Financial overview (MD&A)

In 2017, Norni

In 2017, Nornickel delivered excellent financial results, with revenue increasing by 11% to USD 9 bn and EBITDA margin holding at 44%, one of the best results among global mining peers. On top of that, we succeeded in significantly improving the Company's debt profile and raising debt financing at record low interest rates, which will help us save over USD 150 mln per annum in interest expenses.

In 2017, we launched highly ambitious programmes to improve labour productivity. Furthermore, automation of our IT and production processes continues at a fast pace, while all the support functions are currently being transferred to and consolidated under the Shared Services Centre in Saratov. Also, we commissioned a fibre optic communication line in Norilsk, which will enable us to smoothly implement SAP ERP systems, while also providing the city's residents with access to high-speed internet.

In 2018, we plan to release over USD 1 bn of our working capital and reduce our leverage (net debt to EBITDA ratio) to below 1.5x by the year-end. We also confirm our CAPEX guidance at ca. RUB 2 bn, including USD 200 mln of investments to complete the construction of Bystrinsky GOK."

Sergey Malyshev

The Company's Senior Vice President and Chief Financial Officer



2017 Highlights

- Consolidated revenue increased 11% y-o-y to USD 9.1 billion on the back of higher realized metal prices;
- EBITDA was up 2% y-o-y to a robust USD 4 billion owing to higher metal revenue that was partly negatively offset by RUB appreciation against USD, one-off increase in social-related expenses and accumulation of palladium stock to deliver under the 2018 contracts;
- EBITDA margin amounted to an industry-leading level of 44%;
- CAPEX increased by 17% y-o-y to USD 2 billion as Bystrynsky copper project (Chita) was in its final construction stage and the Bystrinsky concentrator was launched into hot commissioning at the end of 2017, while the upgrade of nickel refining facilities at Kola entered into active construction;
- Reported net debt/EBITDA ratio increased to 2.1x as of the end of 2017 driven mostly by the payment of dividend for 2016 and interim dividend for 2017 and one-off increase of working capital;
- Net debt/EBITDA ratio for the purposes of calculating final dividend for 2017 amounted to 1.88x;
- Major refinancing activities were completed in 2017, with new funding raised at record low interest rates, enabling a reduction of interest cost by over USD 150 million;
- In October 2017, the Company paid interim dividend for 1H2017 in the amount of RUB 224.2 per ordinary share (approximately USD 3.8 per ADR);
- In December 2017, Nornickel signed a 5-year USD 2.5 billion syndicated facility agreement with a group of international banks at Libor +1.5%.



Recent Developments

On January 30, 2018 Moody's rating agency has raised Nornickel credit rating to the investment grade level "Baa3" and changed the outlook from "Stable" to "Positive". Therefore, Nornickel currently has investment grade credit ratings from all three international rating agencies Fitch, Moody's and S&P Global.

Key Corporate Highlights

Cash operating costs	2017	2016	Change,%
Revenue	9,146	8,259	11%
EBITDA ¹	3,995	3,899	2%
EBITDA margin	44%	47%	(3 p.p.)
Net profit	2,123	2,531	(16%)
Capital expenditures	2,002	1,714	17%
Free cash flow ²	(173)	1,591	(111%)
Net working capital ²	2,149	455	5x
Net debt ²	8,201	4530	81%
Net debt, normalized for the purpose of dividend calculation ³	7,495	n.a.	n.a.
Net debt/12M EBITDA	2.1x	1.2x	0.9x
Net debt/12M EBITDA for dividends calculation	1.88x	n.a.	n.a.
Dividends paid per share (USD) ⁴	18.8	7.8	141%

Key Segmental Highlights⁵

USD million (unless stated otherwise)	2017	2016	Change,%
Revenue	9,146	8,259	11%
Group GMK	7,671	6,194	24%
Group KGMK	888	664	34%
NN Harjavalta	840	727	16%
Other metallurgical	141	84	68%
Other non-metallurgical	1,266	1,699	(25%)
Eliminations	(1,660)	(1,109)	50%
Consolidated EBITDA	3,995	3,899	2%
Group GMK	4,701	3,883	21%
Group KGMK	169	117	44%
NN Harjavalta	84	45	87%
Other metallurgical	(53)	(11)	5x
Other non-metallurgical	114	119	(4%)
Eliminations	(377)	112	n.a.
Unallocated	(643)	(366)	76%
EBITDA margin	44%	47%	(3 p.p.)
Group GMK	61%	63%	(2 p.p.)
Group KGMK	19%	18%	1 p.p.
NN Harjavalta	10%	6%	4 p.p.
Other metallurgical	(38%)	(13%)	(25 p.p.)
Other non-metallurgical	9%	7%	2 p.p.

¹ A non-IFRS measure, for the calculation see the notes below.

² A non-IFRS measure, for the calculation see an analytical review document ("Data book") available in conjunction with Consolidated IFRS Financial Results on the Company's web site.

³ Normalized on interim dividends and deposits with maturity of more than 90 days.

⁴ Paid during the current period.

⁵ Segments are defined in the consolidated financial statements.

Revenue

In 2017, revenue of Group GMK segment increased by 24% to USD 7,671 million. This was primarily driven by higher realized metal prices and transition of NN Harjavalta to the Company's own Russian feed. This positive effect was partly compensated by lower sales volume in 2017 owing to accumulation of palladium in 2017 and release of stock in 2016.

The revenue of Group KGMK segment increased by 34% to USD 888 million mainly due to the increase in revenue from processing of the feed coming from Polar division.

Revenue of NN Harjavalta increased by 16% to USD 840 million. This was primarily driven by higher realized metal prices and increased metal production from the Company's own Russian feed.

Revenue of Other metallurgical segment increased by 68% to USD 141 million. This was primarily driven by higher realized metal prices.

Revenue of Other non-metallurgical segment decreased by 25% to USD 1,266 million. This was driven primarily by changes of inter-segment revenue streams driven by transition to Group's own Russian feed and accumulation of metal stock in 2017.

In 2017, EBITDA of Group GMK segment increased by 21% to USD 4,701 million owing primarily to higher realized metal prices partly offset by lower sales volume in 2017 owing to accumulation of stock in 2017 due to Palladium fund activities and higher base effect of release of stock in 2016 as well as increased cash costs on the back of the Russian rouble appreciation against US Dollar.

EBITDA of Group KGMK segment increased by 44% to USD 169 million primarily owing to the increased sales volume and higher margin of tolling operations.

EBITDA of NN Harjavalta increased by 87% to USD 84 million primarily due to higher revenue and processing the Company's own Russian feed instead of low-margin third parties feed.

EBITDA of Other metallurgical segment decreased five times to negative USD 53 million primarily due to one-off expenses.

EBITDA of Other non-metallurgical segment decreased by USD 5 million to USD 114 million.

EBITDA of Unallocated segment decreased by 76% to negative USD 643 million primarily due to increased social expenses of the Group.

Cash Operating Costs

2017	2016	Change,%	
215	271	(21%)	
206	229	(10%)	
9	42	(79%)	
368	374	(2%)	
365	369	(1%)	
3	5	(40%)	
2,405	2,779	(13%)	
2,353	2,758	(15%)	
52	21	148%	
657	669	(2%)	
639	661	(3%)	
18	8	125%	
	215 206 9 368 365 3 2,405 2,353 52 657 639	215 271 206 229 9 42 368 374 365 369 3 5 2,405 2,779 2,353 2,758 52 21 657 669 639 661	

Business overview → Financial overview (MD&A)

Gold, kaz² 2017 2016 Change,% Gold, kaz² 181 155 (98) Rhodium, koz² 68 85 (20%) Cobalt, thousand tons¹ 3 5 (40%) Sliver, koz² 2,469 2,565 (4%) Semi-products, nickel, thousand tons² 17 13 31% Semi-products, palladium, koz² 138 15 20% Semi-products, palladium, koz² 48 43 12% Semi-products, palladium, koz² 8 9 (11%) Semi-products, palladium, koz² 8 43 12% Semi-products, palladium, koz² 8 43 12% Semi-products, gilver, koz² 8 9 (11%) Semi-products, gilver, koz² 18 43 12% Semi-products, gilver, koz² 18 4 4x Neither Koz² 18 4 4x Semi-products, gold, koz² 19 9,701 10% Copper (USD per tonne) 10,704				
Rhodium, koz¹ 68 85 (20%) Cobalt, thousand tons¹ 3 5 (40%) Silver, koz¹ 2,469 2,565 (4%) Semi-products, nickel, thousand tons² 17 13 31% Semi-products, copper, thousand tons² 28 15 87% Semi-products, palladium, koz² 138 115 20% Semi-products, palladium, koz² 48 43 12% Semi-products, polity, koz² 48 43 12% Semi-products, polity, koz² 48 43 12% Semi-products, polity, koz² 52 148 43 Semi-products, polity, koz² 52 148 43 AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL 10,704 9,701 10% Copper (USD per tonne) 10,704 9,701 26% Palladium (USD per oz) 49 97 3% Cobalt (USD per tonne) 10,705 12,81 0% Roberture, USD million 2,20 1,205 1,205		2017	2016	Change,%
Cobalt, thousand tons¹ 3 5 (40%) Silver, koz¹ 2,469 2,565 (4%) Semi-products, nickel, thousand tons² 17 13 37% Semi-products, copper, thousand tons² 28 15 87% Semi-products, palladium, koz² 138 115 20% Semi-products, palladium, koz² 48 43 12% Semi-products, gold, koz² 8 9 (11%) Semi-products, silver, koz² 58 48 4x AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL NICkel (USD per tonne) 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 99 977 (3%) Cobalt (USD per tonne) 1,079 2,962 83 Cobalt (USD per oz) 1,199 2,962 83 Cobalt (USD per oz) 1,29 2,762 0.3 Ribodium (USD per oz) 1,08 2,625 (2,28) Revenue, USD millio 2,24 1,62 1,78<	Gold, koz¹	141	155	(9%)
Silver, koz¹ 2,469 2,565 44% Semi-products, nickel, thousand tons² 17 13 31% Semi-products, copper, thousand tons² 28 15 87% Semi-products, palladium, koz² 138 115 20% Semi-products, platinum, koz² 48 43 12% Semi-products, splker, koz² 48 43 12% Semi-products, splker, koz² 48 43 12% Semi-products, splker, koz² 8 9 (III%) Semi-products, splker, koz² 528 148 4x AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Pollutinum (USD per oz) 41,977 22,962 33 Gold (USD per tonne) 1,259 1,254 0% Revenue, USD million 2,344 2,625 (IZS) Copper	Rhodium, koz¹	68	85	(20%)
Semi-products, nickel, thousand tons² 17 13 31% Semi-products, copper, thousand tons² 28 15 87% Semi-products, palladium, koz² 138 115 20% Semi-products, palladium, koz² 48 43 12% Semi-products, gold, koz² 8 9 (11%) Semi-products, silver, koz² 8 9 (11%) Semi-products, silver, koz² 528 148 4x AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL 10,704 9,701 10% Copper (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Polati (USD per oz) 41,977 22,962 33% Gold (USD per oz) 1,259 1,254 0% Robiting (USD per oz) 1,259 1,254 0% Robiting (USD per oz) 2,304 2,625 (12%) Copper 2,304 1,839 24% </td <td>Cobalt, thousand tons¹</td> <td>3</td> <td>5</td> <td>(40%)</td>	Cobalt, thousand tons ¹	3	5	(40%)
Semi-products, copper, thousand tons² 28 15 87% Semi-products, palladium, koz² 138 115 20% Semi-products, platinum, koz² 48 43 12% Semi-products, gold, koz² 3 9 (118) Semi-products, silver, koz² 528 148 4x AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,259 1,259 1,254 0% Revenue, USD million 2,304 2,625 (12%) Copper 2,304 1,839 24% Palladium 2,346 1,838 24% Palladium 2,346 1,838	Silver, koz¹	2,469	2,565	(4%)
Semi-products, palladium, koz² 138 115 20% Semi-products, platinum, koz² 48 43 12% Semi-products, gold, koz² 8 9 (11%) Semi-products, silver, koz² 528 148 4x AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 85 614 40% Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Revenue, USD million 1 2,304 2,625 (12%) Copper 2,304 2,625 (12%) 2 Revenue, USD million 2,346 1,883 24% Copper 2,281 1,839 24% 26 Copper 2,281 1,839 24% 26 26	Semi-products, nickel, thousand tons ²	17	13	31%
Semi-products, platinum, koz² 48 43 12% Semi-products, gold, koz² 8 9 (11%) Semi-products, silver, koz² 528 148 4x Average realized prices of Metals Produced By Norillsk Nickel Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,055 668 62% Revenue, USD million 1,055 668 62% Revenue, USD million 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Palladium 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% <td>Semi-products, copper, thousand tons²</td> <td>28</td> <td>15</td> <td>87%</td>	Semi-products, copper, thousand tons ²	28	15	87%
Semi-products, gold, koz² 8 9 (11%) Semi-products, silver, koz² 528 148 4x AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 41,977 22,962 83% Gold (USD per tonne) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million 2,304 2,625 1(2%) Copper 2,304 2,625 1(2%) Palladium 2,304 2,625 1(2%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Palladium 2,346 1,888 24% Semi-products 424 216 96% Semi-products 424 216 96% Oth	Semi-products, palladium, koz²	138	115	20%
Semi-products, silver, koz² 528 148 4x AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 11,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Palladium 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19% <td>Semi-products, platinum, koz²</td> <td>48</td> <td>43</td> <td>12%</td>	Semi-products, platinum, koz²	48	43	12%
AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Revenue, USD million 0 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Semi-products, gold, koz²	8	9	(11%)
Nickel (USD per tonne) 10,704 9,701 10% Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million Nickel 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Semi-products, silver, koz²	528	148	4x
Copper (USD per tonne) 6,202 4,911 26% Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	AVERAGE REALIZED PRICES OF METALS PRODUCED BY NORILSK NICKEL			
Palladium (USD per oz) 858 614 40% Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Nickel (USD per tonne)	10,704	9,701	10%
Platinum (USD per oz) 949 977 (3%) Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million Nickel 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Copper (USD per tonne)	6,202	4,911	26%
Cobalt (USD per tonne) 41,977 22,962 83% Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Palladium (USD per oz)	858	614	40%
Gold (USD per oz) 1,259 1,254 0% Rhodium (USD per oz) 1,085 668 62% Revenue, USD million Vikel 2,304 2,625 (12%) Copper 2,281 1,839 24% 24% 24 24% 24% 24% 25% 56% 56% 56% 56% 56% 56% 56% 56% 56% 668 62% 62% 625 (12%) 62% 62% 62% 62% 62% 62% 62% 62% 65%	Platinum (USD per oz)	949	977	(3%)
Rhodium (USD per oz) 1,085 668 62% Revenue, USD million Nickel 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Cobalt (USD per tonne)	41,977	22,962	83%
Revenue, USD million Nickel 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Gold (USD per oz)	1,259	1,254	0%
Nickel 2,304 2,625 (12%) Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Rhodium (USD per oz)	1,085	668	62%
Copper 2,281 1,839 24% Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Revenue, USD million			
Palladium 2,346 1,888 24% Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Nickel	2,304	2,625	(12%)
Platinum 623 654 (5%) Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Copper	2,281	1,839	24%
Semi-products 424 216 96% Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Palladium	2,346	1,888	24%
Other metals 437 424 3% Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Platinum	623	654	(5%)
Revenue from metal sales 8,415 7,646 10% Revenue from other sales 731 613 19%	Semi-products	424	216	96%
Revenue from other sales 731 613 19%	Other metals	437	424	3%
	Revenue from metal sales	8,415	7,646	10%
Total revenue 9,146 8,259 11%	Revenue from other sales	731	613	19%
	Total revenue	9,146	8,259	11%

¹ All information is reported on the 100% basis, excluding sales of metals purchased from third parties.

² Metal volumes represent metals contained in semi-products.

Revenue from metals



Nickel sales accounted for 27% of the Group's total metal revenue in 2017 down from 34% in 2016. The decrease by 7 p.p. was driven by the reduction of sales volumes following a decrease of metal production from third party feed and stronger performance of palladium and copper relative to nickel price.

In 2017, nickel revenue decreased by 12% (or USD 321 million) to USD 2,304 million primarily due to lower sales volumes (USD 593 million) owing to decrease of Nickel production from third parties feed and the higher base effect as temporary metal stock was sold in 2016, which was partly offset positively by higher nickel price (USD 267 million).

Additional USD 5 million to nickel revenue in 2017 was contributed by the re-sale of purchased metal to fulfil the Company's contractual obligations.

The average realized nickel price increased 10% to USD 10,704 per tonne in 2017 from USD 9,701 per tonne in 2016.

Sales volume of nickel produced by the Company from its own Russian feed decreased by 10% (or 23 thousand tons) to 206 thousand tons. The decrease was primarily driven by the sale of metal from a temporary stock in 2016.

Sales volume of nickel produced from third parties feed decreased by 79% in 2017 to 9 thousand tons as Harjavalta started the processing of the Company's own Russian feed.



In 2017, copper sales accounted for 27% of the Group's total metal sales, increasing 24% (or USD 442 million) to USD 2,281 million primarily owing to higher realized copper price (USD 483 million) that was partly negatively offset by the decrease in sales volume (USD 41 million).

The average realized copper price increased 26% from USD 4,911 in 2016 to USD 6,202 per tonne in 2017.

Physical volume of copper sales from the Company's own Russian feed decreased by 1% (or 4 thousand tons) to 365 thousand tons. The decrease owing to the higher base effect as copper from temporary metal stock was sold in 2016 was partly positively offset by the copper sales, produced from concentrate purchased from Rostec.

The volume of copper sales from purchased semi-products decreased by 2 thousand tons to 3 thousand tons in 2017.



Palladium

In 2017, palladium became the largest contributor to the Group's revenue, accounting for 28% of the Group's total metal revenue, up by 3 p.p. The palladium revenue increased 24% (or USD 458 million) to USD 2,346 million. The positive impact of higher realized price (USD 681 million) was partly negatively offset by the reduction of sales volume (USD 324 million) mainly owing to the higher base effect as temporary metal stock was sold in 2016 and stock accumulation in 2017 in Palladium fund.

Additional USD 285 million to palladium revenue in 2017 was contributed by the re-sale of purchased metal to fulfil the Company's contractual obligations (vs USD 184 million in 2016).



Platinum

In 2017, platinum sales accounted for 7% of the Group's total metal revenue and decreased by 5% (or USD 31 million) to USD 623 million due to lower volumes of platinum sales owing to the higher base effect as metal stock was sold in 2016 (USD 11 million) and lower realized platinum price (USD 20 million) down 3% from USD 977 per oz in 2016 to USD 949 per oz in 2017.

Other metals

In 2017, revenue from other metals increasing 3% (or USD 13 million) to USD 437 million owing to the increase in rhodium (up 30%) and cobalt (up 8%) sales which was partly negatively offset by lower gold (down 9%) and silver (down 5%) revenue.

Semi-products

In 2017, semi-products revenue (primarily copper cake and nickel concentrate) increased by USD 208 million (or 96%) to USD 424 million, and accounted for 5% of the Group's total metal revenue. This increase was mainly driven by higher physical sales to third parties instead of processing these semis at the Company's own refineries.

Other sales

In 2017, other sales were up by 19% or USD 731 million primarily owing to the Russian rouble appreciation (USD 80 million) and revenue increase in real terms driven by the increase of prices for services provided to third parties (USD 13 million), and higher revenue from transport and consumer services subsidiaries of the Group, which was partly offset negatively by the divestiture of non-core assets.

Cost of Metal Sales

Cost of metals sales

In 2017, the cost of metal sales increased by 9% (or USD 335 million) to USD 3,968 million owing to:

- Increase in cash operating costs by 33% (USD 965 million);
- Increase in depreciation charges by 38% (USD 174 million);
- Change in metal inventories y-o-y (cost of metal sales decrease by USD 804 million).

Cash operating costs

In 2017, total cash operating costs increased by 33% (or USD 965 million) to USD 3,852 million.

The negative effect of currencies appreciation (RUB and ZAR) amounted to USD 312 million.

The inflationary growth of cash operating costs by USD 115 million was exacerbated by an increase in metal purchase costs (USD 346 million) and increase of the mineral extraction tax (USD 83 million) resulting from the change in legislation in 2017. Mineral extraction tax increased following the cancellation of PGM export duties in September, 2016.

Cash operating costs structure in 2017 and 2016 was affected by consolidation of 50% of Nkomati joint operation.

Cash operating costs

USD million	2017	2016	Change,%
Labour	1,377	1,145	20%
Purchases of metals for resale	530	184	188%
Purchases of raw materials and semi-products	297	292	2%
Materials and supplies	703	520	35%
Mineral extraction tax and other levies	221	122	81%
Third-party services	204	170	20%
Electricity and heat energy	132	101	31%
Fuel	81	60	35%
Production costs related to joint operation	93	79	18%
Transportation expenses	64	71	(10%)
Sundry costs	150	143	5%
Total cash operating costs	3,852	2,887	33%
Depreciation and amortisation	630	456	38%
(Increase)/decrease of metal inventories	(514)	290	n.a.
Total cost of metal sales	3,968	3,633	9%

Labour

In 2017, labour costs increased by 20% (or USD 231 million) to USD 1,377 million amounting to 36% of the Group's total cash operating costs driven by the following:

- USD 162 million cost increase owing to the Russian rouble appreciation against US Dollar;
- USD 50 million cost decrease following the decrease of production staff headcount owing primarily to the Nickel pant closure and ongoing downstream reconfiguration program.
- USD 119 million other increase in real terms primarily driven by the indexation of RUBdenominated salaries and wages.

Purchases of metals for resale

In 2017, expenses on the purchase of metals for resale increased 3 times (or by USD 346 million) to USD 530 million. Metal purchase increase is primarily due to piling up metal stocks to meet additional demand of the Company's key clients, primarily palladium.

Purchases of raw materials and semi-products

In 2017, expenses on the purchase of raw materials and semi-products increased by 2% (or by USD 5 million) to USD 297 million driven by the following:

- USD 58 million cost increase owing to higher semiproducts prices;
- USD 140 million cost increase owing to the processing of copper concentrate purchased from Rostec;
- USD 82 million cost increase owing to purchase of semi-products from Nkomati for further resale to third parties;
- USD 275 million cost reduction resulting from the decrease of purchased semi-products from third parties for processing at NN Harjavalta as part of ongoing downstream reconfiguration program.

Materials and supplies

In 2017, materials and supplies expenses increased by 35% (or USD 183 million) to USD 703 million driven by the following:

- USD 62 million negative effect of the Russian rouble appreciation;
- USD 11 million inflationary growth in materials and supplies;
- USD 110 million cost increase in line with the ongoing downstream reconfiguration program.

Third-party services

In 2017, cost of third party services increased by 20% (or USD 34 million) to USD 204 million.

The negative effect of the Russian rouble appreciation amounted to USD 18 million.

The cost increase owing to higher volumes of repairs, tolling services, and other production services (USD 37 million) was mostly offset by cost decrease due to the termination of Nkomati concentrate processing (USD 21 million).

Mineral extraction tax and other levies

In 2017, mineral extraction tax and other levies increased by 81% (or USD 99 million) to USD 221 million.

The negative effect of the Russian rouble appreciation amounted to USD 18 million.

Cash cost increase in real terms by USD 81 million was primarily driven by the higher mineral extraction tax resulting from the change in legislation (USD 83 million), resulting from cancellation of PGM export duties in 2016 for metals, produced by the Company.

Change in mineral extraction tax rate in January 2017 was mostly compensated by cancellation of PGM export duties in September 2016.

Electricity and heat energy

In 2017, electricity and heat energy expenses increased by 31% (or USD 31 million) to USD 132 million driven by the following:

- USD 10 million negative effect of the Russian rouble appreciation;
- USD 22 million increase in expenses owing to higher consumption of energy due to the ongoing downstream reconfiguration program (Polar division feed processing at Kola MMC, which purchases electricity from third parties) and energy tariffs inflationary growth.

Fuel

In 2017, fuel expenses increased by 35% (or USD 21 million) to USD 81 million driven by the following:

- USD 8 million negative effect of the Russian rouble appreciation;
- USD 15 million higher fuel oil and other oil products prices.

Transportation expenses

In 2017, transportation expenses decreased by 10% (or USD 7 million) to USD 64 million driven by the following:

- USD 7 million negative effect of the Russian rouble appreciation;
- USD 14 million costs decrease driven by transportation of Nkomati concentrate to third parties instead of NN Harjavalta production facilities.

Sundry costs

In 2017, sundry costs increased by 5% (or USD 7 million) to USD 150 million, driven by the following:

- USD 19 million negative effect of the Russian rouble appreciation;
- USD 12 million decrease in insurance expenses owing to the renegotiation of property insurance agreements on the same insurance cover terms.

Production costs related to joint operation

In 2017, production costs related to joint operation increased by 18% (or USD 14 million) to USD 93 million, driven by the following:

- USD 8 million negative effect of the South African rand appreciation;
- USD 6 million increase in expenses owing to the higher sales volume of Nkomati concentrates..

Depreciation and amortisation

In 2017, depreciation and amortisation increased by 38% (or USD 174 million) to USD 630 million.

Russian rouble appreciation amounted to depreciation and amortisation increase by USD 62 million.

Depreciation charges increased in real terms by USD 112 million mainly due to additions to production assets at the Company's operating subsidiaries in Russia in 2H2016 and in 2017.

(Increase)/decrease of metal inventories

In 2017, comparative effect of change in metal inventory amounted to USD 804 million resulting in a decrease in cost of metal sales, driven by the following:

- USD 729 million sale of metal from temporary stock in 2016 as part of reconfiguration programme, as well as a built-up of palladium stock and accumulation of metal stock in 2017 to meet additional demand of the Company's key customers.
- USD 75 million comparative effect of change in work-in-progress, primarily due to higher accumulation of work-in-progress at Russian subsidiaries of the Group in 2017 as part of ongoing downstream reconfiguration program and due to start of Rostec copper concentrate processing in 2017.

Cost of Other Sales

In 2017, cost of other sales increased by 24% (or USD 124 million) to USD 632 million.

Russian rouble appreciation amounted to cost of other sales increase by USD 72 million.

Cost of other sales increased in real terms by USD 52 million comprised of USD 96 million increase in expenses resulting from higher transportation services, indexation of RUB-denominated salaries and wages and growth of other services, which were partly offset positively by the sale of non-core assets resulting in a cost reduction of USD 44 million.

Selling and Distribution Expenses

Selling and distribution expenses decreased 32% (or USD 36 million) to USD 75 million due to the cancellation of PGM export duties in September 2016 as part of Russian Federation's WTO membership terms (USD 60 million cost reduction), which was partly negatively offset by increase of transportation expenses primarily due to increase of semi-product sales.

USD million	2017	2016	Change,%
Transportation expenses	38	23	65%
Staff costs	13	13	0%
Marketing expenses	14	7	100%
Export duties	1	61	(98%)
Other	9	7	29%
Total	75	111	(32%)

General and Administrative Expenses

USD million	2017	2016	Change,%
Staff costs	478	376	27%
Taxes other than mineral extraction tax and income tax	79	58	36%
Third party services	72	55	31%
Depreciation and amortisation	32	20	60%
Rent expenses	25	19	32%
Transportation expenses	8	6	33%
Other	65	47	38%
Total	759	581	31%

In 2017, general and administrative expenses increased by 31% (or USD 178 million) to USD 759 million. Rouble appreciation contributed to USD 71 million cost increase. General and administrative expenses increased in real terms due to the following:

- USD 38 million increase in staff costs mainly due to salaries indexation;
- USD 30 million increase of costs, resulting from the automatization of production processes and roll out of new IT systems, including USD 17 million of staff costs;
- USD 20 million –higher property tax and amortisation charges.

Other Net Operating Expenses

USD million	2017	2016	Change,%
Social expenses	303	111	173%
Change in allowance for doubtful debts	19	14	36%
Change in allowaOce for obsolete and slow-moving inventory	11	(2)	n.a.
Change in provision for reconfiguration of production facilities	(4)	(33)	(88%)
Other	33	(6)	n.a.
Total	362	84	4x

In 2017, other net operating expenses increased by USD 278 million to USD 362 million owing to one-off social expenses including an estimated provisional cost of long-term social agreement with the government of Zabaikalsky Krai and expenses attributed to the development of skiing resort in Sochi.

Other increase of other net operating expenses was primarily driven by change in allowances for doubtful debts, obsolete and slow-moving inventory and other current assets in line with annual stock counts as well as reversal of provision for reconfiguration of production facilities in 2016.

Finance Costs

USD million	2017	2016	Change,%
Interest expense on borrowings net of amounts capitalized	386	403	(4%)
Unwinding of discount on provisions and payables	133	46	189%
Other	16	4	4x
Total	535	453	18%

Increase in finance costs by 18% y-o-y to USD 535 million was mainly driven by increase of Unwinding of discount on provisions and payables.

In 2017, the Company reduced the average cost of debt to the level of 4.6% as of year-end 2017 from 5.1% as of year-end 2016 due to the consistent implementation of financial policy targets that enabled to partially offset the multiple increase of base rates (Libor) in the current period.

Major factors of the decrease of the average cost of debt:

Reduction of funding cost of more expensive
 Rouble denominated debt in credit portfolio by its
 substitution by Dollar denominated debt in 1H2017,
 together with the reduction of interest rate of the
 bilateral Rouble denominated credit line in the
 amount of RUB 60 billion in October 2017.

- Partial refinancing of more expensive bilateral credit lines by proceeds of 5-year syndicated facility in the amount of USD 2.5 billion under which Nornickel has achieved one of the lowest interest rates of Libor 1M+1.50% per annum available for Russian corporates on international syndicated market since 2008 for the transactions of such size and term. In addition, Nornickel managed to reduce interest rates under the rest Dollar denominated bilateral credit lines within the Group's portfolio.
- In July 2017, the Company reached an agreement with PJSC Sberbank to reduce interest rate under GRK Bystrinskoye LLC project financing by issuing guarantee on behalf of PJSC MMC Norilsk Nickel to secure performance obligations of GRK Bystrinskoye LLC.

Income Tax Expense

In 2017 income tax expense decreased by 3% to USD 719 million driven mostly by the decrease of taxable profit, partly offset by Russian rouble appreciation against US Dollar in 2017.

The effective income tax rate in 2017 of 25.3% was above the Russian statutory tax rate of 20%, which was primarily driven by non-deductible social expenses, as well as an increase in provisions for impairment of property, plant and equipment.

Income Tax Expense

USD million	2017	2016	Change,%
Current income tax expense	686	686	0%
Deferred tax expense	35	59	(41%)
Total	721	745	(3%)

The breakdown of the current income tax expense by tax jurisdictions

USD million	2017	2016	Change,%
Russian Federation	672	679	(1%)
Finland	8	5	60%
Rest of the world	6	2	3x
Total	686	686	0%

EBITDA

In 2017, EBITDA increased by 2% (or USD 96 million) to USD 3,995 million with the EBITDA margin amounting to 44% (down from 47% in 2016). Increase in metal prices was almost offset by lower sales volume in 2017 owing to accumulation of stock in 2017 and release of temporary metal stock in 2016 as well as increased cash costs on the back of the Russian rouble appreciation against US Dollar and one-off increase in social expenses.

2017	2016	Change,%
3,123	3,281	(5%)
645	557	16%
227	61	4x
3,995	3,899	2%
44%	47%	(3 p.p.)
	3,123 645 227 3,995	3,123 3,281 645 557 227 61 3,995 3,899

Net Profit

Before Non-Cash Write-Offs and Foreign Exchange Differences

USD million	2017	2016	Change,%
Net profit	2,123	2,531	(16%)
Impairment of non-financial assets	227	214	6%
Foreign exchange gain	(159)	(491)	(68%)
(Gain)/loss from disposal of subsidiaries and assets classified as held for sale	(20)	4	n.a.
Net profit before non-cash write-offs and foreign exchange differences	2,171	2,258	(4%)

Statement of Cash Flows

USD million	2017	2016	Change,%
Cash generated from operations before changes in working capital and income tax	4,103	3,958	4%
Movements in working capital	(1,670)	83	n.a.
Income tax paid	(670)	(530)	26%
Net cash generated from operating activities	1,763	3,511	(50%)
Capital expenditure	(2,002)	(1,714)	17%
Other investing activities	66	(206)	(132%)
Net cash used in investing activities	(1,936)	(1,920)	1%
Net cash used in financing activities	(2,237)	(2,399)	(7%)
Effects of foreign exchange differences on balances of cash and cash equivalents	(63)	35	n.a.
Net decrease in cash and cash equivalents	(2,473)	(773)	3x

In 2017, net cash generated from operating activities decreased by 50% y-o-y to USD 1.8 billion primarily driven by the increase in working capital in 2017 following the optimisation of trade financing terms, partial payment of payables due to Rostec and increase of metal stock.

Reconciliation of the net working capital changes between the balance sheet and cash flow statement is presented below.

Change of the net working capital

USD million	2017	2016
Change of the net working capital in the balance sheet	(1,694)	575
Foreign exchange differences	115	38
Change in income tax payable	(7)	(161)
Other changes, including reserves	(84)	(369)1
Change of working capital per cash flow	(1,670)	83

Capital investments breakdown by projects

USD million	2017	2016	Change,%
Polar Division, including:	860	884	(3%)
Skalisty mine	216	153	41%
Taymirsky mine	93	68	37%
Komsomolsky mine	18	40	(55%)
Oktyabrsky mine	69	59	17%
Talnakh Concentrator	89	253	(65%)
Reconstruction/modernisation of production facilities related to closing of Nickel plant	11	24	(54%)
Kola MMC	228	89	156%
Chita (Bystrinsky) project	449	269	67%
Other production projects	391	421	(7%)
Other non-production assets	12	4	3x
Intangible assets	62	47	32%
Total	2,002	1,714	17%

In 2017, CAPEX increased by 17% to USD 2.0 billion. The growth was mainly due to the completion of construction and start of hot commissioning of Bystrinsky mining and concentration complex

(Bystrinsky project) in Zabaykalsky region, as well as to the ramp-up of projects related to the modernisation of nickel refining facilities at Kola MMC in line with the Company's reconfiguration program.

Debt and Liquidity Management

HED CHES	4 (24 D)	A	Change,	Cl
USD million	As of 31 December 2017	As of 31 December 2016	USD million	Change, %
Long-term	8,236	7,276	960	13%
Short-term	817	579	238	41%
Total debt	9,053	7,855	1,198	15%
Cash and cash equivalents	852	3,325	(2,473)	(74%)
Net debt	8,201	4,530	3,671	81%
Net debt /12M EBITDA	2.1x	1.2x	0.9x	_
Net debt /12M EBITDA for dividend payments	1.88x	n.a.	n.a.	_

¹ Includes one-off effect of copper concentrate purchase from Rostec.

Company overview

Append

As of December 31, 2017, the Company's total debt amounted to USD 9,053 million which represents 15% increase (USD 1,198 million) compared to year-end 2016. The Company's debt portfolio remains predominantly long-term. As of December 31, 2017, the share of long-term debt in the total debt portfolio amounted to 91% (or USD 8,236 million) as compared to 93% (or USD 7,276 million) as of the year-end 2016.

Net debt/EBITDA ratio increased to 2.1x as of the year-end 2017 from 1.2x as of year-end 2016. Such increase was caused by the growth of Net debt by 81% to USD 8.201 million as a result of 74% decrease in Cash and cash equivalents to USD 852 million. Substantial decrease of Cash and cash equivalents was mainly caused by the increase of working capital, in particular due to the early repayment of advances from off-takers in the amount of USD 650 million, as the margin under these advances at the end of the year was twice as higher than the one under the bank loans available for the Company. By the beginning of 2018 the Company reached agreements with a number of its off-takers on new terms of the advances. In February 2018, Nornickel entered into a new advance transaction for the amount of USD 300 million with one of its counterparties. The Company also continues to balance its liquidity cushion with more flexible and cost efficient financial instruments such as committed reserved credit lines. As of December 31, 2017, the Group maintained additional liquidity sources in form of committed reserved credit lines in the total amount of more than USD 3 billion.

In 2017, Nornickel continued to optimize its debt portfolio in order to improve its profile, further reduce average cost of debt and maintain its average maturity profile in line with the year-end 2016.

In 2017 Nornickel reduced the share of more expensive Rouble denominated debt in its portfolio from 29% as of the year-end 2016 to 15% as of

December 31, 2017, by prepayment of Rouble denominated credit facilities in the amount of RUB 60 billion and successful placement of two Eurobond issues totaling USD 1.5 billion. In April 2017, Nornickel issued USD 1 billion Eurobond maturing in 2023 with an annual coupon rate of 4.10% that was inside the Company's outstanding Eurobonds' curve. In June 2017, the Group closed a USD 500 million Eurobond offering maturing in 2022 with an annual coupon rate of 3.849%. The coupon was fixed at the lowest level ever for the Company's issuances on international debt capital markets.

In December 2017, the Company signed a 5-year syndicated facility in the amount of USD 2.5 billon with 15 international banks from America, Europe and Asia. The funds were used to partially refinance the existing bilateral credit lines and provide for liquidity reserve to address the Company's funding needs in 1H2018, in particular for repayment of Eurobond issue maturing in April 2018. Such strategy enabled the Company to eliminate refinancing risks for the next two years in 2018-2019.

In 2017, the Company's credit ratings assigned by S&P Global and Fitch remained at investment grade level of "BBB-" with "Stable" outlooks. As of the year-end 2017, the Company's credit rating assigned by Moody's remained at the level of "Ba1" with "Stable" outlook capped by Russia's sovereign country celling. On January 29, 2018, Moody's rating agency raised Nornickel credit rating to the investment grade level "Baa3" with "Positive" outlook following the change of Russia's country ceiling for foreign currency debt to "Baa3" and the outlook on sovereign rating to "Positive" from "Stable". Therefore, currently Nornickel has investment grade credit ratings from all three international rating agencies Fitch, Moody's and S&P Global.