

CELL PROPULSION

Connected Electric Mobility



VISION

To accelerate electrification of commercial vehicles through our fully managed mobility solutions.

PROBLEM STATEMENT

- Environmental Concerns - Tighter emission regulations pushing countries towards clean and sustainable mobility systems.
- Increasing fuel (Diesel) and operational costs.
- Lack of indigenous technology adapted for Indian (tropical) climate conditions.
- Lack of Correctly priced products and local support ecosystem.

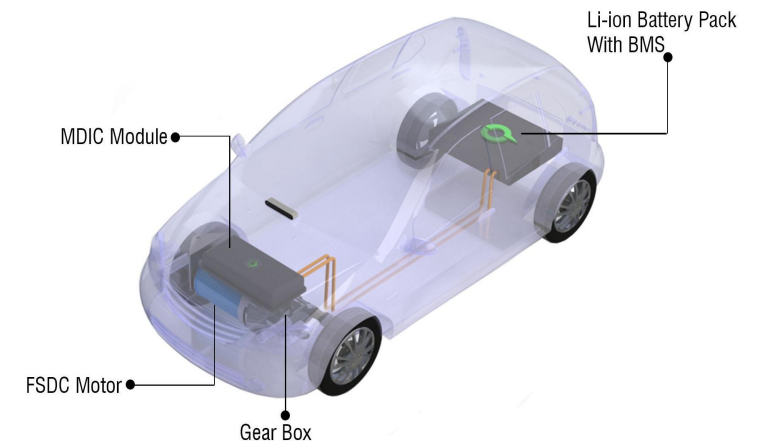
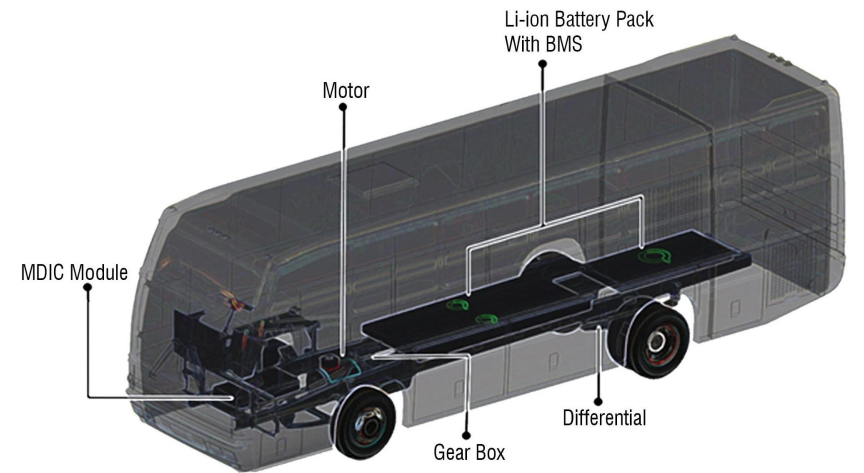
Cell Propulsion provides full stack solutions (products & services) to solve these problems and accelerate transition to electric vehicles.

INNOVATION

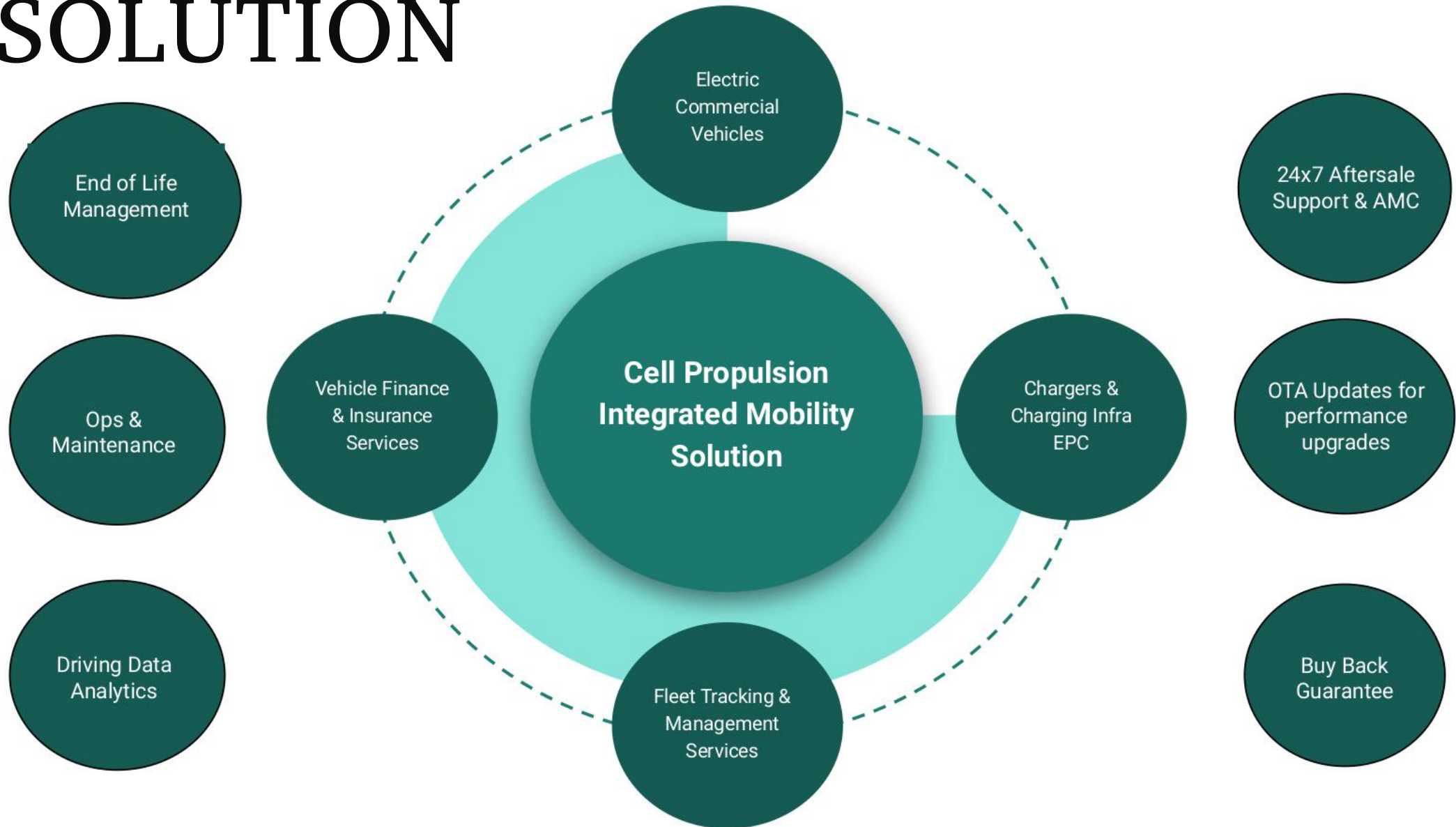
Cell Propulsion is developing integrated powertrains for commercial electric vehicles

- Elements of a Powertrain:

- Hardware: Electric motors, motor drives battery packs, BMS, Chargers, Connectivity Module
 - Software: Motor Controller firmware, BMS Firmware, Charger firmware, Connectivity software stack, and Operating software layer.
- The operating software integrates all the individual components into an intelligent system called powertrain which drives the vehicles and delivers required performance.
- Paid pilots with customers underway to commercialize these systems.



SOLUTION



MARKET SIZE

$$\begin{array}{r} \underline{\sim 10 \text{ million}} \\ \text{Number of CVs on} \\ \text{Indian Roads} \end{array} \times \begin{array}{r} \underline{\sim 70,000 \text{ USD}} \\ \text{Average price of CVs} \end{array} = \begin{array}{r} \underline{\sim 700 \text{ billion USD}} \\ \text{CVs Market} \end{array}$$

Over next 3 - 4 decades all these vehicles will be converted or replaced by Connected EVs.

Size of Indian CV Market (LCVs to HCVs) expected to grow to more than **1 Trillion USD** by 2030.

The Indian logistics market is expected to reach about USD 215 billion in 2020, at CAGR of 10.5%.

The New Commercial Vehicle market in India is expected to reach about USD 50 billion by 2020, at a CAGR of 10%

CP is well positioned to capture this market due to:

- Exclusive focus on CV market and solving its pain points - Well defined **product-market fit**.
- **In-house developed technologies** enabling easy adaptability to dynamic market requirements
- **Vertical integration** to control product pricing and achieve positive unit economics
- Fully managed, **complete product life-cycle support** for best UX with new EV products

COMPETITION

	For eLCVs	For eHCVs
Outside India	Lightning Systems & Nordresa	MotivPS, Rivian
In India	Mahindra (e-Supro), TATA (e-Ace)	Olectra (Goldstone + BYD)

CP Advantages:

- At par performance to ICE vehicles with no compromise on build quality or system reliability.
- Local after-sale support and supply of all spare parts and components.
- Only Indian company developing EV grade high voltage, high power electric motor, drives and battery packs.
- In-house development of all powertrain components.

BUSINESS MODEL

Outright Sale

- Sales of powertrains as conversion kits or for new EV models.
- ***Sales of (new/ pre-owned) EVs and chargers to drivers on aggregator platforms.***
- CP provides on-site after sale support for powertrain and other parts.
- CP sets up the charging infra which is owned completely by the customer.

Rental Model

- Vehicles and Chargers are provided on rent (INR per km basis).
- ***Sales to vehicle fleet owners and operators.***
- CP maintains the vehicle and charger to ensure reliable daily usage.
- CP leases and maintains the charging infra and customer operates it and pays for usage.

Turnkey Operator

- CP operates and maintains the vehicles on specified routes.
- CP ensures reliable daily operation on the specified route.
- CP owns and operates the charging infra and charges for electricity consumption.
- ***This offering is for STUs and to customers who outsource their transport operations.***

TEAM



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