

# Risk Management in Planning: An Overview

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# Logistics

- Global Mute on the phone to improve sound quality
- Questions welcome via chat function or SMART Guide Comment Form
  - Will address questions as time allows
- Slides and Q&A will be posted on SMART Guide
- Thank you for your time today

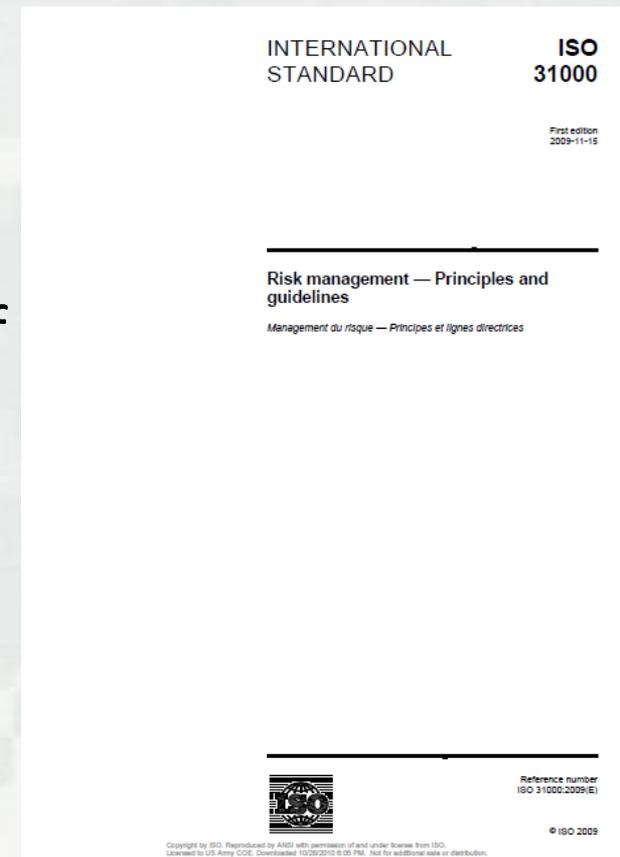


# Risk Definition

“The effect of uncertainty on the organization’s objectives”

(ISO 31000 - Risk Management Principles and Guidelines, 2009)

- Typically expressed as a combination of likelihood and consequences
- Objectives often reflected in environmental, economic, financial, health, safety, and other metrics
- Can be positive or negative
- Applies to process, project, program scales



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# Why consider risk in planning?

## Principles & Guidelines 1983

“Planners shall identify areas of risk and uncertainty in their analysis and describe them clearly, so that decisions can be made with knowledge of the degree of reliability of the estimated benefits and costs and of the effectiveness of alternative plans.”



# Five Imperatives for SMART Planning

- Balancing the **level of uncertainty and risk** with the **level of detail** of the study
- Ensure **early vertical team engagement** of decision makers, and as the study process progresses
- Identify **Federal Role** in resolving a problem up front
- Recognize there is no single “best” plan and there are quantitative and qualitative methods of **alternative comparison and selection**
- Ensure that **all resources** needed for study, funding, human resources, data and information are identified and available for the duration of the study

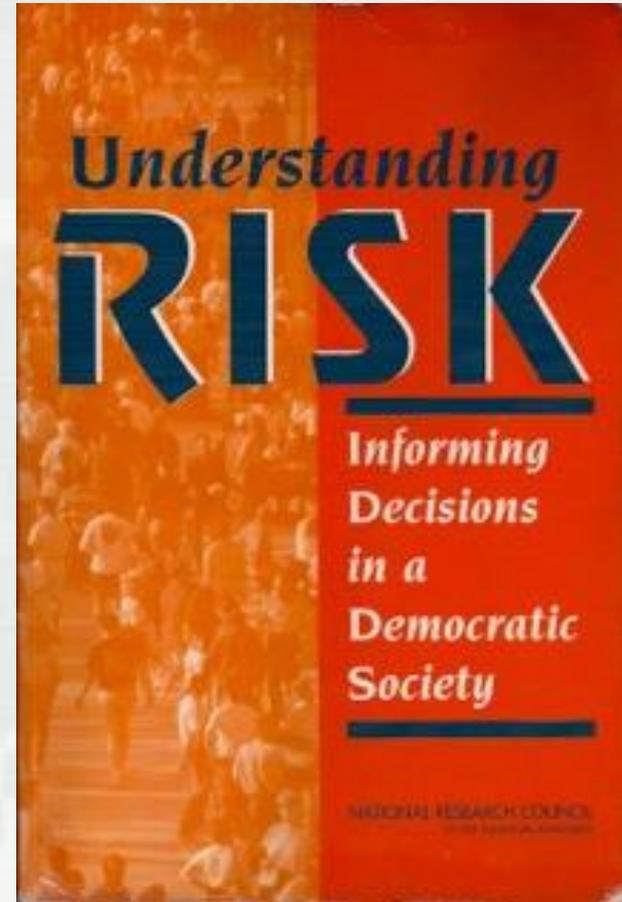


# Analytic-Deliberative

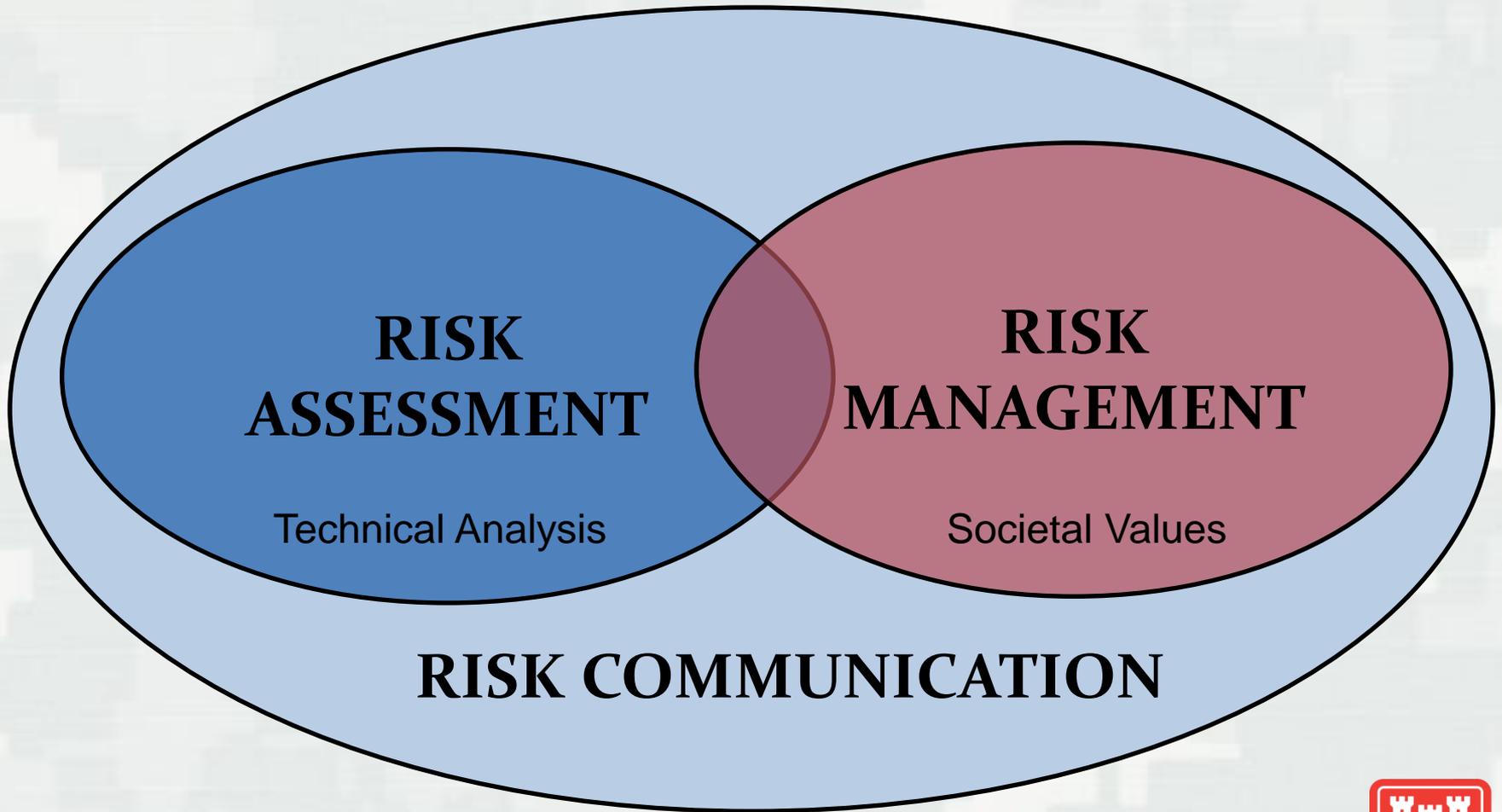
Risk analysis is an Analytic-Deliberative process.

Early deliberation with public, leadership, other technical, etc to scope the problem and understand the context

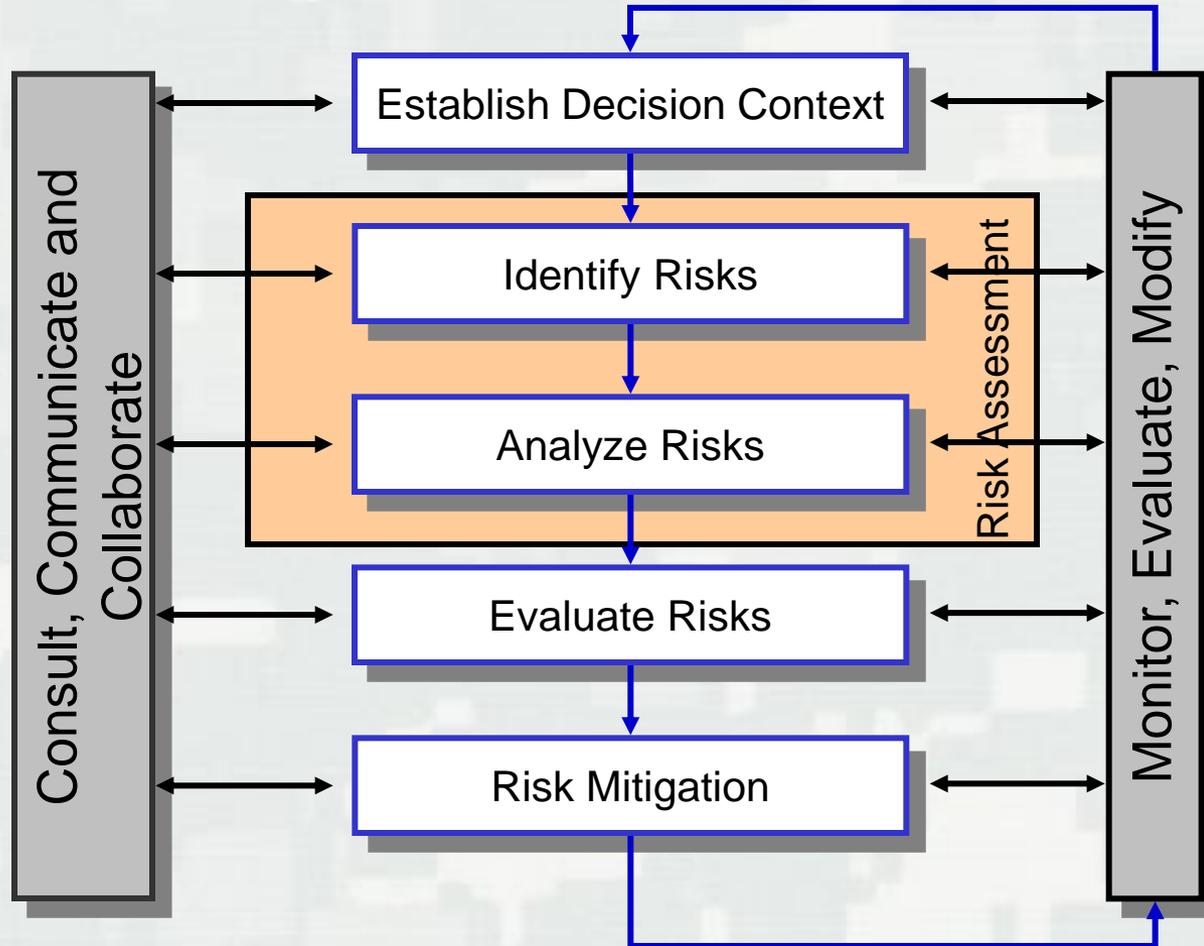
Later deliberations to understand the tech analyses & related uncertainties, inform decisions, explain actions others can take, etc



# Risk Analysis – 3 Integral Parts



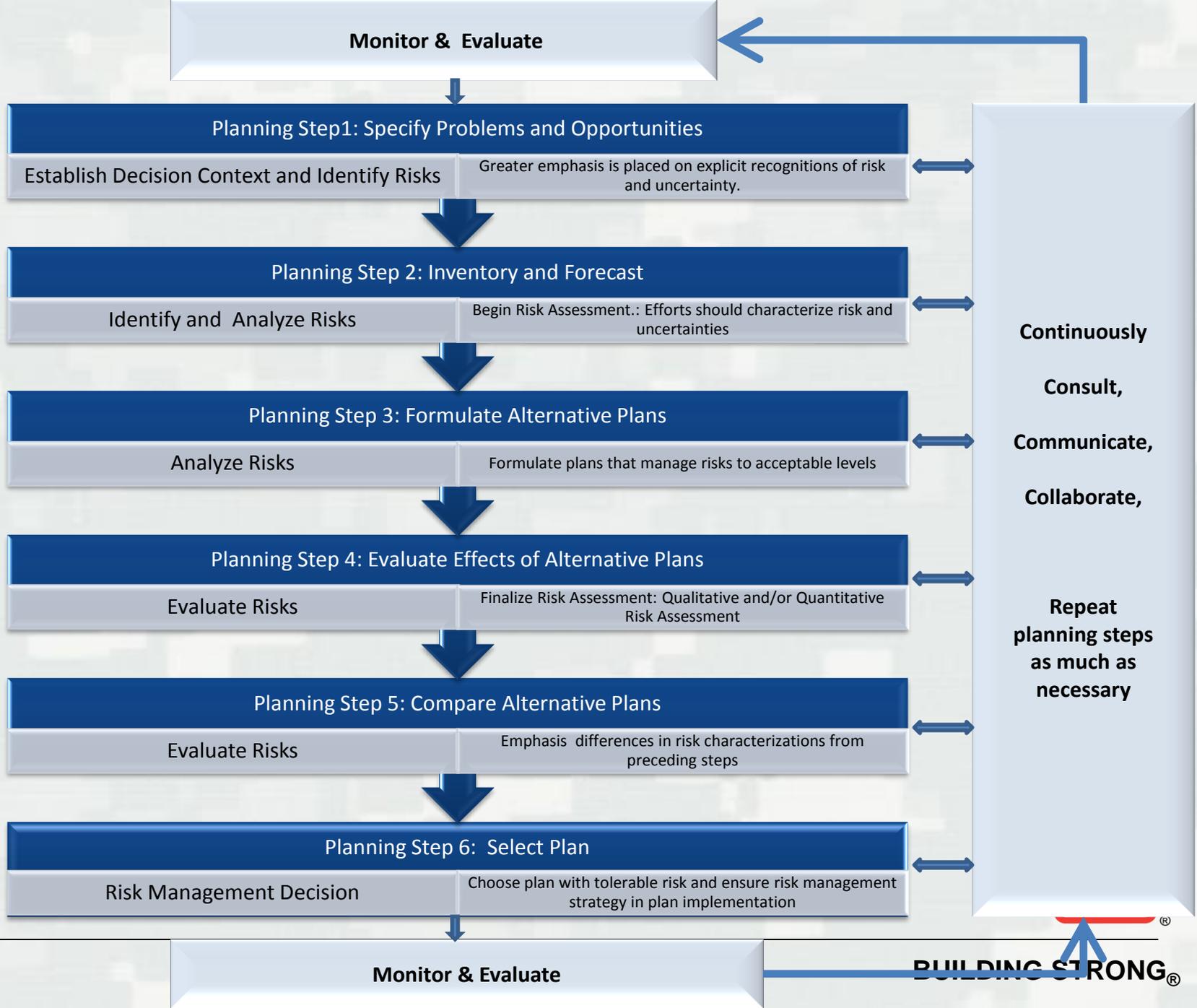
# Risk Management Framework



Adapted from ISO 31000- Risk Management—Principles and Guidelines



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# Risk Management in Planning

(From ER 1110-2-1150)

Para 13.9.1 - “The level of cost detail may vary according to the design information/detail established to support the feasibility report. Contingencies shall be developed based upon the risks related to the uncertainties or unanticipated conditions... Contingencies will vary...”

***Part of the PDT overall project evaluation shall be whether to perform additional investigations or studies in order to reduce the uncertainties and refine the cost estimate or to proceed with the higher estimate and contingencies.”***

[http://140.194.76.129/publications/eng-regs/ER\\_1110-2-1150/ER\\_1110-2-1150.pdf](http://140.194.76.129/publications/eng-regs/ER_1110-2-1150/ER_1110-2-1150.pdf)



# Uncertainty

- “...the state, even partial, of deficiency of information related to understanding or knowledge of an event, its consequence, or likelihood” (ISO 31000)
- Two categories of uncertainty:
  - Natural Variability
    - For example, variability in annual peak flow
  - Knowledge Uncertainty
    - May be reducible through additional analysis



# What does this mean in decision making?

- Risk Management - What recommendation would the team make today and why? What decision criteria and metrics would be used?
- Risk Assessment - How can uncertainties in the metrics affect study objectives?
- Risk Communication – internal and external, to understand views of others and to characterize uncertainty & risk issues
- Sound decisions can be made in spite of the uncertainties



# In Practice.....

- Be explicit about the decisions being made and how
- Transparent practices
  - Assumptions
  - Procedural methods and models
  - Analytical results
- Repeated analytic-deliberative
  - This is the confluence of risk assessment and risk management
- Explicit treatment of uncertainties
  - Assessors convey significance of uncertainty
  - Managers take it explicitly into account in decision making



# Next Time

More specifics about the use of SMART Planning tools to support this analytic-deliberative process of decision making in planning.



# Additional Risk Analysis Info

More details about Risk Analysis and the risk management framework can be found at The Corps Risk Analysis Gateway

<http://www.corpsriskanalysisgateway.us/index.cfm>

Training Modules

Publications

External Links



# Questions?

Type questions in the chat box.  
We will try to answer as many as time allows.

*For more information:*

<http://www.corpsriskanalysisgateway.us/index.cfm>

<http://www.corpsplanning.us>



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