



THE RELEVANCE OF MINING IN CHILE

The Foundation for Natural Resources and Energy Law International Mining Law Short Course

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Executive President Consejo Minero

October 15, 2024

AGENDA

Chilean mining context

Chapter I: Regulations

Chapter II: Geology

Chapter III: Mining ecosystem

Final remarks

CHILEAN MINING CONTEXT



56% of Chilean exports

21% of GDP contribution including productive value chain

18% of the investment in Chile

10% total direct and indirect employment

9% of fiscal revenues

CONSEJO MINERO – WHO WE ARE

Consejo Minero is the **trade association** that brings together the **large-scale mining companies** operating in Chile.

Its main objective is promoting the **competitive and sustainable development of Chilean mining** and its ecosystem, contributing to the well-being of the country.

Strategic objectives

Bring mining closer to people, transparently communicating its reality, challenges and contributions.

Contribute to the process of elaboration of **modern, effective and stable public policies** for the mining of the future and its environment.

Contribute to overcoming sectoral challenges in terms of **human capital, energy and water** resources, among others.

CONSEJO MINERO – MEMBER MINING GROUPS



CHAPTER I: REGULATIONS

1. Current situation and how we got here

2. Challenges we face

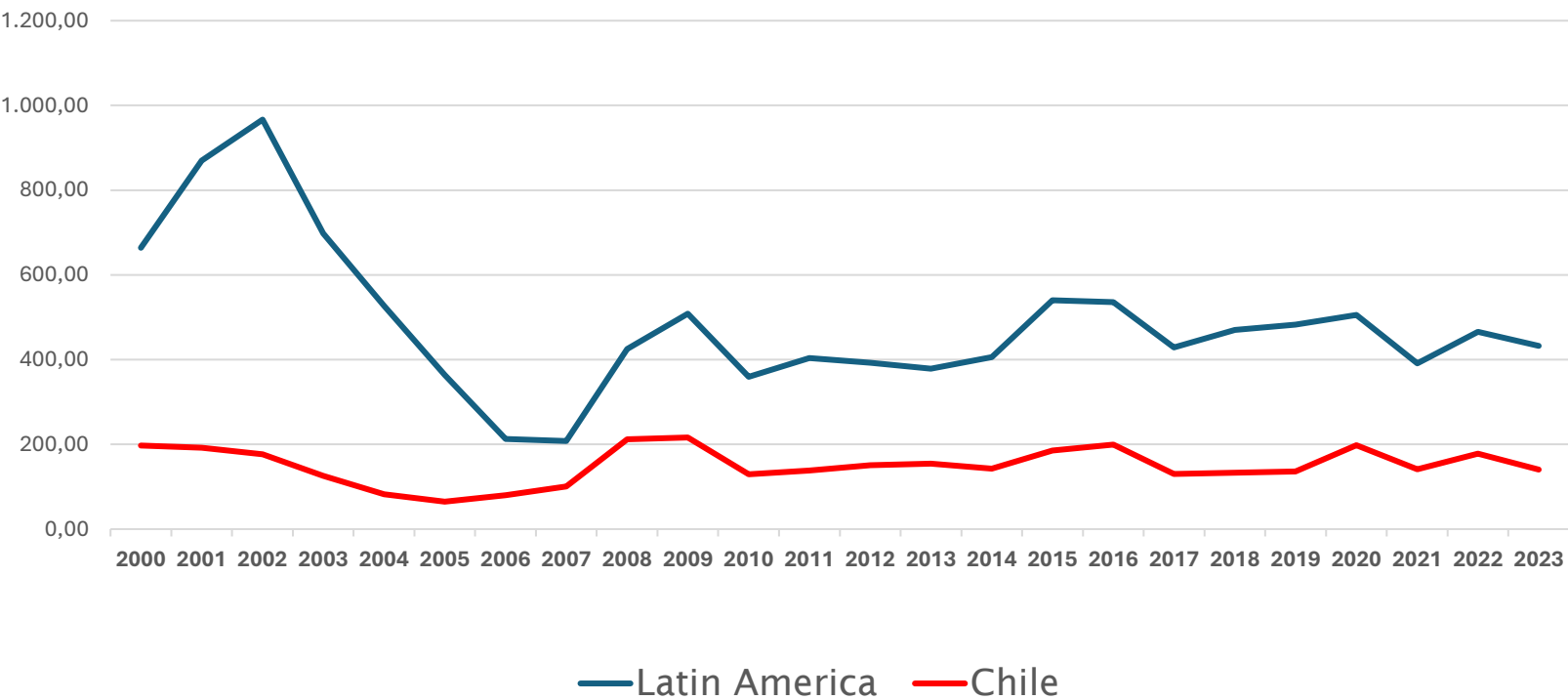
3. What is the industry doing?



1. Current situation and how we got here

1.1 OPEN ECONOMY

Sovereign spreads Emerging Market Bond Index (EMBI) Global Spread

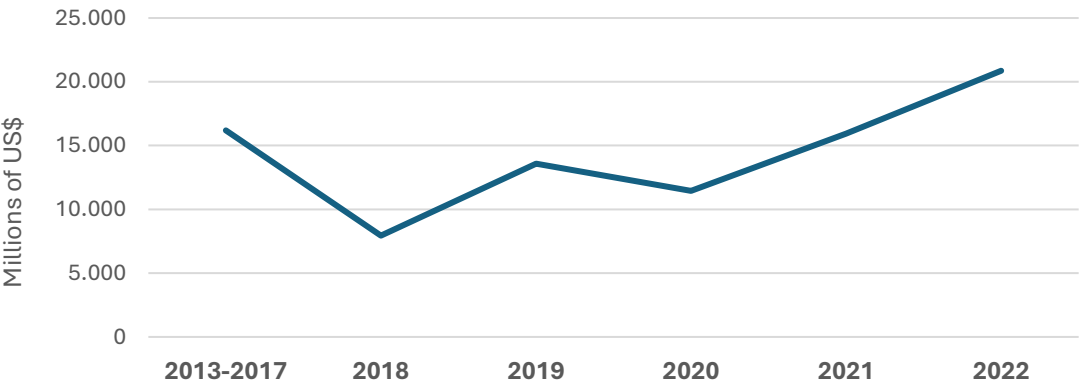


Source: Central Bank of Chile, 2024

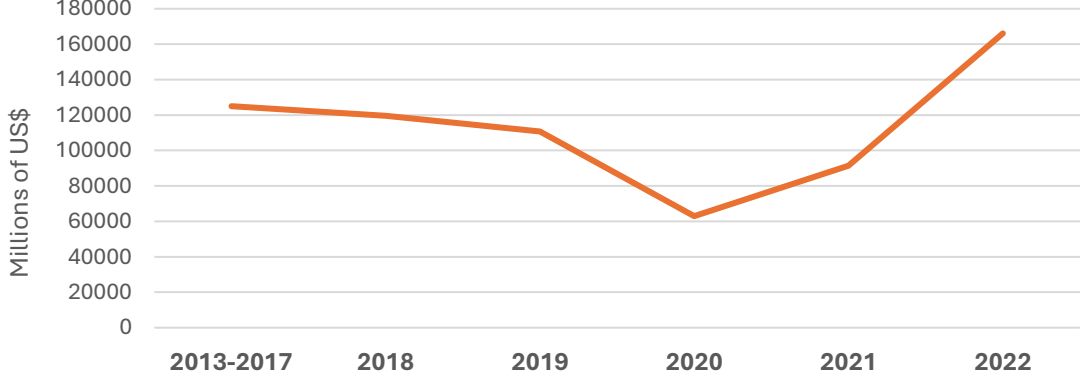
1. Current situation and how we got here

1.1 OPEN ECONOMY

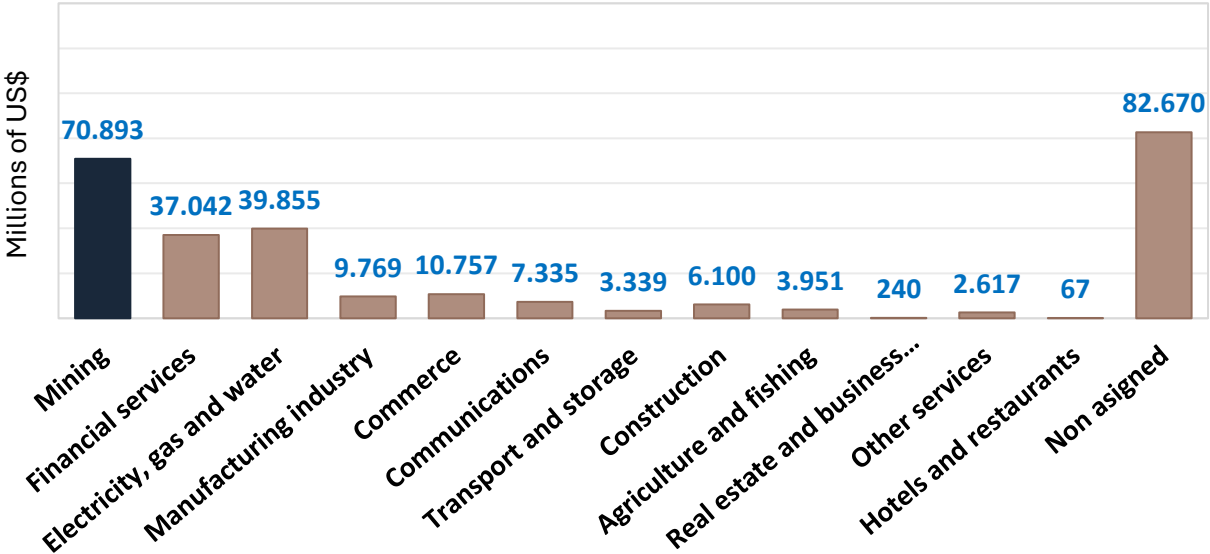
Foreign Direct Investment Inflows - Chile



Foreign Direct Investment Inflows - South America



Foreign direct investment stock by economic sector
Chile, 2022

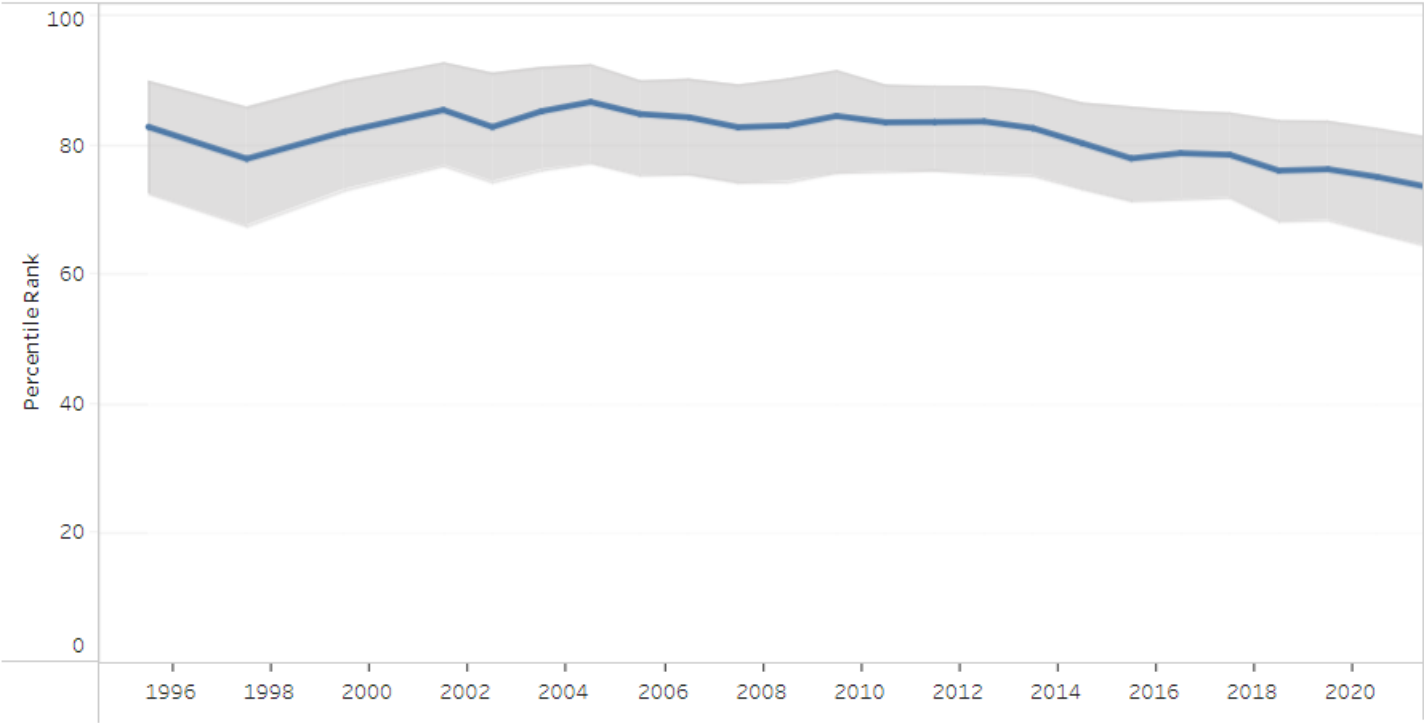


Source: Consejo Minero from Central Bank

1. Current situation and how we got here

1.2 INSTITUTIONAL FRAMEWORK

Worldwide Governance Indicators - Chile

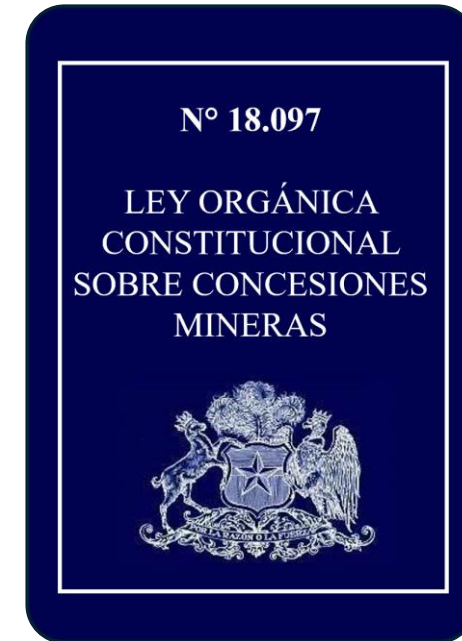
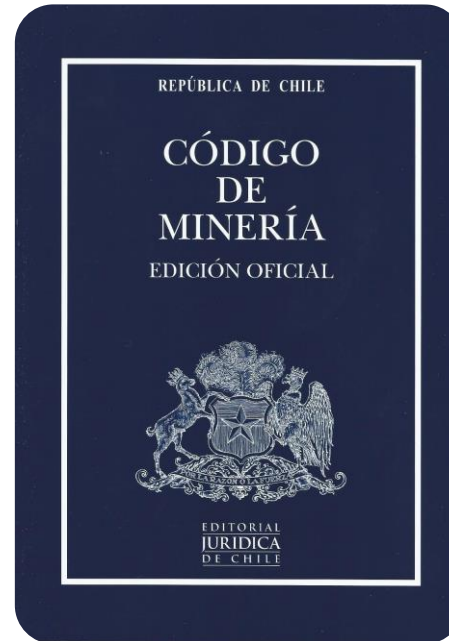
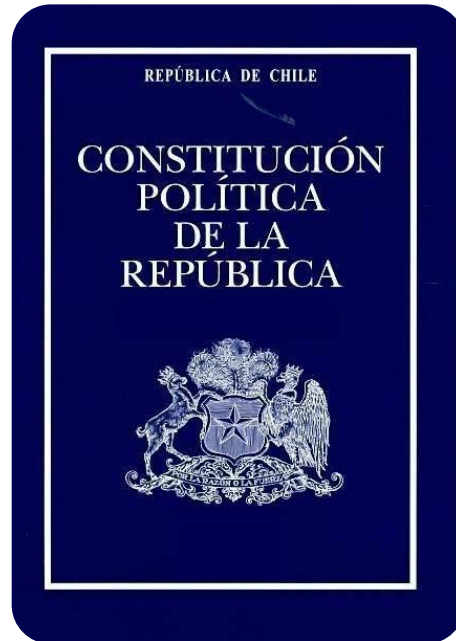


The solid blue line shows the selected country's percentile rank on each of the six aggregate indicators. The grey-shaded region indicates the margin of error.

Source: Worldwide Governance Indicators, World Bank, 2024

1. Current situation and how we got here

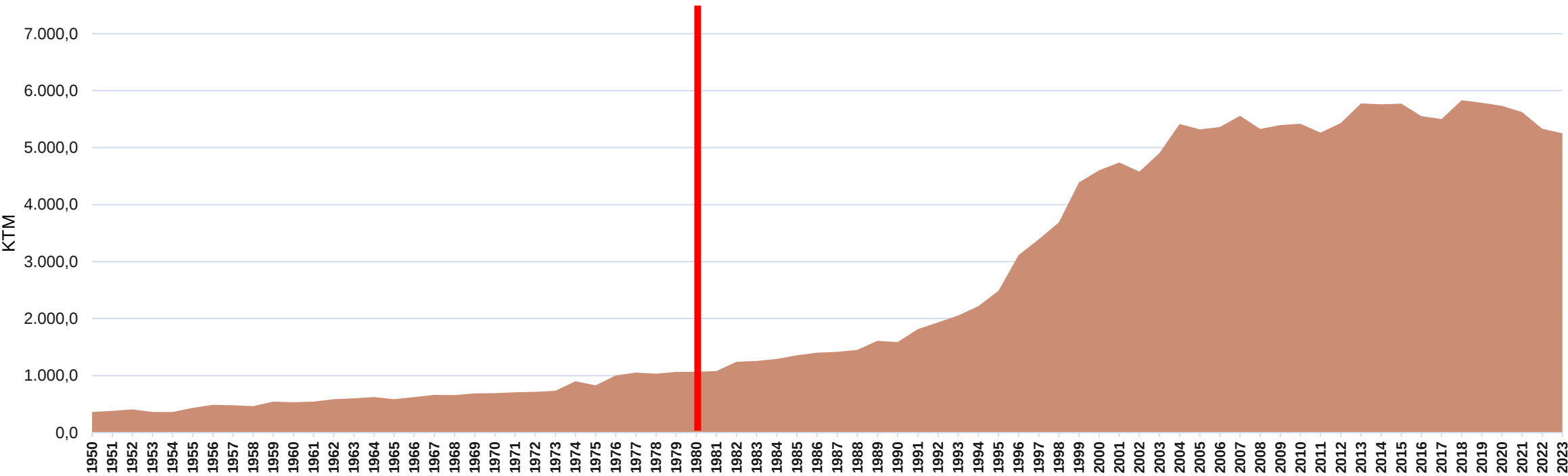
1.3 APPROPRIATE MINING REGULATIONS



1. Current situation and how we got here

1.4 PRODUCTION

Copper production in Chile



Source: USGS, 2024

2. Challenges

2.1 NEW REGULATIONS

N° 21.595

LEY DE DELITOS ECONÓMICOS



N° 19.473

LEY SOBRE CAZA



N° 20.283

LEY SOBRE RECUPERACIÓN DEL BOSQUE NATIVO Y FOMENTO FORESTAL



N° 19.300

LEY SOBRE BASES GENERALES DEL MEDIO AMBIENTE



N° 20.417

LEY QUE CREA EL MINISTERIO, EL SERVICIO DE EVALUACIÓN AMBIENTAL Y LA SUPERINTENDENCIA DEL MEDIO AMBIENTE



DECRETO N° 132

APRUEBA REGLAMENTO DE SEGURIDAD MINERA



N° 18.450

LEY QUE APRUEBA NORMAS PARA EL FOMENTO DE LA INVERSIÓN PRIVADA EN OBRAS DE RIEGO Y DRENAJE



N° 21.600

LEY QUE CREA EL SERVICIO DE BIODIVERSIDAD Y EL SISTEMA NACIONAL DE ÁREAS PROTEGIDAS



N° 20.551

LEY QUE REGULA EL CIERRE DE FAENAS E INSTALACIONES MINERAS



N° 17.288

LEGISLA SOBRE MONUMENTOS NACIONALES



D.S. N° 40

APRUEBA REGLAMENTO SOBRE PREVENCIÓN DE RIESGOS PROFESIONALES



Promulgamos el **CONVENIO 176** de la OIT sobre seguridad y salud en la minería.



15 de septiembre
Entrada en vigencia en Chile del Convenio N° 169 de la OIT.



2. Challenges

2.2 EMPOWERED COMMUNITIES



2. Challenges

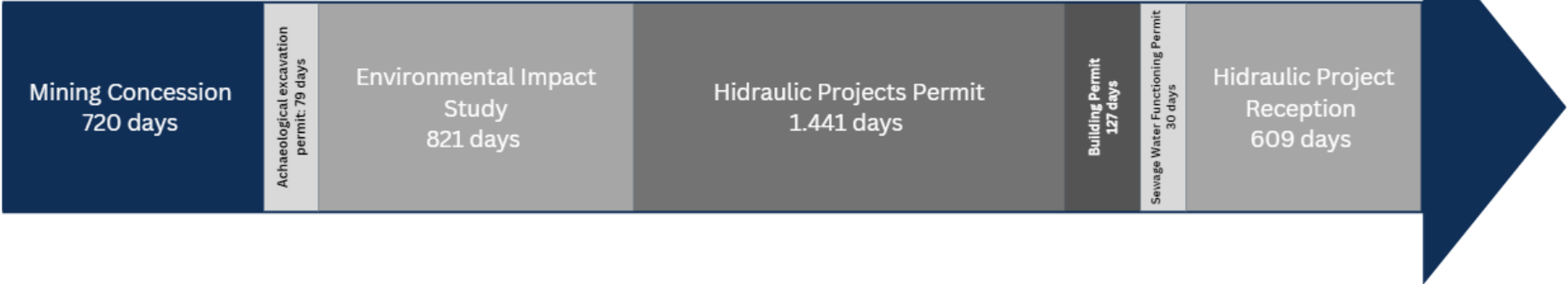
2.2 EMPOWERED COMMUNITIES (NGOs)



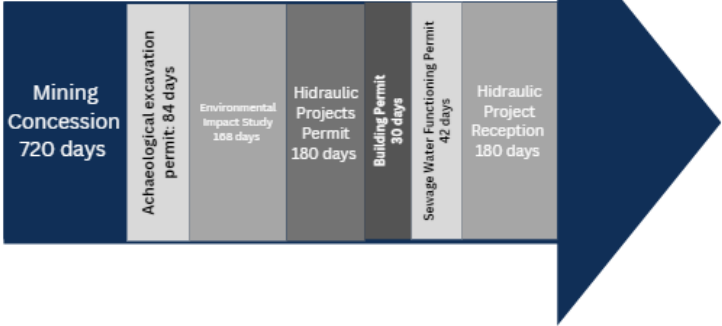
2. Challenges

2.3 AN EFFICIENCY-CHALLENGED STATE

MINING PROJECT
REAL TIMING: 3,857 DAYS / 129 MONTHS



MINING PROJECT
LEGAL TIMING: 1,404 DAYS / 47 MONTHS



**439
REQUIRED
PERMITS**

Source: National Productivity Commission.

3. What is the industry doing?

3.1 COLLABORATION AMONG MINING COMPANIES



3. What is the industry doing?

3.2 WORKING TOGETHER WITH THE STATE



Consejo Superior
Laboral



Labor Council including
the State, workers and
employers



Civil Society Council, a
citizen oriented
organization to take part
in decisión-making
processes that can impact
them.

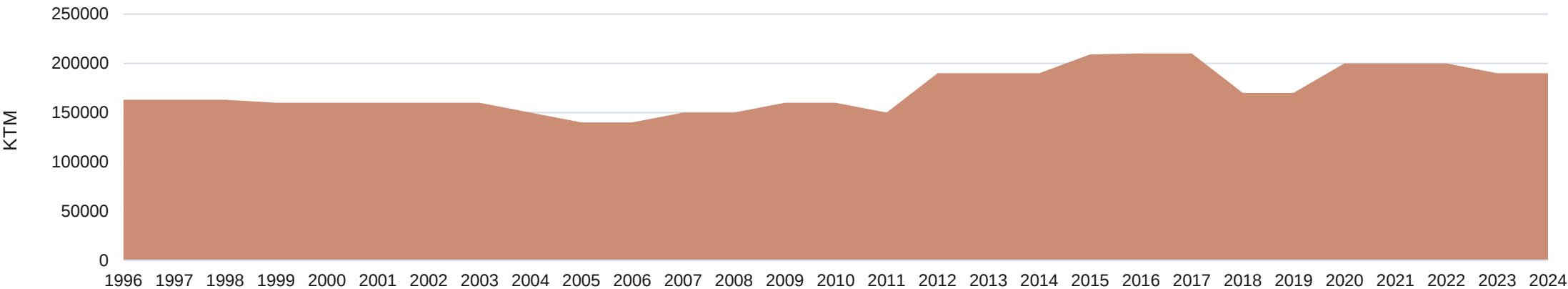
CHAPTER II: GEOLOGY

1. Current situation and how we got here
2. Challenges we face
3. What is the industry doing?

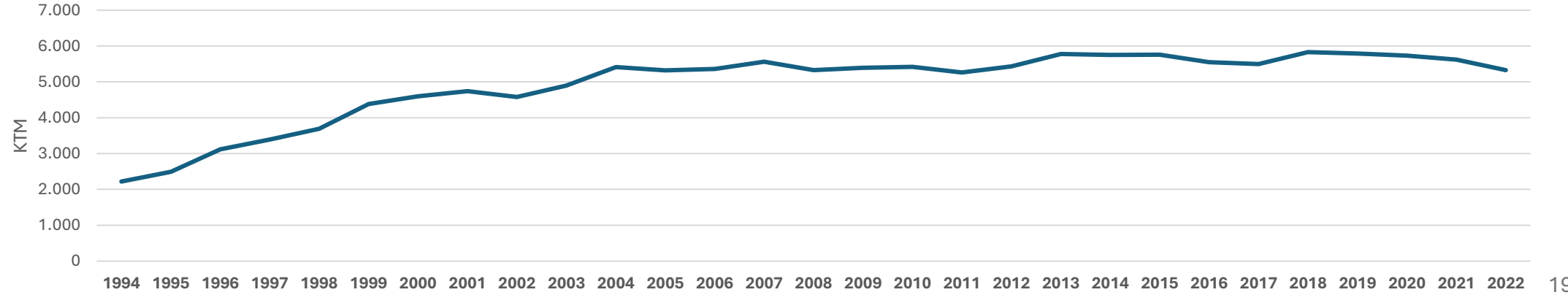
1. Current situation and how we got here

1.1 COPPER RESERVES AND PRODUCTION

Copper reserves in Chile



Copper mine production in Chile

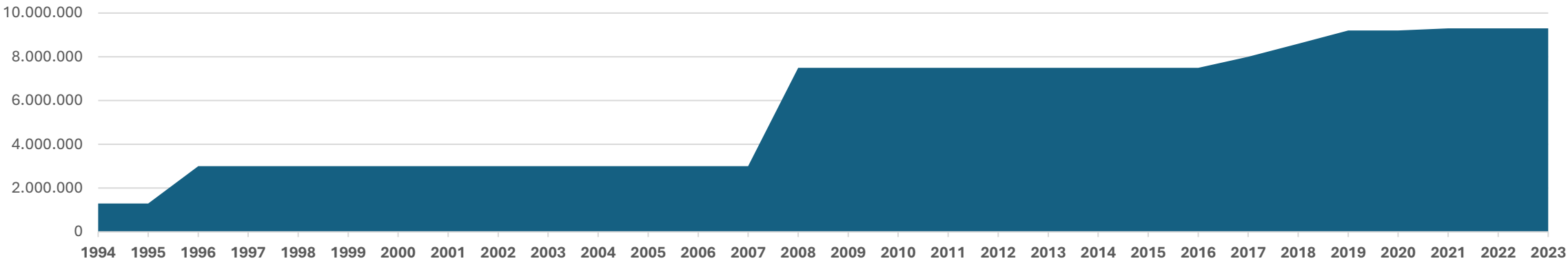


Source: USGS, 2024

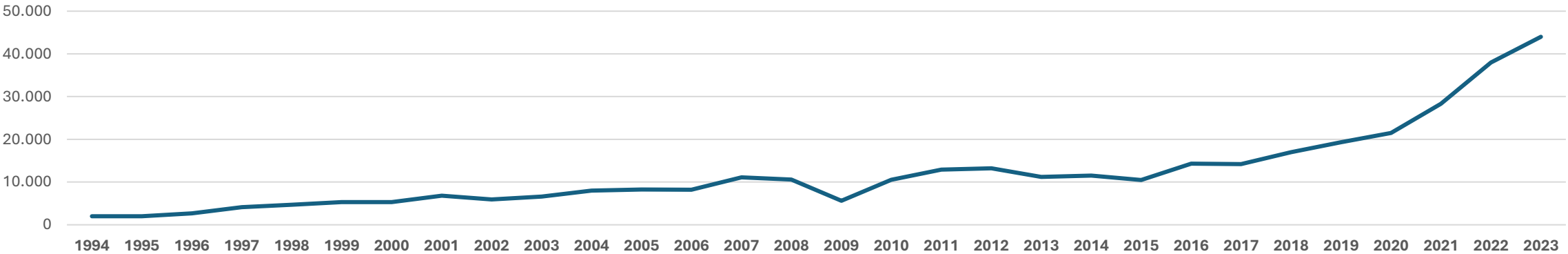
1. Current situation and how we got here

1.2 LITHIUM RESERVES AND PRODUCTION

Lithium reserves in Chile (mt)



Lithium mine production in Chile (mt)

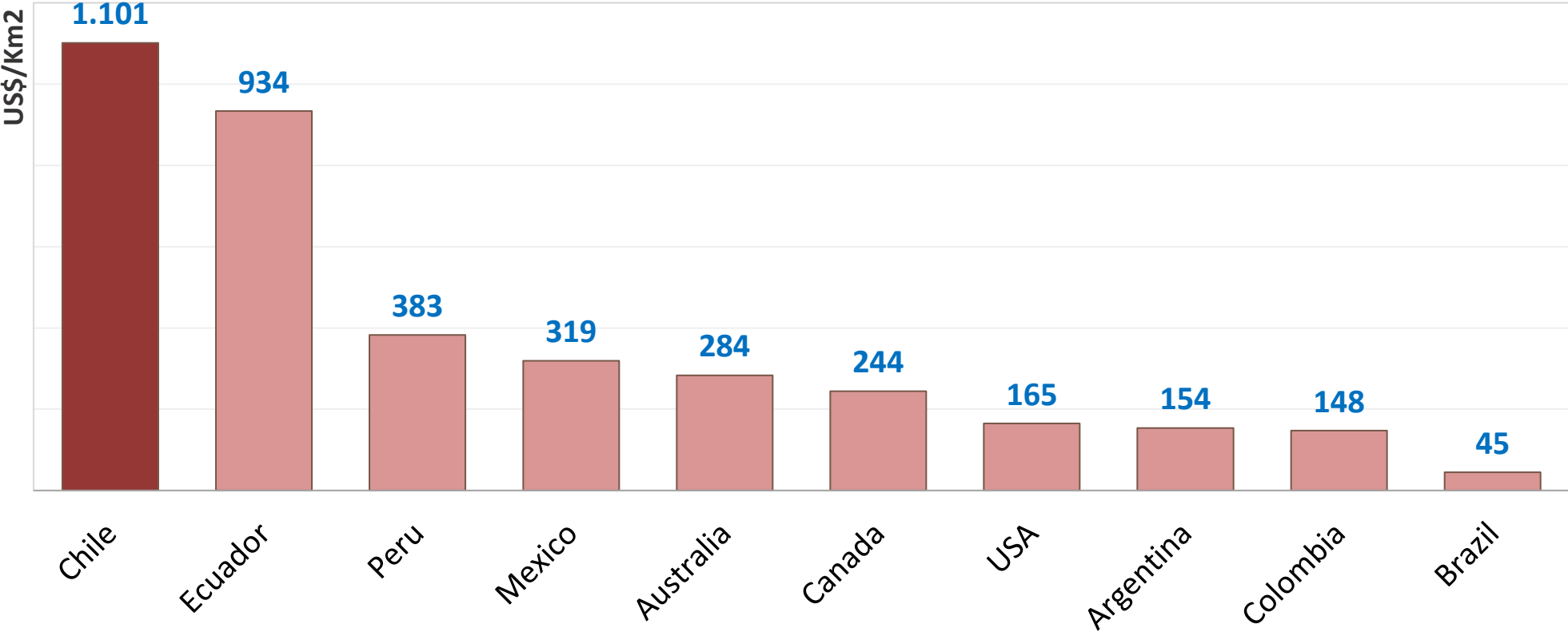


Source: USGS, 2024

1. Current situation and how we got here

1.3 EXPLORATION

Exploration budget

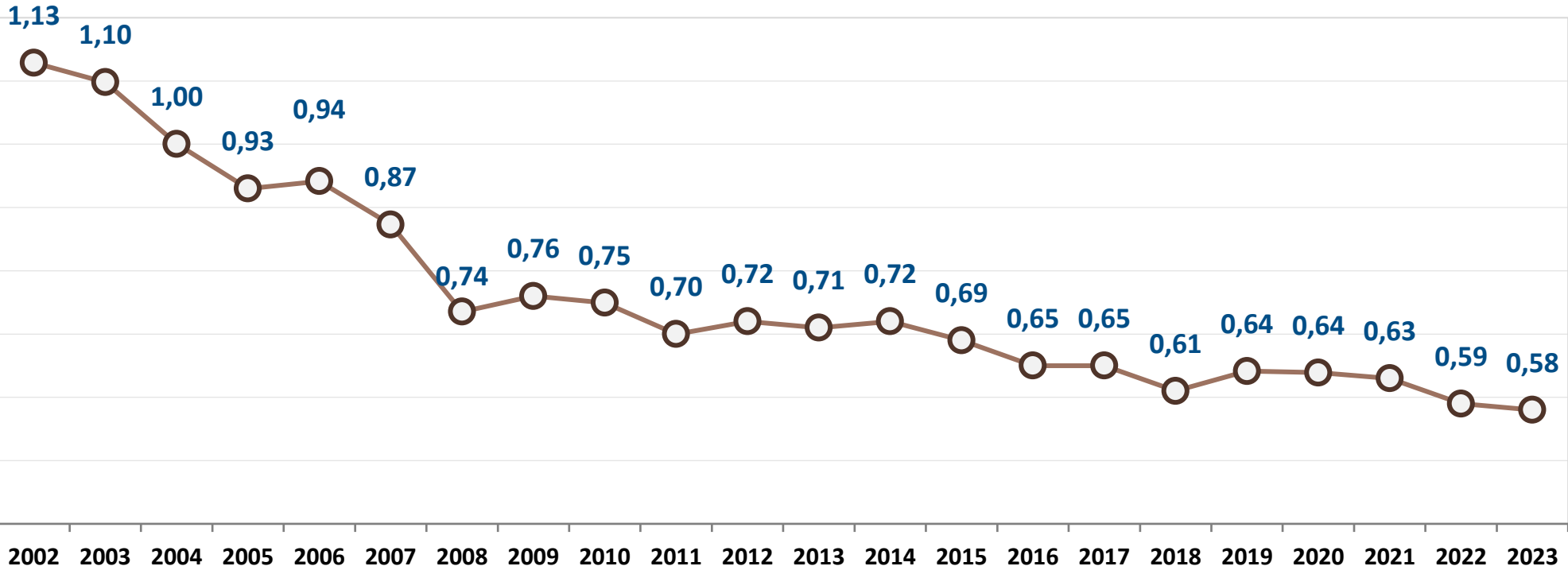


Source: Cochilco, 2023

2. Challenges

2.1 DECLINING ORE GRADES

Mineral grade in copper mining in Chile

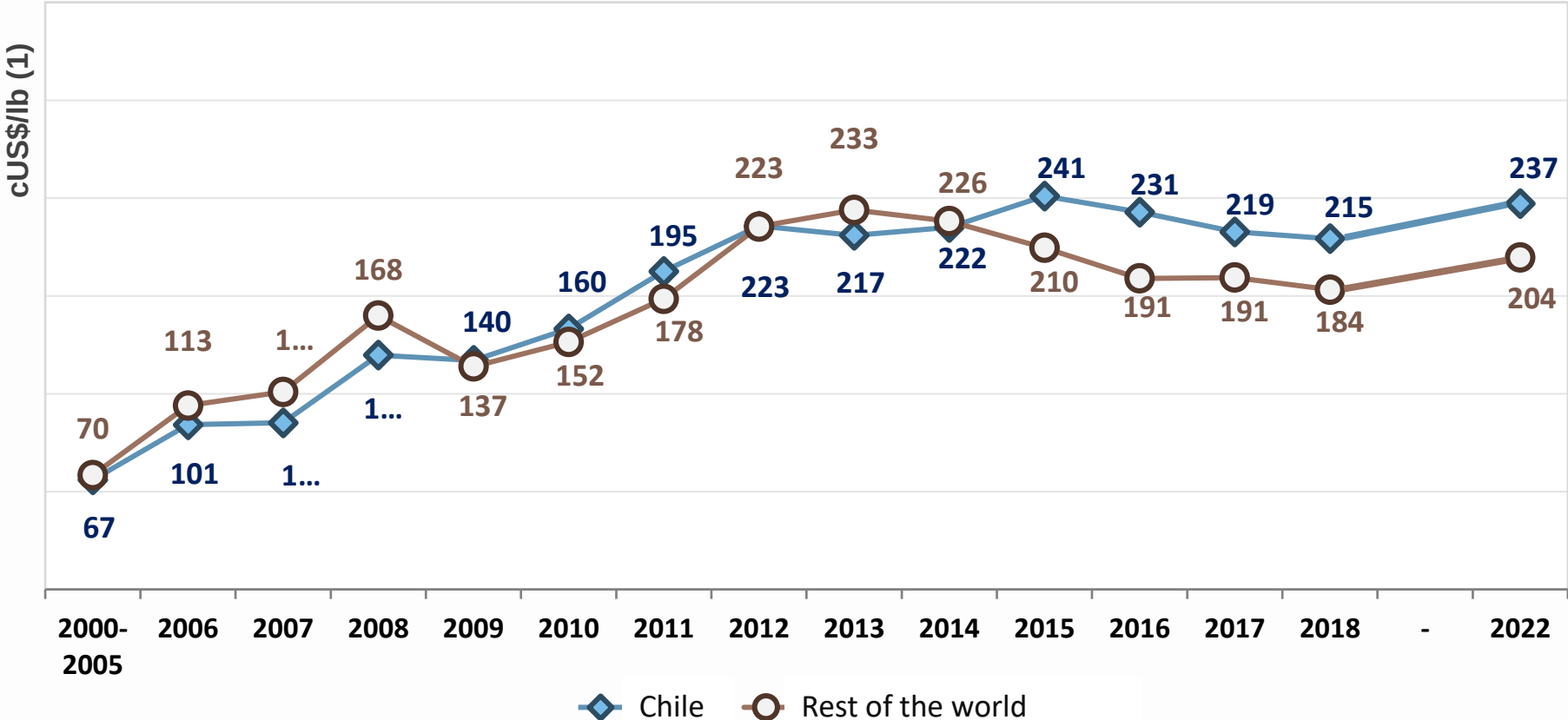


Source: Cochilco, 2024

2. Challenges

2.2 INCREASE IN PRODUCTION COSTS

Copper mining costs



Source: Cochilco, 2024

2. Challenges

2.3 DECLINING DISCOVERY RATES OF DEPOSITS

80%

LESS DISCOVERIES OVER
THE PAST 20 YEARS

1%

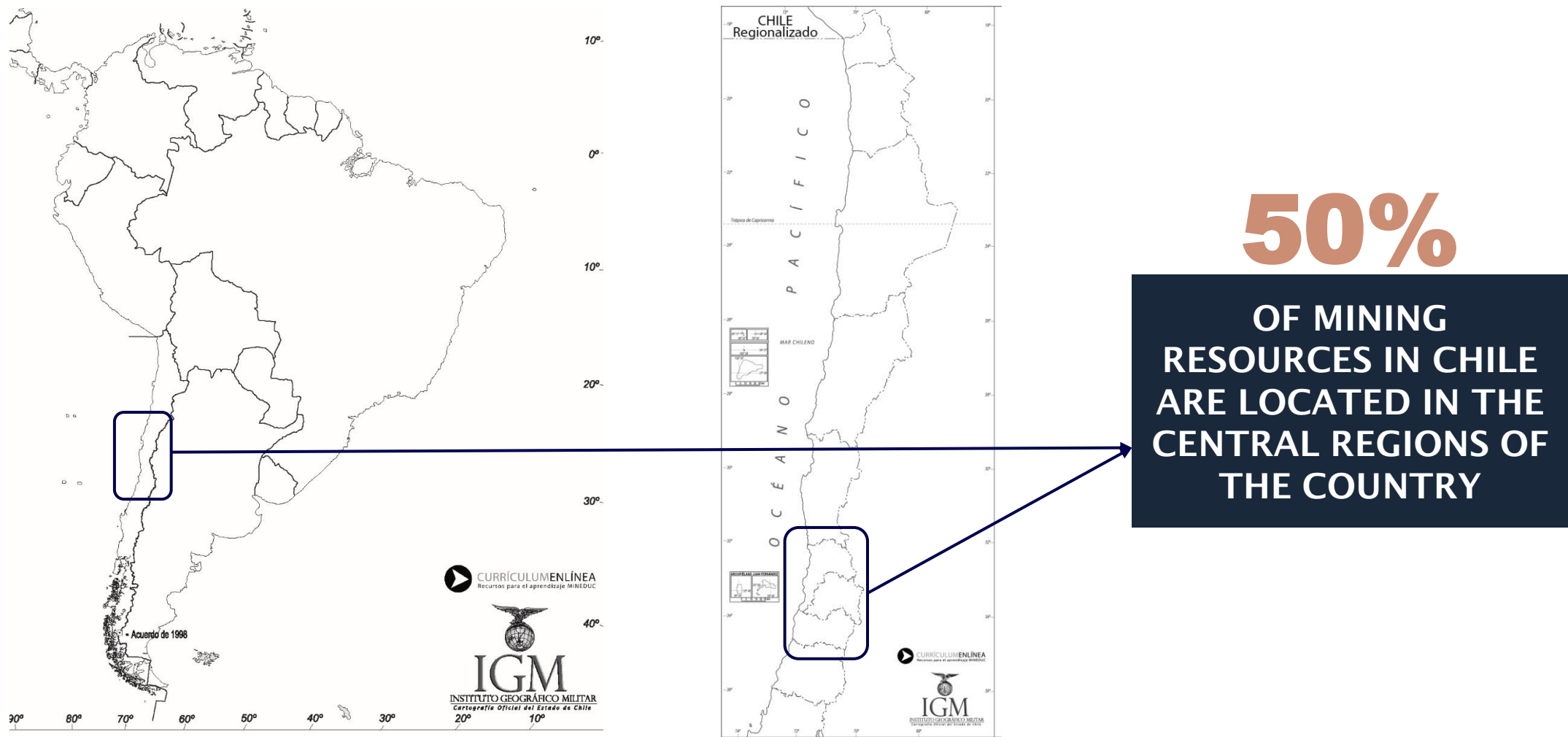
OF DRILLINGS HAS BEEN
SUCCESSFUL

1 Km

IS THE AVERAGE DEPTH
OF THE DEPOSITS
DISCOVERED OVER THE
LAST 15 YEARS

2. Challenges

2.4 CONCENTRATION OF RESOURCES



3. What is the industry doing?

3.1 TECHNOLOGY

Robots



Integrated Operational Centers



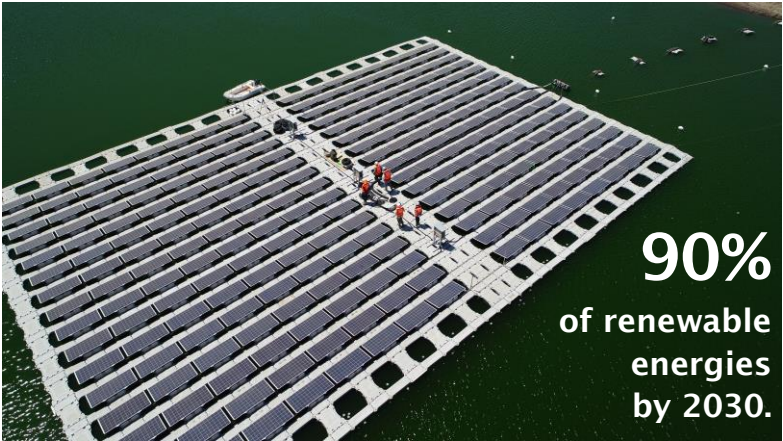
Automation



Virtual/Augmented reality

3. What is the industry doing?

3.2 CLEAN ENERGY



CHAPTER III: MINING ECOSYSTEM

1. Current situation and how we got here

2. Challenges we face

3. What is the industry doing



1. Current situation and how we got here

1.1 DIVERSE EDUCATIONAL OFFER & QUALIFIED WORKFORCE





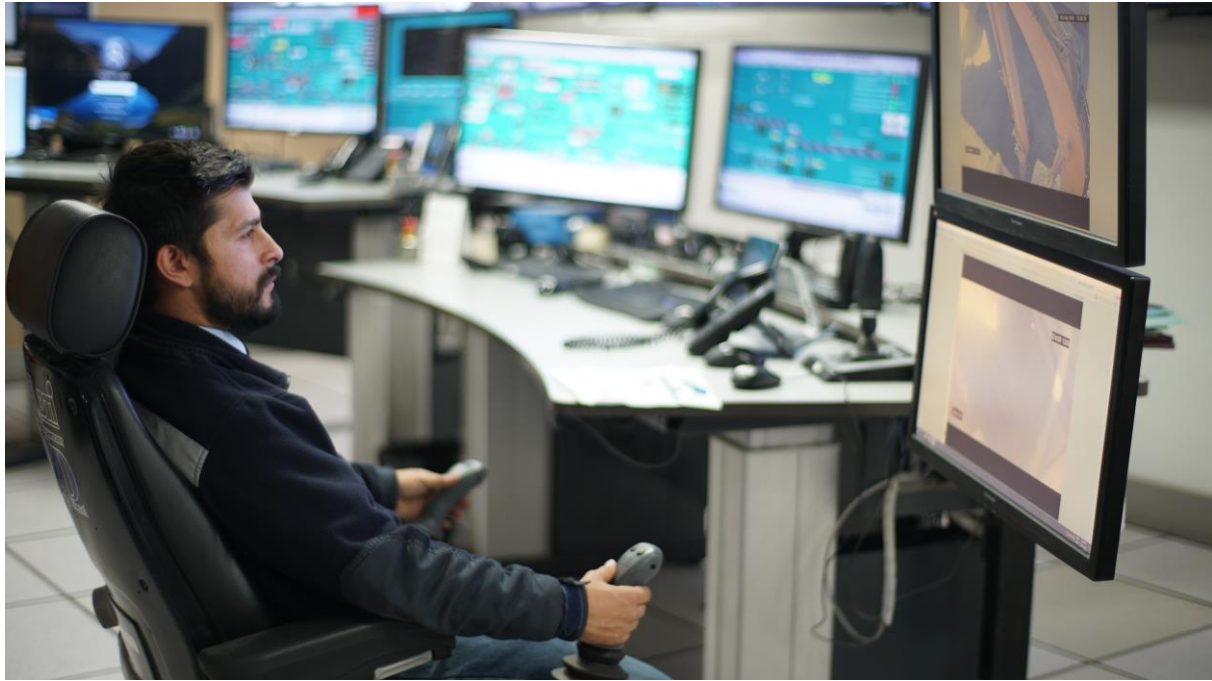
1. Current situation and how we got here

1.2 SOUND MINING SUPPLY CHAIN



2. Challenges

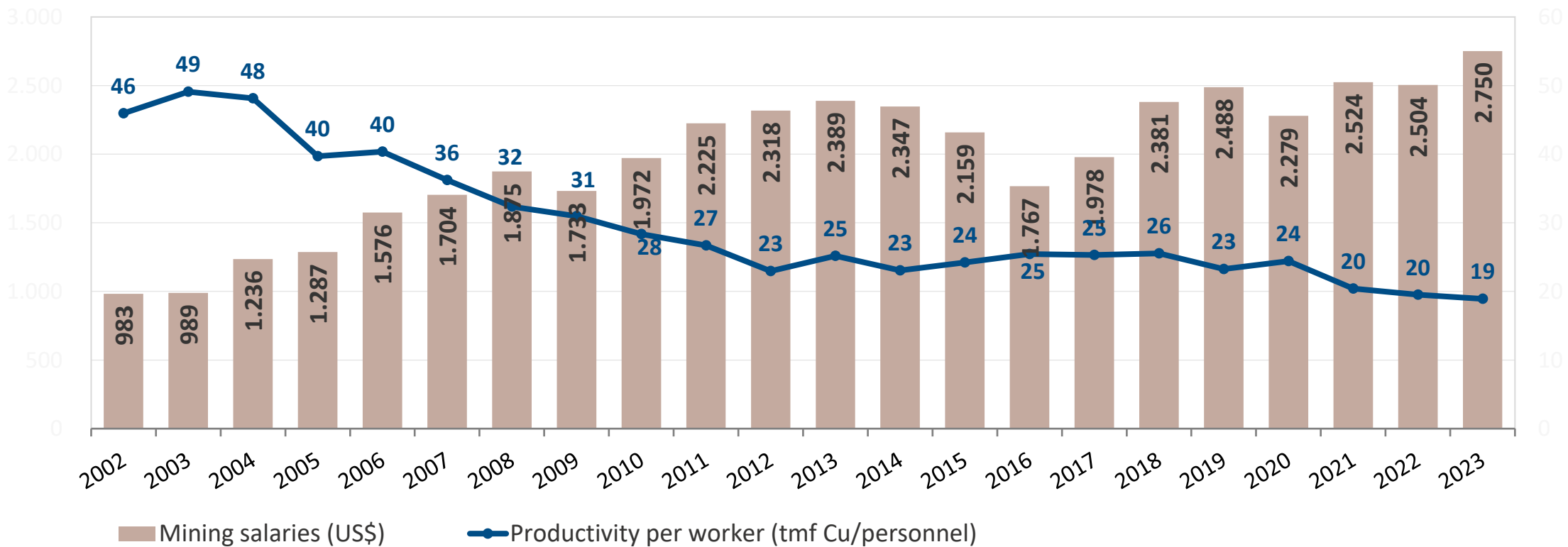
2.1 IMPACT OF TECHNOLOGIES ON THE WORKFORCE



2. Challenges

2.2 LABOR LEGISLATION

Mining salaries and copper productivity per worker

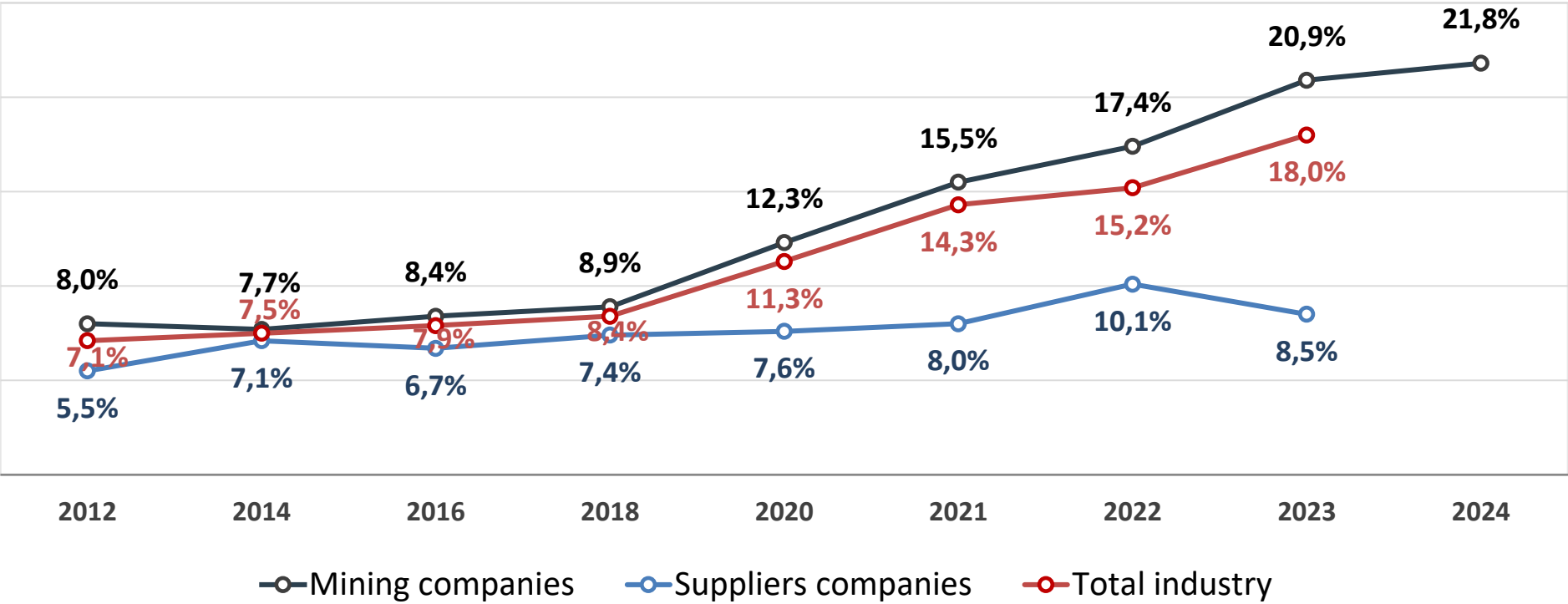


Source: Consejo Minero from Cochilco and Superintendencia de Pensiones, 2024

3. What is the industry doing?

3.1 WOMEN IN MINING

Women in mining in Chile



Source: Consejo Minero from Mining Skills Council, 2024

3. What is the industry doing?

3.2 SKILLS COUNCIL



3. What is the industry doing?

3.1 PROMOTING THE DIVERSITY IN MINING



FINAL REMARKS

1. Global context

2. Credibility of the Chilean mining industry

3. The critical opportunity

1. Global context



“Without minerales, the fight against climate change will not be possible”.

(World Bank)

“Metals and minerals are part of our daily lives... the ‘green’ version of almost anything means the use of more metals”.

(ICMM)

2. Credibility of the Chilean mining industry

2.1 GLOBAL

Performance of Mining Companies in Fulfilling Their Responsibilities to Society
Rank of Mining Sector out of 18 Different Sectors according to Net Performance,* by Country, 2023

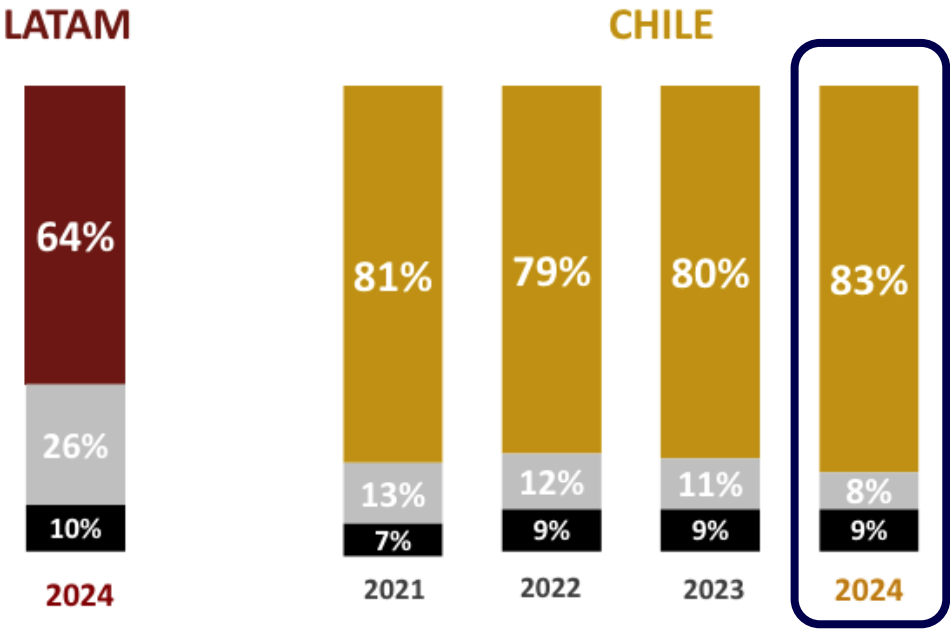
		Germany	17 th	Portugal	18 th
Argentina	18 th	Hong Kong	18 th	Saudi Arabia	12 ^{th**}
Australia	16 th	India	16 th	Singapore	18 th
Brazil	18 th	Indonesia	16 ^{th**}	South Africa	18 th
Canada	17 th	Italy	17 th	South Korea	18 th
Chile	8 th	Japan	15 th	Spain	17 th
China	18 th	Kenya	18 th	Sweden	16 th
Colombia	18 th	Mexico	18 th	Thailand	18 th
Egypt	15 th	Netherlands	17 th	Turkey	16 ^{th**}
France	17 th	Nigeria	16 th	UK	17 th
		Peru	16 th	USA	18 th
				Vietnam	17 th

Source: “Rebuilding Trust in Mining”, Globe Scan & ICMM, September 2023

2. Credibility of the Chilean mining industry

2.2 REGIONAL

¿Usted considera la minería positiva para su país?



Source: “Brújula Minera”, Jaime Arteaga y Asociados, 2024

2. Credibility of the Chilean mining industry

2.3 NATIONAL



Confianza de los **consumidores** por sector

En una escala del 1 al 5 donde 1 es "no confío en absoluto" y 5 es "confío totalmente".



Confianza de los **colaboradores** por sector

En una escala del 1 al 10 donde 1 es "no confío en absoluto" y 10 es "confío totalmente".



Source: "2024 Trust Study", PwC and UDP, May 2024

3. The critical opportunity





THANK YOU

Joaquín Villarino
Executive President Consejo Minero

October 15, 2024