

HZL/2024-SECY/

February 07, 2024

BSE Limited  
P.J. Towers, Dalal Street,  
Mumbai – 400001National Stock Exchange of India Limited  
“Exchange Plaza”, Bandra – Kurla Complex  
Mumbai 400051Kind Attn: - General Manager,  
Dept. of Corporate ServicesKind Attn: - Head- Listing & Corporate  
Communications**Scrip Code: 500188****Trading Symbol: “HINDZINC”**

Dear Sir(s),

**Sub: Intimation of Schedule of Analyst/Institutional Investor Meeting under the SEBI (Listing Obligations and Disclosure Requirements) Regulations 2015**

In terms of Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, please find below the Schedule of Analyst / Institutional Investor Meet:

Date	Event	Type of Meeting	Time	Mode	Venue	Meeting scheduled for
February 13, 2024	Nuvama India Conference 2024	One-on-one Meeting/Group Meeting	12 to 3 PM	Physical	Mumbai	Institution

Please note above schedule may undergo changes.

A copy of investor presentation is enclosed for your information.

Thanking you,

Yours Sincerely,  
**For Hindustan Zinc Limited****Harsha Kedia**  
**Company Secretary & Compliance Officer**

Encl as above



HINDUSTAN ZINC

Zinc & Silver of India

# Management Presentation

*February 2024*



# Cautionary Statement and Disclaimer

This presentation is prepared by **Hindustan Zinc Limited (“Company”)** and is for information purposes only without regards to specific objectives, financial situations or needs of any particular person and nothing in it shall be construed as an invitation, offer, solicitation, recommendation or advertisement in respect of the purchase or sale of any securities of the Company or any affiliates in any jurisdiction or as an inducement to enter into investment activity and no part of it shall form the basis of or be relied upon in connection with any contract or commitment or investment decision whatsoever. This presentation does not take into account, nor does it provide any tax, legal or investment advice or opinion regarding the specific investment objectives or financial situation of any person. This presentation and its contents are confidential and proprietary to the Company and/or its affiliates and no part of it or its subject matter be used, reproduced, copied, distributed, shared, or disseminated, directly or indirectly, to any other person or published in whole or in part for any purpose, in any manner whatsoever.

Certain statements in this communication may be ‘forward looking statements’ within the meaning of applicable laws and regulations. These forward-looking statements involve a number of risks, uncertainties and other factors that could cause actual results to differ materially from those suggested by the forward-looking statements. Important developments that could affect the Company’s operations include changes in the industry structure, significant changes in political and economic environment in India and overseas, tax laws, labour laws, import duties, litigation and labour relations etc.

Investment in equity and equity related securities involve a degree of risk and investors should not invest any funds in this Company without necessary diligence and relying on their own examination of Hindustan Zinc Limited along with the equity investment risk which doesn't guarantee capital protection.

# Hindustan Zinc Limited : Overview



## Company Overview

- A **fully integrated zinc-lead-silver producer** with five decades of experience and expertise in mining and smelting
- Headquartered in the mineral-rich belt of Udaipur in Rajasthan and a **subsidiary of Vedanta Limited**



## Vision

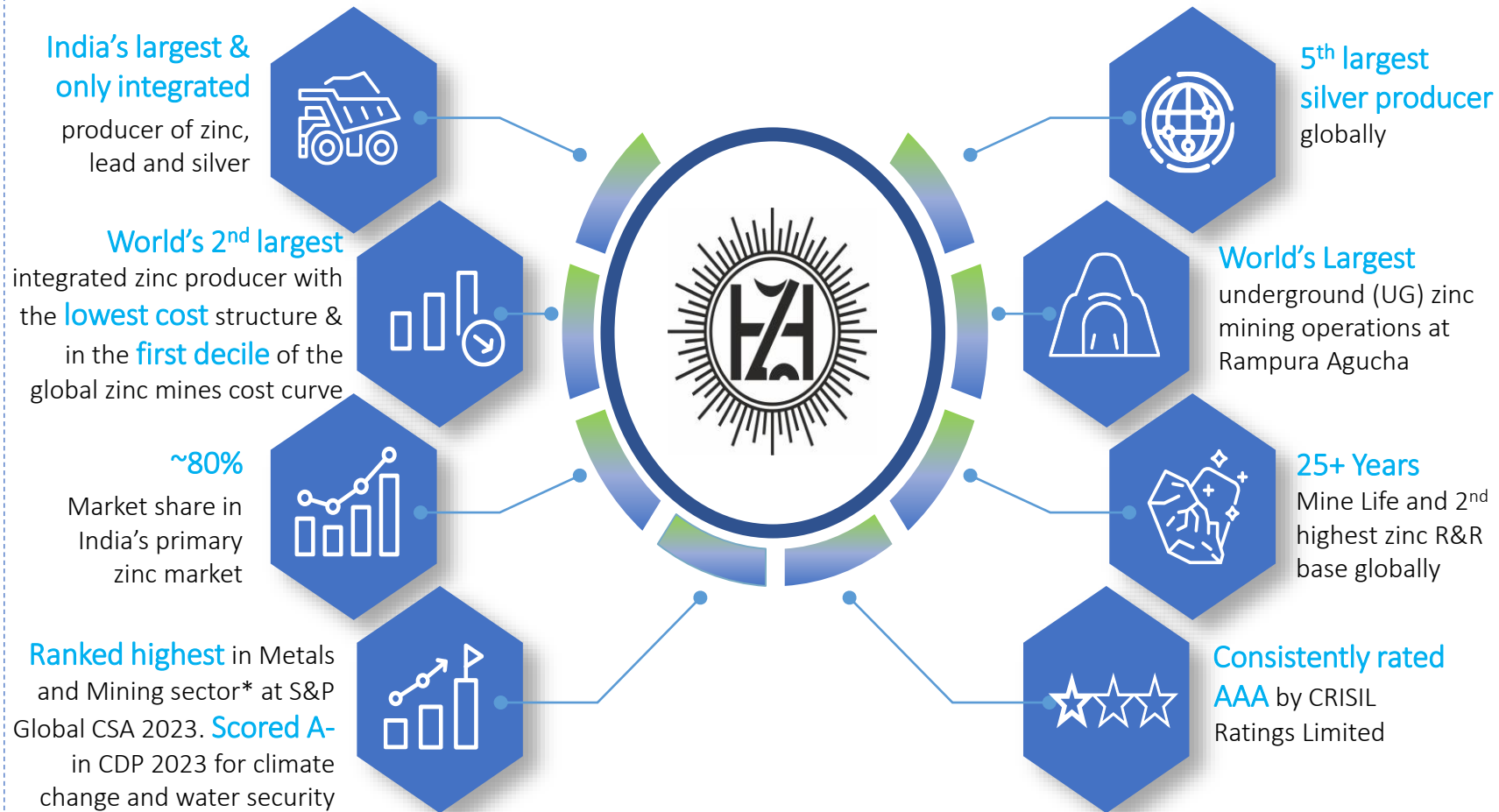
- Be the **world's largest** and most admired Zinc, Lead & Silver Company



## Mission

- **Enhance stakeholder value** through exploration, innovation, operational excellence, safety and sustainability
- Be the **lowest cost producer**
- Maintain **market leadership** and customer delight

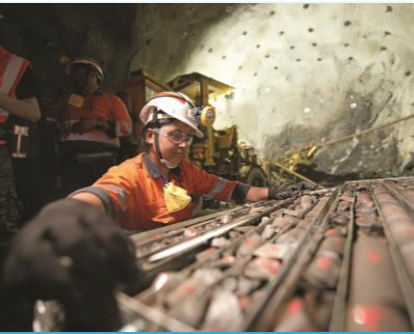
## Uniquely Positioned in the Metal and Mining Landscape



\*as on December 22, 2023



# Operations Spanning Critical Areas



## Exploration

(Ore Reserves & Mineral Resources)

- Technology and innovation-driven mines with 25+ years of mine life
- Sustained delineation and upgradation

Total R&R  
**460.05 Mt**




Ore production  
**16.74 Mt**



## Mines

(Zinc & Lead)

- **Location:** Rajasthan (Rampura Agucha, Sindesar Khurd, Rajpura Dariba, Zawar and Kayad)
- World-class operations, cost efficiencies, safety, sustainability and trained workforce
- Underground operations for volume growth



## Smelters & Refineries


(Smelters: Hydrometallurgical Zinc, Lead, Pyrometallurgical Zinc-Lead)

- Smelters in Rajasthan (Chanderiya, Dariba and Debari); Zinc-Lead-Silver refineries in Pantnagar (Uttarakhand)
- Fully integrated with captive power
- Focus: smelter debottlenecking, VAP expansion and waste recycling/reuse

Metal capacity  
**1.12 Mt**




Total captive capacity  
**586.74 MW**



## Captive Power Plants (CPPs)

(including 14% non-coal-based power capacity)

- Low-cost, reliable power supply
- Augment renewable power capacities
- **450 MW renewable power PDA** for power cost insulation from commodity price variations

# Extensive Operational Asset Base (1/2)

## Rampura Agucha Mine

Reserves : 44.8 mt  
 Resources : 25.2 mt  
 Reserve Grade : Zn 11.2%, Pb 1.3%  
 FY23 Ore Production : 4.8 mtpa

## Kayad Mine

Reserves : 1.5 mt  
 Resources : 6.0 mt  
 Reserve Grade : Zn 5.2%, Pb 0.9%  
 FY23 Ore Production : 0.7 mtpa

## Sindesar Khurd Mine

Reserves : 43.4 mt  
 Resources : 67.2 mt  
 Reserve Grade : Zn 3.0%, Pb 2.0%  
 FY23 Ore Production : 5.6 mtpa

## Rajpura Dariba Mine

Reserves : 34.3 mt  
 Resources : 39.3 mt  
 Reserve Grade : Zn 5.4%, Pb 1.6%  
 FY23 Ore Production : 1.4 mtpa

## Zawar Mining Complex

Reserves : 49.4 mt  
 Resources : 107.4 mt  
 Reserve Grade : Zn 2.8%, Pb 1.3%  
 FY23 Ore Production : 4.3 mtpa

## Chanderiya Smelting Complex

Pyrometallurgical Lead Zinc Smelter: 105,000 tpa Zinc and 90,000 tpa Lead  
 Hydrometallurgical Zinc Smelter: 480,000 tpa Zinc

## Dariba Smelting Complex

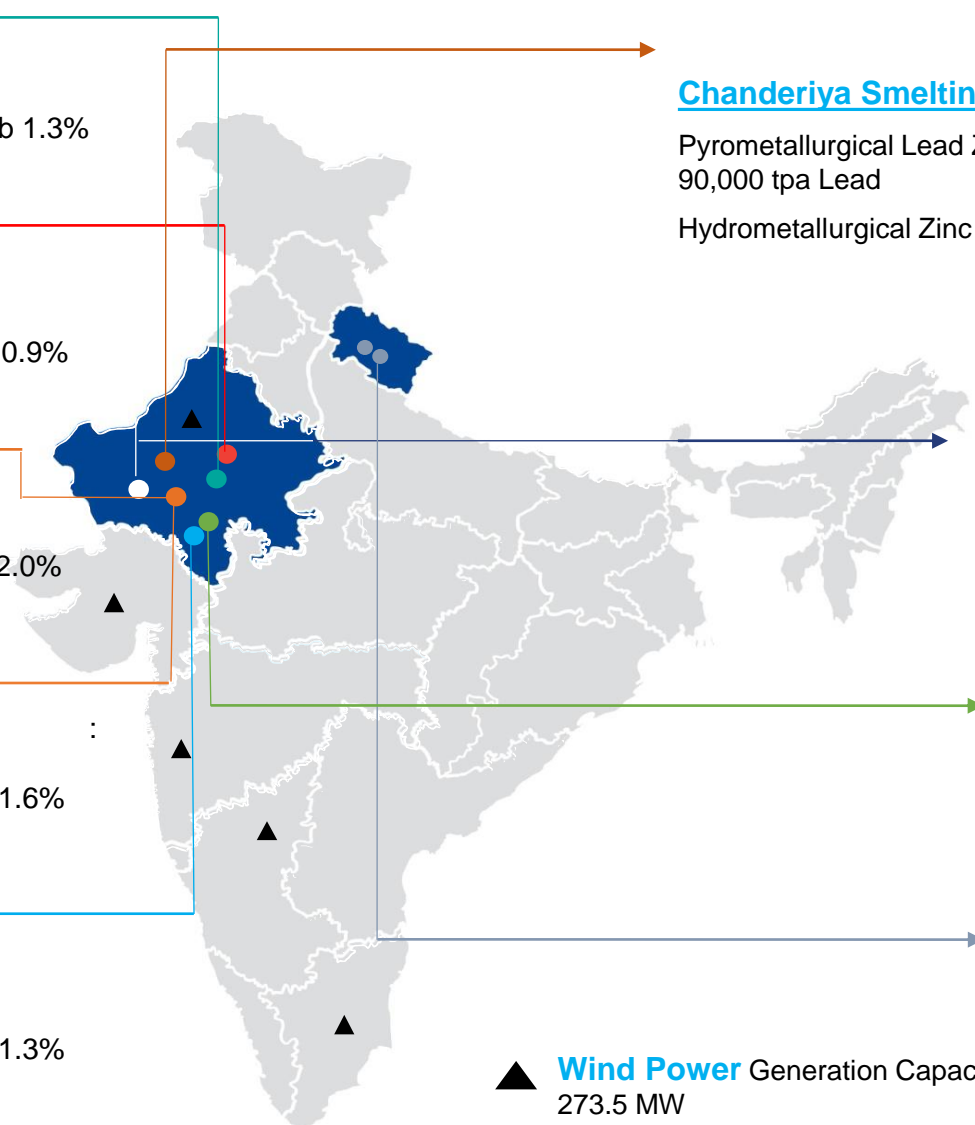
Hydrometallurgical Zinc Smelter: 240,000 tpa Zinc  
 Lead Smelter: 120,000 tpa Lead

## Zinc Smelter Debari

Hydrometallurgical Zinc Smelter: 88,000 tpa Zinc

## Pantnagar (100% RE grid power)

Processing & Refining of Zinc, Lead & Silver



▲ **Wind Power** Generation Capacity of around 273.5 MW



# Extensive Operational Asset Base (2/2)

## Mines

Mines	Reserve (Mt)	Resource (Mt)	Reserve Grade Zinc (%)	Reserve Grade Lead (%)
Rampura Agucha Mine	44.8	25.2	11.2	1.3
Sindesar Khurd Mine	43.4	67.2	3.0	2.0
Rajpura Dariba Mine	34.3	39.3	5.4	1.6
Bamnia Kalan	-	41.4	-	-
Kayad Mine	1.5	6.0	5.2	0.9
Zawar Mines	49.4	107.4	2.8	1.3

## R&R Summary

Category	Tonnage (Mt)	Zinc (%)	Lead (%)	Silver (g/t)
Reserve	173.5	5.6	1.6	56
Mineral Resource - Measured and Indicated	126.7	4.6	1.8	62
Mineral Resource - Inferred	159.9	4.3	2.1	57

## Smelters

Smelters	Pyrometallurgical Zinc Smelter (TPA)	Pyrometallurgical Lead Smelter (TPA)	Hydrometallurgical Zinc Smelter (TPA)	Lead Smelter (TPA)
Chanderiya Lead-Zinc Smelter	105,000	90,000	480,000	-
Dariba Smelting Complex	-	-	240,000	120,000
Debari Zinc Smelter	-	-	88,000	-

## Smelting Capacity

Zinc Smelting <b>913,000 TPA</b>	Lead Smelting <b>210,000 TPA</b>	Silver Refining <b>800 TPA</b>
-------------------------------------	-------------------------------------	-----------------------------------

## Power Capacity

Wind Power <b>273.50 MW</b>	Thermal Power <b>505.50 MW</b>	WHRB Power <b>40.67 MW</b>	Solar Power <b>40.57 MW</b>
--------------------------------	-----------------------------------	-------------------------------	--------------------------------

# Performance Excellence Across Product Portfolio with a Market-leading Position

## ZINC

Smelting Capacity  
**913 ktpa**

**Portfolio:** Special high grade, high grade, continuous galvanising grade, prime western, jumbo SHG & HG and other grades used in die-casting alloys

80% market share in India (including alloys)

**Applications:** Roadways & bridges, power generation & transmission, renewable energy, construction, railway infrastructure, automotive, chemicals, telecom towers

## LEAD

Smelting Capacity  
**210 ktpa**

**Portfolio:** Lead ingots (99.99% purity) registered with LME

88% domestic market share; plan to increase to 100%

**Applications:** Lead acid batteries, construction, defence applications, electrical cables

## SILVER

Refining Capacity  
**800 MT**

**Portfolio:** 30 kg bars, mini (1 kg) bars, silver powder

Sole silver producer in India; 100% domestic sales

**Applications:** Jewellery, tableware, electrical contacts, investment

SHG - Special High Grade; HG - High Grade; LME - London Metal Exchange

Note: Capacity as on Mar'23

Sensitivity: Internal (C3)





# Investment Case: Excellence Powering Our Journey of Milestones

## Portfolio of Mines with Long Life

- Enhance Ore Reserves and Mineral Resources: Innovative technology and advanced geophysics for exploration; replenishing each mined tonne
- **Target:** Increase exploration to enhance Mineral Resource by 15 Mt Ore intermediately and by 40 Mt Ore eventually; Ramp up R&R from **current 460 Mt to 500+ Mt**

#1

## Investments Boosting Production Capacities

- Use of advanced tools and operational methods, global collaborations and skilled project execution
- Optimised resource use, commitment to net-zero emissions
- **Target:** Expand mined metal capacity; Scale **smelters to 1,123 kt & silver to 800 MT and then to 1,000 MT**

#2

## Global Cost Leadership through Fiscal Prudence, Agility & Resilience

- Integrated business model
- Strong financial position and performance with resilient capital deployment
- Business transformation while maintaining operational excellence
- Zinc CoP - **US\$ 1,125-1,175 per MT**  
Average EBITDA Margin - **~50%**

#3

#6

## Superior Returns to Shareholders

- Strategic project investments for above-average IRR and hedging to boost performance
- Digitalisation and automation for industry-leading growth, operational excellence and cost optimisation
- 5-year Average Dividend Pay-out - **149%**

#5

## Sustainability-driven Business with Focus on ESG and Community

- Carbon neutrality path, Sustainability & CSR Goals, Aatmanirbhar Bharat alignment, robust governance
- Pioneering battery electric vehicles in Indian mining
- 450 MW RE power sourcing agreement

#4

## Customer-centric De-Risked Business Model for Sustained Growth

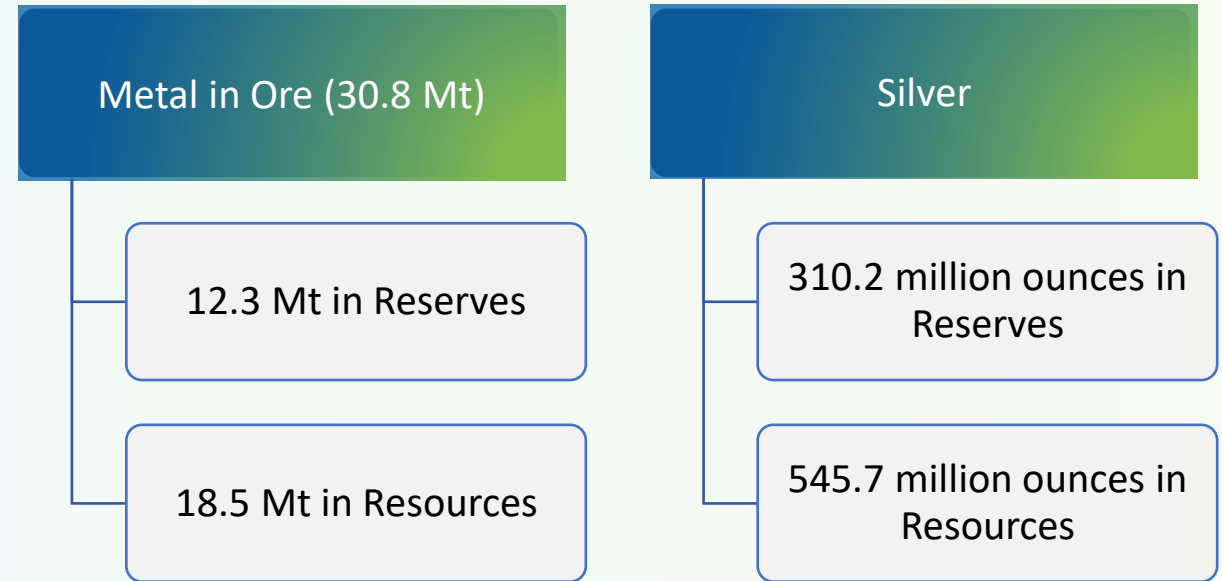
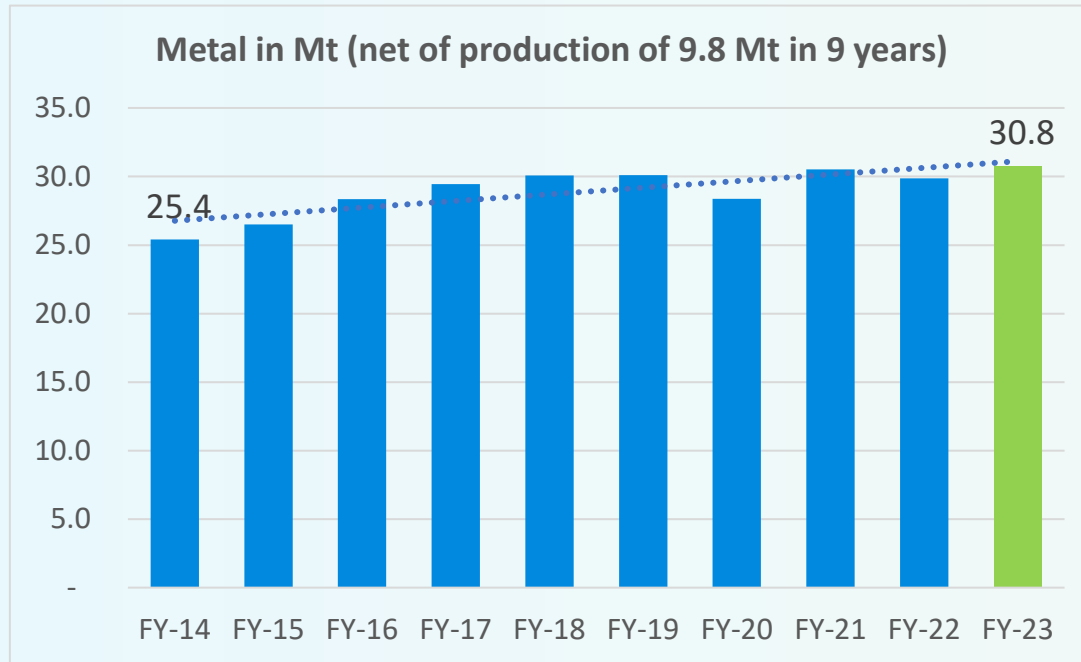
- Diverse portfolio through innovation and customer collaboration, geographic expansion, strong distribution network and long-term relations
- New ventures: 30 kt alloy plant under HZAPL for value-added strategy; HZFPL for India's self-sufficiency in fertiliser
- Proportion of VAP - **over 15%**

HZAPL - Hindustan Zinc Alloys Private Limited; HZFPL - Hindustan Zinc Fertilisers Private Limited; VAP - Value-Added Products; RE - Renewable Energy; CoP - Cost of Production; IRR - Internal Rate of Return



# Strengthening Mineral Resource and Upgradation of Resources to Reserves

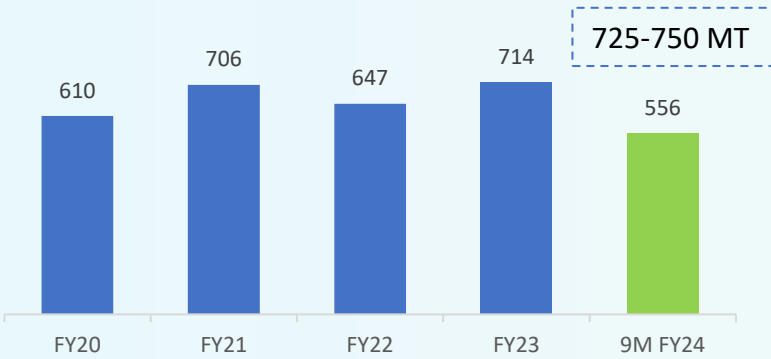
Strategic focus remains on increasing the longevity of our mines to drive future growth & value



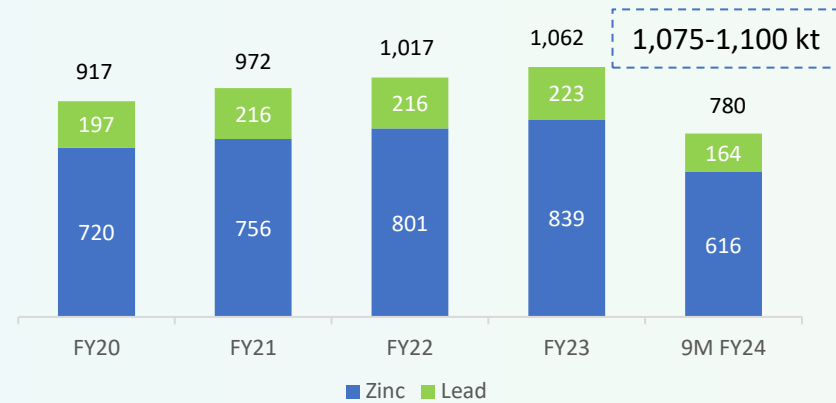
Source: Data as per annual R&R audit report as on Mar'23

# Strong Financials, Profitability and Operating Metrics

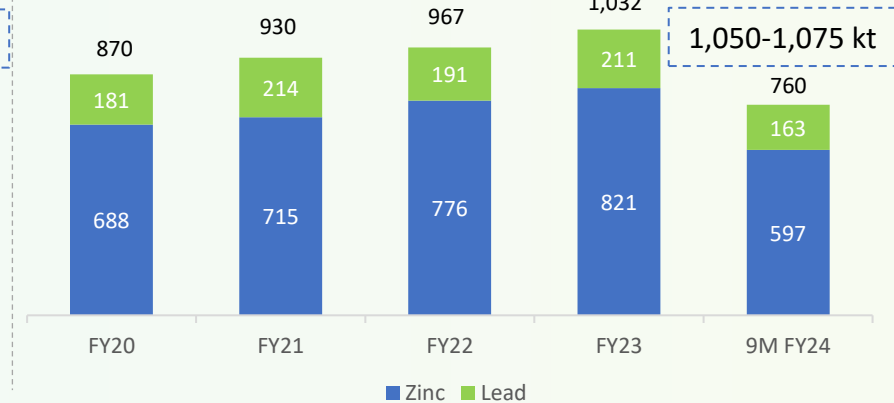
### Refined Silver (T)



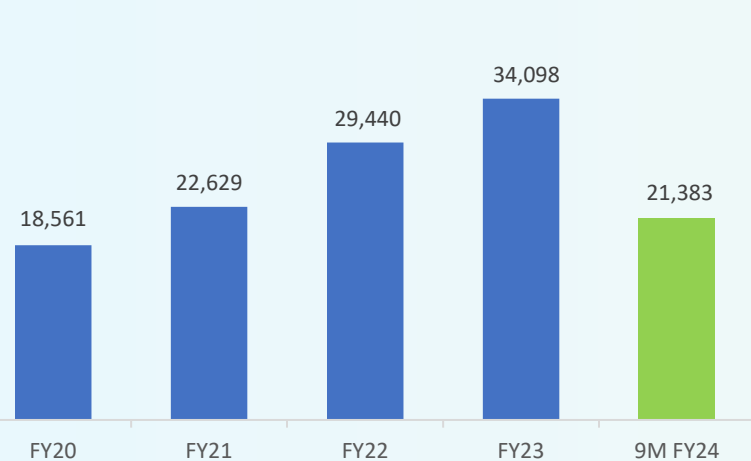
### Mined Metal (kt)



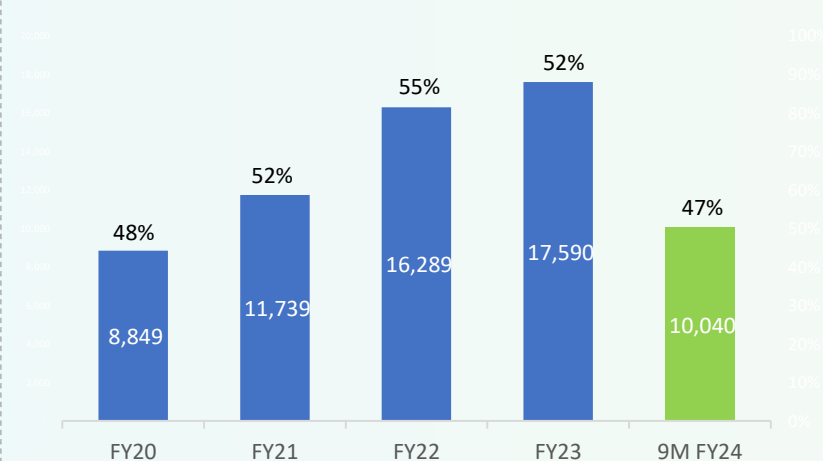
### Refined Metal (kt)



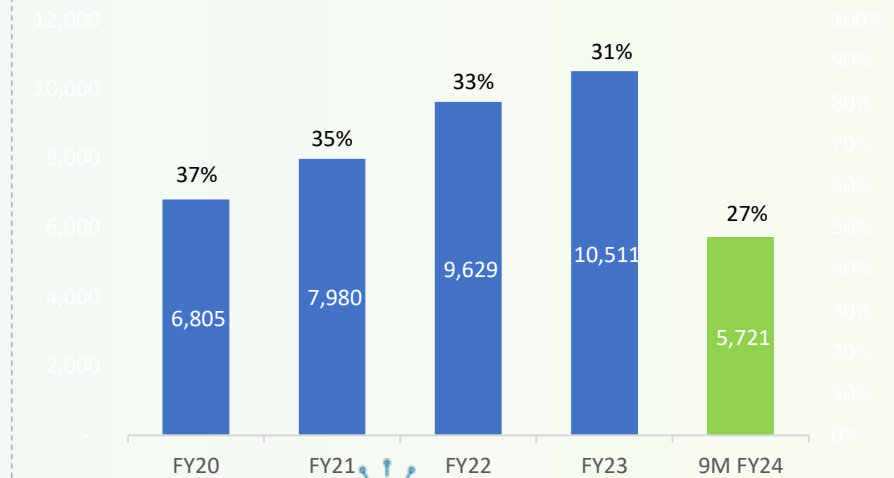
### Revenue (incl. other operating income) (INR Cr)



### EBITDA (INR Cr) | EBITDA margin %

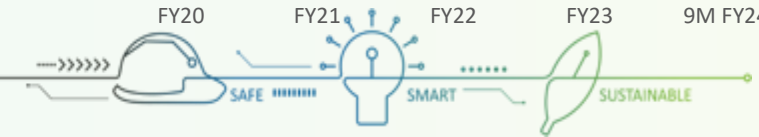


### PAT (INR Cr) | PAT margin %



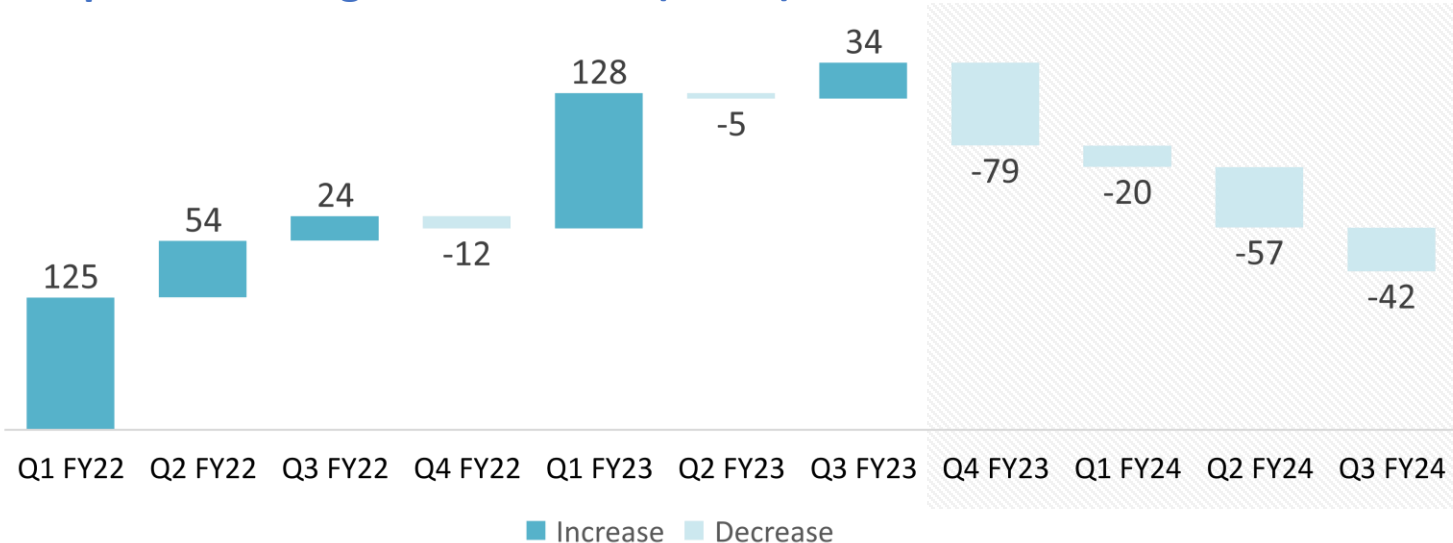
Annual Guidance for FY 2024

Sensitivity: Internal (C3)

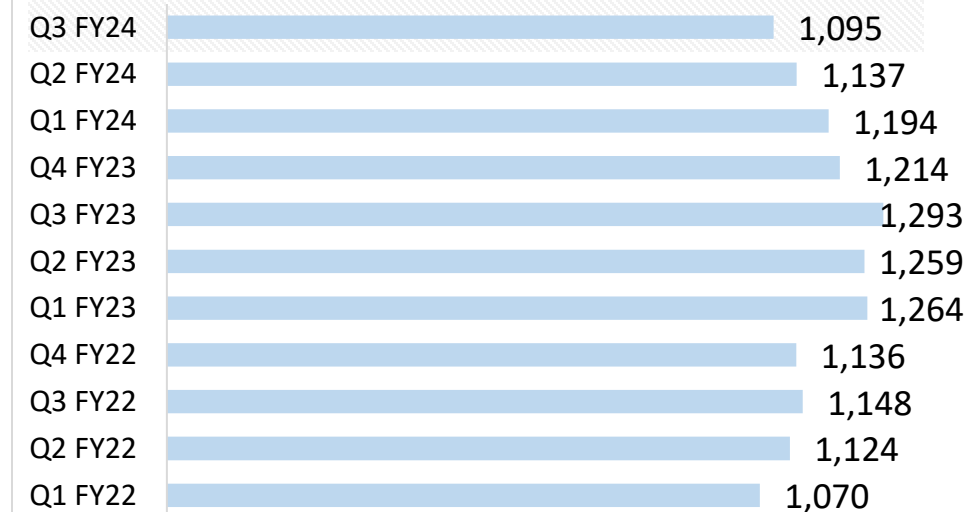


# Cost Resilience & Leadership

### Sequential change in Zinc COP\* (\$/MT)



### Zinc COP\* (\$/MT)



## Key Highlights:

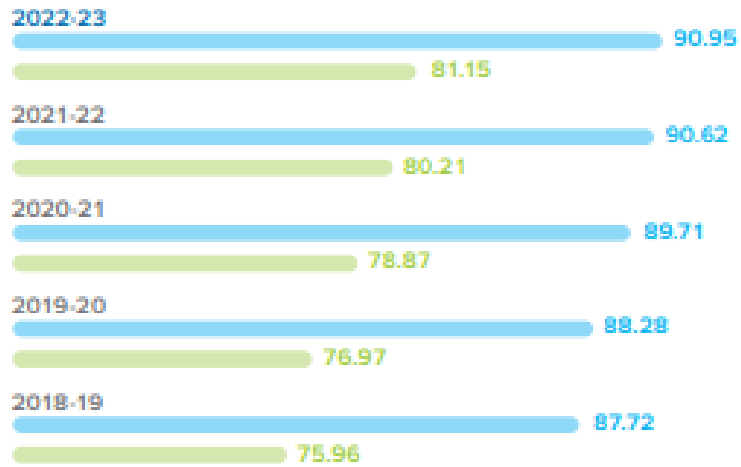
- Strong foot-hold in the **first decile** of the global zinc mines cost curve and in the first quartile of the global zinc smelters cost curve
- Sustained cost reduction** for 4 consecutive quarters
- Enabling Factors:** Softened input commodity prices, better linkage coal availability and utilization, improved operational efficiency, key contract transformation strategy, transforming operations through automation & digitalization
- Advancing towards achieving annual guidance of \$1,125-\$1,175 per MT

\* COP without royalty

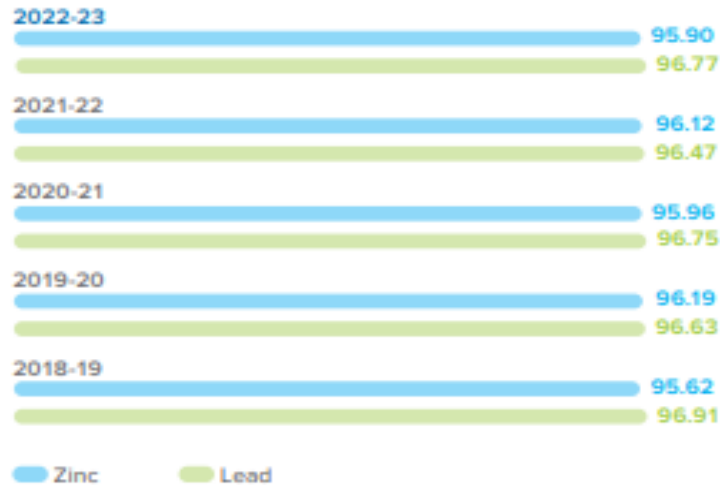


# Operational Efficiency Enhancement through Digital/Innovative Interventions

## Mill Recovery (%)



## Smelter Recovery (%)



## Advance Process Control

- To address difficulty in flotation process due to constantly changing feed characteristics, Advance Process Control (APC) system introduced
- To maintain a stabilised circuit operation while optimising process performance to maximise recovery
- Commissioned APC in all 4 beneficiation plants** | Metal recovery improved by **0.9%**

## Rajpura Dariba Mill revamp

- For enhancing metal recovery, RD Beneficiation plant revamping done, enabling better Zn, Pb & Ag recoveries & improving plant reliability by replacing obsolete Grinding, Flotation & Filtration circuits
- Uses advanced technology & latest filtration technique to enhance metal recoveries
- Recovery improvement from 86% to 91%**

## Smoke Hours Drilling

- Additional production in drilling by utilizing automation features and tele-remote operations of production drills during shift changeover duration
- Achieved +10% additional drilling** at both Sindesar Khurd and Rampura Agucha Mines resulting in **increased productivity**

## Fumer

- Fuming operations as a technology generate an environment-friendly saleable slag
- Aims at converting jarosite to clean slag enabling waste recycling and recovery of additional silver and base metal
- Outcome: Better volume recovery - **additional 30TPA+ silver and 7kt+ metal**

## Model Workplaces

- To set a new benchmark for asset performance, identified & developed Model Workplaces on Model Mines, Model Mills, Model Digital Mines
- Improved safety, productivity, utilization & recovery
- 5% more equipment availability, 44% more utilisation in mines, 5% improvement in OEE at mills**
- Increased Zn, Pb & Ag recovery

## Silver Promoter for improving Ag Recovery

- Silver promoter, a chemical used to promote Ag to affect minerals flotation, improving the Ag recovery in Pb concentrate
- Enriching silver grade & recovery (~4%)
- Additional Ag metal in concentrate (MIC) at Zawar in FY 2022-23: 6 TPA**



**Industry leading 5 years production CAGR** of c.4% in metal and silver

**5<sup>th</sup> leading silver producer globally** with estimate of 725-750 MT in FY2024, up 3% y-o-y, target of being in the top 3 global silver producers

**2<sup>nd</sup> largest zinc mining company\*** globally contributing to c.7% of total mine production

**In the first decile of the global zinc mining cost curve**, consistent cost optimisation of over 15% in last year



**2<sup>nd</sup> highest zinc R&R base globally** with average grade of over 5%. 1/4<sup>th</sup> of total global zinc R&R is with grade of less than 3% and remains at a closure risk due to cost pressure

**Robust EBITDA margin of ~50%** backed by operational excellence, technological advancements, cost optimisation and strong resource base

**Consistently AAA rated** by leading credit rating agencies



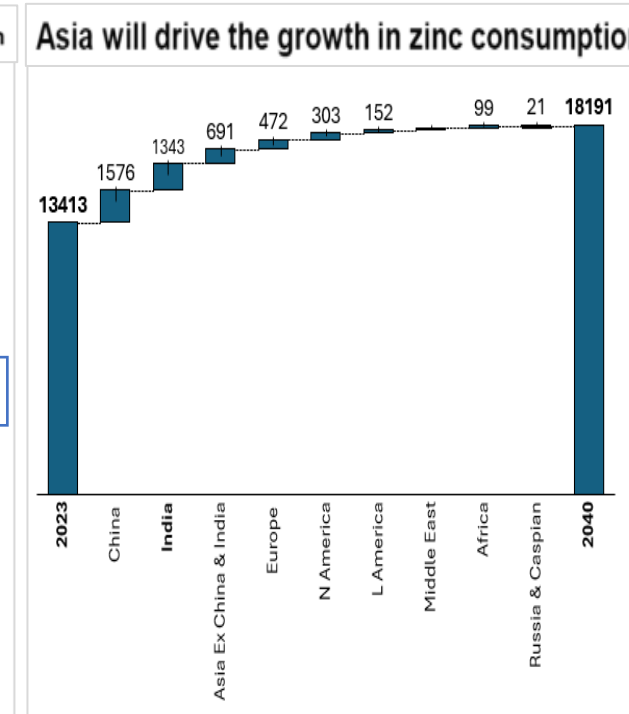
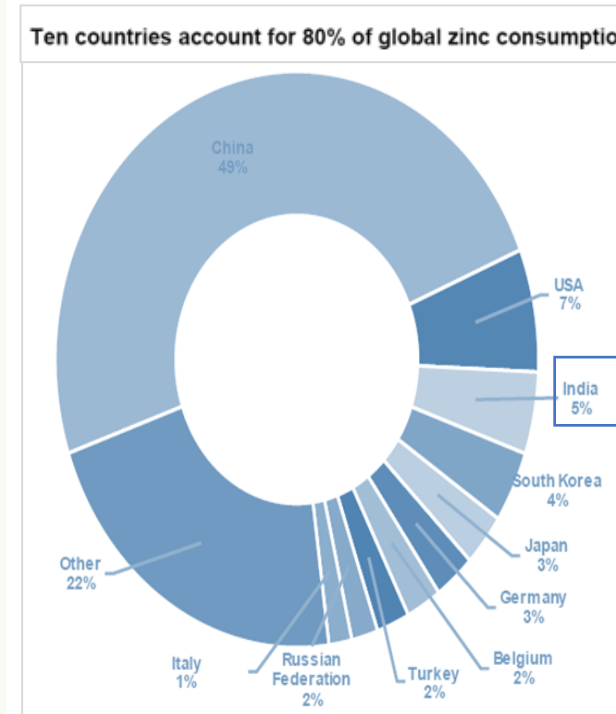
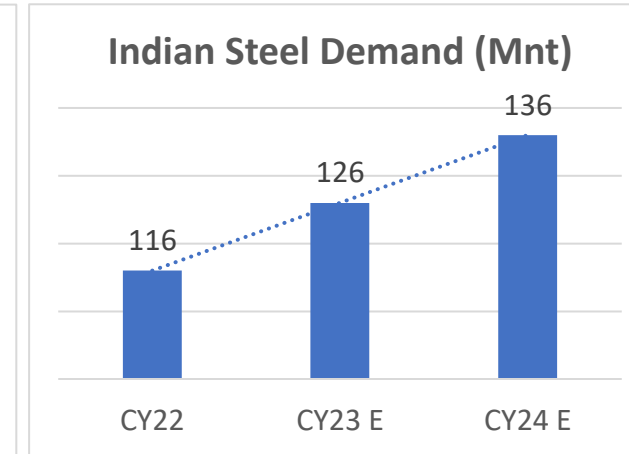
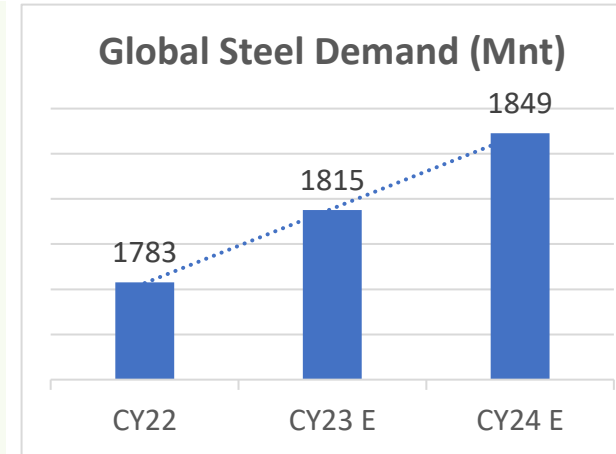
**Sustainability leader** with highest rank in S&P sustainability assessment globally, ESG focus with economic prudence - power delivery agreement of 450MW signed catering to 50% of the Company's total energy requirements, expected by FY2026, reducing emissions and providing cost advantage

**Irreplaceable resource and asset base**, with technologies providing flexibility of running operations based on the market landscape



# Market Outlook

- In near to medium term (2023-2033), global zinc consumption is forecast to grow at an average annual rate of 1.8% p.a whereas **India's zinc consumption is forecast to grow at 7.1% p.a.**
- Globally, ten countries account for **80% of global zinc consumption, with India at 3<sup>rd</sup> position**
- **Asia** expected to drive the growth in zinc consumption over the next 20 years, **contributing to over 60% of the estimate increase of c.7 Mt**
- **India's steel demand** continues to remain robust backed by strong focus on infrastructure, is **estimated to grow at 9% in 2024**
- National Steel Policy, 2017 envisages India's steel production capacity of 300mt by 2030 by enhancing domestic per capita consumption to 160 kg
- India's crude steel capacity is 161.30mt currently with per capita consumption of steel at c.87kg
- **Initiatives for emerging applications of Zinc:** Zinc air batteries, zinc in rail metallizing, zinc nutrient initiatives, automobile and public infrastructure galvanization, etc.

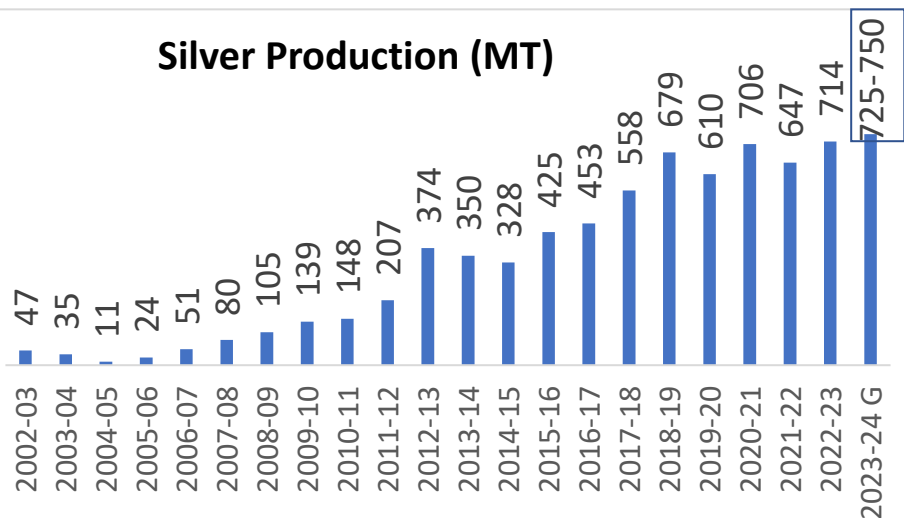


# HZL Silver Growth Chronicle

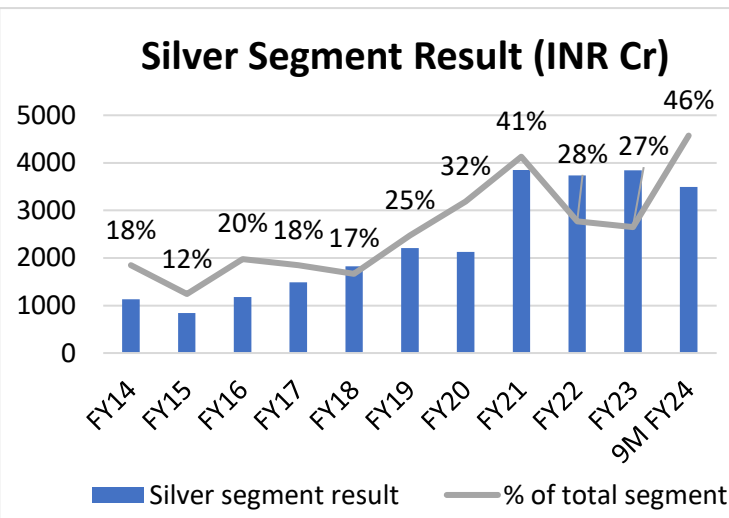
**Growth:** Silver production grew over 2x in last 10 years and 15x in 2 decades. With FY24 guidance of 725-750 MT, the production will increase by c.3% y-o-y

**Global Leadership:** HZL is India's only silver producer and the 5<sup>th</sup> largest producer globally. Commissioned India's first Fumer facility contributing 30 Mtpa silver

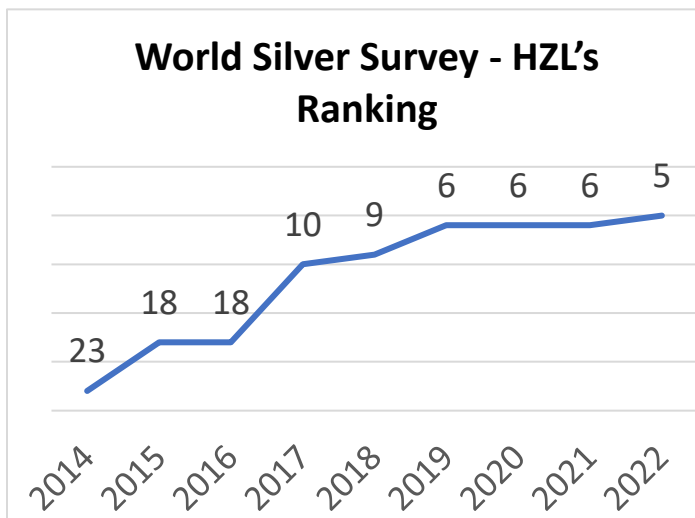
### Silver Production (MT)



### Silver Segment Result (INR Cr)



### World Silver Survey - HZL's Ranking



## Outlook:

- Silver Industrial demand expected to grow 8% to a record 632 million ounces in 2023; key drivers include investment in photovoltaics, power grid and 5G networks, growth in consumer electronics, and rising vehicle output
- Globally, silver demand is forecasted to reach 1.14 billion ounces in 2023 and global mined silver supply is anticipated to fall by 2% y-o-y to 820 million ounces, driven by lower output from operations in Mexico and Peru, leading to a **third consecutive annual deficit in a row**
- Given the current macroeconomic environment, and the supply and demand dynamics, silver appears to be significantly undervalued at \$23 to \$25 an ounce





## Climate Change

0.5 mn tCO<sub>2</sub>e GHG emission savings from base year 2017



## Water Stewardship

5x water positive company and 25% reduction in freshwater consumption



## Circular Economy

3x increase in gainful utilisation of smelting process waste



## Biodiversity Conservation

Protect and enhance biodiversity throughout the life cycle



## Sustainability Goals 2025



## Diversity in Workforce

Inclusive and diverse workplace with 30% diversity



## Ensuring Zero Harm

Zero work-related fatalities and 50% reduction in TRIFR



## Responsible Sourcing

100% responsible sourcing in the supply chain



## Social Impact

Positively impact one million lives

## Roadmap to Net-Zero

- SBTi approved HZL's near-term & long-term net zero targets
- 50% reduction in Scope 1 & 2 GHG emissions, 25% of Scope 3 emissions by FY2030 and net zero by FY2050
- **Only Indian Company** in Mining sector with validated and approved SBTi targets in alignment with 1.5°C target



## Move towards Green Transportation

- Switching to electrical mobility- **first electric vehicle in underground mining** deployed, 30 EVs across HZL
- MoU signed with industry players for Liquefied Natural Gas (LNG) and Electric vehicles

## Renewable Energy

- Hindustan Zinc **entered into Power Delivery Agreement (PDA)** with Serentica Renewables India Private Ltd for 450 MW of round-the-clock renewable power
- This will enable HZL to get over 50% of the total power consumption through RE resulting in reduction of ~2.7 MnT of carbon emissions



## Social Impact

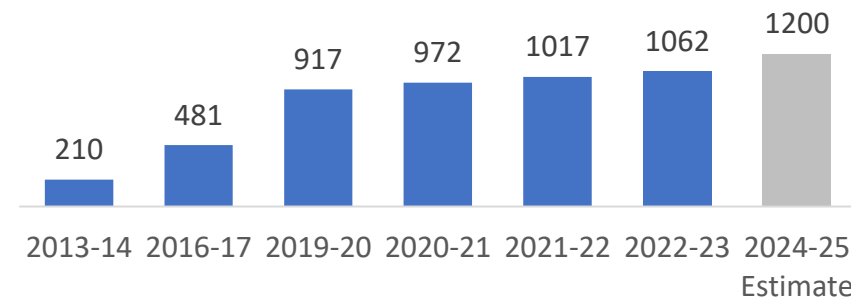
- HZL, with an outreach of over 2.7 Mn beneficiaries, is now **among the Top 10 CSR Companies** in India
- Objective is to improve the quality of life of communities including the lifecycle approach in education sphere, develop model villages, evolve grassroots institutions & promote microenterprises

# Way Forward: Paving the Way for Greater Growth By Investing in our Strategic Priorities

## Expansion of Capacities

- Expand mined metal capacity (currently at 1.2 Mtpa) and ramp up UG mines to deliver on it
- Scale smelters to designed capacity of 1,123 ktpa and silver to 800 MT and then to 1,000 MT
- Techno-commercial study underway with the target of doubling production

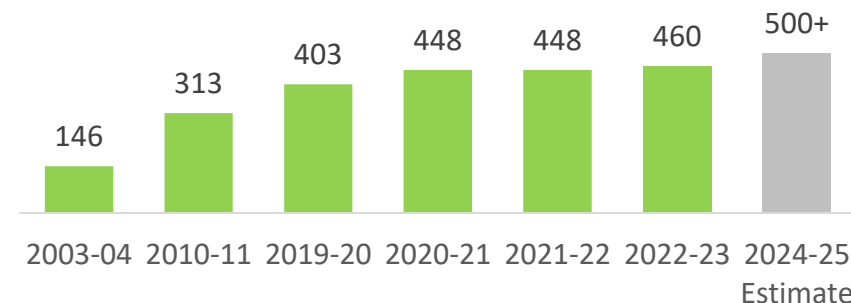
Underground (UG) Production (MIC production, kt)



## Maintaining a Portfolio of Mines with Long Life

- Ramp R&R
- Increased exploration to enhance Mineral Resource by 15 Mt Ore intermediately and by 40 Mt Ore eventually

Ramping up R&R (Total R&R Mt)

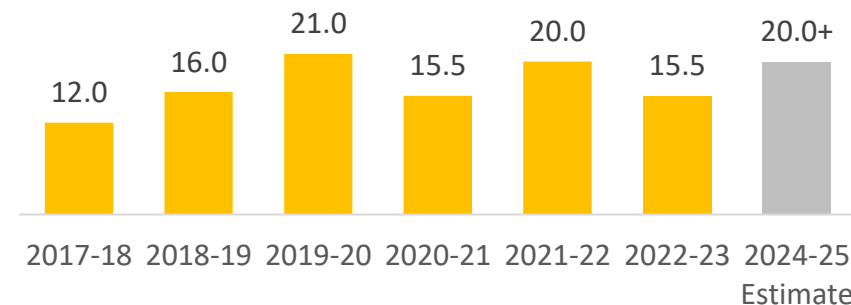


# Way Forward: Paving the Way for Greater Growth By Investing in our Strategic Priorities

## Expansion of Product Portfolio through Customer Centricity

- Scale capacities for minor metal recovery
- Invest in new product development, especially alloys of zinc and lead; HZAPL to produce high end VAP
- Enhancing value added portfolio share
- Setup of HZFPL to produce fertilizer

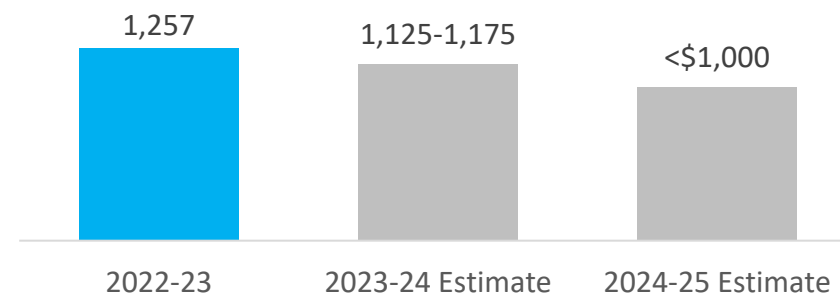
Share of VAP in Our Sales (%)



## Strengthen Cost Leadership

- Drive production efficiency
- FY 2022-23 efforts: alternate fuel innovation, flexible operations by dynamic decision making, commissioning of APCs at all beneficiation plants, raw zinc oxide treatment at Fumer Circuit, enhanced minor metal recovery, digitisation and automation

Zinc Cost of Production per Tonne Target (\$/T)



# Way Forward: Paving the Way for Greater Growth By Investing in our Strategic Priorities

## Progressing Towards a Sustainable Future

- Commitment to audacious Sustainability Goals 2025 in place
- Efforts in GHG emissions reduction, water stewardship, circular economy, biodiversity conservation and waste management

### Road Ahead

**450MW**  
Green power additions

**100%**  
Mechanised charging at Zawar

**USD 1 billion**  
investment towards climate change initiatives

## Renewable Power Update

- Furthering our journey towards net zero by 2050, the board has approved undertaking of long-term captive RE Power delivery plans up to a total capacity of ~450 MW
- This will enable HZL to get more than 50% of it's total power consumption through RE resulting into reduction in ~2.7 MnT of carbon emission
- **Project Updates and Milestones:**
  - Land acquisition and statutory approvals are on track
  - Transmission connectivity secured
  - OEM, EPC & vendor partners tied-up and construction activity at site under progress
  - Phased completion starting from Mar'24 with complete commissioning by Jun'25



# Key Strategic Update

## Value Unlocking Measures & Shareholder Value Creation

Considering the scale, nature, and potential opportunities for various business verticals of the Company including zinc, lead & silver and recycling business, the Board of Directors decided to undertake a comprehensive review of the corporate structure for unlocking potential value.

**Status:** The management has appointed external advisors to assist in evaluating the options and the work is underway. Way forward along with the possible options will be updated to the Board upon completion of the evaluation exercise.

### STRATEGIC OBJECTIVES

Unlocking value for all stakeholders

Creation of businesses which are positioned to better capitalize on their distinct market positions, deliver long-term growth

Distinct investment profiles to attract deeper and broader investor bases

Accelerate towards sustainability goals focused on waste to wealth, emissions reduction and strong ESG practices

Appropriate capital structure and capital allocation policies based on business specific dynamics

Sharpen focus on core competencies and appropriate realignment of the Company's resources

### RECYCLING BUSINESS

- HZL's **Fumer** (focusing on silver recovery from zinc residue), mine tailings, Jarofix/Jarosite, minor metal recovery are **proposed to be included in recycling business**
- With the **global recycler's valuation multiple of over 25x**, significant value potential exists
- Given **HZL's expertise in smelting, refining and with downstream capabilities**, there is tremendous opportunity in this industry

# THANK YOU



**vedanta**  
transforming for good



**HINDUSTAN ZINC**  
Zinc & Silver of India

**HINDUSTAN ZINC LIMITED**

Yashad Bhawan, Udaipur-313 004, Rajasthan

T: +91 294 6604000-02

[www.hzlindia.com](http://www.hzlindia.com)