## SPOTLIGHT LANDS ON LIB RECYCLING AS THE SQUEEZE ON KEY METAL SUPPLY CONTINUES





In a world emerging from a global pandemic, amid a Russia-Ukraine crisis, we are witnessing a squeeze on key metals required for the battery manufacturing sector – metals which have ultimately become crucial as the world transitions to electrification, in turn creating what has become known as a 'commodities supercycle.'

Commodities including key metals: lithium, copper, nickel, cobalt and manganese, have sharply risen in value since the start of the pandemic in 2020.

Source: Trading Economics on Commodity Prices

## What is a Commodity Supercycle?

Commodity prices go through periods of bull cycles and retrenchment, becoming higher or lower than their long-term average, known as 'supercycles', and these usually last longer than business cycles.

The Bank of Canada has identified four broad-based commodity price supercycles since the early 1900s, with the pandemic triggering a fifth. Though ignited by COVID-19 and the focus on electrification following the Paris Accord and COP26 Agenda, the current supercycle was compounded by the Russia-Ukraine conflict, with sanctions forming the sharpest spike in commodity prices in recent history.

The OECD estimates that nickel prices have increased by 63%, copper by 3.5%, gold by 10%, palladium by 34.7%, and platinum by 9% since the war began in Ukraine. Russia is the second-largest exporter of commodities in the world, accounting for a fifth of battery-grade nickel and a tenth of the world's aluminium and copper. Prior to this, lithium had already quadrupled in value in 2021 and has doubled in price since the beginning of 2022.

Nickel prices rose by 250% over two trading days in early March, meaning the LME had to suspend trading and introduce new intraday price move limits to stabilise the market. Whilst some market analysts signal a potential pause in metals prices, the underlying market demands point towards a progressively widening gap in supply of key metals and security of supply.

In conjunction, a recent study by Benchmark in May 2022 revealed that there are currently over 300 gigafactories in the pipeline around the world, either planned or under construction which, in terms of battery manufacturing capacity, is a 68% increase year-on-year. Industry analysts point to a number of new facilities planned in North America and Europe in the race to catch-up with market leader China. With the increasing development of 'gigafactories' across the world, the supply-demand discrepancy deepens, which is where Technology Minerals comes in.

For Technology Minerals, recent events have underscored the importance of the company's mission, with the help of its 49% owned partner Recyclus, to secure a sustainable supply for battery metals within trusted nations along with a circular economy for battery metals.

Technology Minerals and its R&D partner WMG believe that, through recycling of LIBs, over 22% of the required forecast demand for battery metals can be met by 2040. Technology Minerals' battery recycling model is set to play a vital role in plugging the supply gap for key metals.