



### About Maintenance Excellence Institute International

Our value is to implement profit centered maintenance best practices that will achieve measurable return-on-investment for each client. Our scope of services has added measurable value to large and

small plant maintenance operations, healthcare facilities, fleet operations and facilities management operations. We create added value that is clearly defined by measurable results within your operation.

### We Build Upon the Basics

We believe strongly in the basics and building upon traditional maintenance best practices as the foundation for maintenance excellence. Our approach for Continuous Reliability Improvement (CRI) <sup>SM</sup> goes well beyond typical RCM and TPM processes to include all maintenance resources. We believe maintenance must be viewed and managed as an internal business opportunity. We provide **Maintenance Excellence Services**, shop level **Operational Services and Training for Maintenance Excellence** to increase reliability, profitability and customer satisfaction.



### The Maintenance Excellence Assessment

To achieve maximum value, we highly recommend that you "determine where you are" with an assessment of your total maintenance operation as the essential first step. This important step provides an assessment of your total maintenance process using one of today's leading methodologies, *The Scoreboard for Maintenance Excellence* as the baseline for defining best practices needed. An assessment defines specific improvement opportunities and documents savings with priorities for maximum ROI. It provides you strategic, tactical or operational improvement level plans that include; implementation time line, internal/external

resources required, the cost/benefits of best practice implementation and methods to validate results. An assessment documents your current needs, recognizes success, reinforces your personal goals for maintenance excellence and defines your resource requirements. No matter what type of organization we work for, we must always remember that

.....**"Maintenance is Forever!"**

## MAINTENANCE IS FOREVER!

By

**Ralph W. "Pete" Peters, Founder/President  
The Maintenance Excellence Institute International**

"Maintenance is Forever!" helps define the need for long-term continuous reliability improvement (CRI) within the business of maintenance and physical asset management. It sounds the alarm to support maintenance leaders and top leaders in their quest to maintain physical assets, production and facility assets and support equipment with diminishing funds while often gaining new material assets and facilities.

Top leaders must realize that maintenance within all types of maintenance operations can have a major impact on profit, throughput, customer satisfaction and quality in many ways. That impact can easily be negative.

**Profit-Optimization:** With focused investments and continuous reliability improvement, the impact of maintenance can also have a very positives impact on the bottom line and profit optimization. Leaders at all levels in both the public and private sectors must understand the importance of managing their maintenance and physical asset management operations as a profit-center. We must all clearly understand that maintenance is truly forever! Maintenance Excellence begins with PRIDE-in-Maintenance; many **PEOPLE Really Interested in Developing Excellence in Maintenance**. However, it must include the top leaders that are responsible for the bottom line and profit-optimization.

### The Maintenance Excellence Institute International

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### **Top Leaders Must Understand that Maintenance is Forever!**

Maintenance leaders must ensure their top-level leaders fully understand “the high cost of gambling with deferred maintenance costs” whether in a manufacturing plant, a distribution center, a university complex, a research facility, a hospital or in a machining center making precision aircraft components. The growing labor resource needs for increasing maintenance requirements must come from somewhere.

Craft labor resources can be offset by either adding staff or by achieving greater productivity of existing craft resources. The growing maintenance needs of an organization must continuously be highlighted to top-level leaders. Just as important, the maintenance operation must continuously improve its operation and be provided investments for implementing operational best practice improvements that support a profit-centered approach to maintenance.

### **Determine Where You Are:**

The very first step is to make a commitment to conduct an objective evaluation of your total maintenance operation. Within most plant maintenance operations this is maintenance and repair of all production and facility assets, supporting infrastructure, overhaul and renovation activities, engineering support processes as well as all material management and procurement of typical repair parts, supplies. In addition contracted services also can be a big part of maintenance services. You should benchmark your current operation against today's best practices for preventive maintenance, planning and scheduling, effective spare parts control, work orders, work management, the effective use of computerized systems for maintenance business management. There many other areas as well, very important categories from benchmarking tools such as *The Scoreboard for Maintenance Excellence*<sup>SM</sup> that we will review briefly.

The assessment is an important first step because it gives you a baseline as to your starting point for making improvements and for validating results. It will help to ensure that you are taking the right steps for taking care of your mission-essential physical assets.

An independent evaluation, in most cases, helps to reinforce the local manager's desire to take positive action in the first place. Most want to do something to improve the overall maintenance process but often are trapped with a fire fighting strategy and limited time and resources to take action to make improvements. For multiple site operations, this can multiply into each site fighting their battle alone. An assessment provides a great opportunity for developing standard best practices that can be developed and shared across an organization and used for start up of new sites. There are a number of very good benchmarking tools to help you get started with this important first step along the path forward to Maintenance Excellence.

### **The Scoreboard for Maintenance Excellence**

Today's most comprehensive benchmarking guide, *The Scoreboard for Maintenance Excellence*, is available to help “determine where you are” in term of today's best practices for maintenance. You might also develop your own *Scoreboard for Maintenance Excellence* and begin with a self-evaluation. But we recommend getting help from a well-qualified consulting resource and get started with several pilot sites if you are a multiple site operation. Assessment results will also contribute to long-term PRIDE-in-Maintenance throughout an organization.

### **Today's Best Maintenance Benchmarking Tool**

Developed originally as *The Scoreboard for Excellence*<sup>SM</sup> in 1981, this external benchmarking process has evolved from over 20 years of successful application to many different types of public and private organizations. As technology has grown and with the scope of maintenance changing, this tool has grown into being today's most comprehensive benchmarking process. The art and science of maintenance has many similarities regardless of the type of operation.

But there is an obvious need to look at plant, facilities, fleet and healthcare maintenance operations a little differently. So currently there are four versions of the Scoreboard for Excellence that includes:

- ♥The Scoreboard for Maintenance Excellence
- ♥The Scoreboard for Facilities Management Excellence
- ♥The Scoreboard for Fleet Management Excellence
- ♥The Healthcare Scoreboard for Excellence

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### Now is the Time to Plan for Maintenance Excellence

*The Scoreboard for Maintenance Excellence*, as shown in the summary on Page 5, includes 27 evaluation categories (plant maintenance best practices areas) and 300 specific evaluation items. It evaluates the total maintenance operation within an organization with extensive manufacturing, materials handling and facilities equipment. When a client has a very obvious need, the assessment can also have well-defined focus areas such as CMMS, planning/scheduling, and MRO materials management or on application of continuous reliability and predictive maintenance technologies.

#### A Complete Evaluation is Recommended

A complete evaluation your total maintenance operation is highly recommended. *The Scoreboard for Maintenance Excellence*<sup>SM</sup> includes 300 specific items evaluated through direct shop floor interviews, close observations, and review of existing information or procedures. Each one is important, but some provide more value than others depending on your current "state of maintenance". For example, MRO materials management, storeroom operation and procurement may be an area needing special attention. Shop level planning and scheduling is often a typical need and can be a primary focus area even for the small operation of less than 10 craft positions.

#### A Foundation for Profit-Centered Maintenance

Regardless of what is creating the obvious concern and "your organizational pain", a short-term, piecemeal approach to an evaluation is not recommended. Each of the 300 items on *The Scoreboard for Maintenance Excellence*<sup>SM</sup> is part of establishing a solid foundation for profit-centered maintenance and a strategy for Continuous Reliability Improvement.

#### Do Not Gamble,

#### Especially with Maintenance Costs

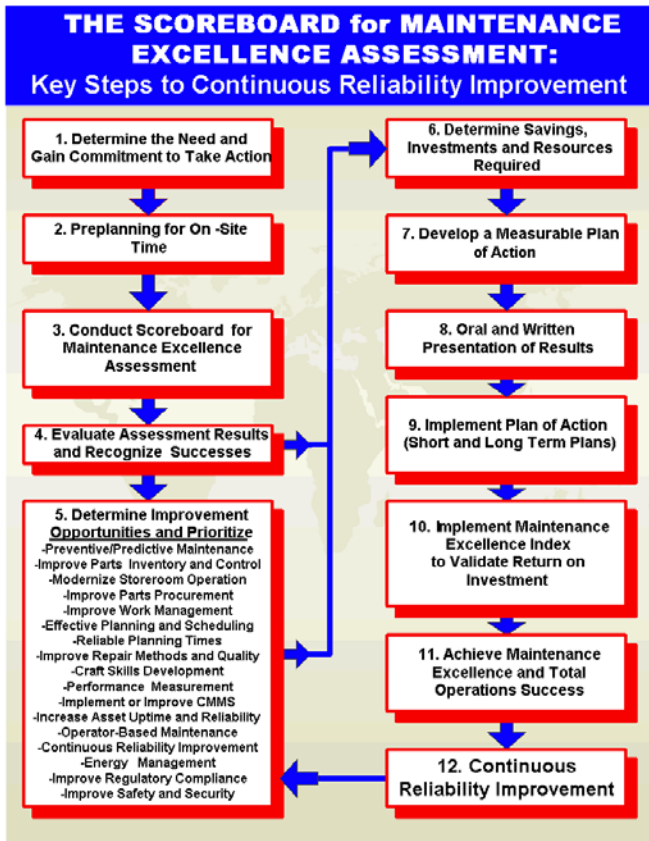
Do you know where you stand with applying today's best practices for maintenance and physical asset management? Do you have a baseline as to what is considered today's best practices and whether or you have applied them effectively? Are there best practices that you have heard about that we now need to really consider? If not, you may very well be gambling with the long-term success of your total operation.

Effective maintenance and physical asset management adds value to support profit optimization whether at one site or multiple sites. Effective maintenance practices should be planned for well before start up of new facility. There are some very important steps that you should take to gain maximum value from your maintenance operation whether an existing operation or a new site. Now is the time to take action to gain maximum return on that valuable investment by determining where you are with a tool such as *The Scoreboard for Maintenance Excellence*.

The key steps for using *The Scoreboard for Maintenance Excellence* to support Continuous Reliability Improvement are illustrated below:

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**The Core Requirement for Effective Maintenance Will Remain Forever**

The core competency for doing all maintenance services may not be present and contacted skills from a service provider may truly be needed. But regardless of the operation's size or scope, the core requirement for maintenance remains forever. Dumb-sizing of maintenance to match lean manufacturing trends can be fatal. It really will not work if one has truly maximized use of existing resources and valid maintenance requirements are not being accomplished. So do not kill the goose even for a CFO that wants a short term "golden egg."

**Summary:** Public and private sector maintenance operations must be viewed as a potential profit center to support profit optimization and greater customer satisfaction. Maintenance and physical asset management operations within your organization can be true contributors to profit generation or increased service levels with good investments. The cost of external resources and support services for continuous reliability improvement can provide a very good ROI. The opportunities for measurable results in almost all organizations are significant. We highly recommend that you begin your first on The Journey to Maintenance Excellence with an assessment of your total maintenance operation. Clearly "determine where you are" and take action for continuous reliability improvement and measure results. Develop personal PRIDE-in-Maintenance and remember that Maintenance is Forever!

**Do Not Kill the Goose That Lays the Golden Egg**

Budget cuts often fall in the one place they can hurt the worst and that is cutting of craft labor resources. Cutting craft technicians who are out there doing the real work, the PMs, the emergency responses and weekend service calls is not the answer. The indiscriminate cutting of these scarce craft resources was a failed business practice of the 20th Century. Indiscriminate cutting is like killing the goose that lays the egg whether "golden or just plain brown eggs". If an organization is not; a) doing continuous business process improvement and b) defining true maintenance requirements and achieving them, then cutting craft positions to meet budget is exactly like using bloodletting as a new cure for a heart attack. It just will not work!





## Summary: The Scoreboard for Maintenance Excellence

Category	Assessment Category Descriptions	Evaluation Items	Total Points in Category
A.	The Organizational Culture and PRIDE in Maintenance	6	60
B.	Maintenance Organization, Administration and Human Resources	12	120
C.	Craft Skills Development and PRIDE in Maintenance	12	120
D.	Operator Based Maintenance and PRIDE in Ownership	6	60
E.	Maintenance Supervision/Leadership	9	90
F.	Maintenance Business Operations, Budget and Cost Control	12	120
G.	Work Management and Control: Maintenance and Repair (M/R)	12	120
H.	Work Management and Control: Shutdowns and Major Overhauls	6	60
I.	Shop Level Planning and Scheduling	18	180
J.	Shutdown and Major Planning/Scheduling and Project Management	9	90
K.	Facilities Planning and Property Management	9	90
L.	Facilities and Critical Asset Condition Assessment Program	6	60
M.	Storeroom Operations and Internal MRO Customer Service	12	120
N.	MRO Materials Management and Procurement	12	120
O.	Preventive Maintenance and Lubrication	18	180
P.	Predictive Maintenance and Condition Monitoring Technology Applications	15	150
Q.	Process Controls and Instrumentation Systems Technology	9	90
R.	Energy Management and Control	12	120
S.	Maintenance/Reliability Engineering Support	9	90
T.	Safety and Regulatory Compliance	12	120
U.	Maintenance and Quality Control	9	90
V.	Maintenance Performance Measurement	12	120
W.	Computerized Maintenance Management System (CMMS) and Business System	18	180
X.	Shop Facilities, Equipment, and Tools	9	90
Y.	Continuous Reliability Improvement	15	150
Z.	Asset Facilitation and Overall Equipment Effectiveness (OEE)	15	150
ZZ.	Overall Craft Effectiveness (OCE)	6	60
<b>Total Scoreboard Evaluation Items and Points</b>		<b>300</b>	<b>3000</b>