KHANIJ BIDESH INDIA LTD

(A joint venture company between NALCO, HCL & MECL)

Investment Narrative
July 2023

pwc

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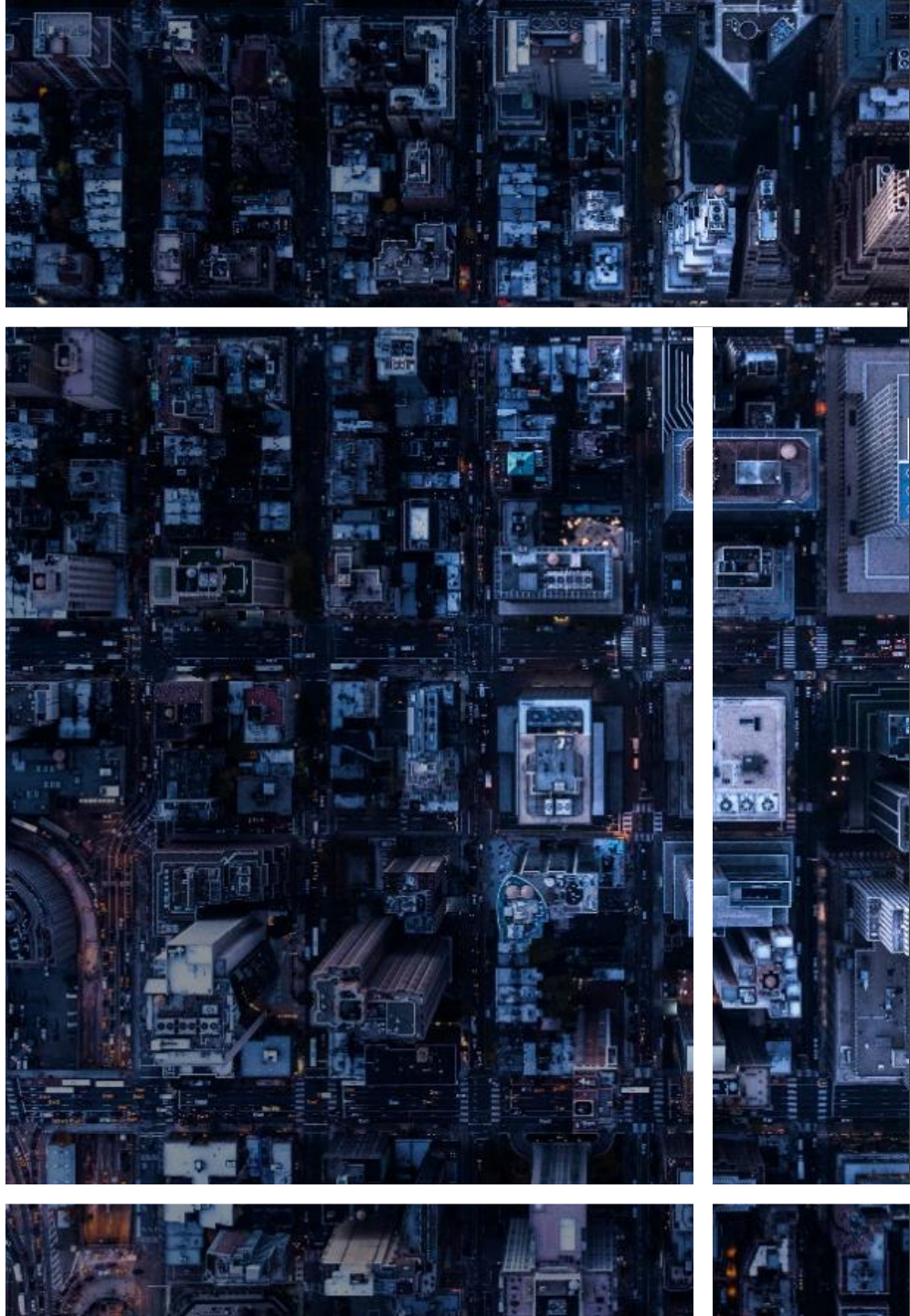
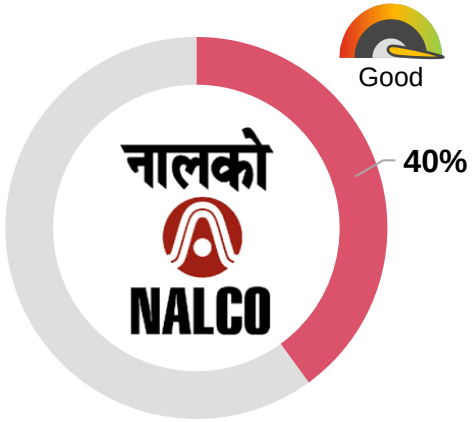


About KABIL

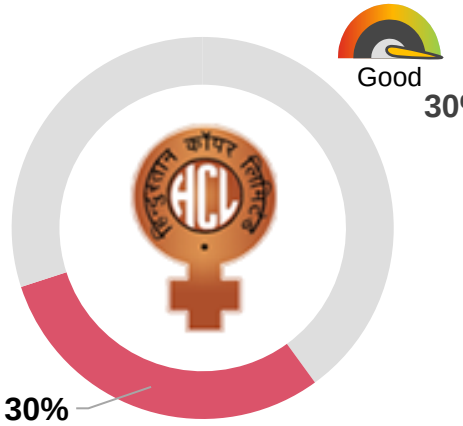
Overview: KABIL - Khanij Bidesh India Limited

A Joint Venture of 3 Indian Public Sector Undertaking (wholly/partly owned by Indian Govt.) companies is Khanij Bidesh India Limited.



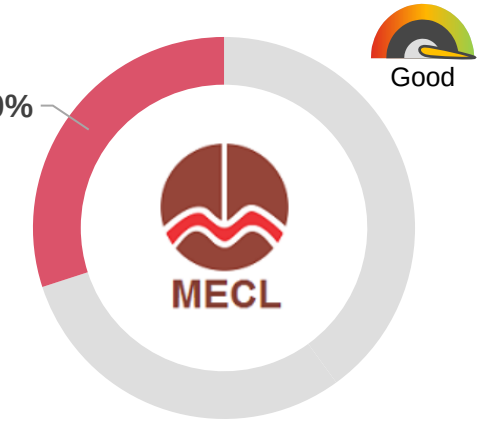
National Aluminium Company Limited

One of the largest integrated primary producers of aluminum in Asia



Hindustan Copper Limited

India's only vertically integrated copper producer



Mineral Exploration & Consultancy Limited

One of the largest mineral exploration agency of India

All the three companies have been profitable for over a decade. They are experienced across all the stages of the mining value chain

7500+ Experts

A combined work-force of around 7800 full-time employees with expertise ranging across Geology & Exploration, Mining, Mineral Processing & Metallurgy, other Core Engineering sectors and so on"

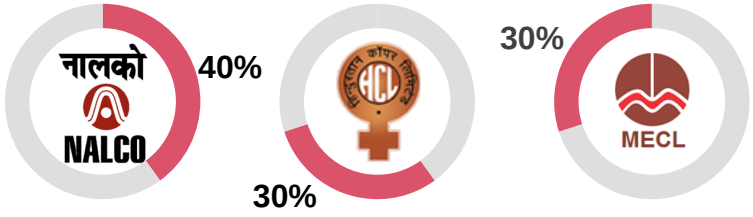
$3 Billion+ Market Cap

Combined market capital of approx. US $3 Billion with an authorized capital of $37 Million

References: Individual company annual reports, Ministry of Mines

*** The company's financial health is determined by a variety of measures, including promoter holding, last three years' turnover, cash flow, debt, and CAGR. Based on these factors, the overall health of all three companies has been determined as good.*

We are the only entity “specifically mandated” by the Government of India to ensure a consistent and secure supply of critical minerals for Indian economy



Minister of Mines Shri Pralhad Joshi with the CMDs of NALCO, HCL and MECL who signed a Joint Venture to establish KABIL

KABIL (KHANIJ BIDESH INDIA LIMITED)

A Joint Venture Company among NALCO, HCL and MECL named Khanij Bidesh India Limited (KABIL) has been formed in August, 2019.

- With the mandate to **identify, acquire, develop, process** and make commercial use of strategic minerals in overseas location for supply in India.
- Govt. of India has identified 30 critical minerals of which KABIL is actively pursuing overseas assets of 12 minerals: **Lithium (Li), Cobalt (Co)**, Germanium (Ge), Indium (In), Beryllium (Be), Niobium (Nb), Selenium (Se), Gallium (Ga), Tantalum (Ta), Tungsten (W), Bismuth (Bi) & Tin (Sn).

References: PIB, Ministry of Mines

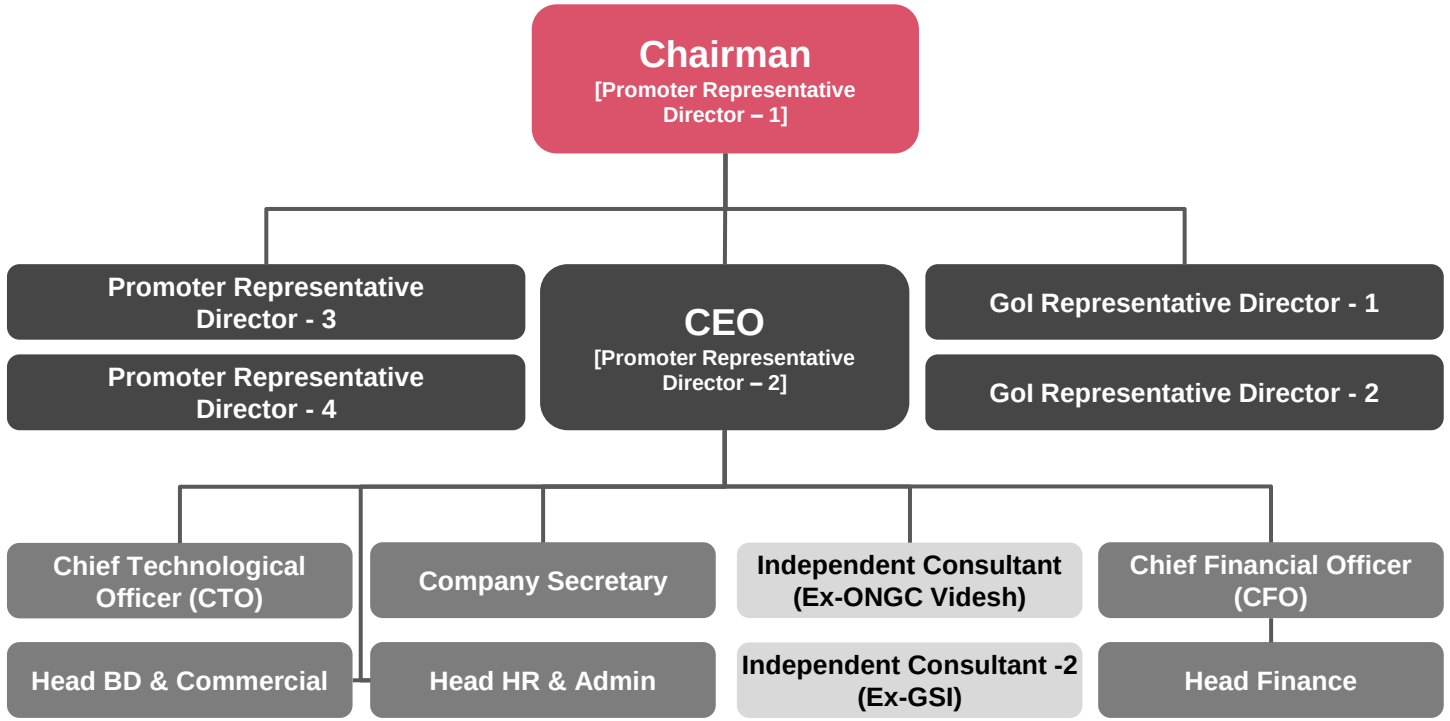
Our Governance Structure

Promoters

Board of Directors

Primary Decision Making Body

(Among the Promoter Representative Directors two are from NALCO and one each from HCL and MECL)



Key Personnel

KABIL genetically brings diversified expertise across the mineral value chain

Over 40 years of experience in exploration across India and abroad

A Truly Global Footprint

Exploration
Sampling
Geological
Geophysical
Environmental
Remote Sensing
Chemical labs
Physical labs
Petrological labs
Information Tech

Experts in A Wide Range of Services

199+
Billion Tonnes of mineral resources established

Established Huge Resources

Worked with Govt. Organizations, Public & Private Sector Companies

SAIL · BARC · ESSAR · HZL · HINDUSTAN ZINC Zinc & Silver of India · KUDREMUKH · BHP · JICA · Coal India Limited A Government of India Undertaking A Maharatna Company · JSW · Reliance Industries Limited · Pasminco Mining · brgm · खान मंत्रालय MINISTRY OF MINES · RioTinto · TATA STEEL · KORES

& 130 more

References: MECL

KABIL genetically brings diversified expertise across the mineral value chain

Lowest Cost Miner
Sophisticated technical capability, in-house power & high utilization rate

5-Star Rating Mines
based on initiatives taken towards Sustainable Development

Processing Expertise
Expertise of beneficiation of low grade & polymetallic ore

Mining Expertise
50+ years mining experience and expertise in open pit and underground mining for deep seated minerals

Facilities operated by KABIL's parent companies

- **~7 MTPA** Bauxite Mine
- **2.1 MTPA** Alumina Refinery
- **~4 MTPA** combined underground mining capacity; under 3 fold expansion phase
- **460 KTPA** Smelter Plant

Renewable Energy

- **~200 MW** Wind Power Installed Capacity
- **1.2 GW** Captive Power Plant
- **2.2* MWp** Roof-top Solar Power Capacity
- Bulk Shipment Facilities at Vizag Port

References: NALCO, HCL

Our global footprint has expanded significantly

Over the past few years KABIL has developed a strong understanding of G2G & G2B partnerships in the critical minerals sector

NALCO · HCL · MECL

KABIL

150 Years
of combined experience

Driven by Purpose

To identify, explore, acquire, and develop critical & strategic mineral assets overseas for supply to India. To ensure mineral security of the nation and attain self-reliance

2019

KABIL was formed with the aim to India's Mineral Security

2020

A G2G MoU signed between Govt. of India and **Govt. of Australia**

2022

Detailed MoU signed between KABIL & **Critical Minerals Office (CMO),** Govt. of Australia with collaborative Framework

2022

MoU signed with state-owned enterprise **CAMYEN** for strategic investment in **Argentina**

2023

NDA signed with **ENAMI**, a state-owned mining company of **Chile** for pursuing Lithium mining projects

References: PIB, Ministry of Mines

India has become the most attractive investment destination & KABIL brings a strong understanding of its end use market

The KABIL Advantage!

Experience of working in a wide range of minerals

- Each promoter bring different set of expertise for energy minerals and metals(ferrous & non-ferrous), strategic minerals, precious minerals & others.

Access to NALCO's bulk shipping facility

- This helps in strengthening KABIL's supply chain capabilities when considering the import market

Strong understanding of the regulatory landscape

- Owing to its promoters long working experience in mining industry and also being backed by the **Ministry of Mines**, KABIL offers a special advantage that no other company in India does

The India Advantage!

High rate of Development

1.42 Billion Market Base

Make in India drive

Strong FDI inflow

Political Stability

Renewable Energy

Electric Vehicles

Govt. Subsidies

Net-Zero Commitment

7%+	India's GDP growth rate was 7% for 2022 & 9.1% for 2021. It has consistently outgrown global avg. GDP by 2-4% in last 5 years (excluding 2020).
1.8x	India is a power surplus nation, having generation capacity of 417 GW while the all-time peak demand has been 221 GW.
$1.1B	India has high FDI inflows with around $70.9 Billion in FY23 of which $46 Billion were equity inflows. Australia has been a strong trade partner and FDI inflows from there since 2000 totals to US$1,105 million.

References: World Bank, Ministry of Power, Invest India

Private & Confidential

Demand of Lithium & Cobalt

Organic growth enablers of India's critical mineral industry

Indian market is experiencing a steep surge in the demand for Critical Minerals since 2019 and is expected to grow similarly in the coming decades.

Driver 1 Policy

Global focus on Environment Sustainability

The Paris Agreement was adopted by 196 countries at the UNFCCC Conference of the Parties (COP 21) in Paris, Indian government was a signatory to this agreement to ward off the global sustainability crisis by allocating massive funds and policies towards this cause.

Govt. push for green energy security

Govt. of India is determined to ensure India's strategic green Energy security by promoting an ecosystem of EV's, energy storage systems etc. through flagship schemes like FAME, Production Linked incentive scheme etc.

Ambitious targets

India has set strong targets such as reaching 500 GW renewable energy generation capacity by 2030. Reaching net-zero carbon emissions by 2070 and is working towards achieving these targets.

Driver 2 Economy

Growing Indian Economy

The Indian Economy has comparatively sailed well in the last decade with exceptional levels of growth even under stressful circumstances like the COVID slowdown bolstering a steady growth rate of over 7% YOY increase in GDP.

Increasing Buying Power

India is considered as one of the largest developing markets in the world. Consistent improvement in the per capita income has allowed more people to buy costlier good, increasing end-use sector demand.

Developing World-Class Infrastructure

India recognizes the importance of developing infrastructure for sustaining its high paced growth. It has rolled-out several huge scale infrastructure plans and projects to make this happen.

Driver 3 Industry

Technologically relevant Indian Market

The incremental development of the Indian EV, metal & alloy market and allied industries had promoted the formation of quality and diversified product portfolios.
This has increased the rate of adaptation of green technology in the masses and in turn increasing demand

Availability of Skilled Work-Force

India has no dearth of skilled workforce producing more than a million engineers annually, and the Govt. is also developing labour work-force through its several skill development programs.

Mature downstream Industries

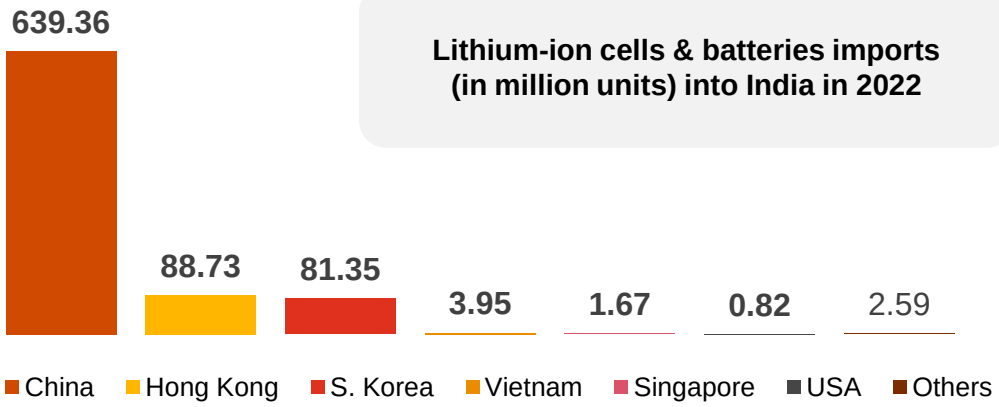
A multitude of mature downstream Industries like EV manufacturing Industries such as OLA, TATA Motors etc, and other relevant industries have ensured a steady demand of critical metals in the country, most of which is imported currently but projects are on to indigenise the whole critical mineral processing industry.

References: PwC Analysis

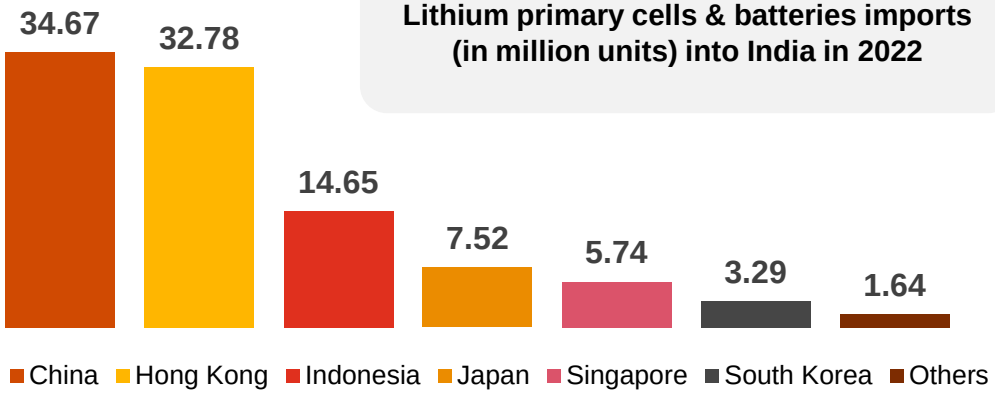
Having no established domestic reserves, India relies solely on Li & Co imports to fulfil its demand

Most of lithium and cobalt imports to India are brought in the form of battery cells. Chemicals & metals are in lower quantities

Lithium-ion cells & batteries imports (in million units) into India in 2022



Lithium primary cells & batteries imports (in million units) into India in 2022



Total Value of Lithium & Cobalt. associated imports by India in FY23*. KABIL aims to cater to this huge market.

$3.18 Billion

Li-Hydride**	**Li-Oxides & Hydroxides**	**Li-Carbonates**
3.05 kt	**1.12 kt**	**1.02 kt**
Co-Hydroxide	**Co-Powders**	**Co-Matte#**
0.56 kt	**0.34 kt**	**0.29 kt**
Co-Oxide	**Co-Unwrought**	**Co-Other Articles**
0.18 kt	**0.17 kt**	**0.38 kt**

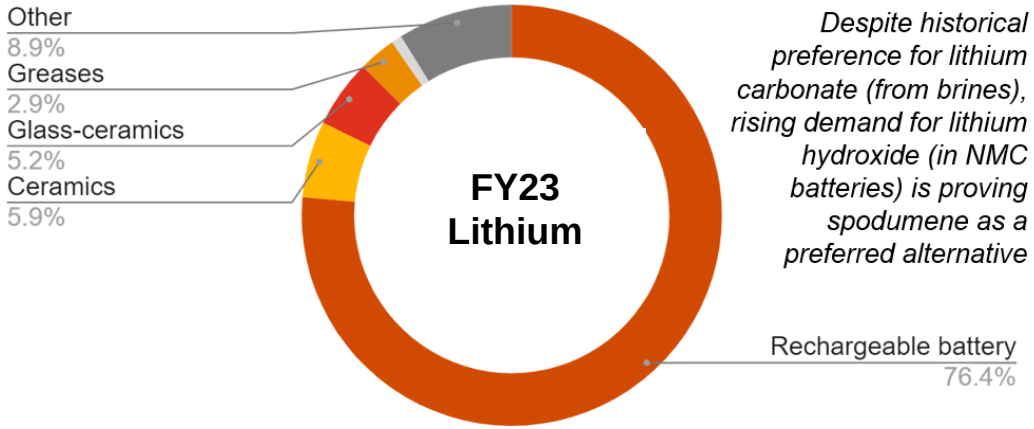
- As Indian companies increasingly focus on building domestic lithium-ion battery manufacturing facilities, it is estimated that as per announced capacities, India would have ~150 GWh li-ion manufacturing capacity.
- This would generate a steeply rising demand for Lithium Hydroxide, Lithium Carbonate, Cobalt Oxides & Hydroxides.

References: Ministry of Commerce, Investing.com, PwC Analysis

** Total value includes cells & batteries imports, ** excludes lithium aluminium hydrides, # includes other intermediate products*

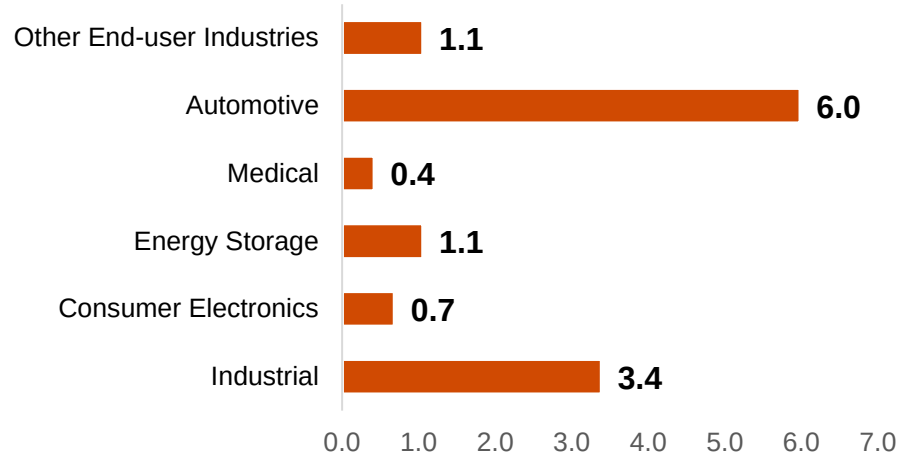
One of the fastest growing sectors (batteries) also accounts for the highest share of Li & Co demand in India & globally

Demand Share (Global)

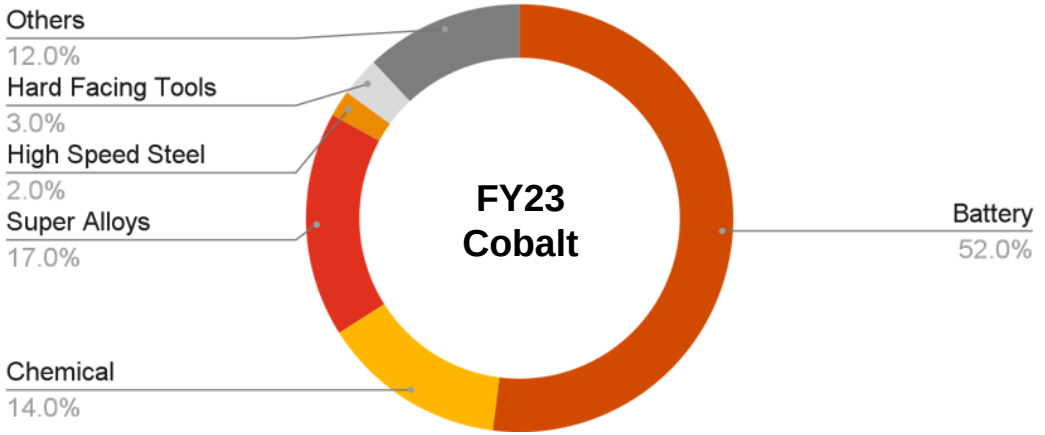


Despite historical preference for lithium carbonate (from brines), rising demand for lithium hydroxide (in NMC batteries) is proving spodumene as a preferred alternative

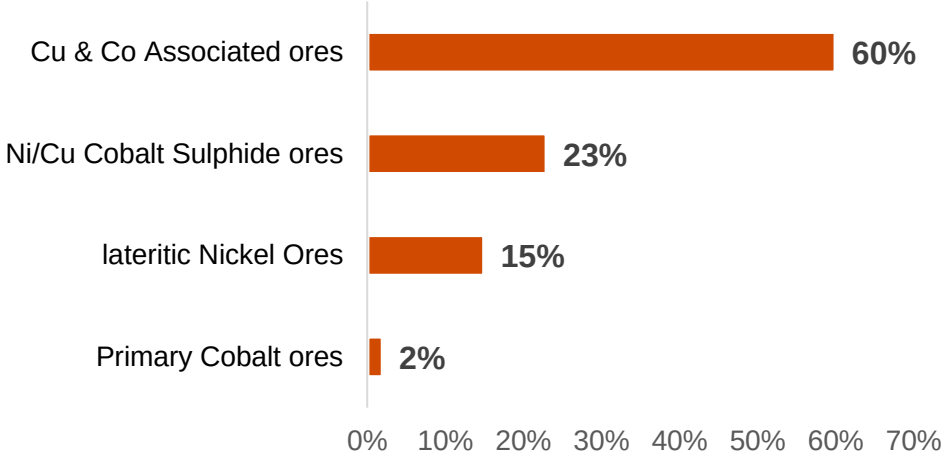
Industry Demand (*in kt LCE*)



Demand Share (Global)

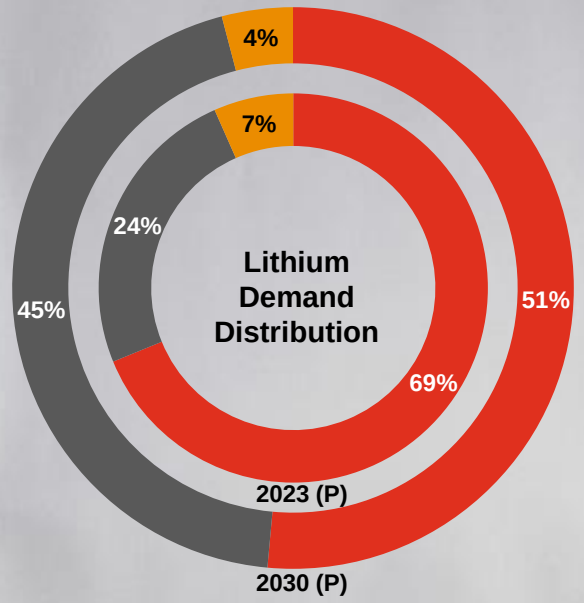


Resource Demand (%)



References: PIB, Mordor Report, PwC Analysis

Lithium demand is expected to grow further



Lithium Carbonate

Globally most traded form of lithium compound; sourced from either Brine or Spodumene deposits. Lately, there has been a decrease in its market share which is expected to continue further.

Lithium Hydroxide

In recent years it has become the compound of choice for making battery cathodes as it makes the process more sustainable by using less energy and the resultant cathode too lasts longer.

Lithium Chloride & Others

In recent years it has become the compound of choice for making battery cathodes, but its overall demand is due to shrink in favor of hydroxides.

	2023 (P)	2030 (P)	CAGR
Li_2CO_3	8.70 kt	37.69 kt	23.3%
LiOH	2.44 kt	23.13 kt	37.9%
LiCl	1.14 kt	3.36 kt	16.7%

Note: This is a **base case analysis** - Projected demand values include the amount of lithium that would have been used in the cells and batteries that have been/will be imported, thus giving a wholesome picture of the actual supply required if India has to be self-reliant.

References: Mordor, PwC Analysis

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Indian Battery Market Opportunity

With huge investments pouring in, India's Li-ion battery manufacturing sector is set to get a great boost

15+ Li-ion Gigafactory announced

Collaboration with Private Companies

Installation of 10,000 Charging Stations

Manufacturing unit for EVs

Financial assistance to Upcoming EV & Li-ion Battery Companies

Charging Stations across India - to be set up by Ather

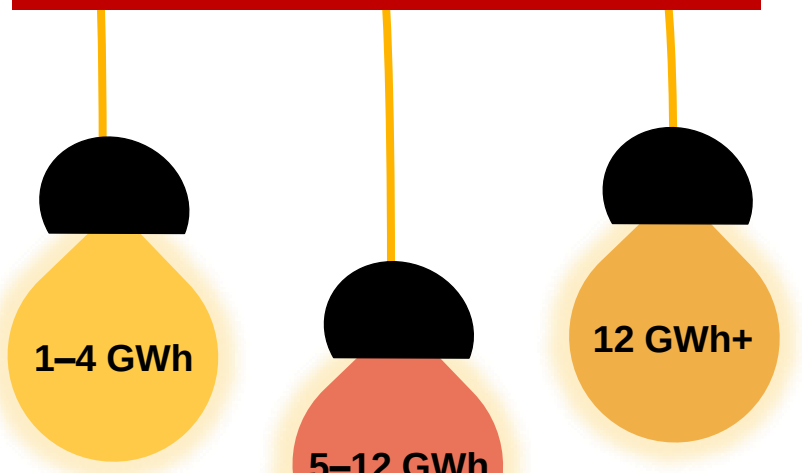
11 million EVs/ year - to be produced by Ola by 2030

To ensure reliable supply of Batteries

References: EV reporter, Individual Company announcements, PwC Analysis

Outcome of the announced investments sums up to be a whooping 150 GWh+ Li-ion battery manufacturing capacity

Upcoming Li-ion Giga-factories



1–4 GWh

Li-Energy

Log9

Munoth Industries Ltd.

Nsure

5–12 GWh

Tata Chemicals

Rajesh Exports

L&T Ltd.

IPCL

Lucas TVS

Exide

12 GWh+

Allox

Mahindra & Mahindra

Hyundai Global

Amara Raja

Ola Electric

Reliance

& more

Li Demand Generation

- **Assumption:** The amount of lithium required for making an average 60 kwh li-ion battery is 6 kg.
- This translates to 15 kilo tonnes of Lithium or 79.8 kilo tonnes LCE for fulfilling requirement of the upcoming 150 GWh manufacturing capacity

Co Demand Generation

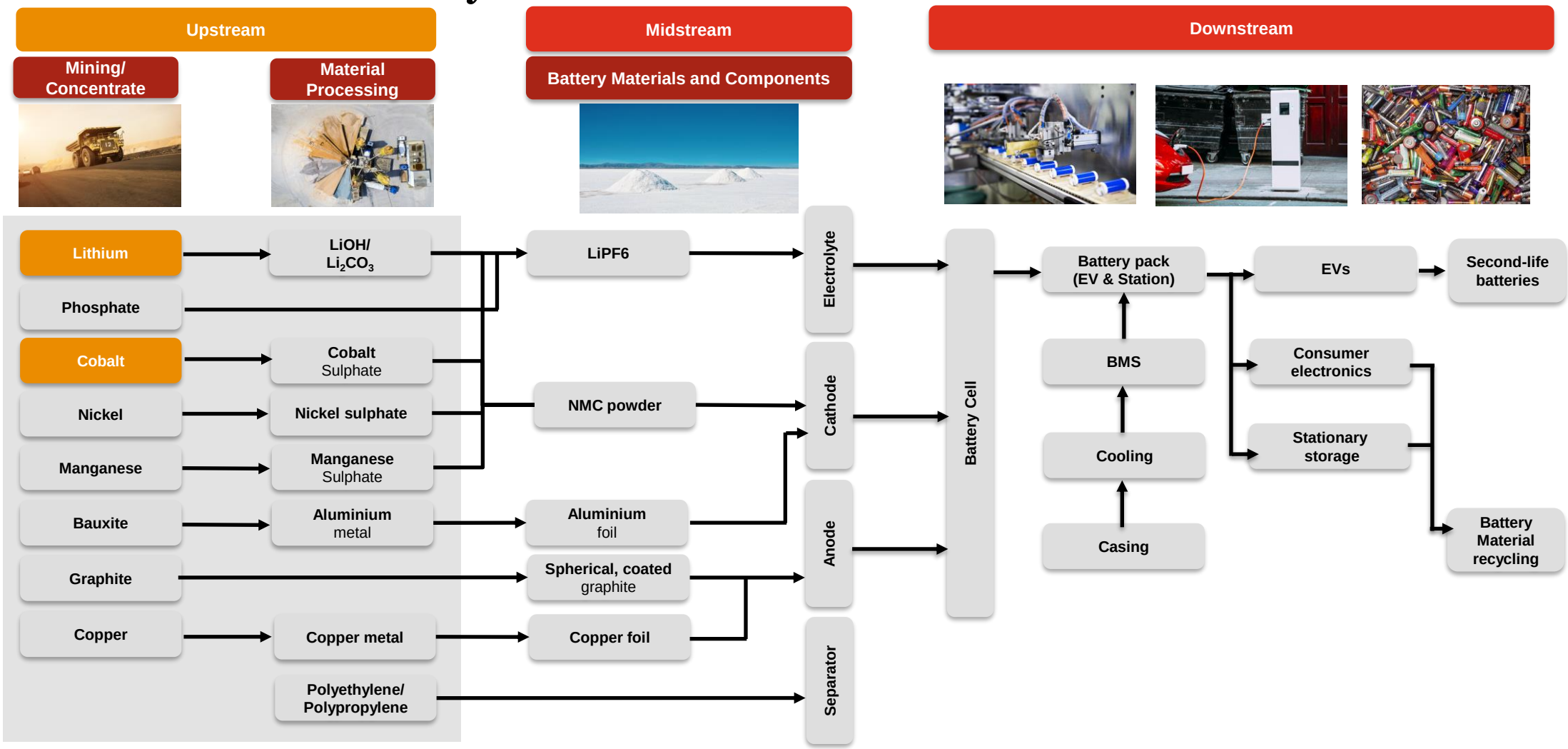
- **Assumption:** The amount of Cobalt required for making an average 60 kwh li-ion battery is 8 kg.
- This translates to 20 kilo tonnes of Cobalt or 52.6 kilo tonnes of Cobalt sulphate for fulfilling requirement of the upcoming 150 GWh manufacturing capacity

Generating a demand for around 80 kt LCE and 53 kt Cobalt Sulphate

References: European Federation for Transport and Environment, PwC Analysis

Note: The mineral content is based on the 'average 2020 battery', which refers to the weighted average of battery chemistries on the market in 2020.

KABIL's focus is on enabling India's downstream businesses with raw material security



Driver 1 KABIL

Driver 2 Private Down Stream Industries

References: KABIL

Timely policy push for over a decade has kept the battery & EV industry on the right growth track

2005
First Automotive Mission Plan

2010
MNRE Incentive Scheme for EVs

2012
National Electric Mobility Mission (NEMMP) 2020

2013
NEMMP roadmap For EV adoption and domestic manufacturing

2015
- FAME-I Policy for clean Mobility.
- Automotive Mission Plan-II 2016-2026

2017
NITI Aayog draws Roadmap for Transformative Mobility Solutions

2018
- Charging infrastructure guidelines for EVs
- GoI's target for **30%** EV penetration by 2030

2019
Fame Phase-II launched

2021
- Production Linked Incentive (PLI) for ACC and Auto Sector
- FAME-II extended to FY2024
- 19 States with EV policies.
- Several Indian states for e.g., Delhi, Maharashtra, Tamil Nadu, Gujarat, Kerala have taken initiatives.

2022
- PLI for Niche ACC.
- Battery swapping policy.
- Battery waste management policy.

2023
More emphasis on Aatmanirbhar Bharat Scheme and special allocation of funds.

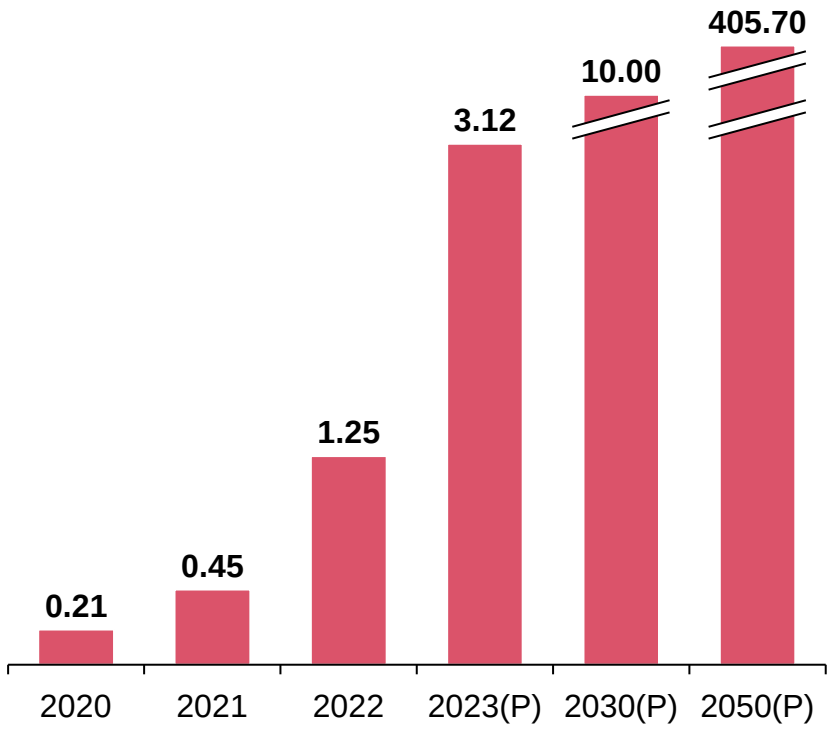
2023 & Ahead
Making India the leading player of the world

"Government of India's estimates, India would hit **10 Million Annual EV sales by 2030**"

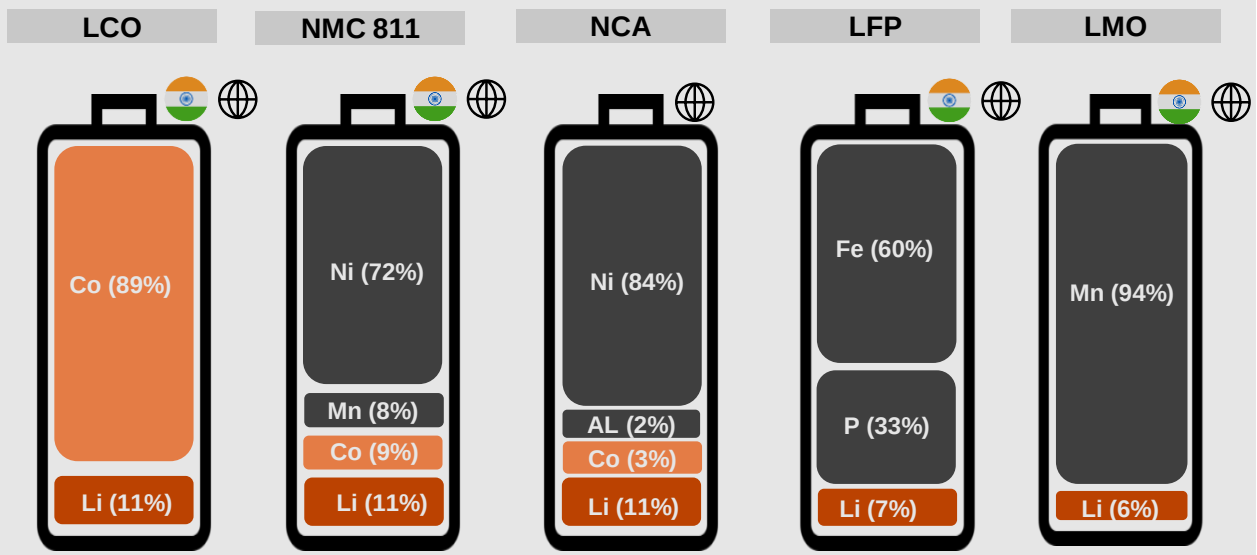
References: Invest India

With the support of government policies, the end-use sectors are estimated to grow

A EV Sales Growth (in millions)



MAJOR LITHIUM-ION BATTERY TYPES (India & Global)



- In 2023, the Indian battery market is dominated by LFP batteries having a share of 59% followed by NMC batteries having a share of 35%, and other LiBs account for 6% which include LCO and LMO.
- By 2030, LFP is expected to reach a peak share of 70%, followed by NMC, Other LiB, Metal Air, and Flow batteries with 30%, 4%, 4%, and 1% share, respectively.

B Renewable Energy Targets

- India's power requirement to grow to reach 817 GW by 2030
- India is eyeing to achieve 50% of cumulative electric power installed by 2030 from renewables
- Government has established a target of 175 GW of solar and wind energy by 2022 and 500 GW by 2030
- Achieve Net Zero carbon Emission by 2070

References: PIB, NITI Aayog, Economic Survey 2023, PwC Analysis

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KABIL's Value Proposition and Need of Collaboration

KABIL is mandated to achieve its strategic goals in the critical mineral market and drive economic growth in sectors like EVs, renewable energy, and energy storage

Supply Chain Security:	KABIL can help address the critical gap in supply chain security by strategically acquiring and developing lithium and cobalt assets overseas. This would ensure a consistent and reliable supply of these minerals, reducing India's dependence on imports and minimizing the risks associated with supply disruptions.
Value Chain Integration:	KABIL can facilitate the integration of the lithium and cobalt value chains by establishing partnerships with overseas companies involved in exploration, mining, refining, and manufacturing. This would enable India to develop a comprehensive and self-sustaining supply chain, fostering growth in domestic industries like electric vehicles (EVs) and renewable energy storage.
Technology & Innovation:	KABIL can collaborate with overseas partners to leverage their expertise in advanced mining technologies, mineral processing techniques, and battery manufacturing. This collaboration would accelerate the development and adoption of innovative technologies in India's lithium and cobalt sectors, making it an attractive proposition for overseas partners interested in entering the Indian market.
Environmental Sustainability:	KABIL can prioritize environmental sustainability by promoting responsible mining practices and encouraging the development of clean and efficient extraction methods. By incorporating best practices and stringent environmental regulations, KABIL can ensure that India's lithium and cobalt supply chain adheres to international standards, attracting partners who value sustainability and ethical sourcing.
Market Development & Investment Opportunities:	KABIL can play a pivotal role in fostering market development by creating a favorable investment environment in India's lithium and cobalt sectors. This can be achieved by offering attractive incentives, streamlining regulatory processes, and providing a platform for overseas partners to invest in and collaborate with Indian companies. By presenting a compelling investment case, KABIL can attract overseas partners looking for mutually beneficial opportunities in India's growing critical mineral market.

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References: PwC Analysis

India & Australia's partnership has the potential to seize the Indian critical mineral market opportunity

1. **Australia is leading producer of Critical Minerals**
2. **India has a high demand for critical minerals but lacks sufficient domestic reserves- import reliant**
3. **Partnership between India and Australia in the critical mineral sector can be mutually beneficial**
4. **Collaboration between the two countries can involve joint exploration and extraction projects, technology transfer, research and development initiatives, and supply chain integration**
5. **This partnership can enhance the security of critical mineral supply for India while promoting economic growth, job creation, and innovation in both nations**
6. **India's commitment to clean energy and electric mobility presents a significant opportunity for Australian critical mineral exports**
7. **By collaborating in the critical mineral sector, both countries can enhance their economic ties, strengthen supply chain resilience, and seize the opportunities presented by India's industrial growth and sustainable development goals**

$4.6 Billion

worth of bilateral trade in 2022 including services and commodities

1.42 Billion

Strong market base, with an ever-increasing buying power

Strategic Alliances

Like QUAD & MSG have fostered a cooperation across sectors to defend mutual strategic interests

20 Critical Minerals

Out of the 30 identified by Government of India are available in Australia

ECTA

Economic Cooperation and Trade agreement signed is April'22

US$ 1.06 Billion

Cumulative Australian FDI in India from 2020 till 2023 across sectors .

Downstream Surge

Forecasted downstream surge has concreted the looming demand supply deficit.

Self Reliance

Both economies are aligned to their goal of self reliance in critical minerals

Technology

Tech transfer and skill sharing to augment our capability development

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References: PIB, Invest India, Newsonair, Govt. of Australia

KABIL's Australian Engagement – The CMO collaboration

MOU signed 10th March 2022

1 The MOU

MOU with detailed collaborative framework signed between the **Govt. of India** and **Critical Mineral Office, DISER, Govt. of Australia**

2 The Commodity

Joint investment in **Lithium** and **Cobalt** commodities in Australia.

Exploration, Mining and refining to be done in Australia and refined derivatives to be imported into India

3 The Funding

Participants to jointly and equally fund the due-diligence with an amount of **US$ 6 million** with **provisions for further contributions**

4 The Investment

Joint investment, including **equity, loans, grants, guarantees, underwriting facilities and off-take agreements**

The Australian Investment Gateway:

Investments into India will be done through CMO nominated **Government Financing agencies** viz. Export Finance Australia, the Northern Australia Infrastructure Facility or the Clean Energy Finance Corporation etc. While CMO will act as a governing authority.

The Indian Investment Gateway:

Investment will be through KABIL, or any other Central Public Sector Enterprises (CPSEs)

The Special Investment Vehicle:

Participants could form a joint 'Special Investment Vehicle' (SIV), constituted under relevant Australian /Indian laws as applicable.

Joint Venture Investment Schema

The Indian & Australian participants will have **joint investment in equity participation**, else either party will have first right of refusal, or **a third party may be included with specific considerations as a technology provider or project developer,** or any such considerations as may be decided

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References: PIB, Govt. of Australia

Partnership Model

KABIL is looking for collaboration with overseas partners to achieve shared goals in critical minerals market security

Strategic Investments

Objective: KABIL can make strategic investments in overseas mining companies or projects.

Goal: By acquiring stakes or investing in such ventures, KABIL can secure access to critical mineral reserves and establish long-term partnerships.

Motivation: This approach provides investment flexibility while ensuring a stable supply of critical minerals.

Offtake Agreements

Objective: KABIL can enter into offtake agreements with overseas mining companies.

Goal: These agreements will guarantee a specific quantity or % of critical mineral production to KABIL over a defined period.

Motivation: This mode of investment allows KABIL to secure a consistent supply of critical minerals while providing financial support to the mining companies.

Technology Transfer and Collaborative Research

Objective: KABIL can collaborate with overseas partners in technology transfer and collaborative research initiatives.

Goal: This can involve sharing expertise, best practices, and innovative technologies for the exploration, extraction, processing, and recycling of critical minerals.

Motivation: Such collaborations enhance both countries' capabilities and contribute to market security.

Supply Chain Integration

Objective: KABIL can work with overseas partners to establish integrated supply chains for critical minerals.

Goal: This can involve coordinating activities from extraction to processing, refining, and manufacturing.

Motivation: By integrating the supply chain, KABIL can ensure a reliable and secure flow of critical minerals to India while supporting the development of overseas partners.

Policy and Regulatory Cooperation

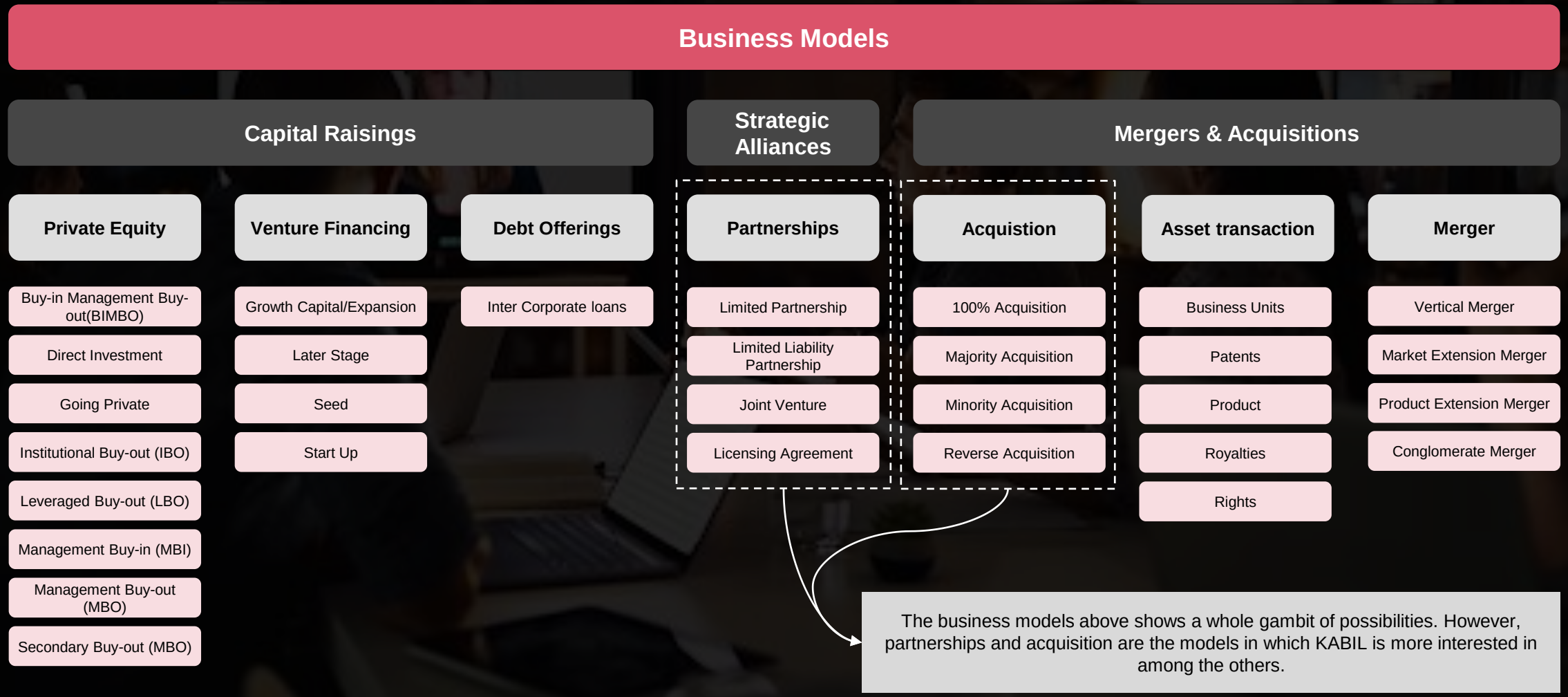
Objective: KABIL can collaborate with overseas partners on policy and regulatory frameworks related to critical minerals.

Goal: This can involve sharing information, aligning standards, and establishing mutual agreements to facilitate trade, investment, and sustainable practices in the critical minerals sector.

Motivation: This form of collaboration will ease both companies' legal works in each others' geographies.

Flexible to discuss the form of Investment

KABIL can leverage different modes of **Investment Flexibility** to collaborate with overseas partners and achieve shared goals in the critical minerals market



Our Value Proposition

A Entrusted by Govt. of India

KABIL is the only entity "specifically mandated" by the Government of India to ensure a consistent and secure supply of critical minerals for Indian economy. This makes KABIL a credible partner and a lang-term purpose driven player.

B Stable and Reliable Market

India's rapidly growing economy and industrial sector create a strong and consistent demand for critical minerals, this gives a significant growth opportunity for overseas partners, providing them with a vast customer base and potential for increased sales and revenue.

C Strategic Investment and Collaboration

By partnering with KABIL, partners gain access to capital, financial support, and market stability, allowing them to expand their operations and strengthen their financial position.

D Knowledge and Technology Transfer

This collaboration allows partners to benefit from India's skill and know-how in mineral exploration, mining, processing, and sustainable practices. It promotes innovation and enhances operational efficiency for mutual growth.

E Long-Term Commitment

KABIL's minority stake acquisitions demonstrate a long-term commitment to the partnership. This commitment ensures stability and reliability for overseas partners, encouraging them to invest in sustainable practices, infrastructure development, and capacity expansion.

F Sustainable and Responsible Mining

By partnering with KABIL, overseas partners gain access to India's focus on environmental stewardship and social responsibility. This aligns with the increasing global demand for ethical sourcing and sustainable supply chains.

G Access to Indian Expertise

Collaborating with KABIL grants overseas partners access to India's vast pool of technical expertise, research capabilities, talent pool & skilled manpower and industry networks. This opens up opportunities for joint research and development initiatives, technology transfer, and operational efficiency improvements.

H Geopolitical Diversification

Partnering with KABIL allows overseas partners to diversify their geopolitical risks. By expanding their operations to India through minority stake acquisitions, partners can reduce their dependence on any single market and mitigate potential disruptions in global supply chains.

I Investment Flexibility

KABIL offers avenues for unparalleled flexibility in investments, tailored to the requirements of partners and assets. We are aligned with multiple business models from LLP to minority acquisition and flexible financial strategies like offtake, grants Loans, etc.

Let's
reimagine
together

Thank you

KABIL
खनिज बिदेश इंडिया लिमिटेड
KHANIJ BIDESH INDIA LTD.

वसुधैव कुटुम्बकम्
World is one family