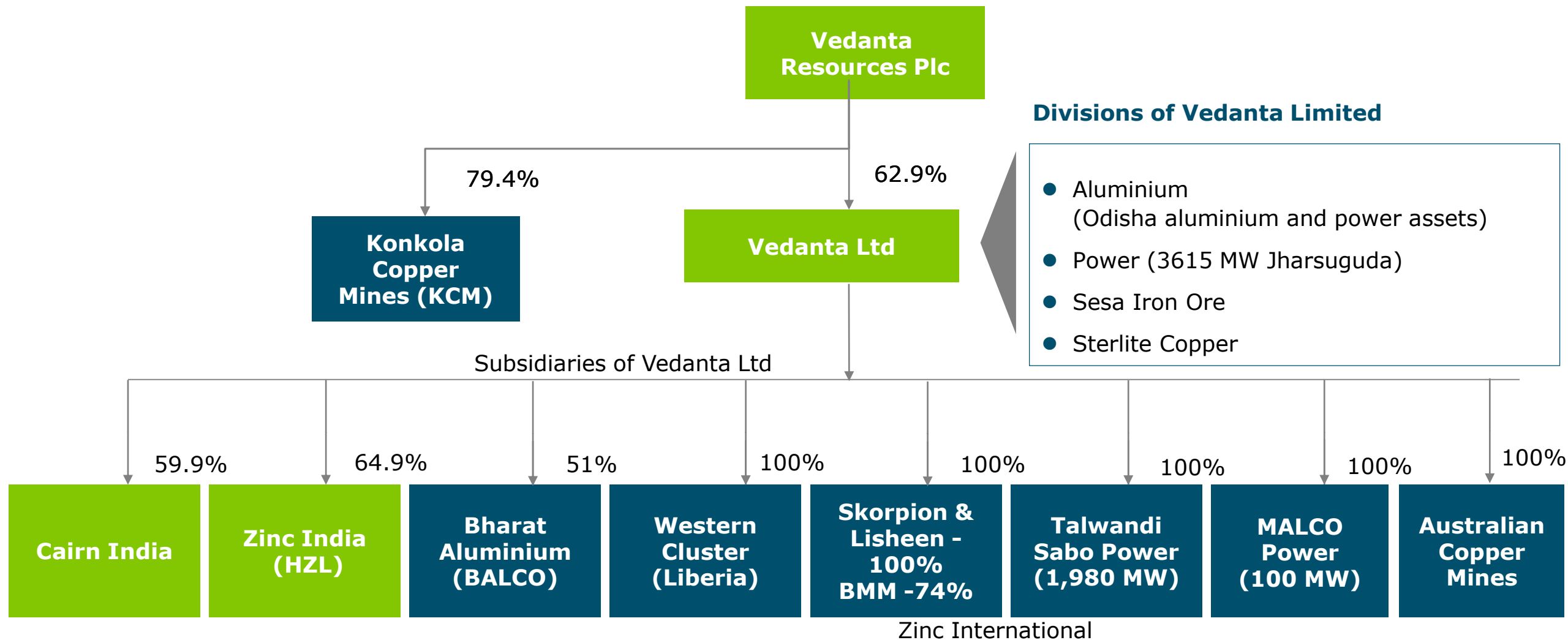


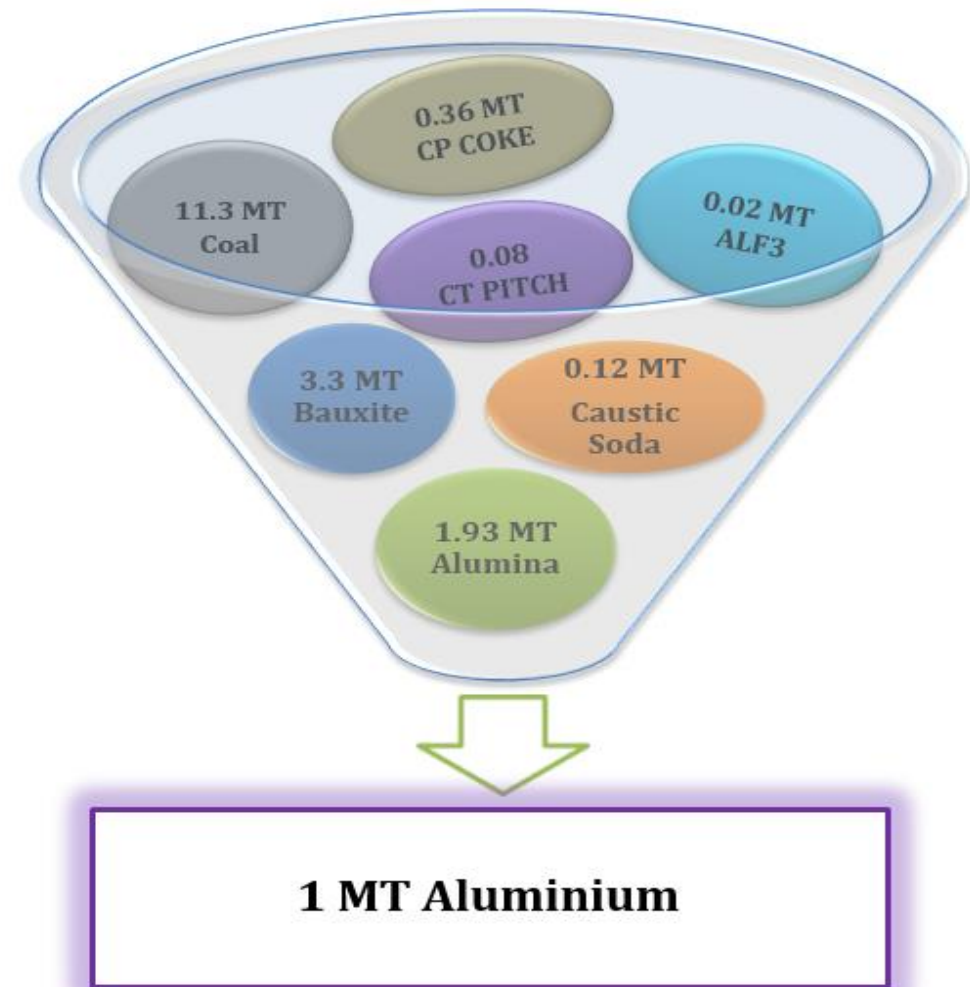
Group Structure



Notes: Shareholding based on basic shares outstanding as on 31 March 2018

Listed entities

Unlisted entities



- 2.4 – Import from Australia
- 2.0 – Lanjigarh Unit

**Alumina –
4.4 MMTPA**

- 0.6 – Import from China
- 0.4 – Domestic sources

**CP Coke –
1.0 MMTPA**

- 2.8 – Import
- 1.8 – BALCO
- 1.8 – Non - Orissa
- 0.2 – Orissa

**Bauxite –
6.6 MMTPA**

- 1.6 – Export
 - ✦ Asia - 40%
 - ✦ Americas - 25%
 - ✦ Europe - 35%
- 0.8 – Domestic
 - ✦ North - 35%
 - ✦ West - 35%
 - ✦ East - 10%
 - ✦ South - 20%

**Aluminium –
2.40 MMTPA**

SMART Initiatives - Key Value Drivers for Long Term

SEA

1

Two-way Bulk freight booking

2

Real time vessel tracking and inventory planning

3

Booking part cargoes & HSS options

4

TIME SWAPS

CONTAINER

1

In-house E-track and Trace

2

Import-Export Triangulation

3

Movement of FG through Lease rates

4

SMART Contracting

PORT

1

Developed Kakinada Port Facilities

- Asia's only fully automated dedicated alumina handling facility

2

Movement of Aluminium Billets through Break Bulk

3

Multi port options

ROAD

1

Truck Aggregators

2

Usage of higher capacity bulker and trucks

3

Development of ELR, EPOD, E-order and E Acknowledgement

4

Centralized warehousing of group commodities

Kakinada System Description



PNEUMATIC SHIP UN-LOADER



CONVEYORS & TRANSFER TOWERS



STORAGE SILO



WAGON LOADING



System	Handling capacity	1.6 MTPA
Ship unloader	Peak Capacity	400TPH
	Operational capacity	280TPH
	Avg. Qty. discharge/day	7500 T
Silo Storage (3 Silos)	Capacity	67500 MT
Bulker Loading	Capacity	400 T/day
Wagon Loading	Capacity	2 Rakes/day
	Loading Time	8 hours/rake

RAIL LOGISTICS

1

Back Hauling

- Reduction in empty miles
- One way cost savings

2

Improved Loadability

- Improved BTAP loadability from 54 MT to 60 MT, resulting in reduction of the fleet size

3

Double Diamond

- Faster inward and outward movement of materials

4

GPS Tracking

- Installed GPS tracker for real time tracking for captive rakes

5

Implementation of EOL

6

Usage of captive BTAP, BTCS and BOBRN wagons

7

Working with railways for use of Aluminium Wagons

8

Development with RDSO for speed increase

PLANT OPERATION

1

Man-less Weighbridges

- Reduction in Man-hours and manual errors

2

S4 HANA with Mobility

- Implemented latest ERP technology

3

RFID

- Real time data update into our systems
- Auto generation of reports

4

Scanners for Container, Stores

- Reduces manual error
- Increases mobility, speed and productivity

5

Drone Surveillance

- Surveillance of the entire plant areas and amenities

6

Go Green Initiative:

- Use of HPDE and EVA form for material stuffing

7

Use of Customized RST's

- Better and efficient way of container and material handling

8

Implementation of Project TEZ

- Streamlining of supply chain

9

Movement of Hot metal to downstream Industry

- Customized vehicles for direct movement of molten metal for nearby industries

THANK YOU!!