



Live Enterprise – Predictive Maintenance

Function:
Manufacturing

Processes:
Production, Maintenance

Industry:
Consumer & Industrial Products (C&IP) – Automotive; C&IP - Industrial Products & Services; Public Sector – Defense; Energy & Resources; Cross-industry

Business Driver

Predicting shop floor machine failures can

- Help prevent downtime
- Keep down additional costs
- Prevent long-term damage

Solutions Overview

Extracting shop floor information for efficient decision-making is like finding a needle in a burning haystack, especially when time is of the essence. Our solution—built on top of SAP® Predictive Maintenance and Service—provides a holistic management of asset health and decision support for maintenance schedules and the optimization of resources based on health scores, anomaly detection, and spectral analysis.

Features

Connect sensors from shop floor to the digital core

- Apply deep analytics capabilities on sensors available on the shop floor
- Generate actionable insights from the shop floor signals into the SAP S/4HANA® Digital Core and through to IBP Response Management for immediate action and re-planning

Predictive analytics

- Survival techniques
- Anomaly detection
- Distance-based analysis

Scalable, high performance, and open platform

- Integration with SAP® IQ for low-cost data storage
- In-memory computing SAP HANA® database with connected R server

Potential Benefits

- Improved asset utilization via reduction of unscheduled asset downtime and extending the useful life of assets
- Increased machine uptime can contribute to improved productivity and increased revenue
- OEMs can serve customers better by monitoring customer assets and providing timely maintenance.
- Move towards a service-driven business model over a product-driven business model, with a higher guarantee on asset longevity and utilization



IoT

- Connected sensors/Telemetry
- Historian integration
- Real-time streaming and big data storage



Machine Learning

- Real-time data scoring
- Predictive modeling of maintenance needs



Analytics

- Geographical dashboarding
- Asset health scoring
- Simple extension to provide new customer-specific analyses
- History and trend analysis
- Real-time reporting in Lumira



Core SAP

- Plant maintenance integration
- Quality management integration

For more information contact
sap@deloitte.com