



# REINDUSTRIALIZING EUROPE

WHERE IS THE CONSTRUCTION  
EQUIPMENT SECTOR GOING?

23-25 Oct  
2024  
MADRID

#CECEcongress



**Esther Yuste**

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**The mining sector in South-America**

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# Mining Countries in South America



# Mining in South America

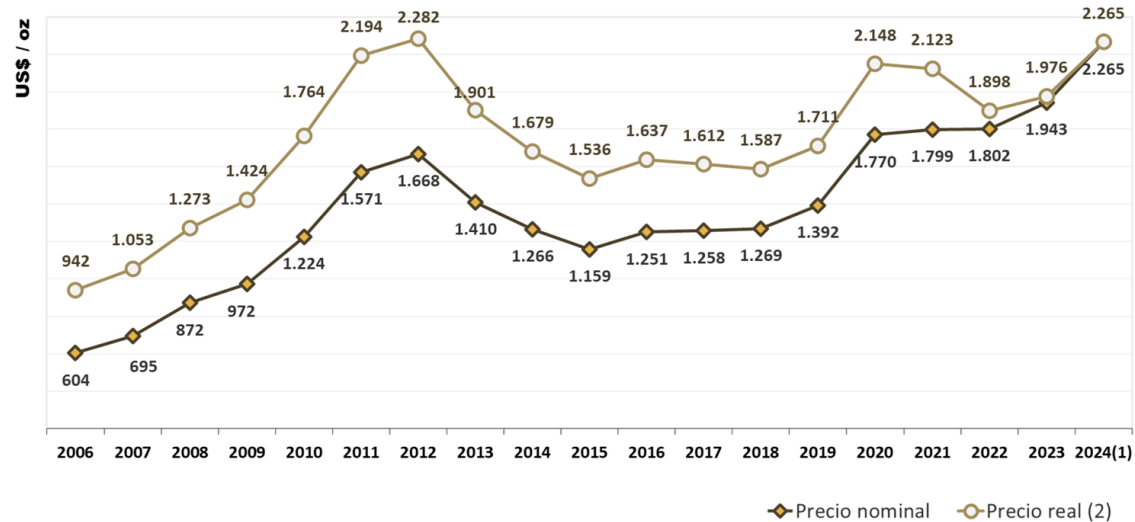
## Biggest private mining companies in South America

Company	Operations	Revenue	Metals	HQ
<a href="#">Newmont Corporation</a>	Perú, Suriname, Argentina	\$11.9bn	gold, silver, and copper	US
<a href="#">Anglo American</a>	Brazil, Chile, Peru, and Colombia	\$35bn	copper, iron ore, and nickel	UK
<a href="#">Southern Copper Corporation</a>	Peru and Mexico	\$37.1bn	copper, molybdenum, zinc, and silver.	US
<a href="#">Freeport-McMoRan</a>	Peru and Chile	\$37.9bn	copper, gold, molybdenum	US
<a href="#">Vale S.A</a>	Brazil	\$42.2bn	iron ore, nickel, copper, and manganese	BR
<a href="#">Rio Tinto Group</a>	Brazil and Chile	\$54bn	copper	AU
<a href="#">BHP Group</a>	Chile and Peru	\$59bn	copper	AU
<a href="#">Glencore</a>	Bolivia, Chile, Peru and Argentina	\$219.8bn	copper, zinc, lead, silver, and gold	CH
<a href="#">China Shenhua Energy</a>	Brazil and Chile	\$46bn	coal and copper	CN
<a href="#">China Minmetals Corporation</a>	Chile and Peru	\$125bn	Copper and zinc	CN

# Main Metals Price Evolution

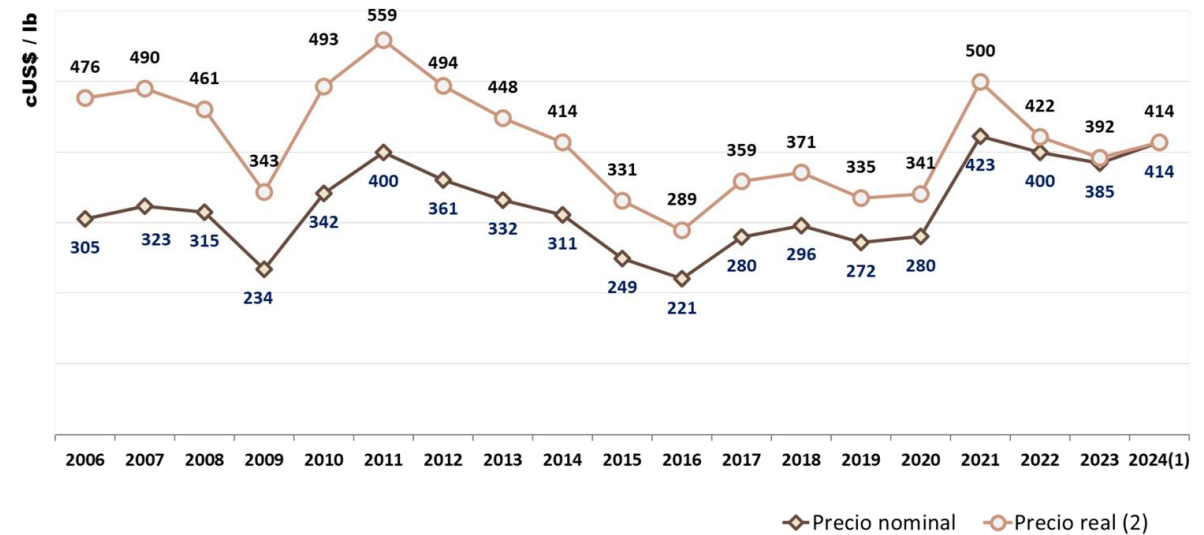
## Gold's price evolution

Source: Consejo Minero; information from Cochilco, ICSG, 2024, USGS, 2024



## Copper's price evolution

Source: Consejo Minero; information from Cochilco, 2024



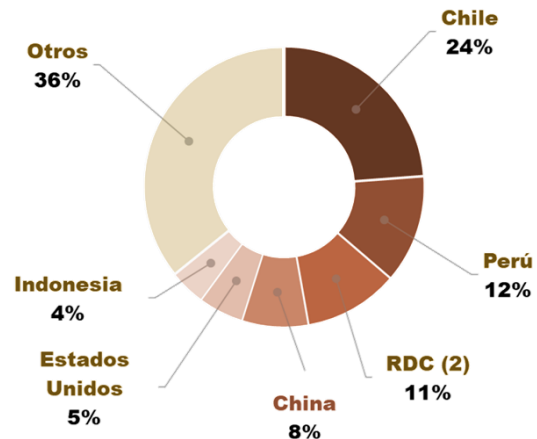
# Raw Materials in numbers - Copper

## World copper production and reserves by country

Source: Consejo Minero; information from Cochilco, ICSG, 2024, USGS, 2024

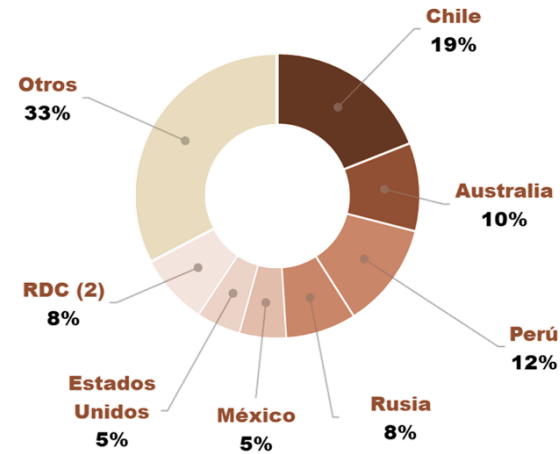
### Copper production: 22.1 million metric tons

22.063 KTM



### Iron reserves: 1 billion metric tons

1.000.000 KTM

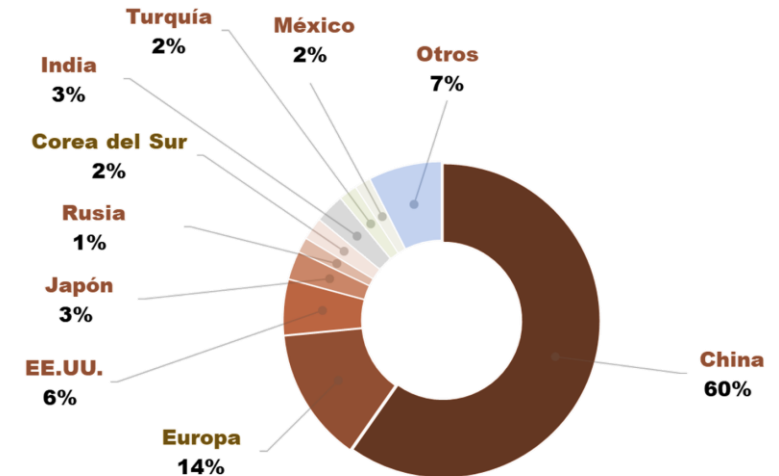


## World copper consumption

Source: Consejo Minero; information from Cochilco, 2024

### Consumption: 27.6 million metric tons

27.593 KTMF

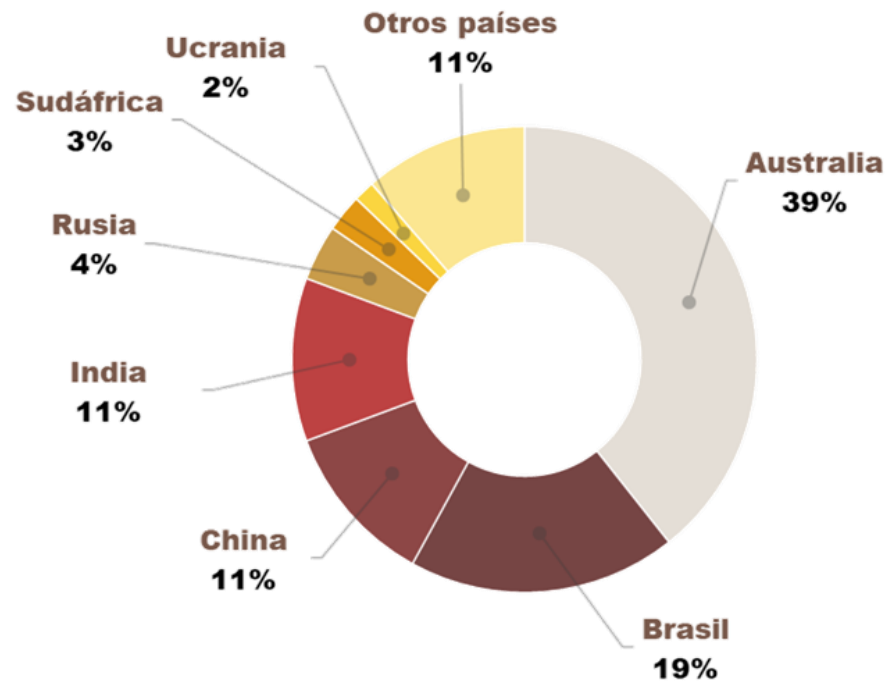


# Raw Materials in numbers - Iron

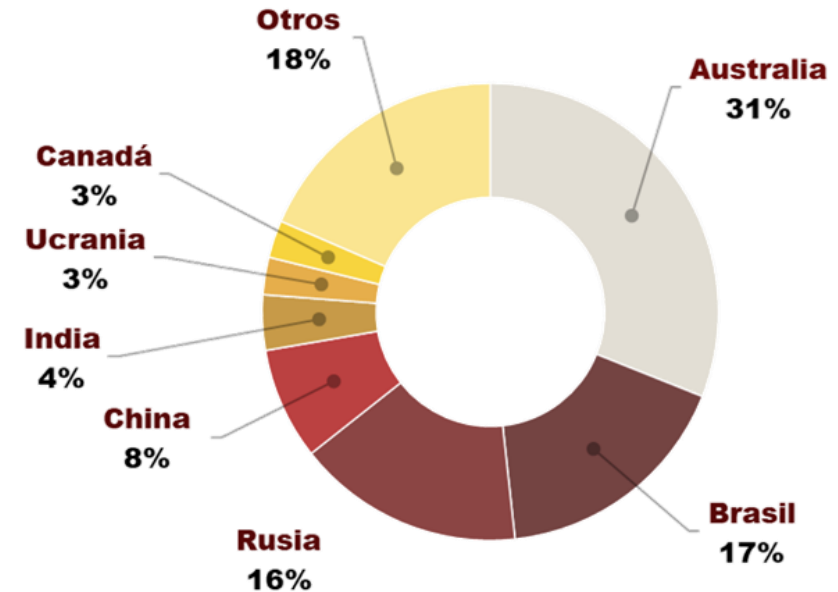
## World iron production and reserves by country

Source: Consejo Minero ; information from the US Geologic Service., 2024

Iron production 2023: 1,500 million metric tons



Iron reserves: 87,000 million metric tons



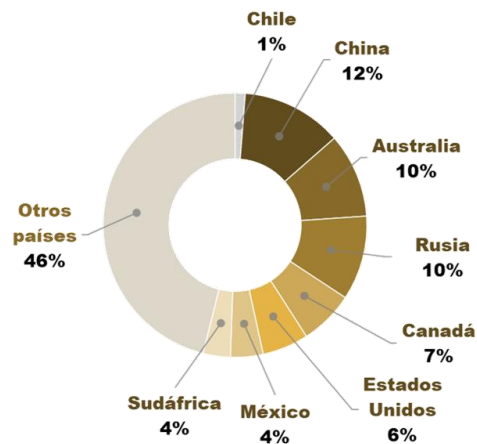


# Raw Materials in numbers - Gold

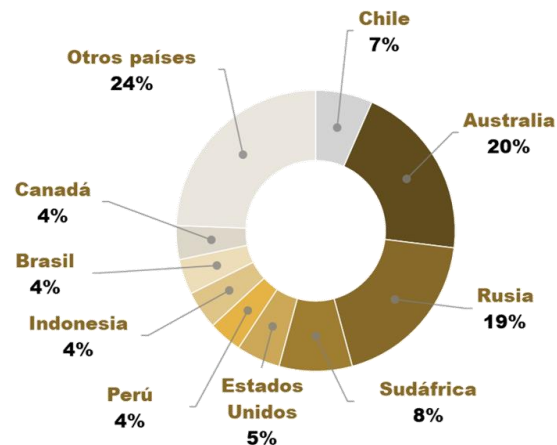
## World gold production and reserves by country

Source: Consejo Minero; information from Cochilco and USGS, 2024

Gold production: 3 thousand metric tons



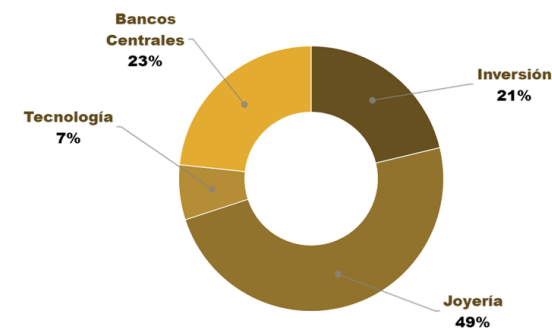
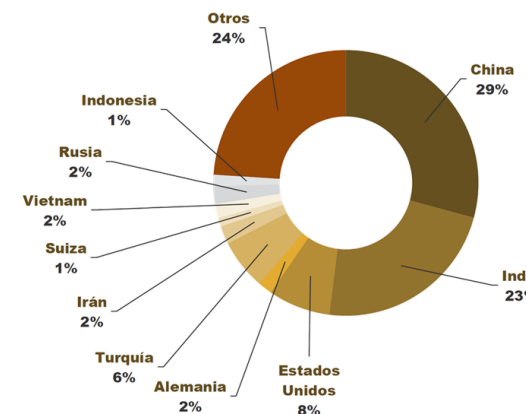
Gold reserves: 59 thousand metric tons



## World gold consumption

Source: Consejo Minero; information from World Gold Council, 2023

Consumption in 2023: 4.4 thousand metric tons





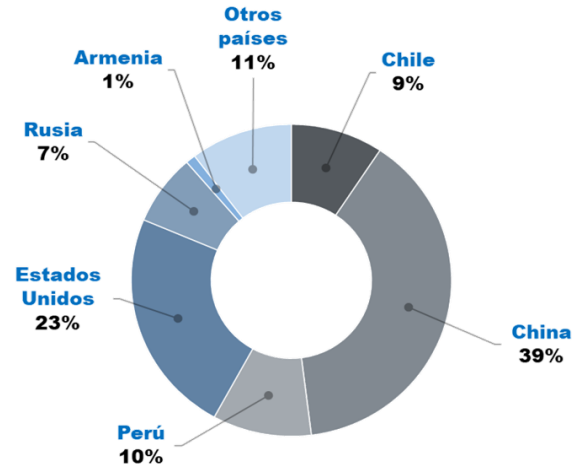
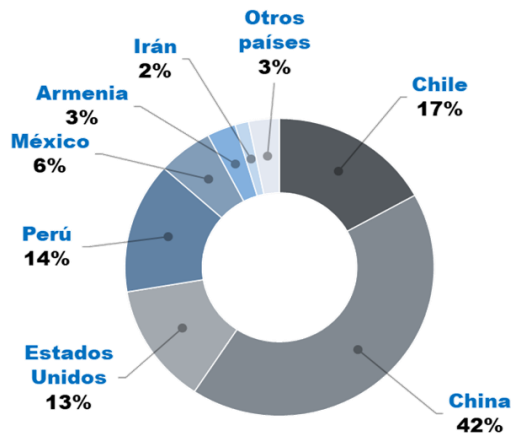
# Raw Materials in numbers - Molybdenum

## Molybdenum production and reserves by country

Source: Consejo Minero; information from Cochilco, ICSG, 2024, USGS, 2024

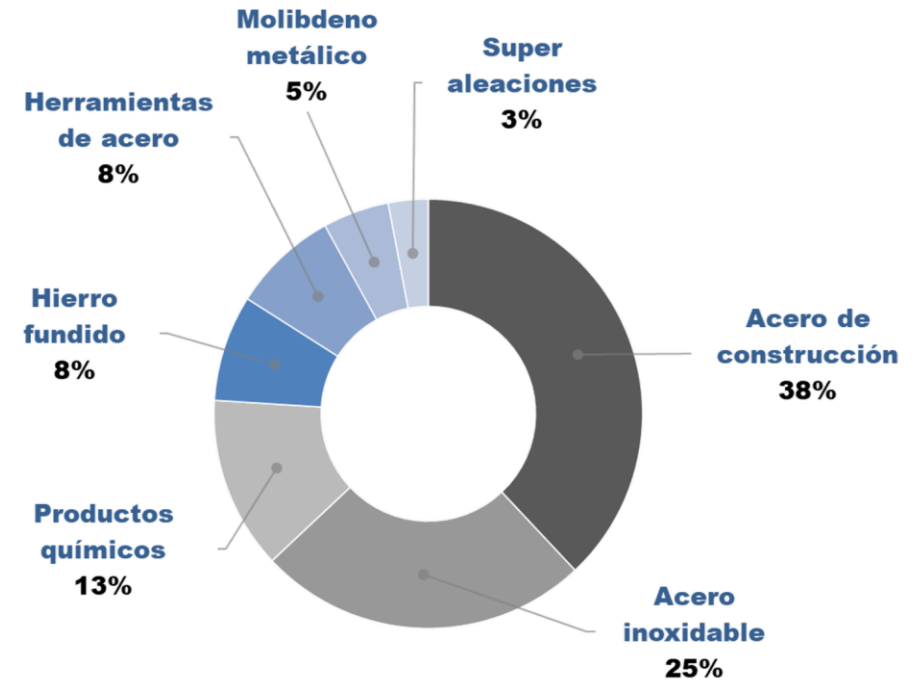
Molybdenum production: 260 million metric tons

Molybdenum reserves: 15.000 metric tons



## Molybdenum primary usages

Source: Consejo Minero; information from Cochilco, 2024

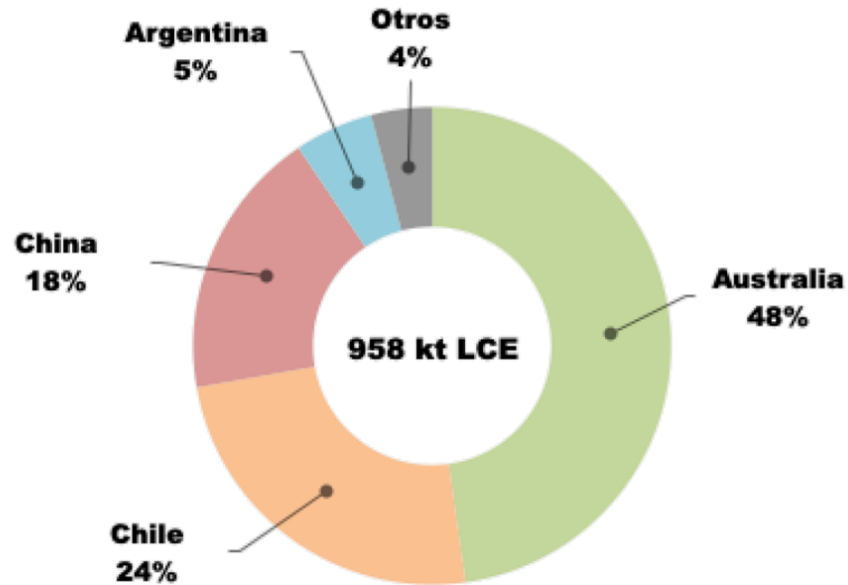


# Raw Materials in numbers - Lithium

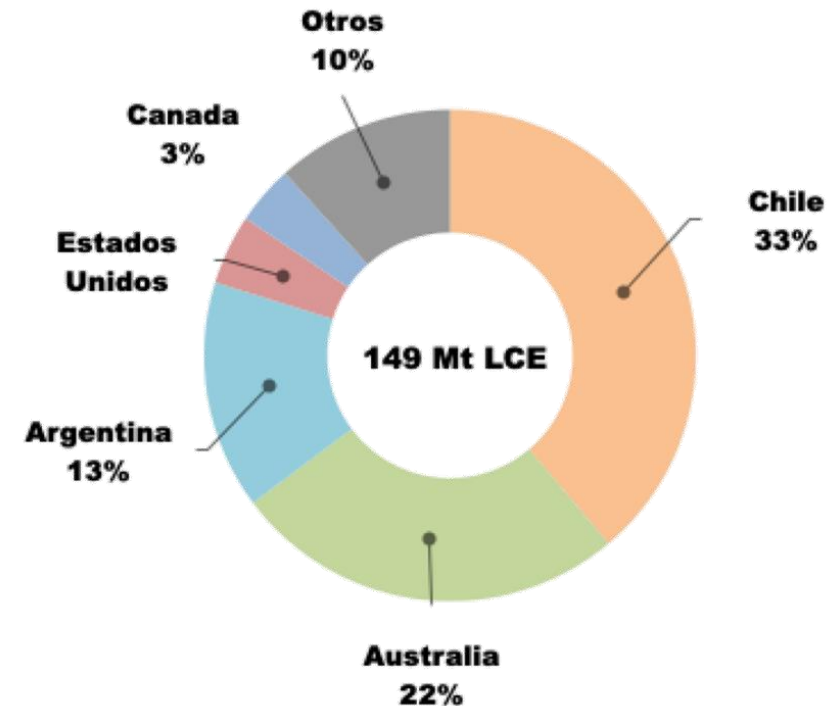
## Lithium production and reserves by country

Source: Consejo Minero; information from Cochilco, ICSG. 2024, USGS, 2024

Lithium production

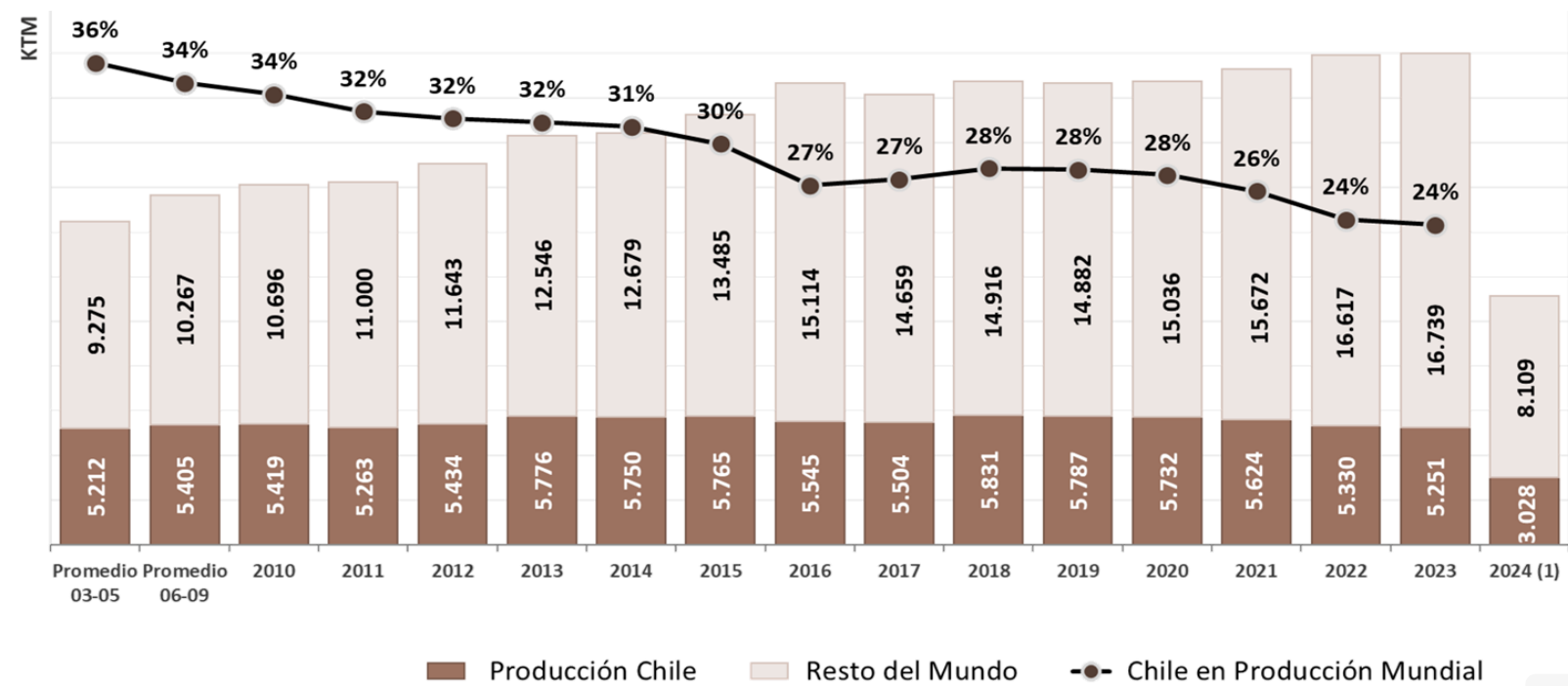


Lithium reserves



## Chile's copper production vs the rest of the world

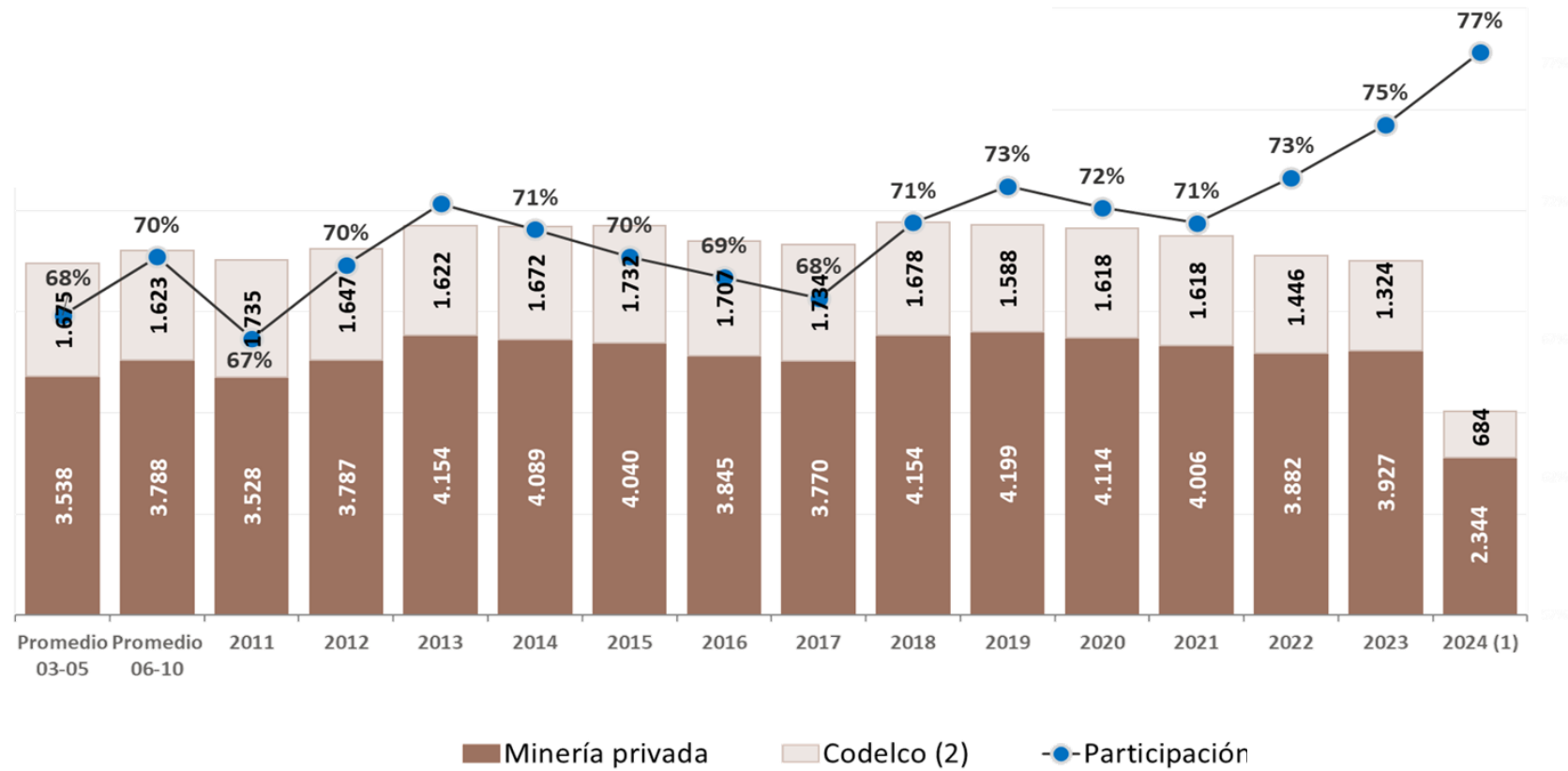
Fuente: Consejo Minero a partir de información de Cochilco, ICSG. 2024





## Copper's public vs private mining

Fuente: Consejo Minero a partir de información de Cochilco, 2024



## Chile’s copper production and its world production market share

Fuente: Consejo Minero a partir de información de Cochilco, 2024

Tipo de Mineral	Producción en Chile en Toneladas Métricas (1)	Participación en la producción mina mundial	Ranking en la producción mundial	Participación en reservas mundiales
Cobre	5.251 miles TM	24%	1	19%
Oro	37 TM	1%	>15	7%
Plata	1.378 TM	5%	7	4%
Molibdeno	44.118 TM	17%	2	9%
Hierro	11 millones TM	1%	>15	n.d.
Litio	270.947 LCE	27%	2	34%

# Future Investments in Chile



## Investment Projects of companies of the Mining Consortium. Execution Stage as of September 2024

Source: Consejo Minero; information from Plusmining, 2024

Puesta en Marcha	Proyectos (1)	Operador	Productos Principales	Región	Estado de permisos ambientales	Inversión (millones de US\$)	Tipo de proyecto	Tipo de empresa	Tipo de mina
2023-2024	Aumento de Capacidad y Optimización Planta Carmen	SQM	Litio	Antofagasta	EIA aprobado	1.400	Brownfield	Privada	Planta química
2023-2027	Otros proyectos de desarrollo (incl. FURE y tranques)	Codelco	Cobre	Varias	EIA aprobado	6.763	Brownfield	Estatal	Mixto
2024	Sierra Gorda Exp. 230 Ktpd (actualización dep. relaves)	KGHM, Sierra Gorda	Cobre	Antofagasta	EIA aprobado	400	Brownfield	Privada	Rajo abierto
2024	Extensión de botadero de ripios y modificación pila dinámica	BHP, Minera Escondida	Cobre	Antofagasta	EIA aprobado	470	Brownfield	Privada	Rajo abierto
2024	Lomas Bayas continuidad (Ex Lomas Bayas 2034)	Glencore, Cia Minera Lomas Bayas	Cobre	Antofagasta	EIA aprobado	254	Brownfield	Privada	Rajo abierto
2024	Rajo Inca	Codelco, Div. Salvador	Cobre	Atacama	EIA aprobado	2.400	Brownfield	Estatal	Rajo abierto
2026	Tente en el Aire	SQM Yodo	Yodo	Tarapacá	EIA aprobado	350	Brownfield	Privada	Otro
2027	Proyecto de Adaptación Operacional (PAO)	Antofagasta Minerals, Los Pelambres	Cobre	Coquimbo	EIA aprobado	2.000	Brownfield	Privada	Rajo abierto
2027	Nueva Centinela	Antofagasta Minerals, Minera Centinela	Cobre	Antofagasta	EIA aprobado	4.400	Brownfield	Privada	Rajo abierto
2030	Plan de Desarrollo El Teniente (Nuevo Nivel Mina y otros)	Codelco, Div. El Teniente	Cobre	O'Higgins	EIA aprobado	7.510	Brownfield	Estatal	Subterránea
Total Ejecución						25.947			



# Future Investments in Chile

## Investment in projects of companies of the Mining Consortium. Evaluation Stage 2024

Source: Consejo Minero; information from Plusmining, 2024

Puesta en Marcha	Proyectos (1)	Operador	Productos Principales	Región	Estado de permisos ambientales	Inversión (millones de US\$)	Tipo de proyecto	Tipo de empresa	Tipo de mina
2025	Polo Sur y Optimización Centinela	Antofagasta Minerals, Minera Centinela	Cobre	Antofagasta	EIA aprobado	300	Brownfield	Privada	Rajo abierto
2025	Collahuasi Mej. Cap. Prod. 210 Ktpd	Doña Inés de Collahuasi	Cobre	Tarapacá	EIA aprobado	3.320	Brownfield	Privada	Rajo abierto
2025	Cont. Operacional Minera Candelaria	Lundin Mining, Candelaria	Cobre	Atacama	EIA presentado	600	Brownfield	Privada	Rajo abierto
2025	Desarrollo Futuro DMH	Codelco, Div MH	Cobre	Antofagasta	EIA presentado	2.500	Brownfield	Estatal	Rajo abierto
2026	Adecuación Operacional Faena Minera Caserones	Lundin Mining, Caserones	Cobre	Antofagasta	EIA presentado	185	Brownfield	Privada	Rajo abierto
2027	Lobo-Marte	Kinross Minera Chile Ltda.	Oro	Atacama	Sin EIA	1.080	Greenfield	Privada	Rajo abierto
2027	Aumento de capacidad de molienda QB2	Teck Resources, QB	Cobre	Tarapacá	EIA presentado	3.000	Brownfield	Privada	Rajo abierto
2027	Los Bronces Integrado	AngloAmerican Sur S.A.	Cobre	RM	EIA aprobado	3.300	Brownfield	Privada	Mixto
2028	Extensión vida útil con transición hídrica	Antofagasta Minerals, Cia Minera Zaldivar SpA	Cobre	Antofagasta	EIA presentado	1.200	Brownfield	Privada	Rajo abierto

# Future Investments in Chile



## Investment in projects of companies of the Mining Consortium. Evaluation Stage 2024

Source: Consejo Minero; information from Plusmining, 2024

Puesta en Marcha	Proyectos (1)	Operador	Productos Principales	Región	Estado de permisos ambientales	Inversión (millones de US\$)	Tipo de proyecto	Tipo de empresa	Tipo de mina
2028	Adecuación operacional Spence	BHP, Spence	Cobre	Antofagasta	EIA presentado	1.652	Brownfield	Privada	Rajo abierto
2028	Sulfuros RT Fase II	Codelco, Div. RT	Cobre	Antofagasta	EIA aprobado	3.732	Brownfield	Estatal	Rajo abierto
2030	Aumento movimiento de mina DGM	Codelco, Div. GM	Cobre	Antofagasta	EIA aprobado	153	Brownfield	Estatal	Rajo abierto
2031	Sierra Gorda Exp. 230 Ktpd	KGHM, Sierra Gorda SCM	Cobre	Antofagasta	EIA aprobado	1.800	Brownfield	Privada	Rajo abierto
2033	Expansión El Abra	Freeport McMoran, El Abra	Cobre	Antofagasta	Sin EIA	7.500	Brownfield	Privada	Rajo abierto
2034	Nueva Unión Fase 1	Newmont Goldcorp-Teck Resources	Cobre	Atacama	Sin EIA	3.500	Greenfield	Privada	Rajo abierto
2034-2038	Salar Futuro	Codelco-SQM	Litio	Antofagasta	Sin EIA	3.000	Brownfield	Estatal	Salar
2035	Extensión vida útil (EVU)	Antofagasta Minerals, Los Pelambres	Cobre	Coquimbo	Sin EIA	2.000	Brownfield	Privada	Rajo abierto
Total Evaluación						38.822			

# The mining sector in South-America

## Overview of the current mining landscape from different points of view



### **Sigde Mamani Flores**

**Sig Matech SpA | Founder and CEO**

CEO of Sig Matech SpA, a company specialized in biotechnology in mining



### **Carmen Gloria Castillo**

**BHP | Civil Engineer MBA**

Project management and auditing in companies in the mining industry such as Collahuasi, Angloamerican, AMSA and currently at BHP



### **Paulina Vallejos Aravena**

**Researcher and Project Engineer at the Federico Santa María Technical University.**

She conducts applied research focused on mineral processing, flotation, and efficient water and energy consumption



### **Iris Wunderlich**

**Project Leader Mining & Sustainability | AHK Chile**

Mining & Sustainability Projects including The Chilean Competence Center for Mining and Mineral Resources. German-Chilean Partnership for Mining



### **Natali Torres Ramirez**

**Metso Chile | Contract Manager**

Contract manager at Metso Chile, more than 15 years of experience in the mining industry in technical and commercial



### **Claudia Llanquitruf**

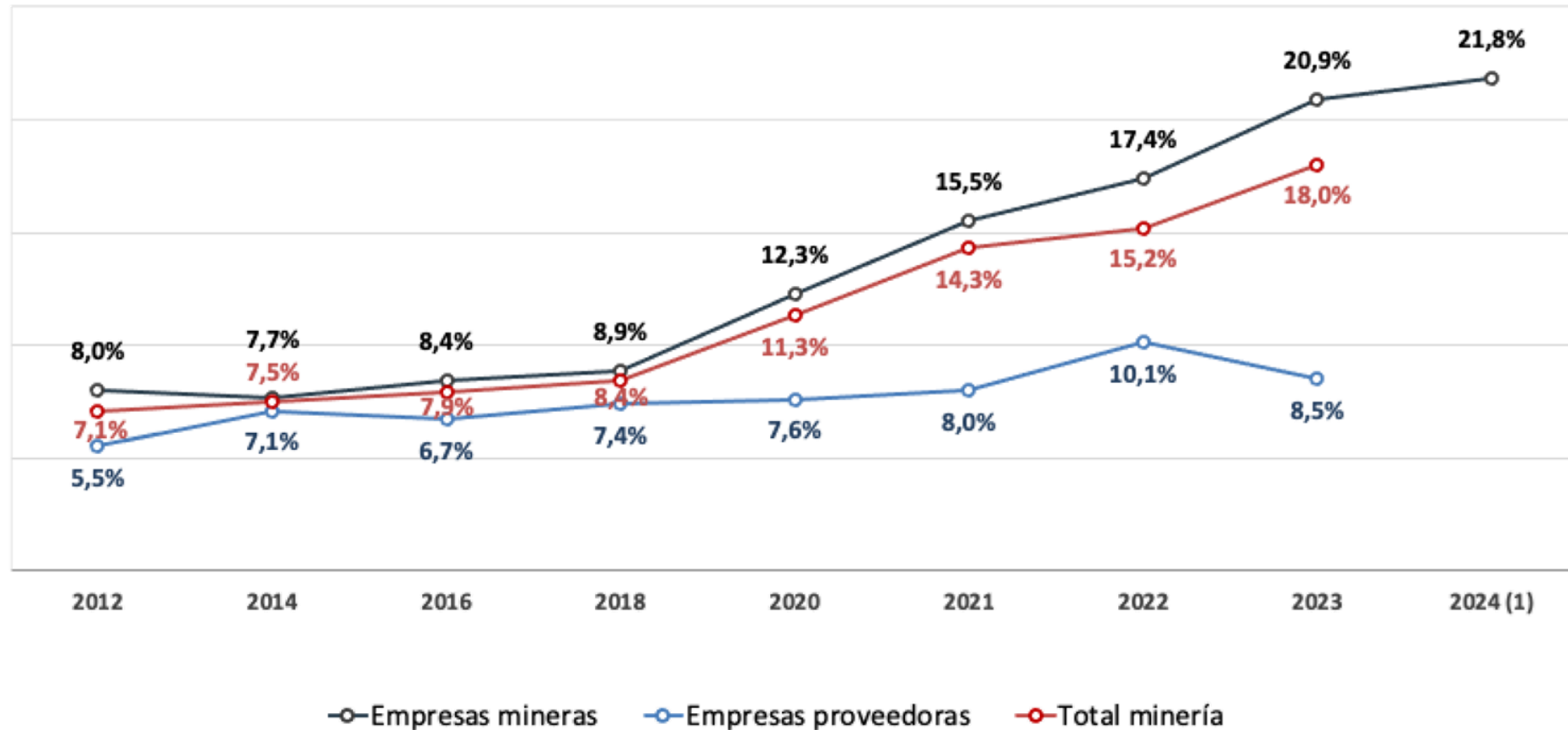
**MILL Montajes | Risk Prevention Engineer.**

CEO in a family SME. Providing services of industrial structural and equipment assemblies in the mining and astronomical sectors, the maintenance of equipment in concentrator plants



# The mining sector in South-America

## Women's participation in Chile's mining industry



# Conclusions

**Sustainability as a priority:** Mining in general and in South America in particular must evolve towards sustainable practices that minimize environmental impact and preserve natural resources for our future generations.

**Human talent:** Europe can contribute significantly to the mining sector by providing specialized training, knowledge transfer and skills development focused on sustainable development and operational efficiency.

**Advanced technology:** The incorporation of European technologies in digitization, automation and traceability can be incorporated into the ongoing transformation of mining to become increasingly efficient, safe and environmentally friendly.

**Infrastructure investment:** Private European companies have the option to invest in mining and logistics infrastructure in South America, with a focus on transportation, access to mines and energy efficiency.

**Water treatment technology:** European private companies can provide advanced solutions for water management and recycling in mining operations.

**International collaboration:** Europe and South America should work together on research and development projects to innovate cleaner and more efficient extraction and processing techniques.

**Financing:** European private capital can finance the implementation of innovative mining technologies, such as equipment, process improvements and more efficient processing techniques, helping to accelerate the modernization of the mining sector.



**THANK YOU FOR YOUR  
ATTENTION!**

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