

## KOLA DIVISION (FINLAND)

Norilsk Nickel Harjavalta is Nornickel's wholly owned subsidiary, acquired by the Group in 2007. The Harjavalta facility processes Nornickel's Russian feedstock and nickel-bearing raw materials sourced from third-party suppliers.

Founded in 1959, it is Finland's only nickel refinery and one of the largest nickel producers in Europe. Harjavalta's capacity is 66 ktpa of nickel products.

The facility uses sulphuric acid leaching with metal recovery rates above 98%, which is a best practice in the global mining and metals industry.

In 2020, Norilsk Nickel Harjavalta accounted for 27%, 1% and 1% of the Group's total nickel, copper and PGM finished products, respectively.

### SMELTING

In 2020, the refining facilities of Kola MMC were gradually increasing their nickel feedstock supplies to Norilsk Nickel Harjavalta in line with the Group's downstream reconfiguration strategy. Third-party feedstocks, i.e., converter matte from Boliden and nickel salts from other suppliers, were supplied regularly in small amounts throughout 2020. Metal recovery improved y-o-y on better quality of copper cake.

In 2020, Norilsk Nickel Harjavalta produced 63.4 kt of saleable nickel (up 1.5% y-o-y), an all-time high for the refinery. The growth was driven by the reconfiguration of refining facilities and increased nickel feedstock supplies from Kola MMC.

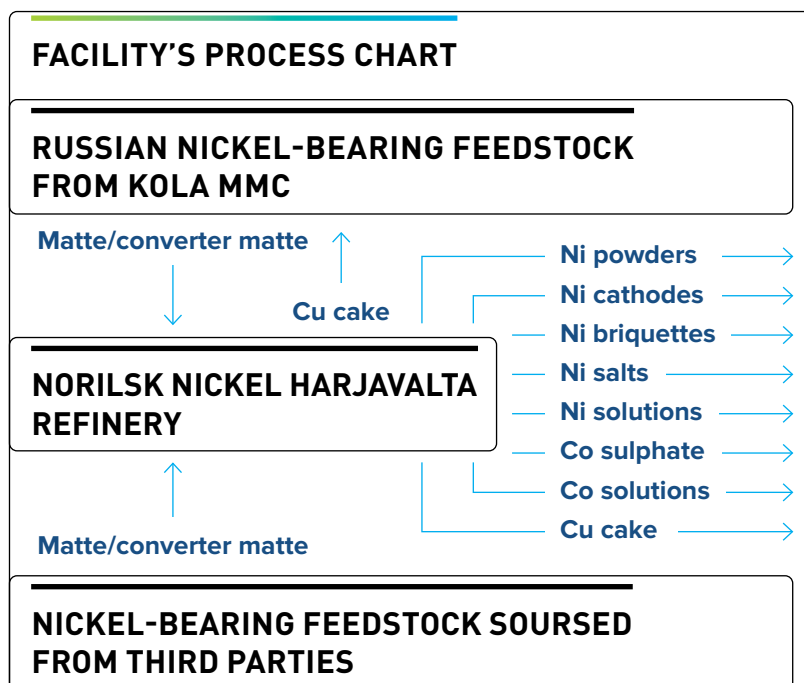
The production of copper in copper cake totalled 2.5 kt, down 83% y-o-y, while the output of saleable palladium in copper cake decreased by 69% y-o-y and platinum output was down by 67% y-o-y.

The decrease in copper and palladium output was due to the fact that the copper cake mined was mostly shipped to the Polar Division for further processing.

### Products:

- Nickel cathodes and briquettes
- Nickel salts, powders and solutions
- Cobalt sulphate and solutions
- PGM-bearing copper cake

### FACILITY'S PROCESS CHART



### PRODUCTION VOLUMES

Product	2018	2019	2020
Nickel, t	60,765	62,422	63,352
from own Russian feed	59,337	58,939	60,175
Copper (in copper cake), t	18,036	12,948	2,491
from own Russian feed	17,980	12,667	2,121
Palladium (in copper cake), koz	58	54	17
from own Russian feed	58	51	11
Platinum (in copper cake), koz	11	12	4
from own Russian feed	11	9	2