

COBALT MARKET REPORT 2023

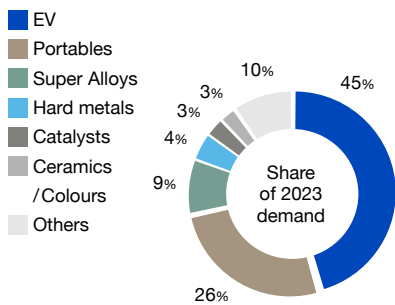
RESILIENT COBALT MARKET IS KEY TO ACHIEVING COBALT'S GREEN ENERGY POTENTIAL



TOTAL MARKET CONTINUES TO SEE STRONG ANNUAL GROWTH SUPPORTED BY COBALT'S KEY ROLE IN BATTERY APPLICATIONS

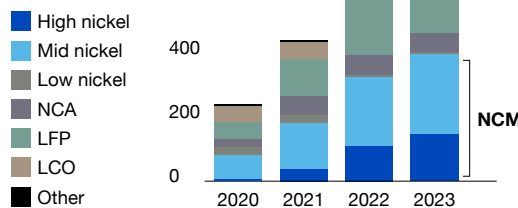
THE OUTLOOK FOR EVs REMAINS POSITIVE AND COBALT HAS A KEY ROLE IN THIS CRITICAL PART OF THE GLOBAL ENERGY TRANSITION.

2023 cobalt demand by end use and share of demand growth, %



Data: Benchmark Mineral Intelligence – Cobalt Forecast.

Cathode demand by chemistry (all battery applications), %



Data: Benchmark Mineral Intelligence – Cathode Forecast.



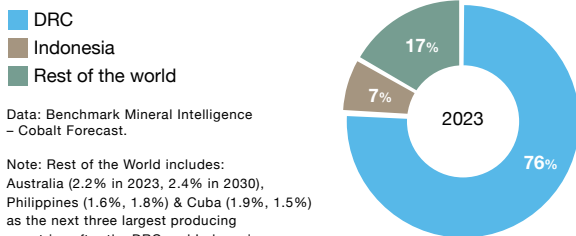
SUPERALLOYS, PRIMARILY FOR AEROSPACE APPLICATIONS, IS COBALT'S LARGEST NON-BATTERY APPLICATION



COBALT PURCHASING BY CHINA'S STATE RESERVE BUREAU is the first time strategic reserves have been added to demand since 2020.

DRC & INDONESIAN GROWTH LIFT THE MARKET ABOVE 200 KT FOR THE FIRST TIME

Share of DRC and Indonesia mined cobalt supply, 2023 vs 2030, %



Data: Benchmark Mineral Intelligence – Cobalt Forecast.

Note: Rest of the World includes: Australia (2.2% in 2023, 2.4% in 2030), Philippines (1.6%, 1.8%) & Cuba (1.9%, 1.5%) as the next three largest producing countries after the DRC and Indonesia.



CMOC BECAME THE LARGEST GLOBAL COBALT PRODUCER

Supply from the Kisanfu mine exceeding market expectations.



INDONESIA STRENGTHENED ITS ROLE AS THE SECOND LARGEST COBALT PRODUCER

It is expected to capture greater market share in the battery supply chain.



ASM SUPPLY HAS LOST MARKET SHARE

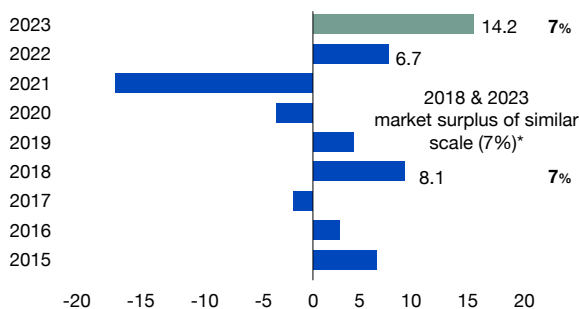
It's impacted by weak cobalt prices and global mined supply going up.

RECORD SURPLUS ADDS FURTHER PRESSURE TO WEAK PRICING

THE CURRENT LOW POINT OF THE CYCLE IS EXPECTED TO PERSIST IN THE SHORT TERM, WEIGHING ON PRICES, ALTHOUGH THE MEDIUM TO LONG TERM OUTLOOK FOR COBALT REMAINS POSITIVE.

The global cobalt market surplus in 2023 was the cobalt market's largest market surplus seen in volume terms.

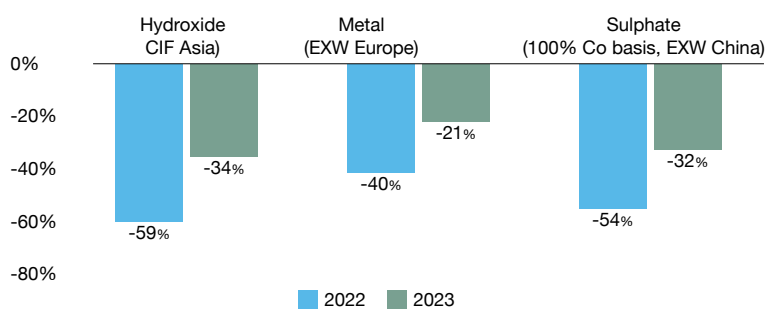
Cobalt market balance, kt cobalt



Data: Benchmark Mineral Intelligence – Cobalt Forecast. Note: * as a share (%) of total demand.

The price decline did slow in 2023 compared to 2022 when prices fell from the high point in the cycle.

Price performance in 2022 and 2023, % change



Data: Benchmark Mineral Intelligence – Price Assessments.

Please do not hesitate to get in touch if you have any questions:

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