CONCEPT

# Quality Management and Process Improvement: Tools, Standards and Cost of Quality

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**Technical depth:** Practitioner · **Practical mode:** Case study

## Introduction

Rework, scrap, complaints and repeated inspections absorb a share of revenue that most organisations never measure, while quality systems are maintained mainly to pass audits. When quality management is separated from day-to-day process performance, the same failures recur and improvement projects stall without evidence of benefit. This Core Concept course equips managers to connect quality standards and excellence models with the statistical and preventive tools that improve processes, and to express results in financial terms. Participants leave with a Quality Improvement Plan for a process in their own organisation.

## Course Objectives

- Assess quality maturity and the cost of poor quality using the ISO 9004 self-assessment and the prevention-appraisal-failure model
- Apply ISO 9001:2026, the EFQM Model 2025 and established quality philosophies to structure a quality management approach
- Analyse process performance with the basic quality tools, control charts and capability indices
- Prevent failures and hold improvement gains using FMEA, measurement system analysis and control plans
- Produce a Quality Improvement Plan for a process in their own organisation, supported by a costed business case

## Target Audience

- Quality managers responsible for the quality management system and its results
- Process owners accountable for output, rework and customer complaints
- Operations and production managers improving yield and service levels
- Continuous improvement managers coordinating portfolios of improvement projects
- Supplier quality and customer service managers responsible for quality performance

## Course Outline

## Day 1: Quality Management Foundations and Current-State Assessment

- Quality Management Principles and Concepts in ISO 9000:2026
- Juran Trilogy: Quality Planning, Control and Improvement
- Cost of Quality Baseline Using the Prevention-Appraisal-Failure Model
- Voice of the Customer Translation with the Critical-to-Quality Tree
- Quality Maturity Self-Assessment Using ISO 9004:2018

## Day 2: Quality Standards and Excellence Models

- ISO 9001:2026 Process Approach and the PDCA Structure
- Risks and Opportunities Register for the Quality Management System
- EFQM Model 2025: Direction, Execution and Results
- ISO 10014:2021 Guidance on Realising Financial and Economic Benefits
- Deming's System of Profound Knowledge and the Fourteen Points

## Day 3: Process Improvement Tools and Statistical Methods

- Process Turtle Diagram for Inputs, Outputs, Resources and Controls
- Seven Basic Quality Tools: Check Sheets, Pareto Charts and Histograms
- Statistical Process Control Charts Following ISO 7870-2:2023
- Process Capability Analysis with Cp and Cpk Indices
- PDCA Improvement Project Charter and A3 Report

## Day 4: Failure Prevention, Measurement Risk and Sustaining Gains

- Process FMEA Using the AIAG-VDA Action Priority Method
- Measurement System Analysis with Gauge Repeatability and Reproducibility
- Supplier Quality Performance Scorecard
- Quality KPI Dashboard and Management Review Inputs
- Control Plan and Standard Work to Hold Improvement Gains

## Day 5: Case Work and the Quality Improvement Plan

- Manufacturing Case: Reducing Scrap Through SPC and FMEA
- Service Operations Case: Cutting Rework in a Claims Handling Process
- Cost of Quality Business Case for an Own Process
- Quality Improvement Plan Drafting
- Peer Review Panel and Plan Defence

## Skills You Will Gain

- Quality Planning
- Cost of Quality Analysis
- Statistical Process Control
- Process Capability Analysis
- Failure Mode Analysis
- Measurement System Evaluation
- Supplier Quality Management
- Management Review Reporting

## Why Attend This Course

- Return to work with a Quality Improvement Plan and a costed business case ready to present to management
- Show senior leaders what poor quality costs in financial terms and which improvements pay back first
- Tell real process shifts from normal variation, so that effort goes into problems that exist
- Compare quality practices with managers from manufacturing, services and public sector organisations in other countries

## Conclusion

Quality systems deliver value only when they change how processes perform and when that change can be measured. The course moves from assessing quality maturity and the cost of poor quality, through the principal quality standards and excellence models, to the statistical tools, failure prevention methods and controls that make improvement stick. The final day turns that material into a Quality Improvement Plan with a costed business case, giving participants a structured route to their next improvement project.