



## Project Risk Management

### **1. Introduction**

- 1.1. Projects as Systems
- 1.2. Managing a Project in Uncertainty
- 1.3. Understanding Project Complexity
- 1.4. New Guidelines for Project Management
- 1.5. Systems Based Project Management Methodology

### **2. Fundamentals**

- 2.1. Risk and Risk Management Principles
  - 2.1.1. Terminology
  - 2.1.2. Facets of Risk
  - 2.1.3. Probability
  - 2.1.4. Probabilistic Determinations of Risk
  - 2.1.5. Risk Matrices
  - 2.1.6. Qualitative and quantitative determinations of risk
  - 2.1.7. Risk Evaluation Criteria
  - 2.1.8. Overview of the Risk Identification and Assessment Process
  - 2.1.9. Risk Mitigation
  - 2.1.10. Risk Management Methodology
- 2.2. Project and Project Portfolio Management
  - 2.2.1. Definitions
  - 2.2.2. Programme and Project Capacity
  - 2.2.3. Relationship Between Programmes, Portfolios and Projects
  - 2.2.4. Portfolio and Programme Lifecycle
  - 2.2.5. Project Management Lifecycle
  - 2.2.6. Project Management Processes
  - 2.2.7. Project Management Support Functions
  - 2.2.8. Project Closure
  - 2.2.9. Project Management Overview
  - 2.2.10. Project Success Factors
- 2.3. Principles of Project Risk Management
  - 2.3.1. Value Creation and Uncertainty
  - 2.3.2. Riskiness of Projects
  - 2.3.3. Implications of Project Risk
  - 2.3.4. Integrating Risk Management in Project Management
  - 2.3.5. Main Risk Areas in Projects
  - 2.3.6. Generic Project Risk Factors
  - 2.3.7. Project Risk Management Requirements
  - 2.3.8. Project Manager's Responsibilities



### **3. The Risk Management Process**

#### **3.1. Identifying Project Risks**

- 3.1.1. Contextualising the Project
- 3.1.2. Different Perspectives of a Project
- 3.1.3. Risk Identification Process
- 3.1.4. Risk Breakdown Schedule
- 3.1.5. Types of Project Threats
  - 3.1.5.1. Generic
  - 3.1.5.2. Environmental
  - 3.1.5.3. Technical
  - 3.1.5.4. Safety
- 3.1.6. Risk Identification Tools and Techniques
  - 3.1.6.1. Hazard Studies
  - 3.1.6.2. Fault and Event Trees

#### **3.2. Risk Analysis**

- 3.2.1. Threats and Events
- 3.2.2. Impact on Project

#### **3.3. Risk Evaluation and Response**

- 3.3.1. Evaluating Project Risks
- 3.3.2. Risk Evaluation Options
- 3.3.3. Project Risk Modelling
- 3.3.4. Risk Response
  - 3.3.4.1. Simple Risk Decision Matrix
  - 3.3.4.2. Decision-making Elements

#### **3.4. Risk Management Plans**

- 3.4.1. Purpose and Process
- 3.4.2. Risk Management Strategies
- 3.4.3. Economic Appraisal
- 3.4.4. Risk Register
- 3.4.5. Content of a Risk Management Plan
- 3.4.6. Risk Management Priorities
- 3.4.7. Risk Management Plan Guidelines

#### **3.5. Risk Management and Control**

- 3.5.1. Implementation of Risk Management
- 3.5.2. Risk Information Flows
- 3.5.3. Risk Exposure Versus Time
- 3.5.4. Risk Responsibility Matrix



# Ithuta JV

Holhuta Ka Tsebo  
Learning from Experience

#### **4. Case Studies**

#### **5. Appendices**

- 5.1. Risk Engineering
- 5.2. Bibliography and References
- 5.3. Templates
- 5.4. Project Risk Management Checklist