



### **Hindustan Zinc Limited**

**Investor Presentation May'25** 







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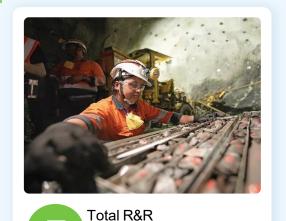
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### Hindustan Zinc's Distinctive Competitive Advantage



453.2 Mt









Zinc Smelting 913,000 TPA

Lead Smelting **210,000 TPA** 

Silver Refining 800 TPA

Note: all data are as on 31<sup>st</sup> Mar'2025

# Irreplaceable Tier-1 Asset Base with Leading presence in India

#### World's largest underground mine

#### Rampura Agucha Mine

Reserves : 46.8 Mt Resources : 20.8 Mt

Reserve Grade : Zn 10.7%, Pb 1.1%

FY25 Ore Production : 4.79 Mtpa

#### Sindesar Khurd Mine

Reserves : 36.8 Mt Resources : 61.4 Mt

Reserve Grade : Zn 3.1%, Pb 1.9%

FY25 Ore Production : 5.47 Mtpa

#### Rajpura Dariba Mine

Reserves : 51.3 Mt Resources : 39.0 Mt

Reserve Grade : Zn 5.3%, Pb 1.8%

FY25 Ore Production : 1.17 Mtpa

#### Zawar Mining Complex

Reserves : 51.5 Mt Resources : 96.4 Mt

Reserve Grade : Zn 2.6%, Pb 1.2%

FY25 Ore Production : 4.20 Mtpa

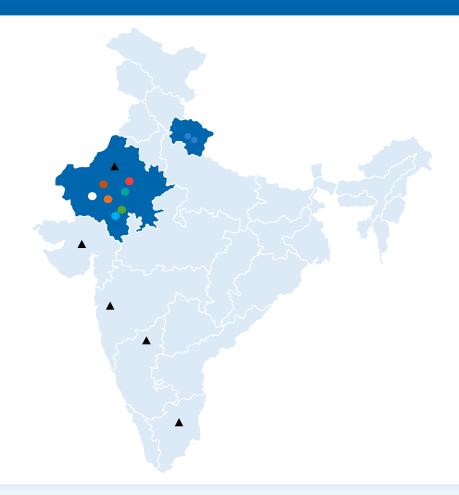
Captive power plant : 91.5 MW

#### Kayad Mine

Reserves : 1.3 Mt Resources : 6.8 Mt

Reserve Grade : Zn 5.2%, Pb 0.8%

FY25 Ore Production : 0.69 Mtpa



#### Chanderiya Smelting Complex

Pyrometallurgical Lead Zinc Smelter: 105,000 tpa Zinc and 90,000 tpa Lead Hydrometallurgical Zinc Smelter: 480,000 tpa Zinc Captive power plant 274.5 MW

#### Dariba Smelting Complex

Hydrometallurgical Zinc Smelter: 240,000 tpa Zinc Lead Smelter: 120,000 tpa Lead Captive power plant 170.0 MW

#### Zinc Smelter Debari

Hydrometallurgical Zinc Smelter: 88,000 tpa Zinc

#### Pantnagar (100% RE grid power)

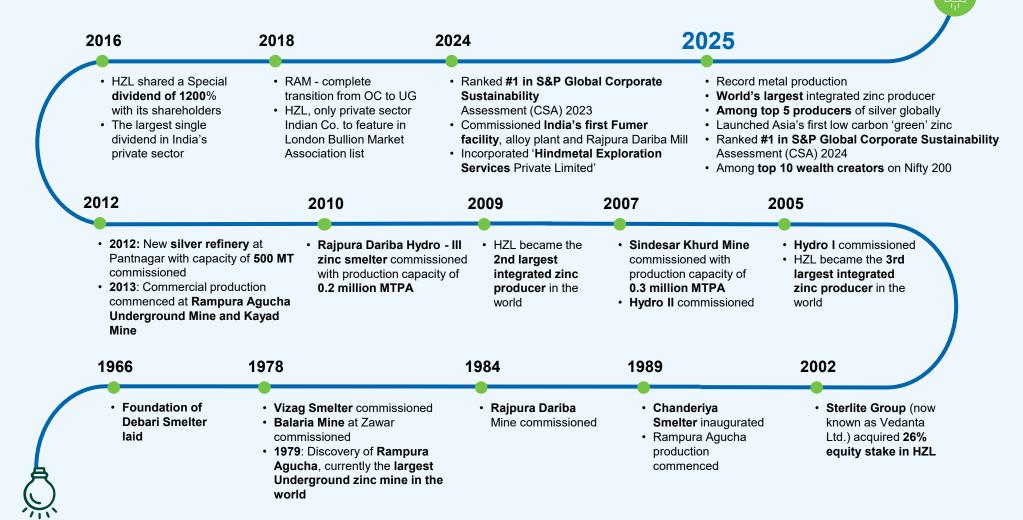
Processing & Refining of Zinc, Lead & Silver

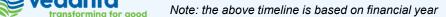
### Wind Power Generation Capacity of around 273.5 MW

- Solar Power Generation Capacity of around 40.70 MW
- WHRB Power Generation Capacity of 48.46 MW



# **About Six Decades** of Expertise in Mining and Smelting Integrated Operations





# The Metals Of Future | Enabling the Energy Transition needs

Rising deployment of clean energy technologies is set to supercharge demand for critical minerals

#### Zinc building a greener future



Zinc plays a critical role in solar and wind power, as it protects solar panels and wind turbines and prevents rust



Zinc's inherent sustainability brings value across market sectors including automotive, consumer products, energy, food security and infrastructure



Zinc batteries are the future of energy storage offers:

- Flexible, capable of long cycle life and long duration storage
- Wide operating temperature and require minimal upkeep
- Lowest cost per kilowatt hour
- Non-toxic making it environmentally friendly
- Sustainable, can be recycled

#### Silver's crucial role in achieving the net zero world



Silver plays a dual role as an industrial metal and a financial asset. It is critical due to its unique properties, making substitution nearly impossible



Silver's unmatched conductive and reflective properties are in unprecedented demand, especially in sectors of reducing carbon footprints



Silver's high conductivity makes it highly effective for solar energy industry. As we move to low-carbon economy, we will need more silver



It is used nearly in every electronic system from telecommunications, infrastructures to electric vehicles



### Hindustan Zinc's Leadership Position in India

Well Positioned to Capitalize on the Country's Strong Growth Trajectory



Contributed ₹ 18,734 crores to the exchequer during the year, up 42% YoY

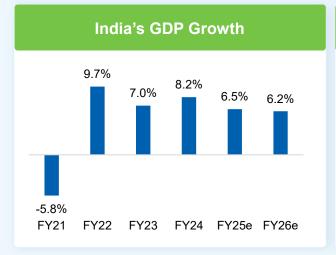


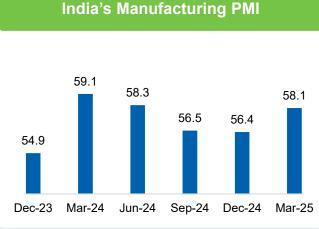
### Well placed to harness India's Growth Momentum

Continue to capture c.77% market share in India's primary zinc market

#### **Indian Steel Production and Zinc Demand**









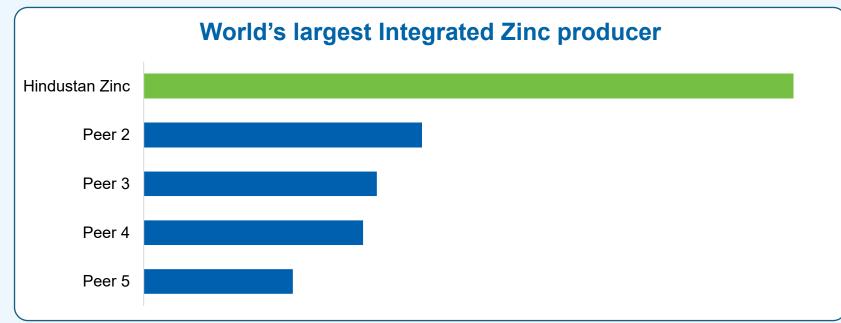
#### **Zinc Demand Outlook**

- Strengthening domestic zinc demand on back of consistently growing domestic steel production, which will grow further to 300 Mtpa by 2030
- India's economic outlook remains strong, with the manufacturing PMI consistently reflecting sectoral expansion, supported by upbeat consumer sentiment & robust demand



Source: World steel Association

### Hindustan Zinc's Unique Positioning Globally

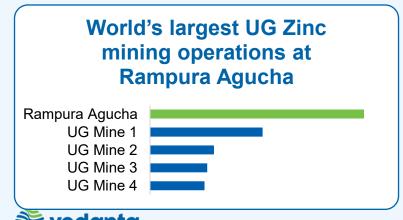


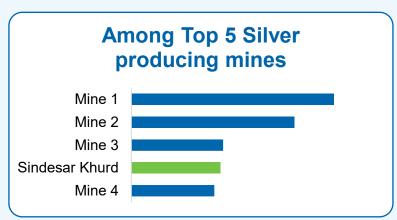
#### Ranked 1st

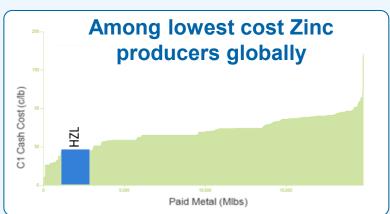
in Metals & Mining sector in S&P Global CSA 2024 for the 2<sup>nd</sup> consecutive year

#### Asia's first

low carbon 'green' zinc producer

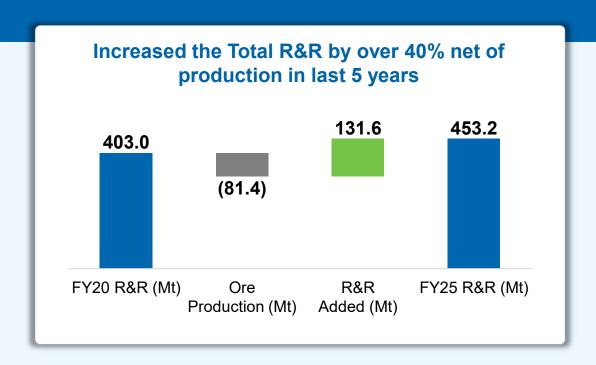


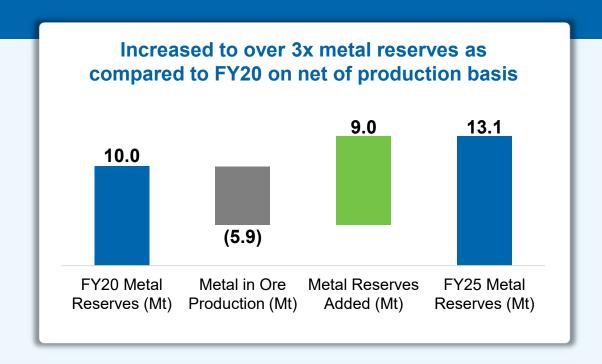




# 2<sup>nd</sup> Highest Zinc R&R Base Globally with 25+ Years of Mine Life

Focused exploration to expand our reserves and resources base to support our future growth







Targeted and disciplined exploration to maintain the mine life above 25 years

Continued efforts on addition of more R&R than depletion and higher conversion of resources to reserves

Achieved more than 13 Mt of metal reserves for the first time\*



### Among World's Top 5 & India's Only Primary Silver Producer



#### Growth

Silver production grew over 20x in last 2 decades Continues to contribute significantly to the profitability, i.e., c.38% of the EBIT in FY2025

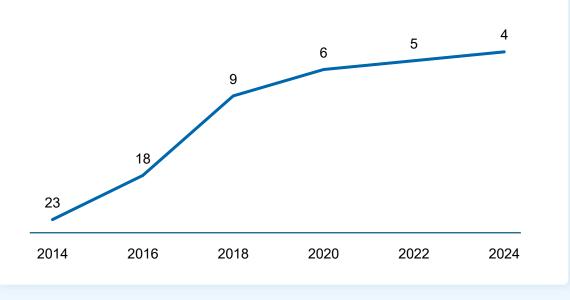


#### **Global Leadership**

Hindustan Zinc is India's only silver producer and is now among the top 5 largest silver producers globally as per the World Silver Survey by the Silver Institute



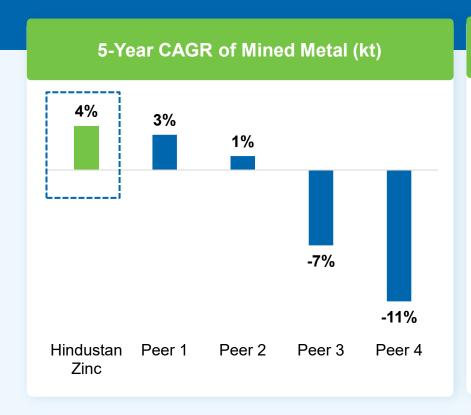
### World Silver Survey - HZL's Ranking

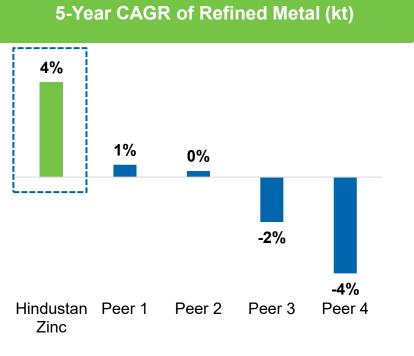




### Showcasing Industry Leading Operational Performance

Hindustan Zinc delivered strong growth in comparison to major global zinc players



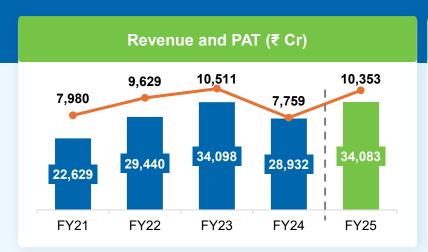


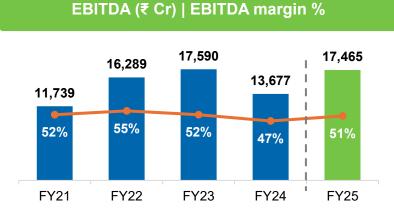


- Hindustan Zinc's production has grown at an industry leading CAGR of around 4% in mined and refined metal in last 5 years and is poised to ascend further in a similar trend.
- Strong growth is planned for FY26, building on the steady momentum achieved at the end of FY25.

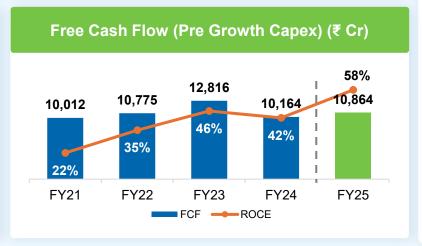
### Resilient Business Model Continues To Deliver Robust FCF

Backed by Operational Excellence, Technological Advancements and Cost Optimization











- Strong free cash flow underpinned by consistent volume growth with low-cost asset base, amongst 1<sup>st</sup> decile zinc cost curve globally
- 4-year lowest cost with a COP of \$1,052/T in FY25
- Enabling Factors: Better grade, softened input commodity prices, better linkage coal availability, improved operational efficiency, increase renewable energy usage, automation and digitalization
- Among Top 10 wealth creators in Nifty 200, delivering c.9% dividend yield in last 5 years



### Strong Shareholder's Value Creation in Last 5 Years

Hindustan Zinc is among the top Indian metal companies with superior total shareholder returns

#### **Total Shareholder Returns per Share**

Capital Appreciation ₹306.5

Dividend per share ₹156.8

Total Returns ₹463.3

Total shareholder returns of **c.3x** 

Amongst highest dividend yield companies in the country **c.9%** 



Ranked 3<sup>rd</sup> under Nifty Metal Index

Based on market capitalization of ₹195k Cr



**Amongst Top 10 Wealth Creators\*** 

On the Nifty 200 Index



**Included in F&O Segment** 

On National Stock Exchange w.e.f. 28th Mar'25



One of the highest Dividend Payout

₹ 66,253 Cr



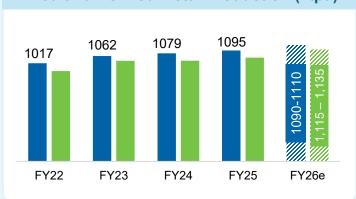
### Hindustan Zinc's Vision, Mission & Growth Narrative

**Vision** to be the world's largest and most admired Zinc, Lead & Silver Company

# **01**Capacity Expansion

- Roaster of 160 ktpa at Debari
- UG mine ramp up and debottleneck roasting, leaching & purification operations – 21 Ktpa
- Techno-commercial study to double production to 2+ Mtpa at advance stage

#### **Mined and Refined Metal Production (ktpa)**



# **02** Expanding VAP Portfolio

- Ramp up of 30 kt Alloy plant to full capacity
- Forward integration through 510 ktpa Fertilizer plant at Chanderiya by FY26
- Innovation of new products in lead alloys
- Increased penetration of zinc alloys.
- Target increase of over 60% in next 3 yrs, focus on HZDA, CGG, ZAM, zinc dust, EPG

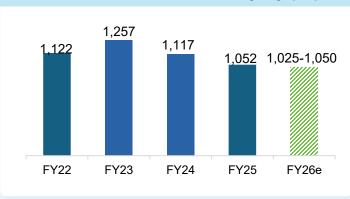
#### **Value Added Product Portfolio**



# 03 Cost Optimization

- Efficient ore hauling, higher volume and grades besides higher productivity through ongoing efforts in automation and digitalization
- 530 MW RE power at a fixed rate for 25 years, providing better cost visibility and predictability

#### **Zinc Cost of Production ex Royalty (\$/t)**





TPA: Tonnes per annum

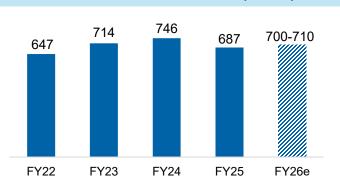
### Hindustan Zinc's Vision, Mission & Growth Narrative

Mission to enhance stakeholder value, be the lowest cost producer & maintain market leadership

# 04 Strengthening Precious metal Portfolio

- Fumer achieved 50% of capacity utilization in March 2025
- Implementing a new innovative technology of hot acid leaching for recovery of silver from Jarosite
- Augment silver production to 750 MT by FY27
- With a stable silver price of c.\$35 per toz, silver contribution in EBIT will increase

#### **Refined Silver Production (MTPA)**



### 05 Sustainable Future

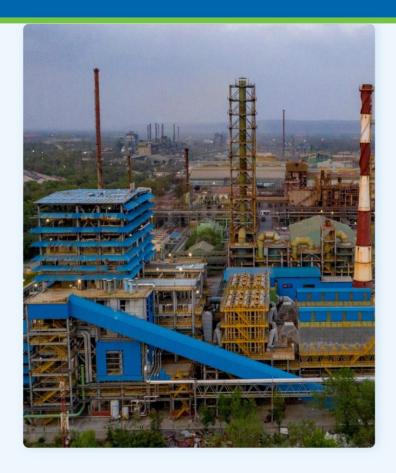
- RE power usage by c.13% in FY25, target to take it to 30-35% by FY26, 50% by FY27 and 70% by FY28.
- RE power will reduce the carbon emission from 5.5
   MtCO<sub>2</sub>e to 1.7 MtCO<sub>2</sub>e per annum
- Foraying into zinc-based batteries to provide sustainable alternative to prominent chemistries
- Advancing in circular economy through various waste to wealth initiatives

#### **Road Ahead**

**530 MW** Green power additions

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

100% Mechanized charging at Zawar





### **Growth Project Update**



#### **New Roaster at Debari**

- Roasting is an essential part of the process of producing saleable zinc in hydrometallurgical smelters.
- The new roaster at Debari will enable
   Hindustan Zinc to attain long term sustainable
   operations making it future ready for 1.2+
   million tonne refined metal.

Production Capacity **160 ktpa** 

#### **Status Update**

Target commissioning by Q1 FY26

#### **Update:**

- Moving forward
   Hindustan Zinc along
   with technology
   partners, is evaluating
   and finalizing recycling
   projects for converting
   waste into wealth.
- Further, Hindustan
   Zinc has appointed
   strategic partners with
   proven capabilities for
   undertaking
   conceptual design for
   2X growth plan. It is
   under progress and
   details of the same will
   be announced post
   completion.

#### **Hindustan Zinc Fertilisers Private Limited:**

- Hindustan Zinc's DAP/NPK Fertilizer Plant at Chanderiya aims to support farmers' needs through production and sale of DAP Fertilizers currently being imported.
- Allows better utilization of Sulphuric acid generated in operations through production of Fertilizers, making the country future-ready.
- This will contribute to the environment circuitously, enabling us to fetch right margins.

Production Capacity **510 ktpa** 

Product **DAP/NPK Fertiliser** 

#### **Status Update**

Project progress is on track with the completion being targeted by Q4 FY26



### Foray into Critical Minerals & India's Critical Mineral Mission

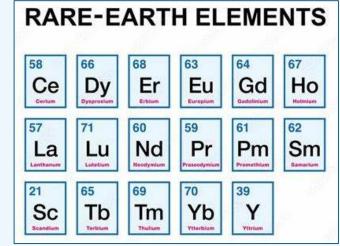
- Central government has identified 30 critical minerals out of which it plans to auction 24 critical minerals - Lithium, Cobalt, Tungsten, REEs, Potash, etc, aiming for clean energy, electronics, EV, and defence sector support
- This enables reduction in India's independence on imports and contributes to sustainable development
- Hindustan Zinc is poised for leadership in India's strategic mineral ecosystem through diversification into critical minerals and investment in systematic exploration & processing technologies, in alignment with national goals of resource security and sustainability

#### Won three critical minerals blocks

#### **Tungsten, Potash and Rare Earth Elements**







Block Name (CL)	Location	Mineral	Uses	Block Size	Total Existing Resources
Balepalyam	Andhra Pradesh	Tungsten	Hard metals, electronics, defense equipment	308.3 ha	0.07 Mnt
Jhandawali-Satipura	Rajasthan	Potash	Fertilizers (improves crop yield and soil health)	1,841.2 ha	18.07 Mnt
Nawatola-Laband	Uttar Pradesh	REE's	EV motors, wind turbines, electronics	201.0 ha	0.182 Mnt



# World Leader in Sustainability in Metals & Mining sector

S&P Global

FTSE4Good





Ranked 1st

4.4

**30.**7

**A-**

**S&P CSA 2024** 

FTSE4Good

**Sustainalytics** 

**CDP** 

**2**<sup>nd</sup> consecutive year

Featured in Top 1% in S&P Global Sustainability Yearbook 2025

**Score Up to 86** from 77 in 2021

Overall score up from 4.0 in 2021

**Environment:** Up to 4.2

from 3.6

Social: Up to 4.3 from 4.0

Governance: Up to 4.6

from 4.3

Score improved to 30.7 in 2024 vs 47.0 in 2021

Recognized with
Leadership Band
Scores of A- in Climate
Change and Water
Security



### Sustainability Goals 2025

#### **Climate Change**

0.5 mn tCO2e 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







#### **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



# **ESG Focus (1)**

#### **Renewable Energy**

- Entered into Power Delivery Agreements (PDA) with Serentica Renewable India Private Ltd for 530 MW, with a carbon emission reduction of 69% from 5.5 MtCO<sub>2</sub>e to 1.7 MtCO<sub>2</sub>e per annum
- This caters to 70% of the overall power requirement at a cheaper rate, fixed for 25 years and insulated from inflation or exchange rate fluctuations



Modules installed at Site



#### **Low Carbon Zinc**

- Launched Asia's first Low Carbon 'Green' Zinc, EcoZen, produced using renewable energy, with a carbon footprint of less than 1 tCO<sub>2</sub>e per tonne of zinc produced, about 75% lower than the global average
- Certified through a comprehensive Life Cycle Assessment (LCA), cradle to gate approach by a renowned global sustainability firm
- For customers looking to decarbonize their own and their customers' value chains









# ESG Focus (2)

#### **Circular Economy**

- Commissioned India's first fumer plant in Chanderiya Lead Zinc Smelter, envisaged to add c.33 MT additional silver annually
- Implementing an innovative hot acid leaching technology for recovery of additional 6 kt lead and 27 MT silver from smelting waste in Dariba Smelting Complex
- Partnership with VEXL Environ Projects Ltd (VEXL) for innovative solutions for utilization of Jarosite and Jarofix for productive applications



**VEXL Environ Project** 



(P)

#### **Energy Transition**

- Preferred supplier of zinc for US-based AEsir
  Technologies for zinc-based batteries manufacturing,
  providing cost-effective & sustainable alternative to
  other prominent chemistries
- MoU with a premier institute sponsored by the Department of Science & Technology, Govt. of India, for R&D of next-gen zinc-based batteries
- Onboarded India Energy Storage Alliance for development of advanced energy storage & green hydrogen solutions





### **Empowering Communities, Changing Lives**

Benefitting c.2.3 million lives across 2,362 villages through c.50 initiatives across 7 verticals in FY25

#### **Education**

**7 Initiatives** 3,80,000+ Beneficiaries

# Health, Water & Sanitation

**14 Initiatives** 4,60,000+ Beneficiaries

# Sustainable Livelihood

**3 Initiatives** 36,000+ Beneficiaries

#### **Sports & Culture**

**11 Initiatives** 1,40,000+ Beneficiaries

# Community Asset Creation

**4 Initiatives** 4,70,000+ Beneficiaries

#### Women Empowerment

**2 Initiatives** 2,60,000+ Beneficiaries

# Environment & Safety

**8 Initiatives** 4,30,000+ Beneficiaries

1,969 Nandghars completed in Rajasthan, taking the overall Nandghars to 8,000 at the Vedanta Group level





### **Executive Leadership Team**



**Arun Misra Chief Executive Officer** 

Chairman of International Zinc Association (IZA) and Vice Chairman of Confederation of Indian industry (CII), Rajasthan



Sandeep Modi **Chief Financial Officer** 

Financial expert with 20+ years of vast experience in metals, mining and power industry



**Munish Vasudeva Chief Human Resource Officer** 

Subject matter expert with diversified experience in large multinationals



**Russell Evans Director Exploration** 

Over 30 years of experience in managing mineral exploration from discovery to resource calculation



Adelson Dias De Souza **Project Consultant - Smelters** 

Comes with 30+ years of expertise in technology & innovation within metallurgy and non-ferrous mining



**Kishore S Chief Operating Officer** 

Over 26 years of experience in mining industry with expertise in mine operations, mine management & strategic planning



**David Finn Technical Advisor - Geotech** 

Subject matter expert with 30+ yrs experience in Geotech



**Kavita Bhardwaj Deputy CEO - HESPL** 

Multicommodity Mineral industry experience in Greenfield, Brownfield exploration, overseas projects and fertilizer



**Darin Cooper Technical Director - Smelters** 

Subject matter expert with diverse experience in metals & mining industry spanning operations, project & restructuring



C Chandru

**IBU CEO - Smelters** 

20+ years of industrial experience in operations, business & various leadership roles with a degree in metallurgy



#### **Composition of our** leadership team

- Our top 60 leaders embody a remarkable blend of expertise, featuring a harmonious mix of technical and functional experts and entrepreneurial business leaders
- Our leadership with an average age **below 50 years**, brings a wealth of experience
- Our team has an average experience of 25 years in their respective fields
- This leadership cohort reflects a strategic balance, comprising 36% homegrown leaders, 36% expats, and a substantial representation of lateral leaders from diversified businesses





Head - CSR Diverse experience in the CSR and sustainability

# Strategic Growth via Focused Separate Companies

### HINDMETAL EXPLORATION SERVICES PRIVATE LIMITED

- Hindmetal Exploration Services
   Private Limited was formed with
   the objective of developing an
   exploration strategy through
   a focused vertical.
- The subsidiary's objective is to explore, discover, develop and tap mineral resources, including strategic minerals, deep seated minerals and offshore minerals, through systematic exploration of all types of mineral deposits.
- The subsidiary will collaborate with government bodies, private enterprises or any other organizations for joint ventures, partnerships, or research initiatives in the field of exploration

### HINDUSTAN ZINC ALLOYS PRIVATE LIMITED

- Given the foreseeable demand for alloys in the near future and its vision of growth, the Company has set up a new state-of-the-art facility for manufacturing of zinc alloys through melting and casting operations.
- The Company has set up a new melting and casting facility of 30 ktpa zinc alloy, which will help in attaining sustainable operations, and in achieving benchmark performance.
- This new facility is equipped with technologically advanced machines and was commissioned in FY 2024.

### HINDUSTAN ZINC FERTILISERS PRIVATE LIMITED

- Through Hindustan Zinc
   Fertilizers Private Limited, the
   Company aims to set up a
   state-of-the-art phosphatic
   Fertilizer manufacturing
   facility with capacity of 510
   ktpa at Chanderiya, to boost
   performance and ensure
   sustainability in operation.
- The Fertilizer plant aims to support farmers' needs through production and sale of DAP Fertilizers, which are currently being imported, and to better utilize the Sulphuric acid generated in operations through production of Fertilizers, making the country future-ready.
- The project is targeted to complete by FY 2026.



- Hindustan Zinc has strategically expanded its operations by establishing 5 distinct subsidiaries and renewable energy under group captive scheme.
- This focused approach allows the Company to tailor its strategies and resources to meet the unique demands of each market segment effectively.



### **Key takeaways**

















**1.2 Mtpa** metal at US\$ 1,000/t cost;

Growth plan for **2 Mtpa metal** under development

Silver expansion:

Target of reaching 1,000 MT through intermediately (Fumer route) & 1,500 MT with 2 Mtpa metal

Exclusive focus on Recycling:

Potential of recovering 1 Mnt metal and 3 ktpa silver 2<sup>nd</sup> highest zinc R&R base globally with average grade of c.7% and 25+ years of mine life c.77% market share in India's primary zinc market

Focus on VAP:
Alloy plant
commissioned &
Fertilizer plant
project in progress
- making India
self-reliant

70% + power sourcing through renewable sources

Sustainability leader with 1st rank in S&P Corporate Sustainability Assessment globally

#### Near term outlook\*

Mined metal: 1,125 (±10) Ktpa

Refined metal: 1,100 (±10) Ktpa

• Silver: 700 - 710 metric tonnes

• Zinc cost of production - \$1,025 - \$1,050 per tonnes

Irreplaceable resource and asset base delivering consistent margin of c.51%

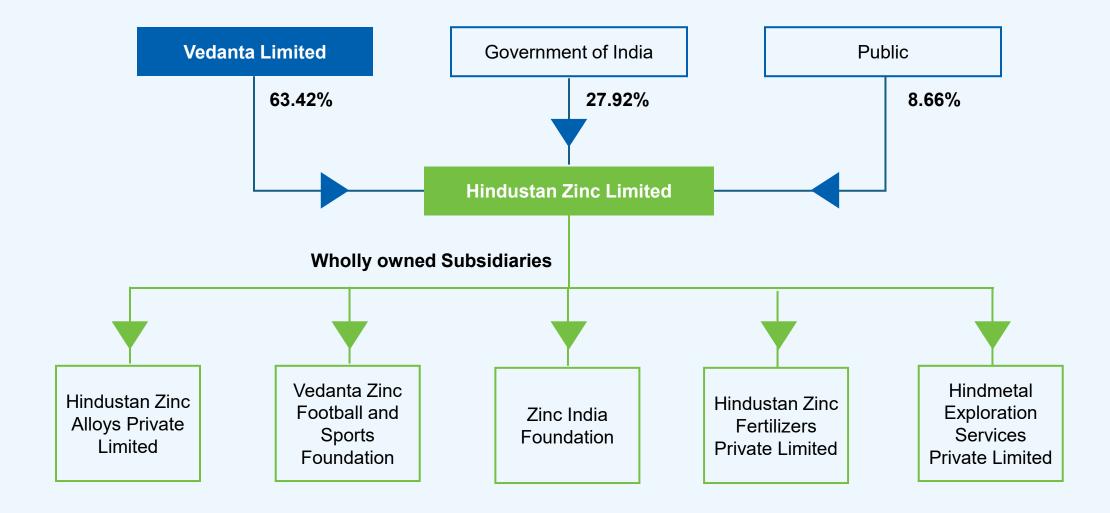
Consistently AAA rated by leading credit rating agencies

India's most valued metal and mining company with industry leading shareholder returns



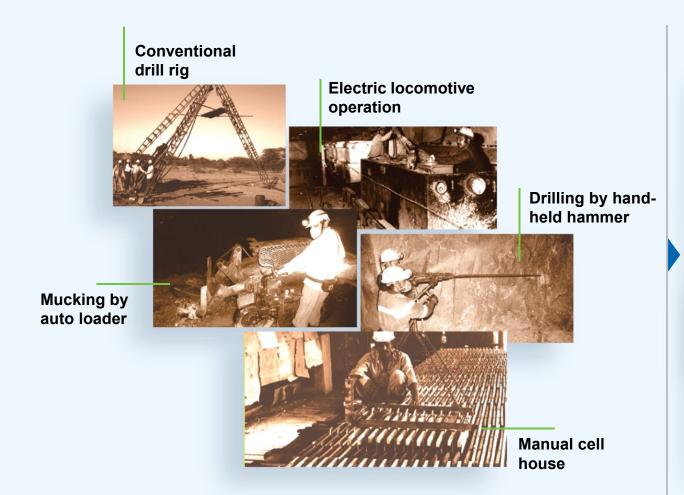
\* FY2026 guidance

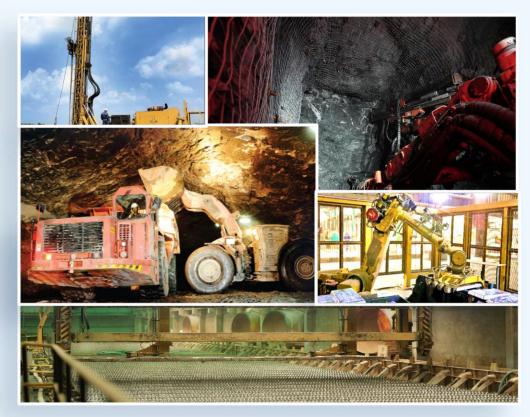
### **Group Structure of Hindustan Zinc Limited**





### Then & Now





Modern drill rig, drilling machine, LPDT, hi-tech cell house, robotic operations



### **Our Reporting Suite**



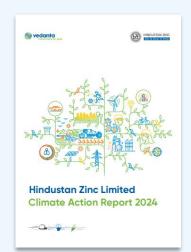
Integrated
Annual Report
2023-24



<u>Annual Report</u> 2023-24



Sustainability Report 2023-24



Climate Action Report 2024



Tax Transparency
Report 2023-24



TNFD Report 2023-24

