NON-TRADITIONAL ROIS TO IMPROVE YOUR MAINTENANCE ROI - PART II

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In Part One, we closed with this, "A near-sighted company vision focused on short-term results is fatal and will fail". Organizations of all types need long-term commitments to reliability and maintenance excellence from *Top Leaders and from true *Maintenance Leaders and of course *Craft Leaders. Achieving maintenance excellence requires an investment in both the traditional and non-traditional ROIs we will discuss next. It requires a strategic maintenance plan for applying today's best maintenance practices, principles, and leadership philosophies to your operation.

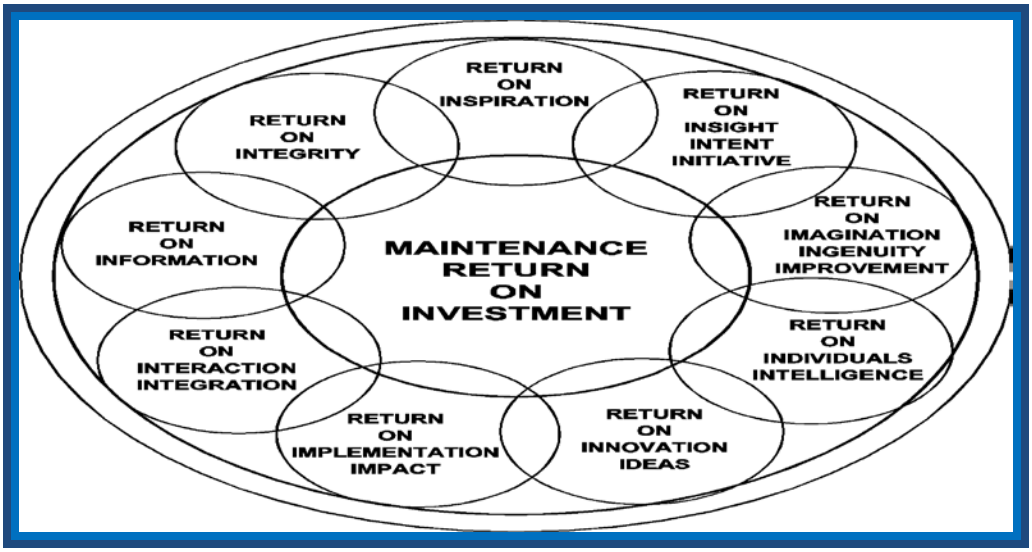


Figure 1: Non-Traditional ROIs to Improve Your Maintenance ROI

The essence of achieving reliability and maintenance excellence goes well beyond the bottom-line to a simple, positive affirmation statement...PRIDE-in-Maintenance. The real bottom line is PRIDE - People Really Interesting in Developing Excellence…in Maintenance. This kind of PRIDE is needed at all levels from bottom to top. If your organization has this kind of PRIDE, then make an investment and achieve a real return from your maintenance operation.

In Part 1, we looked at several new interpretations of ROI as well as the traditional concept of return on investment. In Part 2 and Part 3 will cover the remainder of ROI's included in Figure 1 above. The Maintenance Excellence Institute believes that maintenance operations have a tremendous opportunity to contribute directly to the bottom line with a strategy of Continuous Reliability Improvement across all six maintenance resource areas. Top Leaders of today's companies who want to be a part of the future must look beyond the bottom line with respect to maintenance. Maintenance must be a top priority for success.

NOTE: *Top Leaders, *Maintenance Leaders and *Craft Leaders: Terms I use as all inclusive title for all types of maintenance operations. Example: A Craft Leader may be a lead person, a crew leader, a technical specialist, a multi-skilled person, the welder and the instrumentation specialist. Etc.

PART II

Return on Information (ROI): Traditionally, all organizations have more available data than useable information. In most cases, maintenance is in this same dilemma. Since maintenance is normally viewed as a cost center, maintenance information systems are lacking or even non-existing. Let us now look at some very interesting and thought-provoking "what ifs?" that we discussed previously in Part 1.

What if the maintenance operation in your organization or plant was a business? What if your maintenance was a third-party maintenance service that worked out of the same shop area used the same storeroom and maintained the same equipment? As the maintenance champion, what if your only job was to determine the scope of services needed, develop the plan for maintenance contract service, monitor the services received, and approve payment based on quality of service per the contract? What if this scenario came to pass?

Would you have the right information to do your new job? Conversely, what if you owned this in-plant, third-party maintenance service? Could you define and measure your level of service in order to make a profit as a business? Would you get the maintenance contract in your own plant as the third-party contractor with your existing workforce and processes? Always remember that there are many, many service companies that can come in and do just that for your Top Leaders.

If your current maintenance practices and maintenance information system does not allow you to manage maintenance like a profitable business, then your organization will continue to view you as a "cost center." If your company/organization must invest to the point that you can manage and monitor your performance and level of service with real maintenance information. This scenario is not a scare tactic which advocates third-party maintenance in total for an organization.

However, third-party maintenance in specialty areas or areas where current maintenance skills or capabilities are lacking is a cost effective practice that will continue to grow. Greater third-party maintenance will occur in operations where maintenance is not treated as a business and where operations have deteriorated to the point that a third-party service is more effective and less costly than in-house maintenance staff.

Creeping outsourcing often occurs. For manufacturing plants, it may start by outsourcing the facilities maintenance piece. The contractor will wait patiently for the plant maintenance piece. Trends in government maintenance and service operations are rapidly progressing toward privatization with greater performance, service, and reduced total costs.

Third-party maintenance will be a common practice in those organizations that have continually gambled with maintenance costs and have lost. There are also many pitfalls to third party maintenance and I have seen many of them personally and via Scoreboard assessments. And, I am personally pulling for the home teams; the in house maintenance team and the total operations team for many reasons.

Please trust me on the next few statements. All around the world more and more contract maintenance is the norm. Petrochemical operations in the Middle East, Malaysia, India, Thailand and more are using more and more contractors. I have seen and talked to our **TrueWorkShop™** attendees about lack of skills and practices from some contractor. Hiring a contract maintenance company does not always bring today's best practices that you really need. When defining an RFP (request for proposal) you must define specially your needs, expectations and how you will measure and validate contractor service.

However, most contractors will bring a "maintenance business system" or CMMS to each new client. Maintenance Leaders must demand and welcome adequate systems support to ensure that existing maintenance data becomes real maintenance information for managing maintenance as a "profit center." Computerized Maintenance Management Systems (CMMS) should be viewed as an important tool to assist in planning, management, and administrative procedures required for effective maintenance. Maintenance data is of little value without being in the form to support decision making.

The maintenance database on equipment repair history, work order status/backlog, PM schedules, repair parts inventory, job estimates, performance measures, repair costs, life-cycle costs, etc., must be current, accurate and capable of providing quality information for timely decisions. The integration of actual maintenance labor costs with planned labor costs must be the basis for labor performance measurements.

Customer service criteria must be established to evaluate and measure the level of maintenance customer service. The maintenance customer must also be involved in determining quality indicators and be a part of the flow of information. Information to evaluate overall equipment effectiveness should be readily available and used to identify:

- Causes for breakdown
- Problems created by set-up/adjustments
- Problems created by idling/minor stoppages
- Reasons for running below design speed/feed
- Causes for process defects
- Reasons for reduced yield during changeover

Information about overall equipment effectiveness (OEE) provides immediate opportunities for improvement by operators, set-up personnel and maintenance. This type of information gets at the root cause of recurring breakdowns which continuously plague production with uncertainty and maintenance with unplanned breakdown repairs.

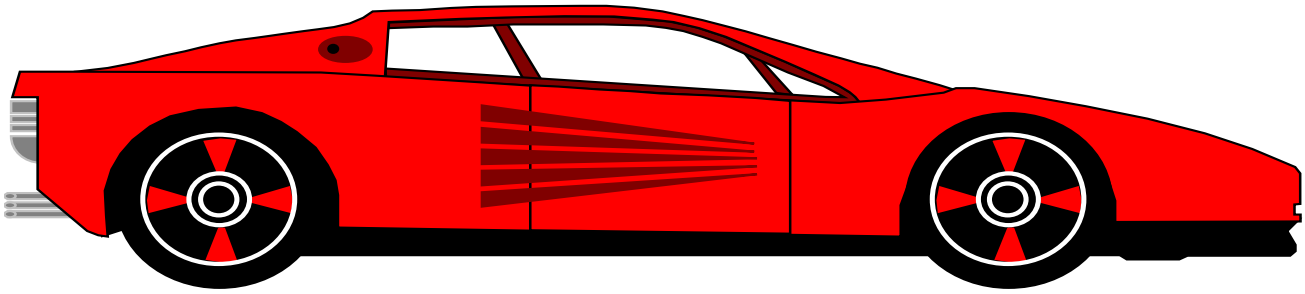
It is a good investment to provide Maintenance Leaders with timely and accurate information to manage and measure maintenance as a business. In turn, the Maintenance Leader must treat maintenance as a profitable business by providing information to Top Leaders that clearly shows a return on maintenance investment (ROMI).

Craft Utilization (wrench time) and Craft Performance and Craft Service Quality are the three elements of Overall Craft Effectiveness (OCE). These three metrics along with preventive maintenance compliance, work backlogs, downtime levels, the effectiveness of planning and scheduling, etc., should be evaluated as part of a broad-based maintenance performance measurement system. Figure 27.5 illustrates another example of a Maintenance Excellence Index that uses multiple performance metrics as an overall performance measurement indicator.

Return on Interaction and Integration (ROII): Almost all organizations today must think globally in terms of new markets, products, and competition. From the maintenance perspective, we must think globally in terms of the best practices we need to consider, but we must start local at our own unique shop level. The Maintenance Leader must "think global and act local" to achieve positive interaction with company leaders and staff at all levels.

Maintenance cannot succeed without positive interaction and support from others in the organization. The process of Continuous Reliability Improvement does not stand alone within an organization. It must be well integrated with the customers of maintenance as well as all other staff sections. Positive interactions promote effective integration of solutions.

Maintenance and operations/operators must interact and work closely to monitor, service, and prevent maintenance problems. All must take an integrated approach to improving overall equipment effectiveness as a cooperative team of operations and maintenance. Think of maintenance and operations as members of a racing team with the operator as the driver and maintenance as the pit crew. The pit crew cheers the loudest when their driver wins for the team! All leaders at all levels must interact to instill this spirit of teamwork and pride in ownership into the culture of the total organization. Achieving maintenance excellence requires positive interaction with the players internal and external to the maintenance function.



"Maintenance is like the pit crew to operations. Perfect and fast maintenance and effective storeroom and MRO procurement performance is the difference between winning and unscheduled downtime"

Maintenance as the Pit Crew

Return on Imagination, Ingenuity, and Improvement (ROIII): Maintenance crafts people by nature are ingenious, creative, and normally able to do more with less than your average person. This is from my personal observation over 40 years of exposure to plant, facilities, fleet, healthcare and golf course maintenance people. They also take pride in their ability to solve problems and come to the rescue to fix something. However, they are impatient with equipment abuse and continuing problems that could be eliminated if enough time was available to find the real cause.

They know that preventive/predictive maintenance will work if given the chance and they care about making things better. They are smart and most want to get smarter and they want to be involved. They

know that improvements can be made and they need to be a part of the process. For example, the ACE Team Benchmarking Process provides a good way to involve crafts directly in establishing reliable planning times. They are proud of their profession for the most part but can become less positive about it when a reactive, fire fighting strategy puts all the blame on maintenance.

I do believe that most all want to use more their imagination and ingenuity and really become involved in maintenance improvement. Maintenance people know they are capable and that they are capable of doing better. They are the most critical and most important resources we have in the maintenance profession.

These positive statements about maintenance people should apply to your maintenance operation. The maintenance leader that involves maintenance people in the process of team-based continuous improvement becomes a Maintenance Leader. A leader with vision, insight and confidence knows that maintenance working together as a team can make a difference. This leader knows that interaction and integration with operations staff, engineering and operators all will provide a return on time and resources. This is the leader of maintenance who wants to know all about the current best practices in maintenance and use them.

This leader is one who knows the advantages of good planning and scheduling and serves in the lighthouse, not the firehouse. Just like their subordinates, the real Maintenance Leader is ingenious but can see the future with a vision for maintenance excellence. This type of leader gains inspiration from the challenges ahead and will make things happen with a team-based approach to maintenance improvement.
The Return on Imagination, Ingenuity and Improvement is unlimited. With a real maintenance information system in place, it can be measured in terms of tangible dollars. Unleashing the power of maintenance people is not a fad. It is profitable, practical, and a proactively positive approach for going way beyond the bottom line. It is essential to success now and in the future.

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