

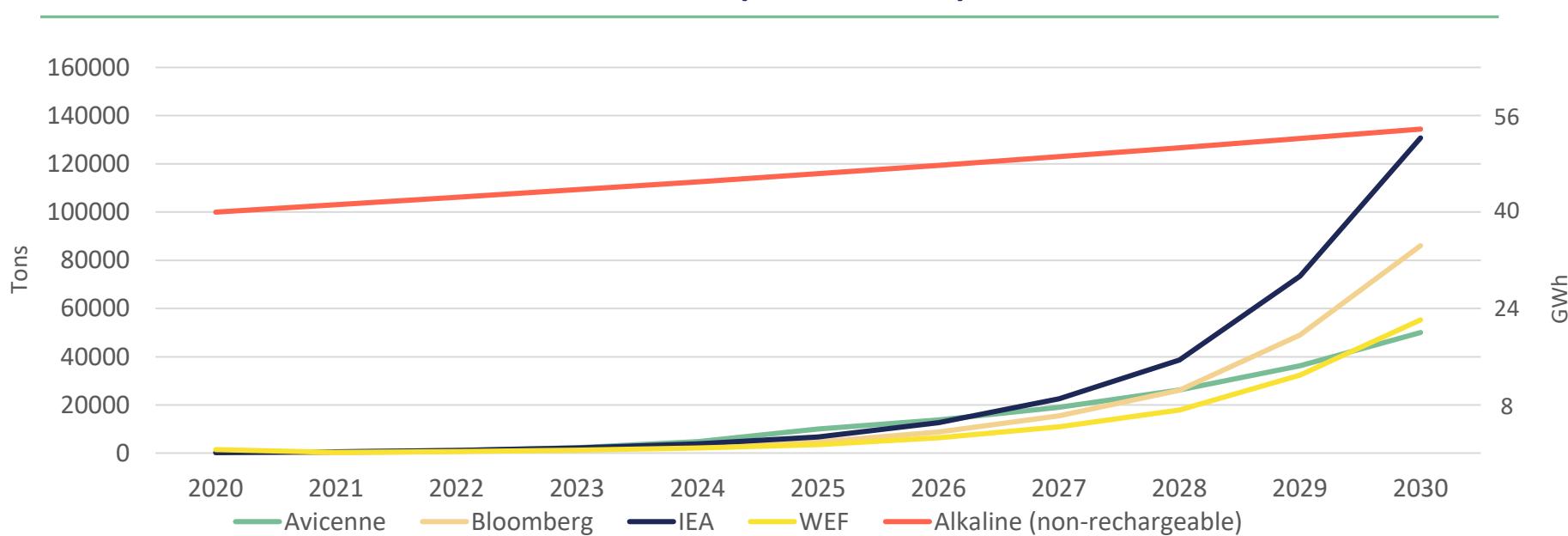


everZINC+

## BATTERY GRADE ZINC SUPPLY CHAIN

NAATBATT ZINC WORKSHOP VI  
NOVEMBER 2023, HOUSTON

## FORECAST ZINC DEMAND FOR BESS (2020-2030)



1GWh = 2500t of zinc

1GW = 3GWH

ZINC MARKET SHARE

2020 2025 2030



SOURCES: Avicenne (2022), Bloomberg (2022), International Energy Agency (2022), World Economic Forum (2020), EverZinc (2023)

# TABLE OF CONTENT

- 1. ZINC SUPPLY CHAIN**
- 2. ZINC PRICE EVOLUTION**
- 3. OUR VISION**

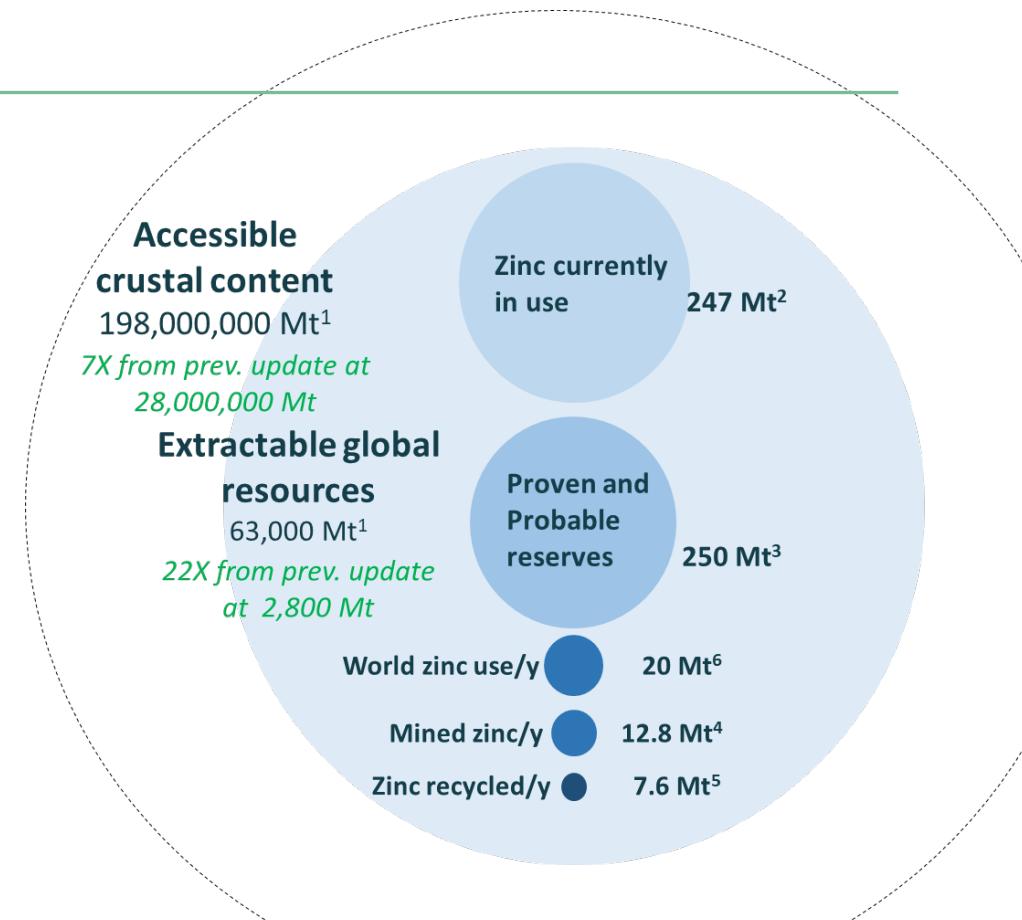
# 1. ZINC SUPPLY CHAIN

# THERE IS ENOUGH ZINC TO COVER THE GROWING NEEDS OF BATTERY APPLICATIONS



SLIDE: INTERNATIONAL ZINC ASSOCIATION (2022)

1. “Zinc resources – a state of knowledge” by Eric Pirard, 2021 (5 km mineable depth scenario)
2. IZA and Fraunhofer ISI 2021 zinc stocks and flows update (based on 2019 data)
3. U.S. Geological Survey, 2021
4. International Lead Zinc Study Group. 2019
5. IZA and Fraunhofer ISI 2021 update, post- and pre-consumer scrap
6. IZA and Fraunhofer ISI 2021, zinc entering first use stage



# ZINC CAN BE SOURCED LOCALLY

ZINC MINING COUNTRIES  
IN 2019



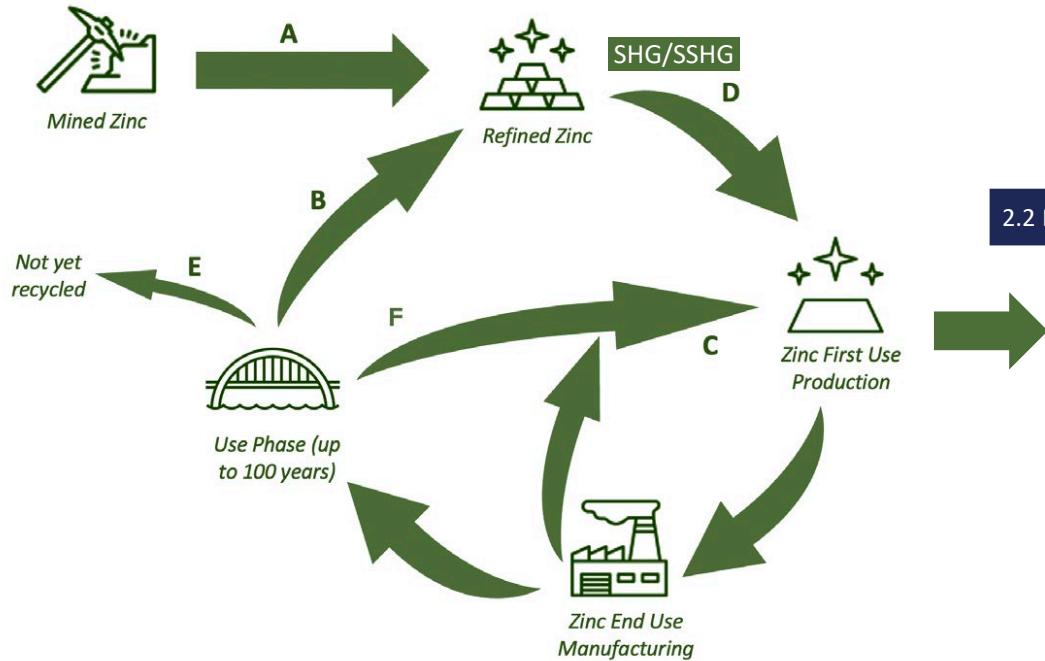
ZINC PRODUCING COUNTRIES  
IN 2019



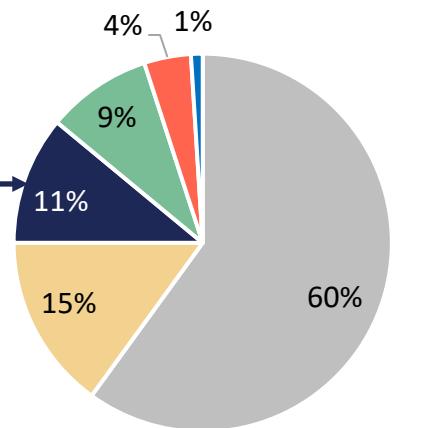
- Since 1960 over 60 countries have mined zinc ore
- In 2019, 51 countries were actively mining zinc
- Top 5 mining countries are China, Peru, Australia, USA and India
- Top 10 mining companies contributed to 41% of the world concentrate production capacity

- In 2019, 27 countries had zinc metal smelting and/or refining activities
- Top 10 refined zinc metal producing countries contributed 81% of world total output

# ZINC CHEMICALS ONLY REPRESENT 11% OF FIRST USE

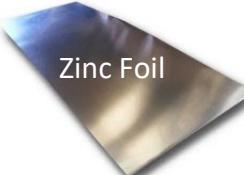


FIRST USE IN 2019



- Galvanizing
- Zinc compounds
- Zinc alloys
- Brass & Bronze
- Zinc Semi-Manufactures
- Miscellaneous

# OVERVIEW OF BATTERY GRADE ZINC MATERIALS

PRIMARY ZINC GRADE	ZINC MATERIAL	BATTERY TYPE	CATHODE	ANODE TYPE
SHG	 Zinc Oxide	<ul style="list-style-type: none"><li>• Flow</li><li>• Cell</li></ul>	<ul style="list-style-type: none"><li>• Air</li><li>• <math>\text{MnO}_2</math></li><li>• Nickel</li></ul>	<ul style="list-style-type: none"><li>• <math>\text{ZnO}</math></li><li>• <math>\text{ZnO}+\text{ZnP}</math> mixture</li><li>• Calcium Zincate</li><li>• <math>\text{ZnBr}_2</math></li></ul>
SSHG	 Zn Powder	<ul style="list-style-type: none"><li>• Flow</li><li>• Cell</li></ul>	<ul style="list-style-type: none"><li>• Air</li><li>• <math>\text{MnO}_2</math></li><li>• Nickel</li></ul>	<ul style="list-style-type: none"><li>• <math>\text{ZnP}</math></li><li>• <math>\text{ZnP}+\text{ZnO}</math> mixture</li><li>• Zinc sponge</li></ul>
SHG/SSHG	 Zinc Foil	<ul style="list-style-type: none"><li>• Cell</li></ul>	<ul style="list-style-type: none"><li>• <math>\text{MnO}_x</math></li><li>• PBA</li></ul>	<ul style="list-style-type: none"><li>• Zn foil</li></ul>

## 2. ZINC PRICE EVOLUTION

*LONDON METAL EXCHANGE*

# LME & METAL PREMIUM ARE KEY DRIVERS OF ZINC PRICE

---

## ZINC MINING



## ZINC SMELTING



## everZINC+

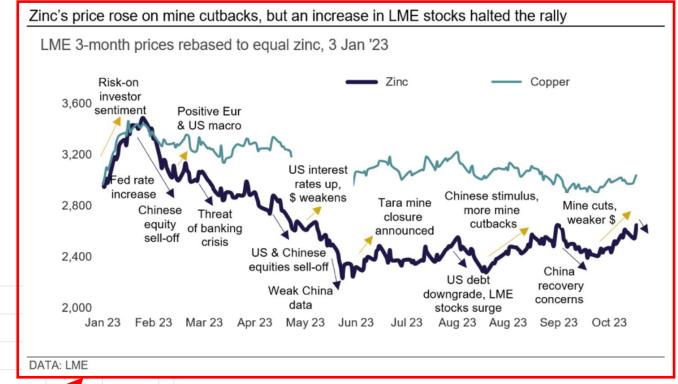


Drives LME Zinc

Drives LME Zinc  
&  
Metal Premium

Drives Conversion  
Premium

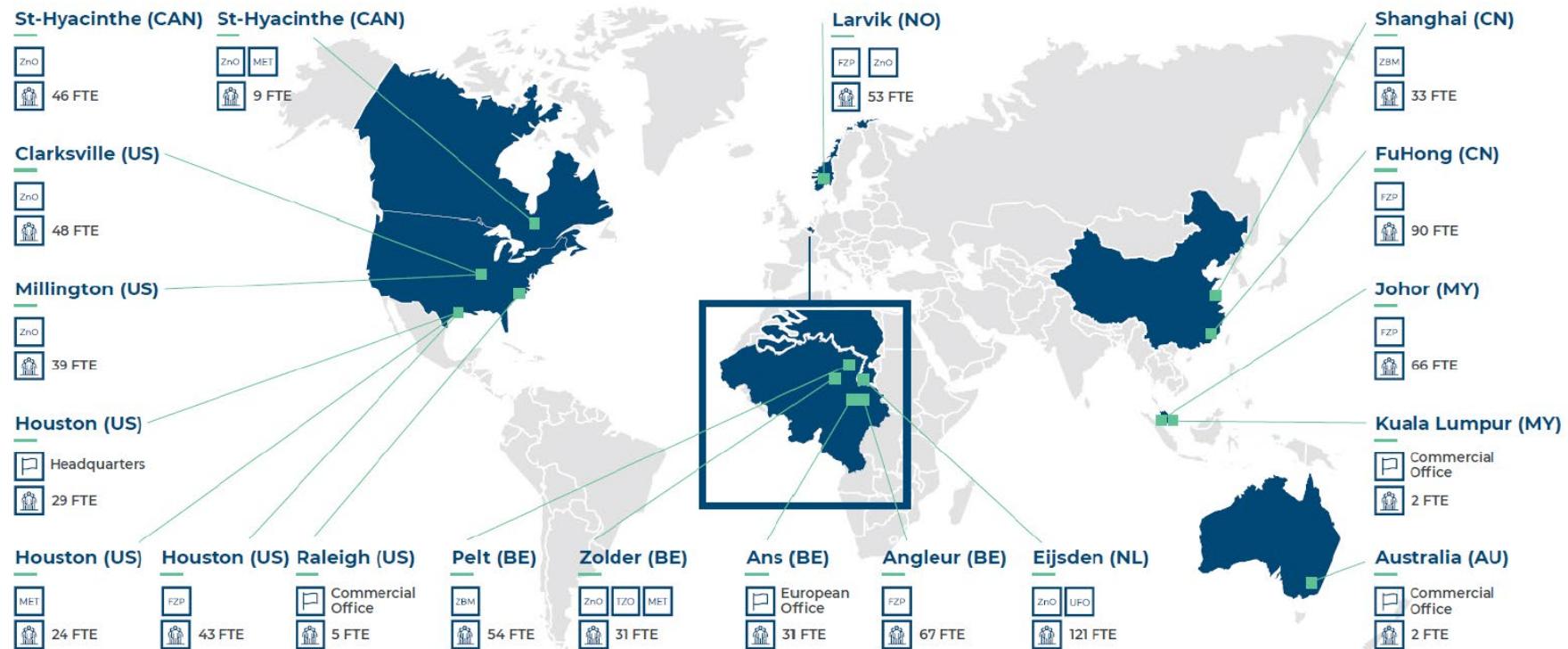
# ZINC MARKET CONTINUES TO PROVE ITS VOLATILITY WITH LAST YEAR'S PRICE SURGE TO 4500 USD/T



### 3. OUR VISION



# PROVIDE A LOCAL ZINC SUPPLY FOR EVERY ZINC BATTERY MANUFACTURER



# LEAD THE WAY IN SUSTAINABILITY

---

## ON-GOING WORK:

- CALCULATION OF OUR CARBON FOOTPRINT (GHG PROTOCOL) FOR EVERY PRODUCT LINE
- PUBLICATION OF OUR FIRST SUSTAINABILITY REPORT BEFORE YEAR-END
- WORKING ON A SET OF AMBITIOUS ESG TARGETS



EverZinc was awarded a Gold Medal by the recognized international rating agency EcoVadis in 2022, making us the top ranked zinc chemical producer.

THE POSSIBILITIES ARE ENDLESS

everZINC+