

VEDANTA LIMITED

**INVESTOR  
PRESENTATION**

September'19

*We Are...*

GROWING  
RESPONSIBLY

OIL & GAS | ZINC-LEAD-SILVER | ALUMINIUM & POWER | COPPER | IRON ORE & STEEL

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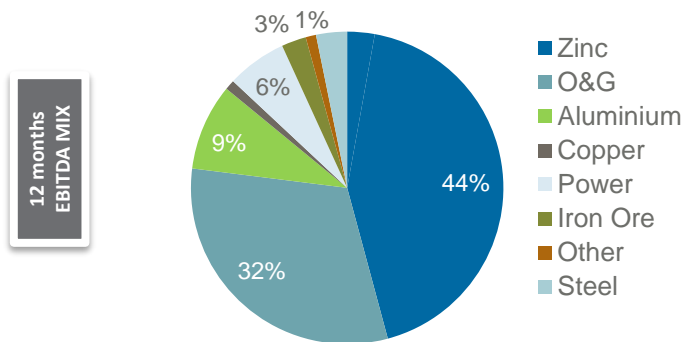
# Company Overview

## Overview

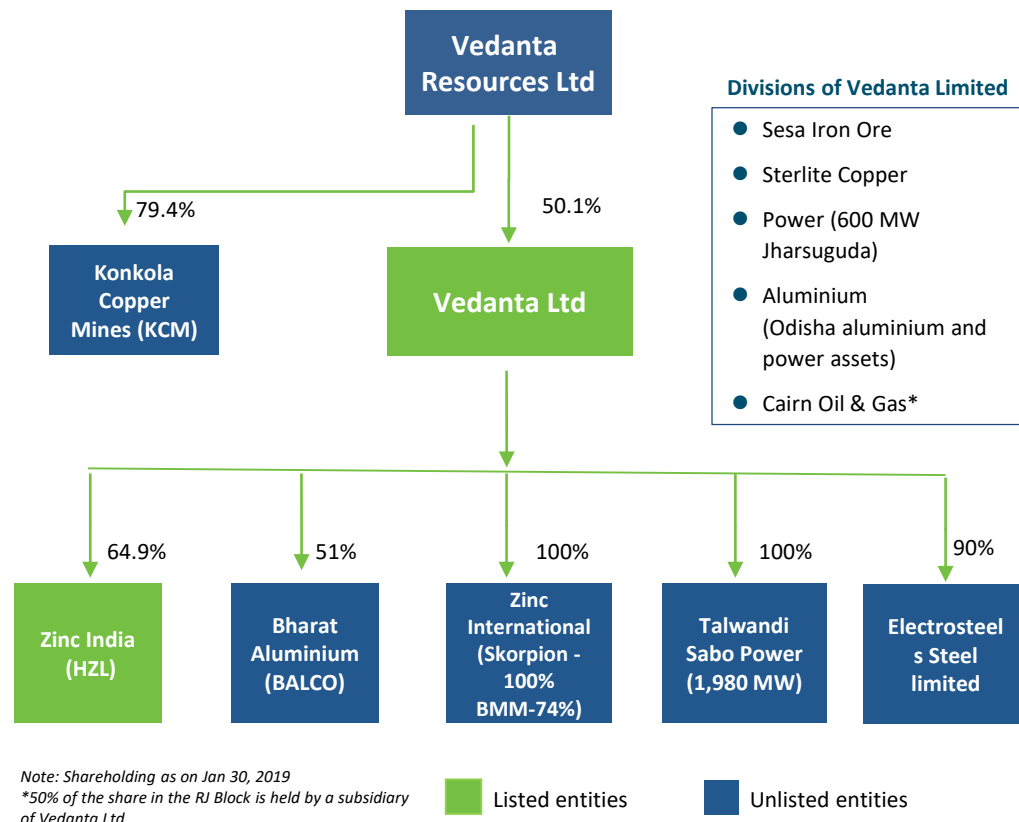
- World's 6th largest diversified resources company and the largest in India
- Portfolio of large, diversified, structurally low-cost assets geared towards base metals and oil
- Part of India's premier index – the Nifty 50 and also listed in NYSE (ADR)
- Vedanta ranked 15th by the Dow Jones Sustainability Index globally; Hindustan Zinc ranked 3rd in the Environment category and 11th overall in the Mining and Metal industry

### Key Financials (Q1 FY20)

- EBITDA of c.746Mn USD at margin of 27%<sup>(1)</sup>
- Net Debt @ c.4Bn USD.
- ROCE @ 10.8%



## Group Structure



- ### Divisions of Vedanta Limited
- Sesa Iron Ore
  - Sterlite Copper
  - Power (600 MW Jharsuguda)
  - Aluminium (Odisha aluminium and power assets)
  - Cairn Oil & Gas\*

Note: Shareholding as on Jan 30, 2019  
 \*50% of the share in the RJ Block is held by a subsidiary of Vedanta Ltd

■ Listed entities      ■ Unlisted entities

Note: (1) Excludes custom smelting at Copper and Zinc India operations

- Highest ever contribution to the exchequer of **c.6Bn USD** in FY2019

- **C.44Mn USD** invested in social investment benefitting about **c.3Mn people** from the community

- Vedanta is creating **9,62,824 man-years** of employment yearly through all of its group companies

- Also helps India in reducing its import bill and saving precious foreign exchange reserves

## Vedanta's GDP Contribution

### 2.2% Induced Impact

The impact operations that captures the consumption; impacting GDP is equivalent to **2.20 percent of India's GDP**

### 0.40% Direct Impact

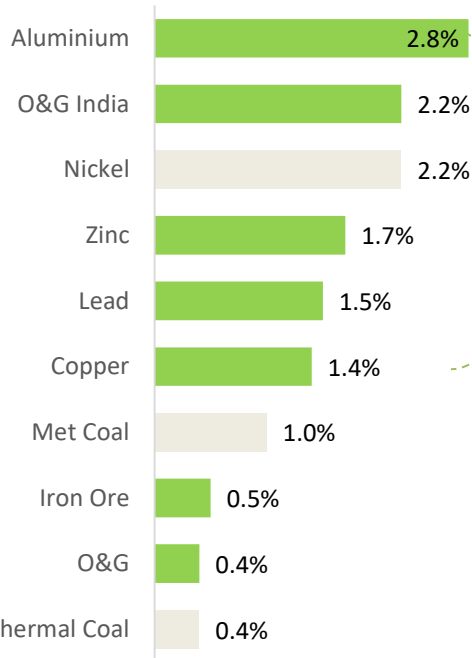
Vedanta **directly contributes 0.40 percent** to India's GDP through its operations

### 1.0% Indirect Impact

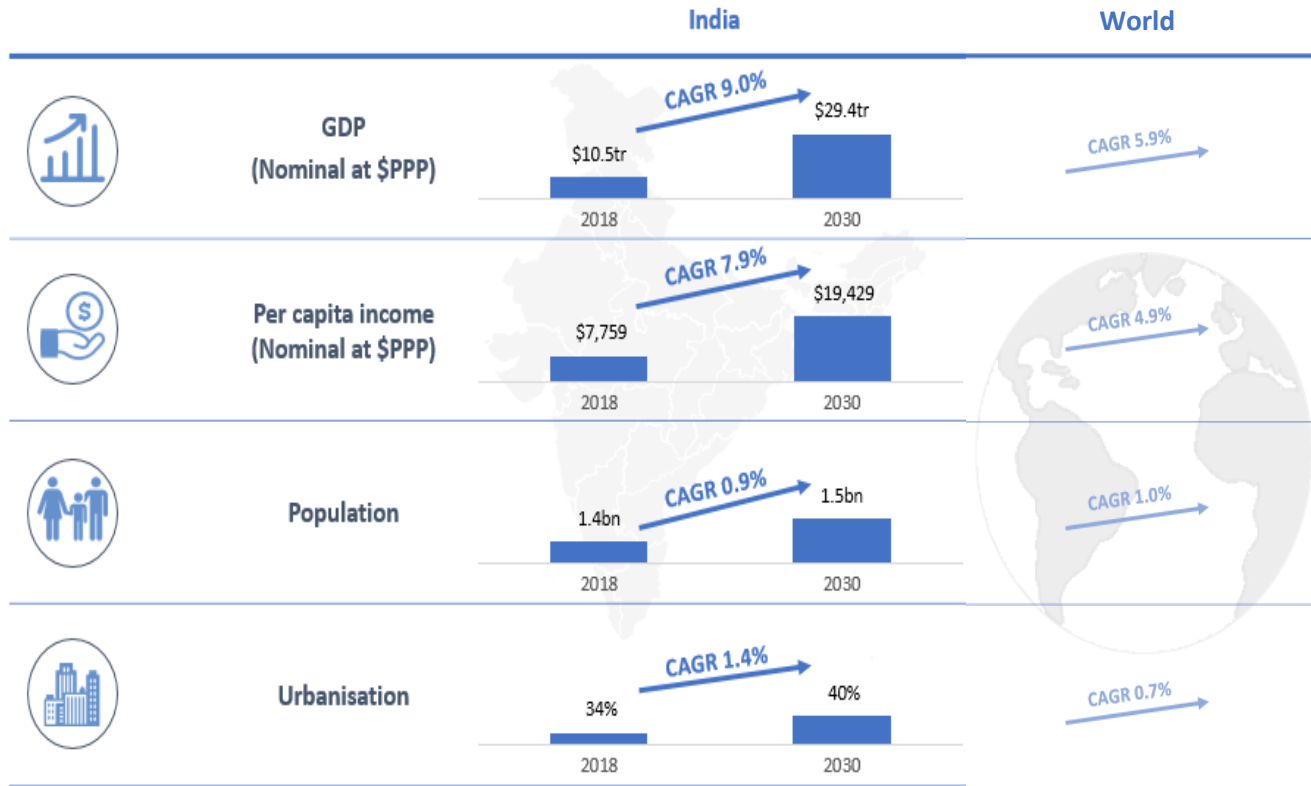
The indirect impact of company through its supplier network is as large as **1 percent of India's GDP**

## Significant Presence in Commodities with Leading Global Demand Growth in favorable Geography

### Focus is on the Right Commodities: Base Metals & Oil



90% of Vedanta Group's FY2019 EBITDA



### Global Demand CAGR 2019-30E

Vedanta Commodity Presence

### India Key Metrics

<p><b>5.6 trillion</b> (2030) 2.8 trillion (2019)</p> <p><b>GDP (real)</b></p>	<p><b>3,699</b> (2030) 2,054 (2019)</p> <p><b>Per capita income (real)</b></p>	<p><b>40%</b> (2030) 34% (2019)</p> <p><b>Urbanisation</b></p>	<ul style="list-style-type: none"> <li>National Mineral Policy (NMP)</li> <li>Hydrocarbon Exploration and Licensing Policy (HELP)</li> <li>Open Acreage Licensing Policy (OALP)</li> </ul> <p><b>Regulatory Reforms</b></p>
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# Vedanta growth trajectory – Focus on growth projects

## Well invested and consolidated assets : driving growth



**Color Key**  
 Organic  
 Inorganic



**Continue Focus on World Class ESG Performance**



**Augment Our Reserves & Resources Base**



**Delivering on Growth Opportunities**



**Optimise Capital Allocation & Maintain Strong Balance Sheet**



**Operational Excellence**



## Safety

- 3 fatality in Q1 FY2020

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- New safety KPIs:
  - Visible felt leadership
  - Ensuring controls in place for safety critical task
  - Business Partner engagement

## Environment

- 1<sup>st</sup> ever Dry Tail Stacking Plant in the Indian Zinc Industry** is set to be commissioned at Zawar Mine in Q2 - will increase processed water recovery by 2500 m<sup>3</sup>/day resulting in reduced tailing dam risk

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- High-volume-low-toxicity waste recycle rate: 107% (FY2019: 92%)

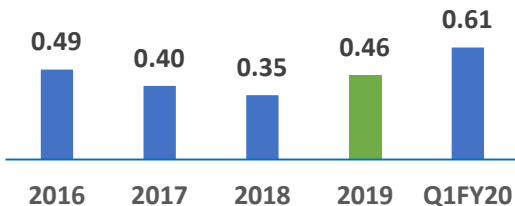
## Sustainability

- Zinc India selected as Member of **“FTSE4Good Emerging Index”** for the 3<sup>rd</sup> consecutive year.

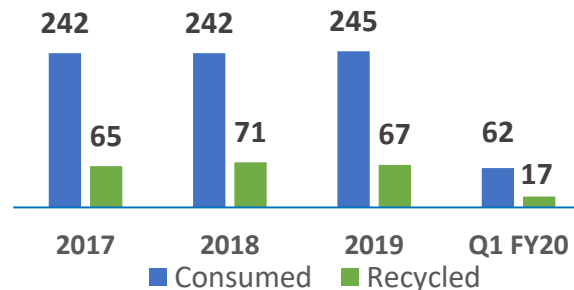
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- Enhanced utilization of waste in road construction (175,000 tons in Q1FY20 vs 70,000 tons in FY19) and cement Industry (13,800 tons in Q1 FY20 vs 13,000 tons in FY19)

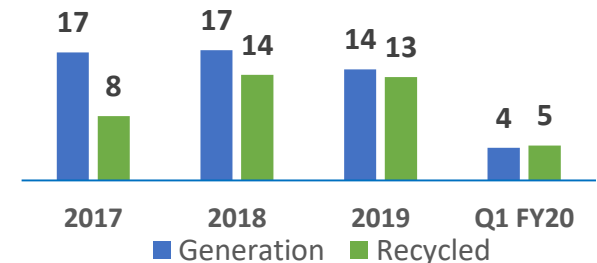
LTIFR



Water Consumed & Recycled (m3)



Waste Recycling (mMT)  
(High volume low toxicity)

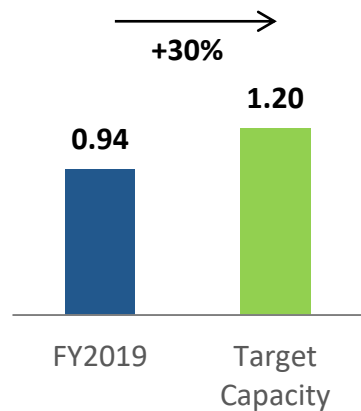


# Significant Production Ramp-up across all businesses

## Zinc India

- Expansion to 1.2 Mtpa
- Silver to 750-800 tonnes
- 1.35 Mtpa next phase expansion

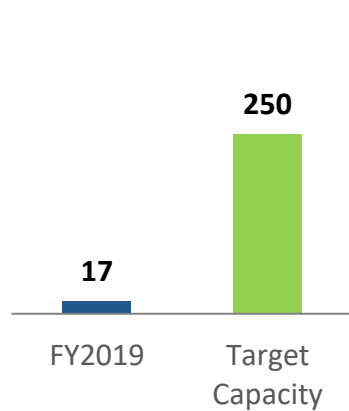
(mined metal Mtpa)



## Zinc International

- Gamsberg 250 kt (Full potential) in Phase-I
- Skorpion pit extension
- Gamsberg Phase II for 450 kt

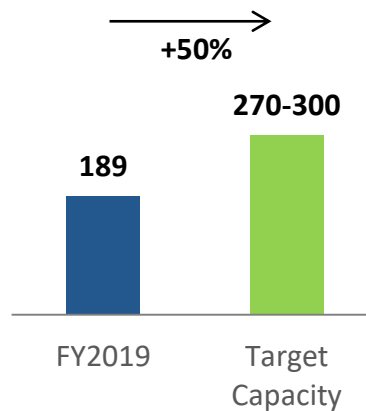
(Gamsberg mined metal kt)



## Oil & Gas

- Growth projects including:
  - Enhanced oil recovery
  - Tight Oil & Gas
  - Infill and upgrade projects
  - Exploration projects incl OALP

(kboepd)



## Aluminium

- Ramp-up of Jharsuguda II total smelter from 2.0 Mtpa to 2.3 Mtpa
- Ramp-up of Alumina from 1.5 Mtpa to 2.7 Mtpa to 4.0 Mtpa in the near to medium term

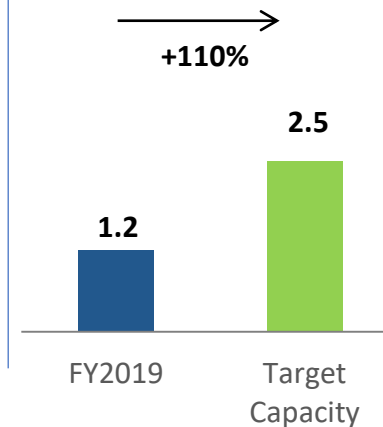
(kt)



## Steel

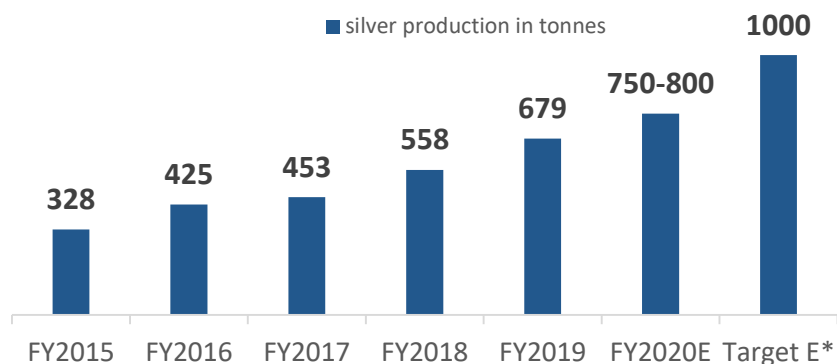
- Achieve 1.5 Mtpa production in FY20
- Expansion to 2.5 Mtpa
- Integration with Jharkhand Iron Ore Mine

(kt)

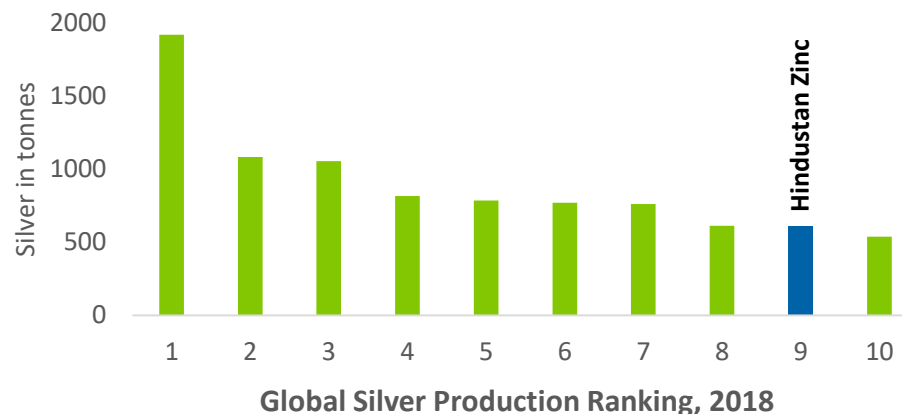


## Fastest Growing Silver Company with a CAGR of 18%

Silver prices up ~15% in last 3 months

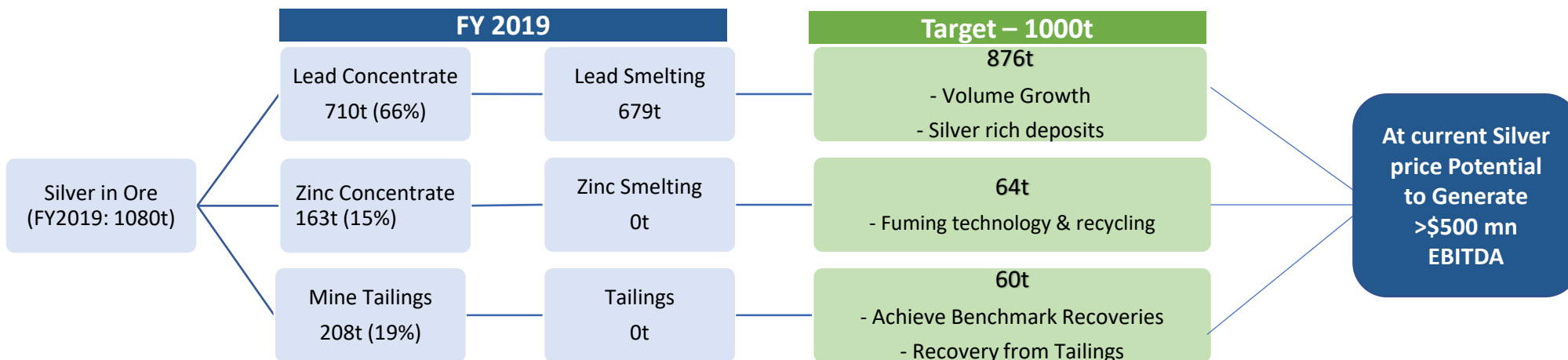


## Ranked 9<sup>th</sup> Globally in Primary Silver Production



Source: GFMS, Reuters

## Higher mining rate and recovery initiatives to drive Silver growth

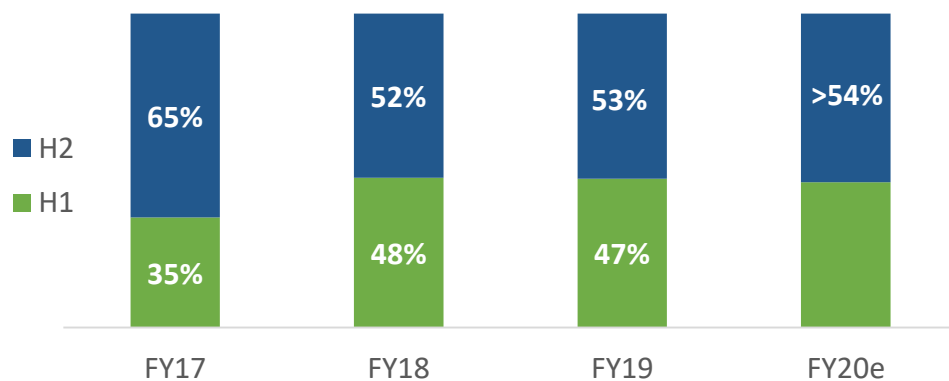


**We expect to be among Top 3 silver producers globally in the next 2-3 years**

## Performance Update

- Finished Metal Production, up 3% y-o-y
- Stable Production from underground mine, up 1% y-o-y
- Silver production higher, up 15% y-o-y
- Zinc COP ex royalty at \$1,067/t
- SK Shaft fully commissioned and integrated with Mine
- SK 2<sup>nd</sup> Paste Fill Plant commissioned

## On Track to Deliver 1.0 million tonnes Mined Metal Production



- Traditional post-summer ramp-up in production
- Completion of key projects in H2

## Confident of Achieving 1.2 Mtpa MIC Capacity in FY20

### Rampura Agucha

- Shaft commissioning in Q3
- Rapid development crew to open new levels from Q2

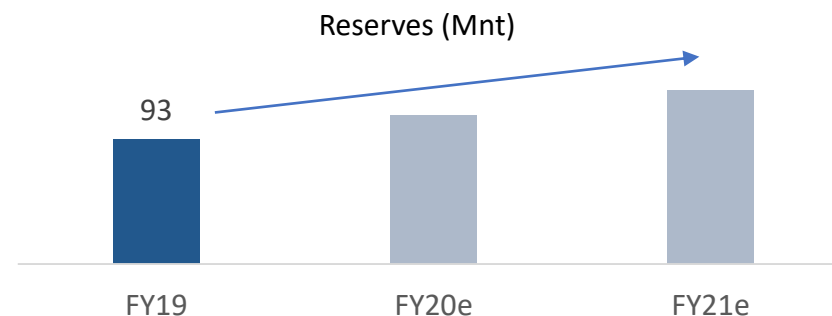
### Sindesar Khurd

- Shaft full ramp-up and faster paste filling in H2
- Resolution of Geotech issues in lower blocks

### Zawar

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

## Active program for addition to reserves in sync with higher production going forward

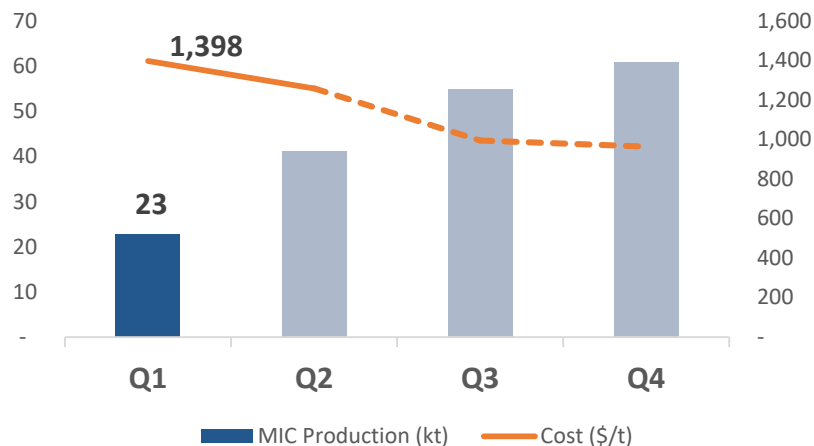


- 350km drilling across all mines in FY20 vs 181km in FY19
- RAM Galena upgradation leads to higher silver production
- Plan to upgrade 34 Mnt of resource to reserve across all mines

## Mining

- Operating at design capacity to deliver ore of 330ktpm
- Blast improvement to increase crusher throughput
- Mining at East Pit started thereby creating more blending opportunities through Smart Ore Movement
- >1 Mt of healthy ore stockpile in front of Plant

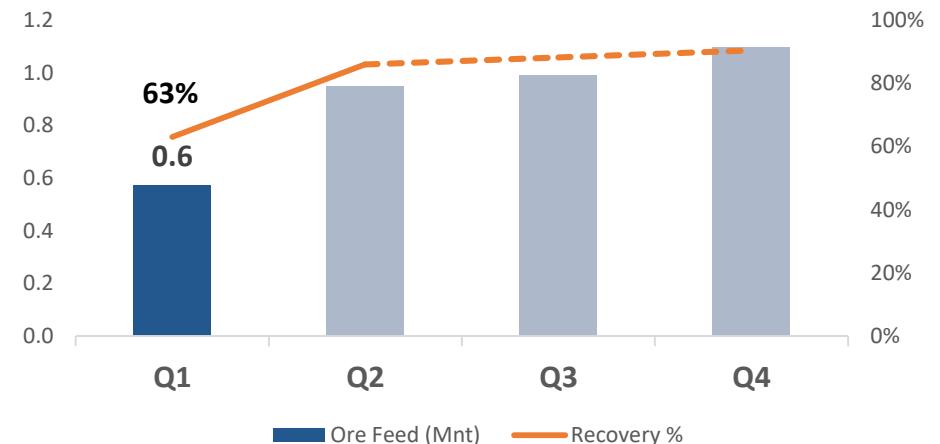
### MIC Production and Cost



## Processing

- June Exit throughput at 450 tph, target of 500 tph by Q2
- Advanced Process Control to ensure optimal recovery
- Achieved design Crusher Exit throughput of 685 tph in Q1, current throughput of ~700 tph, better than design
- Q1 recovery 63% with target to reach 80% by Q2
- Target to deliver 250ktpa run rate by end of Q4

### Ramp-up within 9-12 months Guidance



## Performance Update

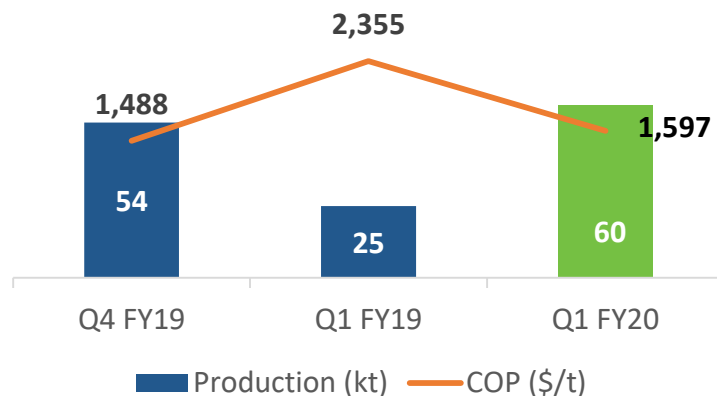
- Overall production at 60kt, up 134% y-o-y
- COP of \$1,597/t, down 32% y-o-y

## BMM

- Production at 19kt, up 24% y-o-y (Best quarter in last 5 quarters)
- Consistent performance to deliver planned production in FY20

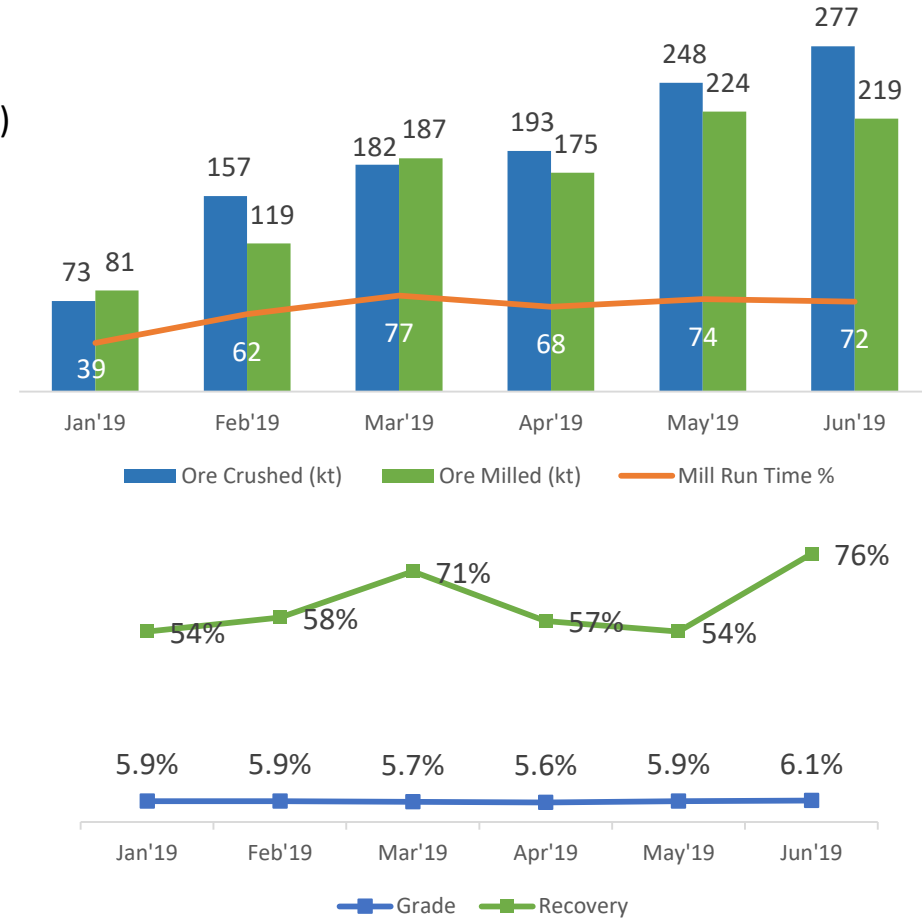
## Skorpion

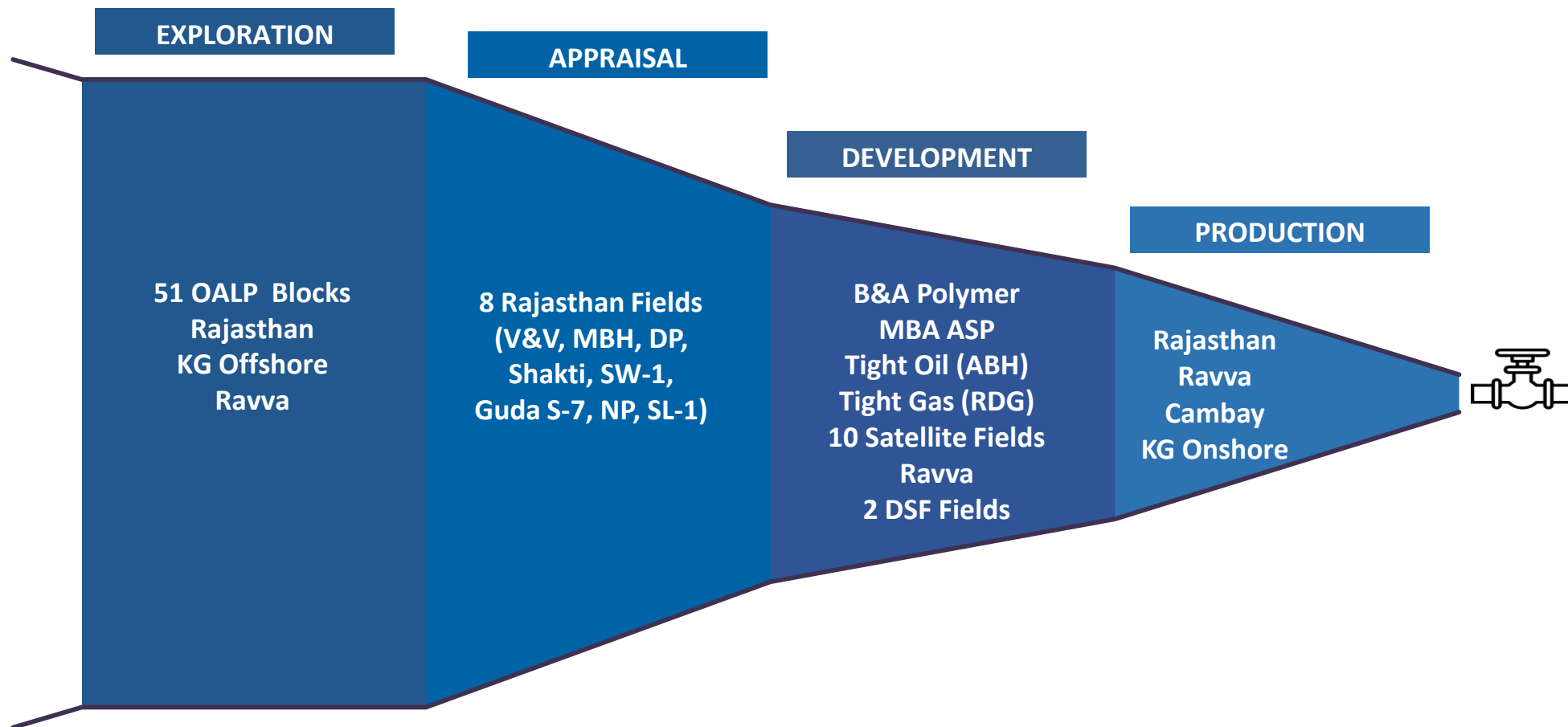
- Production at 18kt, up 76% y-o-y
- Skorpion had a slope failure in May 2019 in Pit 112, revised mining plan being prepared resulting deferment of part production from FY20 to FY21



## Gamsberg

- Gamsberg production at 23kt, ramp up going on (10kt in Jun'19)





- 58 blocks in India with acreage of over 65,000 sq. km. spread across key basins
- Healthy mix of Onshore (44) & Offshore (14) blocks
- Large part of the acreage connected with existing infrastructure; to enable accelerated monetization

## \$ 3.2bn Gross Capex

- Monetizing 400 million barrels
- Targeting resource addition from exploration & appraisal
- Development Capex ~ \$ 7 /bbl
- IRR > 20% at Oil price of \$ 40/bbl

## 10 Development Rigs

- 500+ well work program
- 139 wells drilled
- 46 wells hooked up

## 53 New Blocks

- 51 blocks acquired in OALP rounds I, II & III
- 2 blocks acquired under DSF II
- Blocks spread across the basins in India

## Global Partnership Model

- Executing in Partnership with Global Companies
- Key Partners: Halliburton, Schlumberger, GE-Baker Hughes, Petrofac, L&T

## 6,000+ people deployed at Barmer

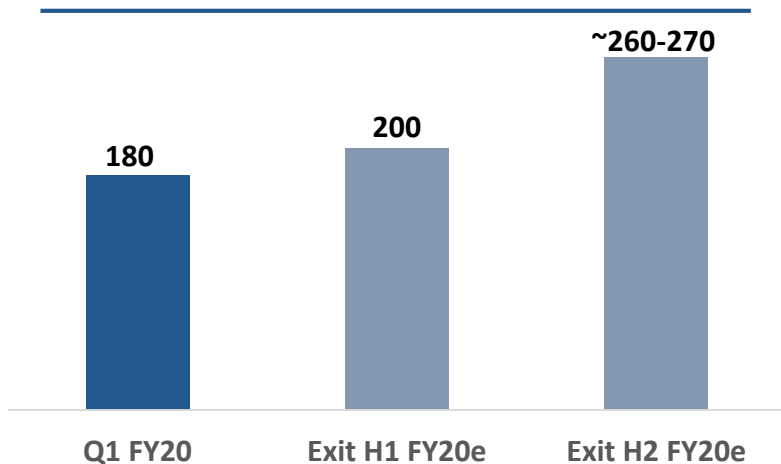
- Multiple projects being simultaneously executed at Barmer
- Focus on HSEQ to ensure seamless execution

## \$ 0.8bn Minimum Commitment

- Seismic Acquisition and 192 exploratory wells
- End to End Integrated contract to fast track execution
- Lloyds Register contracted for Integrated Project Management



## Production Ramp Up (kboepd)

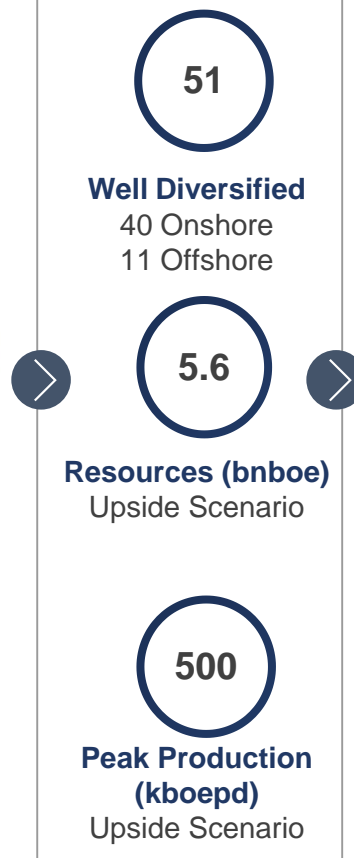
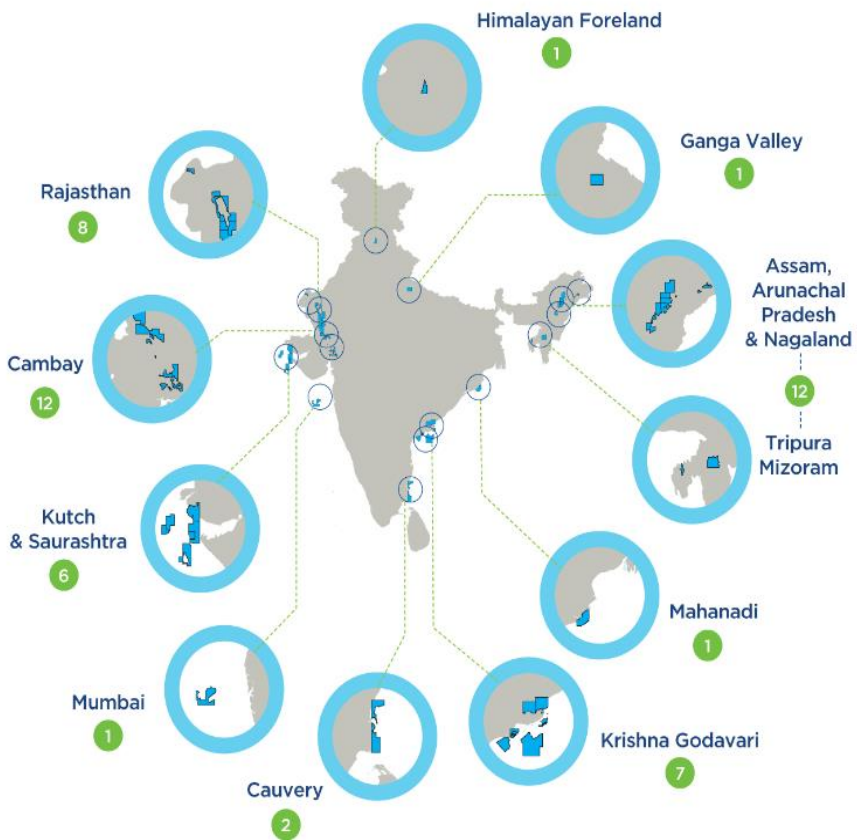


## Key Drivers for Production Ramp Up

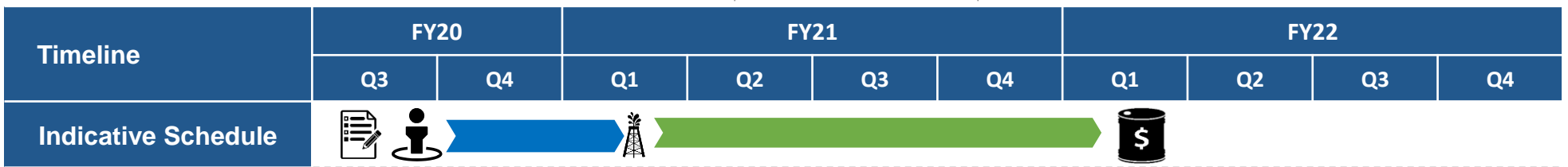
	Q1 FY20 Exit	H2FY20 Exit
Wells Drilled	139	250
Wells Hooked Up	46	185
Liquid Handling Capacity	1.1 mmbldpd	1.3 mmbldpd
Gas Processing Capacity	84 mmscfd	240 mmscfd





## Key Growth Projects

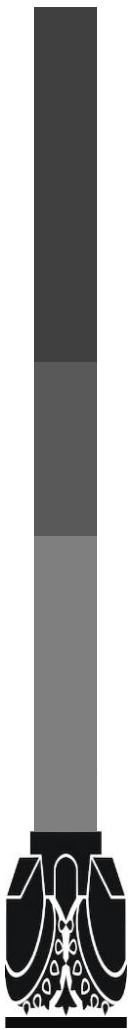
Project	Partner	Gross Capex (\$ Million)	EUR (mmboe)	Incremental Production (kboepd) [H2 exit over Q1]
Mangala Infill, Bhagyam & Aishwariya Polymer	Halliburton	240	58	20
MBA ASP	Wells: BH-GE Facilities: Under Award	1,200	200	10
Tight Oil (ABH)	Schlumberger	170	32	15
Tight Gas (RDG)	Schlumberger, Petrofac, Megha Engg	630	85	25
Satellite Fields	Halliburton	165	17	6
Ravva	Schlumberger	100	17	14
Liquid Handling	L&T, Kalpatru	210	10	7



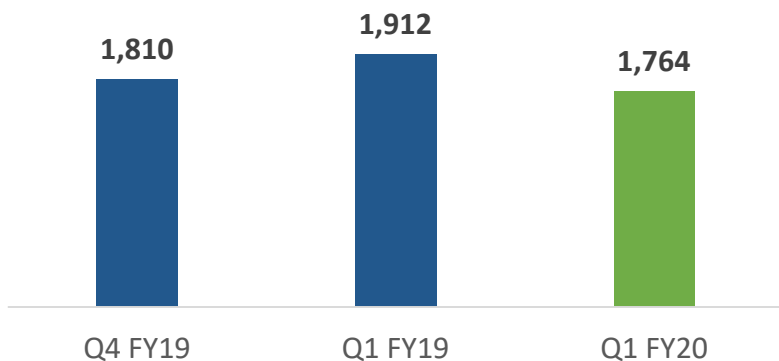
- 41 blocks in OALP I, 10 in OALP II & III
- ~60,000 sq.km. acreage
- Mostly proven oil and gas basins, both conventional / unconventional play
- ~\$ 800 Million Capex commitment in Exploration phase; incremental capex for development
- 192 exploratory wells to be drilled
- Lloyd’s Register contracted for Integrated Project Management
- Integrated End-to-end contract award in progress; expected award by mid August



		Investment (\$ Million)	Resources (mmboe)	Work Program (Wells)	Partner	Status
	<b>Rajasthan Exploration</b>	60	300-600	7-18	Schlumberger	Drilling from Q2 FY20
	<b>Rajasthan Tight oil Appraisal</b>	75	200	14	Schlumberger / Halliburton	Drilling from Q2 FY20
	<b>KG-Offshore</b>	60	300	2	Schlumberger	2 Discoveries – Evaluation Ongoing
	<b>Ravva</b>	85	50	4-9	Halliburton	Drilling from Q3 FY20



## Structural Reduction in Cost, down 8% y-o-y



## Alumina Refinery setting new records

### Production:

- Highest ever Lanjigarh Alumina production, up 37% y-o-y

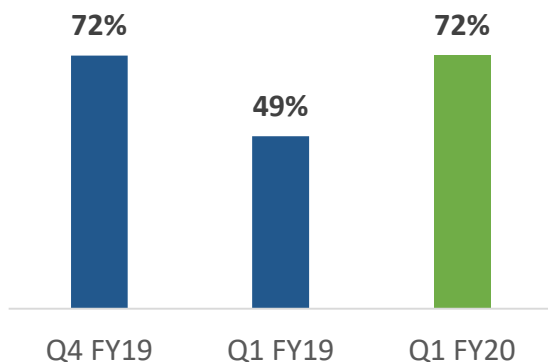
### Lanjigarh COP:

- COP at \$284/t, down 17% y-o-y. Lowest in last 2 years

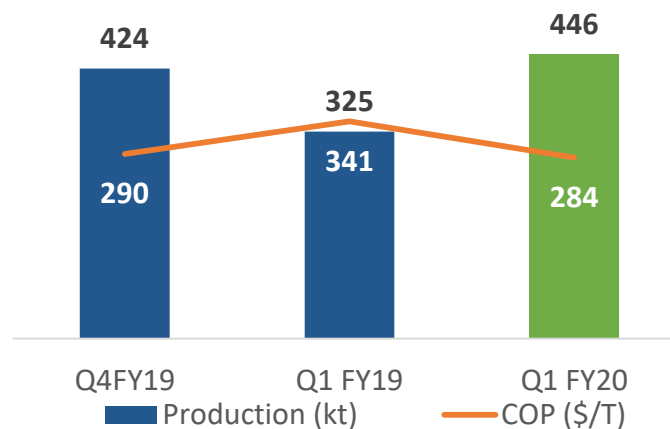
### Coal

- Chotia Mine operating at full capacity of c. 1 Mtpa (Q1 at 188kt)
- Linkage coal materialization improved to c 72% from 66% in FY19

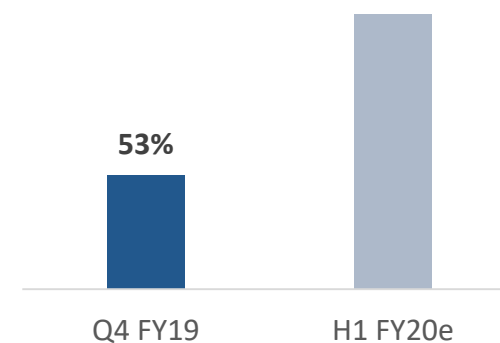
## Coal Secured



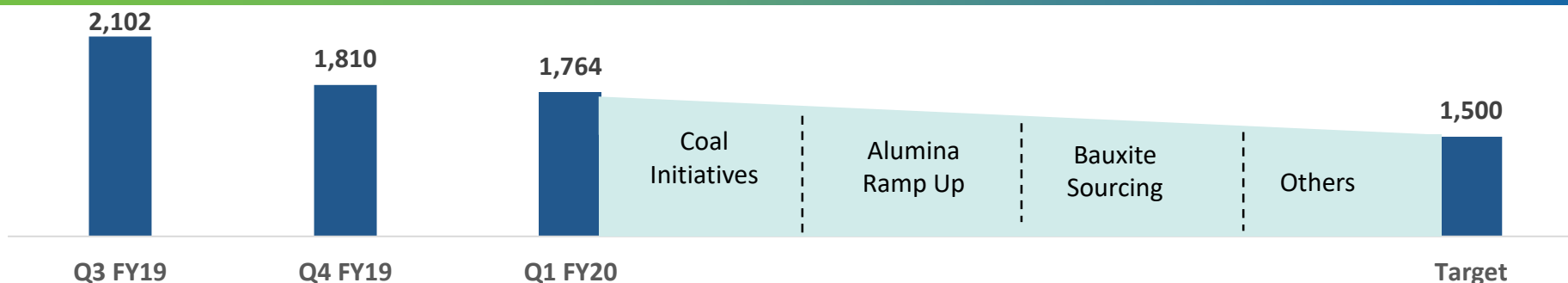
## Alumina Production & COP



## Local Bauxite Sourcing



# Aluminium: Significant progress on Strategic levers Continues



Initiatives	Action Plan
Coal Initiatives	<ul style="list-style-type: none"> <li>▪ Increase Linkages through participation in Tranche V &amp; VI</li> <li>▪ Target coal security 90% of requirement, up from current 72%</li> <li>▪ Balance Requirements: E-Auctions, Actively evaluate options available for best deals</li> </ul>
Alumina Ramp Up	<ul style="list-style-type: none"> <li>▪ Phase-I expansion to 2.7 Mtpa</li> <li>▪ Medium term expansion to 4 Mtpa</li> <li>▪ Easing of Alumina prices</li> </ul>
Bauxite Sourcing	<ul style="list-style-type: none"> <li>▪ Efforts to significantly increase mine output</li> <li>▪ Exploration of new resources under the New Mineral Policy</li> </ul>
Carbon & Others	<ul style="list-style-type: none"> <li>▪ Logistics: Shifting from road to rail</li> <li>▪ Strategic partnerships with key suppliers &amp; long-term contracts</li> <li>▪ Ongoing improvement in power plant operating parameters</li> </ul>

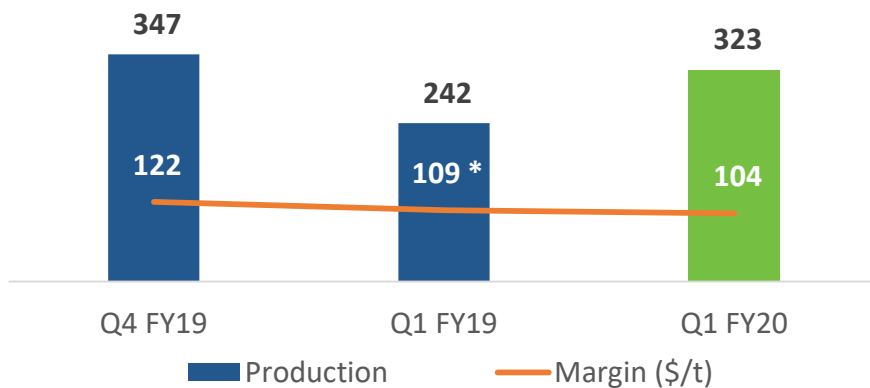
## Performance Update

### Production:

- Production of 323kt, up 34% y-o-y
- Sales at 273kt, up 16% y-o-y
- VAP sale at 90% vs 85% in FY19

### Margin:

- EBITDA/t of \$104/t, down 5% y-o-y



\* EBITDA Margin post ESL acquisition by Vedanta on 4<sup>th</sup> June 2018.

## Way Forward

- Feasibility study concluded for doubling the capacity
- On track to launch the capacity enhancement project in FY20
- Continued focus on value added product portfolio through recently launched Re-Brands under Vedanta

### VIBRANT. VERSATILE. VISIONARY.

Introducing 3 new brands from the house of Electrosteel Steels Limited.



**U-DUCPIPE**  
DI PIPES



**U-XEGA**  
TMT BAR

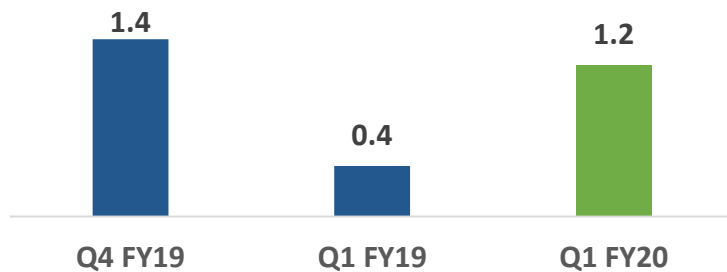


**U-WIRRO**  
WIRE RODS

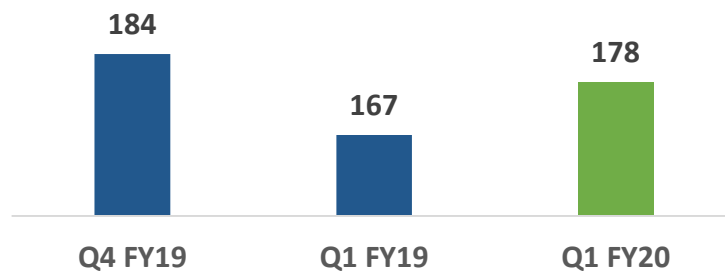
## Iron ore

- Karnataka sales at 1.2 mt; higher than last year
- Continuously Engaging with Government for resumption of Goa mining
- Pig iron production at 178kt, up 7% y-o-y

### Karnataka Sales (Mnt)



### Pig Iron Production (kt)



## Copper India

- Favourable order from NGT in Dec 2018
- Supreme court directed to file writ petition with Madras High Court in Feb 2019
- Writ petition filed with Madras High Court on 1<sup>st</sup> March 2019
- High court proceedings initiated with hearings from 26<sup>th</sup> Jun'2019 and continuing
- Working with communities and stakeholder to expedite opening of plant

# Financial Update



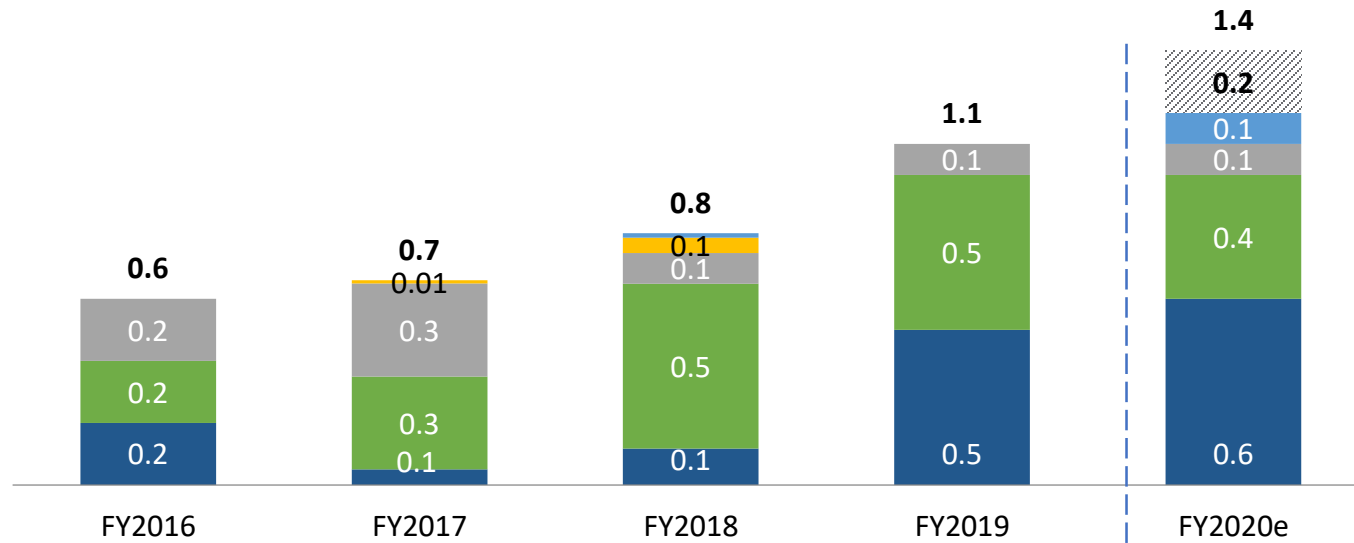


# Self funded Capex Delivering Superior Returns

## Growth CAPEX Profile, \$bn

■ Oil & Gas ■ Zinc ■ Al & Power ■ Copper ■ Other ▨ Optionality

Full year Capex guidance	0.7	1.0	1.2	1.5
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FCF pre capex, \$bn	2.3	2.2	1.7	2.3
ROCE <sup>1</sup>	3.4%	12.8%	14.3%	9.6%

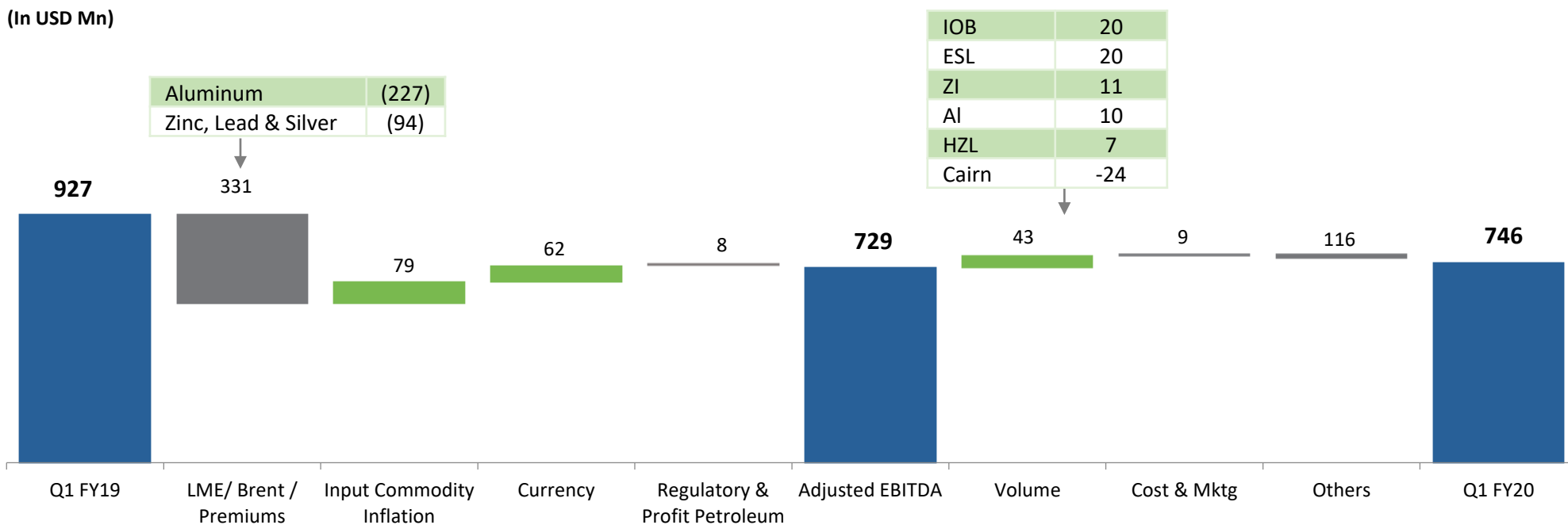
1. ROCE is calculated as EBIT net of tax outflow divided by average capital employed.

EBITDA	Att PAT	EBTIDA Margin*	ND/EBITDA
<b>c.746Mn USD</b>	<b>c.194Mn USD</b>	<b>27%</b>	<b>1.3x</b>
Down 20% y-o-y	Down 12% y-o-y	Industry leading margin	Lowest among Indian peers

\* Excludes custom smelting at Copper India, Copper Zambia and Zinc-India operations

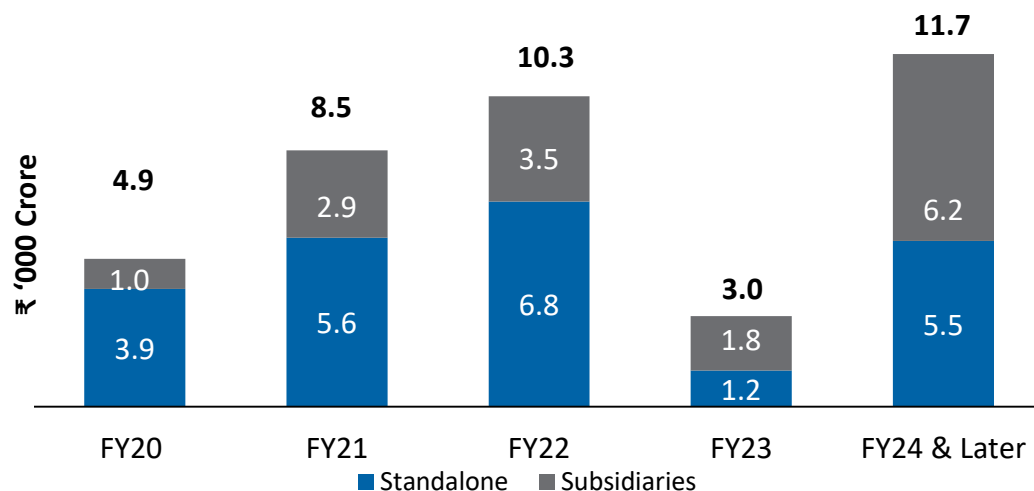
## EBITDA Bridge

(In USD Mn)



Note 1. Others mainly include impact of shutdown of Tuticorin Smelter.

## Term Debt Maturities - ₹ 38,532 Crore (\$5.6 bn) (as of June 30, 2019)



## Liquidity

- Cash and investments @ 4.4Bn USD  
rated Tier I by CRISIL;

- Undrawn line of credit c.704Mn USD

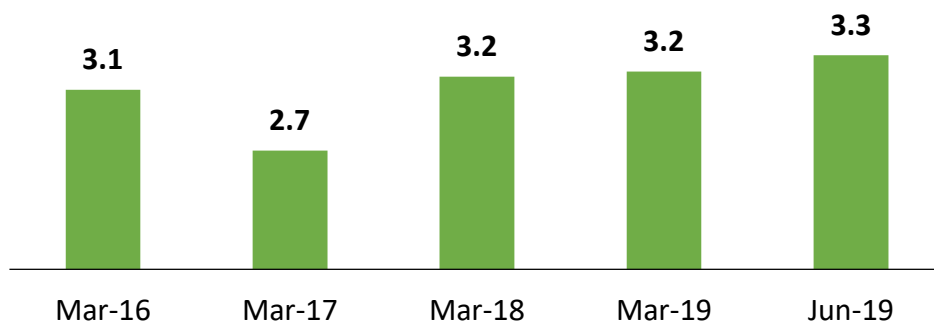
## Net Interest – Reducing q-o-q

- **Interest Income** – Returns ~7.5%.

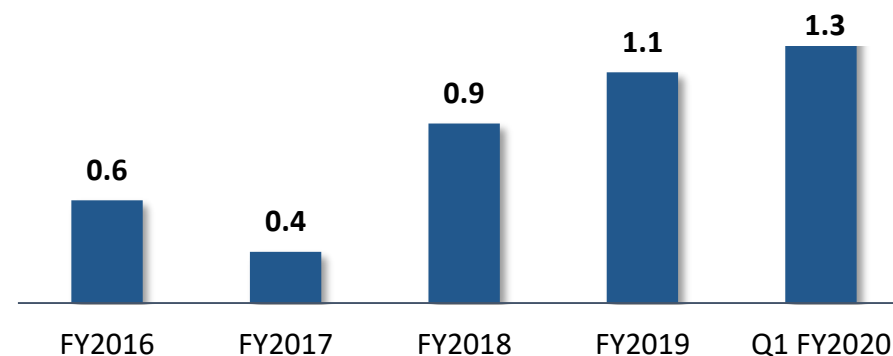
- **Interest Expense** – Maintained ~8%

- Average term debt maturity maintained above 3 years

## Average Term Debt Maturity (years)



## Net Debt / EBITDA



# Appendix



## Background

- Purchase of economic interest in ~24.71 million shares (~1.8% of outstanding shares) of Anglo American Plc by CIHL from Volcan Investments through a Structured Investment Transaction (Dec'18)

Investment Transaction early settled by CIHL with Volcan

✓ **Superior return: net gain over ~\$100 mn in c. 8 months**

Call option exercised by Volcan to settle its two issues of MXBs due April 2020 and Oct 2020

- ✓ No further exposure to shares of Anglo American Plc
- ✓ Full realization of cash by 13<sup>th</sup> Aug 2019
- ✓ Complete unwind of RPT

**Disciplined treasury management and capital allocation approach to safeguard the interests of our shareholders**

Structured investment is Marked-to-market (MTM) at each reporting date with gain/loss recognized in the income statement. Forex MTM gain/loss including forex derivative is also recognized in the income statement.

<b>Net Consideration from Unwinding</b>	<b>GBP Mn – A</b>	<b>508</b>
Cost of Investment	GBP Mn – B	428

Particulars	UOM	FY2018-19	Q1 FY20	Cumulative
Gain/Loss recognized	GBP Mn (A-B)	99	(19)	80
Gain/(Loss) recognized including forex	Rs Crore	924	(178)	746

CIHL gain – above \$100 mn

Segment	FY20 Production	FY20 CoP
<b>Zinc India</b>	Mined Metal and Finished Metal: c 1.0 Mtpa Silver: 750 - 800 tonnes	< \$1,000/t excluding royalty
<b>Zinc International</b>	Skorpion and BMM: >170kt Gamsberg: 180 - 200kt	ZI COP (excl Gamsberg) : \$1,400/t Gamsberg: c \$1,000/t
<b>Oil &amp; Gas</b>	Gross Volume: 200-220 kboepd	Opex: ~ \$7.5/boe
<b>Aluminium</b>	Alumina: 1.7-1.8 Mtpa Aluminium: 1.9 – 1.95 Mtpa	COP*: \$ 1,725 – 1,775/t
<b>Power</b>	TSPL plant availability: >80%	
<b>Iron Ore</b>	Karnataka (WMT): 4.5 Mtpa Goa: To be updated on re-start of operations	
<b>ESL</b>	Hot Metal – c 1.5 Mtpa	Margin: \$130 - \$140/t
<b>Copper - India</b>	To be updated on re-start of operations	

\*Hot Metal COP