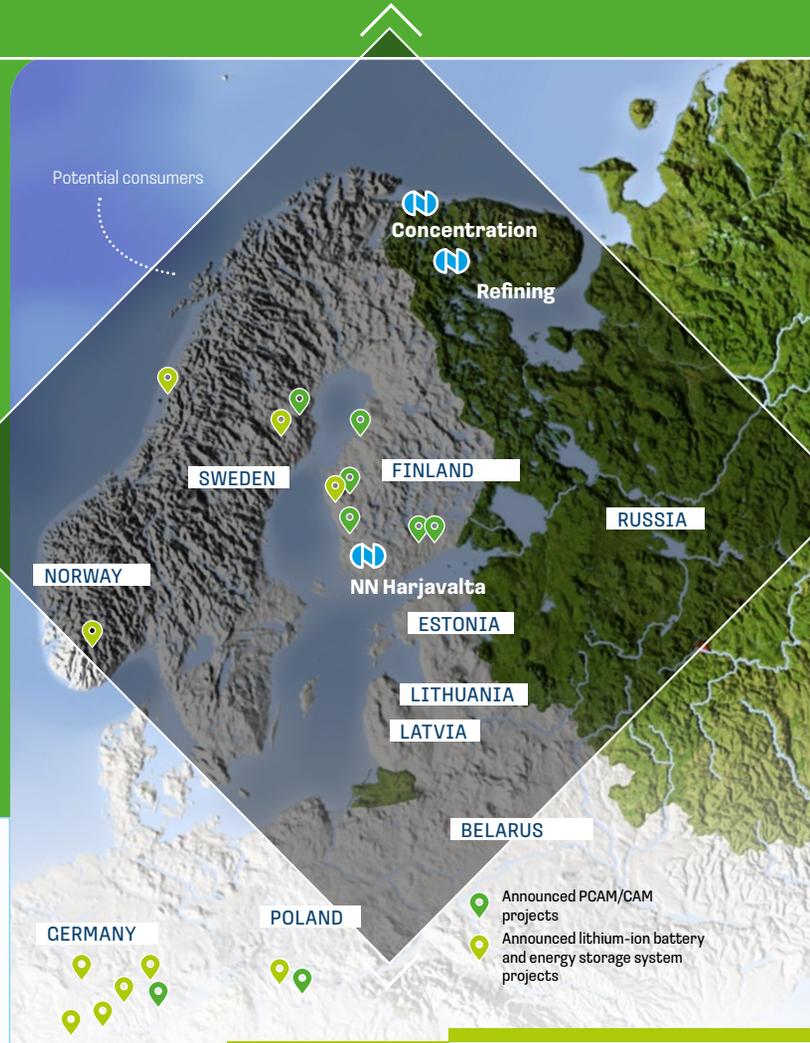


BATTERY MATERIALS VALUE CHAIN

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

- Announced PCAM/CAM projects
- Announced lithium-ion battery and energy storage system projects

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