 2021, which had a favourable impact on our financial performance. Driven by higher prices of all metals in our basket, in 2021, the Company's revenue was up by 15% year-on-year to USD 17.9 billion, and EBITDA increased by almost 40% to USD 10.5 billion.

CAPEX increased 60% year-on-year to a record USD 2.8 billion, which was fully in line with management guidance. We significantly increased investments in modernisation and upgrade of equipment and other fixed assets including energy infrastructure with a focus on industrial safety and energy efficiency. Nornickel also continued delivering on its SO₂ reduction programme in Norilsk. Investment in this project tripled in 2021 to more than USD 500 million.

ENVIRONMENTAL PROTECTION, CLIMATE CHANGE AND OCCUPATIONAL HEALTH

Last June, we approved a new environmental and climate change strategy for the next 10 years. It aims to significantly improve Nornickel's environmental performance. The strategy was developed in close consultation with stakeholders using the results of a benchmarking audit of key environmental goals; it covers six main aspects of environmental impact: climate change, air, water, tailings and waste management, soils, and biodiversity. I would also like to emphasise that the new strategy is more than just a statement: it defines 20 specific environmental goals, including reduction of SO₂ emissions, compliance with TCFD principles and implementation of the Global Tailings Standard principles.

Revenue increased

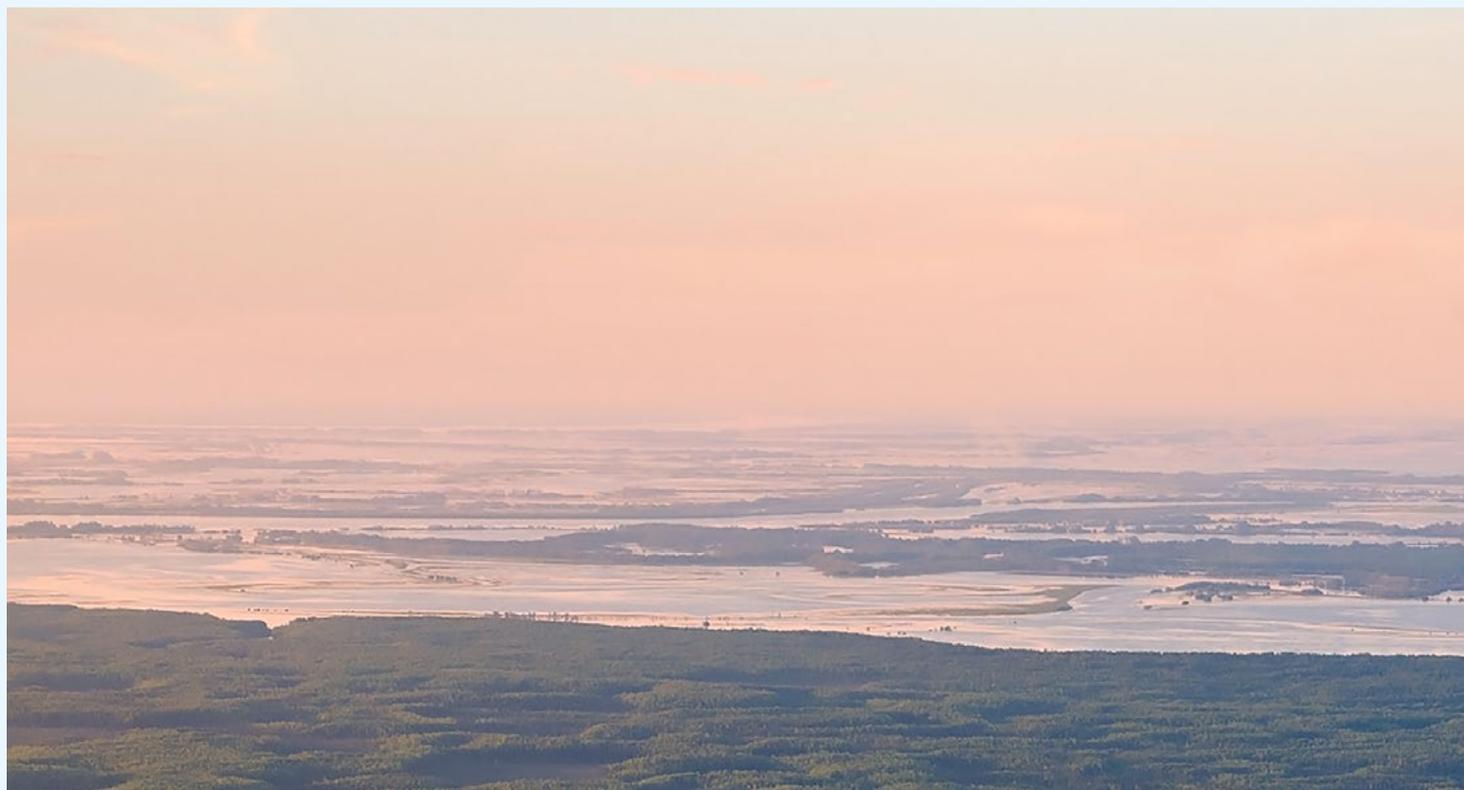
15% y-o-y

to USD **17.9** bn

EBITDA increased

40% y-o-y

to USD **10.5** bn



ENVIRONMENTAL PROTECTION, CLIMATE CHANGE AND OCCUPATIONAL HEALTH

This strategy has already started to deliver tangible results. Following the shutdown of the smelting and metallurgical shops on the Kola Peninsula, SO₂ emissions in the area decreased by 78% from 2020 and by over 90% as compared to 2015, exceeding our initial targets. In Norilsk, SO₂ emissions were down 14% year-on-year. After the completion of Phase 1 of the Sulphur Project in Norilsk – and we plan to finish it before the end of this year – we expect SO₂ emissions across the Norilsk Division to decrease by 45% next year from a 2015 baseline.

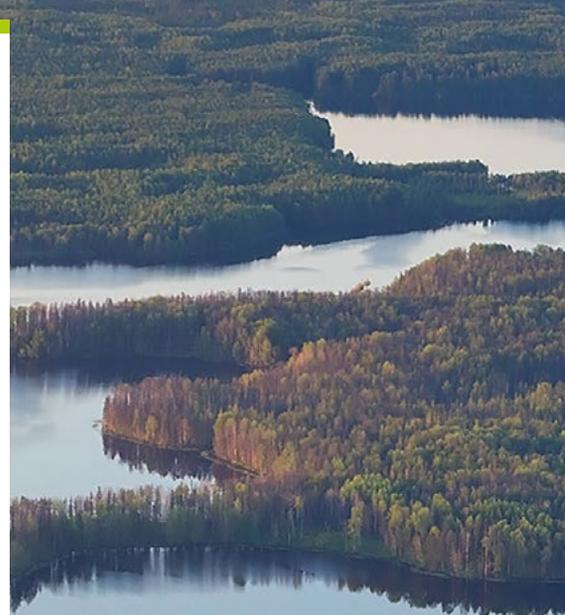
Last year, we also continued our clean-up programme in response to the environmental incident at CHPP-3 in Norilsk. Major efforts were put into remediating contaminated and disturbed land and restoring biodiversity in the area. All of these steps were taken in close cooperation with the scientific community. We used the insights gained by RAS scientists during another stage of the Great Norilsk Expedition both to assess and plan next steps in our spill clean-up programme and to develop recommendations on deploying environmental protection solutions at industrial enterprises across the Russian Arctic.

In terms of climate action, Norinickel is currently positioned in the bottom quartile

of the CO₂ emission intensity curve among all global nickel producers and has the lowest greenhouse gas emissions in absolute terms across all three scopes among major mining and metals companies, since renewable sources account for a significant portion of its power generation mix, with the rest coming from natural gas, the cleanest fossil fuel. At the same time, the Sulphur Project implementation and production growth are set to drive additional energy consumption and will therefore call for compensatory measures. The medium-term decarbonisation programme implies a reduction in Scope 1 and 2 CO₂ emissions from operations to 7.7 mln t by 2028, while emission intensity will decline by 37% to 5 tonnes per tonne of nickel equivalent.

Fatal accidents at our enterprises were caused by gross violations of safety rules. We believe that fatalities are absolutely unacceptable, so we have developed a programme that should help us achieve accident-free operations, and we hope it will soon deliver its first results.

In 2021, the Company significantly increased its social investments, which exceeded USD 1 billion, mainly by making a provision for the long-term housing and social infrastructure renovation programme for Norilsk until 2035.



SO₂ emissions from the Kola Division decreased

by **78% y-o-y**

SO₂ emissions from the Norilsk Division decreased

by **14% y-o-y**

CAPEX PROGRAMME

Last year, we reviewed our long-term investment programme for 2021–2030, increasing it to USD 35 billion. We will allocate over USD 6 billion to environmental projects and over USD 8 billion to energy infrastructure development, including accelerated upgrade of renewable assets and high-voltage power lines, as well as new natural gas production and transportation projects. Maintenance CAPEX (capital repairs and the purchase of new equipment) will account for USD 2 billion of additional long-term investments.

The Company increased its proven and probable ore reserves by nearly 600 mln t through the launch of the Technology Breakthrough 1.0 programme relying on advanced resource management and estimation tools. Nornickel also raised its 2030 long-term metal production outlook: the output of nickel and copper is expected to grow by 25%–35% and platinum group metals by 50%–60%. We plan to boost the capacity of our key downstream assets accordingly, including Talnakh and Norilsk Concentrators, Nadezhda Plant, the nickel refining facilities at Norilsk Nickel Harjavalta, and the copper refining facilities at Kola MMC.

The Company is also looking at opportunities to gain a foothold in the battery materials market through research projects and partnerships to ensure deeper integration throughout the production chain for EV batteries.

SOCIAL RESPONSIBILITY

The development of Nornickel's regions of operation is one of the Company's priorities. In early 2021, Nornickel signed a quadripartite agreement on the social and economic development of Norilsk, which envisages the renovation of housing, the upgrade and overhaul of local utilities and engineering infrastructure, the creation of a comfortable and safe urban environment and the relocation of Norilsk and Dudinka residents to other regions with a milder climate. Under the programme, RUB 120 billion will be allocated for these purposes until 2035, including RUB 81.3 billion provided by Nornickel.

In 2021, we also boosted support for the indigenous peoples of Taimyr by allocated extra RUB 100 million to financing a five-year programme aimed at protecting ancestral lands and supporting traditional activities of indigenous peoples of the North.

Just as important was the opening of a healthcare centre in Norilsk – one of the five that Nornickel plans to launch in the Norilsk Industrial District and Dudinka over the next few years as part of a programme to drive a major improvement in the quality of healthcare for local communities across our footprint.

In conclusion, I would like to thank all colleagues, contractors and customers who helped us overcome the challenges of 2021. I am confident that together we will deliver on all our long-term goals.



VLADIMIR POTANIN

President,
Chairman of the Management Board
MMC Norilsk Nickel

IMPLEMENTING THE ENVIRONMENTALLY FRIENDLY GROWTH STRATEGY

SULPHUR PROJECT 2.0


2021

Kola Division

The programme is completed.

SO₂ emissions (kt)

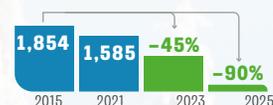


-90%
reduction achieved

Norilsk Division

The programme has entered the active construction phase.

SO₂ emissions (kt)



-90% reduction targeted by 2025



For more details, see p. 24

PRODUCTION GROWTH AND COMPREHENSIVE INFRASTRUCTURE UPGRADES


2021

Investment decisions were made to develop long-term production configuration

Key strategic projects are on track

A new area for strategic consideration: vertical integration into the battery materials production chain

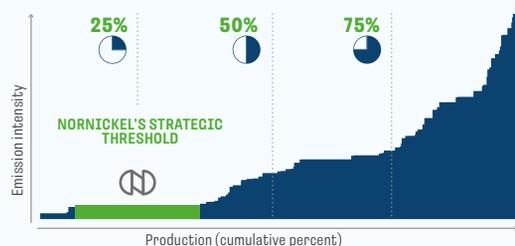


For more details, see p. 26

CLIMATE ACTION

2030 ambition: to remain a global industry leader positioned in the bottom quartile of the GHG intensity curve

Emission intensity curve for nickel (t of CO₂ equivalent / t of Ni equivalent)



Strategic ambitions for metal production²

Ni

Growth (kt)
+25%–35%


Cu

Growth (kt)
+25%–35%


Pt Pd

Growth (t)
+50%–60%



¹ Norilsk Industrial District.

² Metals produced from our own feedstock (including metals in semi-products for sale), excluding production at the Bystrinsky project and Nkomati.



MORE GREEN METALS...

NORNICKEL IMPLEMENTS THE ENVIRONMENTALLY FRIENDLY GROWTH STRATEGY THAT NOT ONLY LAYS OUT LONG-TERM METAL PRODUCTION AND CAPITAL INVESTMENT TARGETS BUT ALSO SETS OUT CONCRETE ACTION PLANS TO REDUCE THE COMPANY'S ENVIRONMENTAL FOOTPRINT IN ITS REGIONS OF OPERATION.



...FOR A GREENER FUTURE

EXPANDED INVESTMENT CYCLE



2021

The long-term investment programme was updated

Capital project scopes were adjusted

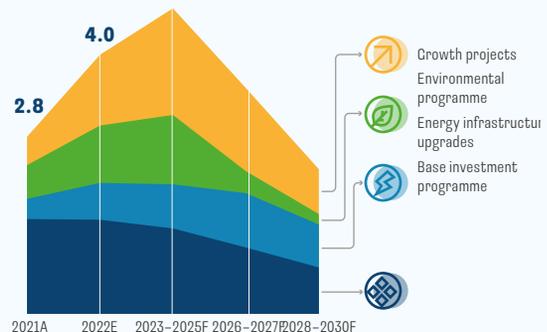
Systematic efforts were continued to build capital construction capabilities



For more details, see p. 30

STRATEGIC AMBITIONS INVESTMENT PROGRAMME

CAPEX (USD bn)



For more details, see p. 31



Sulphur Project 2.0

ENVIRONMENTAL ROADMAP

KOLA DIVISION

SMELTING SHOP

⊗ Shut down in December 2020

METALLURGICAL SHOP

⊗ Shut down in March 2021

Nikel
Monchegorsk

DECEMBER 2020

Smelting shop in Nikel shut down

- Complete elimination of cross-border emissions

MARCH 2021:

Copper refining line in Monchegorsk shut down

- Significant air quality improvement in Monchegorsk
- 90% reduction in sulphur dioxide emissions from Kola MMC in 2021 (vs 2015)
- Construction of a new copper refining line based on modern environmentally-friendly technology
- Production flows redirected to the Norilsk Division, with an option of partial sales to third parties

2021 In progress In progress Strategic aspiration

2021 **2023** **2025** **2030+**

Shutdown of an obsolete copper refining line on the Kola Peninsula

Metallurgical shop shut down on 20 March 2021.

Launch of the Sulphur Project 2.0 at Nadezhda Plant to recover furnace gases

Launch of the Sulphur Project 2.0 at Copper Plant to recover furnace and converter gases

Recovery of low-sulphur gases (including converter gases) at Nadezhda Plant

Reduction in total SO₂ emissions at the Kola and Norilsk Divisions¹

¹ From a 2015 baseline.

-90%

10x

-45%

2x

-90%

10x

-95%

20x+

NORILSK

DIVISION

NADEZHDA
METALLURGICAL
PLANT

COPPER PLANT

Norilsk

NICKEL PLANT

✘ Shut down in 2016

**COMPREHENSIVE
SOLUTION
TO A LEGACY
PROBLEM OF
SULPHUR DIOXIDE
EMISSIONS**

NADEZHDA METALLURGICAL PLANT:

FLAGSHIP PROJECT

Construction of furnace gas recovery facilities, a sulphuric acid neutralisation line and associated infrastructure:

- All key contracts signed
- Piling, steel works and gypsum storage dam raising are in progress
- The project provides for gas recovery following an expansion of the smelting shop's capacity (construction of the 3rd furnace)

COPPER PLANT

The project aims to recover 99%–99.5% of SO₂ (in line with global best practice) and implies the construction of a continuous converting complex and an acid neutralisation line:

- Phase 1: gas cleaning unit retrofit – in progress
- Phase 2: basic engineering / design completed
- FID taken in June 2021, construction to commence in 2022

Investment

**USD
4.1–4.3
bn**

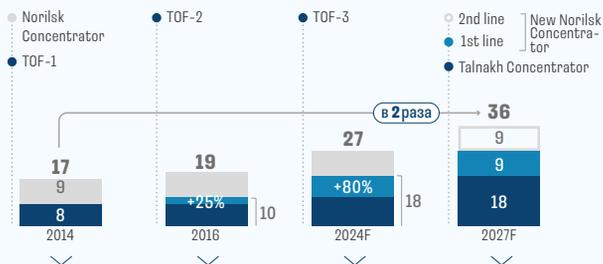
Production growth and comprehensive infrastructure upgrades

PRODUCTION CONFIGURATION ROADMAP



CONCENTRATOR CAPACITY UPGRADES

Concentration capacity (Mtpa)



Talnakh Concentrator upgrades

Phase 1:

Increased and optimised operating rate
Improved nickel recovery rate (+1%)
Upgraded facilities

Phase 2:

Capacity increased to 10.2 Mtpa
New technology adopted

Phase 3:

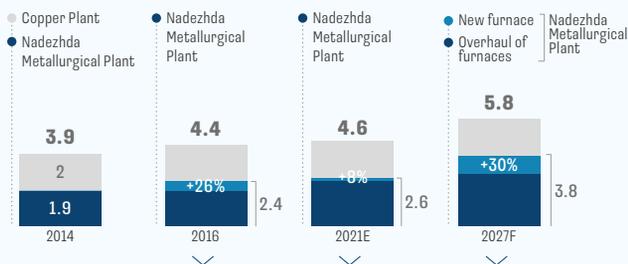
Under construction
Target capacity: 18 Mtpa
Improved recovery rate (+4%–7%)

New Norilsk Concentrator

Targeted capacity addition: up to 18 Mtpa
New production facility based on proven modern technology

SMELTING CAPACITY UPGRADES

Smelting facilities throughput (Mtpa)



Nadezhda Metallurgical Plant

Phase 1

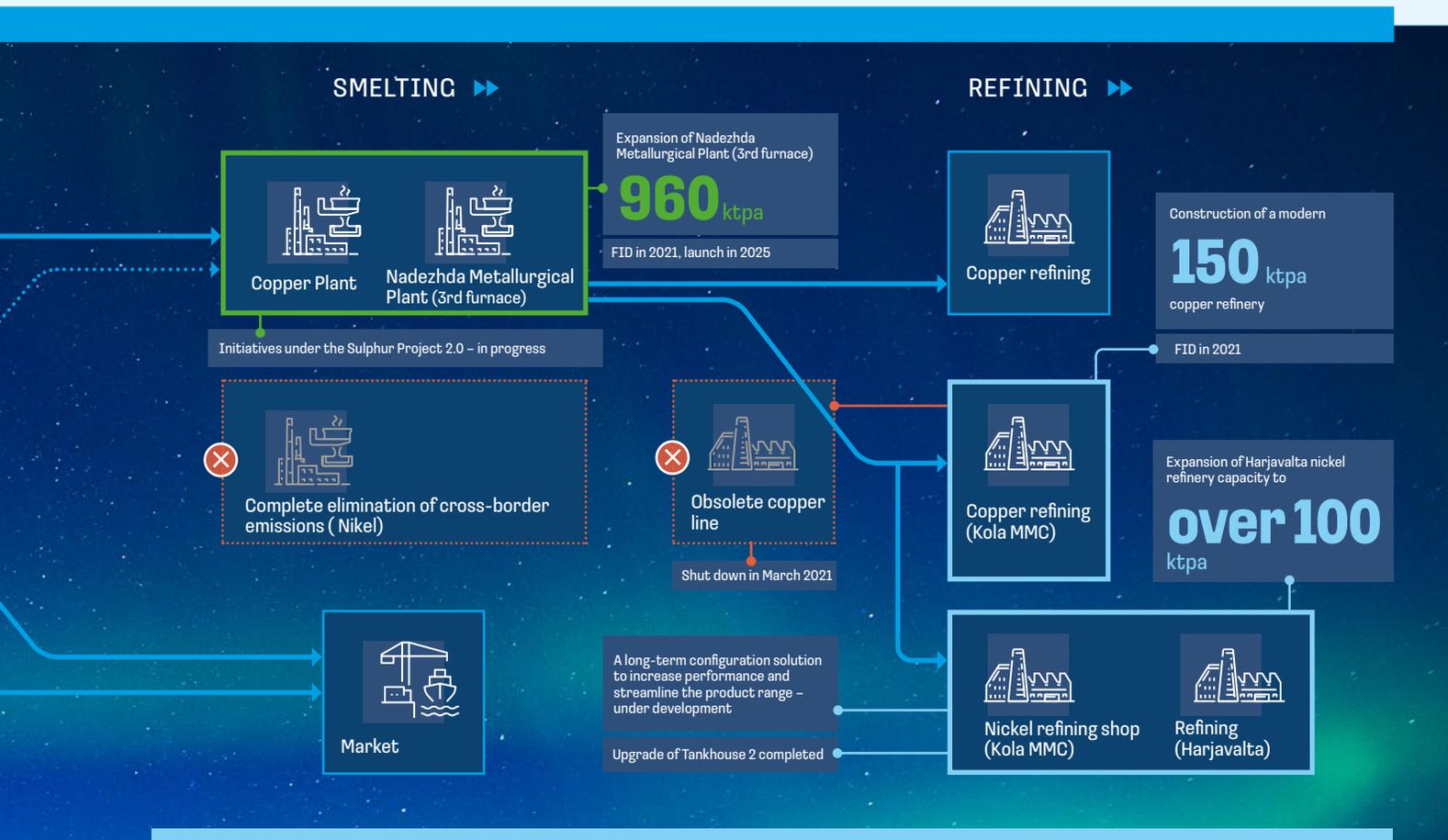
Upgrade of flash smelting furnaces to expand throughput to 2.4 Mtpa
Smelting, concentrate drying and filtering facilities upgraded

Phase 2

Debottlenecking initiatives
Throughput increased to 2.6 Mtpa

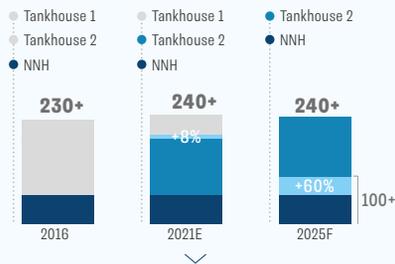
Maintenance of flash smelting furnaces at Nadezhda Metallurgical Plant in 2022–2024

3rd furnace at Nadezhda Metallurgical Plant
Continuous converting complex at Copper Plant



REFINING CAPACITY UPGRADES AND EXPANSION

Nickel refining (ktpa)

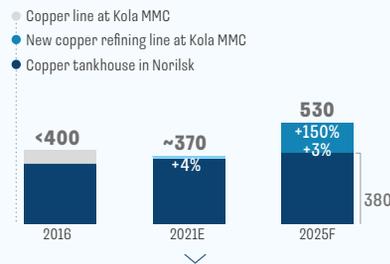


Kola Division

Tankhouse 2: Technological upgrade and capacity expansion

Harjavalta (NNH) capacity expansion to 100+ ktpa of high-quality nickel products

Copper refining (ktpa)



Kola Division

Obsolete copper line in Monchegorsk shut down (March 2021)

Construction of a new 150 ktpa copper refining line using the roasting, leaching and electrowinning technology

Norilsk Division

Incremental capacity expansion of the copper tankhouse in Norilsk

HARJAVALTA NICKEL REFINERY: EXPANSION

Project overview

- Capacity expansion to boost the output of high-quality nickel products
- Capturing operational synergies from existing infrastructures

Project rationale

The decision to increase capacity is driven by a growing European market demand for the Company's high-quality battery materials with the industry's lowest carbon footprint

Project timeline

2023: Phase 1

75
kt Ni¹

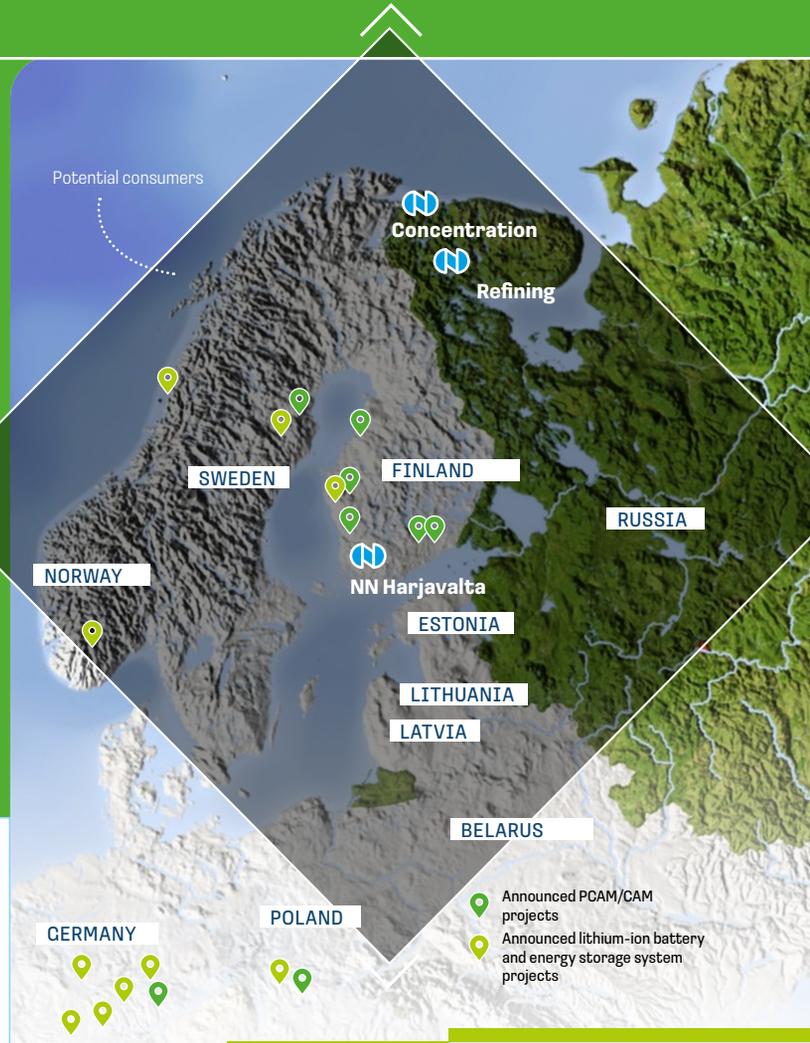
2026: Phase 2

>100
kt Ni¹

¹ Total capacity

BATTERY MATERIALS VALUE CHAIN

THE IMPLEMENTATION OF A NEW HIGH-POTENTIAL STRATEGIC PROJECT WILL DRIVE THE COMPANY'S INTEGRATION INTO EUROPE'S BOOMING BATTERY SECTOR



NORNICKEL'S PLANS:



Boost nickel product output to serve the emerging ecosystem of battery materials production in Finland



Consider different requirements of potential customers with a view to establishing a foothold in the European battery materials market



Expand Nornickel's capabilities through research and partnerships to promote integrated solutions for the future battery supply chain

Conventional products

- Nickel sulphate
- Briquettes
- Nickel powder
- Carbonyl powder
- Cut cathodes
- Cobalt products

High-quality product offering for the battery sector

Customised offering tailored to the needs of prospective battery materials producers

Further integration into the value chain

Precursors and cathode materials
Black mass production and processing

COMPREHENSIVE INFRASTRUCTURE UPGRADES



ENERGY

Expanded and accelerated energy infrastructure upgrades

Programme expansion objective:

Accelerated replacement of obsolete equipment and increased long-term reliability to ensure uninterrupted power supply to the Norilsk Industrial District, taking into account the long-term production growth programme

Contribution to decarbonisation and energy efficiency

Reinforced emphasis on higher capacity of the new generating units at CHPPs and HPPs and comprehensive energy loss reduction throughout the electricity value chain



GAS PRODUCTION AND TRANSPORTATION

- Construction of a new 70+ km gas and gas condensate pipeline (Pelyatkinskoye gas condensate field – Messoyakhskoye gas field)
- Upgrade of 150+ km of gas and gas condensate pipelines
- Construction and commissioning of new wells at the Pelyatkinskoye gas condensate field



HEAT AND WATER SUPPLY NETWORKS

- Accelerated replacement of 110-kV and 220-kV power lines (over 1,000 km)
- Upgrades of heat and water supply networks



COMBINED HEAT AND POWER PLANTS

- Replacement of generating units at CHPP-1, CHPP-2 and CHPP-3
- Construction of two new units at CHPP-3



HYDROPOWER PLANTS

- Upgrade of all seven hydraulic turbines at Ust-Khantayskaya HPP was completed. CO2 savings exceeded 300 Ktpa
- The upgrade of Kureyskaya HPP is scheduled for 2023–2030, targeting capacity expansion and efficiency improvement resulting in CO2 emission reduction

LOGISTICS

Logistics Infrastructure Development Programme

Programme rationale

- Growing shipments of construction equipment and raw materials as the investment programme is entering its active phase
- Accelerated pace of production equipment modernisation
- Expansion of Northern Sea Route operations and increased freight volumes for major investment projects in the Russian Arctic

Major projects

- A 50% throughput increase at Dudinka port (the Gateway to Taimyr)
- Construction of a new LNG dual-fuel icebreaker – innovative environmentally friendly and more efficient vessel type for the Russian Arctic
- All harbour cranes at Dudinka port to be upgraded by 2027



Investment

USD **8** bn

Expanded investment cycle

CAPEX

(USD BN)



GROWTH PROJECTS



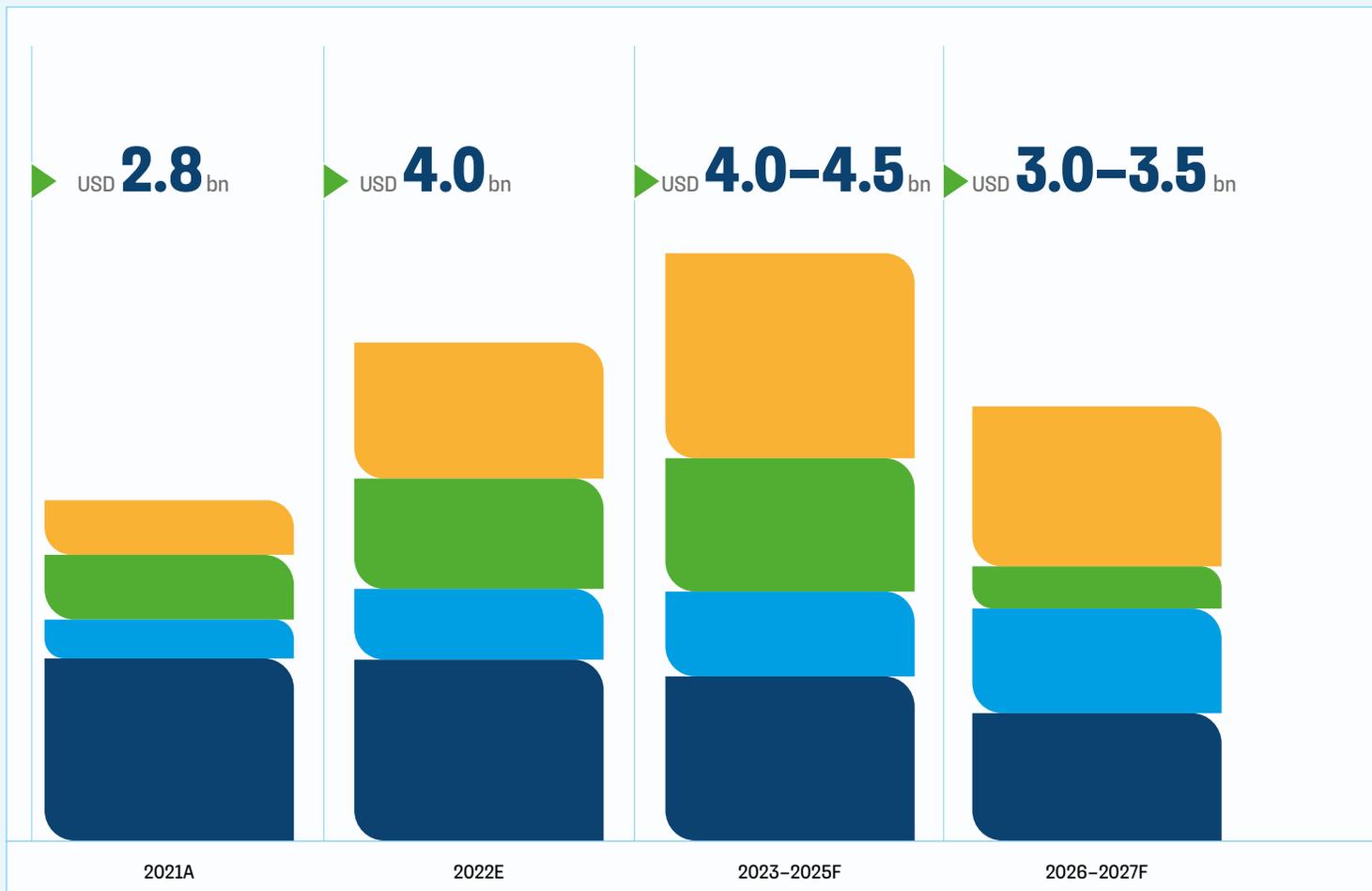
ENERGY INFRASTRUCTURE UPGRADES



ENVIRONMENTAL PROGRAMME



BASE INVESTMENT PROGRAMME



CONSTRUCTION COST INFLATION
FOR ONGOING INVESTMENT
PROJECTS

ACCELERATION AND EXPANSION
OF INFRASTRUCTURE UPGRADES:
ENERGY AND LOGISTICS

DEVELOPING CAPABILITIES TO DELIVER THE LONG-TERM CAPITAL CONSTRUCTION INVESTMENT PROGRAMME

~USD **2.5** bn



2028–2030F

COMPREHENSIVE UPGRADES
OF PRODUCTION ASSETS,
ENVIRONMENTAL PROGRAMME
EXPANSION

CONTRACTORS

- Doubling of the number of contractors in Norilsk
- 2020–2021: mobilisation started by several major construction companies
- Independent construction supervision services rolled out at several key projects

INFRASTRUCTURE

- Logistics debottlenecking programme under way, targeting a 1.5x throughput increase
- 300+ pieces of new construction equipment to be purchased in 2022
- 2022–2023: expansion of contractor housing facilities / accommodation in rotation camps to over 11,000 beds (+3,000 beds)

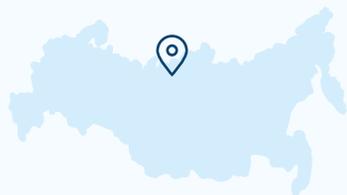
INTERNAL CAPABILITIES

- Development of in-house design resources (Cipronickel Institute: more than 1,000 experts in engineering and design)
- Improvement of project design and management tools (3D/BIM, value/cost engineering)
- Establishment of a dedicated organisation, NN Development (responsible for implementing major growth projects)
- Headcount of PMOs and support and control functions to exceed 2,900 employees in 2022–2023 (vs 1,235 in 2019)



KEY STRATEGIC PROJECTS

South Cluster



Location: Norilsk Division, Norilsk industrial District, Krasnoyarsk Region

Project description: in 2017, the South Cluster was spun off as a separate legal entity Medvezhy Ruchey, a wholly-owned subsidiary of the Norilsk Division. The South Cluster includes the Norilsk-1 deposit with disseminated ore reserves of over 140 mln t, Zapolyarny Mine (open-pit and underground mining), Norilsk Concentrator, and two tailings storage facilities: No. 1 and Lebyazhye.

Ore production schedule

Period	2022	2023	2024
Ore output, mln t	2-3	3-4	5-6

2027 mining targets

Ore output
9 mln t

PGMs
750-850 koz

Ni
over 13 kt

Cu
over 20 kt

THE PROJECT AIMS TO RAMP UP ANNUAL ORE PRODUCTION TO 9 MTPA BY 2027 BY EXPANDING THE PIT AT THE FIRST STAGE AND BY UNDERGROUND MINING AT THE SECOND STAGE. INVESTMENTS TOTALLED USD 304 MILLION (RUB 22.3 BILLION) IN 2021.

PROJECT IMPLEMENTATION STAGES

2021

- Development striping completed
- Positive opinion of the Main Department of State Expertise (CGE) secured
- Tendering for the construction of major facilities completed
- Contracts for the construction of major facilities signed

2022-2023

- Plans to complete the construction of the open pit (Stages 2 and 3) and the underground mine (Stage 2)

Bystrinsky GOK

The Company owns 50.01% in GRK Bystrinskoye (Bystrinsky GOK).



Location: Gazimuro-Zavodsky District, Zabaykalsky Region

Project overview: Bystrinsky GOK is Nornickel's greenfield project, which includes an open pit mine at the Bystrinskoye deposit, a mining and processing plant (GOK) with all associated infrastructure including a power line and the 227-km Borzya-Gazimursky Zavod railway

line (Nornickel 25%, the government 75%), as well as a rotation camp. Bystrinsky GOK came online in 2019 and ramped up to design capacity in 2020. The project's EBITDA for 2021 was USD 1,076 million (2020: USD 717 million).

Operational highlights

Item	2021	2022П
Ore processing, mln t	10.5	10.5
Copper in concentrate, kt	67.8	64-68
Gold in concentrate, koz	258	225-245



Proven and probable ore reserves:

281
mln t, with

copper content
~0.6%,

iron in magnetite ore
~14.9%,

gold
~0.63 g/t.

Concentrator capacity upgrades

TOF-3 PROJECT



Location: Talnakh Concentrator, Norilsk Division, Norilsk industrial District, Krasnoyarsk Region

Project overview: upgrade of Talnakh Concentrator (TOF) includes three stages:

- TOF-1 (completed in 2015): equipment upgrade, resulting in a 1% increase in nickel recovery
- TOF-2 (completed in 2018): new mills installed; the concentrator capacity increased to 10.2 Mtpa; the first stage of the tailings storage facility launched
- TOF-3 (under construction; scheduled for completion in 2023; ramp-up to design capacity by 2024): plans to increase capacity to 18 Mtpa (with a 4%–7%

increase in recovery), build the second stage of the tailings storage facility, increase the capacity of ore products storage to 190 million m³. Investments into TOF-3 will total RUB 74.8 billion (more than USD 1 billion). In 2021, RUB 12.3 billion (USD 167 million) were spent, including investment in the construction of the tailing dump's 2nd Stage

MAIN STAGES OF THE TOF-3 PROJECT

2021:

- A construction and installation contract with a general contractor and an equipment supply contract concluded

2022:

- Planned completion of the detailed design phase
- Conveyor equipment delivery

2023-2024:

- Planned delivery and installation of equipment
- Completion of construction and installation, startup and commissioning

NOF PROJECT

Location: Norilsk Concentrator, Norilsk Division, Norilsk Industrial District, Krasnoyarsk Region

Project overview: construction of a new concentrator to process disseminated ores with a throughput capacity of up to 18 Mtpa of ore to replace the existing Norilsk

Concentrator. The new concentrator will meet all industrial safety requirements while ensuring uninterrupted operations. The construction is planned to be carried out in two stages and completed in 2026–2027:

- Stage 1: startup of the first section with a capacity of 9 Mtpa of ore
- Stage 2: startup of the second section for the co-processing of disseminated ores from Talnakh and ores from the South Cluster and Maslovskoye deposit, with a total capacity of 9 Mtpa of ore

MAIN STAGES OF THE PROJECT



2021:

- Engineering surveys completed

2022–2023:

- Planned development of Main Technical Solutions and design documents
- Construction of a dormitory
- Procurement of equipment



Smelting capacity upgrades



Location: Nadezhda Metallurgical Plant, Norilsk Division, Norilsk Industrial District, Krasnoyarsk Region

Project overview: upgrade of smelting facilities at Nadezhda Metallurgical Plant to boost output and have spare capacity.

Nadezhda Metallurgical Plant facilities will be upgraded in three stages:

- Stage 1 (completed in 2016): flash smelting furnaces upgraded to boost output to 2.4 Mtpa
- Stage 2 (completed in 2021): output increased to 2.6 Mtpa
- Stage 3 (under construction, scheduled for completion by 2025) includes the construction of a third furnace with a capacity of 960 ktpa, to be integrated into the Sulphur Project 2.0 The Sulphur Project 2.0 includes gas capture, sulphur dioxide recovery and sulphuric acid production for subsequent neutralisation with limestone
- Investments into the furnace project will total RUB 105.5 billion (about USD 1.4 billion), including RUB 1.8 billion (USD 24 million) in 2021.

PROJECT IMPLEMENTATION STAGES

2021:

- Engineering and cost-estimate documentation completed
- Positive opinion of state environmental review secured
- Manufacturers of core equipment selected

2022–2025:

- Plans to obtain a positive opinion of the Main Department of State Expertise
- Obtaining a construction permit
- Contractor selection and construction and installation phases
- Detailed design
- Equipment and material delivery

Refining capacity upgrades



Location: Kola Division, Monchegorsk, Murmansk Region

Project overview: a project to build a new copper refining facility including a new roasting, leaching and electrowinning line with a capacity of 150 ktpa of copper. Startup is scheduled for 2025, with investments in the project totalling about RUB 107 billion (USD 1.4 billion), including RUB 1.1 billion (USD 15 million) in 2021.

PROJECT IMPLEMENTATION STAGES

2021:

- EP contracts for engineering, equipment supply and on-site services concluded
- Contracts for engineering surveys and dismantling concluded

2022:

- Plans to conclude C contracts for construction and installation
- Execution of EP contracts

Sulphur Project in the Norilsk Division

Location: Norilsk Division, Norilsk industrial District, Krasnoyarsk Region



Project overview: The Sulphur Project 2.0 in the Norilsk Division is the largest environmental project in Russia aimed at gradual reduction of sulphur dioxide emissions in the Norilsk Industrial District by 90% from a 2015 baseline. Investments in the project will total about USD 4.1–4.3 billion between 2019 and 2025. A total of RUB 39 billion (USD 526 million) were

invested in the project in 2021. The project is implemented in stages at the Company's two core downstream facilities.

RUB 39 bn were invested in the project in 2021.

NADEZHDA METALLURGICAL PLANT

The project includes the construction of furnace gas recovery facilities, a sulphuric acid neutralisation line, and associated infrastructure, including a gypsum storage facility. The project provides for the recovery of gases from smelting operations, covering the smelting expansion (the third

smelting complex project). The expected impact includes a reduction of total SO₂ emissions from the Norilsk Division facilities by 45% in 2023 from a 2015 baseline. Total investment is RUB 98.8 billion, including RUB 32.2 billion (USD 438 million) in 2021.

RUB 32.2 bn were invested in the project in 2021.



PROJECT IMPLEMENTATION STAGES

2021:

- Construction and installation contracts concluded
- Four general contractors engaged, almost 2 thousand employees and over 232 items of machinery mobilised
- Core equipment contracted and is in the process of delivery
- Foundations laid, steel structures erected, building walls constructed, and gypsum storage dam built
- Transport corridor provided for the transportation of structures and equipment
- Installation of core equipment (ball mills, sulphuric acid tanks, wet electrostatic precipitators, cooling towers, mixing towers, and pipelines) commenced

2022:

- Plans for the startup and commissioning of the first stage

COPPER PLANT

The Sulphur Project 2.0 at Copper Plant includes several key projects.

Construction of a continuous converting complex and an acid neutralisation line. The expected impact includes a reduction of total SO₂ emissions from the Norilsk Division facilities by 90% in 2025 from a 2015 baseline. Investment in the project will total RUB 53.7 billion, including RUB 0.96 billion (USD 13 million) in 2021.

Upgrades of existing and construction of new facilities at Copper Plant to recover SO₂ from metallurgical furnace off-gases and produce sulphuric acid, with recovery in excess of 99.5%. In 2021, Main Technical Solutions were developed, engineering surveys completed, a construction contractor selected, an EP contract to supply core equipment and develop design documents signed, and the selection process for a construction contractor is underway. Investment in the project will total RUB 73 billion, including RUB 3.4 billion (USD 47 million) in 2021.

RUB 3.4bn were invested in the project in 2021.



A KEY INITIATIVE WITHIN THE SULPHUR PROJECT 2.0 IS TO LAUNCH THE NEUTRALISATION OF SULPHURIC ACID PRODUCED AT COPPER PLANT AND STORING 4 MTPA OF THE RESULTING GYPSUM IN A GYPSUM STORAGE FACILITY.

To accomplish this, survey and engineering activities began in 2021, the Main Technical Solutions were developed, and public consultations were held. Investment in the project will total RUB 51 billion, including RUB 193 million (USD 3 million) in 2021.

Sulphur Project in the Kola Division

Location: Kola Division, Murmansk Region



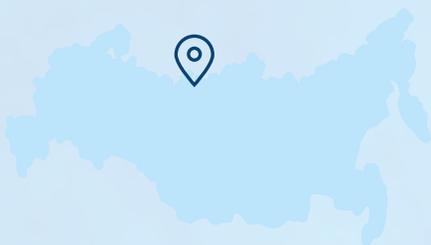
Project overview: The Sulphur Project 2.0 in the Kola Division was completed in 2021. The copper refining facility in Monchegorsk was shut down in March 2021 and smelting shop in Nickel town was shut down in December 2020, reducing sulphur dioxide emissions from Kola MMC by 78% in 2021 compared to 2020 and 90% in 2021 compared to a 2015 baseline.

Reducing SO₂ emissions from Kola MMC

by **78%** y-o-y

by **90%** 2021 vs 2015

Energy infrastructure upgrades



RUB 23.2 billion

(USD 316 million) were invested in 2021.

Nornickel operates its own energy assets, which comprise four natural gas fields, three combined heat and power (CHP) plants (CHPP-1, CHPP-2, and CHPP-3), two hydropower plants (Ust-Khantayskaya HPP and Kureyskaya HPP), as well as gas pipelines and power lines. Electricity is generated from renewable (hydropower) and non-renewable (natural gas) sources.

Location: Norilsk Industrial District, Krasnoyarsk Region

Project description: investment in energy infrastructure to replace obsolete HPP turbines and CHPP units, and retrofit key elements of the gas transmission system and power lines. These initiatives will markedly extend the service life of our key infrastructure facilities, enhance the reliability of our energy and gas supply, increase the amount of renewable energy generated and provide for lower energy losses. Investments in energy assets planned for 2021–2030 will exceed RUB 600 billion (more than USD 8 billion). RUB 23.2 billion (USD 316 million) were invested in 2021.



COMBINED HEAT AND POWER PLANTS

- Replacement of generating units at CHPP-1, CHPP-2, and CHPP-3 (2022–2029)
- Construction of two new units at CHPP-3 (scheduled for completion at the end of 2025)



HYDROPOWER PLANTS

- Upgrade of all seven hydropower units at the Ust-Khantayskaya HPP (completed in 2021)
- Upgrade of the Kureyskaya HPP to expand installed capacity, improve efficiency, and reduce emissions from CHP plants by increasing the share of hydropower generation (2023–2030)





GAS PRODUCTION AND TRANSPORTATION

- Construction of 70+ km of a new pipeline along the Pelyatkinskoye gas condensate field – Messoyakhskoye gas field route (scheduled for completion at the end of 2025)
- Upgrade of 150+ km of gas and gas-condensate pipelines (scheduled for completion at the end of 2028)
- Construction and commissioning of new wells at the Pelyatkinskoye gas condensate field (starting in 2025)



UTILITIES

- Accelerated replacement of 110-kV and 220-kV power lines (over 1,000 km)
- Upgrades of heating and water supply networks