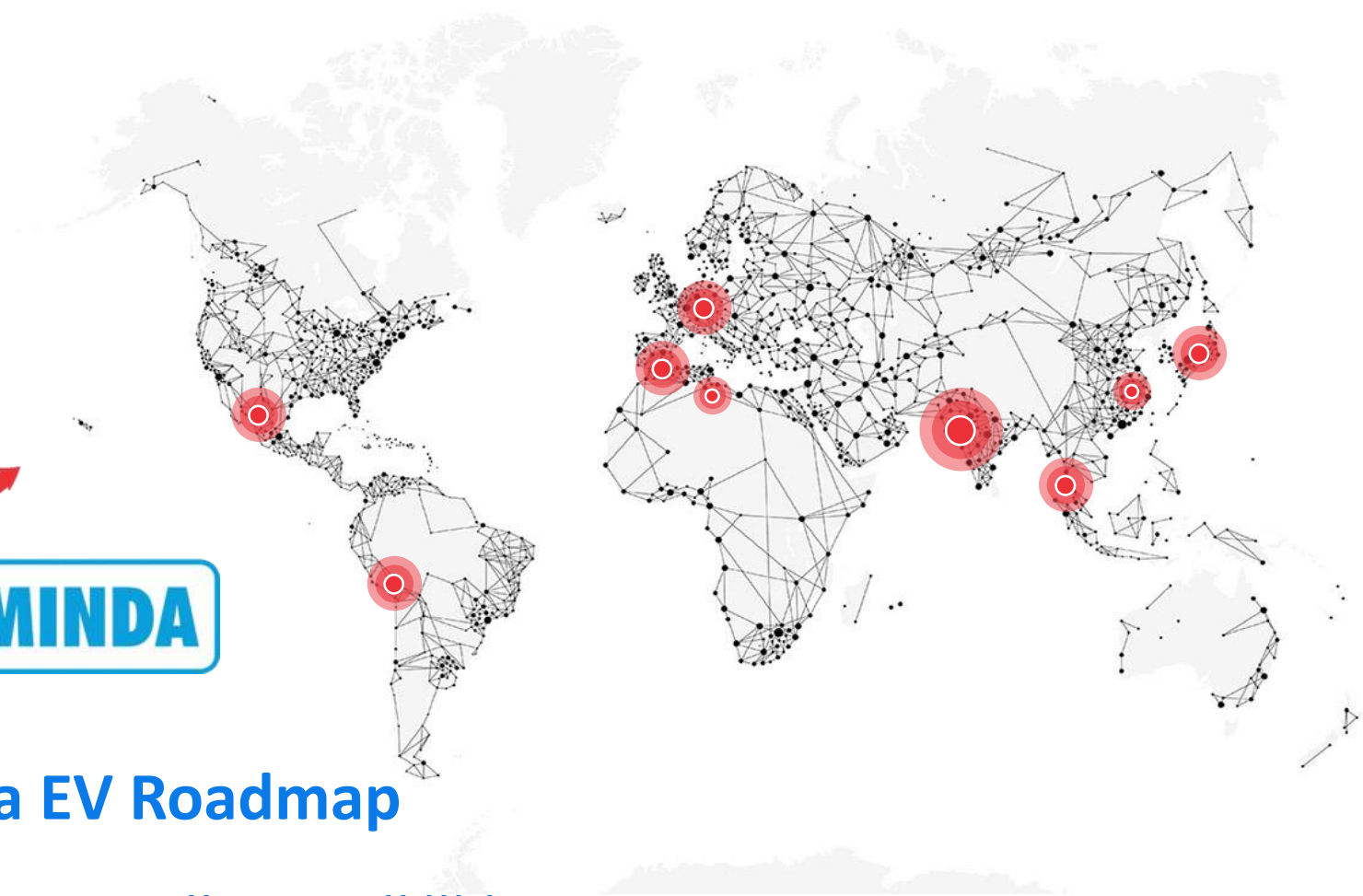




Uno Minda EV Roadmap

Building Trust, Expanding Possibilities



Health and
Safety



Autonomous

Connected
Everywhere



Connected Car

Environment
and Sustainability



Electric

Sharing
Economy



Shared Mobility

India



ADAS

ADAS



Connected Car



Electric



Regulations



Shared Mobility

- Almost all products of Minda are EV agnostic
- Minda is following a two prong strategy on EV
 - Upgrade / Enhance / Adapt our current products for EV specific applications
 - Develop new EV specific products which are currently not in the Uno Minda portfolio
- Current focus is on 2W and 3W segment which is expected to see the maximum growth

Sensors for Electric Vehicles



Brake Pedal
Sensor for EV
Regenerative
Braking



EV Battery
Temperature
Sensor



Accelerator
Position Sensor for
EV



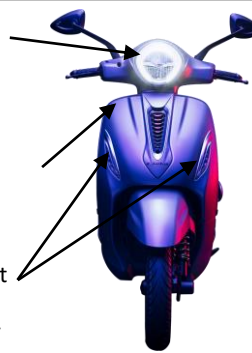
Vacuum sensor for
EV Brake System

LED Lighting & Switches for Electric Vehicles

LED DRL &
Position
Lamp

LED Head
Light

LED Front
Turn
Indicator



LED Sequential Turn
Indicator Lamp

LED Tail Lamp
with Stop Lamp



LED Front
Position
Lamp
LED Head
Light

LED Front
Turn
Indicator



Switches

LED Tail
Lamp with
Stop Lamp

LED Rear
Turn
Indicator



Under Production
Under Development
Under Study



Battery Management System

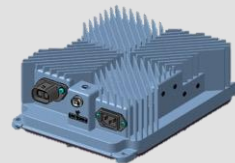


Li-Ion Battery Pack

Smart Plug



On-Board Charger



DC-DC Converter



Telematics



Motor Controller



Battery Management System

Entered into a TLA with AMP, USA for Battery Management Systems for 2W, 3W, 4W and CV Markets in India



Battery Runtime

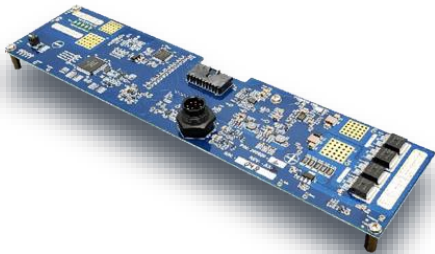
Battery Lifetime

Faster Charging

Automotive BMS



Autonomous Mobility BMS



Motorcycle BMS



Electric Bicycle BMS



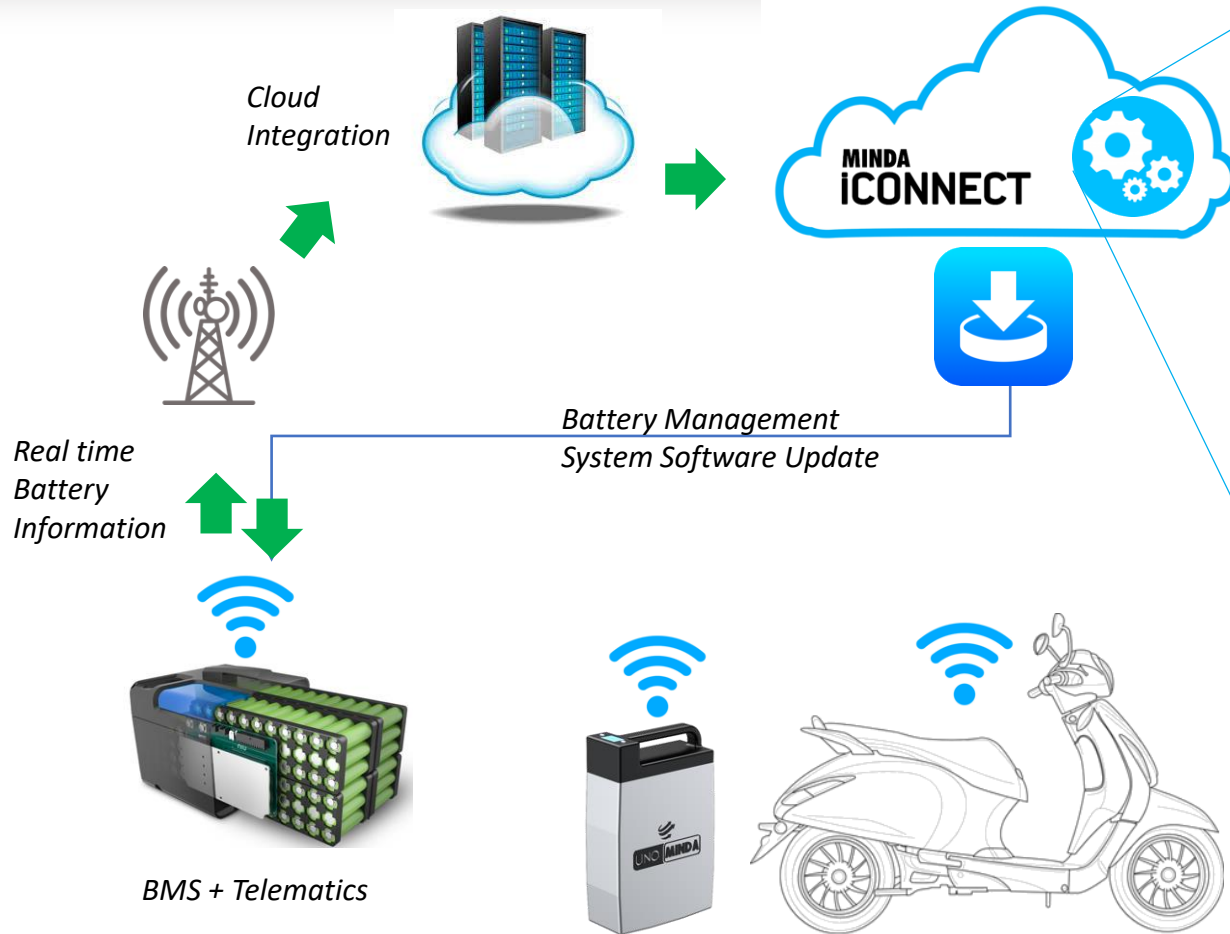
Energy Management System



Fast Charge Junction Box



Integrated BMS and Telematics

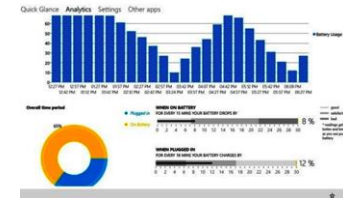


Tracking Battery as an Asset

Battery Diagnostic

Battery Predictive Maintenance

Battery Authentication & Swap



Battery Analytics

Smart Plug Charging – Recent Launch

- Recently launched on TVS iQube
- Modular design with various authentication options and integration of connectivity



- Aggressively tracking the EV market
- Although Uno Minda's current product portfolio is EV agnostic, Minda is focusing on upgrading its product line to suit and add value to EV Segment
- Uno Minda is also developing several EV specific products focused on the 2W and 3W market
- Also strengthening its position by Technology driver alliances in high technology area.

Thank You



UNO MINDA Corporate Office
Village Nawada Fatehpur, P.O. Sikanderpur Badda,
Manesar, Gurgaon – 122004, India.

www.unominda.com | communicationdesk@mindagroup.com |

