## The Precious Base Metal

Often referred to as the "economic barometer", copper demand is an indicator of global economic trends. Copper is a vital component to the infrastructure and technology that underpins human society as we know it. Let's explore why this base metal is expected to become more precious over the next decade.

#### 

ESSENTIAL FOR INFRASTRUCTURE Copper is essential for

electrical wiring, plumbing, and infrastructure development in growing cities.

## Growing Demand

Due to its excellent electrical and thermal conductivity, and its corrosion resistant properties, copper is one of the most widely used metals across a variety of industries. As countries around the world transition to new energy solutions, mass electrification, and forge ahead with technological advancements, the demand for copper is set to reach all-time highs.

#### HORIZON COPPER

### Electricity Consumption Vs. Copper Consumption - Global Electricity Usage Global Refined Copper Consumption

PATIA

#### 32 50% OF ALL COPPER USE 32% 1990 62% 2000 Building construction accounts Renewable Energy Urbanization World population living in Electricity generated by for nearly 50% of all copper use. 28 urban areas increased approx. renewables increased by 62% Residential construction is about 32% between 1990 and 2023. between 2000 and 2023. two-thirds of the building construction market. 24 20 The Hoover Dam would need 3,825 years to generate 15,300 TWh. 12 Population -(in Billions)

TSX.V: HCU OTCQX: HNCUF

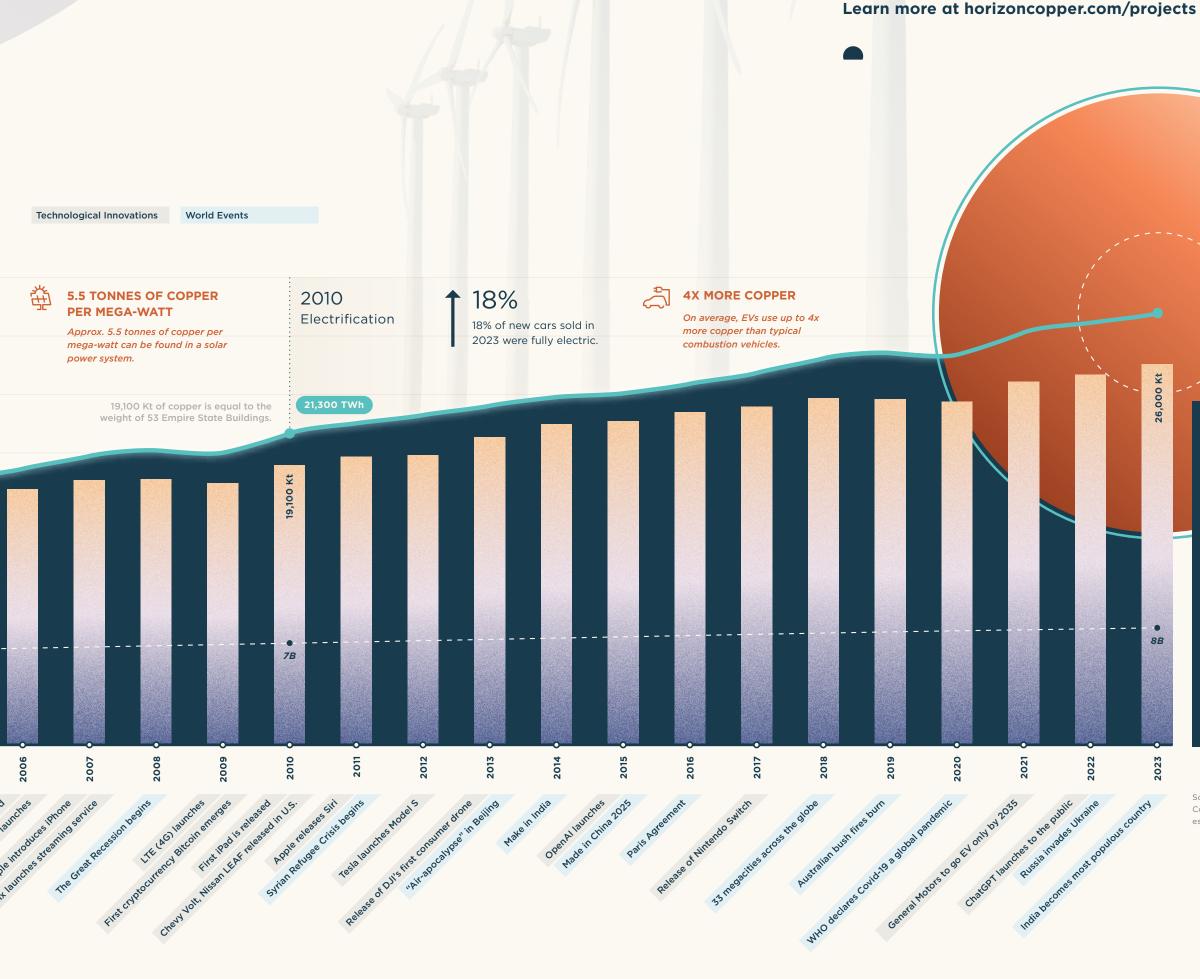
## of countries have a net-zero target

#### **Energy Transition Driving Copper Consumption**

A strong correlation exists between energy consumption and copper demand. Over the last 30+ years, energy demand has skyrocketed across the globe. Booming populations, developing countries, technological advancements, and the clean energy transition—with the majority of countries aiming for net-zero carbon emissions by 2050-have continued to drive strong demand for energy, and consequentially, copper.

## A Brighter Tomorrow, On the Horizon.

For modern society to advance, the world needs more copper. Horizon Copper is investing in high-quality copper assets around the globe to help meet the growing demand for the precious base metal.



142% refined copper 146% electricity usage growth

Over the last three decades, global electricity usage and refined copper consumption have outpaced population growth by nearly 3x.

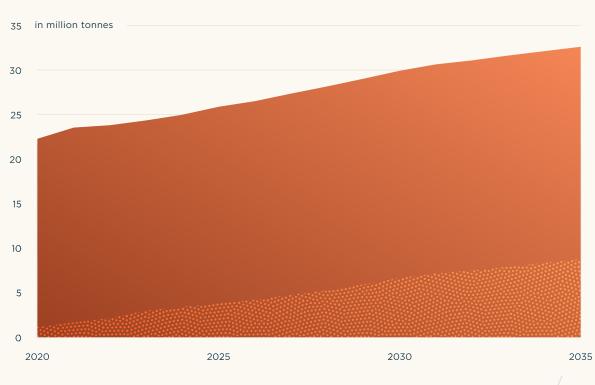
Sources: zerotracker.net, Our World in Data, Copper Alliance, Bureau of Reclamation, esbnyc.com, S&P, UNdata

## The Dawn of a New Copper Age

Rapid urbanization, technology advancements, and a worldwide commitment to new energy solutions are driving demand for copper.

#### GLOBAL REFINED COPPER DEMAND

Copper demand related to energy transition



Source: JP Morgan

#### +33 Million Tonnes

As more EVs and renewable technologies are developed, copper demand is expected to exceed 33 million tonnes per year by 2035.

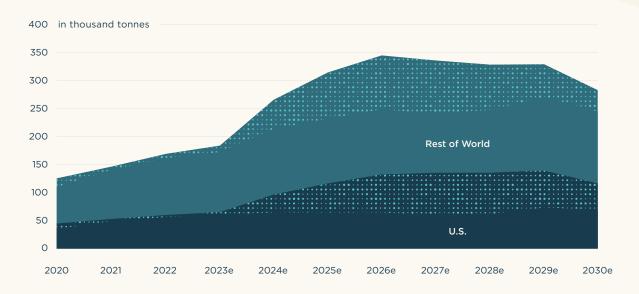
#### No Al Without Copper

Artificial Intelligence data centres have significantly higher power density than non AI data centres and require a greater volume of copper. Estimates project that copper intensity in Al data centres will increase from 25 t/MW to 40 t/MW, causing copper demand from AI data centres to double in just a few years. The U.S. alone accounts for approximately one third of AI data centre copper demand worldwide.

#### GLOBAL DATA CENTRE COPPER DEMAND

*Power distribution in the* form of cables accounts for 75% of copper usage in Al data centres, while 22% is used in grounding and connections. and 3% is used for plumbing and HVAC systems.

Copper Demand Related to Al

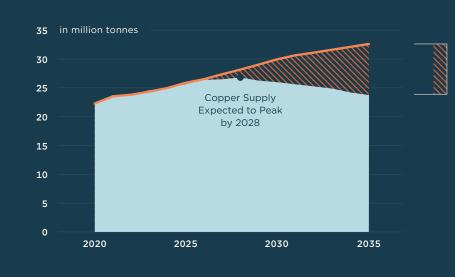


Source: Goldman Sachs Global Investment Research, Masanet et al. (2020), Cisco, IEA, ICA \*Global data centre copper demand, Kt; includes AI and excludes cryptocurrency

#### Supply Deficit

Annual copper demand is projected to reach nearly 34 million metric tonnes in the next decade. At current production rates, copper supply is expected to peak in 2028 and a global deficit of almost 10 million tonnes of copper is anticipated by 2035.

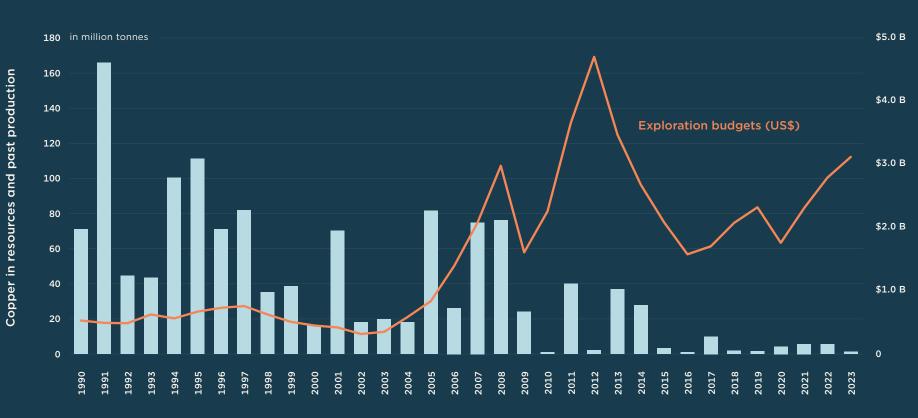
#### GLOBAL COPPER SUPPLY & DEMAND — Refined Copper Demand



#### **Declining Discoveries**

Copper demand is expected to outpace refined copper production by 2028 based on known copper reserves in the ground. Globally, discoveries of major copper deposits have not kept up with demand despite an increase in exploration budgets.

#### MAJOR COPPER DISCOVERIES OVER TIME



## Limited Supply

Copper reserves are limited, and finding new sources is becoming increasingly challenging. This scarcity of copper makes it a valuable commodity.

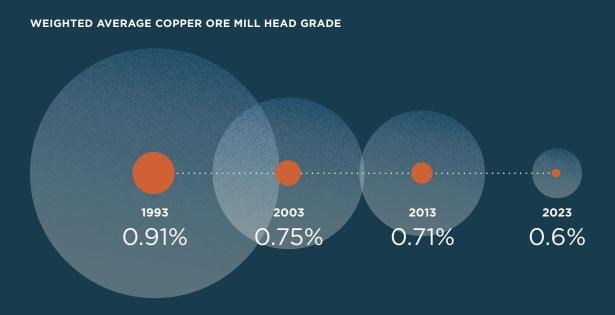
2035 copper

supply deficit of

10 million tonnes

#### Lower Grade Copper

Over the last 30 years, there's been a decrease of approximately 35% in average copper grades. Ore mined today typically contains 1% or less copper, in contrast to 150 years ago when ore grades typically exceeded 5%. This reduction in ore grade increases mining and processing costs.



## The Cornerstone of Modern Technology

Copper forms the foundation of modern technology, but capital investment over recent decades has favoured big tech over mining. The market capitalization of the entire mining industry pales in comparison to the market capitalization of the top 10 technology companies today. However, the fact remains-there is no technology advancement without new copper production.

#### MARKET CAPITALIZATION (US\$)

The tech industry's total market capitalization is about 9x greater than the market capitalization of the metals and mining industry. Apple Inc., just one of the

top 10 tech companies, has a greater market capitalization than the market capitalization of the entire metals and mining industry.



TOTAL TECH

TOP 10 TECH

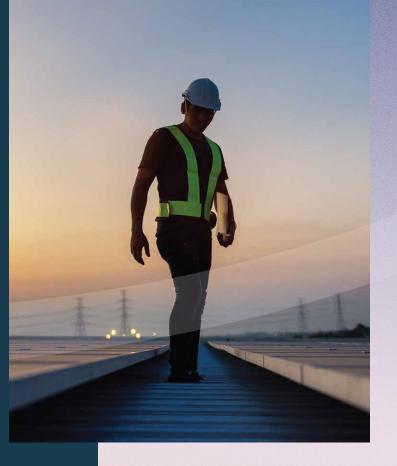
\$2,632,866,630,000 **METALS & MINING** 

\$3,510,000,000,000 APPLE INC.

Source: S&P Global. Total market capitalization of all public companies in Metals & Mining and Information Technology industries. As at June 2024. Top 10 Tech: NasdaqGS:MSFT, NasdaqGS:AAPL, NasdaqGS:NVDA, NasdaqGS:AVGO, TWSE:2330, ENXTAM:ASML, NYSE:OR-CL, KOSE:A005930, NasdaqGS:AMD, NasdaqGS:QCOM

#### 12.4 Years

The average time from discovery to production is 12.4 years.



Sources: JP Morgan, Goldman Sachs, S&P Printed as at October 2024.



## Junior Copper Company, Major Copper Portfolio

Horizon Copper's mission is to further the global energy transition through copper investments that will help meet the growing global copper demand. An electrified tomorrow means investing in copper mining today.

Learn more at horizoncopper.com TSX.V: HCU OTCQX: HNCUF

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