

A wireframe illustration in light blue, showing a hand holding a small plant with two leaves. The hand is positioned at the bottom, and the plant grows upwards from the palm. The entire illustration is composed of a grid of lines forming a mesh.

# **CORPORATE ENVIRONMENTAL AND CLIMATE CHANGE STRATEGY**

2024

# Strategy update



Strategy 2021

## **The Environmental and Climate Change Strategy was developed in 2020 and approved by the Company's Board of Directors in 2021**

- 21 goals of which 16 are numerical indicators in six areas, and five relate to compliance with international standards
- 360+ measures with an indicative budget of RUB 536 bn until 2031



Prerequisites  
for the update

## **Tightened environmental laws of the Russian Federation, growing role of the state in the regulation of environmental operations, and geopolitical changes**

New geopolitical environment and the previous experience of implementing the strategy have laid the groundwork for the update.

The role of the state continues to grow, and budgets are subject to a major redistribution within the Company. At the same time, our clients expect us to be compliant with international requirements/standards.



Updated strategy

## **The strategy is divided into mandatory and voluntary parts**

- The mandatory part is aimed at ensuring compliance with requirements of the Russian environmental legislation in order to prevent the Company from incurring penalties and damages caused to environment components
- The voluntary part includes optional focus areas related to the environment

# Interrelation between the Environmental and Climate Change Strategy and the Company's general development strategy



Note: 1. Fuel and Energy Strategy, Transportation and Logistics Function Strategy, Production Support Operations Strategy, GE Strategy. 2. Human Capital Development Programme, IT and Information Security Strategy, Facility Security Strategy, Occupational Health and Safety Strategy, Financial Strategy

# Environment remains one of the Company's strategic priorities

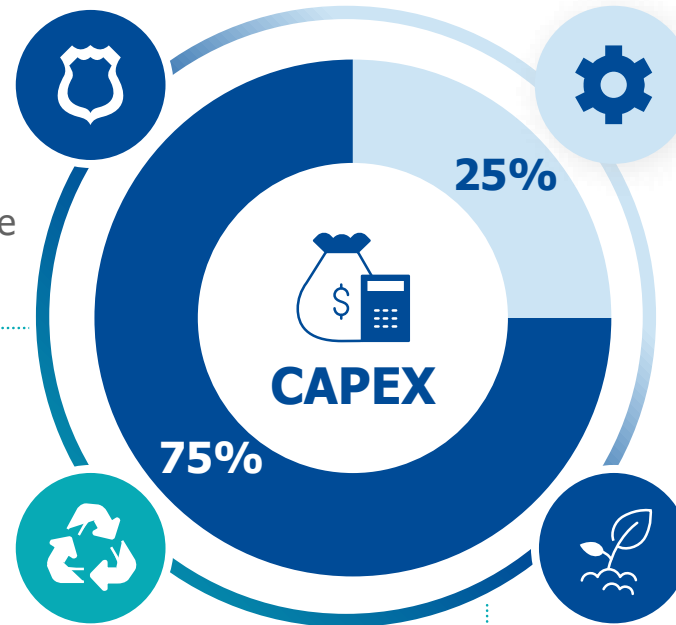
## Risk management of core and auxiliary production continuity

### Fixed Assets Reliability Strategy

- Updating infrastructure facilities
- Taking into account critical technical and production risks, including those related to climate factors
- Ensuring reliable operation of fixed assets of the core and auxiliary production facilities

### Environmental Strategy

- Taking into account environmental risks
- Ensuring compliance with environmental laws for the continuity of core and auxiliary production (fuel and energy complex, logistics, production of auxiliary materials, etc.)



## Core Production Strategy

- Ramping up production
- Maximising capital returns
- Mitigating market risks








### Sustainable Social Development Strategy

- Implementing the local communities development programme
- Supporting employees
- Developing social infrastructure
- Taking into account the Company's critical social commitments to mitigate material reputational risks

**~12%** of the framework investment programme is aimed at implementing the Environmental Strategy to secure a licence to operate for the core production, and mitigating risks that are not related to core production

# Key objectives of the mandatory part of the Environmental Strategy

(compliance with environmental laws, regulations, obligations of the Company)







Element	Proposed updated targets	Updated values			Risks (in accordance with the Russian laws)
		Baseline 2020	Actual 2022	Targets 2031	
 Number of emergencies	Number of interregional and federal emergencies affecting the environment in the regions of operation	1	0	<b>0</b>	<ul style="list-style-type: none"> <li>Recovery of damages</li> </ul>
 Air	SO <sub>2</sub> emissions, kt	2009 <sup>2</sup>	1,778	<b>300</b>	<ul style="list-style-type: none"> <li>Recovery of damages to the air</li> <li>Charges for excess emissions</li> <li>Suspension of operations of up to 90 days</li> <li>Turnover penalty (for facilities with quotas assigned)</li> </ul>
	Reduction of SO <sub>2</sub> emissions, % <sup>1</sup>	0%	7%	<b>≈ 90%</b>	
 Water	Compliance with the Russian standards as regards pollutant concentration in discharges	–	56%	<b>100%</b>	<ul style="list-style-type: none"> <li>Recovery of damages to water resources</li> <li>Charges for excess effluents</li> <li>Suspension of operations of up to 90 days</li> </ul>
	Compliance with fresh water withdrawal limits, %	100%	100%	<b>100%</b>	
 Tailings and waste	Compliance of waste disposal facilities with Russian regulations	95%	95%	<b>100%</b>	<ul style="list-style-type: none"> <li>Recovery of damages</li> <li>Revocation of waste management licence</li> <li>Suspension of operations of up to 90 days</li> </ul>
 Land	Rehabilitation of disturbed territories in 2022–2031 (reclamation <sup>3</sup> , reforestation <sup>4</sup> , and sanitation, ha)	0	360	<b>4,247</b>	<ul style="list-style-type: none"> <li>Penalties for failure to perform reclamation obligations</li> <li>Penalties for reforestation violations, as well as return of land to the government for non-compliance with the terms of forest lease</li> </ul>
 Biodiversity	Achievement of net zero biodiversity losses as a result of the Company's operations ( $\Delta$ Integral Indicator of Ecosystem Health (IIEH)) <sup>5</sup>	0.89	0 <sup>6</sup>	<b>≥ 0</b>	<ul style="list-style-type: none"> <li>Recovery of damages to aquatic biological resources</li> </ul>
 Stock exchange requirements	Compliance with stock exchange requirements (London Metal Exchange, Shanghai Futures Exchange, etc.)	–	–	<b>100%</b>	<ul style="list-style-type: none"> <li>Delisting and reduced liquidity of the Company's products</li> </ul>

Note: 1. Against the 2015 base year. 2. Baseline 2015. 3. Activities to prevent land degradation and/or to restore its fertility by making it fit for its initial purpose and permitted use, including inter alia by rectifying the implications of soil pollution, restoring fertile soil layer, and protective forest planting. 4. Reforestation in Trans-Baikal Division only. 5. Calculated as  $\Delta \text{IIEH} = \text{IIEH}_{\text{rep}} - \text{IIEH}_{\text{base}}$  i.e. the difference in IIEH of the reporting year relative to the baseline year of the survey. 6. Baseline indicator of IIEH<sub>base</sub> of 2022.

# Mandatory part of the Strategy

157 measures, with a total indicative budget of RUB 555 bn for 2023–2031<sup>1</sup>





8 targets  
157 measures  
Mandatory part of the Environmental and Climate Change Strategy

Division's programme		8 goals Norilsk Division	7 goals Energy Division	8 goals Kola Division	5 goals Trans-Baikal Division
		<b>78</b> measures	<b>36</b> measures	<b>30</b> measures	<b>13</b> measures
		Division-level measures			
	Water	32 measures	19 measures	7 measures	5 measures
	Air	11 measures	1 measure	4 measures	–
	Tailings and waste	10 measures	4 measures	4 measures	2 measures
	Land (reclamation, reforestation, and sanitation)	10 measures	9 measures	9 measures	2 measures
	Emergencies, permafrost	6 measures	–	–	–
	Biodiversity	9 measures	3 measures	6 measures	4 measures
	Indicative budget OPEX/CAPEX	RUB 41/453 bn	RUB 11/6 bn	RUB 18/23 bn	RUB 0.8/3 bn

Note: 1. Including Sulphur Programme and IT projects at divisions

# Voluntary part of the Strategy





(compliance with international standards, public image events, climate change)

Element	Proposed updated targets	Updated values			Prerequisites for the performance
		Baseline 2020	Actual 2022	Targets 2031	
 Climate change <sup>2</sup>	Volume of GHG emissions (Scopes 1 and 2), mt of CO <sub>2</sub> equivalent	8.5 <sup>1</sup>	8.6 <sup>1</sup>	TBD <sup>6</sup>	<ol style="list-style-type: none"> <li>1. Strategy of Socio-economic Development of the Russian Federation with Low Greenhouse Gas Emissions until 2050 (No. 3052-r dated 29 October 2021)</li> <li>2. Federal Law No. 296 On Limiting Greenhouse Gas Emissions dated 2 July 2021 (annual report)</li> <li>3. Carbon Border Adjustment Mechanism (CBAM)</li> <li>4. Charges for exceeding greenhouse gas emission quotas (if the Russian Tax Code is amended)</li> </ol>
	Specific GHG emissions (of facilities involved in the manufacturing of finished metal products) per tonne of Ni equivalent, tonnes of CO <sub>2</sub> equivalent	4.06	4.28		
	Share of renewable energy use	46% <sup>3</sup>	51% <sup>3</sup>		
 Land	Rehabilitation of disturbed territories in 2022–2031 (landscaping), ha	0	12	95	<ol style="list-style-type: none"> <li>1. Voluntary obligations of Kola MMC to the government</li> </ol>
 Tailings and waste	Share of non-mineral waste recycling, %	16%	6% <sup>7</sup>	TBD <sup>6</sup>	<ol style="list-style-type: none"> <li>1. Waste recycling, reduction of pollution charges.</li> <li>2. Compliance with the <i>Order on approval of the list of production and consumption waste types which include useful components banned from landfilling</i></li> </ol>
	Share of mineral waste (other than gypsum waste) recycling, %	20%	20%		
	Share of gypsum waste recycling <sup>5</sup> , %	–	–		
 Standards	Compliance with sustainability standards	Implementation of TCFD compliance roadmap Implementation of ICMM compliance roadmap Implementation of IRMA compliance roadmap and achieving IRMA 50 performance level Efforts to ensure compliance with GISTM			<ol style="list-style-type: none"> <li>1. Retention of existing and potential new customers</li> <li>2. LME requirements<sup>4</sup></li> <li>3. ECOVADIS requirements</li> <li>4. TCFD requirements form the basis for IFRS S2 disclosures</li> </ol>

Note: 1. Baseline 2021, net of GHG emissions from supplying local communities and other electricity and heat consumers, including the Sulphur Programme and logistics. 2. The Concept of Carbon Neutrality Strategy must be approved. 3. Sustainability Report. 4. London Metal Exchange. 5. The use of gypsum is being researched. The targets will be defined once the work streams and technologies have been identified. 6. The targets will be updated in 2024–2025. 7. The decrease in recycling rate in 2022 is due to the inclusion of the Energy Division in the Strategy and the fact that Norilsk Division is carrying out sanitation generating large amounts of construction waste that is being landfilled rather than recycled.

# Voluntary part of the Strategy



8 targets  
187 measures  
Voluntary part of the Environmental and Climate Change Strategy

Division's programme	7 goals	2 goals	8 goals	8 goals	8 goals
	Norilsk Division	Energy Division	Kola Division	Trans-Baikal Division	Logistic assets
	<b>32</b> measures	<b>13</b> measures	<b>87</b> measures	<b>17</b> measures	<b>38</b> measures
	Division-level measures				
 Climate change	27 measures	13 measures	44 measures	9 measures	23 measures
 Tailings and waste	4 measures	–	20 measures	4 measures	10 measures
 Land (landscaping)	–	–	10 measures	–	1 measure
 Standards	1 measure	–	13 measures	4 measures	4 measures



NOTE

# TOP – mandatory measures of Norilsk Division

Element	Description	Target deadlines
 <p><b>Air</b></p>	<ol style="list-style-type: none"> <li>1. Integrated Sulphur Programme project to reduce pollutant emissions at NMP and Copper Plant</li> <li>2. Off-gas treatment facility of AP No. 1–4 anode furnaces in Smelting Shop No. 3 of Copper Plant</li> <li>3. Equipment modernisation at the drying section in Smelting Shop No. 1 of NMP</li> <li>4. Provision of Norilsk Division with automatic monitoring systems (as part of emission quotas and CEP)</li> </ol>	<p><b>2024/2027</b></p> <p><b>2029</b></p> <p><b>2033</b></p> <p><b>2025/2027</b></p>
 <p><b>Waste, land</b></p>	<ol style="list-style-type: none"> <li>1. Technical and biological rehabilitation of 430 ha of legacy process material spills along the NMP slurry pipeline</li> <li>2. Modernisation of waste dump 1 in line with global industry standards</li> <li>3. Technical and biological rehabilitation of 5.25 ha of a mining water stream at discharge point No. 170</li> </ol>	<p><b>2030</b></p> <p><b>2030</b></p> <p><b>2030</b></p>





# TOP – mandatory measures of Norilsk Division





Water

Element	Description	Target deadlines
	1. Construction of water treatment facilities at Mayak Mine (discharge point No. 5)	<b>2029</b>
	2. Oktyabrsky Mine (discharge point No. 170)	<b>2030</b>
	3. Skalisty Mine (discharge point No. 8)	<b>2030</b>
	4. Zapolyarny Mine with subsequent transfer to Norilsk Concentrator	<b>2024</b>
	5. Komsomolsky Mine	<b>2029</b>
	6. Taimyrsky Mine	<b>2026</b>
	7. Construction of water treatment facilities at the tailing dump of Talnakh Concentrator	<b>2025</b>
	8. Construction of industrial wastewater treatment facilities at discharge points No. 41, 145, 146	<b>2030</b>
	9. Second phase of construction of Copper Plant's treatment facilities (discharge point No. 157)	<b>2028</b>
	10. Construction of treatment facilities at discharge No. 1, Norilsk Concentrator, Lebyazhye tailing dump	<b>2029</b>
	11. Using mixed wastewater from the utility tunnel and combined storm water collector of discharge point No. 41 to support the water recycling system as part of the Sulphur Project	<b>2024</b>
	12. Liquidation of auxiliary skip shaft at Oktyabrsky Mine	<b>2025</b>



# TOP – mandatory measures of Kola Division

Element 	Description	Target deadlines
 Air	<ol style="list-style-type: none"> <li>1. Refining Shop's UGT-40. Improvement of the draft system operation in the roasting section of the Refining Shop</li> <li>2. Refining Shop. Sulphuric acid section 4. Upgrade of the 4th technological system</li> </ol>	<p style="text-align: center;"><b>2025</b></p> <p style="text-align: center;"><b>2025</b></p>
 Water	<ol style="list-style-type: none"> <li>1. Modernisation of mine water treatment system (capacity increase by 7.4 mcm/year) SOSHV1913</li> <li>2. Electrowinning plant. Increase in the disposal of salt effluent from nickel refining to 143 cu m / hour, electrowinning plant. USS-2</li> </ol>	<p style="text-align: center;"><b>2027</b> <b>(first phase, achieving technical standards)</b></p> <p style="text-align: center;"><b>2027</b></p>
 Waste	<ol style="list-style-type: none"> <li>1. Metallurgical Shop. Refining facilities. Industrial waste dump site (second phase)</li> </ol>	<p style="text-align: center;"><b>2024</b></p>

# TOP – mandatory measures of Energy Division

Element	Description	Target deadlines
 <p><b>Water</b></p>	<ol style="list-style-type: none"> <li>1. CHP-1. Modernisation of the industrial wastewater system of the main building and peak load boiler house (Norilsk).</li> <li>2. CHP-2. Modernisation of the industrial wastewater and stormwater discharge to Lake Kyllakh-Kyuyel (Talnakh District)</li> <li>3. CHP-3. Discharge point No. 503. Construction of industrial wastewater treatment facilities (Kayerkan District)</li> <li>4. Construction of wastewater treatment systems at Ust-Khantayskaya HPP</li> <li>5. Construction of wastewater treatment systems at Kureyskaya HPP</li> <li>6. Construction of industrial and utility wastewater treatment facilities at discharge point No. 94</li> <li>7. Arrangement of wastewater disposal and treatment, including stormwater from HPGE facilities (boiler houses) (Dudinka)</li> </ol>	<p><b>2027</b></p> <p><b>2027</b></p> <p><b>2026</b></p> <p><b>2027</b></p> <p><b>2027</b></p> <p>✓ <b>2023</b></p> <p><b>2025</b></p>
 <p><b>Waste, land</b></p>	<ol style="list-style-type: none"> <li>1. Rehabilitation of waste disposal facilities of the Severo-Soleninskoye and Yuzhno-Soleninskoye gas condensate fields, Messoyakhskoye Gas Field</li> <li>2. Rehabilitation and sanitation of Norilsktransgaz facilities (Tukhard, Dudinka, Norilsk, open pits of the Severo-Soleninskoye Gas Condensate Field)</li> </ol>	<p><b>2026</b></p> <p><b>2026</b></p>

# TOP – mandatory measures of Trans-Baikal Division

Element	Description	Target deadlines
 <p><b>Water</b></p>	<ol style="list-style-type: none"> <li>1. Construction of open-pit water treatment system and pipelines (from dewatering wells) of Bystrinsky-2 open-pit mine</li> <li>2. Construction of open-pit water treatment system and pipelines (from dewatering wells) of Verkhneildikansky open-pit mine</li> <li>3. Modernisation of wastewater treatment facility 446 (KOS-446) (and mothballing of KOS-25)</li> <li>4. Increase in the share of recycled tailing dump water in the production process</li> <li>5. Capture and treatment of tailing dump drainage water</li> </ol>	<p style="text-align: right;"><b>2028</b></p> <p style="text-align: right;"><b>2028</b></p> <p style="text-align: right;"><b>2024</b></p> <p style="text-align: right;"><b>2026</b></p> <p style="text-align: right;"><b>2024</b></p>
 <p><b>Land</b></p>	<ol style="list-style-type: none"> <li>1. Compensatory reforestation</li> </ol>	<p style="text-align: right;"><b>2031</b></p>



**THANK YOU!**