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## How to Build an Award Winning Program

# Boost Reliability, Save Money, Drive Business Results with Analytics

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**“Analytics” – the word is everywhere you look. But it’s not just another buzzword of the moment. Business analytics provides a longer lever for corporate leaders at all levels – from end users to management to the C-suite – to improve business performance across the enterprise.**

Reliability affects business outcomes, but the eternal challenge for maintenance is to quantify its value to the business. For asset-intensive organizations in both the private and public sectors, effective management of the maintenance function enables the ability to deliver service levels, function safely (with regard to personnel, the public and the environment) and sustainably operate efficiently and meet enterprise business goals.

The challenges of where and how to trim costs while sustaining or increasing service levels and operational excellence exert enormous pressure on maintenance operations. In a dynamic environment of increased competition, tougher regulations and ongoing demands to sustain profitability, analytics provides a valuable tool for achieving your primary goals: safety, reliability, compliance and cost management.

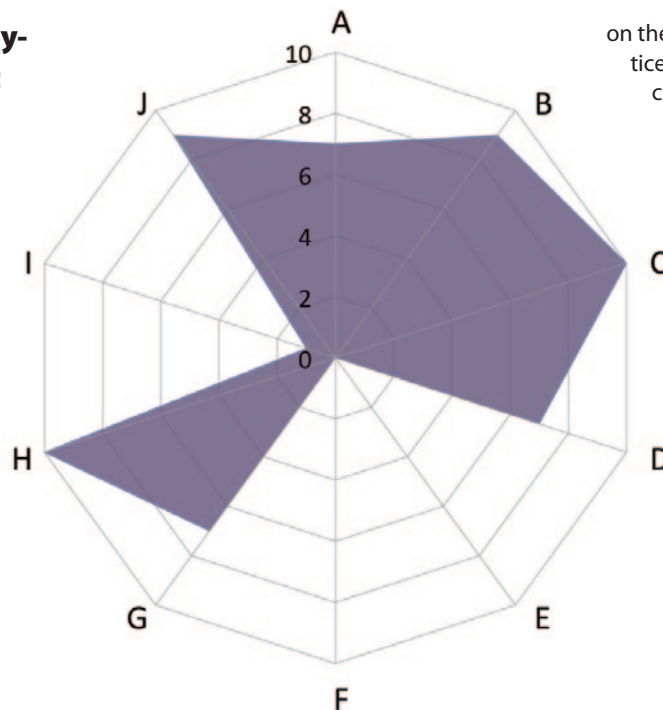
The fact is that moderate improvements in maintenance performance can have a significant impact

on the bottom line. Implementing best practices into your maintenance processes and culture makes your maintenance, repair and operations (MRO) more effective today and is the key to long-term success.

## Information is useful – knowledge is power

At its core, a cost-effective maintenance strategy addresses the dominant causes of equipment failure. It’s a systematic approach to defining a routine maintenance program composed of cost-effective tasks that preserve important functions. By focusing actions and standardizing processes, companies can quickly drive out waste, maximize time and eliminate non-value activities.

Maintenance professionals can use analytics tools to improve MRO planning, organization and control. Organizations that extend their enterprise asset management (EAM) or enterprise resource planning (ERP) beyond business intelligence (BI) with analytics can drive significant improvements to asset performance, maintenance effectiveness, inventory costs, service levels and customer satisfaction. Furthermore, analytics helps decision makers understand exactly how the maintenance function contributes to the bottom line and leverages the maintenance function as a competitive advantage.



### Plant Maintenance Benchmark Scores

A = % Estimated Replacement Value; B= Planned Work;  
C=Preventative Maintenance; D=Captured Work;  
E=Inventory Turn; F= Inventory Service; G=Overtime;  
H=Planners; I=Support; J=Training

Figure 1: Analytics helps you visualize exactly how effective and efficient your maintenance activities are, benchmarked against best-in-class. You can easily identify focus areas for improvement. In this example, preventative maintenance and planning already meet best-in-class standards, while the other functions require various levels of improvement to come up to best-in-class.

Analytics-driven reliability and maintenance are gaining visibility in the field of asset management for good reason. These tools and practices help companies:

- Facilitate greater control of asset condition, maintenance schedules and work processes.
- Limit unnecessary costs, reduce total cost of ownership and boost asset productivity.
- Improve maintenance efficiency, inventory performance, supplier management and supply chain effectiveness.

Asset analytics can take care of asset performance management, spares inventory analysis and resource management. Reports can be generated for the top management level, maintenance professionals, inventory people, as well as workers.

Advanced analytics goes beyond simple query and reporting tools by analyzing data for patterns and relationships that might not be apparent otherwise. Optimization elements of analytics can also help you forecast future conditions based on current and historical data.

Maintenance analytics makes it easier for you to optimize spares inventory and maximize reliability centered maintenance (RCM) and preventative maintenance (PM) initiatives. Many companies find that applying analytics in these two areas quickly produces a positive return on investment.

### Optimizing MRO inventory drives reliability, reduces costs

MRO inventory is often looked upon as a storage area for maintenance materials. But its true intent is to provide on-time delivery of the right materials at the lowest cost.

Non-availability of critical spares incurs costly downtime. And maintenance schedules can be hampered due to stockouts. The fear of stockout results in overstocking and unnecessarily high inventory holding costs. Without effective inventory management, review and optimization, organizations end up carrying excessive surplus and obsolete inventory, incur frequent expediting costs (freight), and/or experience unacceptable levels of stockout occurrences.

MRO analytics provides inventory managers with a powerful tool that enhances efficiency, cuts inventory costs and helps drive MRO performance. As companies add new types of assets to the mix and address ongoing economic challenges, inventory optimization is an increasingly critical practice for minimizing MRO costs and maximizing asset performance.

With the detailed reports generated from MRO analytics, inventory managers can more easily and accurately determine the optimum quantity of spares to be ordered in order to eliminate excess inventory and calculate optimal stock levels.

Using analytics to optimize your MRO spares and consumables inventory can help you:

- Decrease inventory holdings.
- Avoid costly stockouts while minimizing safety stock.
- Reduce write-offs of surplus and obsolete stock.
- Cut replenishment administrative costs.
- Save time by managing inventory more efficiently.
- Improve supplier performance.

### Improve your RCM and PM initiatives

With the improved visibility into maintenance performance and effectiveness that analytics provides, your maintenance team can achieve

continuous improvement in your RCM and PM programs. Optimizing RCM and PM enhances equipment uptime and reliability, improves resource productivity and helps reduce MRO costs.

MRO analytics allows you to standardize RCM and PM plans across your operations for better results. With analytics, you can easily:

- Optimize maintenance frequency, match plans to appropriate failures, and define costs, durations and variances.
- Target plans that require skills development or procedural standardization.
- Evaluate predictive maintenance (PdM) plans or condition-based maintenance (CBM) plans for specific assets.
- Pinpoint assets that would be better maintained with PdM or CBM plans.




Analytics helps to facilitate reliable, efficient, low-cost operation of your assets – and reliability affects business outcomes. MRO analytics is good for reliability, but more than that, it's just good business.

**MRO INVENTORY IS OFTEN LOOKED UPON AS A STORAGE AREA FOR MAINTENANCE MATERIALS. BUT ITS TRUE INTENT IS TO PROVIDE ON-TIME DELIVERY OF THE RIGHT MATERIALS AT THE LOWEST COST.**



A seasoned veteran of technology consulting with mining companies and other asset intensive enterprises around the world, Lindsay Clarke understands the challenges faced by these companies and provides a unique global perspective based on international expertise. [www.oniqua.com](http://www.oniqua.com).

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