2-Week Advanced Project Economics and Risk Management Training Course

11 – 22 April 2027
Muscat

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Training Center

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Ref: 1287_195160 **Date:** 11 – 22 April 2027 **Location:** Muscat **Fees:** 11400 Euro

Overview

2-Week Advanced Project Economics and Risk Management Training Course is a two-week course for project investment and risk professionals who leave with a Risk-Adjusted Project Investment Case. Participants integrate cash-flow economics, appraisal metrics, commercial assumptions, sensitivity, scenarios, cost and schedule uncertainty, contingencies, decision trees, real options, and portfolio choices. The course resolves the disconnect between deterministic business cases and uncertain delivery outcomes through model-building and decision review. Agile Leaders Training Center presents project economics and risk management as one investment-decision discipline.

Who Should Attend

- Functions responsible for project investment appraisal and capital recommendations
- Teams building cost, schedule, cash-flow, and commercial assumptions
- Functions quantifying project uncertainty and determining contingencies
- Teams comparing project options and prioritizing capital portfolios
- Functions governing business cases, assurance, and investment decisions

The course assumes participants already work with project estimates, financial models, or risk information and leaves out introductory accounting and basic project-management concepts.

Departments and Industries

The course supports departments and industries that evaluate capital projects under economic and delivery uncertainty.

- Project finance, investment appraisal, and corporate planning functions
- Project controls, cost engineering, and risk-management teams
- Portfolio governance, assurance, and capital-allocation functions
- Energy, utilities, infrastructure, and construction organizations
- Manufacturing, transport, logistics, and technology organizations
- Healthcare, public-service, and investment organizations

Learning Objectives

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

- Build project cash-flow models and evaluate investment metrics
- Analyze economic assumptions through sensitivity and switching values
- Apply scenario, decision-tree, and real-options methods
- Evaluate cost and schedule uncertainty using probabilistic models
- Build risk-based contingency and portfolio-priority recommendations
- Integrate economics, risk evidence, and governance into investment advice

Course Agenda

Day 1: Project Economics Architecture

- Project Economic Boundary and Perspective Map
- Capital and Operating Cost Classification Model
- Benefit and Revenue Driver Tree
- Nominal and Real Cash-Flow Convention
- Economic Assumption Register

Day 2: Cash Flow and Time Value

- Project Cash-Flow Model Structure
- Discounting and Time-Value Calculation Sheet
- Working Capital and Terminal Value Schedule
- Inflation and Escalation Treatment Matrix
- Cash-Flow Model Integrity Checklist

Day 3: Investment Appraisal Metrics

- Net Present Value Decision Model
- Internal Rate of Return Interpretation Guide
- Benefit-Cost Ratio Comparison Table
- Economic Payback and Value Profile
- Investment Metric Reconciliation Sheet

Day 4: Sensitivity and Assumption Risk

- Critical Assumption Sensitivity Matrix
- Switching Value Calculation Method
- Two-Variable Sensitivity Surface
- Optimism Bias Evidence Review
- Assumption Challenge and Ownership Protocol

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Day 5: Scenario and Decision Analysis

- Plausible Scenario Construction Canvas
- Scenario Cash-Flow Comparison Model
- Sequential Decision Tree Diagram
- Expected Monetary Value Calculation
- Decision Reversibility and Commitment Test

Day 6: Project Risk Model Design

- Project Risk Breakdown Structure
- Cost and Schedule Uncertainty Source Map
- Correlation and Dependency Assumption Sheet
- Probability Distribution Selection Guide
- Quantitative Risk Model Validation Checklist

Day 7: Simulation and Contingency

- Monte Carlo Simulation Input Model
- Cost and Schedule Confidence Curve
- Risk Driver Sensitivity Chart
- Contingency and Reserve Decision Rule
- Tail-Risk and Extreme Outcome Screen

Day 8: Flexibility and Commercial Risk

- Real Options Flexibility Map
- Stage-Gate Investment Decision Path
- Commercial Assumption Exposure Matrix
- Risk Allocation Value-for-Money Test
- Contingent Liability Register

Day 9: Portfolio and Governance Decisions

- Risk-Adjusted Project Comparison Scorecard
- Capital Portfolio Prioritization Matrix
- Investment Case Assurance Checklist
- Decision Authority and Escalation Map
- Executive Investment Recommendation Pack

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Day 10: Integrated Investment Practice

- Exercise: Cash-Flow and Appraisal Model Review
- Exercise: Sensitivity and Scenario Challenge
- Exercise: Simulation and Contingency Decision
- Exercise: Portfolio Ranking and Governance Briefing
- Capstone Exercise: Risk-Adjusted Project Investment Case

Practical Exercises

The course uses suggested activities that connect model assumptions, risk evidence, commercial choices, and investment governance.

- Suggested activity: build an infrastructure cash-flow model and reconcile appraisal metrics.
- Suggested activity: test demand, cost, and delivery assumptions for a healthcare investment.
- Suggested activity: simulate cost uncertainty and recommend contingency for an industrial project.
- Suggested activity: compare technology projects and present a risk-adjusted portfolio recommendation.

FAQs

Who suits advanced project economics and risk management training?

Advanced project economics and risk management training suits experienced project, finance, cost, investment, and risk professionals who already use estimates, cash flows, schedules, or business cases.

How does project economics and risk management differ from general project finance training?

Project economics and risk management integrates appraisal with delivery uncertainty, probabilistic outcomes, contingency, flexibility, and portfolio choice, while general project finance training focuses more broadly on funding structures and financial arrangements.

How does sensitivity analysis improve project investment appraisal?

Sensitivity analysis improves project investment appraisal by showing which assumptions drive value, when a preferred option changes, and where better evidence or management action is most valuable.

Why use Monte Carlo simulation in project risk analysis?

Monte Carlo simulation combines uncertain variables to show a range and probability of project cost or schedule outcomes, supporting explicit confidence and contingency decisions.

How are project economics and risk evidence presented to decision makers?

Project economics and risk evidence are presented through traceable assumptions, appraisal metrics, uncertainty ranges, scenarios, key drivers, contingencies, option comparisons, governance conditions, and a clear investment recommendation.

Conclusion

The course integrates cash-flow economics, appraisal, assumption testing, scenarios, simulation, contingency, flexibility, commercial risk, portfolio choice, and governance. Participants take back a Risk-Adjusted Project Investment Case containing models, decision trees, confidence curves, scorecards, and recommendation materials. The case improves how organizations compare projects, expose uncertainty, allocate contingency, and authorize capital decisions.