

# Enterprise Data Infrastructure Implementation for an EV Manufacturer

## Business Problem



- Siloed data across vehicle telemetry, grid, SAP, MES, Salesforce, Jira, and shopfloor systems
- No unified enterprise data platform for business and operational analytics
- Inconsistent reporting across finance, quality, customer, product, and vendor domains
- Limited support for predictive and AI-driven use cases
- Challenges in governance, lineage, reconciliation, and metadata visibility

## Solution



- Built a Databricks-based modern data lake and analytics platform on GCP
- Unified ingestion for telemetry, grid, and enterprise data
- Created a governed Bronze—Silver—Gold architecture with reusable data marts
- Enabled Customer 360, Product 360, Vendor 360, Finance 360, and Quality 360
- Implemented data quality, lineage, metadata management, and AI/ML readiness
- Supported enterprise analytics through dashboards, reports, and AI/BI conversational access

## Value Delivered



- ✓ **Unified 3 key data domains:** telemetry/vehicle, grid, and enterprise data
- ✓ **Supported 400+ reports** on a modern governed analytics platform
- ✓ **Integrated 5+ source systems** including SAP, MES, Salesforce, Jira, and IoT/shopfloor data
- ✓ Created a trusted single source of truth using Bronze, Silver, and Gold data layers
- ✓ **Enabled 5 enterprise 360 views:** Customer, Product, Vendor, Finance, and Quality
- ✓ Improved readiness for AI/ML, predictive maintenance, and enterprise-scale analytics



### 3 Domains

Unified Key Data Domains on a Single Platform



### 5+ Systems

Integrated Enterprise and Operational Source Systems



### 400+ Reports

Supported Through a Governed Analytics Foundation