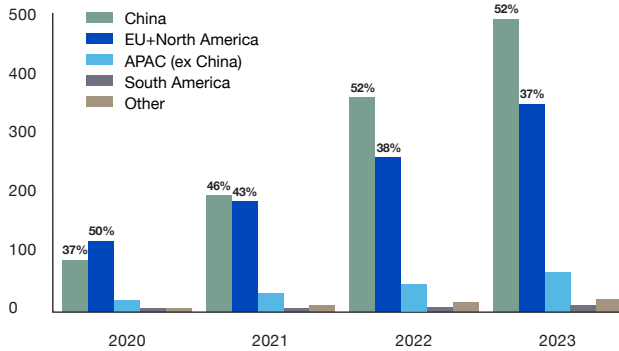
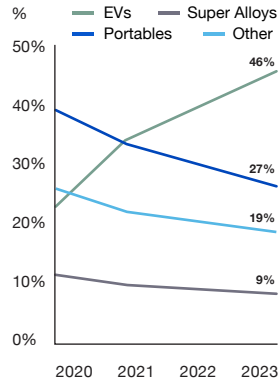


LIB DEMAND GREW 37% IN 2023, PRIMARILY DRIVEN BY CHINA AND THE EV SECTOR

EV battery demand by region
GWh (regional market share as %)



Share of total cobalt demand by sector



Total cobalt demand was estimated at 213kt (Co contained) in 2023, a 15% y-o-y increase.



The EV market accounted for **46% (95kt) of cobalt demand** and **grew 28% (21kt)** compared to 2022.

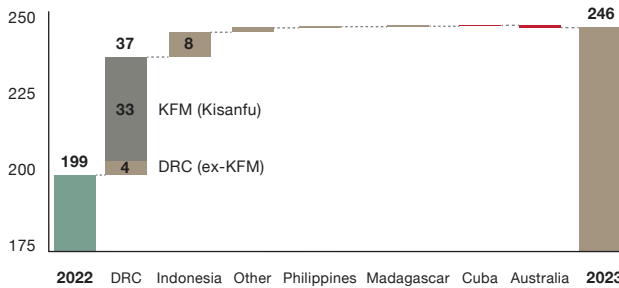


Outside the battery sector, **super alloys are the largest demand segment**, and accounted for an estimated 18kt Co (9%) in 2023.

MINED COBALT SUPPLY INCREASED 23% IN 2023, WITH MOST OF THE GROWTH IN OUTPUT COMING FROM A SINGLE OPERATION IN THE DRC

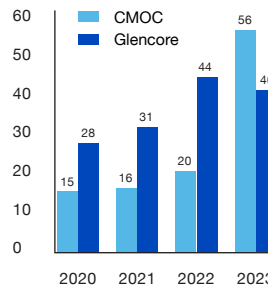
Changes in mined supply of cobalt by major producing country, 2023 vs 2022

tonnes of cobalt



CMOC and Glencore cobalt mine production, 2020-2023

kt Co



The DRC accounted for **80% of the mined supply growth**, supplying \approx 37kt of additional cobalt to the market.



Indonesia supplied most of the additional mined tonnage to the market (16%).



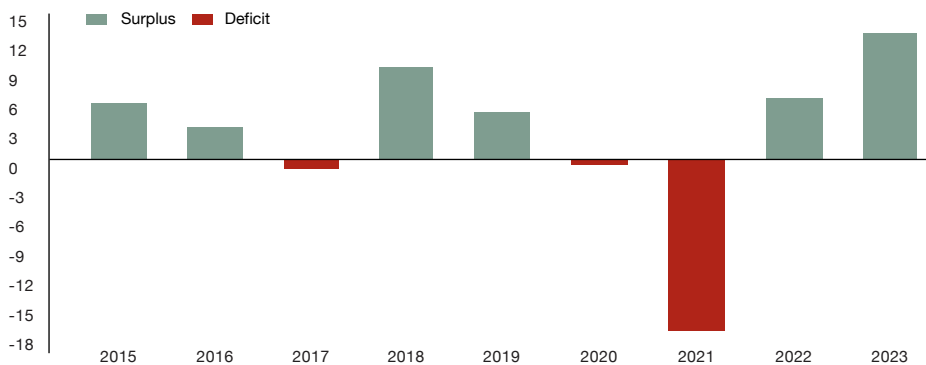
China's CMOC became the largest producer of mined cobalt in the world, overtaking Glencore.

Note: Mined supply analysis does not take into consideration disruption allowance or yield loss.

IN 2023, THE COBALT MARKET RECORDED ITS BIGGEST SURPLUS IN RECENT YEARS

Cobalt market balance, 2015-2023

kt



Note: Total supply for market balance calculation takes into account disruption allowance, yield loss and includes secondary supply (i.e. recycled cobalt). Total demand includes inventory/stockbuild.



In 2023 the cobalt market recorded its biggest surplus in recent years.



In 2023, the global cobalt market was estimated to have closed in a **surplus of 12.5kt**, a widening from the 6.3kt seen in 2022.

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

Market analysis prepared by Benchmark Mineral Intelligence

