Strategic Maintenance KPIs and Performance Dashboards Training Course

23 - 27 Nov 2026

Kuala Lumpur

5200 € (Per Person)

Ref: #INM8861_111632

Course Introduction / Overview:

This course provides a comprehensive framework for transforming maintenance operations from a cost center into a strategic business partner through the effective use of Key Performance Indicators (KPIs) and performance dashboards. In today's competitive landscape, data-driven decision-making is paramount, and the maintenance function is rich with data that can unlock significant improvements in reliability, efficiency, and profitability. This program moves beyond basic metric tracking to instill a deep understanding of how to select, define, and analyze the right KPIs that align directly with organizational goals. Drawing on principles from experts like Ron Moore, author of "Making Common Sense Common Practice: Models for Operational Excellence," participants will learn to create a balanced performance measurement system. The curriculum at BIG BEN Training Center is designed to be intensely practical, guiding attendees through the entire lifecycle of performance management, from establishing a data collection strategy to designing compelling visual dashboards that communicate insights clearly to all stakeholders. This course empowers professionals to not only report on past performance but to proactively manage assets, predict failures, and drive a culture of continuous improvement within their maintenance and reliability teams.

Target Audience / This training course is suitable for:

- Maintenance Managers and Supervisors.
- Reliability Engineers and Technicians.
- Operations and Production Managers.
- Plant and Facility Managers.
- Maintenance Planners and Schedulers.
- Asset Management Professionals.
- Continuous Improvement Specialists.
- CMMS/EAM System Administrators.
- Data Analysts focused on operational performance.

Target Sectors and Industries:

- Manufacturing and Industrial Production.
- Oil, Gas, and Petrochemicals.
- Power Generation and Utilities.
- Pharmaceuticals and Life Sciences.
- Transportation, Logistics, and Fleet Management.
- Mining and Heavy Industry.
- Facilities and Property Management.
- Government Agencies and Public Works Departments.
- Food and Beverage Processing.

Target Organizations Departments:

- Maintenance and Engineering.
- Operations and Production.
- Asset Management and Reliability.
- Facilities Management.
- Quality Assurance and Control.
- Finance and Procurement (MRO).
- Information Technology (CMMS/EAM Support).
- Strategic Planning and Business Improvement.

Course Offerings:

By the end of this course, the participants will have able to:

- Develop a strategic framework for maintenance performance management.
- Identify and define meaningful KPIs aligned with business objectives.
- Master the calculation and interpretation of key metrics like OEE, MTBF, and MTTR.
- Distinguish between leading and lagging indicators for proactive control.
- Implement robust data collection and validation processes.
- Design and build clear, insightful, and actionable maintenance dashboards.
- Utilize data visualization techniques to communicate performance effectively.
- Analyze maintenance data to identify trends, root causes, and improvement opportunities.
- Lead data-driven performance review meetings with stakeholders.
- Drive a culture of continuous improvement using performance metrics.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, engaging, and application-focused, ensuring that participants can immediately apply their learning in the workplace. We believe that adult learning is most effective when it combines theoretical knowledge with practical application. The course will feature a blend of expert-led presentations, real-world case studies of successful KPI implementations, and interactive group discussions that encourage peer-to-peer learning. A significant portion of the training will be dedicated to hands-on workshops where participants will work through exercises on selecting appropriate KPIs for various scenarios and designing mock-up performance dashboards. These practical sessions provide a safe environment to experiment with data visualization principles and dashboard layouts. Participants will receive constructive feedback from the instructor and peers, refining their ability to turn raw data into compelling strategic insights. The methodology emphasizes problem-solving and critical thinking, equipping attendees not just with tools and techniques, but with the strategic mindset required to build and sustain a world-class maintenance performance management system.

Course Agenda (Course Units):

Unit One: Foundations of Maintenance Performance Management

- The strategic role of maintenance in modern organizations.
- Transitioning from reactive to proactive and predictive maintenance.
- The link between maintenance performance and business objectives.
- Introduction to performance management frameworks (e.g., Balanced Scorecard).
- Understanding the hierarchy of metrics: KPIs, PIs, and metrics.
- Common pitfalls in maintenance performance measurement.
- Establishing a baseline for performance improvement.

Unit Two: Selecting and Defining Key Performance Indicators (KPIs)

- Differentiating between leading and lagging indicators.
- Applying the SMART criteria (Specific, Measurable, Achievable, Relevant, Time-bound) to KPIs.
- Key categories of maintenance KPIs: Asset Reliability, Cost Control, Work Management, and Safety.
- Deep dive into Overall Equipment Effectiveness (OEE).
- Calculating and interpreting Mean Time Between Failures (MTBF) and Mean Time To Repair (MTTR).
- Metrics for Preventive Maintenance (PM) and Predictive Maintenance (PdM) programs.
- Developing a customized KPI library for your organization.

Unit Three: Data Collection, Management, and Analysis

- Identifying reliable data sources (CMMS, EAM, SCADA, Operator Logs).
- Ensuring data quality, integrity, and consistency.
- Best practices for work order management and data capture.
- Introduction to Root Cause Analysis (RCA) techniques.
- Using Pareto analysis to prioritize maintenance efforts.
- Basic statistical process control (SPC) for maintenance.
- Transforming raw data into actionable information.

Unit Four: Designing and Building Effective Maintenance Dashboards

- Principles of effective data visualization.
- Choosing the right chart or graph for your data.
- Dashboard design best practices for clarity and impact.
- Structuring dashboards for different audiences (Technicians, Managers, Executives).
- Creating a narrative with your data to tell a performance story.
- Workshop: Designing a maintenance dashboard from scratch.
- Avoiding common dashboard design mistakes (e.g., clutter, poor color choice).

Unit Five: Implementation, Review, and Continuous Improvement

- Using dashboards for daily management and decision-making.
- Structuring and leading effective performance review meetings.
- Communicating maintenance performance to senior leadership.
- Integrating KPIs into employee performance objectives.
- The Plan-Do-Check-Act (PDCA) cycle for continuous improvement.
- Benchmarking maintenance performance against industry standards.
- Developing a roadmap for maturing your performance management system.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

How can an organization effectively balance leading and lagging indicators to transition from a reactive to a truly predictive maintenance culture?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by focusing on the strategic integration of maintenance metrics with overarching business goals, a critical link often overlooked in purely technical training. While many courses teach how to calculate metrics like OEE or MTBF, this program emphasizes the "why" behind the numbers, empowering participants to select KPIs that drive genuine business value rather than simply populating a dashboard. The curriculum is built around a holistic performance management lifecycle, covering everything from data integrity and collection strategies to the psychology of data visualization and the art of communicating insights to executive leadership. A key differentiator is the intensely practical approach to dashboard design; participants don't just learn theory but engage in hands-on workshops to build mock-ups, ensuring they leave with the confidence to create clear, compelling, and actionable tools. Furthermore, the course content is deeply rooted in the principles of continuous improvement, teaching attendees how to use their dashboards not as static reports, but as dynamic instruments for identifying opportunities, driving change, and fostering a proactive, data-driven culture within their organizations.