# **Manufacturing Analytics Solution**

## **Manufacturing Data Analytics on Microsoft Fabric**

### **Manufacturing Challenges and the Need for Unified Analytics**

Manufacturers face challenges in optimizing production, managing inventory, analyzing supplier performance, and aligning operations with financial goals. Disparate data systems hinder real-time insights, affecting efficiency and decision-making.

#### **Proposed Solution: Manufacturing Data Analytics on Microsoft Fabric**

NeoStats introduces the Manufacturing Data Analytics Solution, a comprehensive framework that leverages Microsoft Fabric pipelines to enable seamless data integration, transformation, and reporting. This solution provides manufacturers with centralized, real-time analytics to enhance operational efficiency, improve resource utilization, and drive strategic decision-making.

## **Key Features of the Manufacturing Data Analytics Solution**

- 1. Reusable Data Model:
  - A pre-built, scalable data model tailored for manufacturing operations.
  - Adaptable to changing business needs and evolving industry demands.
- 2. Microsoft Fabric Data Pipeline:
  - Automated data processing powered by the Medallion Architecture.
  - Structures data into Bronze, Silver, and Gold layers for high-quality, reliable analytics.
- 3. Power BI Dashboards:
  - Real-time reporting on key metrics including:
    - o Production volumes and trends.
    - o Inventory levels and management.
    - Supplier performance and reliability.
    - o Financial metrics and profitability analysis.
    - o Downtime analysis and optimization opportunities.
- 4. Enhanced Operational Insights:
  - Analyze resource productivity and track production trends.
  - Identify and address bottlenecks to maximize efficiency.
- 5. Financial Performance Tracking:
  - Monitor profitability, cost optimization, and P&L metrics.
  - Align operations with strategic financial goals.

