

KET/SEC/SE/2022-23/11

Date: May 23, 2022

**BSE Limited**

Floor 25, Phiroze Jeejeebhoy Tower,  
Dalal Street,  
Mumbai – 400 001  
**Scrip Code:** 524109

**National Stock Exchange India Ltd.**

Exchange Plaza, C-1, Block-G,  
Bandra Kurla Complex, Bandra (East),  
Mumbai-400051  
**Stock Code:** KABRAEXTRU

**Sub: Presentation on Battrix division to be presented at EMKAY EV conference.**

Dear Sirs,

In compliance with Regulation 30 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015 (“Listing Regulations”), We wish to inform you that the Company will be attending the Emkay EV conference on 24<sup>th</sup> May 2022.

A copy of the presentation is enclosed for your reference. This information is also being uploaded on the Company's Website [www.kolsite.com](http://www.kolsite.com)

Kindly take the above submission on your record.

Thanking you,

Yours faithfully,

For **Kabra Extrusiontechnik Limited**

**ANTONY PIUS**

**ALAPAT**

Antony Alapat

**Company Secretary**

Digitally signed by ANTONY  
PIUS ALAPAT  
Date: 2022.05.23 19:22:51  
+05'30'

**Kabra Extrusiontechnik Ltd.**

Fortune Terraces, B wing, 10th Floor, Link Road, Opp. Citi Mall,  
Andheri (West), Mumbai - 400 053. Maharashtra, India.

**Phone :** +91-22-26734822/23/24/25 • **Fax :** +91-22-2673 5041 • **Email :** [sales@kolsitegroup.com](mailto:sales@kolsitegroup.com)

**Works 1 :**

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**Works 2 :**

Survey No. 259/1 to 5, 260/1 to 6, 265/3, Costal Highway, Dunetha, Daman – 396210. India.

**Tel. :** +91-260-2241 401-3 / 2242 616 • **Fax :** +91-260-2241 965 • **Email :** [ket@kolsitegroup.com](mailto:ket@kolsitegroup.com)

**CIN -** L28900MH1982PLC028535

# INVEST IN A SUSTAINABLE FUTURE.



# CONTENT

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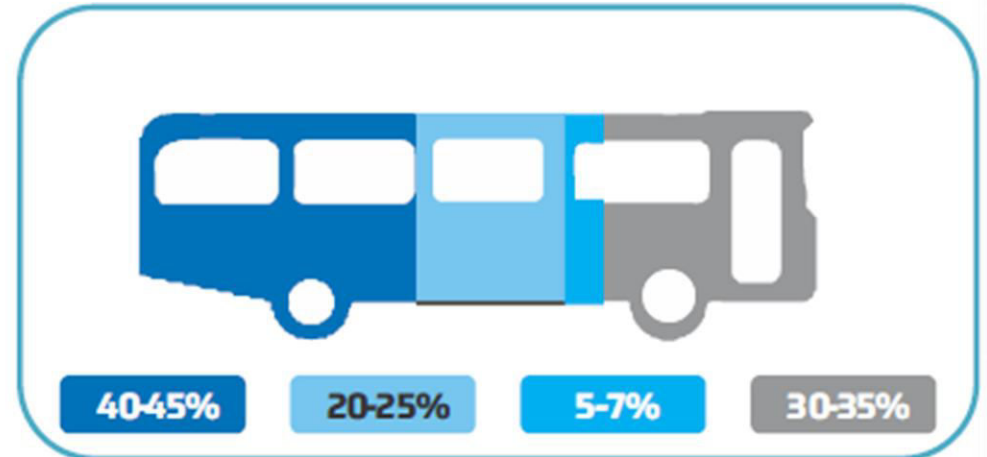
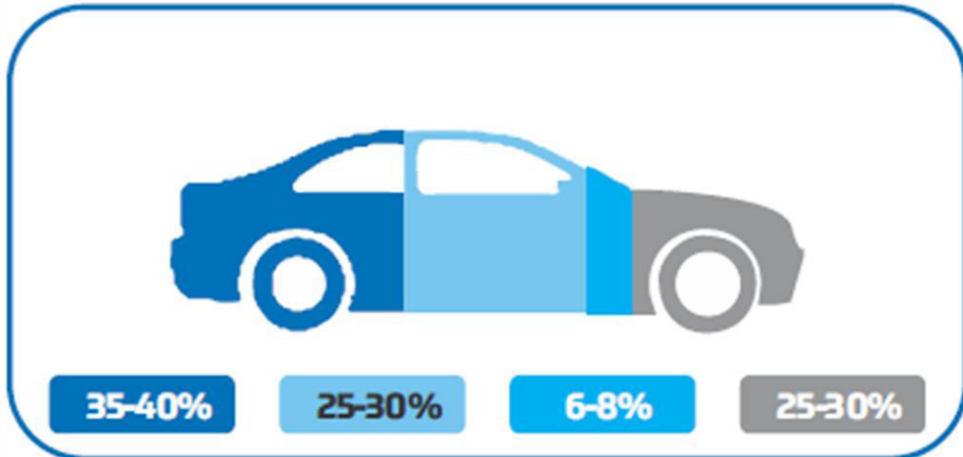
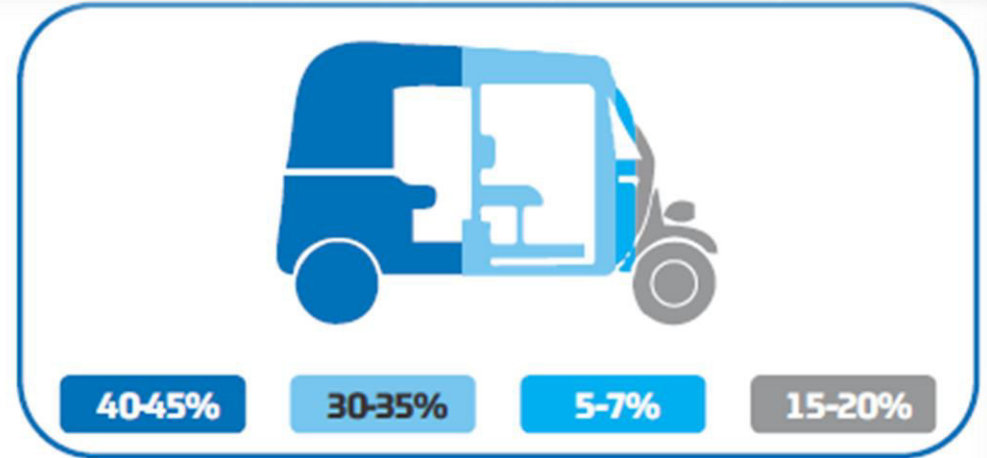
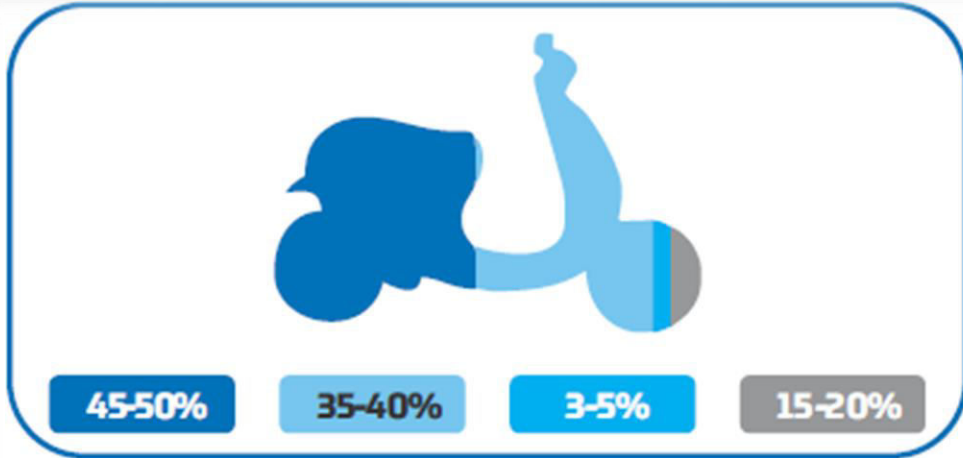
- EV landscape and Battrix role in it
- About Battrix –
  - A unique “Battery related’ platform
  - Our right to win
    - Scale
    - Innovation capabilities and partnerships
    - Culture
- Way forward
- Our Legacy - part of Kolsite group and housed in Kabra Extrusionstechnik



# EV LANDSCAPE & OUR ROLE IN IT

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# BATTERY ACCOUNTS FOR THE LARGEST SHARE IN VEHICLE COST ACROSS SEGMENTS



Indicative cost proportions:

Battery & Related Components

Powertrain & Power Electronics

Other Connectivity and Control Systems

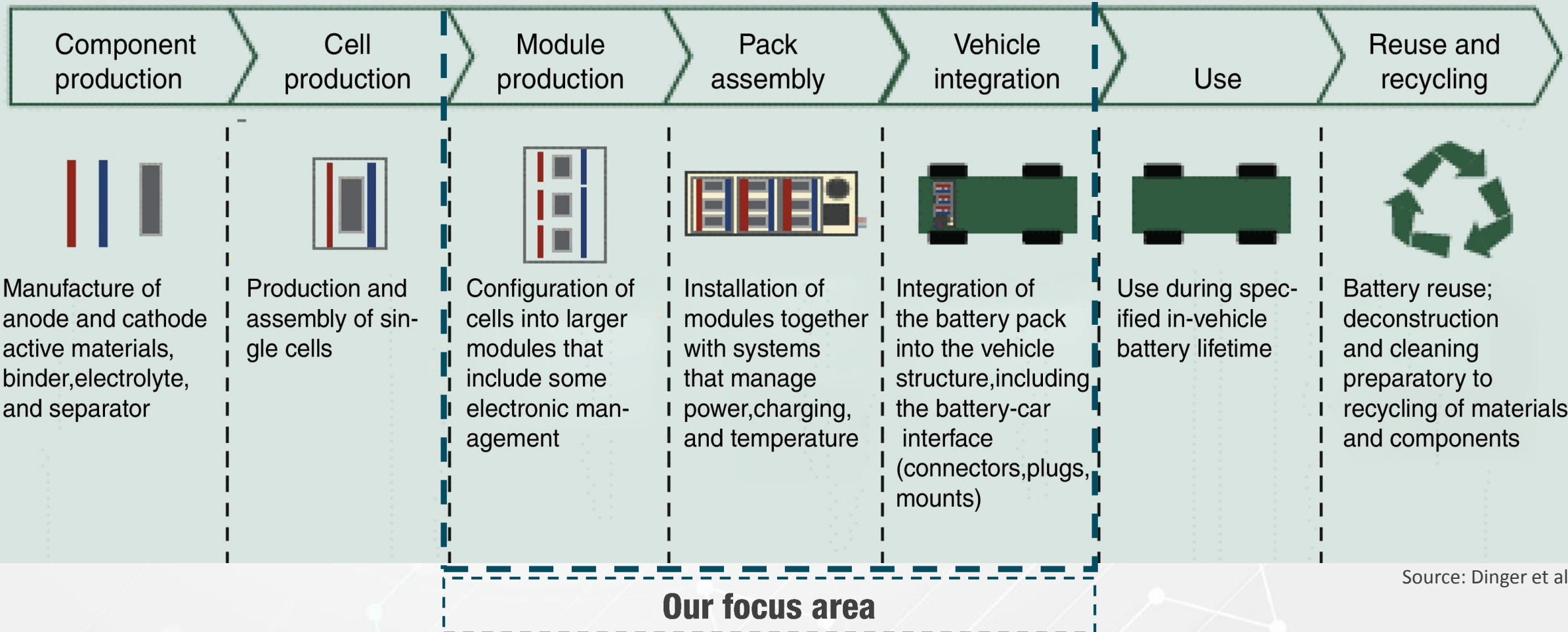
Chassis and Other Body Parts

# WITHIN THE BATTERY - CELL CHEMISTRIES ARE EVOLVING AT A RAPID PACE

|                               | Mainstream li-ion as of 2020         | Current state-of-the-art (2020)  |   | Solid-state breakthroughs (2020-2030)                     | Cathode break-throughs (after 2030)                                   |
|-------------------------------|--------------------------------------|--|---|---|---|
|                               | Li-ion                               | Improvements to Li-ion   | Novel ways of incorporating high silicon in anode               | Li-ion and solid state, Shift to Li-metal anode           | New cathode materials   |
|                               |                                      | Co-existence of LiB and solid-state Li-ion for different applications likely |   |   |   |
| <b>+ Anode</b>                | Graphite/silicon composite (<10% Si) | Graphite/silicon composite (<10% Si)   | Graphite/silicon composite (10-20% Si)                          | Graphite/silicon composite<br>Li metal                    | Li metal  |
| <b>Electrolyte</b>            | Liquid and separator                 | Liquid and separator   |   | Liquid and separator<br>Polymer or ceramic solid          | Liquid and separator<br>Polymer or ceramic                            |
| <b>- Cathode</b>              | NCA, NMC 111, NMC 622, LFP           | NCA, NMC 622, NMC 811, LFP or other high voltage material                    | NCA, NMC 622, NMC 811/9.5.5, LFP or other high voltage material | NCA, NMC 622, NMC 811, LFP or other high voltage material | Sulfur (Li-S), LFP, High-voltage cathodes (e.g. Li-rich metal oxides) |
| <b>Energy density (Wh/kg)</b> | 160 - 260                            | 280 - 320  | 280 - 320   | 400 - 500   | > 600   |

# THUS, WE MADE A STRATEGIC CHOICE TO BE TECHNOLOGY AND CHEMISTRY AGNOSTIC PLATFORM

With technology and cells ecosystem continuously evolving, we will focus on Advanced Battery Packs and on value added services.



Source: Dinger et al

# PRODUCT APPLICATIONS

*E Scooter*



*E Bike*



*E Car*



*E Bus*



*E Rickshaw*



*E Tractor*



*E Auto*



*E Commercial Vehicle*





# BEYOND EVS

- **Energy Storage Systems (ESS)** are another rapidly growing market for Lithium-ion Batteries
- **ESS** – Industrial (Grid, UPS etc.) & Residential (Inverter, Solar Lamp etc.)
- **India's target to install 450 gigawatts (GW) renewable energy by 2030** is expected to create several opportunities for India's battery energy storage systems market in the future.

# BATTRIX CREATING A PLATFORM FOR BATTERY PACKS

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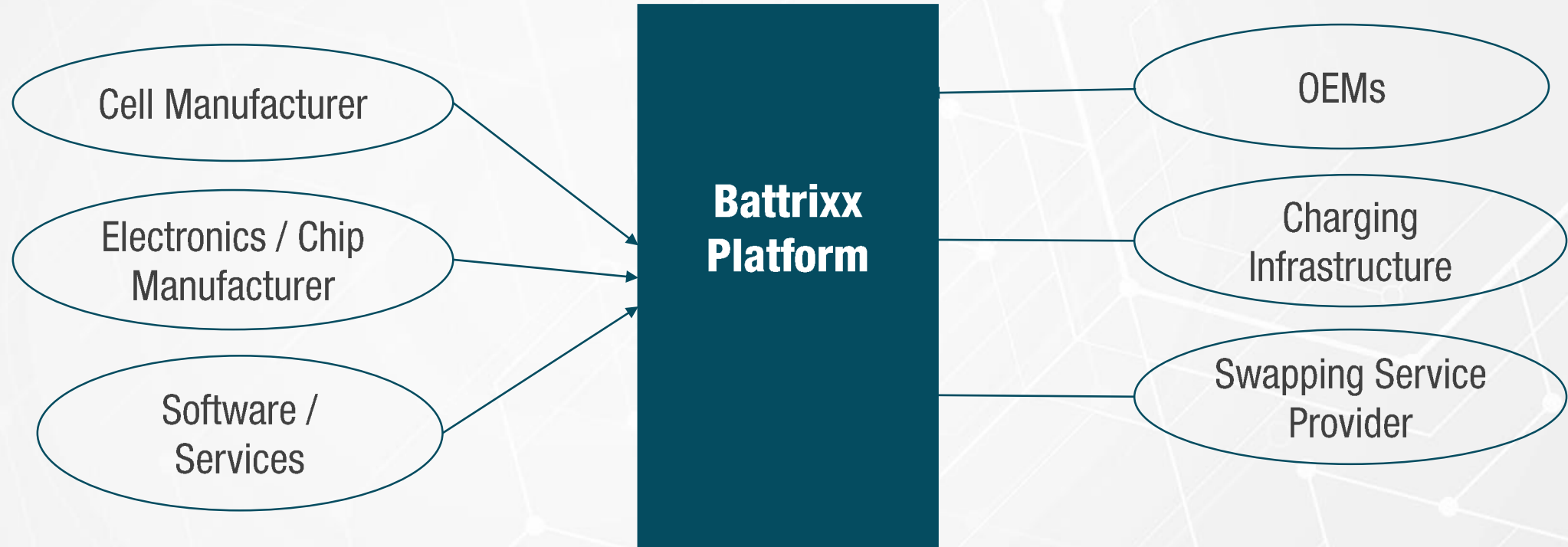
# A PLATFORM – WHERE WE ASPIRE FOR LEADERSHIP

- **Best in class manufacturing facility**
  - Current capacity of 500 MWh with an additional 1.5 GWh capacity to be on stream by end of 2022, making it 2 GWh Annually
- **R&D and innovation - set up centers of excellence, innovation labs etc.**
  - Separate R&D innovation lab for existing product improvement and new technology
  - Advance BMS Development : Data analytics on battery, rider, and vehicle behavior can be provided as per customer requirement

# A PLATFORM – WHERE WE ASPIRE FOR LEADERSHIP

- **Technology capabilities and partnerships with global innovators**
  - Advance Welding Technology (reduces heat losses and increases efficiency of the pack)
  - Patented Single Cell Level Fusing System (for safe disconnection of cells in case of thermal runaway thus avoiding heat propagation further)
  - Modular Technology (to meet efficient thermal management, safety, reliability and serviceability)
  - Twin System Pack (for swappable solution and better portability of the pack)
  - Liquid Cooling System (for fast charging and higher cycle life)
- **Adopted IATF standards/six sigma capabilities**
  - Certificate scope – Design and Manufacturing processes of Lithium Ion Battery Packs
  - Successfully completed 1st stage of IATF – 16949 audit, target to complete 2nd stage by end of May 2022 and fully certified by September 2022.

# WITH A LONG TERM PARTNERSHIP APPROACH FOR BOTH – OEM'S AND SUPPLIERS



# WE BELIEVE SCALE WOULD BE BIG DIFFERENTIATOR

- We are already amongst India's largest cell importers in India
- The advantages of scale:

**Data** - Ability to collect data around road/climate conditions.

## Ability to invest

- In **technology** to choose right cell chemistry & optimize cell life/performance/safety according to these conditions (OEM dependent on Kabra for entire battery design right from choosing right cell chemistry to thermal mgmt. and life determination/extension)
- In **Value added services (VAS) around data**: IoT Device, Advance BMS, Data analytics on battery, rider and vehicle behavior analysis (relevant for insurance/warranty)

- **Cost**
  - Ability to negotiate better terms with cell manufacturers
  - Increasing operating leverage
- **Ability to derisk / diversify**
  - Multiple technology / multiple chemistry
  - Stay ahead of the curve – be an early adopter

# 10%+ MARKET SHARE OF THE INDIAN BATTERY PACK MANUFACTURING

| ASPECT                                    | FY22                                   |
|---|--|
| Share of Cell Imports                     | 10% for full year<br>18.8% in Q4       |
| Market Share – Battery Packs              | 10%                                    |
| Vehicle km covered with our Battery Packs | 191.4 Mn Kms Vehicle covered PAN India |
| Chemistries deployed                      | NMC, LFP, NCA                          |

Note: Market share is for e2W only. We have considered registered vehicles from vahan dashboard and also low speed vehicle.

# OUR CULTURE TO CONSTANTLY INNOVATE AND ABILITY TO PARTNER WITH GLOBAL INNOVATORS IS HELPING US WIN

- Desire to stay ahead of the curve
- Relevant Innovation which make commercial sense
- Making a differentiation for the customers
- Long term partnership in whatever we do
  - Customers
  - Technology partners
  - Suppliers
- ROI focused



# OUR POV – ON RECENT FIRE INCIDENTS AND EVENTUAL STANDARDIZATION

## A number of press articles on battery failures

- We believe this will raise standards for the entire industry
- The new rigorous standards – will start acting as an entry barriers
- Higher customisation of battery for Indian driving conditions

Provides Kabra an opportunity to work with OEMs and come out with solutions which could improve all the aspects of the battery

## Our proposition in a standardized battery world

- We believe there will eventually be standardization at a level (eg pack dimension, etc)
- However, OEMs will always look to be differentiate the battery packs despite the pack dimension standardization
- Our role will be to enable that differentiation within the standardized environment

# EXPERIENCED MANAGEMENT TEAM



**Mr. Shreevallabh G Kabra**  
(Chairman & Managing Director)

S.V. Kabra, the driving force behind the growth of Kolsite Group, incorporated the company in early 1960s and has since guided Kolsite to be the flagbearer of Plastic Extrusion in India and overseas.

He brings to the table a wealth of knowledge and experience and has been the bedrock of commitment and determination.

In 2013, he was awarded the ***Outstanding Achievement Award*** at Vinyl India 2013 Conference.



**Mr. Anand Kabra**  
(Vice Chairman & MD)

With 25 years of global experience in the plastics industry and now in the EV space Anand Kabra, sets and evolves the strategic direction for the company and its portfolio of offerings. He is a member of OPPI & Chapter Chair for YPO Mumbai Connect 2021-22.

He has also been instrumental in driving strategic partnerships, acquisitions, and setting up manufacturing units at multi locations. His innate entrepreneurial and leadership skills have taken the company to new heights.



**Ms. Ekta Kabra**  
(Director - Strategy)

Ekta leads from the forefront, with deep involvement right from macro strategies to micro management, execution, supply chain management and operations. With over 20 years of experience and a degree in Economics and Management degree from S.P. Jain, her sharp business acumen, helps her carry out multiple responsibilities with elan.

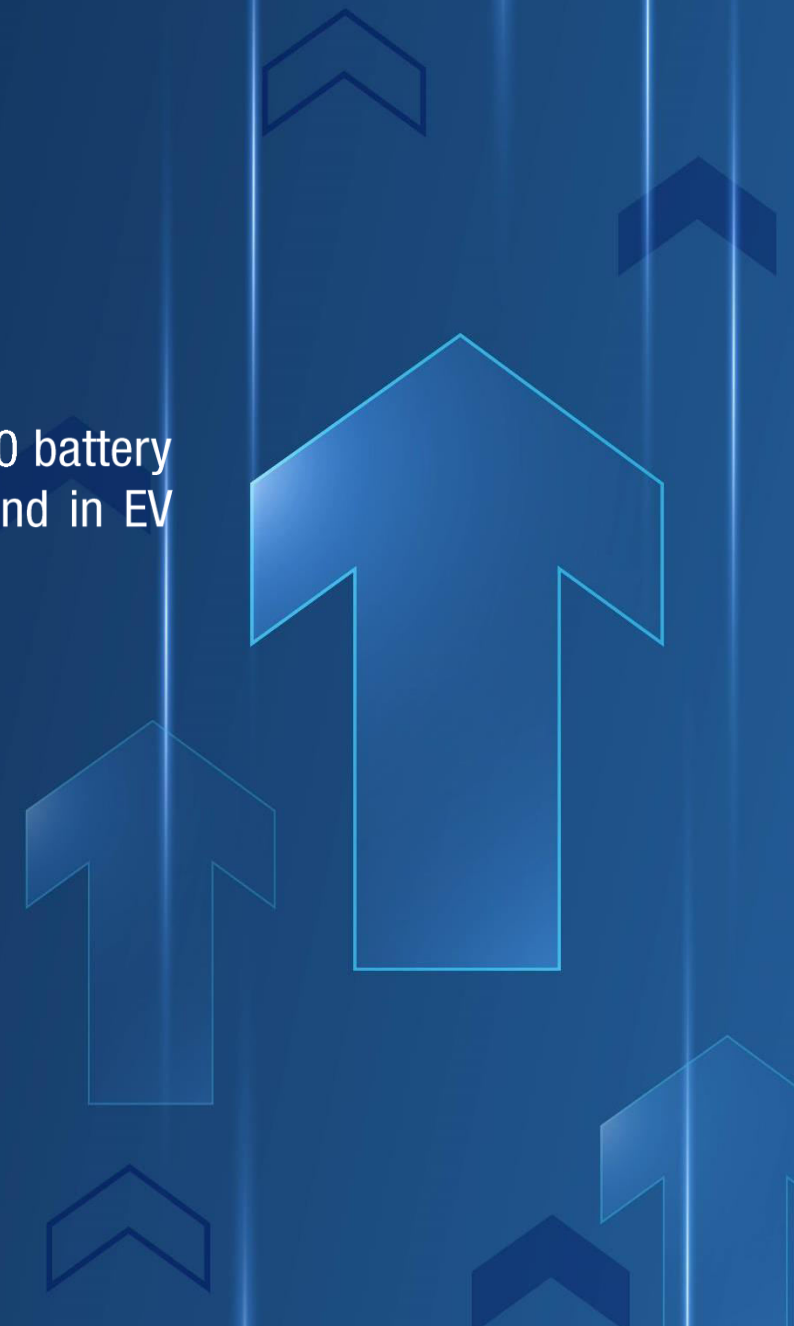
Her vision goes beyond profit making and is focused on giving back to the society by spearheading the CSR wing of the company.



# WAY FORWARD

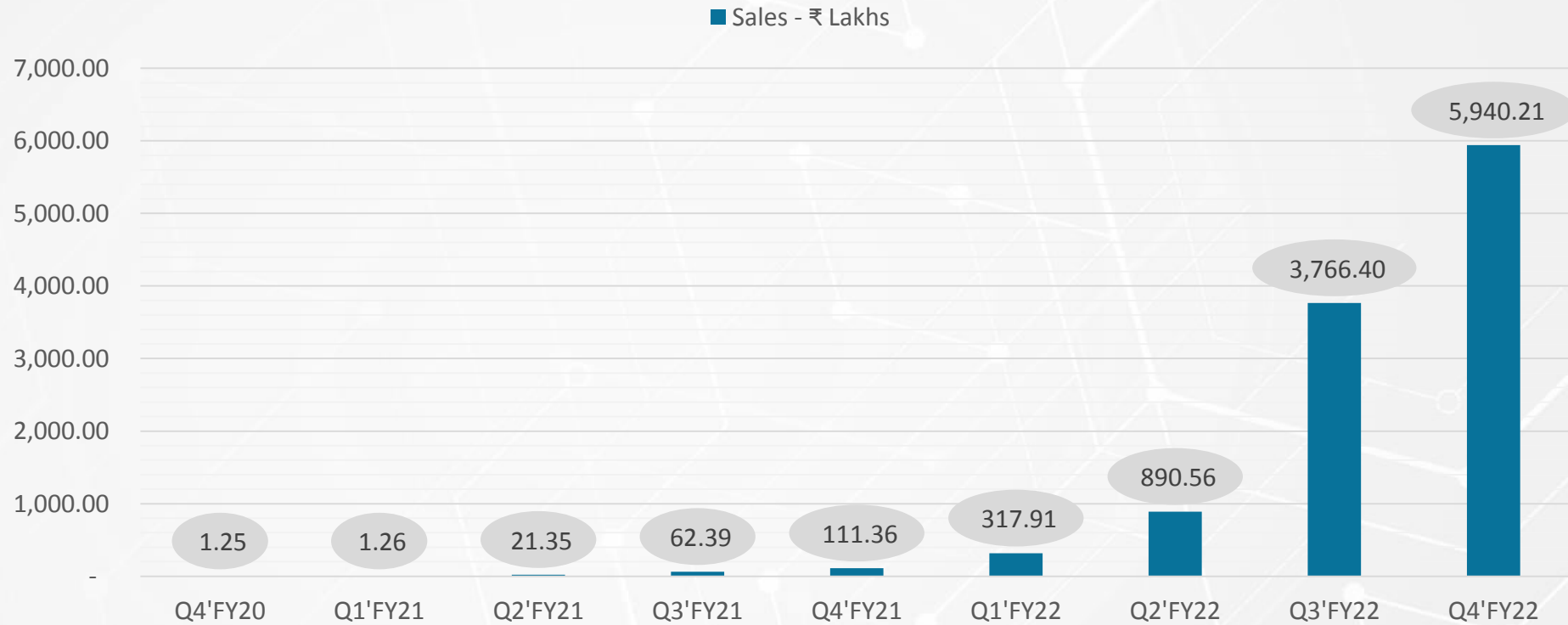
# BATTRIX - EXPANSION PLANS

- To add five additional Cylindrical battery pack production lines
- To add four prismatic battery pack production lines
- To enhance its annual production capacity in phases from existing 100,000 battery packs to 700,000 packs by the end of FY24 to meet the growing demand in EV industry and other energy storage applications
- Aims to reach 2-GWh capacity over the next 12-18 month
- Total investment planned at Rs.100 Crores
- To be funded by Equity / Internal accruals



# FINANCIAL SNAPSHOT – STRONG TRACK RECORD

## Battrix Sales



- Battery division has achieved revenue of ₹ 59.40 crs for the quarter ended Mar'22 which is up by 58% over quarter ended Dec'21 (₹ 37.66 crs) and achieved total revenue of ₹ 109.15 crs for year ended Mar'22.
- Backed by strong orders, Battrix division has turned profitable in the last quarter



PART OF THE  
**KOLSITE GROUP**

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(HOUSED UNDER  
KABRA EXTRUSIONTECHNIK)

# KOLSITE GROUP – AT A GLANCE

A LEGACY OF  
**60 YEARS**

Built on a solid  
foundation

**2000** SKILLED  
PROFESSIONALS

Led by expert workforce



**KOLSITE**  
SINCE 1962



**1200 CRORE**  
ANNUAL TURNOVER

Driven by growth

**8** MANUFACTURING  
LOCATIONS

State-of-the-art  
facilities



# KABRA EXTRUSIONTECHNIK LIMITED

**Headquarter:**  
Mumbai

**Factories:**  
Daman & Pune

**Sales & Service Offices:**  
Delhi, Mumbai, Chennai,  
Kolkata, Bangalore,  
Ahmedabad & Hyderabad

- Incorporated in 1982
- Engaged in manufacturing of plastic extrusion machinery
- Offers a wide range of hi-tech single and twin-screw extrusion lines for pipes, profiles, pellets, compounds, sheets, and multilayer blown films
- Exports account for 30% of the total turnover
- In-house manufacturing at two state-of-the art facilities in Daman, India with a combined area of 1,00,000 square meters



# A CULTURE OF CONTINUOUS INNOVATION

battenfeld-cincinnati 

 **EXTRON  
MECANOR**

**Penta**  
A Piovan Company

**UNICOR**

Technical tie-up with Battenfeld-Cincinnati GmbH since 1983 for pipe and profile machinery.

Joint venture with Extron Mecanor, Finland in October 2016 to provide an integrated approach to pipe producers by offering pipe socketing and beveling solutions.

A 50:50 joint venture with Italy-based Penta SRL for auto-feeding systems for the plastics and food processing industries.

A technology partnership with Unicor GmbH in October 2016 to make corrugated pipe machines.

# COMPETITIVE STRENGTHS



**60 years**  
of customer relationship



**Large global players**  
as customers



**Renowned leader**  
in extrusion market



**Over 40% market share**  
in organized extrusion market space



**91 countries**  
across the globe presence



**Continuous innovation**  
to empower business with latest technology



**Highly experienced team**  
with a proven track record



**Robust**  
Sales and Service Network



**Strong and secure**  
financial foundation



**Constant investment and development**  
in state-of-the-art infrastructure



# SAFE HARBOUR

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This presentation contains certain forward looking statements concerning the Company’s future business prospects and business profitability, which are subject to a number of risks and uncertainties and the actual results could materially differ from those in such forward looking statements. The risks and uncertainties relating to these statements include, but are not limited to, risks and uncertainties regarding fluctuations in earnings, our ability to manage growth, competition (both domestic and international), economic growth in India and abroad, ability to attract and retain highly skilled professionals, time and cost over runs on contracts, our ability to manage our international operations, government policies and actions regulations, interest and other fiscal costs generally prevailing in the economy. The Company does not undertake to make any announcement in case any of these forward looking statements become materially incorrect in future or update any forward looking statements made from time to time by or on behalf of the Company.



# TRANSFORMING FOR GROWTH...

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