



LITHION

**BMS Up To 72V
System**



Vision

- To Be Amongst Top 3 Global BMS Manufacturers In Low/Medium Power Electric Vehicle Market (48-72 Volts)

Mission

- Design And Manufacture BMS Upto 72V For Electric Vehicles Market

Location

- Locations – India (Noida And Delhi)
- Sales Office In India And Singapore
- 10k Sq Ft Location For R&D And Administration
- >20k Sq Ft Location For Factory And Warehouse

Head Count

- 80+ Employees Across Functions (Expanding To 125+)

About

- Established In 2016
- Largest BMS Manufacturer In India
- MSME25 Ranking & Innovation Index 2.7

15+ Patents Filed In India

Management Team

Experience In Leading Global Fortune 500 Companies



Piyush Gupta, CEO

- MBA INSEAD, B. Tech - IIT, Kharagpur (2000)
- Ex VP – Axiata Group, Director (TE Connectivity)



Dr. Manish Chauhan, Head - Product Management

- B. Tech – IIT Mumbai (2000) & PhD - California
- Material Science and Manufacturing expert



Prabhat Khare – CEO/ Charger Business & Head-Operations

- B. Tech (Electrical) – IIT Roorkee 1982
- Ex – Tata Motos, Honda Cars India, Ashok Leyland

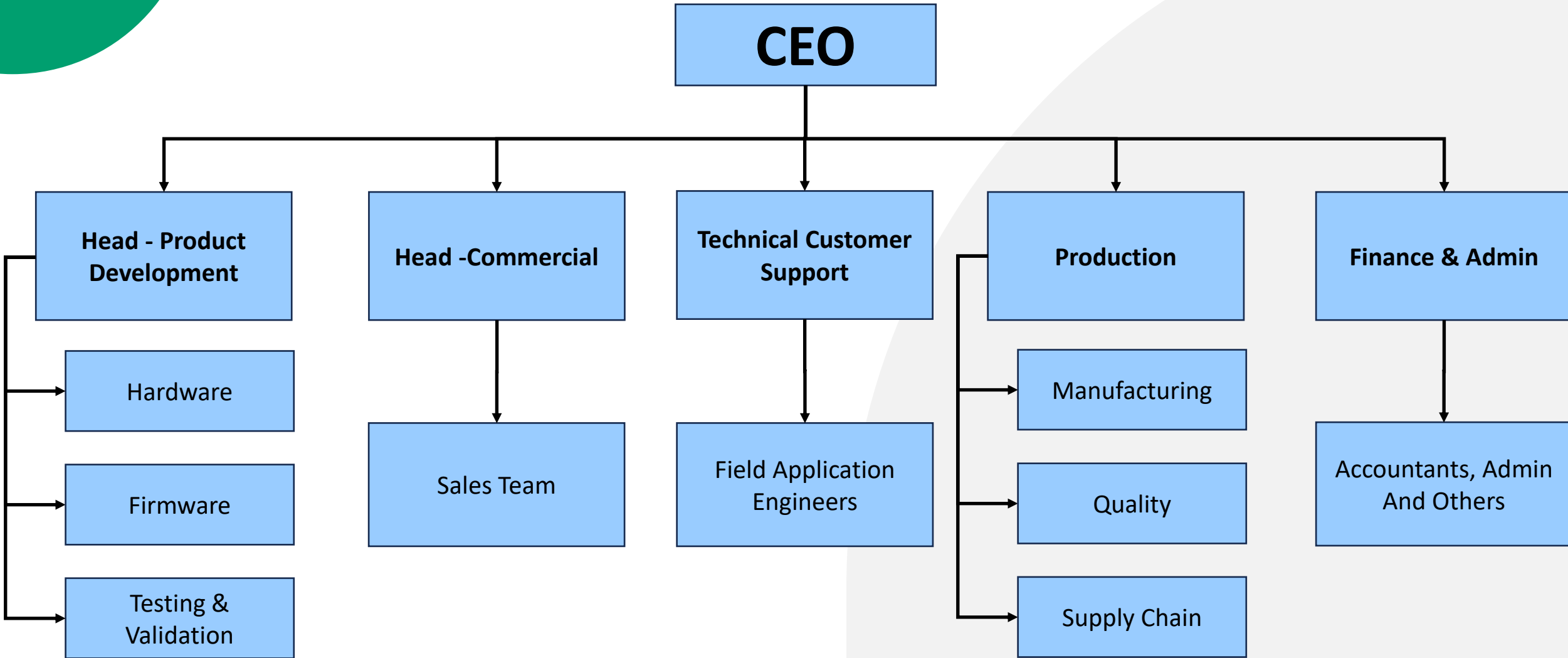


Chandrashekhar Bhide, Head- Organization Management

- MBA – IIM Ahmedabad, BTech- IIT Mumbai (1999)
- Ex DBS Bank, Yes Bank, Idea Cellular

80+ Team Members In R&D, Product Development And Operations

Organizational Chart



Rapidly Expanding Team

BMS is our Key Product

Low Cost
2S/3S/4S

I Series

T Series

SS Series

AQ Series

SQ Series

CT Series



2A/3A/10A

5A~120A

10A~60A

Up to 120A

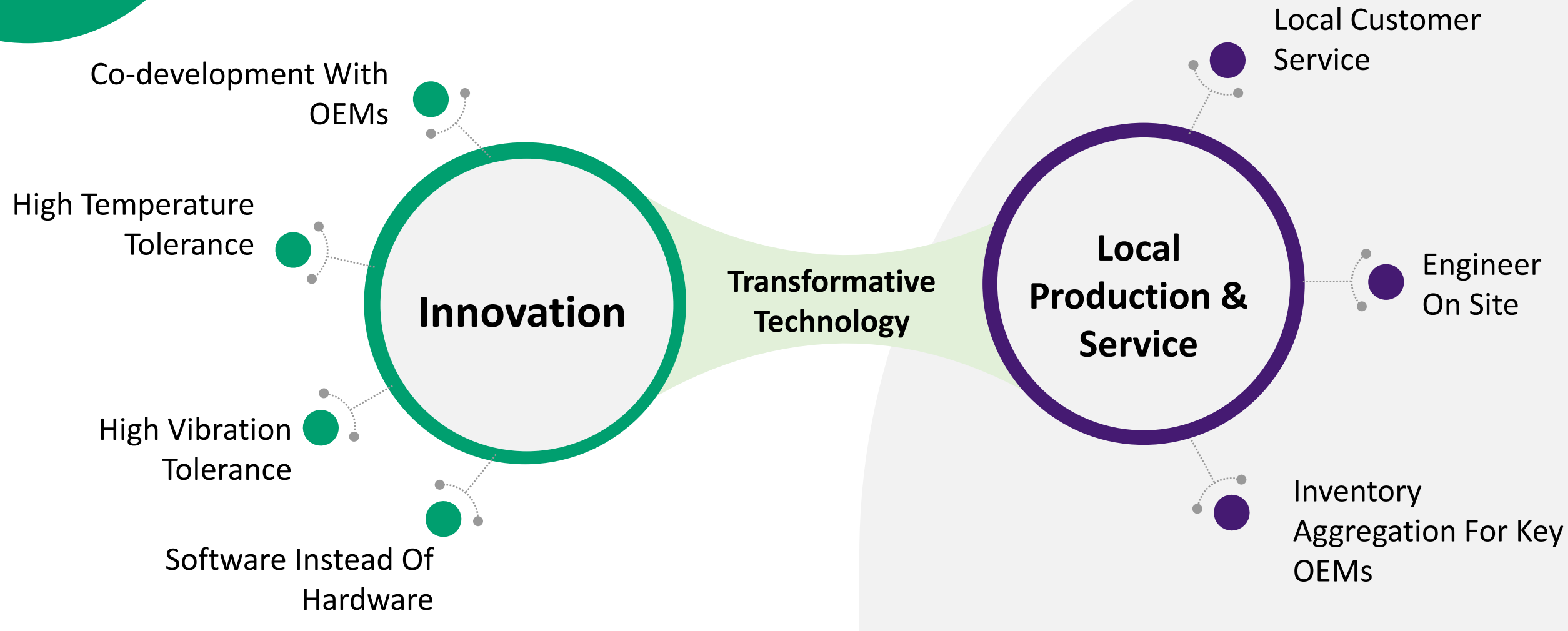
Up to 150A

Up to 60A

Up to 300A

BMS Up To 72V And 300 Amps - Overall ~100 Types Of BMS

Our Technology Buildup



Lithion Is Solving EV Problem By Localizing Supply Chain

WHY Lithion?



We Win Because We Co-develop Products With Our Customers And Excel In Customer Service

Market Accepted Products

Supply Chain Stabilized

- 100+ SKUs Stabilized.
- Manufacturing Partners And Suppliers Working For 36+ Months

Long Term Customer Contracts

- 12 Months Supply Visibility For Key Customers

Manufacturing Setup

- 30+ Staff Trained In BMS Manufacturing.

Quality Processes

- Quality Processes Implemented
- Quality Driving Product Team

ERP Implementation

- SaaS Based ERP Implemented To Help Scaleup Faster

Customer Service Team

- Team To Support Technical Debugging And Support
- Biggest Advantage

Able To Serve Large Indian EV Companies With Highest Quality

Key Use Cases



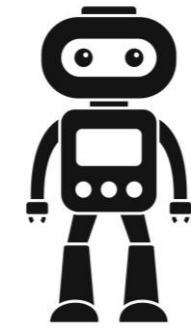
48V, 40 Amps



48V, 80 Amps



48V, 300 Amps



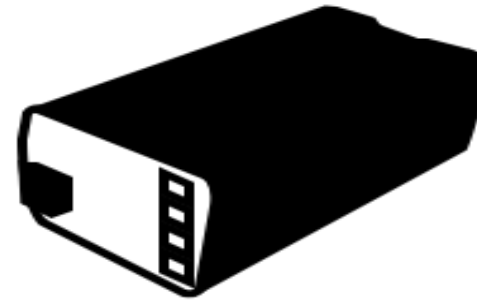
24V, 30 Amps



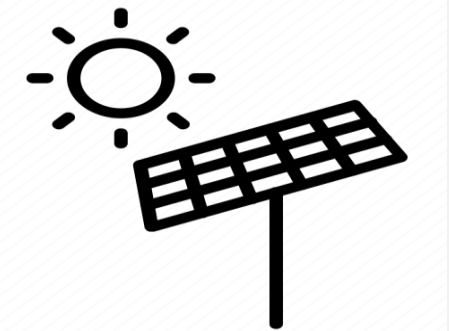
48V, 300 Amps



24V, 60 Amps



48V, 100 Amps



12V, 10 Amps

Customization Of BMS For Special Use Cases

BMS Integration Capability For Varied Customer's Requirements

Standard CAN
Implementation

Charger Integration

Integration with Fleet
Management

Integration with VCU

Tracking with IOT

Integration with
Warranty
Management

Customization Of BMS For Special Use Cases

Largest Battery Manufacturer

- More Than 30 Months Of Billing
- 2 Products Approved
- 3 Under Approval

Top 5 EV Manufacturer

- 1 Product Approved (Through Battery Companies)

Top 3 Inverter Manufacturer

- Major Export Market
- 3 Products Approved

Defense & Robotics Focused Customer

- Indian subsidiary of American Company
- 1st Customer of our AQ 16 series

New Age Small Car

- Contactor Based Product Under Approval

ICE Engine Majors moving into EV

- Product Under Approval Through Battery Pack Assembler Customer

Able To Serve Large Indian EV Companies With Highest Quality

Example – Lithion BMS Integrated Zbee Digital Display

AQ Series BMS –
Lithion's BMS

SOC Meter
Display –
Customer Had A
VCU And SOC
Meter



CAN Protocol Integration with VCU and SOC

Example - Integrated Aftek Digital Display With BMS

AQ Series BMS –
Lithion's BMS

SOC Meter Display
– Customer Had An
Imported SOC
Meter

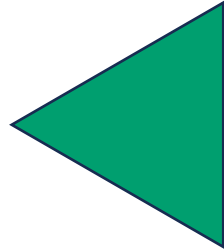


CAN Protocol Integration With SOC Meter

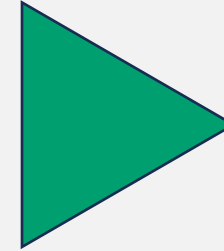
Example - Integrated IoT Devices with BMS



Industry standard
GPS



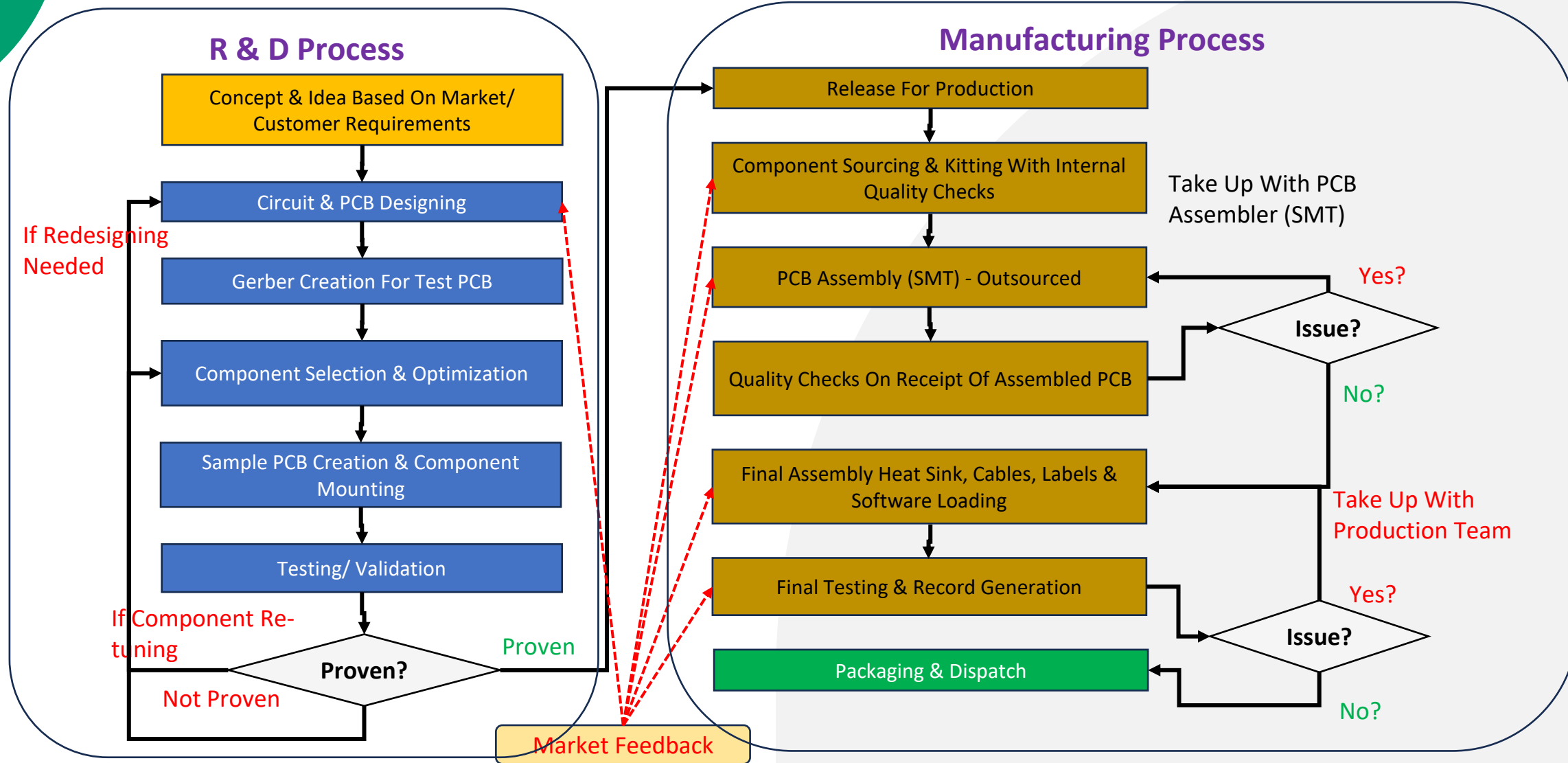
AQ Series – Lithion's
BMS



Industry standard
GPS

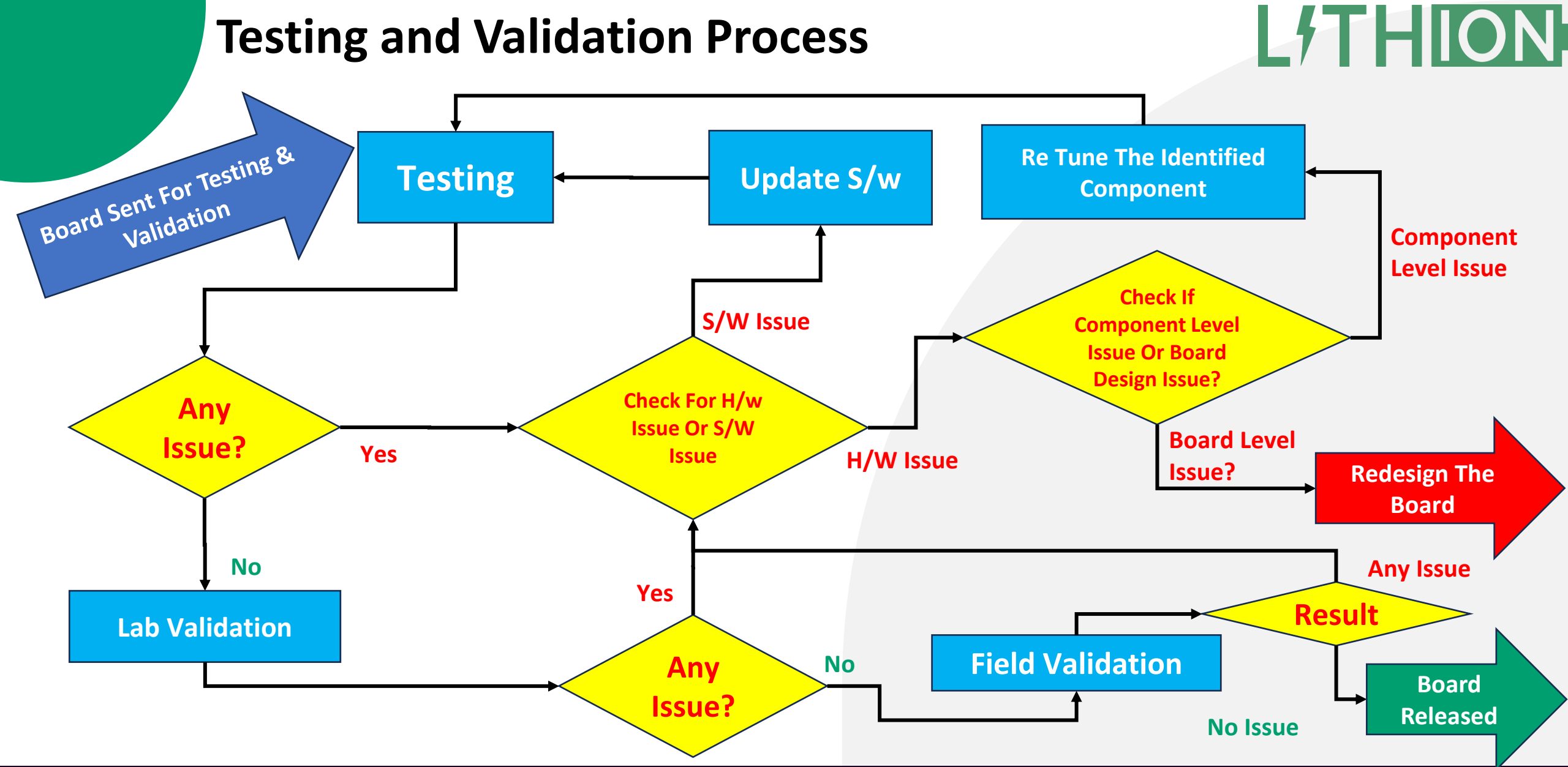
Our Smart BMSes Have Been Integrated With Various Makes Of IOT Devices

Product Commercialisation Process



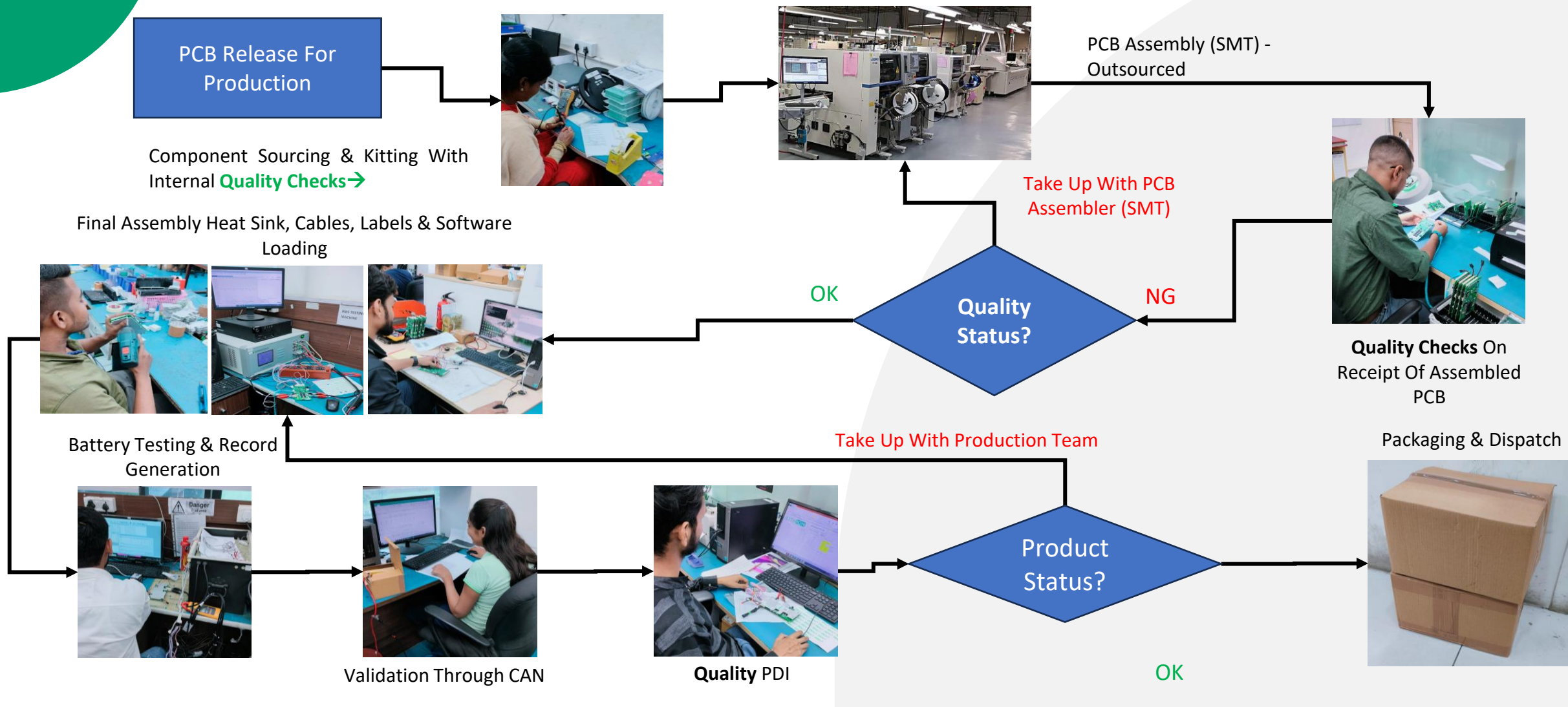
Systematic Product Commercialisation Process

Testing and Validation Process



Stong Testing and Validation Process In Place

Manufacturing Process



Lean Manufacturing Process

Certifications



<https://icat.in/>

ICAT - International Centre for Automotive Technology

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INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY
A Division of National Automotive Board (NAB), Govt. of India

जाँच रिपोर्ट / TEST REPORT (विस्तृत रिपोर्ट / Extension Report)

जाँच रिपोर्ट संख्या / Test Report No.: **C T 1 M S 0 5 6 1** दिनांक / Date: 21-07-2023
Non-Transferable

1.0 ग्राहक का नाम और पता / NAME AND ADDRESS OF THE CUSTOMER : LITHION POWER PRIVATE LIMITED
413, 4th Floor, D-Mall, Sector-10, Rohini, Delhi-110085, New Delhi, INDIA

2.0 ग्राहक का संदर्भ / CUSTOMER REFERENCE : CCTRLITHSH168703; Dated: 19-07-2023
निर्माता का नाम और पता / NAME AND ADDRESS OF THE MANUFACTURER : Same as mentioned in Sr. No. 1.0

3.0 परीक्षण संपत्ति का विवरण / DESCRIPTION OF TEST PROPERTY: DUT Name: BMS integrated with Lithium Battery
Model Name/No.: AQ16-60A-V6.6
Part No.: AL16060
Voltage System: 51.2 VDC
Drawing No.: LPPL_AQ16_V6_DR002
Hardware Version: AQ16-60A-V6.6.2.4
Software Version: 9.2
Max. Current Consumption of DUT: 11-13 mA

4.0 उद्देश्य / OBJECTIVE: To validate the component for EMC extension as per Cl. No. 6.1.2.2 of Amendment 3 to AIS-156 (09/2022) referred standard AIS004 - Part 3 as amended up to September 2022.

5.0 विस्तृत करने का औचित्य / JUSTIFICATION FOR EXTENSION:
The component mentioned in Sr. No. 3.0 was approved as per Cl. No. 6.1.2.2 of Amendment 3 to AIS-156 (09/2022) referred standard AIS004 - Part 3 as amended up to September 2022 vide Test Report No. CTOMS0558 dated 21-07-2023 against Docket No. 168703. The customer seeks extension of approval as per Cl. No. 6.1.2.2 of Amendment 3 to AIS-156 (09/2022) referred standard AIS004 - Part 3 as amended up to September 2022, to the following mentioned part numbers as per the declaration submitted by customer dated 19-07-2023.

Sr. No.	Approved Details	Additional Details	Justification for Addition of Model
1.	Refer Sr. No. 3.0	Refer Sr. No. 7.0	The Hardware is same and the board is less populated than tested model due to which changes are in model name/no., part no., drawing no. & hardware version, the extended model is of lower current rating (40 A); as declared by customer.

Therefore, on the basis of the declaration submitted by customer dated 19-07-2023 extension may be given.
6.0 निष्कर्ष / CONCLUSION:
The validity of the above mentioned report is extended to the Additional details mentioned in Sr. No. 5.0. This report should be read along with EMC test Report No. CTOMS0558 dated 21-07-2023 against Docket No. 168703.

Prepared By	Checked & Authorized By	Approved By
MOHINI SHARMA Engineer Associate	JEEVAN PAL Manager	RAKESH KUMAR Assistant General Manager

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Office Address : Centre-I : Plot No.-26, Sector-3, HSIIDC, IMT-Manesar, Gurugram-122050, Haryana (India)
Centre-II : Plot No.-01, Sector-M-11, HSIIDC, IMT-Manesar, Gurugram-122050, Haryana (India)
Phone : 0124-4586111, E-mail: team@icat.in, Website : www.icat.in
(An ISO 9001, ISO 14001 and ISO 45001 certified, Scope wise accredited as per ISO 17025 and BIS recognized agency)



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INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY
[A Division of NATRIP Implementation Society (NATIS), Govt. of India]

जाँच रिपोर्ट / TEST REPORT

यू. एन. आर नंबर / ULR No.: **T C S 3 6 0 2 3 0 5 0 0 0 0 2 4 3 F**
जाँच रिपोर्ट संख्या / Test Report No. *: **C T O M S 0 3 4 8** दिनांक / Date: 01-05-2023
Non-Transferable

1.0 ग्राहक का नाम और पता / NAME AND ADDRESS OF THE CUSTOMER : LITHION POWER PRIVATE LIMITED
413, 4th Floor, D-Mall, Sector-10, Rohini, Delhi-110085, New Delhi, INDIA

2.0 ग्राहक का संदर्भ / CUSTOMER REFERENCE : CCTNLITHSD166310; Dated: 18-04-2023
निर्माता का नाम और पता / NAME AND ADDRESS OF THE MANUFACTURER : Same as mentioned in sr. no. 1.0

3.0 परीक्षण संपत्ति का विवरण / DESCRIPTION OF TEST PROPERTY: DUT Name: BMS integrated with Lithium Battery
Model Name/No.: AQ16-60A-V6.6
Part No.: AL16060
Voltage System: 51.2 VDC
Drawing No.: LPPL_AQ16_V6_DR002
Hardware Version: 6.6
Software Version: 9.2
Max. Current Consumption of DUT: 11-13mA

4.0 परीक्षण संपत्ति की प्राप्ति की तिथि / DATE OF RECEIPT OF TEST PROPERTY: 11-04-2023

5.0 परीक्षण संपत्ति की स्थिति / CONDITION OF TEST PROPERTY: Test Property received in good condition.

6.0 परीक्षण उद्देश्य / TEST OBJECTIVE: To conduct tests as mentioned in Sr. No. 14.0 on DUT as per Cl. No. 6.1.2.2 of Amendment 3 to AIS-156 (09/2022) referred standard AIS004 - Part 3 as amended up to September 2022.

7.0 परीक्षण विधि / TEST METHOD: As per Cl. No. 6.1.2.2 of Amendment 3 to AIS-156 (09/2022) referred standard AIS004 - Part 3 as amended up to September 2022.

8.0 परीक्षण विधि से कोई विचलन या बहिष्करण / ANY DEVIATION OR EXCLUSION FROM TEST METHOD: NA

9.0 कार्यात्मक सत्यापन / FUNCTIONAL VERIFICATION: Performance was observed before, during & after test by visual monitoring of parameters such as load currents (Charging current at 20A and Discharging current at 60A), temperature etc. In both charging and discharging modes using CAN software in laptop provided by customer.

10.0 निष्कर्ष / CONCLUSION: The component mentioned in Sr. No. 3.0 above meets the requirements as per Cl. No. 6.1.2.2 of Amendment 3 to AIS-156 (09/2022) referred standard AIS004 - Part 3 as amended up to September 2022.

11.0 परीक्षण विवरण / TEST DESCRIPTION: EMC/EMI testing as per Cl. No. 6.1.2.2 of Amendment 3 to AIS-156 (09/2022) referred standard AIS004 - Part 3 as amended up to September 2022.

*This report supersedes EMC report No. CDOMS0327 dated 19-04-2023 against Docket no. 166310 due to error in Model Name/No., Hardware Version and Software Version provided by customer.



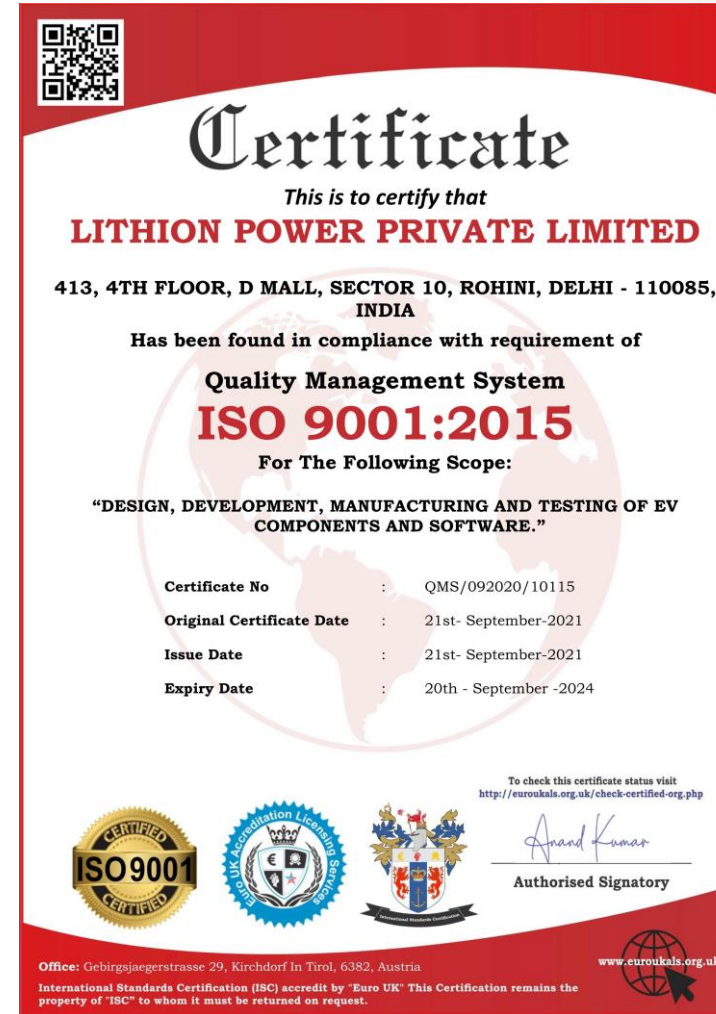
Prepared By	Checked & Authorized By	Approved By
RAKESH KUMAR Engineer Associate	JEEVAN PAL Manager	RAKESH KUMAR Assistant General Manager

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(An ISO 9001, ISO 14001 and ISO 45001 certified, scope wise NABL accredited and BIS recognised Test House)

EMI/ EMC Certification Of Our BMS from ICAT

Recognition



High On Innovation Index & ISO Certification

Reach Us, For Support

**Our Team Would Love To Provide Solutions
To Your Battery Related Issues**

<https://lithionpower.com/>

sales@lithionpower.com

+91-89290 65286

Thank You!!