

AFCEA InfoTech 2008 Project
Management Topics



Risk and the Project Manager

Shannon O'Neill, PMP
Miami Valley Chapter
Project Management Institute



Outline

- What is Project Risk?
- Where Can We Find Risk?
- Risk Management Planning
- Risk Identification
- Risk Response Planning
- Risk Monitoring and Control
- Summary



What is Project Risk?

- Chapter 11 - **A Guide to the Project Management Body of Knowledge – Third Edition** defines Project Risk as:
 - “An uncertain event or condition that, if it occurs, has a positive or a negative effect on at least one project objective, such as time, cost, scope or quality.”



Where can we find Risk?

- Internal vs. External to the Project
- Partial List:
 - Budgets/Funding
 - Schedules
 - Scope or requirements changes
 - Technical Integration Issues
 - Personnel Issues
 - Hardware/Software
 - Contracting Issues
 - Governmental and Regulatory Intervention



Risk Management Planning: Inputs

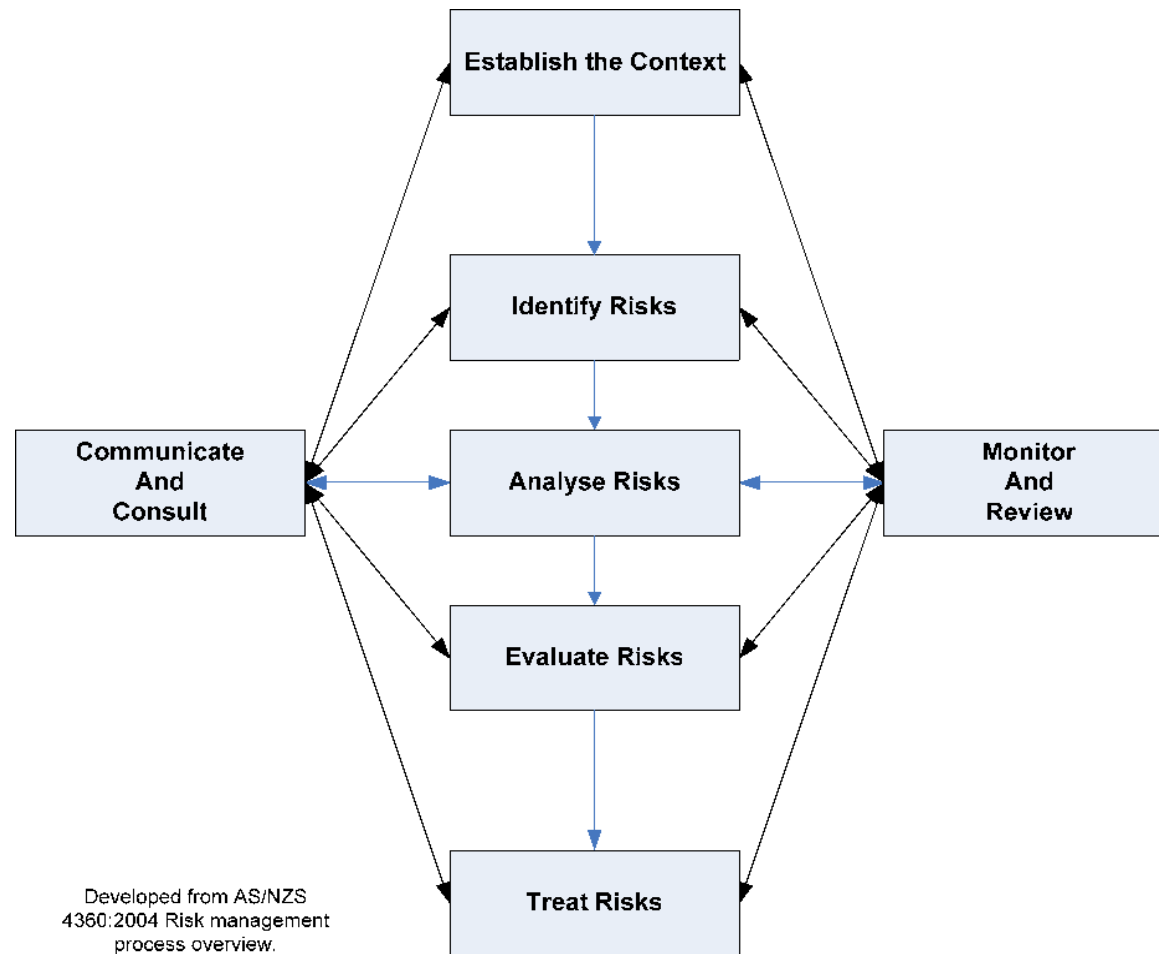
- Enterprise Environmental Factors
- Organizational Process Assets
- Project Scope Statement
- Project Management Plan



Risk Management Planning: Tools and Techniques

- Planning Meeting and Analysis

Risk Management Process Flow Diagram



Developed from AS/NZS
4360:2004 Risk management
process overview.



Risk Management Planning: Outputs

- Risk Management Plan
 - Methodology (Utilizing Six Sigma)
 - **SIPOC** – Suppliers, Inputs, Process, Outputs and Customers
 - **Suppliers** –The Suppliers to the process
 - **Inputs** – The Inputs to the Process
 - **Process** – The Process the team is trying to improve
 - **Outputs** – The Outputs to the Process
 - **Customers** – The Customers that get the processes output
 - Roles and responsibilities
 - Budgeting
 - Timing
 - Risk categories
 - Financial Resources
 - Schedule
 - Culture
 - Age of Team
 - New Technology
 - Definitions of risk and impact (See handout and example)



Risk Identification: Inputs

- Risk Management Plan
- *Project Planning Outputs
- **Risk Categories
- Historical Information

* Project Planning Outputs include the project charter, the WBS, cost and time estimates, assumptions and constraints and the procurement plan

** Risk Categories may include data, technical, quality, performance, project management, organizational and external risks



Risk Identification: Tools and Techniques

- Documentation Reviews
- Information gathering
 - Brainstorming
 - Delphi technique
 - Interviewing
 - Root Cause Analysis
 - Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis
- Checklist Analysis
- Assumption Analysis
- Diagramming Techniques
 - Cause-and-effect diagram
 - System Process flow charts
 - Influence diagrams



Dynamic Risk Scale

- **Risk Likelihood Scale**

- Risk Likelihood relates to the probability or frequency of a risk occurring.

- **Level Descriptor Likelihood/Probability/Frequency**

- R – Likely Will probably occur in most circumstances
- Y – Possible Might occur at some time
- G – Unlikely Could occur at some time

- **Negative Risk Consequence Scale**

Risk Consequence relates to the outcome or impact of a risk considered in relation to the achievement of objectives. It should be noted that there can be more than one consequence and the impact can be positive or negative.

- **Level Description Consequence**

- -1 Minor - No regulator impact; low stakeholder impact; financial loss up to \$10,000; no effect on operations; up to 1% impact on targets
- -2 Moderate - Some regulatory impact; medium stakeholder impact; financial loss up to \$100,000; some effect on critical operations, up to 5% impact on targets
- -3 Major - High regulatory impact; medium stakeholder impact; major financial loss up to \$ 1m; major effect on critical operations; up to 10% impact on targets

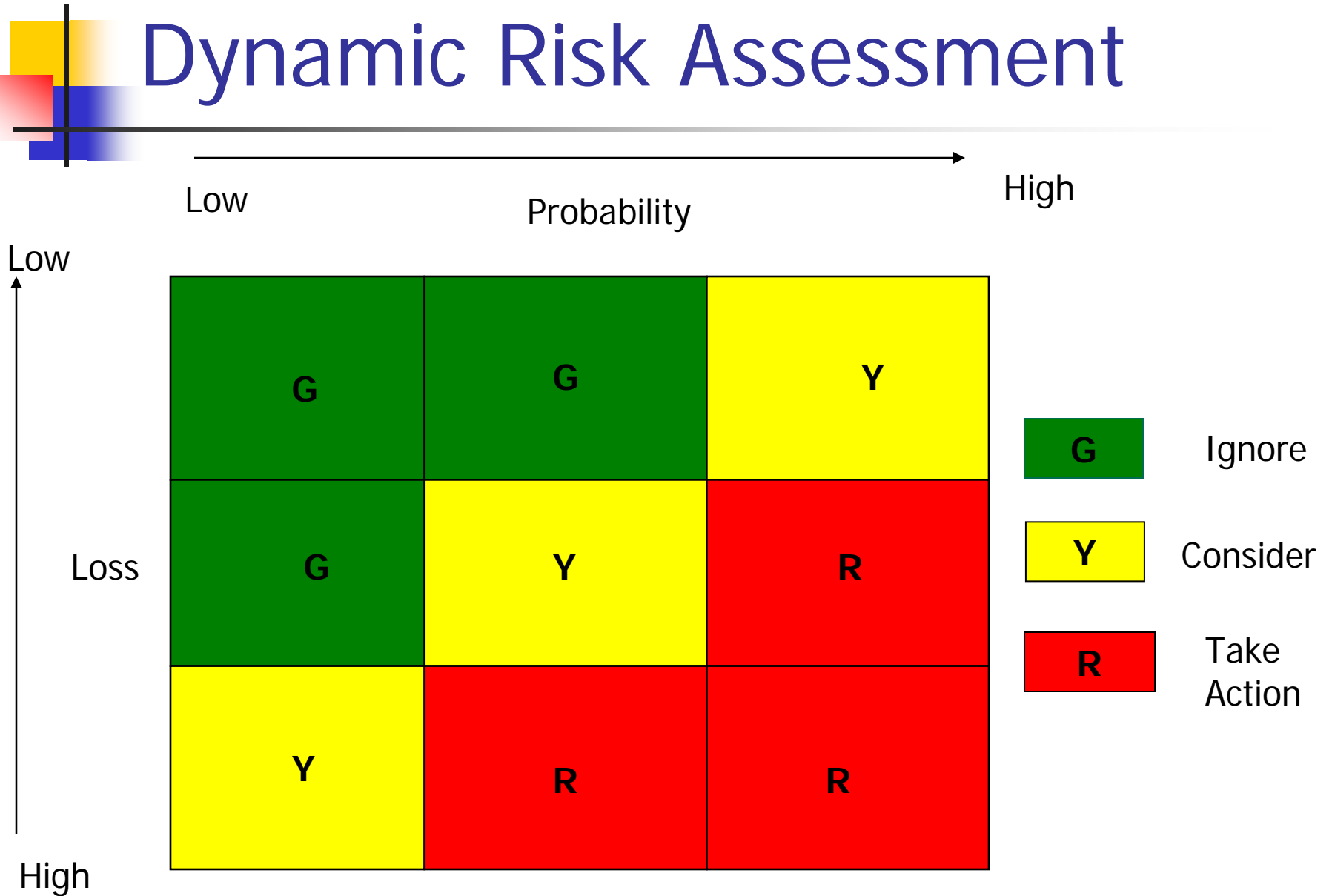
- **Positive Risk Consequence Scale**

Risk Consequence relates to the outcome or impact of a risk considered in relation to the achievement of objectives. It should be noted that there can be more than one consequence and the impact can be positive or negative.

- **Level Description Consequence**

- +1 Minor - Minor benefit; some operational improvement; some image gain; possible financial gain
- +2 Moderate - Some reputation enhancement; high operational improvement; high financial gain
- +3 Major - Enhanced reputation; high operational gain; major financial gain

Dynamic Risk Assessment





Risk Identification: Outputs

- Risk Register
 - List of identified risks
 - List of potential responses
 - Root cause responses
 - Updated risk categories



Risk Response Planning

- “Process of developing options, and determining actions to enhance opportunities and reduce threats to the project’s objectives. It addresses the risks by their priority, inserting resources and activities into the budgets, schedule and project management plan, as needed.”



Risk Response Planning: Inputs

- Risk Management Plan
- Risk Register



Risk Response Planning: Tools and Techniques

- Accept – Do nothing because the cost to fix is more expensive than the expected loss.
- Avoid – Elect not to do part of the project associated with the risk.
- Contingency Planning – Frame plans to deal with risk consequence and monitor risk regularly (identify trigger points).
- Mitigate – Reduce either the probability of occurrence, the loss, or both.
- Transfer – Outsource.



Risk Response Planning: Outputs

- The Risk Register (Updates)
- Project Management Plan (Updates)
- Risk-Related Contractual Agreements



Risk-Monitoring and Control

- “Process of identifying, analyzing, and planning for newly arising risks, keeping track of the identified risks and those on the watchlists, reanalyzing existing risks, monitoring trigger conditions for contingency plans, monitoring residual risks, and reviewing the execution of risk responses while evaluating their effectiveness.”



Summary

- “Project Risk Management includes the processes concerned with conducting risk management planning, identification, analysis, responses, and monitoring and control on a project; most of these processes are updated throughout the project. The objectives of Project Risk Management are to increase the probability and impact of positive events, and decrease the probability and impact of events adverse to the project.”



Contact Information

- Shannon O'Neill, PMP
ResConnex, Inc.



Email: soneill-pote@resconnex.com

Mobile: (937) 422-5887