CONCEPT

Project Risk Management: Risk Registers, Issue Control and Quantitative Analysis

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

Introduction

Projects rarely fail from a risk nobody could have foreseen. More often the risk was known, sat in a register without an owner or response, and became an issue that nobody had the authority to resolve. This Core Concept course equips managers to run risk and issue management as a working control system, from identification and assessment to quantified contingency, escalation and change control. Participants apply each technique to case material from several sectors and leave with a Project Risk and Issue Management Plan for a project of their own.

Course Objectives

- Establish a project risk and issue management approach aligned to ISO 31000 and tailored to project scale and risk appetite
- Identify threats and opportunities, describe them in cause-event-effect form and prioritise them with a probability-impact matrix
- Assign risk owners and plan proportionate responses, tracking actions and residual exposure through a risk register
- Log, escalate and resolve issues through defined tolerance thresholds and a change control procedure
- Quantify cost and schedule exposure and size contingency using Monte Carlo simulation and expected monetary value
- Produce a Project Risk and Issue Management Plan with a populated risk register and issue log

Target Audience

- Project managers accountable for risk and issue control on their projects
- Programme managers consolidating risk exposure across related projects
- PMO managers setting risk and issue standards, templates and reporting
- Risk managers supporting project investment and delivery decisions
- Project controls managers responsible for contingency and forecast reporting
- Engineering and technical managers who own delivery risks in their workstreams

Course Outline

Day 1: Risk and Issue Foundations

- Risk, Issue, Assumption and Dependency Definitions in a RAID Log
- ISO 31000:2018 Principles, Framework and Process
- Risk Performance Domain in the PMBOK Guide Eighth Edition
- Risk Appetite and Tolerance Statements for Projects
- Current-State Assessment Using a Project Risk Maturity Model

Day 2: Risk Management Frameworks and Standards

- M_o_R 4 Principles and Integrated Risk Management Approach
- PMI Standard for Risk Management in Portfolios, Programs, and Projects
- IEC 31010:2019 Risk Assessment Technique Selection
- Project Risk Management Plan Structure and Tailoring
- Risk Breakdown Structure and Risk Categories

Day 3: Identifying, Assessing and Responding

- Risk Identification with Assumptions Analysis, Pre-Mortem and SWOT
- Risk Statement Writing in Cause-Event-Effect Format
- Probability-Impact Matrix Scoring and Risk Prioritisation
- Threat and Opportunity Response Strategies and Risk Owner Assignment
- Issue Log, Escalation Thresholds and Change Control Procedure

Day 4: Quantitative Analysis, Controls and Reporting

- Bow-Tie Analysis of Preventive and Recovery Controls
- Quantitative Cost Risk Analysis with Monte Carlo Simulation
- Contingency and Management Reserve Sizing at P50 and P80
- Decision Tree Analysis and Expected Monetary Value
- Risk Reporting Dashboards and Early Warning Indicators

Day 5: Case Work and the Risk and Issue Management Plan

- Construction Project Case: Risk Register Review and Response Challenge
- Technology Implementation Case: Issue Escalation and Recovery Decision
- Risk Register and Issue Log Build for an Own Project
- Project Risk and Issue Management Plan Drafting
- Peer Review Panel and Plan Defence

Skills You Will Gain

- Risk Identification
- Risk Assessment and Prioritisation
- Risk Response Planning
- Issue Escalation Management
- Contingency Estimation
- Quantitative Risk Analysis
- Risk Reporting
- Opportunity Management

Why Attend This Course

- Return to work with a Project Risk and Issue Management Plan, risk register and issue log for a live project, tested by peers
- Tell a risk apart from an issue and route each to the right owner and decision level
- Justify contingency to a sponsor with a quantified confidence level rather than a flat percentage
- Compare risk practice with managers from construction, technology, energy and public service projects

Conclusion

Risk management adds value only when it changes decisions: who acts, what is funded and when a problem is escalated. This course moves from the definitions and standards that frame project risk, through identification, assessment and response planning, to the quantitative analysis, contingency sizing and reporting that sponsors rely on. The final day turns that material into a Project Risk and Issue Management Plan that participants take back to their project, giving them a structured way to control uncertainty and resolve issues before they threaten delivery.