

REVENUE

Nickel

Nickel sales contributed 27% to the Group's total metal revenue in 2018 (vs 29% in 2017). The decrease by 2 p.p. was driven

by an increase of copper and palladium sales volumes, which were partly offset by nickel price outperforming other metals' prices.

In 2018, nickel revenue increased 25% y-o-y (or by +USD 597 million) to USD 3,013 million primarily due to higher realized metal price.

The average realized price of refined nickel produced from own feed increased 26% to USD 13,531 per tonne in 2018 (vs USD 10,704 per tonne in 2017).

Sales volume of refined nickel produced from own Russian feed, increased by 1% (or +2 thousand tonnes) to 208 thousand tons.

Sales volume of nickel produced from third-party feed decreased 78% y-o-y to 2 thousand tonnes as Harjavalta reduced the processing volumes of third-party feed.

In 2018, sales of nickel in semi-products increased 55% y-o-y to USD 175 million primarily owing to higher sales volume of semi-products.

Copper

In 2018, copper sales accounted for 27% of the Group's total metal sales, increasing 23% (or +USD 555 million) y-o-y to USD 2,977 million primarily owing to higher sales volume (+USD 435 million) as well as higher realized price (+USD 120 million).

The average realized price of refined copper increased 6% from USD 6,202 per tonne in 2017 to USD 6,566 per tonne in 2018.

Physical volume of refined copper sales from the Company's own Russian feed **increased 18%** (or +66 thousand tons) to 431 thousand tons (excluding copper in concentrates, produced by GRK "Bystrinskoe") owing to higher copper production from concentrate purchased from Rostec.

Sales of refined copper, produced from third-party feed were completely ceased (reduction by 3 thousand tons).

Revenue from copper in semi-products in 2018 **slightly increased 2%** to USD 144 million.

Palladium

In 2018, **palladium remained the largest contributor to the Group's total revenue, accounting for 34%** (+ 5 p.p. y-o-y). **Palladium revenue increased 51%** (or +USD 1,240 million) to USD 3,674 million. The positive impact of higher sales volume (+USD 526 million) was amplified by increased realized price (+USD 406 million).

The average realized price of refined palladium produced from own feed increased 19% from USD 858 per troy ounce in 2017 to USD 1,025 per troy ounce in 2018.

Physical volume of refined palladium sales

from the Company's own Russian feed in 2018 **increased 24%** (or +560 thousand troy ounces) to 2,913 thousand troy ounces.

The increase in sales volume was driven by the sale of own metals from stock accumulated in the Company's Palladium Fund in 2017.

Refined palladium sales from third-party feed were completely ceased as processing of low-margin third-party feed was terminated in 2018.

Revenue of palladium in semi-products in 2018 **increased by 13%** to USD 98 million.

Additional USD 593 million to palladium revenue in 2018 was contributed by the resale of metal purchased from third parties (vs USD 285 million in 2017).

Platinum

In 2018, platinum sales (5% of the Group's total metal revenue) decreased 9% (or -USD 58 million) to USD 596 million following the decline of realized platinum

price (-USD 51 million), which was exacerbated by lower sales volume (-USD 7 million).

Physical volume of refined platinum sales from the Company's own Russian feed in 2018 **increased by 3%** (or +18 thousand troy ounces) to 657 thousand troy ounces.

Revenue of platinum in semi-products in 2018 **decreased 35%** to USD 20 million primarily due to decrease of sales volume of platinum in purchased semi-products.

Other metals

In 2018, revenue from other metals increased 44% (+USD 213 million) to USD 702 million, primarily owing to higher revenue from cobalt (up 91%), rhodium (up 84%) and gold (up 11%).

OTHER SALES

In 2018, other sales decreased 3% to USD 708 million, primarily owing to Russian rouble depreciation (-USD 47 million). Revenue increase in real terms was primarily driven by increase in fuel and gas prices and higher revenue from services provided by transport subsidiaries of the Group to third parties.

Other sales (USD million)

Index	2017	2018	Change, %
Air transport	256	257	0
Fuel-power complex	175	178	2
Water transport	65	56	-14
Food retail	40	38	-5
Zapolyarye Health Resort	18	17	-6
Other	177	162	-8
TOTAL	731	708	-3

COST OF METAL SALES

Cost of metal sales

In 2018, the cost of metal sales increased 14% (or +USD 568 million) to USD 4,536 million. Main factors contributing to it were:

- Decrease in cash operating costs by 2% (or -USD 81 million);
- Increase in depreciation charges by 4% (or +USD 23 million);
- Change in metal inventories y-o-y primarily due to sales of palladium accumulated in 2017 (cost of metal sales increase by +USD 626 million).

Cash operating costs

In 2018, total cash operating costs decreased by 2% (or -USD 81 million) to USD 3,774 million.

The positive effect of Russian rouble depreciation (-USD 200 million) was partly offset by inflationary growth of cash operating costs by +USD 104 million.

Cost increase driven by the processing of Rostec concentrate (+USD 193 million) was partly offset by lower volumes

of refined metals purchased for resale (-USD 100 million) and headcount reduction (-USD 58 million) as part of the 2018-2020 efficiency and cost optimization programme.

Cash operating costs (USD million)

Index	2017	2018	Change, %
Labour	1,392	1,311	-6
Materials and supplies	732	727	-1
Purchases of raw materials and semi-products	297	436	47
Purchases of refined metals for resale	530	430	-19
Mineral extraction tax and other levies	221	212	-4
Third-party services	242	200	-17
Electricity and heat energy	143	143	0
Fuel	81	87	7
Transportation expenses	65	70	8
Sundry costs	152	158	4
Total cash operating costs	3,855	3,774	-2
Depreciation and amortisation	630	653	4
Decrease/(increase) in metal inventories	-517	109	n. a.
TOTAL COST OF METAL SALES	3,968	4,536	14