

# THE JOURNEY TO GREEN ROAD TRANSPORT



16 Nov 2022





**KAHU|EV**

DRIVING ELECTRIFICATION 4.0

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**+**

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**GM - Commercial**

# WHO IS KAHU EV

Electric Vehicle Pioneers  
since 2008

Formerly called  
Zero Emission Vehicles Ltd

Track record of firsts



**IRTENZ** zero emission vehicles

2017

- Powered truck/tractor with powered “trailer(s)”
- 660 kW through 6 axles
- Super Singles
- 8 tonne axle loading
- 7,500 Nm per wheel
- Balanced system









**VISITOR**

**VOLTRA**

**BHP**





# EK16S Medium Duty Battery Electric Truck

## First NZ Designed and Assembled

- ✓ Higher Power
- ✓ Upgraded Liquid Cooling
- ✓ 6 speed AMT
- ✓ Upgraded Rear Axle
- ✓ 4x2, 6x2, 6x4

**Container**  
»» Link

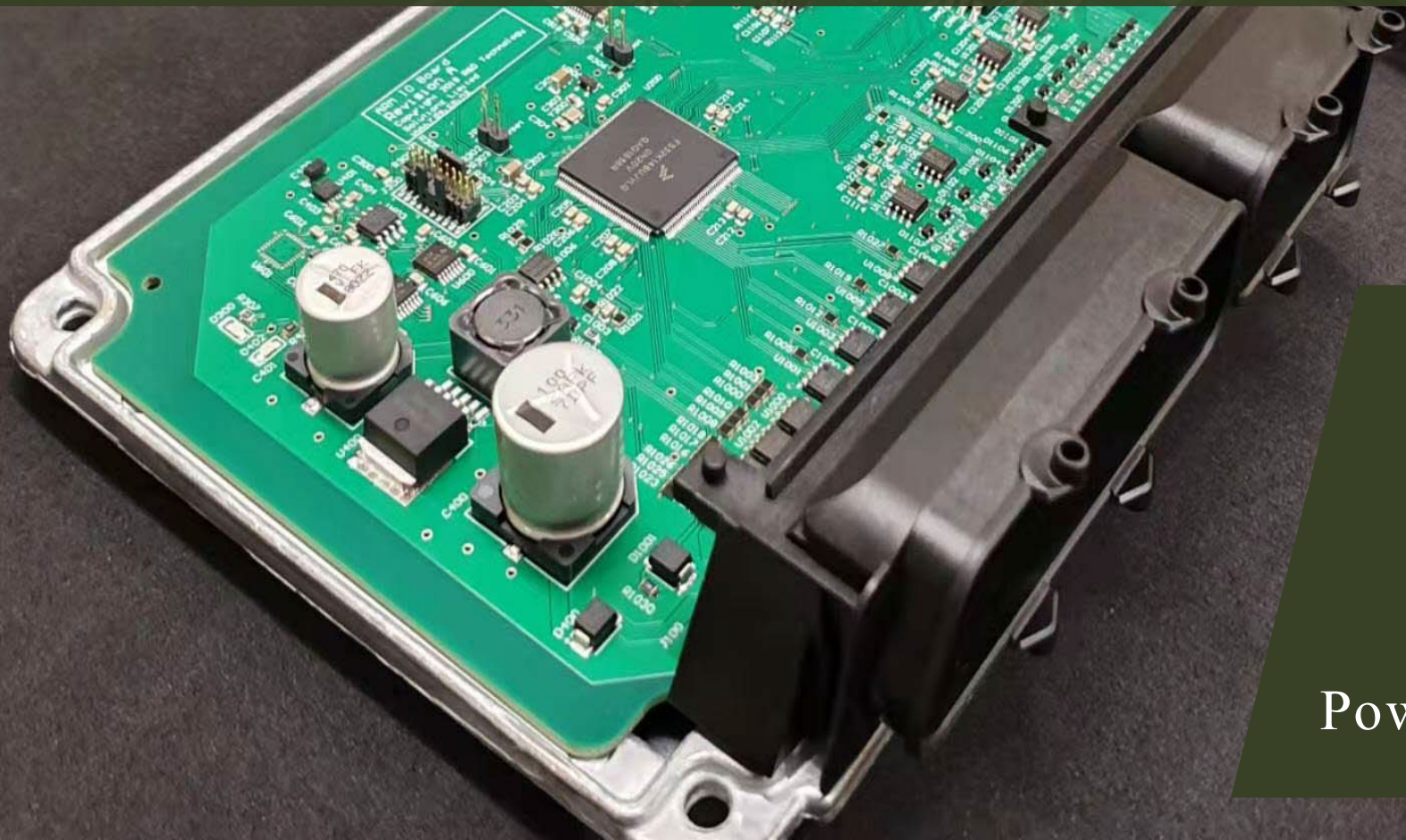








# HARDWARE & SOFTWARE INTELLECTUAL PROPERTY



ECU

BMS

Charging

Telematics

Power Distribution

# The Fourth Industrial Revolution

## Industry 4.0

Convergence of physical, digital, and virtual worlds



**INDUSTRY 4.0**

The illustration depicts a superhero figure in a red and yellow suit, holding a large red flag. The flag is divided into yellow and red sections. The text 'INDUSTRY 4.0' is prominently displayed in bold black letters on the yellow section of the flag. The entire scene is framed by a thick red border.



# TRANSPORT 4.0

Remote Control  
Autonomous Driving  
Platooning  
Advanced Telemetry  
Driver and Load Monitoring  
Active Route Planning  
eCommerce Integration  
Wireless Charging  
Anticipatory and Reactive Maintenance





# KAHU|EV

DRIVING ELECTRIFICATION 4.0

FUTURE FOCUS

FUTURE PROOF

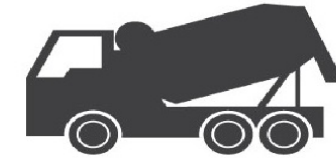




# Frozen Food Delivery



# Special Body Vehicle



Advanced Thermal Management  
Many Temperature Sensors

Cabin Control  
-Gear Selector  
-Heater Controls  
-Brake Switch  
-Dash Board Control  
-Park Brake  
-Throttle Pedal

Weight Scale System  
CIT (Central Tire Inflation)  
Hydraulic Body Control

Motor Control  
-Motor Coolant Pump  
-Precharge Contactor  
-Gearbox HI/LO Selector Switch  
-2WD/4WD Selector Switch  
-Gearbox Temperature  
-Gearbox Oil Level

Body Control  
-Indicators  
-Fans  
-Coolant Temperature  
-Coolant Level  
-Water Pumps  
-Vacuum Pump  
-Power Steering

Motor 2, Motor 3  
Gearbox 2, Gearbox 3

Battery Pack Control  
-Current Sensors  
-Temperature Sensors  
-Voltage Sensors  
-Contactor Control  
-BMS Control  
-EVCC  
-DCDC Pump

Extra Battery Pack  
APU  
Hydrogen Fuel Cell

EV-NET

# Multi Axle Heavy Vehicle



# Multi Axle, Multi Fuel Type



# EVNetG

## EV Control System

### J1939 CAN

### OEM Opportunities

Improved  
Accountability

Preventive  
Maintenance

Visibility



# TELEMATICS

KAHU EV WEB HOST

REMOTE MONITORING AND MANAGEMENT

SMART INTEGRATION









# SMART CITIES & ROADS

## SMART VEHICLE DESIGNS





THANK YOU



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