



Nornickel Group's 2023 Sustainability Performance



DISCLAIMER

The information contained herein has been prepared using information available to PJSC MMC Norilsk Nickel ("Norilsk Nickel" or "Nornickel" or "NN") at the time of preparation of the presentation. External or other factors may have impacted on the business of Norilsk Nickel and the content of this presentation, since its preparation. In addition all relevant information about Norilsk Nickel may not be included in this presentation. No representation or warranty, expressed or implied, is made as to the accuracy, completeness or reliability of the information. Any forward looking information herein has been prepared on the basis of a number of assumptions which may prove to be incorrect.

Forward looking statements, by the nature, involve risk and uncertainty and Norilsk Nickel cautions that actual results may differ materially from those expressed or implied in such statements. Reference should be made to the most recent Annual Report for a description of major risk factors. There may be other factors, both known and unknown to Norilsk Nickel, which may have an impact on its performance. This presentation should not be relied upon as a recommendation or forecast by Norilsk Nickel. Norilsk Nickel does not undertake an obligation to release any revision to the statements contained in this presentation.

The information contained in this presentation shall not be deemed to be any form of commitment on the part of Norilsk Nickel in relation to any matters contained, or referred to, in this presentation. Norilsk Nickel expressly disclaims any liability whatsoever for any loss howsoever arising from or in reliance upon the contents of this presentation.

Certain market share information and other statements in this presentation regarding the industry in which Norilsk Nickel operates and the position of Norilsk Nickel relative to its competitors are based upon information made publicly available by other metals and mining companies or obtained from trade and business organizations and associations. Such information and statements have not been verified by any independent sources, and measures of the financial or operating performance of Norilsk Nickel's competitors used in evaluating comparative positions may have been calculated in a different manner to the corresponding measures employed by Norilsk Nickel.

This presentation does not constitute or form part of any advertisement of securities, any offer or invitation to sell or issue or any solicitation of any offer to purchase or subscribe for, any shares in Norilsk Nickel, nor shall it or any part of it nor the fact of its presentation or distribution form the basis of, or be relied on in connection with, any contract or investment decision.



01 Relevance of sustainability

Vladimir Zhukov

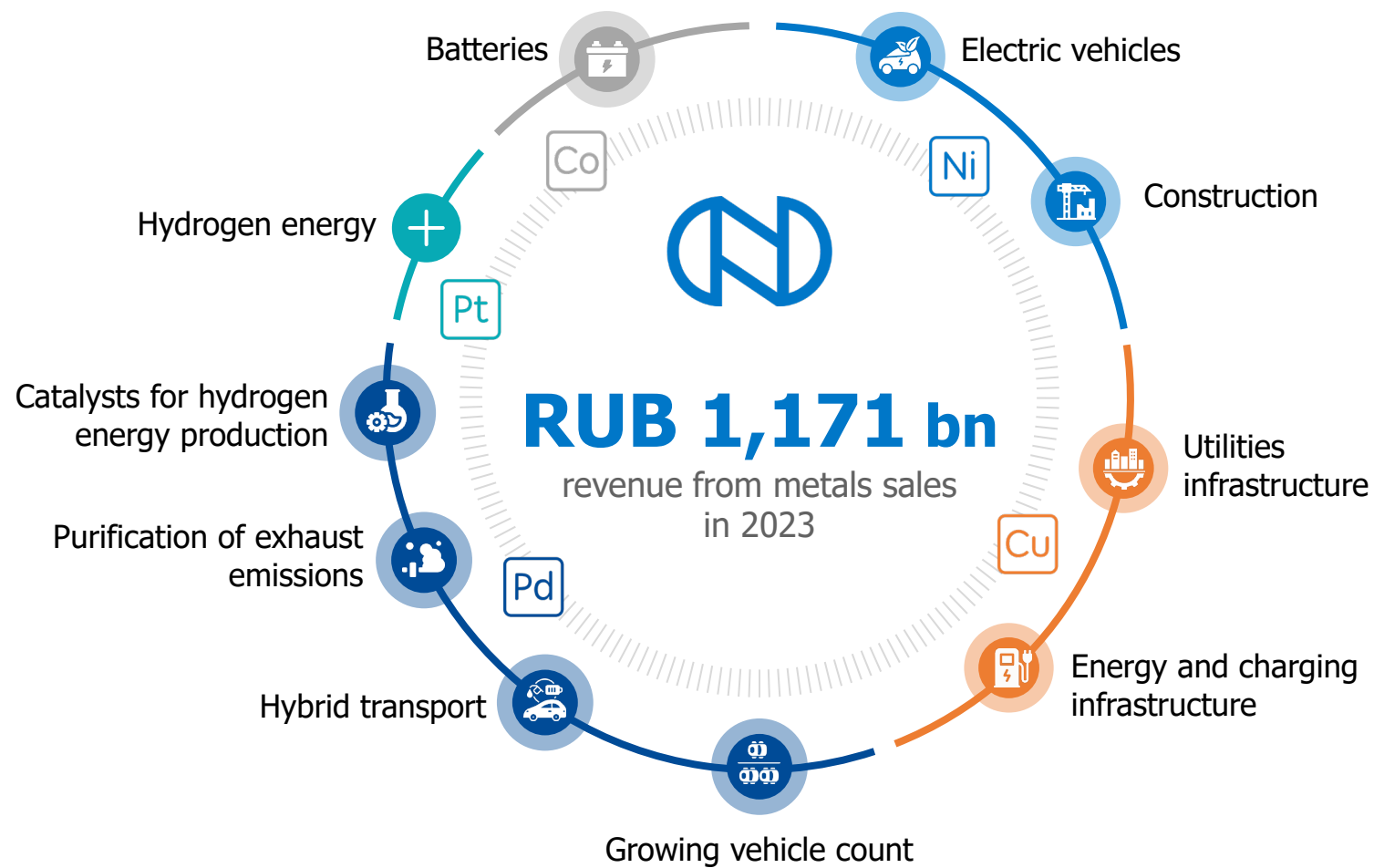
Vice President for IR and Sustainable Development

NORNICKEL IS RUSSIA'S INDUSTRY AND SUSTAINABILITY LEADER

Nornickel's contribution to the Russian economy



GREEN METAL BASKET



Source: Company estimates.

KEY AREAS OF NORNICKEL'S SUSTAINABLE DEVELOPMENT STRATEGY

SOCIAL POLICY

- Improving the well-being of local communities
- Improving safety and working conditions
- Developing technologies and products to foster technological and social progress
- Cultivating talent management and corporate culture

ENVIRONMENT

- Focusing on key priorities: air, water, soil, tailings and waste, biodiversity
- Undertaking 300 initiatives planned for implementation by 2031
- Pursuing a strategy structured in two parts:
 - mandatory part (seven focus areas)
 - voluntary part



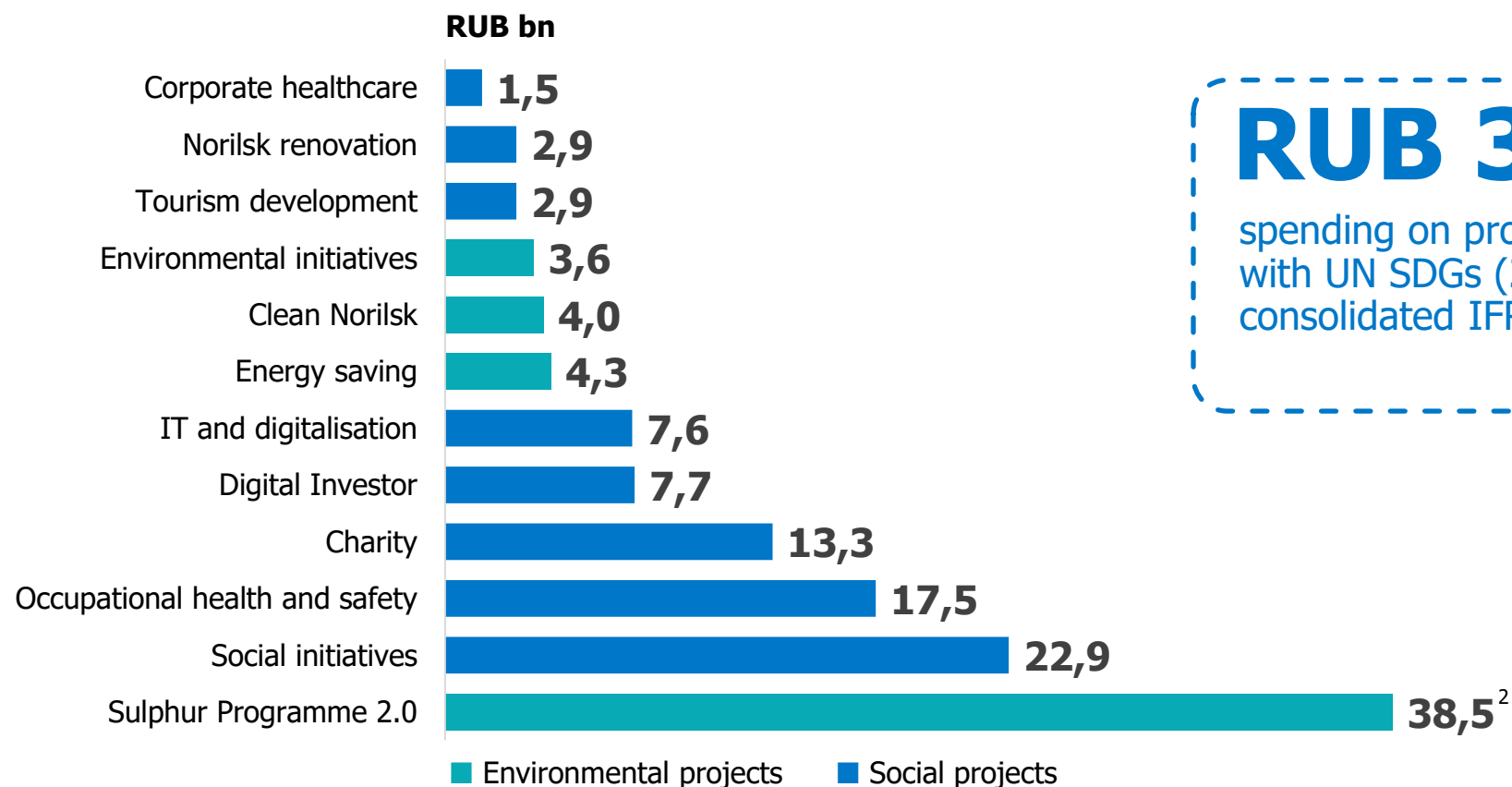
INNOVATION AND SALES

- Developing new products
- Mitigating market risks
- Scaling up production of high value-added products
- Leveraging the Company's metals portfolio to pursue market-driven R&D of new products

IMPROVED INVESTMENT CASE

- Enhancing the Company's appeal for Russian retail investors
- Upholding excellence in information disclosure
- Developing new investor engagement channels
- Implementing the Digital Investor Programme

SPENDING ON KEY PROJECTS IN SUSTAINABILITY IN 2023



Source: Company data for 2023.

Notes: 1. Operating and capital expenditures. | 2. Including the share in the DI-VTP 6.5 limestone project.

NORNICKEL'S CONTRIBUTION TO RUSSIA'S NATIONAL SUSTAINABILITY PROJECTS

	NATIONAL PROJECT	NORNICKEL'S PROJECT
E	<ul style="list-style-type: none"> • Clean Air • Clean Country • Biodiversity Conservation and Ecotourism Development 	<ul style="list-style-type: none"> • Sulphur Programme 2.0 • Clean Norilsk • Big Scientific Expedition
S	<ul style="list-style-type: none"> • Demography • Healthcare 	<ul style="list-style-type: none"> • Creating jobs in the regions of operation • Corporate Healthcare project in the regions of operation
G	<ul style="list-style-type: none"> • SME Expansion • Housing and Urban Environment 	<ul style="list-style-type: none"> • Integration of local businesses into the Group's production chain • Norilsk renovation programme

NORNICKEL'S CONTRIBUTION

~50%
share in the Clean Air project investment

>20%
share in the Clean Country project investment

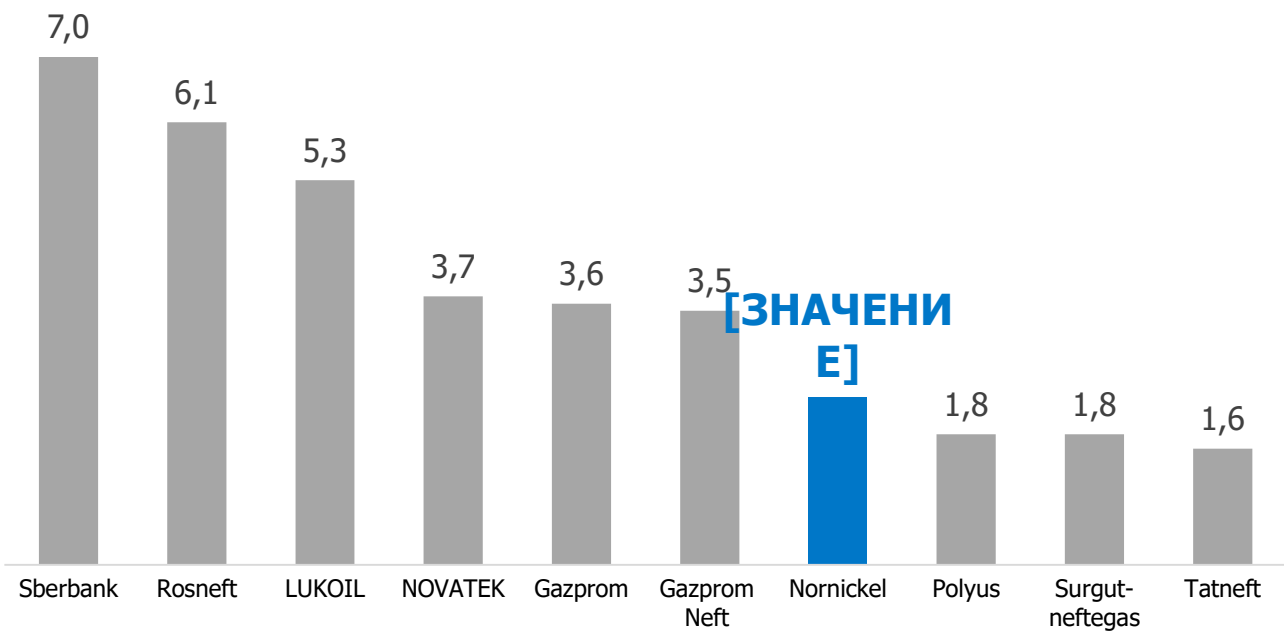
>5%
share in the Housing and Urban Environment project investment

Source: Company data and estimates.

NORNICKEL, RUSSIA’S BLUE-CHIP, NOW MORE ACCESSIBLE TO RETAIL INVESTORS

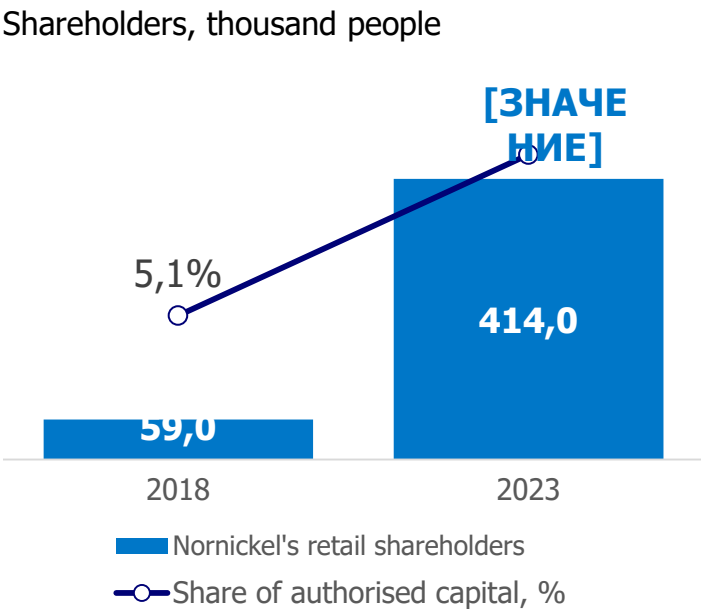
2023: DECISION ON NORNICKEL SHARE SPLIT

Largest Moscow Exchange listed companies by market cap, RUB tn



Source: Company data for 2023.

Nearly 7x growth in Nornickel retail shareholder base since 2018



20 YEARS OF NON-FINANCIAL REPORTING BY NORNICKEL



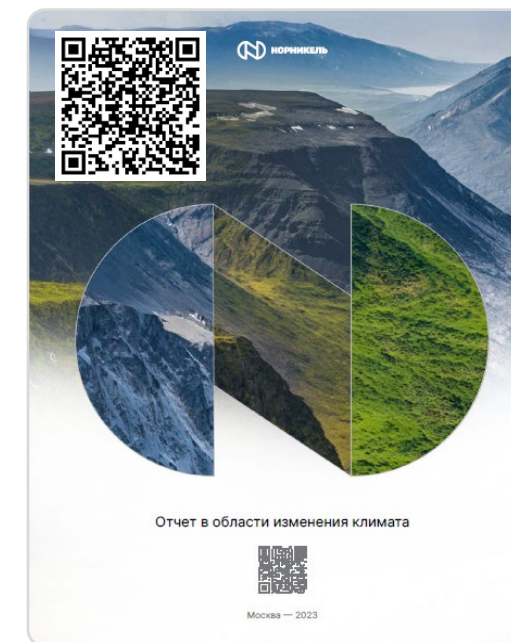
In line with GRI Standards (2021)



In line with OECD standard



In line with CHRB



In line with TCFD



Top award in the nomination
For High Quality of Reporting on
Sustainable Development / ESG

>40

awards for non-financial reports at
Russian and international reporting
competitions over 20 years

2x

growth in the number
of GRI metrics disclosed
over 20 years

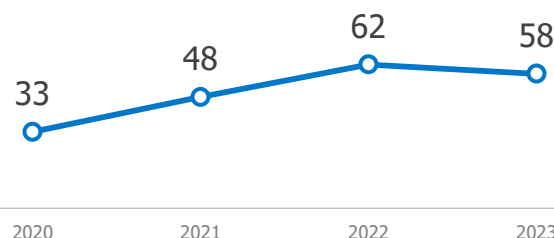
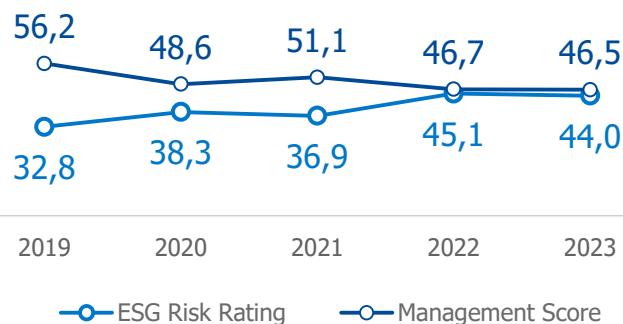
Standards and guidelines followed in Nornickel's 2023 Sustainability Report

• GRI Standards (2021) • UNCTAD • TCFD • SASB Metals and Mining • Methodological Recommendations of the Russian Ministry of Economic Development • IFRS S2 *

Source: Company data.

Note: * The Appendix to the 2023 Sustainability Report contains information on disclosures that were piloted in line with the formats set out in IFRS S2.

INDEPENDENT ASSESSMENT OF NORNICKEL'S SUSTAINABILITY EFFORTS



- ESG rating: **A**
- No. 12 in the ESG ranking of Russian companies (January 2024)
- No. 8 in the Top 50 rating of Russian companies with the strongest focus on human rights



- ESG rating: **ESG-III (a)**
- Strong sustainability commitment in key decision-making (September 2023)



- ESG Index: **Level 1, high** (September 2023)



- ESG Rating: **B, ESG-2 level**
- Very high score. Strong ESG focus (September 2023).

Source: Company data as of April 2024. For more details, see the [ESG Ratings and Initiatives section on Nornickel's website](#)

Note: 1. Sustainalytics – ESG Risk Rating (1 and 100 standing for low and high risk respectively); Management Scope (1 and 100 standing for low and high risk respectively).

2023 STAKEHOLDER SURVEY: SOCIAL POLICY AMONG THE TOP 3 TOPICS

	TOPIC	2022 RANKING	2023 RANKING
E	Air pollutant emissions	2	7
	Waste management	8	8
	Biodiversity	9	10
	Water consumption and wastewater discharge	11	11
	Industrial environmental safety of production facilities	12	12
	Impact of transport on water bodies	13	14
	Responsible exploration and land reclamation	14	13
	Climate change	6	6
S	Employment and decent working conditions	1	2
	Employee training and education	3	1
	Contribution to the development of local communities	5	3
	Health and safety	10	9
	Respect for human rights (including those of indigenous minorities)	18	18
G	Innovation projects pursuing sustainable development goals	4	5
	Contribution to the national industry through import substitution	7	4
	Supply chain responsibility	15	15
	Corporate governance and risk management	16	16
	Anti-corruption and business ethics	17	17

↑→↓ Change in the topic's ranking position (2023 vs 2022)



361 stakeholders surveyed



SOCIAL POLICY ranked among the **Top 3** topics in 2023



AIR POLLUTANT EMISSIONS moved down to the **7th place** in the 2023 ranking



ENVIRONMENTAL TOPICS **dominate** the ranking by number

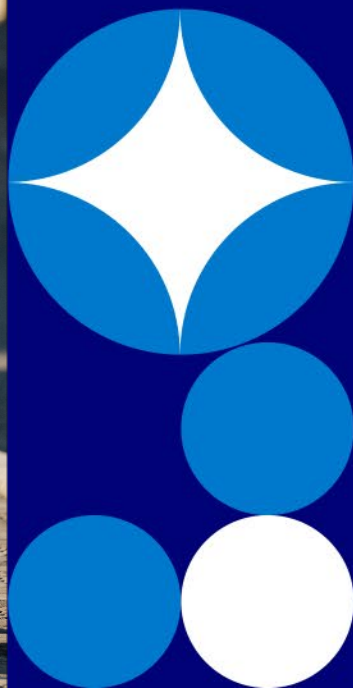


IMPORT SUBSTITUTION entered the **Top 5** topics in 2023

Source: results of surveys of 221 stakeholders in 2022 and 361 stakeholders in 2023.



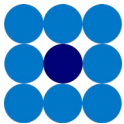
02 Nornickel's social policy



Larisa Zelkova

Senior Vice President for HR, Social Policy and Public Relations

VISION FOR NORNICKEL'S SUSTAINABLE SOCIAL DEVELOPMENT



NORNICKEL 2030+

INDUSTRY LEADER IN SUSTAINABLE SOCIAL DEVELOPMENT

1

HEALTH AND SAFETY



Employee health and safety is our strategic priority

3

DEVELOPMENT OF TECHNOLOGIES AND PRODUCTS TO FOSTER TECHNOLOGICAL AND SOCIAL PROGRESS



Nornickel strives to contribute to the well-being of society through its products and is committed to transparency about the social dimensions of its operations

2

TALENT MANAGEMENT AND CORPORATE CULTURE



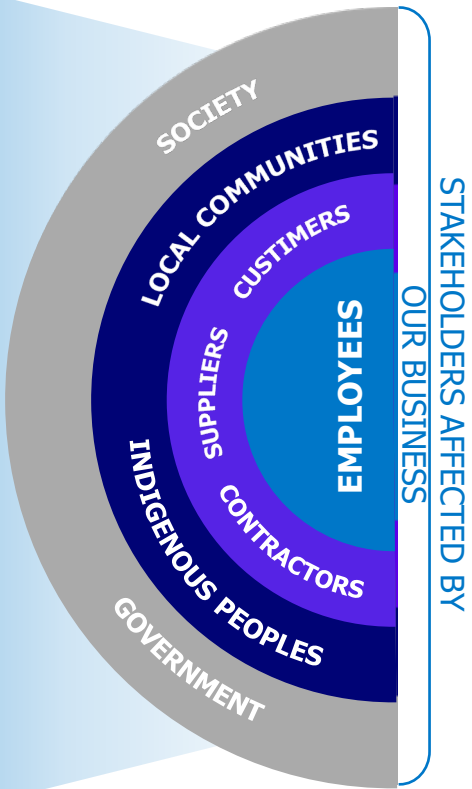
A company for talented professionals, Nornickel helps them unlock their potential and achieve their goals

4

INVOLVEMENT IN THE LIVES OF LOCAL COMMUNITIES AND SOCIETY AT LARGE







Nornickel is the industry leader in driving the social agenda and improving the quality of life for local residents and indigenous communities



Source: Company data.

KEY GOALS OF NORNICHEL'S SUSTAINABLE SOCIAL DEVELOPMENT STRATEGY

AREA	GOAL
 HEALTH AND SAFETY	<ul style="list-style-type: none"> • Zero fatal injuries • Eliminating catastrophic accidents
 TALENT MANAGEMENT AND CORPORATE CULTURE	<ul style="list-style-type: none"> • Top 3 in the main rankings of the best Russian metals and mining employers
 DEVELOPMENT OF TECHNOLOGIES AND PRODUCTS TO FOSTER TECHNOLOGICAL AND SOCIAL PROGRESS	<ul style="list-style-type: none"> • Supply chain transparency
 INVOLVEMENT IN THE LIVES OF LOCAL COMMUNITIES AND SOCIETY AT LARGE	<ul style="list-style-type: none"> • Improving the city life index in the cities of operation¹ • Strict adherence to the indigenous rights policy • Contributing to 13 Russian national projects²

Notes: 1. Russian city life index. VEB.RF. | 2. Through the integration of the UN SDGs into the Company's strategy.

NORNICKEL'S THREE STRATEGIC HR GOALS FOR 2024–2026



Source: Nornickel's HR Strategy for 2024–2026.

Note: * Part of a separate focus area, not detailed in Nornickel's HR Strategy for 2024–2026.

CAREER AT NORNICKEL



CAREER GROWTH

>4,000
employees
advanced in 1 or 2
job grades in 2023

18 of 19

Top 100 vacant roles
filled internally in 2023

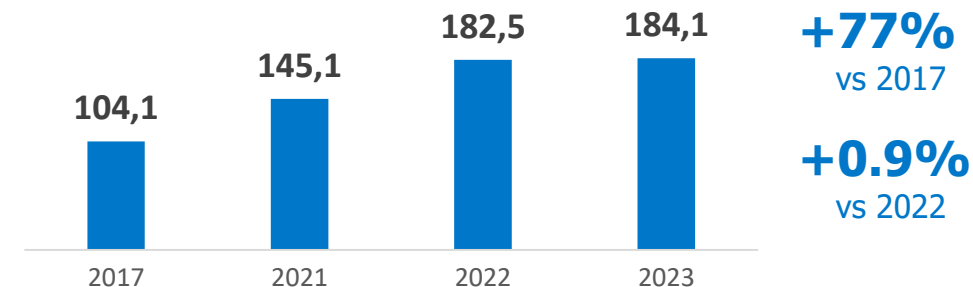


LAUNCH OF CAREER COUNSELLING

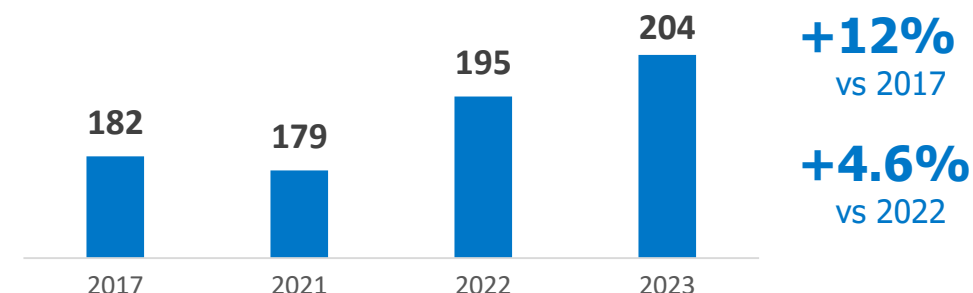


TALENT MANAGEMENT CYCLE DEVELOPMENT

Average monthly salary, RUB '000



Social expenses and benefits, RUB '000 per employee per annum



Source: Company data.

SUPPORTING AND NURTURING YOUNG TALENTS

PROJECT "BUILDING THE FUTURE: NURTURING ENGINEERING TALENT"

- ✓ Boosting **the appeal of engineering** careers
- ✓ Guiding children **to purposefully choose engineering**
- ✓ Guiding students **to purposefully choose Nornickel**
- ✓ Enabling young talents to build **a successful career at Nornickel**



LARGE-SCALE LEARNING INITIATIVES



YOUR MOVE NATIONWIDE PROJECT

>2,000 participants



IMAKE ENGINEERING MARATHON **>3,000 participants**



I AM PROFESSIONAL NATIONWIDE OLYMPIAD

>189,000 participants



THOSE WHO CARE CHANGE MANAGEMENT PROGRAMME **776 participants, >59 change management teams, >40 managers**



CONQUERORS OF THE NORTH E-LEARNING COURSE **>2,000 registered participants**



IN GOOD COMPANY CORPORATE YOUTH COMMUNITY **Professional practice track, >1,800 participants**



ARCTIC: TODAY AND THE FUTURE FORUM **>2,000 participants**



IN'HUB INNOVATION AND PRODUCTIVITY WEEK **>1,300 participants, 56 companies**

Source: Company data.

MADE WITH CARE EMPLOYEE COMFORT PROGRAMME



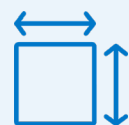
Gym at Oktyabrsky Mine



Locker room at NTEC's CHP-3



Eating area at Copper Plant



21,000 sq. m

total area of renovated facilities in 2023



138

social facilities overhauled in 2023

Source: Company data.

DIGITAL INVESTOR

51,300

employees became digital investors and received minetokens in 2023

52 facilities

covered by the programme

ATOMYZE

- Digital financial assets (DFAs) are traded on the Atomyze platform
- DFAs are linked to the price of Nornickel's shares

Source: Company data.

DIGITAL INVESTOR

NORNICKEL EMPLOYEE PROGRAMME



[DIGITAL INVESTING IN 4 STEPS](#)

[BEGIN TRAINING](#)

[MINETOKEN Q&A](#)

[LEARN MORE](#)



GLOBAL MINING AND METALS LEADER



RELIABLE EMPLOYER



EMPLOYEE GROWTH AND DEVELOPMENT



ONE OF THE INDUSTRY'S BEST BENEFITS PACKAGES



Minetoken holder earnings:

- income from minetoken sale or redemption
- periodic payouts per programme terms



NORNICKEL'S HR MANAGEMENT AWARDS AND RATINGS IN 2023

ESG AGENDA ADVANCEMENT



Russia's Best Social Project award in 2023



Responsible Business Leadership award in 2023

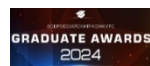


EMBRAS award in 2023 for the Plant of Goodness project



HR Impact award in 2024 for the Women in Metals and Mining project

ATTRACTING YOUNG TALENT

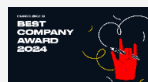


In Good Company project: No. 2
Graduate Awards 2024

**NORNICKEL: TOP-RANKED INDUSTRY LEADER
IN STUDENT PREFERENCES**



Future Today



Best Company Award 2024
(according to Changellenge)

HR MANAGEMENT AWARDS



HR Brand 2023 award



WOW!HR 2023 award



EMBRAS 2023 award



HR Impact 2023 award



Crystal Pyramid 2023 award



In Good Company project: No. 1
HR-IMPACT 2024



Engineering Talent project: No. 1
Silver Archer 2024



In Good Company project: No. 1
Silver Archer 2024

NORNICKEL'S CONTRIBUTION TO URBAN DEVELOPMENT

 NORNICKEL ALIGNS ITS URBAN DEVELOPMENT EFFORTS WITH **RESIDENT OPINIONS AND NEEDS**

Identifying needs

SURVEY: SOCIAL PORTRAIT OF A CITY RESIDENT (2018–2019)

Goal: analysing resident profiles and collecting opinions on the city's development prospects

8,078 participants

4,808 respondents in Norilsk

1,962 respondents in Monchegorsk

750 respondents in Zapolyarny

558 respondents in Nickel

Responding to identified needs

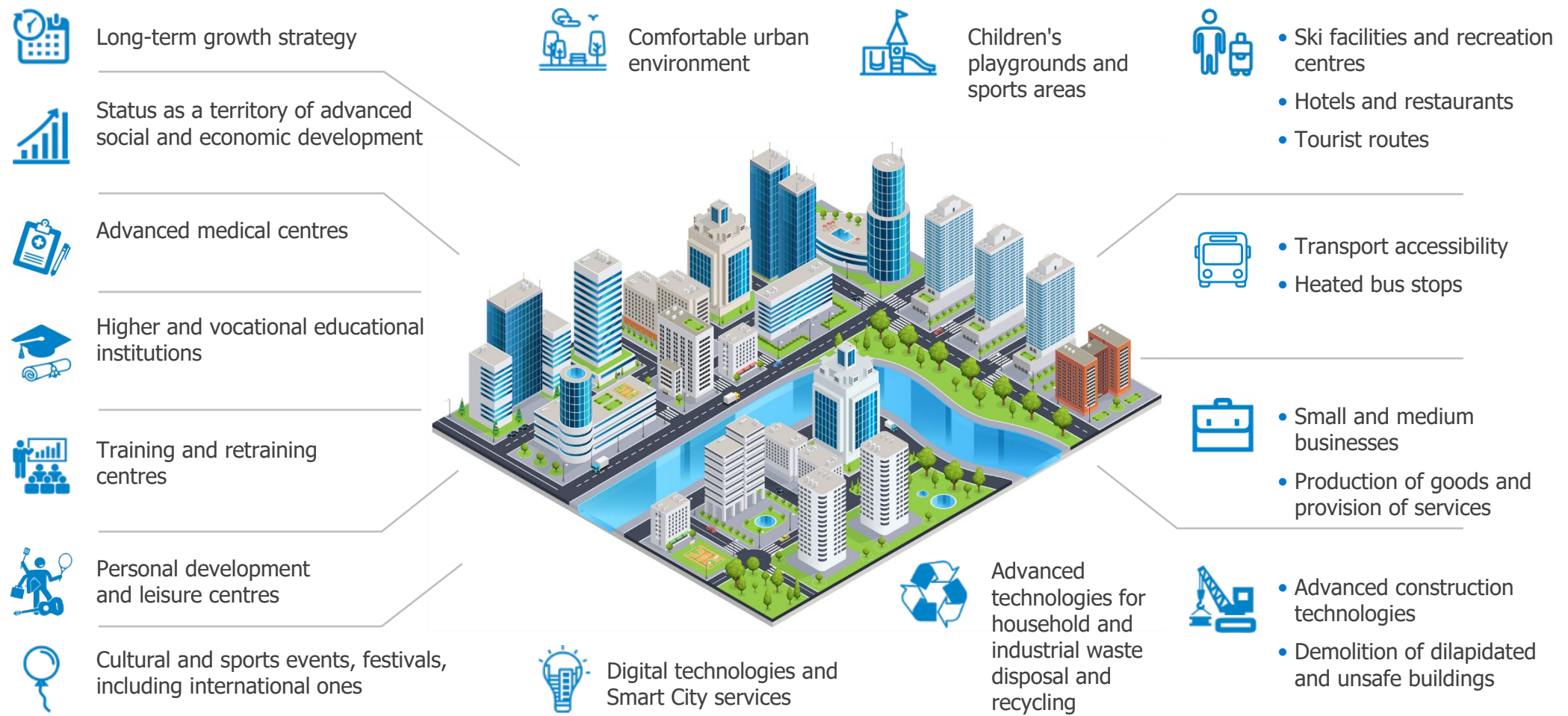
DEVELOPMENT PROGRAMMES

- **Programme** for Social and Economic Development of the Pechengsky Municipal District through 2025
- **Comprehensive Plan** for Social and Economic Development of Norilsk through 2035
- **Master plans** for area development

IMPLEMENTATION TOOLS

- **Development institutions:**
 - Norilsk Development Agency
 - Monchegorsk Development Agency
 - Second School Centre for Community Initiatives of the Pechengsky District
- **Multilateral agreements** with state authorities on social and economic development of the cities of operation

KEY RESIDENT NEEDS



COMPREHENSIVE DEVELOPMENT PLAN FOR NORILSK¹



Norilsk

CONSTRUCTION OF A CLINIC

1,000 patient visits per shift



Kayerkan

OVERHAUL OF A BUILDING TO HOUSE A KINDERGARTEN

236 children



Central district, Talnakh

CONSTRUCTION OF TWO MULTI-STOREY RESIDENTIAL BUILDINGS, AS WELL AS LOW-RISE AND MID-RISE RESIDENTIAL BUILDINGS

299 families to move into new apartments



Oganer municipal area

CONSTRUCTION (RENOVATION) OF MULTI-STOREY RESIDENTIAL BUILDINGS, CONSTRUCTION OF A SCHOOL AND A KINDERGARTEN

879 apartments
(8 buildings)

270 children
(kindergarten)

1,100 children
(school)

Source: Company data. Note: 1. Projects ongoing in 2023

ADDITIONALLY FUNDED INITIATIVES IN THE IMPLEMENTATION STAGE

TECHNOLOGICAL LYCEUM
CONSTRUCTION

1,100
children



ICE ARENA
CONSTRUCTION

3,500
spectators

SWIMMING POOL
CONSTRUCTION

488
visitors per day



TOWER PUBLIC SPACE
RENOVATION

20
multi-purpose spaces

NORNICKEL'S CONTRIBUTION TO URBAN DEVELOPMENT: INDEPENDENT ASSESSMENT

**URBAN ENVIRONMENT
QUALITY** (RUSSIA'S MINISTRY
OF CONSTRUCTION, DOM.RF,
ETC.)

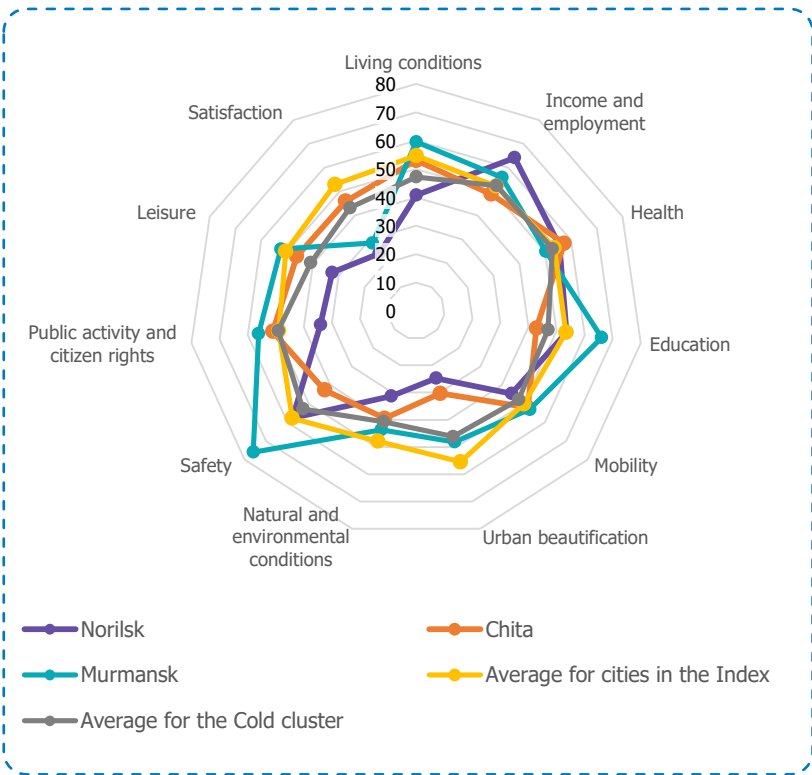
NORILSK: A CITY FOR COMFORTABLE LIVING

Score: 225
in 2023 (vs the
index average of 200)

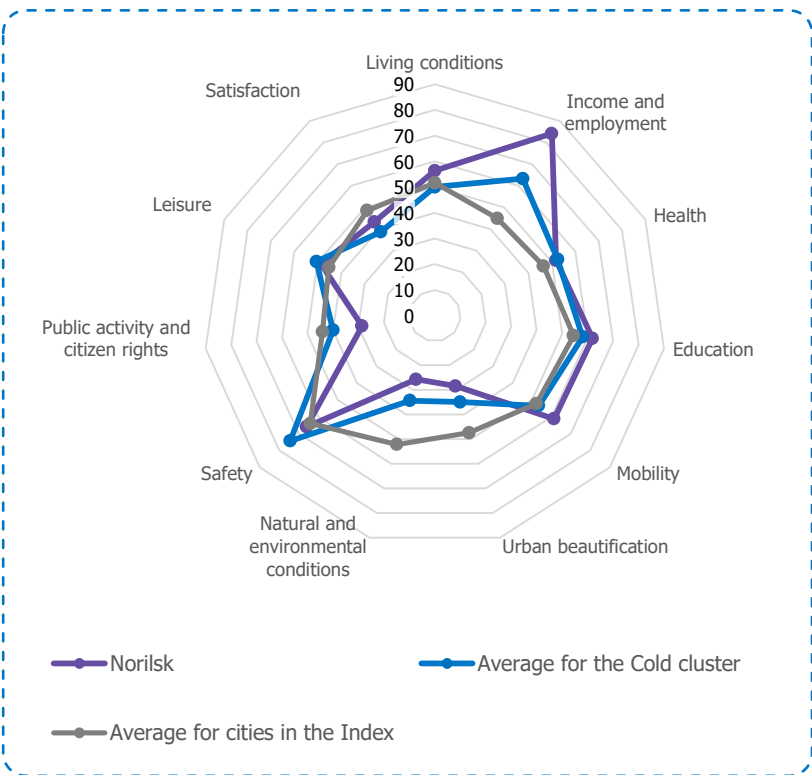


Source: Company data.

**CITY LIFE INDEX
(VEB.RF)**



**CITY LIFE INDEX
(ESG ALLIANCE)**





03 Nornickel's interaction with indigenous peoples

Andrey Grachev

Vice President for Federal and Regional Programmes

DEVELOPING STANDARDS OF INTERACTION WITH INDIGENOUS PEOPLES: **PRINCIPLES AND BASICS**

1

PARTNERSHIP: CORE COMPONENT OF NORNICKEL'S SUSTAINABLE BUSINESS MODEL

- Nothing about us without us
- Awareness and consistency
- From paternalism to partnership

2

TRANSPARENCY AND TRUST: THE BEDROCK OF SUCCESSFUL INTERACTION

- To enable successful implementation of joint programmes and projects

3

INDIGENOUS RIGHTS POLICY

- Interests, opinions and preferences of indigenous peoples are taken into account
- Traditional lifestyles, habitats, culture, and historical heritage are preserved
- Dialogue is underway to develop and roll out projects aimed at improving the quality of life

FROM PATRONAGE TO DEVELOPMENT PROGRAMMES

NORNICKEL:

- Subsidised **deliveries of agricultural products** (reindeer meat and northern species of fish) to **Dudinka and Norilsk** for subsequent sales
- Assessed **water bioresources** (Khatanga and Yenisey rivers)
- Created an environment for online learning at **11 rural schools**
- Launched Our Taimyr, a **single Telegram channel for local news**
- Held the **first literary competition in indigenous languages** titled the Voice of the North
- Financed the **Social Diplomacy** educational project
- Supported Taimyr's major **sports events**

Source: Company data.

IN 2023



Nornickel built **7 houses** and **3 first aid and obstetric facilities**



and purchased **5 apartments** for orphaned children

RUB 976 mln
allocated to support indigenous peoples in 2023

FROM PATRONAGE TO DEVELOPMENT PROGRAMMES



Source: Company data.

04 Nornickel's approach to occupational health and safety, and environmental protection

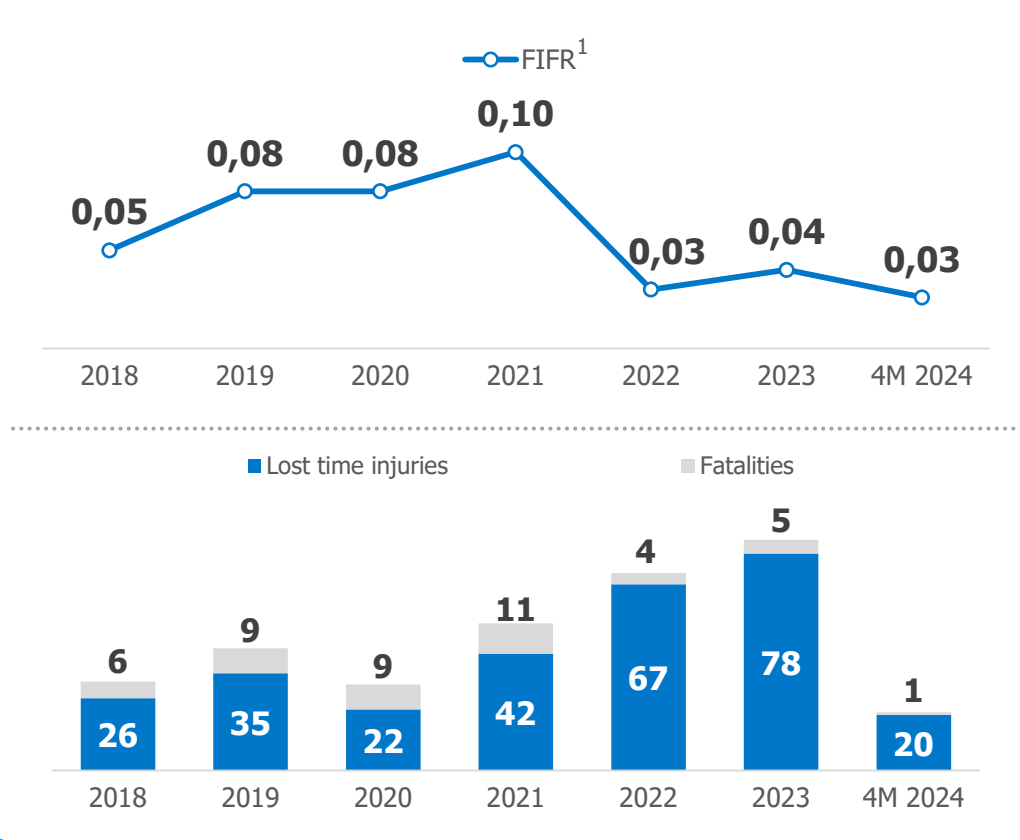


Stanislav Seleznev






Vice President for Ecology and Industrial Safety

OCCUPATIONAL HEALTH AND SAFETY AS NORNICKEL'S STRATEGIC PRIORITY

Work-related injuries of the Company's employees



Source: Company data. Note 1. Fatal-Injury Frequency Rate – the number of fatalities per million hours worked.

-  **Risk-Based Thinking** project
Upgrade of the incident reporting system to improve transparency and quality of incident classification
-  **Programmes to improve safety in mines**
Anti-Collision internal system, upgrade of transport and personnel positioning systems, installation of pedestrian walkways, traffic lights, and curved mirrors
-  Transformation of second-party audits: **from control audit to development audit**
-  Improved quality of **incident investigation**
-  Reviewed **format of safety communication** with employees: simple, easy, exciting

NORNICKEL'S STRATEGIC GOALS IN INDUSTRIAL SAFETY



NO WORK-RELATED FATALITIES

Zero tolerance to any work-related fatalities



ZERO CATASTROPHIC ACCIDENTS








Preventing accidents at the Company's facilities that may have a negative impact on people across the Company's regions and the Company's production results



CONSISTENT MITIGATION OF OHS RISKS TO AN ACCEPTABLE LEVEL

Ensuring safe working conditions for employees and minimising the risks associated with ore mining and processing

KEY TARGETS AS PART OF NORNICHEL'S ENVIRONMENTAL AND CLIMATE CHANGE STRATEGY

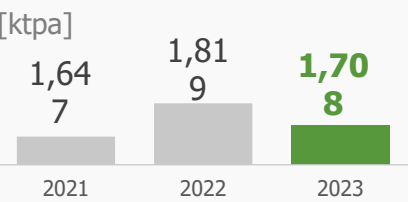
AREA	TARGET INDICATORS	2031 TARGETS
 NUMBER OF INCIDENTS	<ul style="list-style-type: none"> Number of interregional and federal emergencies affecting the environment in the regions of operation 	0
 AIR	<ul style="list-style-type: none"> SO₂ emissions, kt Reduction of SO₂ emissions, %¹ 	300 ≈90%
 WATER	<ul style="list-style-type: none"> Compliance with the Russian standards as regards pollutant concentration in discharges Compliance with fresh water withdrawal limits, % 	100% 100%
 TAILINGS AND WASTE	<ul style="list-style-type: none"> Compliance of waste disposal facilities with Russian regulations 	100%
 SOIL	<ul style="list-style-type: none"> Land rehabilitation in 2022–2031 (reclamation, reforestation², sanitation, ha) 	4,247
 BIODIVERSITY	<ul style="list-style-type: none"> Achievement of net zero biodiversity losses as a result of the Company's operations (Δ Integral Indicator of Ecosystem Health (IIEH)) 	≥0
 STOCK EXCHANGE REQUIREMENTS	<ul style="list-style-type: none"> Compliance with stock exchange requirements (Shanghai Futures Exchange, etc.) 	100%

Notes: 1. Against the 2015 base year. | 2. Reforestation in Trans-Baikal Division only.

ENVIRONMENTAL AND CLIMATE CHANGE HIGHLIGHTS IN 2023

AIR

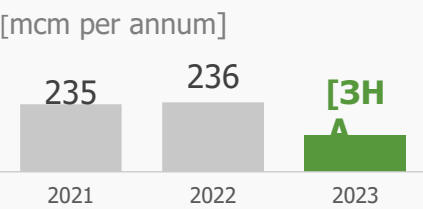
Air pollutant emissions



- ✓ Reduced levels of sulphur in feedstock
- ✓ Reliance on low-sulphur fuel

WATER

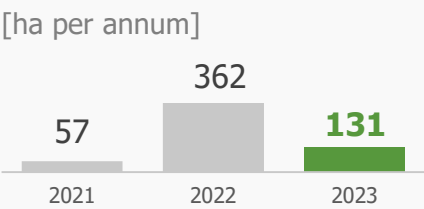
Fresh water withdrawal¹ (excluding mine water)



- ✓ Reduced consumption of water used for CHP equipment cooling

SOIL

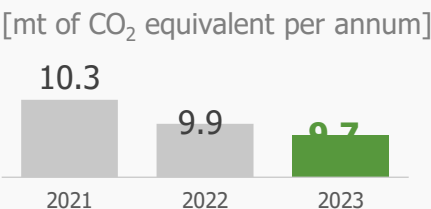
Land rehabilitation area²



- ✓ Land rehabilitation programme

CLIMATE CHANGE

Absolute emissions of greenhouse gases (Scope 1+2)³



- ✓ Increased reliance on hydro power plants in energy generation
- ✓ Reduced reliance on diesel fuel
- ✓ Lower unit fuel consumption associated with electricity generation

Source: Company data.
Note: 1. Including Energy Division. | 2. Including landscaping, reforestation, and reclamation. | 3. Including emissions associated with households and infrastructure (Scope 1).

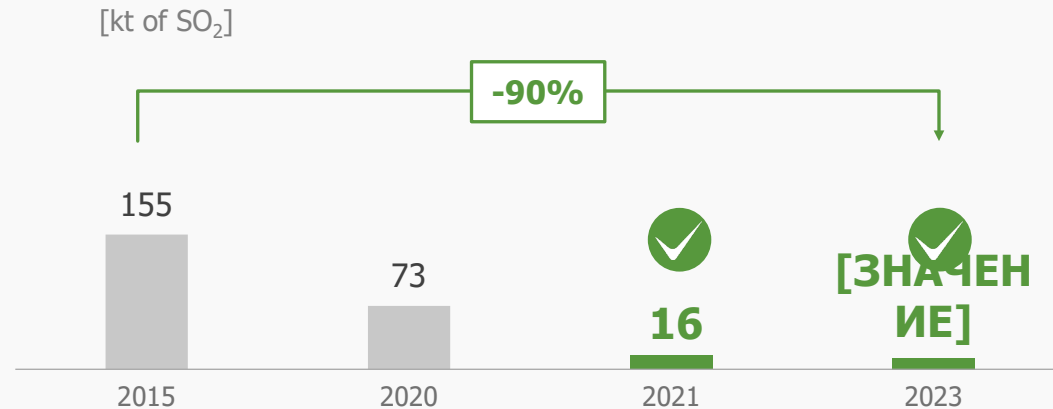
SO₂ EMISSIONS REDUCTION

NORNICKEL KEEPS COMMITMENT TO DELIVERING INDUSTRY-LEADING EMISSIONS REDUCTIONS



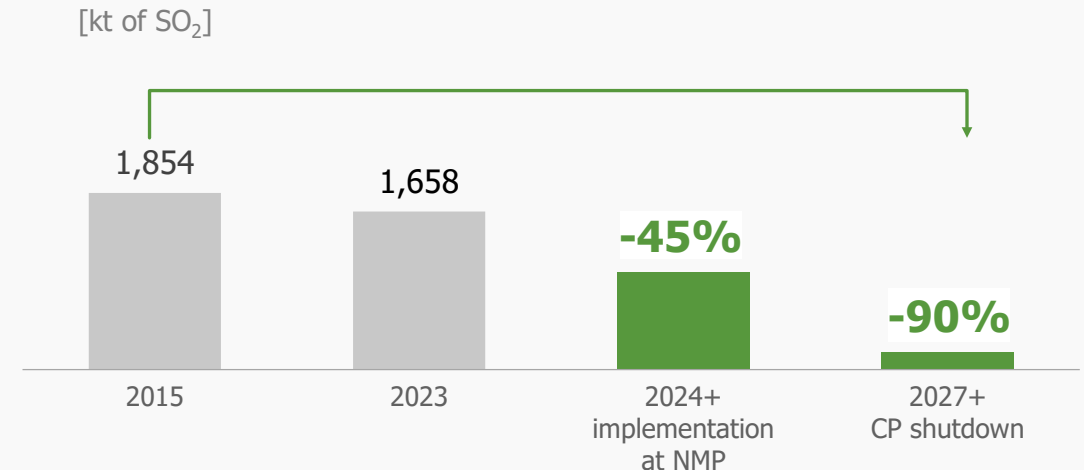
KOLA DIVISION

SO₂ emissions fell by 90% since 2015, surpassing the 85% target



NORILSK DIVISION

The Sulphur Programme was launched at Nadezhda Metallurgical Plant in October 2023 (Phase 1)



Source: Company data. For more details, see our website at <https://nornickel.com/sustainability/projects/sulphur/>
Note: NMP – Nadezhda Metallurgical Plant, CP – Copper Plant.

FIRST RESULTS OF THE SULPHUR PROGRAMME IN NORILSK



99.6%

efficiency of the first processing line

40 kt

of sulphur dioxide and off-gases
disposed of between the project launch
in October 2023 and late March 2024

20%

expected reduction in sulphur dioxide
emissions in Norilsk in 2024

Source: Company data.

CLEAN AIR NATIONAL PROJECT: AIR QUALITY MONITORING ACROSS REGIONS OF OPERATION



- **AUTOMATED MONITORING SYSTEMS**

Across sources of emissions at industrial facilities and air quality monitoring sites in populated areas

- **PILOT LAUNCH**

In populated areas: February 2024; at industrial facilities: before July 2024

Source: Company data.

NORNICKEL: GLOBAL INDUSTRY'S LOWEST CARBON FOOTPRINT

55%

share of power from renewable sources across the Group in 2023

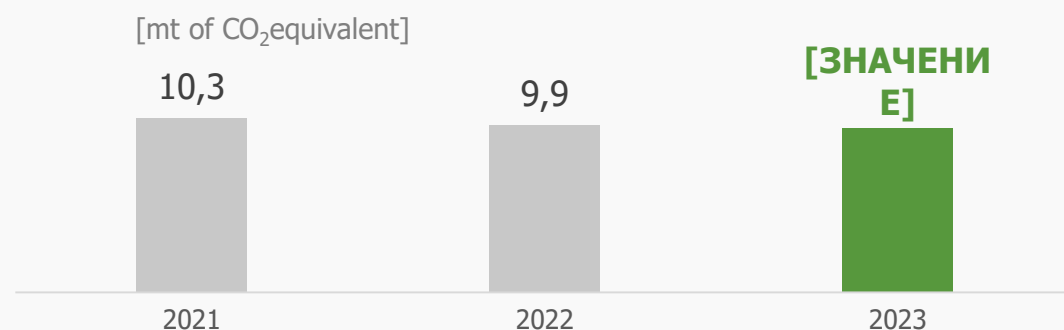
58%

share of power from renewable sources in the Norilsk Industrial District in 2023

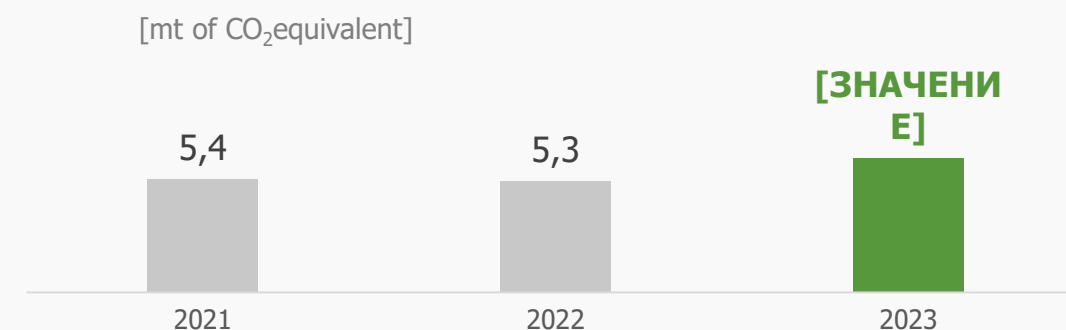
12%

share of renewable sources in total power generation and fuel consumption across the Group

Scope 1 and 2 GHG emissions from operations (CO₂ equivalent)¹



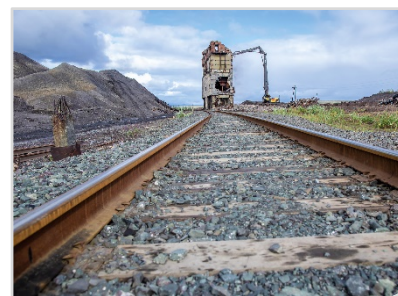
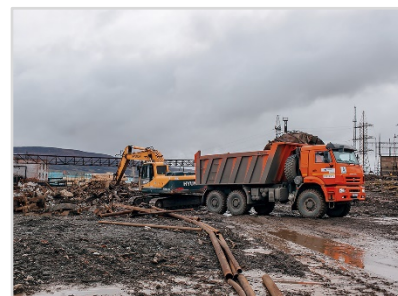
Scope 3 GHG emissions (CO₂equivalent)²



Source: Company data.

Notes: 1. Including emissions associated with households and infrastructure (Scope 1). | 2. In order to standardise the approach to identifying sources of GHG emissions, the calculation uncertainty of upstream Scope 3 emissions was reduced by excluding insignificant sources within the categories of Purchased Goods and Services, and CAPEX from the calculation boundaries. As a result, the emissions data for 2021 and 2022 was recalculated using the new approach. Includes upstream and downstream emissions.

RESULTS OF THE PROGRAMME FOR WASTE COLLECTION AND LAND RECLAMATION IN THE NORILSK INDUSTRIAL DISTRICT



347

dilapidated buildings and structures dismantled

> 1 mt

of waste and scrap metal removed

4.1 million m²

of areas cleaned

Source: Company data. Note: the Programme data covers 2021–2023.

CONSERVING BIODIVERSITY ACROSS REGIONS OF OPERATION



LARGE-SCALE STUDIES WERE CONDUCTED IN 2022–2023 IN COLLABORATION WITH THE SIBERIAN BRANCH OF THE RUSSIAN ACADEMY OF SCIENCES **TO COLLECT DATA FOR ANALYSING OPERATIONS AND SETTING IIEH TARGETS**

Source: Company data.

For more details, see our website at

<https://nornickel.com/sustainability/environment/biodiversity/>

- Impact area **sizes** for our facilities updated
- **Methodology for setting the target IIEH value** refined
- **New** snout beetle and slime mold **species** discovered
- **Heavy metal migration** from waste rock dumps studied
- The **life.nornickel.com website** launched and regularly updated with latest study results to share reliable, research-backed biodiversity information with stakeholders

PLANS FOR 2024:

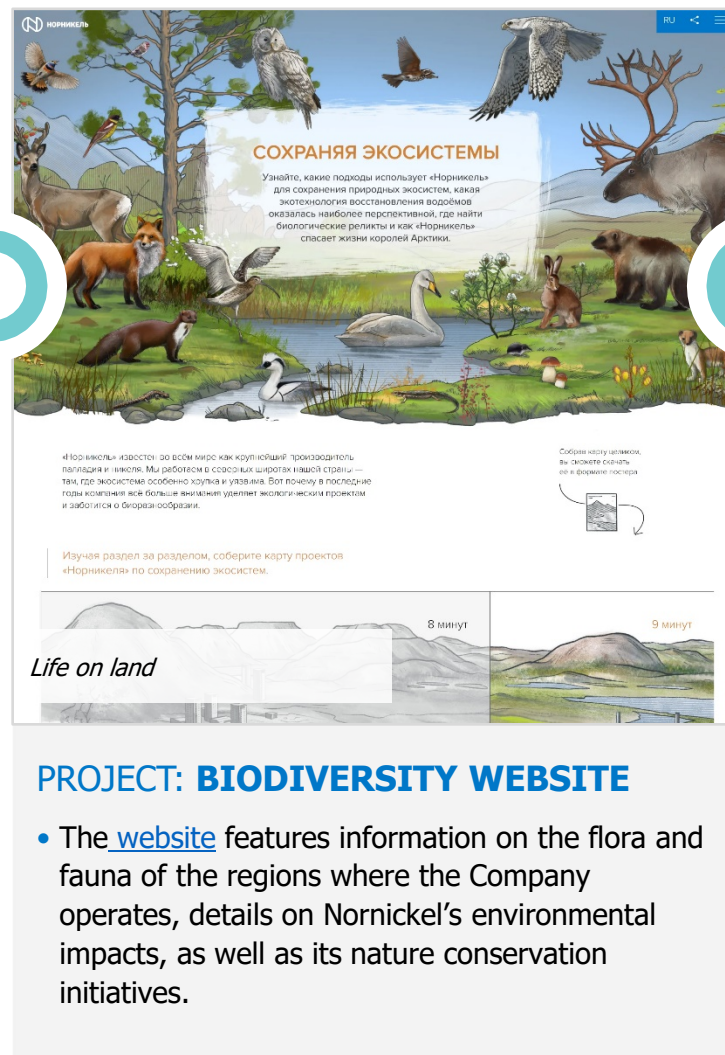
- **Finalise** the corporate Standard for Biodiversity Conservation and Monitoring, as well as divisional programmes
- **Analyse** the Big Scientific Expedition data collected over the past two years
- **Organise** the data and finalise the IIEH methodology

NORNICKEL'S ENVIRONMENTAL PROJECTS: UNMATCHED IN RUSSIA



ENVIRONMENTAL MONITORING USING UNMANNED AERIAL VEHICLES

- [Nornickel's drones](#) conduct land and underwater monitoring, enabling thorough environmental oversight. The drones carry multispectral and infrared cameras, collecting precise data on natural ecosystems.



PROJECT: GHG ABSORPTION BY TAILING DUMPS

- This [innovative project](#) seeks to enable the absorption of greenhouse gases through waste rock mineralisation at tailing dumps, reducing the carbon footprint of the Company's products. Looking ahead, this has the potential to help decrease our production carbon footprint and achieve carbon neutrality.



05 Innovation projects with a focus on sustainable development



Vitaly Busko

Vice President for Innovations

INNOVATIONS IN SUSTAINABLE DEVELOPMENT

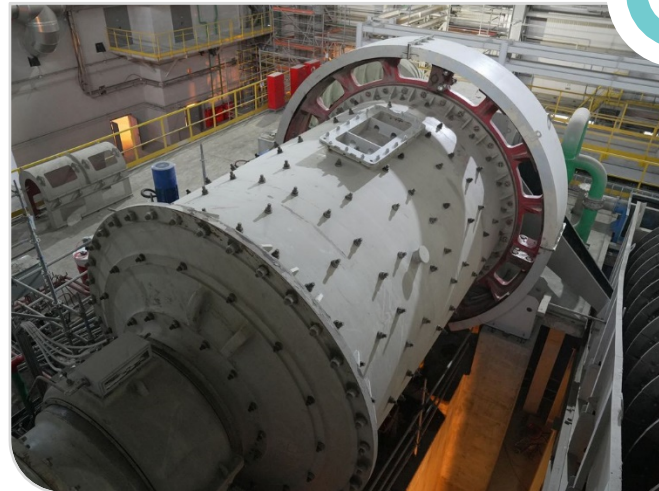
REDUCING CO₂ EMISSIONS

- Natural and accelerated **mineralisation of rock** for CO₂ absorption



MINIMISING ENVIRONMENTAL IMPACT

- **Use of slags and tailings** from core operations as construction materials
- **Mining water treatment**



OCCUPATIONAL SAFETY

- **Video analytics** to enhance occupational safety



NEW PRODUCTS AND MATERIALS

- Palladium-based materials for **green applications and energy transition**
- Nickel-based **battery materials** for electric vehicles

Source: Company data.

INNOVATIVE APPLICATIONS OF PALLADIUM FOR WIDE-RANGING SUSTAINABILITY SOLUTIONS



PROJECT EXAMPLE

OUTCOME

- **Catalysts for PEM electrolysis cells** to produce green hydrogen
- **Tubular membranes** to obtain ultra-pure hydrogen
- **Catalysts for hydrogen-air fuel cells** to generate energy from hydrogen and convert it into electricity
- **Solar cells** to convert solar radiation into electricity

Use of **palladium** in catalysts for PEM electrolysis cells enables a 3x increase in hydrogen activity and yield, partially substituting the scarce iridium

- **Electrodes for water disinfection:** production of disinfectant at the source of water supply, reducing environmental risks of chlorine transportation and storage

The use of **palladium** enhances electrode efficiency, enabling it to produce 10–15% more chlorine

- **Catalysts for the synthesis of glycolic acid used in biodegradable packaging** to avoid using carcinogenic formaldehyde in the acid production

The palladium-based catalyst increases the yield of pure glycolic acid by 20%

Source: Company data.

NATURAL AND ACCELERATED MINERALISATION OF WASTE ROCK AT TAILING DUMPS FOR CO₂ ABSORPTION



PROJECT GOALS AND OBJECTIVES

- Assess the potential to offset GHG emissions of the Company's facilities through **natural and active mineralisation** of waste rock resulting from ore concentration
- **Audit the Company's existing tailing dumps** and evaluate the **natural** absorption capacity of tailings
- Develop a technology for accelerated mineralisation to **increase** tailings' **carbon sequestration capacity** up to **1 mt of CO₂ per year**



PROJECT STAGES

- ✓ Collection and delivery of tailings samples from GRK Bystrinskoye, Kola MMC, Polar Division, and Medvezhy Ruchey
- ✓ Analysis of samples and computer modelling of mineralisation processes
- ✓ Development of a methodology for accounting for carbon credits
- ✓ Confirming the effectiveness of natural mineralisation (300 kt of CO₂ sequestered per year)
- Development of a technology for accelerated mineralisation
- Verification and validation by an international auditor



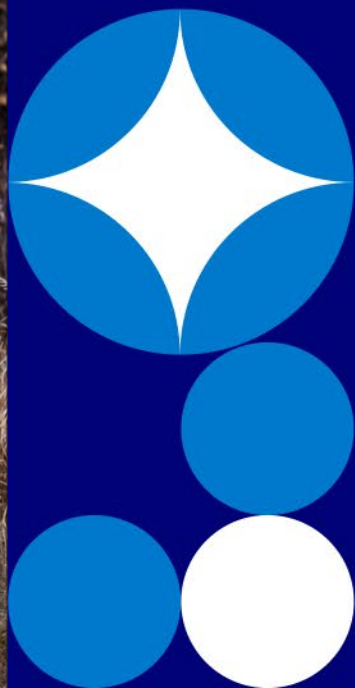
ЛУЧШИЕ ESG
ПРОЕКТЫ РОССИИ

**Winning project of the Best ESG Projects
of Russia programme in 2024**

Source: Company data.



10 Appendices



NORNICKEL'S CONTRIBUTION TO RUSSIA'S NATIONAL PROJECTS AND UN SDGS IN 2023



✓ **CLEAN NORILSK PROJECT:**

- **347** dilapidated buildings demolished
- **>80 kt** of metal scrap and **1 mt** of waste collected and removed
- **4.1 million sq m** of territory cleaned up
- ✓ comprehensive testing of **the first line of sulphur dioxide recovery** from off-gases generated by flash smelters launched at Nadezhda Metallurgical Plant
- ✓ **second season** of the Big Scientific Expedition completed



- ✓ **24,600** employees and their family members participated in health resort treatment and vacation programmes
- ✓ **a medical centre** in Dudinka and **an MRI Centre** in Monchegorsk opened, and targeted healthcare programmes launched



- ✓ **3** new **educational programmes** developed
- ✓ **12 Company-specific competencies** added to the educational programmes of the Polar State University
- ✓ five-party agreement signed to implement the **Professionalitet** federal project
- ✓ digital encyclopaedia-type platform, **City of Professions**, launched to facilitate career guidance for children in the cities where the Company operates



- ✓ **RUB 830 mln** spent on relocating Norilsk and Dudinka residents to regions with better climate conditions
- ✓ **6,118 apartments** provided to the Company's employees since the start of Our Home / My Home and Your Home housing programmes
- ✓ contribution made to **land improvement** in the regions of operation, housing **construction**, and infrastructure **upgrade**

> RUB 338 bn
 spending on projects associated with UN SDGs in 2023 (27.5% of consolidated IFRS revenue)

NORNICKEL MAKES A SIGNIFICANT CONTRIBUTION TO **13 UN SDGS**, FOCUSING SPECIFICALLY ON:



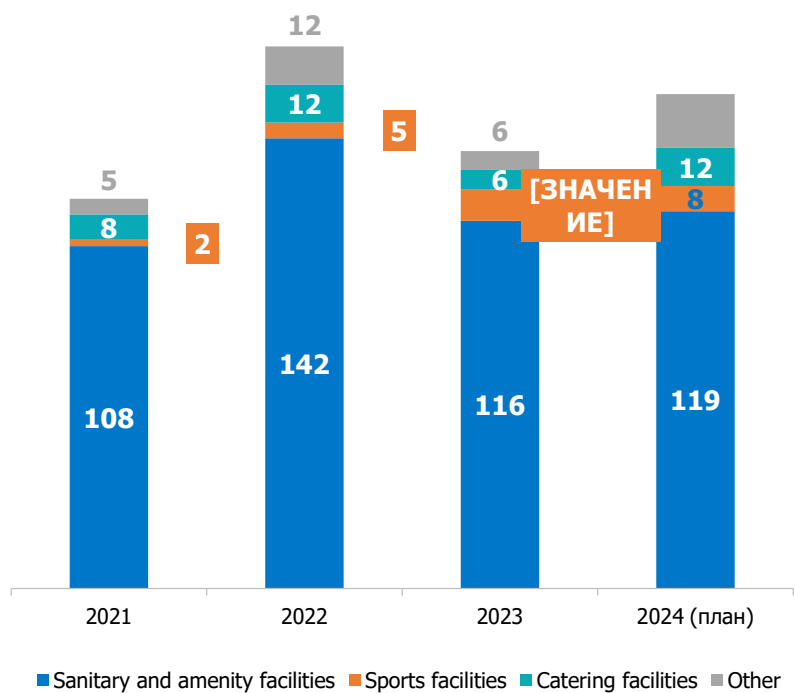
Source: Company data.

Note: the slide shows examples of national projects to which Nor nickel makes a significant contribution. For more details, please see Nor nickel's 2023 Sustainability Report.

MADE WITH CARE EMPLOYEE COMFORT PROGRAMME

Social facilities overhauled

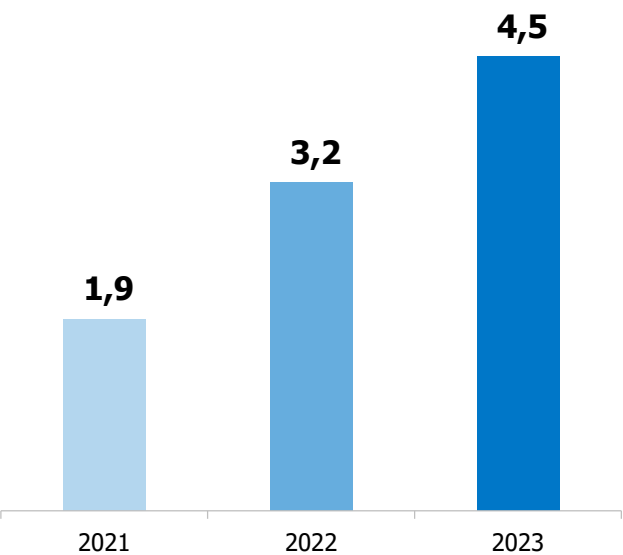
Number of facilities



Source: Company data.

Programme expenditures

RUB bn



MADE WITH CARE PROGRAMME: collected awards

- **WOW!HR** (Workplace Comfort category)
- **Green Property Awards** (Reconstruction of the Internal Environment for Users of an Industrial Facility category)



Thank you

