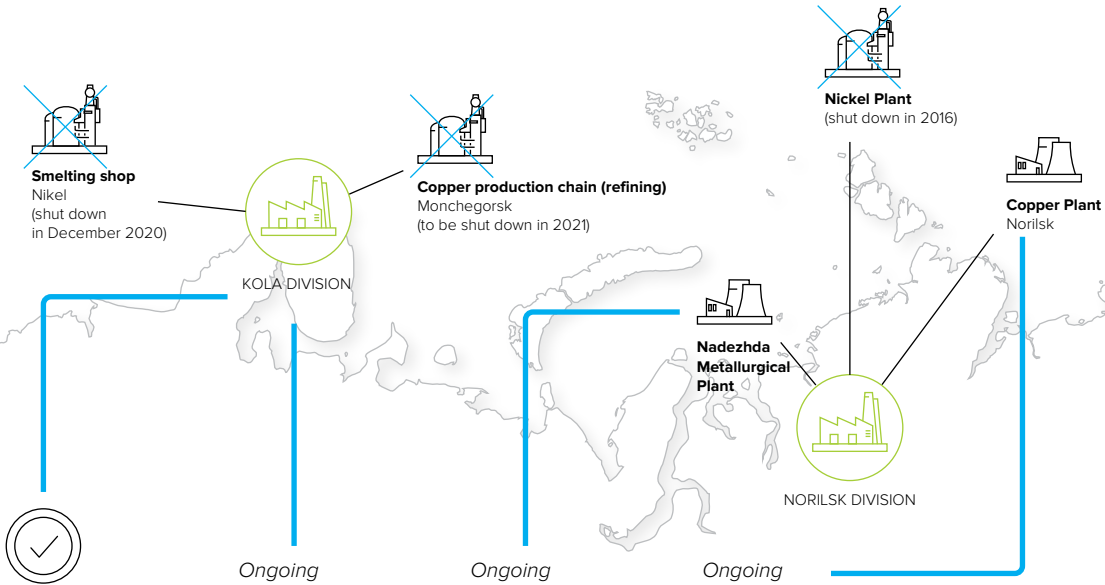


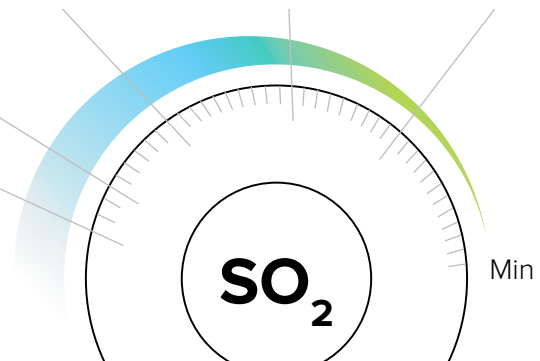
SULPHUR PROGRAMME 2.0

ROAD MAP



2020	2021	2023	2025	STRATEGIC ASPIRATION 2030+
Streamline smelting operations in Nikel to reduce SO ₂ emissions in the Russia–Norway border area	Complete the shutdown of smelting operations in Nikel and copper refining operations in the Kola Peninsula	Launch Sulphur Programme 2.0 anchor initiative for the recovery of furnace gases at Nadezhda Metallurgical Plant	Launch Sulphur Programme 2.0 Copper Plant initiative for the recovery of furnace and converter gases	Recover sulphur-poor gases (including converter gases) at Nadezhda Metallurgical Plant
2x+ reduction in SO ₂ emissions by 71% in Nikel and Zapolyarny ¹	7x reduction in SO ₂ emissions by 85% ¹ at the Kola Division	~2x reduction in SO ₂ emissions by 45% ¹ at the Norilsk Division	10x reduction in SO ₂ emissions by 90% ¹ at the Norilsk Division	20x+ reduction in SO ₂ emissions by over 95% ¹ at the Norilsk Division

¹ From a 2015 baseline.



CONSTRUCTION STATUS

Nadezhda Metallurgical Plant

A flagship project for the recovery of furnace gases and construction of sulphuric acid neutralisation facilities, including related infrastructure:

- **~85%** of contracts already signed
- The project provides for the recovery of gases following the expansion of the smelting operations (3rd production line)
- Install piles and steel structures, and construct a gypsum storage facility – ongoing
- Manufacture core equipment

Copper Plant

Project to recover over 99%–99.5% of SO₂ (in line with global best practices), construction of a continuous converting complex. Preparation and update of design solutions:

- **Phase 1:** Launching the retrofit of the gas cleaning unit

~45% of contracts already

signed

- **Phase 2:** Basic engineering/development of design documents – ongoing. Construction is expected to start in the second half of 2021

² Including construction of additional neutralisation facilities and related infrastructure for the 3rd furnace at Nadezhda Metallurgical Plant.

