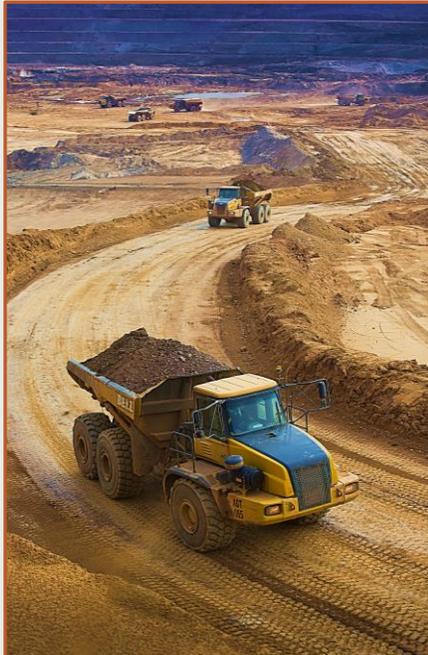
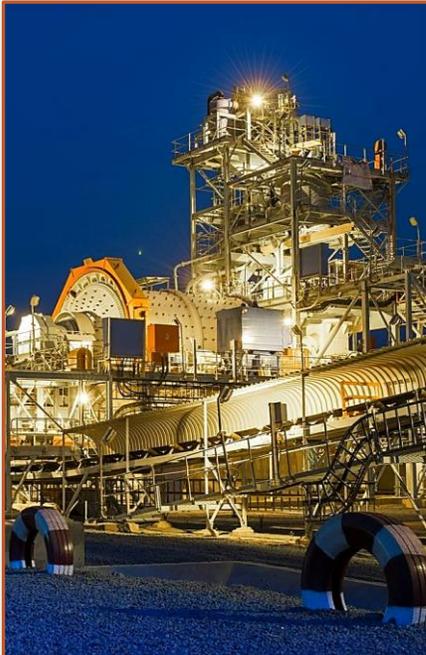


# JINCHUAN GROUP INTERNATIONAL RESOURCES CO. LTD



## 2024 Interim Results Announcement



Aug 2024

# Disclaimer

Statements in this presentation, other than historical facts, that address exploration activities and mining potential are “forward-looking” statements and are not statements of fact. These statements are generally identified by words such as “believes,” “expects,” “predicts,” “intends,” “projects,” “plans,” “estimates,” “aims,” “foresees,” “anticipates,” “targets,” and similar expressions. The forward-looking statements, including but not limited to assumptions, opinions and views of Jinchuan Group International Resources Co. Ltd (“the Company”) or information from third party sources, contained in the presentation are based on current plans, estimates, assumptions and projections and involve uncertainties and risks.

The directors and management of the Company are of the belief that the expectations expressed in such forward-looking statements are based on reasonable assumptions, expectations, estimates and projections. However, such statements should not be construed as being guarantees or warranties (whether express or implied) of future performance. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Factors that could cause developments to differ materially from those statements expressed in this presentation include, without limitation, the results of further exploration activities, technical analysis, general economic and business conditions, industry trends, competition, changes in government regulations, interest rate fluctuations, currency fluctuations, changes in business strategy or development plans and other risks.

Neither the Company, its directors, its management, its advisors nor any of their affiliates represent or guarantee that the assumptions underlying such forward-looking statements are free from errors nor do they accept any responsibility for the future accuracy of the opinions expressed in this presentation. No obligation is assumed to update any forward-looking statements.

No representation or warranty, expressed or implied, is made and no reliance should be placed on the accuracy, actuality, fairness, or completeness of the information presented. None of the Company, its advisors or any of their respective affiliates, directors, officers, employees and advisors nor any other person shall have any liability whatsoever for any losses arising, directly or indirectly, from any information contained in the presentation. This presentation and information made available does not constitute an offer or invitation to purchase or subscribe for any shares of the Company, and no part of this presentation shall form the basis of, or be relied upon in connection, with any contract or commitment.

By accepting this presentation you acknowledge that you will be solely responsible for your own assessment of the market position of the Company and that you will conduct your own analysis and be solely responsible for forming your own view of the potential future performance of the Company’s business.

Neither the delivery of this presentation nor any further discussions of the Company with any of the recipients shall, under any circumstances, create any implication that there has been no change in the affairs of the Company since such date.



# Jinchuan Group - Overview

# Overview of JCG

- Jinchuan Group is a conglomerate controlled by the People's Government of Gansu Province that mainly produces nickel, copper, cobalt, platinum group metals and non-ferrous metal calendaring and processing products, chemical products, non-ferrous metal chemicals, non-ferrous metal new materials, etc.
- The Group is the **largest** nickel-cobalt production base in China, **the third-largest** nickel producer and **the fifth-largest** cobalt producer in the world, **the fourth-largest** copper producer in China and the **largest** PGMs producer in Asia
- The Group owns the world's **third-largest** copper-nickel sulfide mineral deposit, and is the **largest** and the world's leading nickel-cobalt production base and platinum group metals refining center in China. It has the **first** nickel flash smelting furnace in Asia, the world's **first** copper synthetic smelting furnace, the world's **first** oxygen-rich top-blown nickel smelting furnace, and the world's leading equipment and technology such as the mechanized bottom-filling mining method with the largest continuous mining area



Nickel production capacity  
330,000 tonnes



Copper production capacity  
1,100,000 tonnes



Cobalt production capacity  
17,000 tonnes

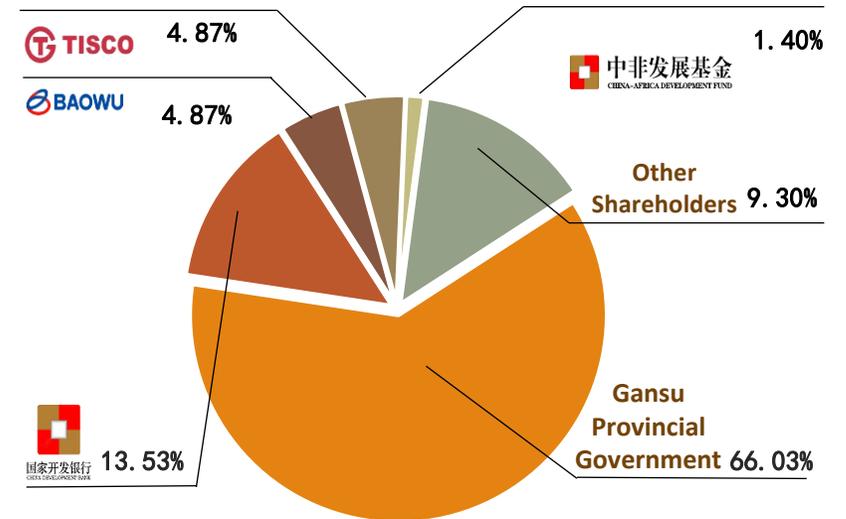


PGMs  
10,000 kg

## Major Recognitions

2024 Fortune Global 500	Ranked 300
2024 Fortune China 500	Ranked 78
2023 Top 500 China Manufacturing Enterprises	Ranked 32
2023 China Non-ferrous Metal Industry	Ranked 4

## Shareholding Structure

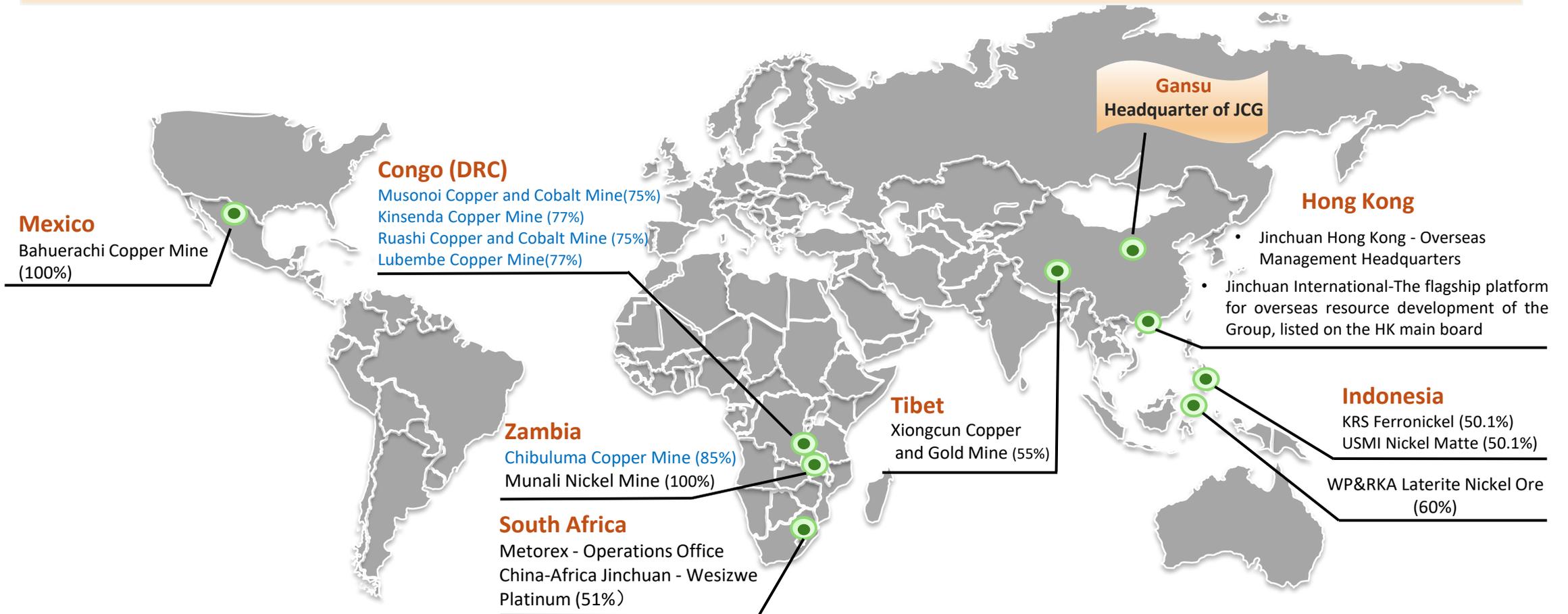




# Jinchuan Hong Kong - Overview

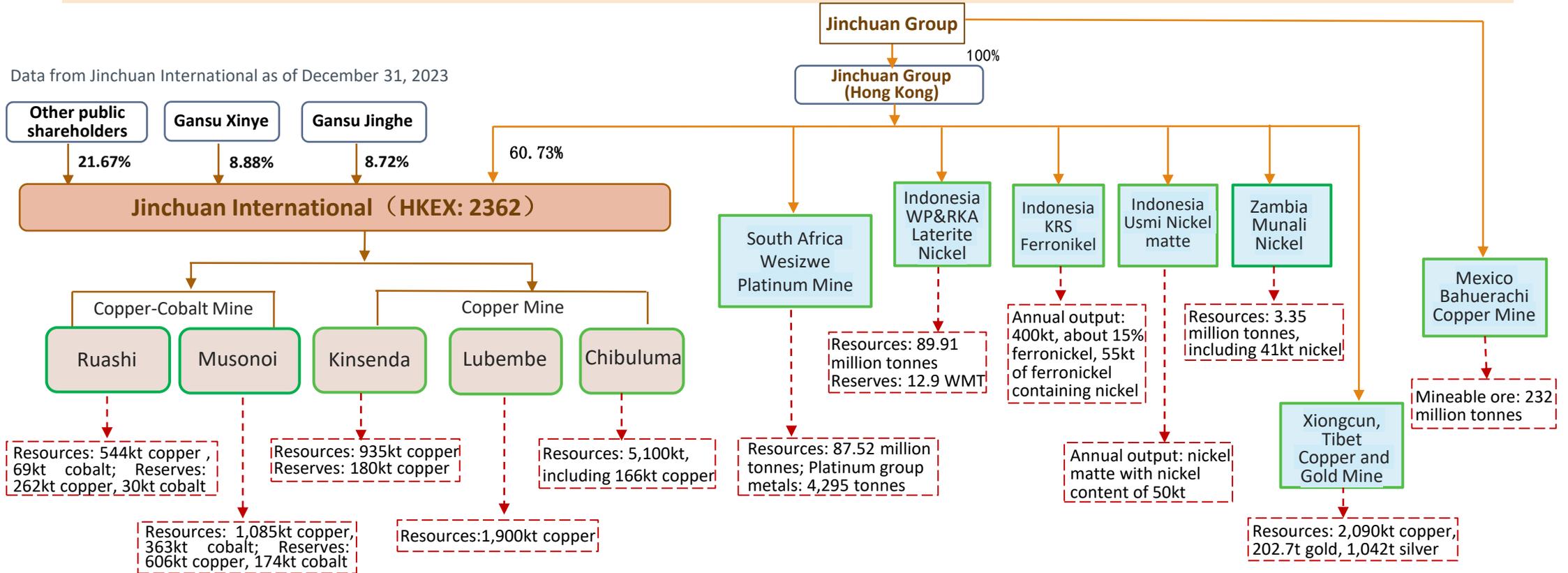
# Jinchuan Hong Kong - Overseas Asset Layout

- ✓ In 2000, Jinchuan Group responded to the national "Going Global" strategy and the "the Belt and Road" initiative; implemented a resource strategy primarily focused on overseas mineral resources and an overseas capital strategy with Jinchuan Hong Kong as the platform
- ✓ As of Aug 2024, the total overseas assets amounted to USD 7 billion, accounting for 27.47% of the total assets of Jinchuan Group



# Jinchuan Hong Kong - Resources Assistance

- ✓ Support capital with resources and assist resources with capital. Through independent development and acquisition of overseas resources to discover and control global mines, and optimize the layout of overseas resources
- ✓ Strengthen Jinchuan's overseas assets and support the Group's global resource strategy through restructuring and strengthening control
- ✓ **Currently own 10 non-ferrous metal mines with resources of 1.06 million tonnes of nickel, 8.8 million tonnes of copper, 510,000 tonnes of cobalt, 413 tonnes of platinum group metals, 220 tonnes of gold, and 2,960 tonnes of silver**



# Indonesia - WP&RKA Laterite Nickel Mine



- ❑ Location: Headquarters is in Jakarta, the project is located in Obi Island, North Maluku Province, Indonesia, with two mining areas, WP and RKA, covering an area of 3,525 hectares
- ❑ Business: Development of laterite nickel ore resources, production of ferronickel, and sales of mineral products
- ❑ Ownership: Jinchuan holds 60% of the shares in WP Company and 40% of the shares in RKA Company
- ❑ Timeline: Completed equity acquisition of WP Company in September 2016 → Construction began in November 2016 → First batch of ferronickel was produced in May 2019 → All 4 production lines for smelting were completed in October 2019 → Achieved export sales of 10,000 tonnes of ferronickel in November 2019
- ❑ Retained resources: contain 803,900 tonnes of nickel and 47,700 tonnes of cobalt
- ❑ Retained reserves: 12.9 million wet metric tonnes, average nickel grade 1.71%, iron grade 18.38%
- ❑ Designed capacity: Annual production of 200,000 tonnes of ferronickel containing 15% nickel, produced 200,800 tonnes of ferronickel in 2023

# Indonesia - KRS Ferronickel Project



- ❑ Location: Located in Weda Bay Industrial Park, North Maluku Province, Indonesia
- ❑ Business: Mining of laterite nickel ore, smelting of ferronickel, and sales of mineral products, etc.
- ❑ Timeline: Established on August 25, 2020 → Construction began in December 2020 → Production began in October 2022
- ❑ Designed capacity: 4 RKEF production lines with a capacity of 60,000 KVA, capable of processing 5 million tonnes of laterite ore annually, producing approximately 400,000 tonnes of 15% ferronickel annually, with a nickel content of about 55,000 tonnes of ferronickel, and supporting a 380MW thermal power plant. The raw material is laterite nickel ore
- ❑ Ownership: Jinchuan holds 50.1% equity

# Indonesia - USMI Nickel Matte Project



- ❑ Location: Located in Weda Bay Industrial Park, North Maluku Province, Indonesia
- ❑ Business: Exploit laterite nickel ore, smelt nickel matte, and sale mineral products, etc.
- ❑ Timeline: Established in Jakarta, Indonesia in April 2022, construction began in November 2022
- ❑ Designed capacity: Capable of producing high grade nickel matte with a nickel content of 50,000 tonnes per year, laterite nickel ore as raw,
- ❑ Facilities: The project has four 4.8 × 100m rotary kilns, four 60,000 kVA mineral thermal electric furnaces, four P-S converters, and supporting facilities
- ❑ Technologies : Mature RKEF smelting process for ferronickel, after sulfurized, converted into nickel matte through converter blowing
- ❑ Ownership: Jinchuan holds 50.1% equity

# Zambia - Munali Nickel Mine



- ❑ Location: 85 kilometers south of Lusaka, the capital of Zambia
- ❑ Reserves: 31,000 tonnes of nickel (data as of December 31, 2022)
- ❑ Capacity: Currently capable of producing nickel concentrate with a nickel content of 4,500 tonnes per year, accompanied by copper, cobalt, and platinum group metals
- ❑ Composition: Munali Nickel Mine consists of an underground mine and a surface beneficiation plant
- ❑ Ownership: Jinchuan 100%
- ❑ The project has certain prospecting potential in its surrounding and deep area
- ❑ Progress: Since 2014, the Company has leased the project to CNM UK for production and operation

# South Africa - Wesizwe Platinum Mine



- ❑ Location: West of Bushveld Complex, South Africa, with superior mineralization environment and high ore quality
- ❑ Total resources: 87.52 million tonnes, including 4.9 grams/tonne of platinum group 4E (platinum, palladium, rhodium, gold), 0.04% copper, and 0.16% nickel; 4E (platinum, palladium, rhodium, gold) contains 429.05 tonnes of metal, 30,300 tonnes of copper, and 129,000 tonnes of nickel. Resources above the control level account for 73% of the total resources
- ❑ LoM: 30 years or more
- ❑ Construction progress: More than 90% of mining projects have been completed, more than 96% of mineral processing projects have been completed
- ❑ Phased construction: Plan to produce 1 million tonnes per year in the first phase (approximately 3 tonnes per year of platinum group metals), aiming to reach 3 million tonnes per year by June 2028
- ❑ Ownership: Jinchuan holds 55% equity in China Africa Jinchuan Investment Co., Ltd. and leads its operations

# Tibet - Xiongcun Copper and Gold Mine



- ❑ Location: Xietongmen County, Shigatse City, Tibet, with convenient traffic conditions
- ❑ Product: Mainly copper, accompanied by gold, silver, and sulfur
- ❑ Service period: 13 years
- ❑ Resources: 203 tonnes of gold (grade 0.4g/t), 2.09 million tonnes of copper (grade 0.4%), 10.42 million tonnes of silver (grade 2g/t)
- ❑ Designed capacity: The mining scale is 12 million tonnes per year, with an annual output of 50,000 tonnes of copper concentrate, 4.6 tonnes of gold, and 38 tonnes of silver.
- ❑ Mine type: Large porphyry copper mine, abundant resources, open-pit mining
- ❑ Ownership: Jinchuan (55%), Zijin (45%)
- ❑ Timeline: In April 2011, Jinchuan fully acquired Continental Minerals Corporation, delisted it after the acquisition, and restructured its assets. The main asset of Continental Minerals Corporation is the copper and gold mine in Xietongmen, Tibet. In July 2011, the Group transferred 45% equity to Zijin
- ❑ Latest plan: The overall goal is to complete construction and put into operation by the end of March 2026

# Mexico - Bahuerachi Copper Mine



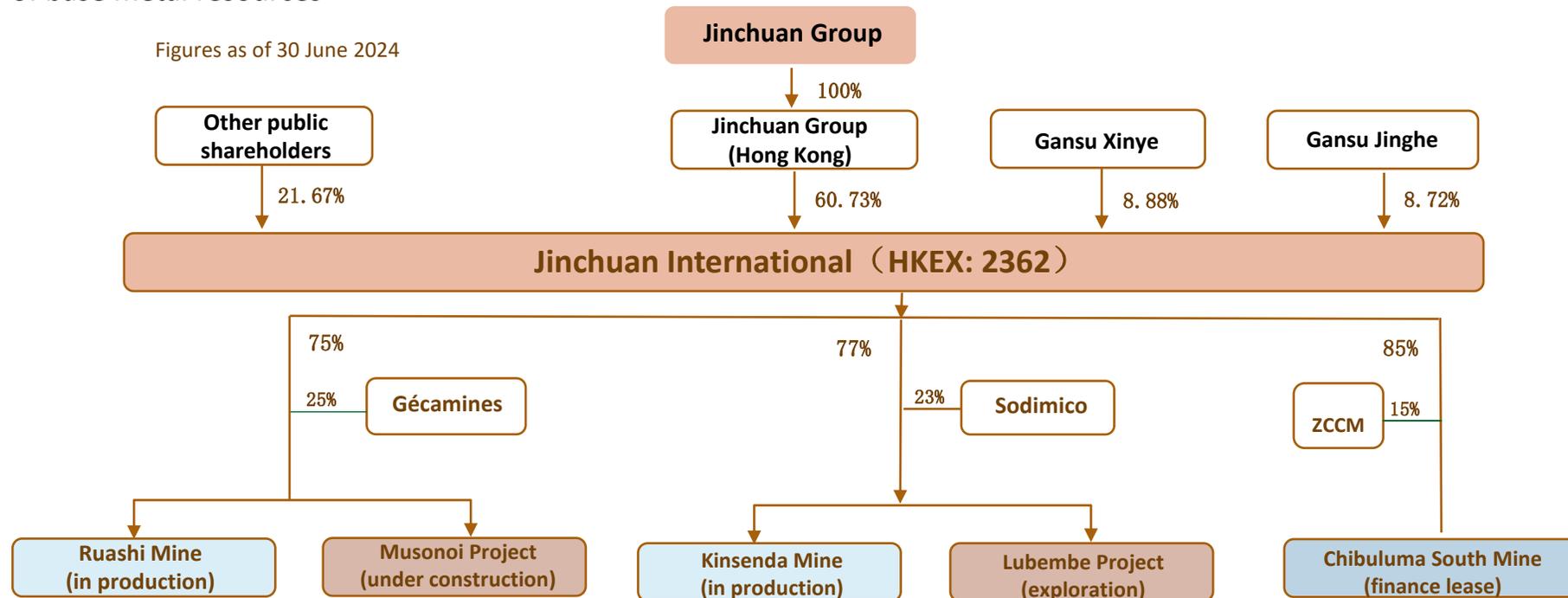
- ❑ Main products: Copper concentrate, Molybdenum concentrate
- ❑ Location: Located in the southwest of Chihuahua, Mexico, at the intersection of three states
- ❑ Mine type: Large scale polymetallic symbiotic porphyry copper mine with open-pit mining, capable of mining 232 million tonnes of ore and an average copper grade of 0.42%
- ❑ Service period: 14 years, with a mining right validity period of 50 years, and an extension of 50 years can be applied for
- ❑ Designed capacity: Annual production of 72,500 tonnes of copper concentrate and 1,081 tonnes of molybdenum concentrate, with a potential output of 847,800 tonnes of copper metal during their lifespan
- ❑ Ownership: In March 2008, acquired Taylor Resources Canada and obtained 100% equity in the Bahuerachi copper mine project in Mexico; Having 8 mining rights within the mining area, with a total area of 118.06km
- ❑ Progress: Conducted encrypted exploration, geological prospecting, pre feasibility studies, bank level feasibility studies, and other related work



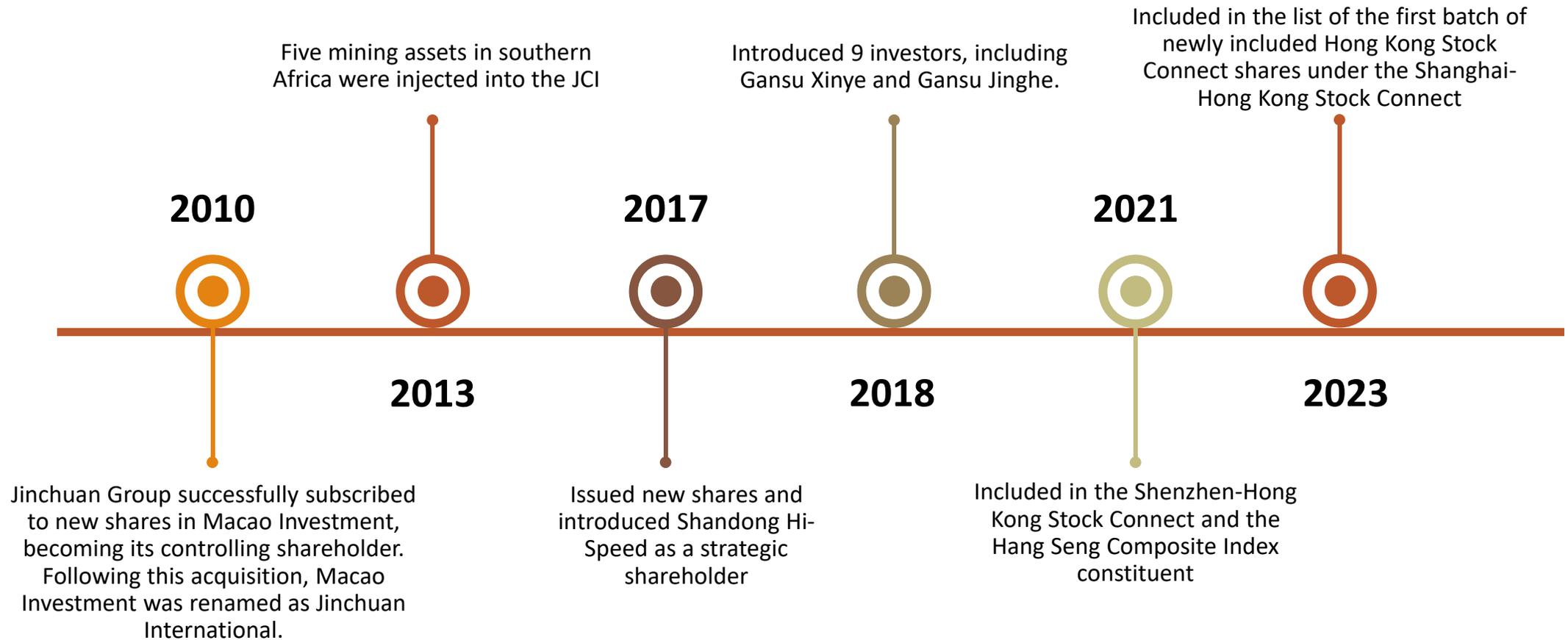
# Jinchuan International - Overview

# JCI - Shareholding Structure

- Jinchuan International, a holding subsidiary of Jinchuan Group, the listed flagship platform for overseas resources development of the Group
- Listed on the Main Board of the Hong Kong Stock Exchange (stock code: 2362.HK)
- Relying on the strong support of Jinchuan Group, Jinchuan International builds a business of multinational mining development and operation vigorously
- The Company owns large-scale high-grade copper and cobalt resources mines in Africa, and engages in the mining and trading of base metal resources



# JCI - Development Timeline



# JCI- Summary of Reserves and Resources

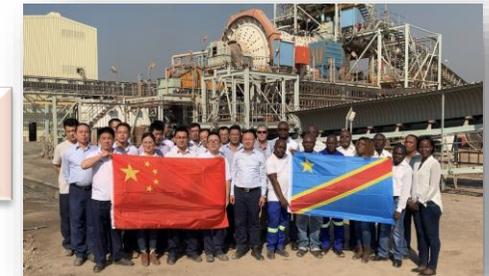
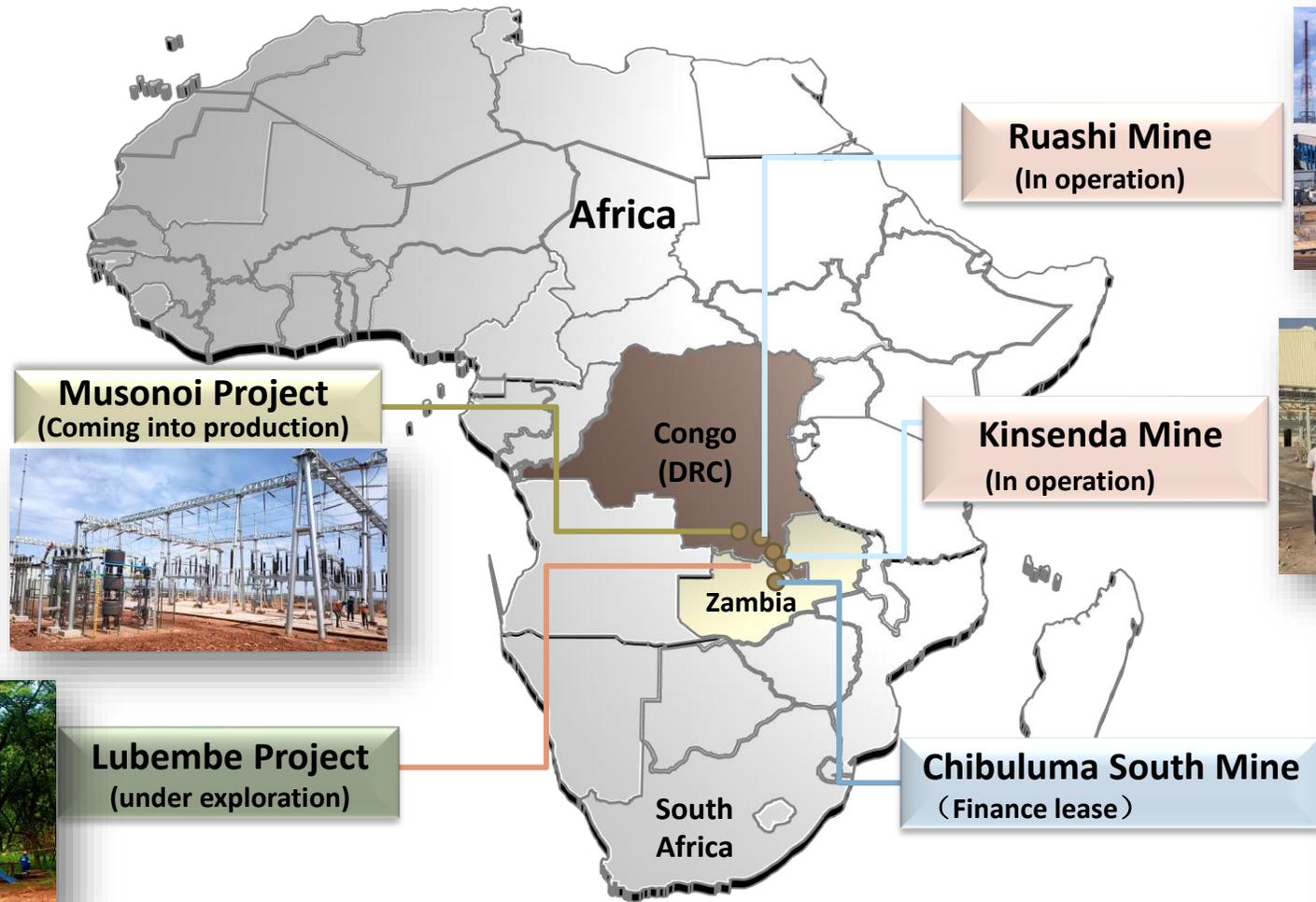
Figures as of 31 December 2023

	Ore	Grade		Metal content	
	million tonnes	%	%	thousand tonnes	thousand tonnes
<b>Summary of Copper and Cobalt</b>		<b>Cu</b>	<b>Cobalt</b>	<b>Cu</b>	<b>Cobalt</b>
Proved Reserves	11.5	3.1	0.9	357	100
Probable Reserves	21.6	2.4	0.5	511	103
<b>Total Copper and Cobalt Reserves</b>	<b>33.1</b>	<b>2.6</b>	<b>0.6</b>	<b>868</b>	<b>203</b>
Measured Resources	17.9	2.8	0.8	493	150
Indicated Resource	37.5	2.2	0.5	808	176
Inferred Resources	15.4	2.1	0.7	328	106
<b>Total copper and cobalt resources</b>	<b>70.8</b>	<b>2.3</b>	<b>0.6</b>	<b>1,629</b>	<b>432</b>
<b>Summary of Copper only</b>					
Proven Reserves	0	5.3	-	1	-
Probable Reserves	3.3	5.4	-	179	-
<b>Copper reserves only</b>	<b>3.3</b>	<b>5.4</b>	<b>-</b>	<b>180</b>	<b>-</b>
Measured Resource	4.2	1.7	-	73	-
Indicated Resource	83.5	2.4	-	1,968	-
Inferred Resources	27.3	2.9	-	804	-
<b>Copper resources only</b>	<b>115</b>	<b>4.6</b>	<b>-</b>	<b>2,845</b>	<b>-</b>
<b>Summary of JCI</b>					
<b>Total Reserves</b>	<b>36.4</b>	<b>2.9</b>	<b>0.5</b>	<b>1,048</b>	<b>203</b>
<b>Total Resources</b>	<b>185.8</b>			<b>4,474</b>	<b>432</b>



# Jinchuan International - Mine Operations

# JCI - Mine Layout



# Ruashi Copper and Cobalt Mine



- ❑ Mine type: Open-pit oxidized copper-cobalt mine with potential sulfides at depth
- ❑ Location: Lubumbashi, Haut Katanga Province, the DRC
- ❑ Ownership: Jinchuan International (75%), Gécamines(25%)
- ❑ Smelting: SX-EW leaching processing, flotation and magnetic separation plants
- ❑ Products: Electrolytic copper, cobalt hydroxide and copper-cobalt concentrate
- ❑ Mining Period: 8 years
- ❑ Reserves: 262kt copper, 30kt cobalt
- ❑ Resources: 544kt copper, 69kt cobalt
- ❑ Ruashi Mine completed the construction of a 600kt per annum flotation and magnetic separation plant targeting the treatment of low-grade oxide ore and sulphide ore via flotation and magnetic separation process
- ❑ The main mining license (PE578) was renewed for a period of 15 years in 2021 and will expire in September 2036
- ❑ Electrolytic Copper and cobalt hydroxide are sold to international trading companies through off-take agreements

# Kinsenda Copper Mine



- ❑ Mine Type: underground copper mine
- ❑ Location: Congo (DRC) Haut-Katanga Province
- ❑ Ownership: Jinchuan International (77%) , Sodimico (23%)
- ❑ Product: copper concentrate
- ❑ One of the highest grade copper deposits in the world, with a copper grade of up to 5%
- ❑ LoM: 12 years. The huge amount of newly added ore resources that could extend the mine life to 20 years and beyond
- ❑ Resources: 935kt copper. Reserves: 180kt copper
- ❑ The concentrator completed shakedown test in May 2015; mining production began in October 2016; the first batch of concentrate was exported and sold in 2017
- ❑ The mining license has been renewed until October 2036
- ❑ Good condition of connecting road infrastructure, with a highway connecting the mines in the area
- ❑ Constructed a second ramp decline from 209mL to exploit the East Mine resources, improving mining efficiency continuously

# Musonoi Copper and Cobalt Mine



- ❑ Location: North of Kolwezi, Lualaba Province, the DRC
- ❑ Ownership: JCI (75%), Gécamines SA (25%)
- ❑ LoM: 16 years (according to ENFI Feasibility Study)
- ❑ Products: Copper cathode, cobalt hydroxide and sulphide copper concentrate
- ❑ Resources: 1,085kt copper, 363kt cobalt
- ❑ Reserves: 606kt copper, 174kt cobalt
- ❑ Grade: Average grade of 0.9%, one of the highest grade cobalt mines in the world
- ❑ Production: an average of 43,800 tonnes of cathode copper per year
- ❑ Progress: The construction and procurement contract of the deep processing project have been tendered and evaluated; the exploration and construction projects are progressing smoothly in 2024 1H and expected to be operational in the near future
- ❑ Obtained a 10-year long-term loan financing of USD350 million from the China Development Bank for the construction of the Musonoi project

# Lubembe Copper Project



- ❑ Location: Haut-Katanga Province in Congo (DRC); 30 kilometers away from the Kinsenda Mine and has synergistic effects with the Kinsenda Mine
- ❑ Mining license: Renewed in 2016 and further extended for 15 years to 2032
- ❑ Progress: An infill drilling program was completed in 2021
- ❑ Resources: 1,909kt copper
- ❑ Grade: The copper grade of this project is 2.0%
- ❑ Exploration projects with significant scale and substantial cashflow for long-term reserves
- ❑ After the project is developed, it will greatly increase the copper output for JCI
- ❑ Conduct hydrogeological and engineering geological research to enhance the understanding of geology of Lubembe
- ❑ Economically feasible mixed mining of oxide and sulfide ores in mixed mineral deposits
- ❑ Resource model was updated, and significantly increased the exploration and control level resources

# Chibuluma Copper Mine



- ❑ Located in Zambia
- ❑ In December 2020, Chibuluma entered into a lease agreement with an independent third party to lease out the mining assets, and starting from 1<sup>st</sup> April 2021, Chibuluma South Mine (including Chifupu Deposit) and the processing plant to an independent third party on a five year term lease (The total amount is USD6.5 million) in order to realize the remaining value of the mining assets
- ❑ In addition to the lease payments, the Group is also entitled to a monthly royalty payment based on the volume of copper payable sold. The lessee produced and sold 1,494 tonnes of copper in 2024 1H
- ❑ The Group had recorded a royalty income of USD0.9 million under the finance lease agreement



# Jinchuan International - Financial Performance for 2024 1H

# Financial Performance

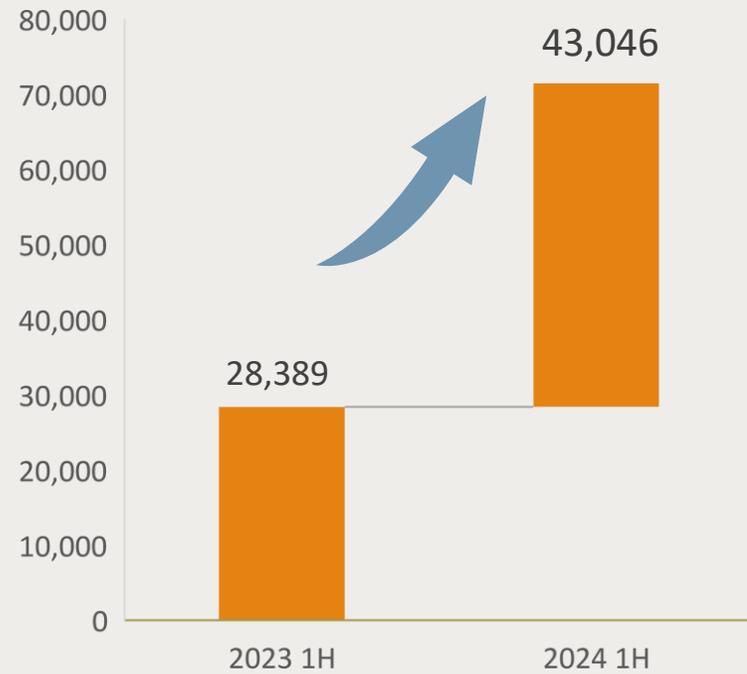
For the 6 months ended June 30, 2024

Key Financial Indicators		2024 1H	2023 1H
<b>Gross profit</b> (US\$'000)		43,046	28,389
<b>Revenue from sales</b> (US\$'000)	copper	209,077	221,041
	cobalt	13,705	(1,532)
<b>Average price realised</b> (US\$/tonne)	copper	7,973	7,538
	cobalt	13,830	N/A
<b>Revenue</b> (US\$'000)		283,032	327,112
Of which:	Mining operations	222,782	219,509
	Trading of mineral and metal products	60,250	107,603
<b>EBITDA</b> (US\$'000)		74,626	40,196
<b>Profit for the period attributable to Owners of the Company</b> (US\$'000)		9,241	(12,501)
<b>C1 cash cost per tonne of copper</b> (US\$/tonne)		4,469	5,116
<b>Cost of sales</b> (US\$'000)	Mining operations:	166,092	177,916
	Trading of mineral and metal products	60,298	107,680

# Key Financial Indicators - Gross Profit and Cost

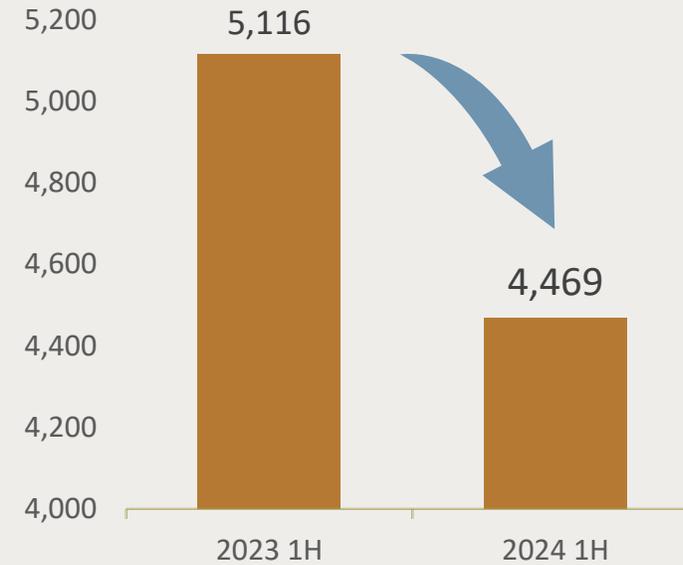
## Gross Profit

(US\$'000)

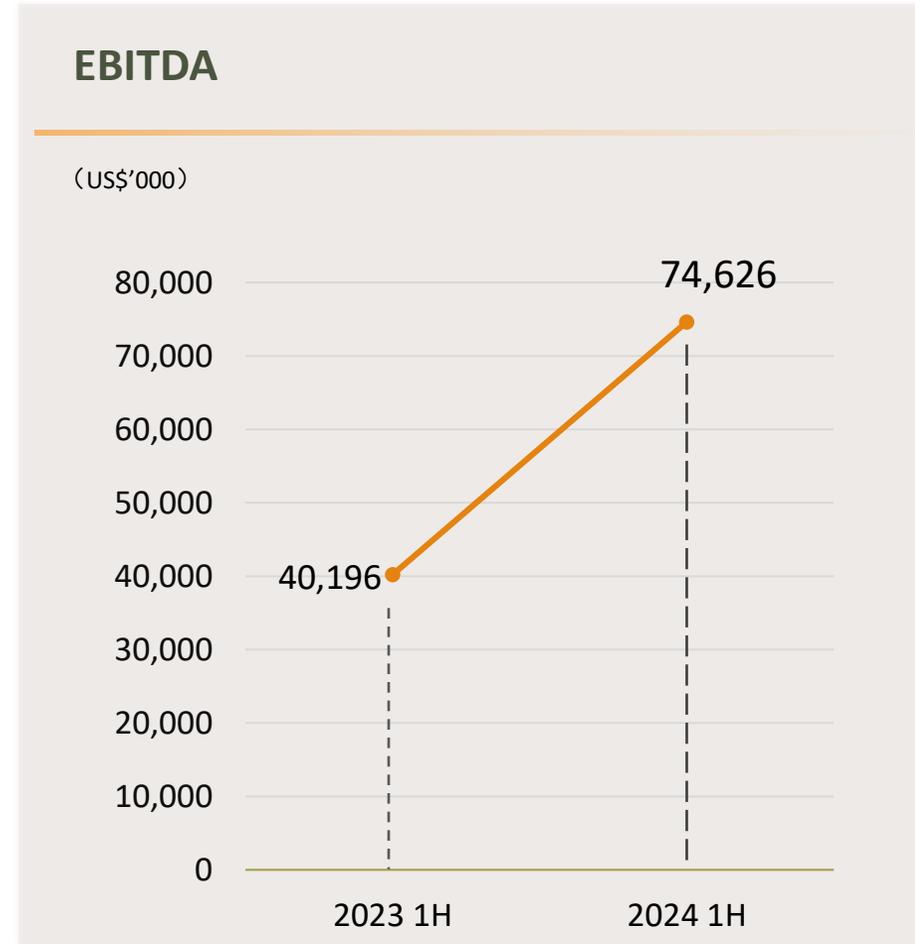
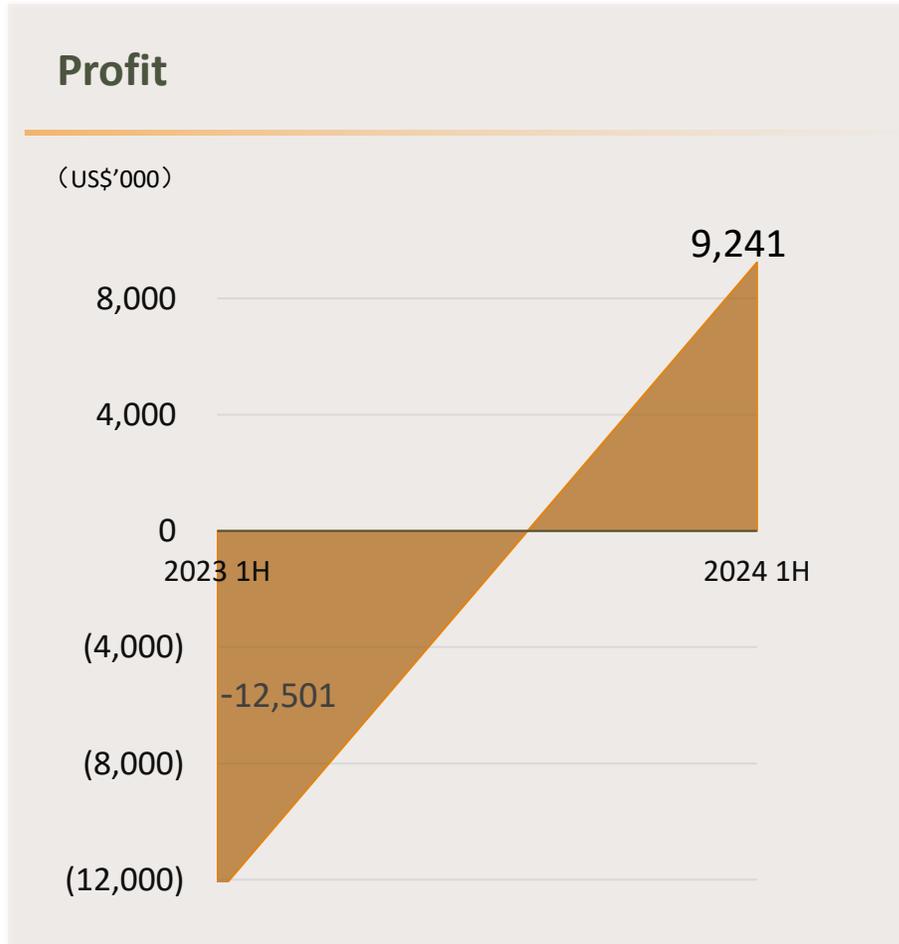


## C1 cash cost per tonne of copper (including by-product credit)

((US\$/tonne))



# Key Financial Indicators - Profit





# Environment, Society and Governance

# Strengthen ESG Management



Excellent ESG information Disclosure Enterprise Award



Staff participated in local environmental protection activities



Working closely with government



Actively donating to local communities to promote harmonious development



Best Listed Company ESG Information Disclosure Award



Conducting multiple anti-corruption trainings for staff



Fire trucks usage training for staff



Implementing vegetation monitoring and protection plan

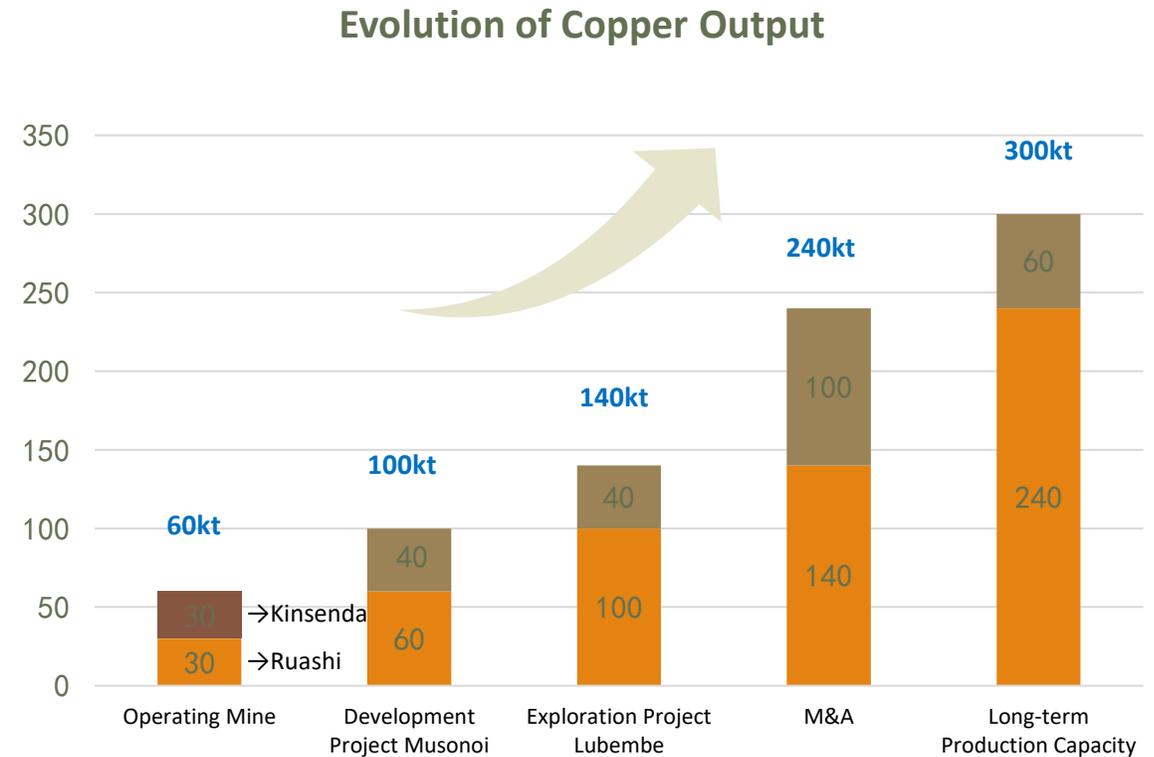
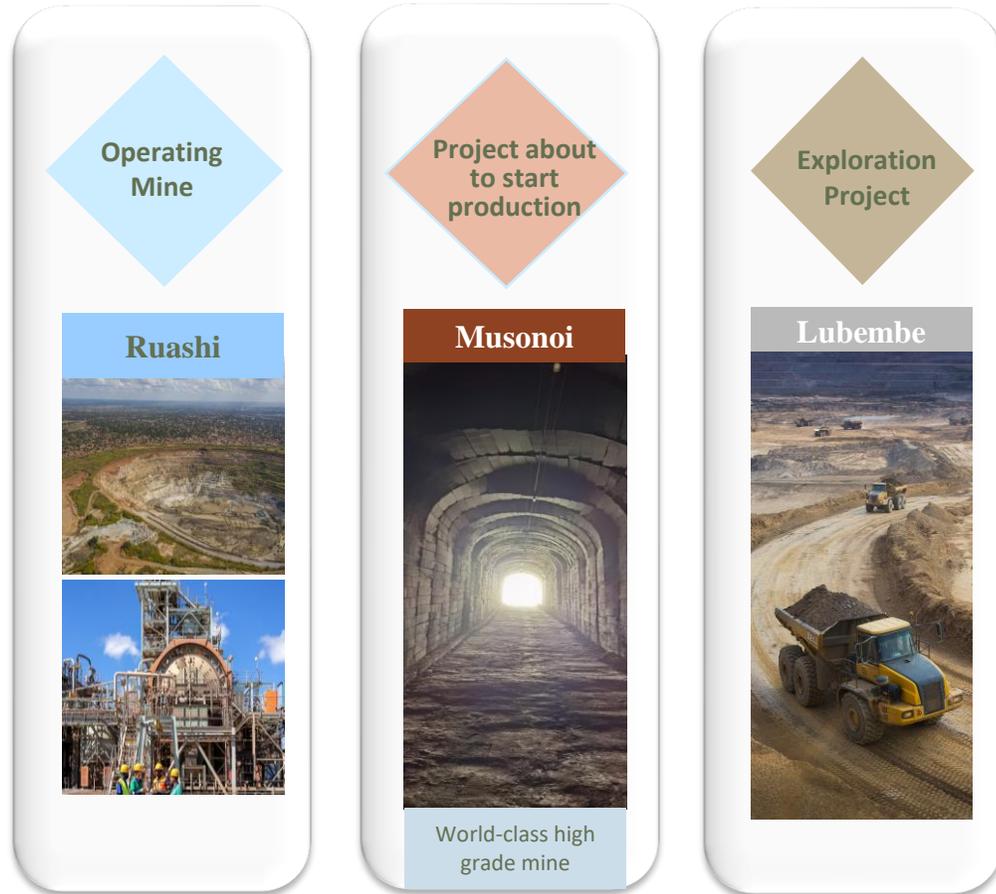
# Promote Sustainable Development

<b>Wide Range of Compliance</b>	<p>Fully covered GRI standards, TCFD recommended framework, SASB standards, Stock Exchange guidelines, CASS-CSR5.0.</p> <p>Will further cover ISSB standards and provide more in-depth disclosure on the TCFD recommended framework to ensure leadership.</p>
<b>Integrate ESG into Daily Operations</b>	<p>Ensure that each operating location has dedicated personnel responsible for management and supervision.</p> <p>Ensure the consistency of ESG policies at different levels and make it more flexible to respond to specific local conditions in practice.</p>
<b>Targeted Management</b>	<p>Based on the characteristics of energy management, waste management, and pollutant management, targeted measures should be formulated to ensure that they not only comply with local laws and regulations, but also meet the actual management needs of the mining site.</p>
<b>The Data is Based On Evidence</b>	<p>ESG reports disclose a large amount of quantitative data on the environment, society, and governance, the data is divided into various aspects.</p> <p>Basically, each type of ESG indicator displays the separate performance of four mine, and the coverage is more comprehensive.</p>
<b>High Transparency in Community Contributions</b>	<p>In the process of community management, the amount of each support or donation given to the local community, as well as the support projects have been disclosed for several consecutive years, indicating the Company's confidence in achieving mutual benefits and integration with the local community.</p>



# Jinchuan International - Outlook

# Endogenous Growth of JCI – Steadily Increase of Copper Production



# JCI - Outlook

<b>Capital</b>	Market cap growth: The market cap reaches HKD50 billion
<b>Market</b>	Revenue growth: JCI's annual revenue reaches more than USD5 billion
<b>Objectives</b>	Listing on multiple capital markets: Strive to achieve the goal of listing JCI on multiple capital markets and enhance its international influence

## Musonoi Project

After reaching the production standards, JCI's copper production can exceed 100,000 tonnes per year.

## Overseas Merger and Acquisition

Plan to acquire a 100,000 tonnes of scale copper enterprise to increase copper production to 200,000 tonnes per year.

## Indonesian Project Expands Capacity and Increases Production

Realize asset injection and capacity expansion as soon as possible, and reach nickel production of 100,000 tonnes per year.

## Wesizwe Platinum Project

The 1 million tonnes project was put into operation and contributed to production capacity. Platinum group metals production exceeds 3 tonnes per year.

# JCI - Capital Market Planning

## Capital operation strategies

- Industrial chain extension: Expand the Company's layout in the field of new energy materials
- Asset restructuring: Consider injecting high-quality assets, such as the copper and gold mine in Tibet; nickel assets in WP&RKA, KRS, and USMI in Indonesia, etc.
- Global acquisition and merger of nickel, copper, and cobalt projects to solidify Jinchuan's international resource foundation
- Shareholder structure optimization: Introduce international strategic investors to enhance market vitality
- Capital operation in multi level , actively maintain the market cap of listed company

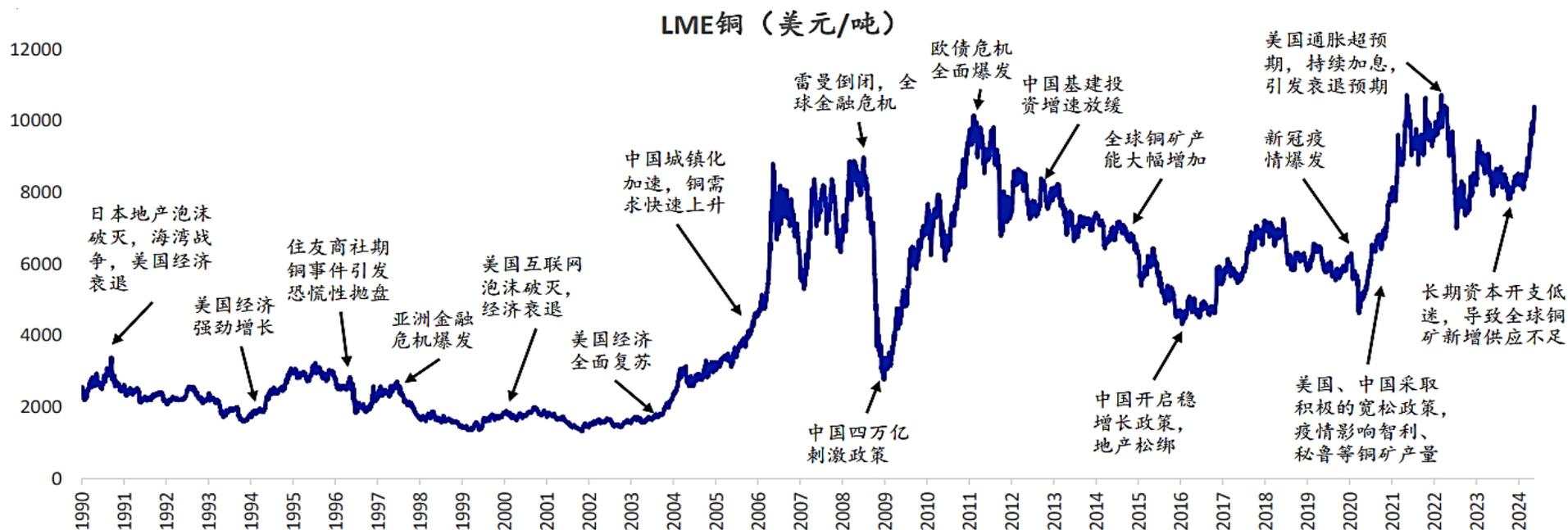


# Copper and Cobalt Market

# Copper Fundamentals Support Copper Prices

The U.S. dollar interest rate cut cycle has begun, and copper prices are expected to grow in the second half of the year

- The recent minutes of the Federal Reserve's interest rate meeting released a signal of interest rate cuts. The US dollar continues to be weak. China's monetary policy will be further supportive, which will be beneficial to the rise of copper prices.
- Positive factors such as tight concentrate supply and continued long-term demand for energy transition metals may help copper prices rise from bottom. Against the expectations of tightening of production of mines and weakening incremental contribution from recycled copper in the second half of the year, copper prices are expected to move upward.



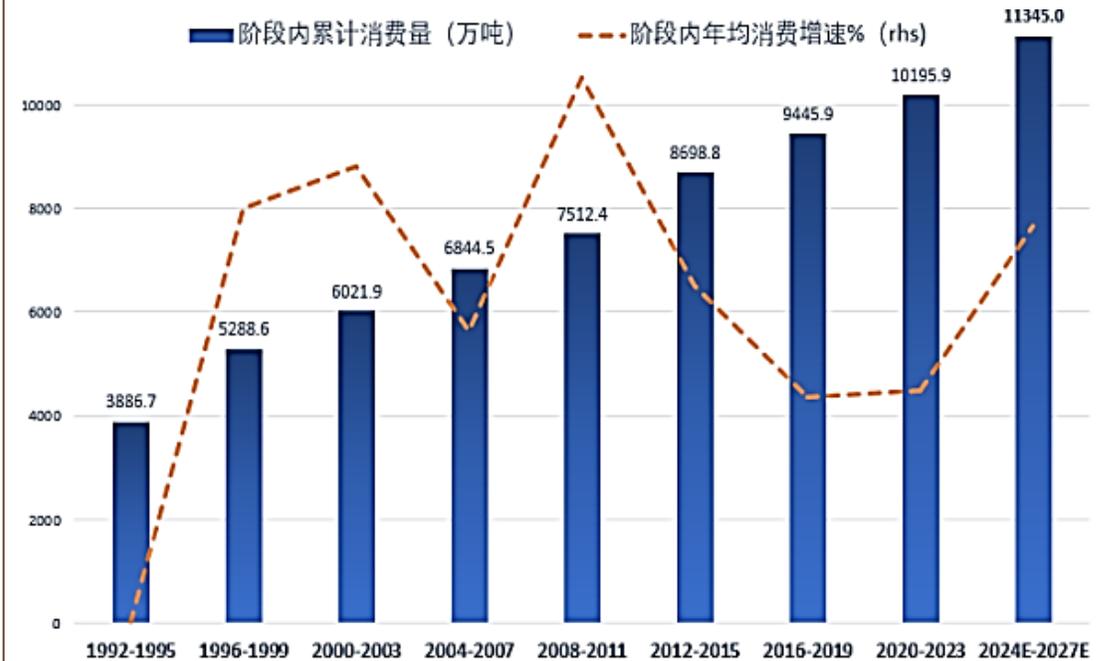
Source: LME , Guojin Securities, Pacific Securities

# Copper Demand Is Expected to Rise Steadily

## Economic Recovery + New Energy Transformation Drives Demand

- In long term, copper fundamental factors are strong. Copper, as a critical commodity used in construction and infrastructure, will definitely benefit from the economic recovery.
- Nations around the globe have initiated the strategic target of carbon neutral by accelerating the renewable energy transition from renewable power generation and distribution to energy storage and electric vehicles.
- Growth in long-term copper demand will be driven by the growth in fast expanding green technologies, where copper is used in energy storage, electric vehicles, EV charging infrastructure, wind power generation and solar photovoltaic panels.
- With the transformation of low-carbon energy structure and the support of new energy infrastructure, China's refined copper consumption growth rate may gradually recover to above 3.5% . China's refined copper consumption growth may still be higher than the world's. China's share of global copper consumption will continue to increase, and is expected to rise to above 55% by 2025.

## Global Copper Consumption and Growth Rate in Every 4 Years



## Domestic and International Demand for Refined Copper (2016-2026E)

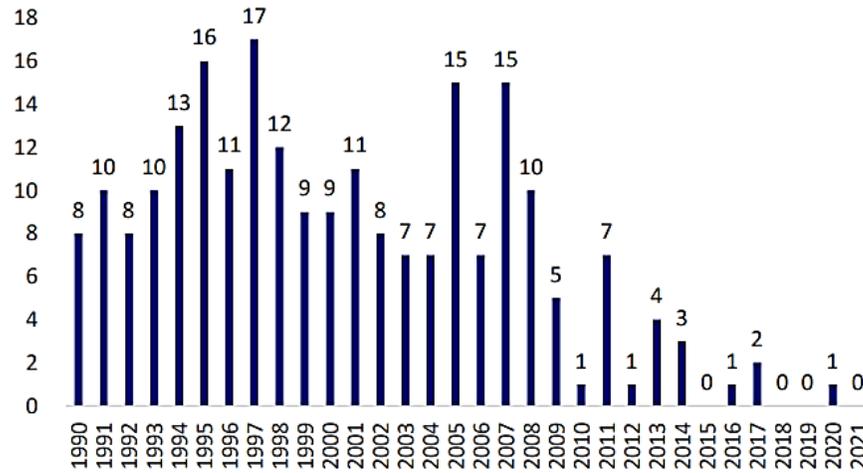
万吨	2016	2017	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E
中国精铜消费	1155	1182	1225	1270	1307	1342	1374	1,442	1,482	1,536	1,592
消费增速%	1.96%	2.34%	3.64%	3.67%	2.91%	2.68%	2.38%	4.93%	2.77%	3.69%	3.61%
全球精铜消费量	2250	2306	2365	2433	2462	2514	2553	2636	2708	2792	2880
消费增速%	1.14%	2.46%	2.58%	2.89%	1.19%	2.09%	1.56%	3.26%	2.71%	3.10%	3.17%
中国精铜消费占比	51.3%	51.3%	51.8%	52.2%	53.1%	53.4%	53.8%	54.7%	54.7%	55.0%	55.3%

# Supply Growth of Copper Mines is Weak in Long-term

Capital expenditures of global copper companies are at a low level

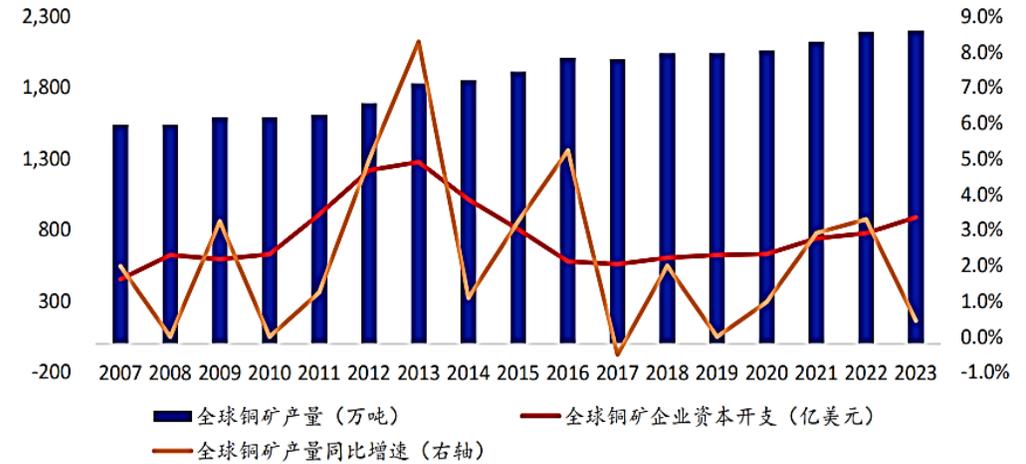
- After 2011, as copper prices experienced a long period of decline, capital expenditures of global copper mining companies gradually slowed down after peaking in 2013
- Usually, global copper production lags behind capital expenditures to a certain extent, with an average mining development cycle of 6-8 years or more. Low long-term capital expenditures lead to insufficient supply growth
- According to Bloomberg's forecast, global copper mining companies' capital expenditure will reach US\$ 87.2 billion in 2024, only 68% higher than the historical high in 2013. The global copper supply will be relatively weak in the future
- Since the exploration of copper resources has reached a high level, the number of newly discovered copper mines in recent years is very small, and the medium- and long-term copper resource reserves are becoming increasingly insufficient

The Number of Newly Discovered Copper Mines in The World Continues to Decline



Source: S&P Global, Bloomberg, Pacific Securities

The Growth Rate of Global Copper Mine Production Lags behind Capital Expenditure



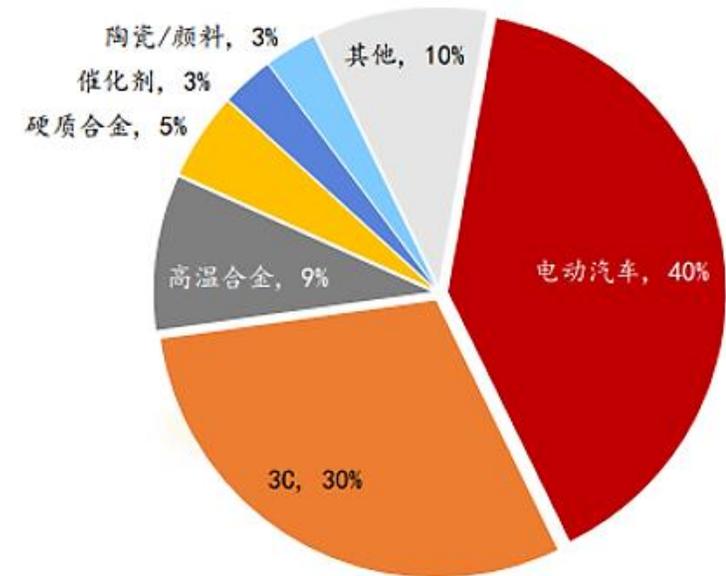
# The Terminal Application Fields of Cobalt Continue to Emerge

- Together with the demand growth in aerospace and the recent government stockpiling programs, the long-term demand of cobalt remains strong.
- The cobalt price is at its lowest point in history, and vehicle manufacturers are waiting for the return of the cost-effectiveness of ternary batteries containing cobalt. The electrification and intelligence required for new energy vehicles require the stability of the ternary system
- Antaika expected the total global cobalt consumption to be 234,000 tonnes and 252,000 tonnes in 2025 and 2026 respectively, with an additional demand of 38,000 tonnes and 42,000 tonnes, respectively
- Cobalt is expected to remain an important raw material for the entire battery supply chain in the short term

## Downstream Application Areas of Cobalt

<b>电池材料</b>	目前市场主流的充电电池为锂离子电池，这类充电电池在手机、笔记本电脑、数码电子产品（3C类产品）及电动摩托车、电动汽车领域上得到广泛应用。
<b>高温合金</b>	在钢中添加钴可以增强耐磨强度和高温性能，应用于喷气发动机、火箭、燃气轮机的耐热、耐磨部件。
<b>硬质合金</b>	钴是硬质合金的重要原材料，其与钨构成的硬质合金硬度比工具钢高，主要用于切削刀具、钻头等。
<b>色釉料</b>	主要作为玻璃、陶瓷、搪瓷的着色剂和粘结剂。
<b>磁性材料</b>	在永久磁铁中加入钴可提高磁饱和度和磁场强度，同时可显著提高永久磁铁的居里温度，因此钴也成为生产永久磁性材料的重要原料。
<b>化工行业</b>	钴主要应用于PTA催化剂、石油催化剂、天然气液化催化剂等领域。
<b>其他行业</b>	钴在油漆干燥剂、轮胎粘结剂、医药中间体和饲料添加剂等领域也有广泛的应用。

## Global Distribution Structure of Cobalt Demand



Source: Industrial Securities, Everbright Securities, Guolian Securities, Antaika

## Contact:

Jinchuan Group International Resources  
Ltd. (02362.HK)

Address: Unit 3101, 31st Floor, United Centre, 95  
Queensway, Admiralty, Hong Kong

Tel: +852 3919 7239

Fax: +852 3919 7208

Email: [ir@jinchuan-intl.com](mailto:ir@jinchuan-intl.com)

Website: [www.jinchuan-intl.com](http://www.jinchuan-intl.com)

