



Hindustan Zinc Limited



INVESTOR PRESENTATION

AUGUST 2019



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A premium zinc-lead and silver company

2nd

LARGEST ZINC-LEAD MINER GLOBALLY

4th

LARGEST ZINC-LEAD SMELTER GLOBALLY

Largest

INTEGRATED PRODUCER OF ZINC-LEAD

9th

LARGEST SILVER PRODUCER GLOBALLY

1st

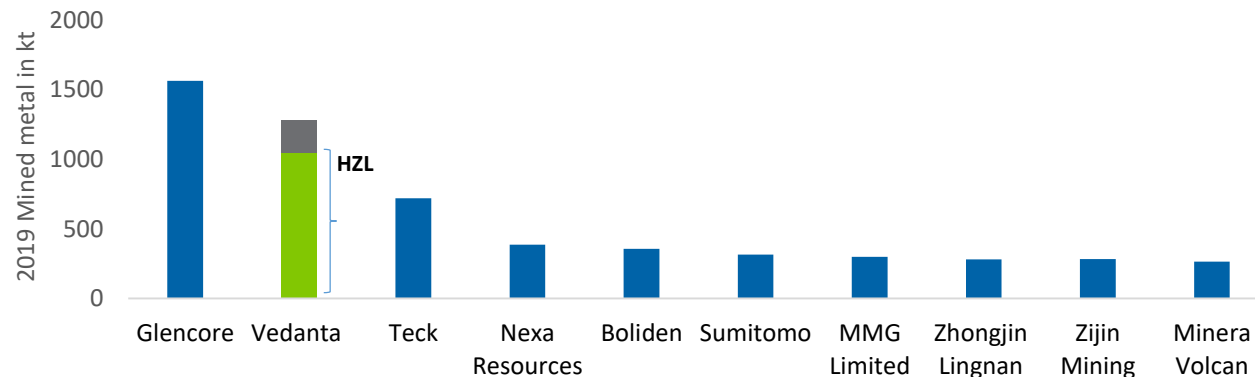
DECILE POSITION IN GLOBAL ZINC COST CURVE

1st

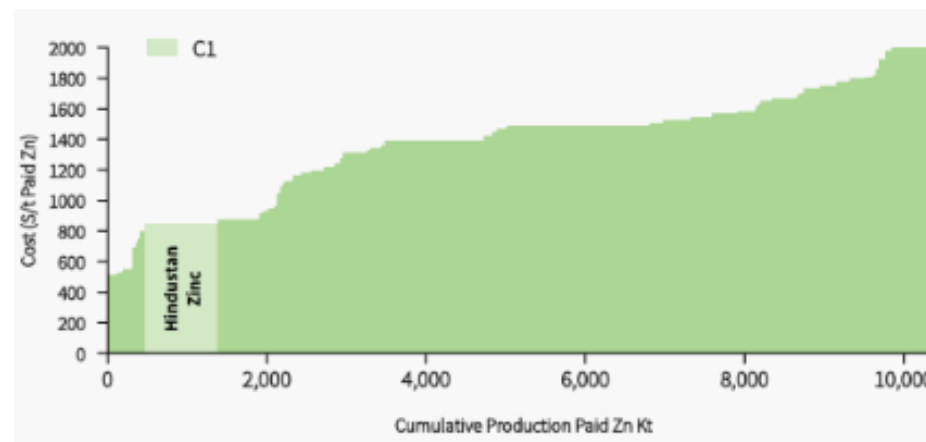
RAMPURA AGUCHA – LARGEST ZINC LEAD UG MINE; SK RANKED 3rd

Zinc-Lead rankings source: Wood Mackenzie
Silver ranking Source : Thomson Reuters

Vedanta set to become the largest Zinc-Lead miner globally in the next 2 years



Hindustan Zinc lies in first decile on global Zinc Cost Curve (2019)





Sustainability efforts are centred around safe mining and optimizing waste, water, land & carbon footprint

Safe Mining – Setting right Culture

Felt Leadership

Safety Town Hall

Personal Safety Plan

Monthly safety interactions at sites

Project Ru - Ba - Ru for business partners

Technology – Eliminating Human Interface

52%
waste recycling

36%
water recycling

Zero
liquid discharge

14% - 20%
committed to reduce GHG
emissions by 2026

Paste fill plant

- 60% of tailings to be used for void filling in UG mines back fill, Reduce land required for tailing dams

Dry tailing

- 1st dry tail stack plant in Zawar in Q2
- Water and land savings

Fumer Plant

- Reduce land required by 1 hectare pa
- Reducing carbon footprint

Ancillary Plant

- Recover & recycle metal in high value add forms
- Potential value creation of over Rs 150 Crore

Sewage Treatment plant

- Treat Udaipur's sewage (60 MLD)
- Minimise fresh water usage; enhance cleanliness of lakes

Solar projects over waste land

- 39MW solar power saving 190 acres land
- Another 35MW expected during FY2020

Ranked 1st in environment and 5th overall in global metal & mining sector in Dow Jones Sustainability Index



Provide **academic support** in Science, Maths and English to 7500 students in 64 govt schools

Observed improvement in grades and interest in going to school due to high quality of education

Shiksha Sambal



Support for **high performers to prepare for engineering institutions** of national repute

Students especially girls are continuing their higher education due to free education

Unchi Udaan



- **On-farm sustainable livelihood** project reaching out to more than 8000 farmers and 4300 families

- Increase in yield by improved seed varieties; new technology for livestock reproduction

Samadhan



- Aims for **2300 women Self Help Groups** touching lives of 27,000 families

- High impact due to household income enhancement, loans for business and behavioral change

Sakhi



- Regular **coaching to nearly 2000 children** at 64 community football centres

- Buoyed by impressive results, plans to roll-out across Rajasthan and Under-13 team at I-league

Zinc Football



- Caters to **health, nutrition & pre-school needs**, reaching 60,000 children in 0-6 years age group

- Increase in enrolment; focus on cognitive development; nutritious food

Khushi & Nandghar



Strong foundation driving growth and transformation

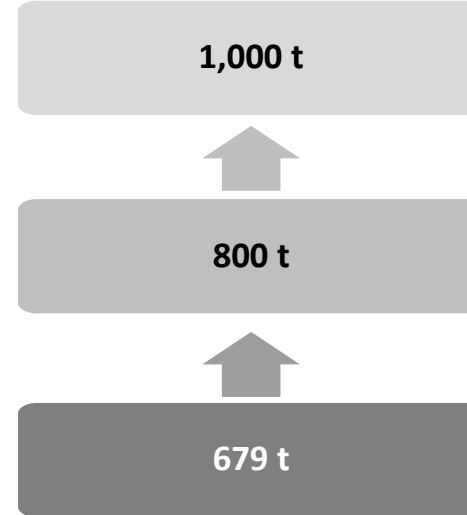
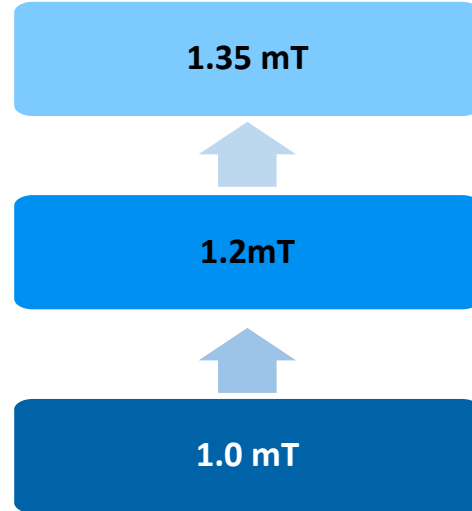


R&R

ZINC – LEAD

SILVER

COSTS



- Expanding R&R across the mines
- Best in class technology and expertise
- Largest and the most active mineral explorer in India with an exploration spend of \$16 mn out of the total \$50mn spent nationwide

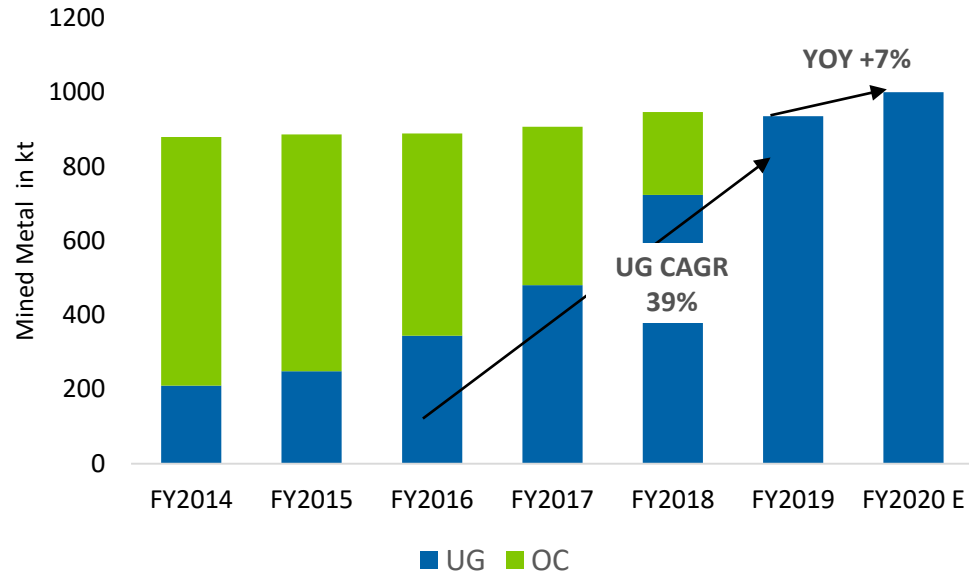
- Completion of 1.2 mtpa capacity in H2
- 1.35 mtpa planning underway
- Smelter debottlenecking in progress
- New resource from new ore bodies
- Focus on reserve to resource conversion

- Focus on silver rich deposits
- Enhanced recoveries
- New technology - Fumer and recovery from tailings
- Natural volume growth

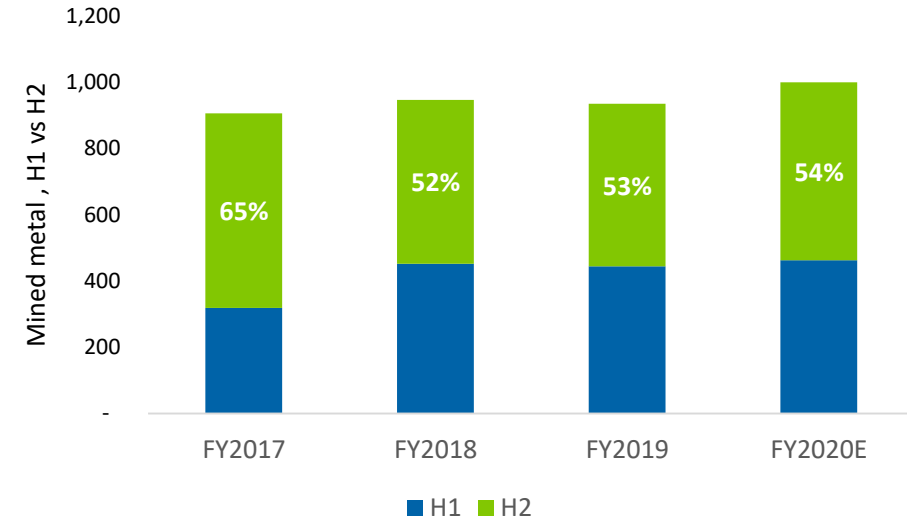
- Key structural initiatives on
- Digital transformation
 - Minor metal extraction
 - Ore to metal ratio to 90%
 - Operational efficiencies via shaft, paste fill, etc.
 - Energy basket optimisation



Production ramp up to 1.0 million tonne mined metal



H2 – Completing 1.2 mtpa project activities



RAMPURA AGUCHA

- Shaft commissioning in H2
- Rapid development crew to open new levels from Q2

SINDESAR KHURD

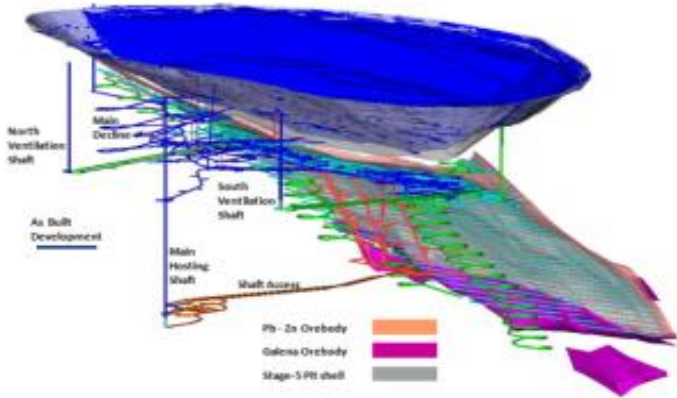
- Shaft fully ramped-up in H2
- Faster paste filling

ZAWAR

- Commissioning of two paste fill in Q3
- Ballaria ramp-up in Q4
- Pillar mining

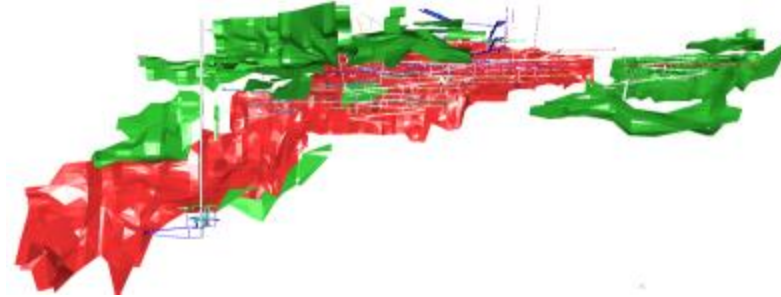
Setting Business for 1.35 mtpa and beyond – concurrent mining

Rampura Agucha (3.3 → 4.5 → 5)



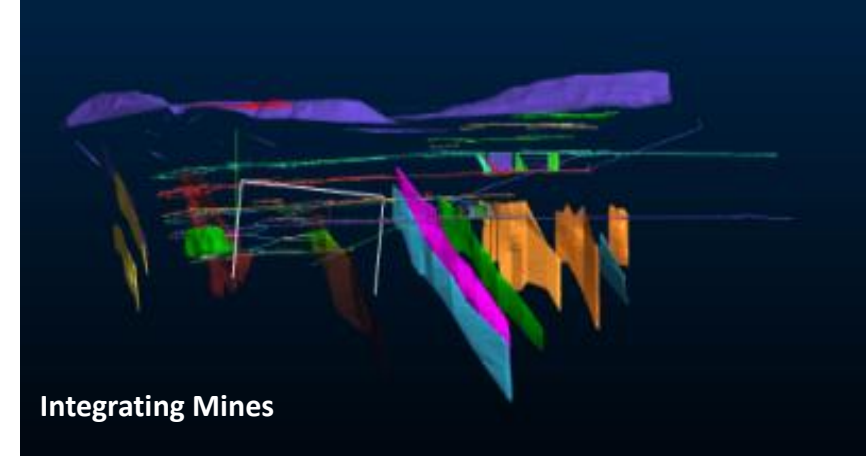
Safe Transition

Sindesar Khurd (5.3 → 6 → 8)



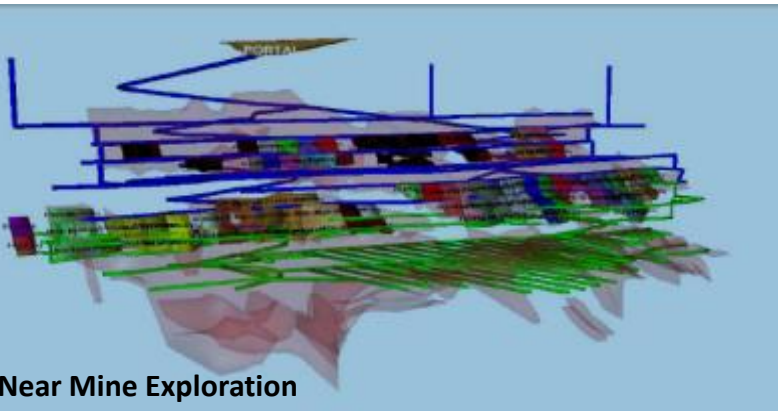
Fully Digitised Mine

Zawar (2.8 → 4.0 → 8)



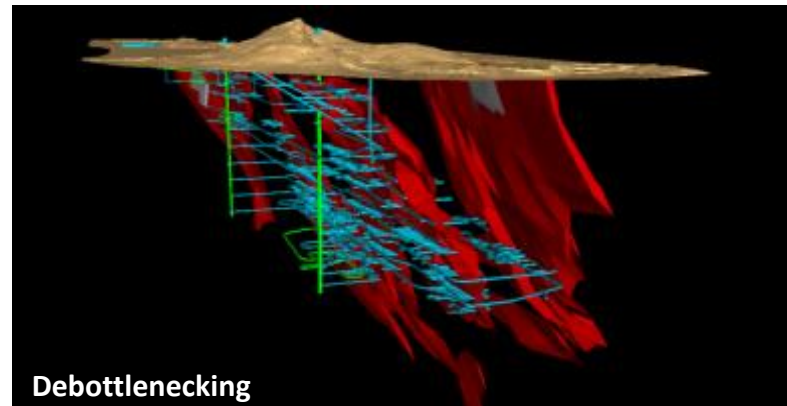
Integrating Mines

Kayad (1.2, extending mine life)



Near Mine Exploration

Rajpura Dariba (0.9 → 2 → 4)



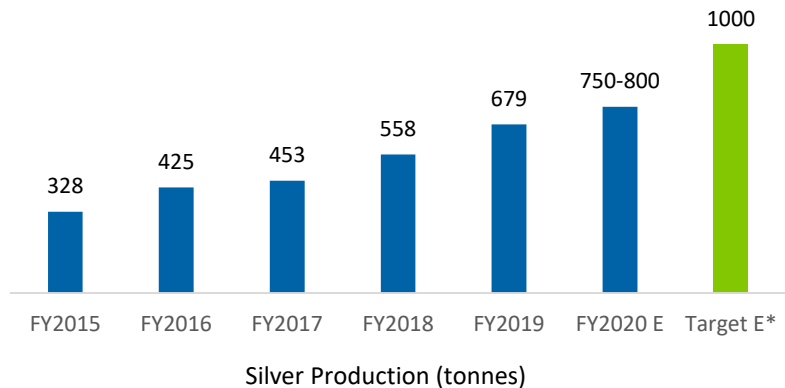
Debottlenecking

Sindesar Khurd and Rampura Agucha are top 3 zinc lead producing UG mines globally, contributing ~ 70 % of HZL's total metal production

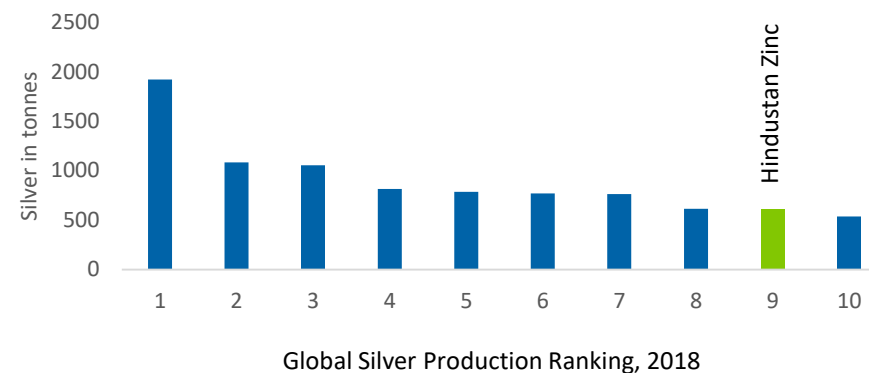


On track to become top 3 silver producers globally

Fastest growing silver company with a CAGR of 18%

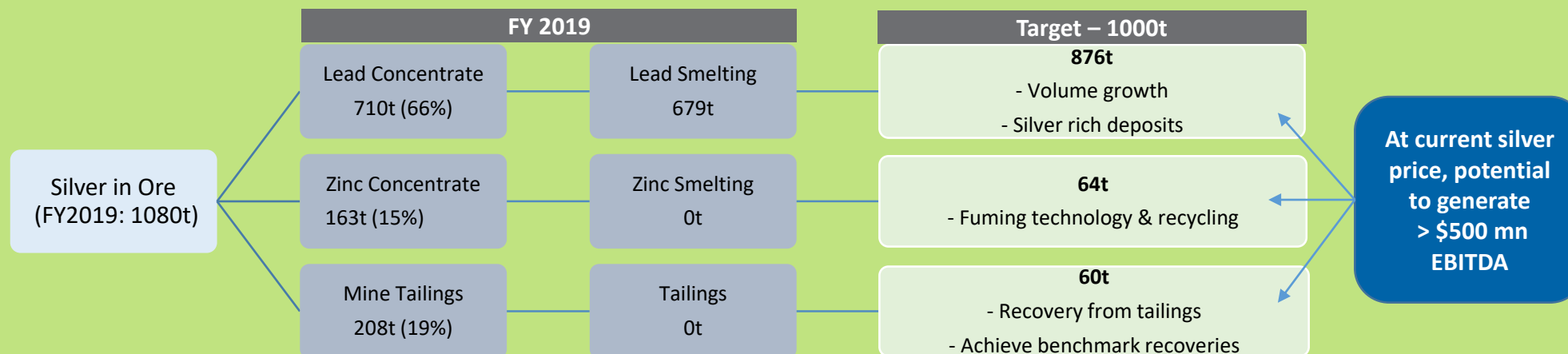


Ranked 9th globally in primary silver production



Source: GFMS, Reuters

We expect to be among Top 3 silver producers and the largest integrated silver producer globally in the next 2-3 years





Reserve & Resource upgrade – World class technology adopted


Motorised Directional Drilling

Motorised Directional Drilling technology creates multiple branches from a parent hole resulting in saving cost and time




Core Scanner and IQ Logger

High quality lithological and structural data acquisition along with complete suite of assay data with XRF with least manual intervention




ATV Logging

Acquire all downhole in-situ structural data as soon as holes are drilled in a cost effective manner for finding exploration target and mine design



Geophysics: Introduction of Drones

Cost effective, faster and safer method to carry out geophysical survey in tough terrains and complex environment



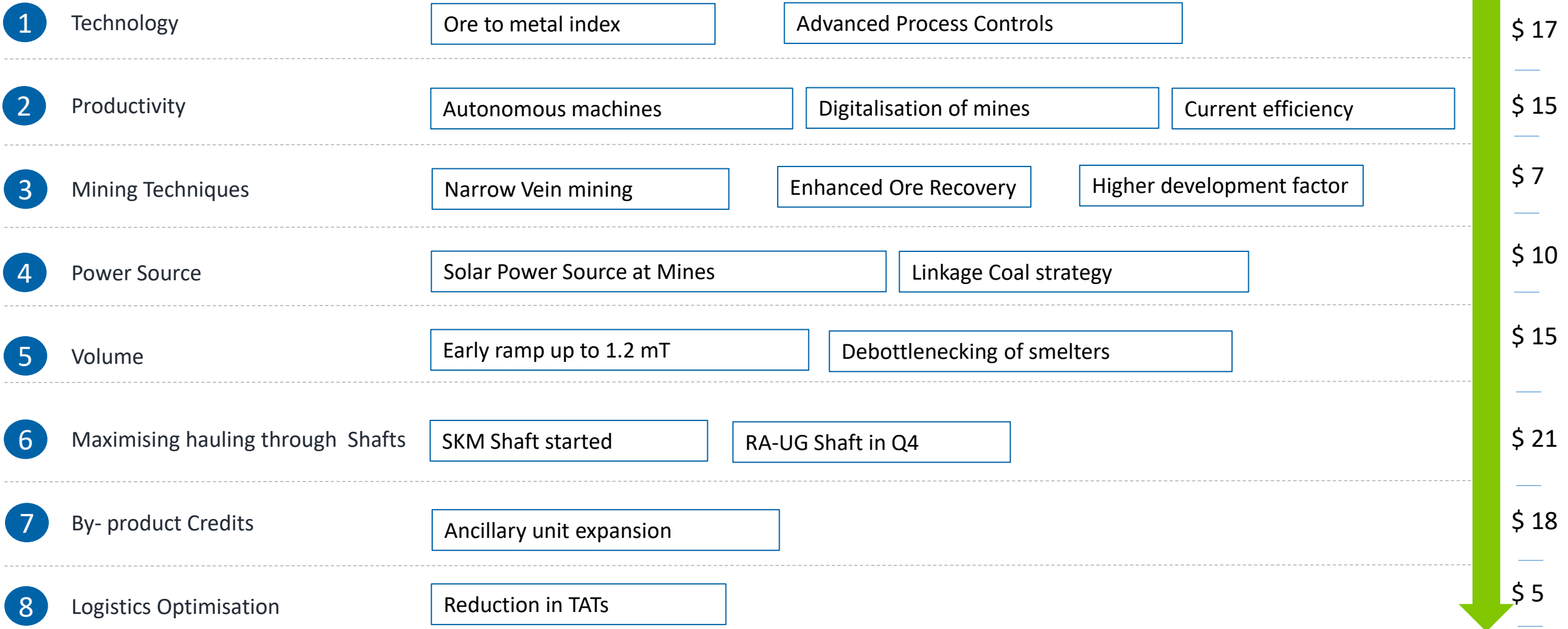
Opportunities across mines (400 → 600 mT)

Mine	Technical program
RAM	<ul style="list-style-type: none">Galena & Main orebody upgradation – 10 mT
ZM	<ul style="list-style-type: none">Deep Extension all lenses - 20 mTNew lenses - B Magra, S Rupariya - 20 mT
SKM	<ul style="list-style-type: none">New lenses - main orebody below shaft, satellite lense – 10 mTDeep Extension under main lense – 15 mT
RDM	<ul style="list-style-type: none">Delineate main lenseDeep extension – 20 mT
Kayad	<ul style="list-style-type: none">Prime target to add new resourceExploration potential 12Mt
BK	<ul style="list-style-type: none">Open pit mining opportunity – 50 mT



Time bound cost optimization programs in place

Zinc COP: \$1000 per MT



Zinc COP: \$900 per MT

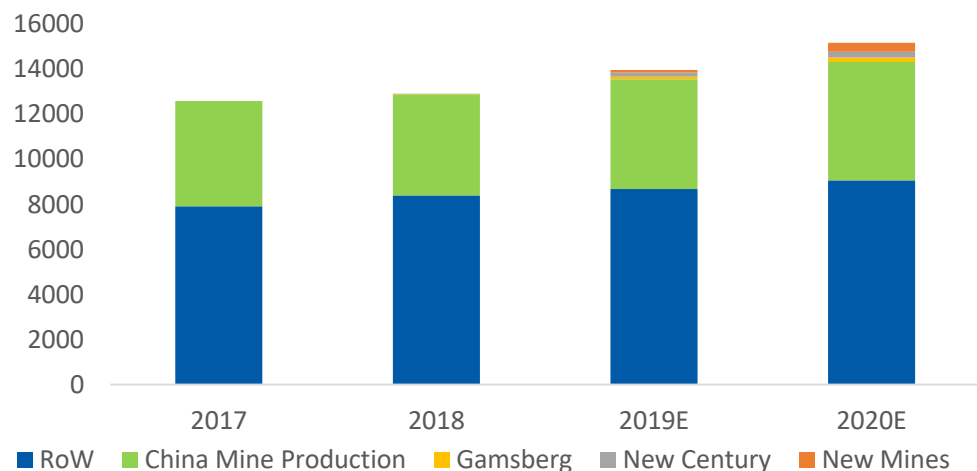


Zinc supply shortfall and low stocks expected to support price

Mine supply increasing at slower than expected rate

- Slower start at key projects and some smaller mines
- Reduction in production at some existing mines (Penasquito, Antamina, Red Dog, Myra Falls, Empire State)

Global Mine Production, '000 MT



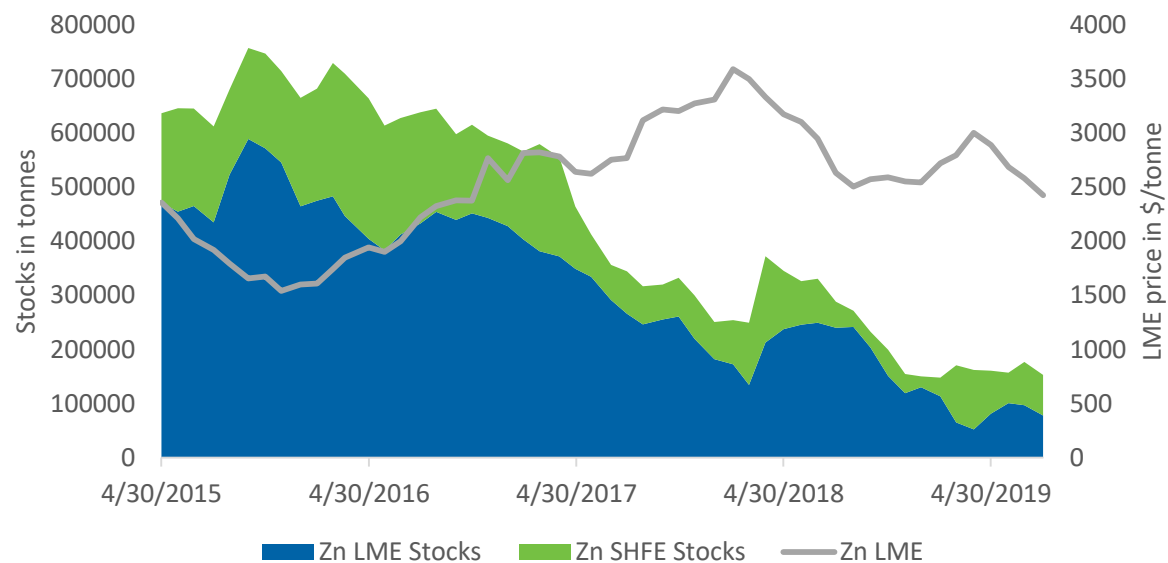
Forecast includes ~400kt increase each year in China which is at risk due to ongoing environmental issues

No major new mine expected; production declining from 2023 onwards

Underperformance of smelters keeping stocks at all time lows and market in deficit

- Chinese production declined in 2018 and YTD due to environmental regulations
- Exchange Metal stocks are at 5 days of consumption
- RoW smelters operating at high CU; No major smelter project in pipeline

Zinc exchange stocks and LME price trend



Source: Wood Mackenzie Q2 2019 Long Term Outlook



Strong Financial Profile

- Net Cash of \$2.65bn
- **Strong FCF** ~\$1BN in FY19, potential 1.5X in 2Y
- **Zero Debt**; 3 year **EBIDTA** margin of 51.5%
- **Domestic, VAP, Minor metal** - > \$150M value

Proven Execution

- ~35% **5-yr CAGR** of UG mines to 936kt MIC
- 18% **5-yr CAGR** in silver volume
- **High IRR** of >40% of growth projects

Clear Growth Path

- **1.2 mtpa** MIC capacity in CY
- Planning for **1.35 mtpa Metal**
- **Silver:** 679t → 800t → 1000t
- Driven by **Automation and digitization**

Sustainable Enterprise

- Globally **1st in Environment***
- 347MW **Renewable energy**
- **Waste-to-wealth** initiatives and community connect

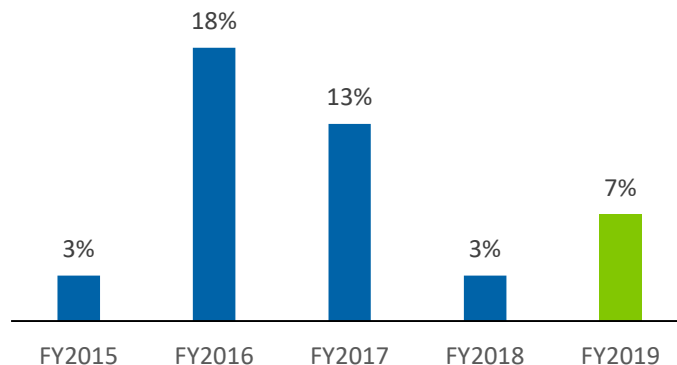
Derisked Business

- **Low cost** producer
- **Integrated** operations
- 25+ yr mine life
- **Robust Management** team
- **Technology** as enablers

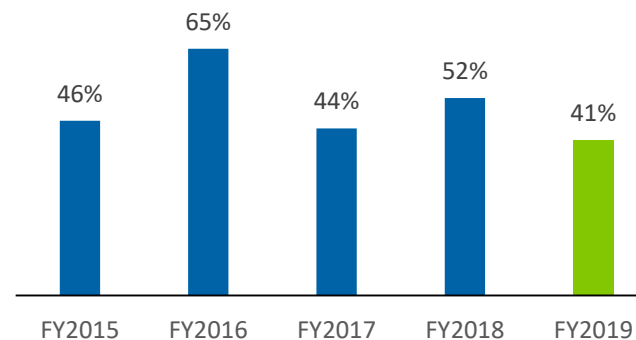
**Dow Jones Sustainability Index 2018, Metals & Mining*

KEY RETURN INDICATORS

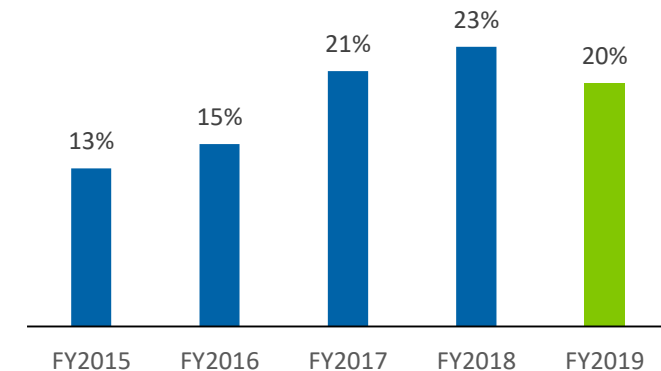
Dividend Yield



RoCE



RoE





Thank You

HINDUSTAN ZINC LIMITED
ZINC | LEAD | SILVER |



Digitisation and advance technologies across value chain for 3 deliverables

1 Safe operations (low human interface)

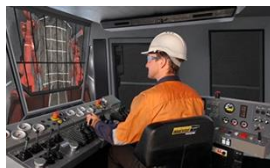
2 Productivity jump

3 Cost Optimisation

Mining



Mine digitization & Tele Remote



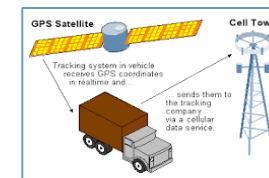
Virtual reality & simulation based training



Advanced Equipments

- Reduce mining cost by 10%
- Improve ore-to-metal ratio by 2%
- Reduce man-machine interaction
- Fewer people in high-risk situations
- Reducing Turnaround Time (TATs)

Supply chain



ITMS(Integrating Logistics, Stores Finance, security)



Fumer

Residue Treatment

Recovering minor metals & rare earth metals

Targeting SK & Agucha to work as Smart Mines / Fully integrated logistics by Q4 2020