MAINT AFRICA

ARE YOU READY TO START PREDICTIING FAILURES ?

TRANSFORM YOUR MAINTENANCE STRATEGY WITH DATA-DRIVEN INSIGHTS

INTRODUCTION

Traditional preventive maintenance feels safe because it follows fixed schedules. However, research shows that up to 40% of maintenance tasks are unnecessary, and unexpected failures still occur despite strict routines. Predictive maintenance leverages real-time data, sensors, and machine learning to identify the exact moment a component may fail.

This checklist helps maintenance leaders assess readiness, identify gaps, and plan a smooth transition to predictive maintenance. By the end, you will know what's working, what needs improvement, and how your team can start capturing the real value of data-driven maintenance immediately.

1. DATA READINESS

Data is the backbone of predictive maintenance. Without high-quality data, even the best ML models fail. Ask yourself:

- **Sensor Coverage: Are critical assets equipped with IoT sensors measuring vibration, temperature, pressure, or energy consumption?**
- **Data Accessibility: Is your CMMS data organized, structured, and easy to export for analysis?**
- **Data History: Do you have historical records of failures, work orders, and maintenance actions to train predictive models?**
- **Data Quality: Are readings accurate, frequent, and free from errors or gaps?**

2. TEAM AND SKILLS

Predictive maintenance is only as good as the people using it. Check your team's readiness:

- **Understanding Predictive Concepts: Does your team know how predictive maintenance differs from preventive maintenance?**
- **Skill Application: Are technicians trained to interpret predictive alerts and condition-based insights?**
- **Data Science Access: Do you have ML expertise in-house, or access to MLaaS platforms for analysis?**
- **Continuous Learning: Is the team prepared to learn from predictive outcomes and adjust maintenance plans?**

3. TECHNOLOGY & TOOLS

The right tools are essential to the success of predictive maintenance. Evaluate your technology stack:

- **CMMS Integration: Can your CMMS or EAM system integrate with predictive analytics platforms?**
- **Connectivity: Are sensors and machines capable of sending real-time data reliably?**
- **Data Visualization: Are dashboards intuitive and actionable for both managers and technicians?**
- **Automated Alerts: Does the system notify the right person at the right time to prevent failure?**

5. ROI AND BUSINESS CASE

Maintenance investment decisions require measurable outcomes:

- **Downtime Costs: Have you quantified the financial impact of unplanned downtime on production?**
- **Parts Optimization: Are you tracking savings from fewer unnecessary replacements?**
- **Labor Efficiency: Do you measure technician hours saved or redirected to high-value tasks?**
- **Performance Metrics: Are key metrics like MTBF, MTTR, OEE, and cost per unit tracked to demonstrate success?**

Insight: Organizations using predictive maintenance typically achieve ROI within 4–6 months, even in small fleets, through reduced downtime, optimized labor, and lower inventory costs.

6.NEXT STEPS

SCORING YOUR READINESS

Green: Ready to implement predictive maintenance

Yellow: Some gaps exist in address sensors, skills, or processes

Red: Major gaps, prioritize data collection and team training.

ACTIONABLE STEPS

Run a pilot on critical assets.

Integrate MLaaS predictive models with your CMMS.

Train teams to act on predictive insights.

Monitor KPIs and continuously improve predictive workflows

MAINT
AFRICA

simplifying Predictive Maintenance

www.maintafrica.com

hi@maintafrica.com