Risk Management Strategies for I.T. Success

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Brief Introduction:

John Stenbeck, President, Pareto Principals, Inc.

Pareto Principals is a San Diego-based company that helps project-based organizations and project managers become super effective.

Pareto's staff act as project leaders for current challenges, as well as high-caliber trainers developing client resources for future opportunities.

John Stenbeck, Consultant, Trainer, & Author

A partial list of John's clients includes:

* Visa - Smart Cards
* Guinness Bass UDV
* Lucent Technologies
* Eldon – a division of Newell Rubbermaid
* U.S. Army – Space and Terrestrial Communications Directorate
* Booz Allen Hamilton – Defense Information Technologies Group
* Interex - The Int'l Assoc of Hewlett-Packard Computing Professionals
* OAUG – the independent Oracle Applications User Group.
* Oracle Corp.
* Simplex Solutions,
* U.S.D.A. – National Finance Center

John has also recently completed a manuscript for a book on Project Management.

Risk Management Strategies for I.T. Success

Illustration by Eduardo Otero Jr.

What Risk Management Can Do:

- Produce Better-informed Decisions
- Reduce Crises & Surprises
- Identify Cost-containment Opportunities

What Risk Management Can't Do:

- Prophesy the Future
- Grant Guarantees
- Eradicate Threats

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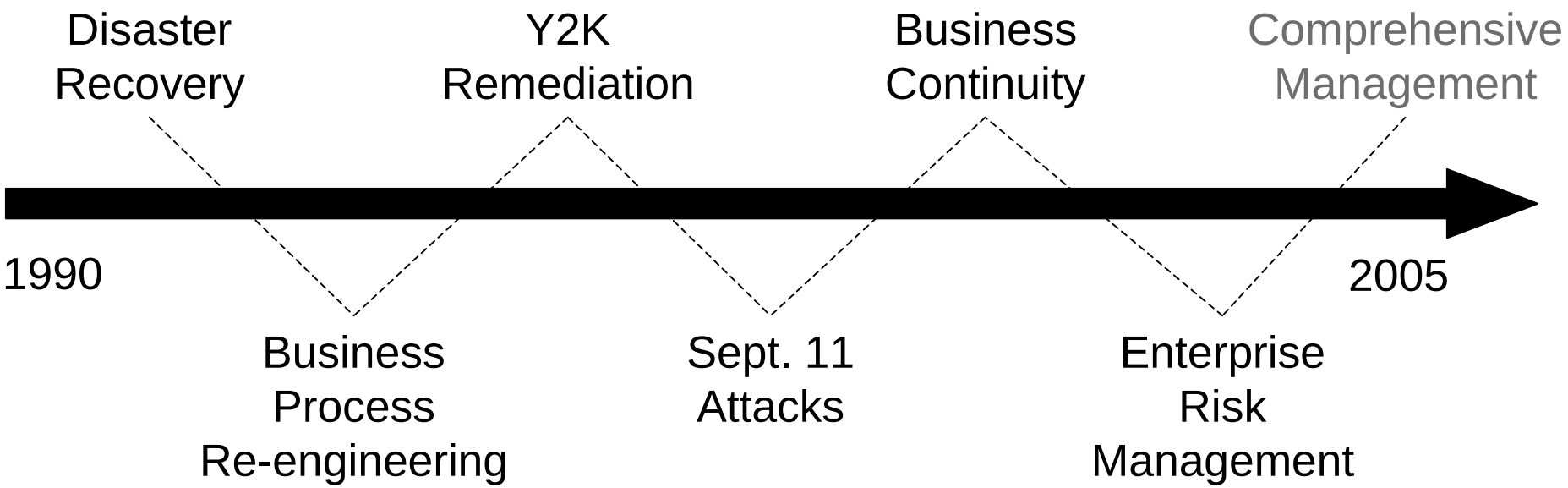
What is Risk Management?



What is driving the evolution?

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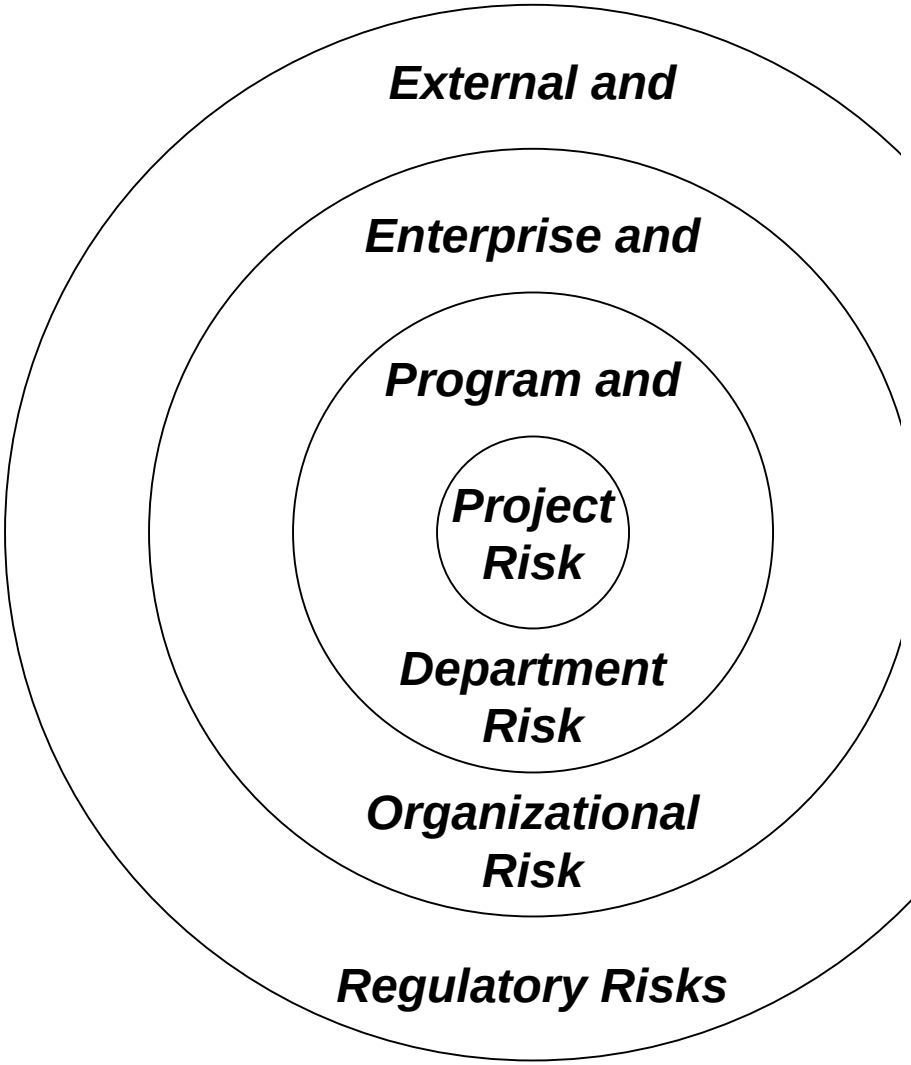
What is Risk? The potential for. . .



Disasters and Regulations:
- **Low Probability, Severe Impact**
- **Wide-spread, Well-known**
- **Customers Sympathetic (Maybe)**

Interruptions and Displacements
- **Infrastructure Failure (Backhoe)**
- **Malicious Event (Virus)**
- **Customers Perceive Incompetence**

Missteps and Malfunctions
- **Loss of Competitive Advantage**
- **Technical / Regulatory Failure**
- **Resource Shortage**

Rejections and Failures
- **Deliverable Discrepancies**
- **Cost Overruns**
- **Schedule Slips**

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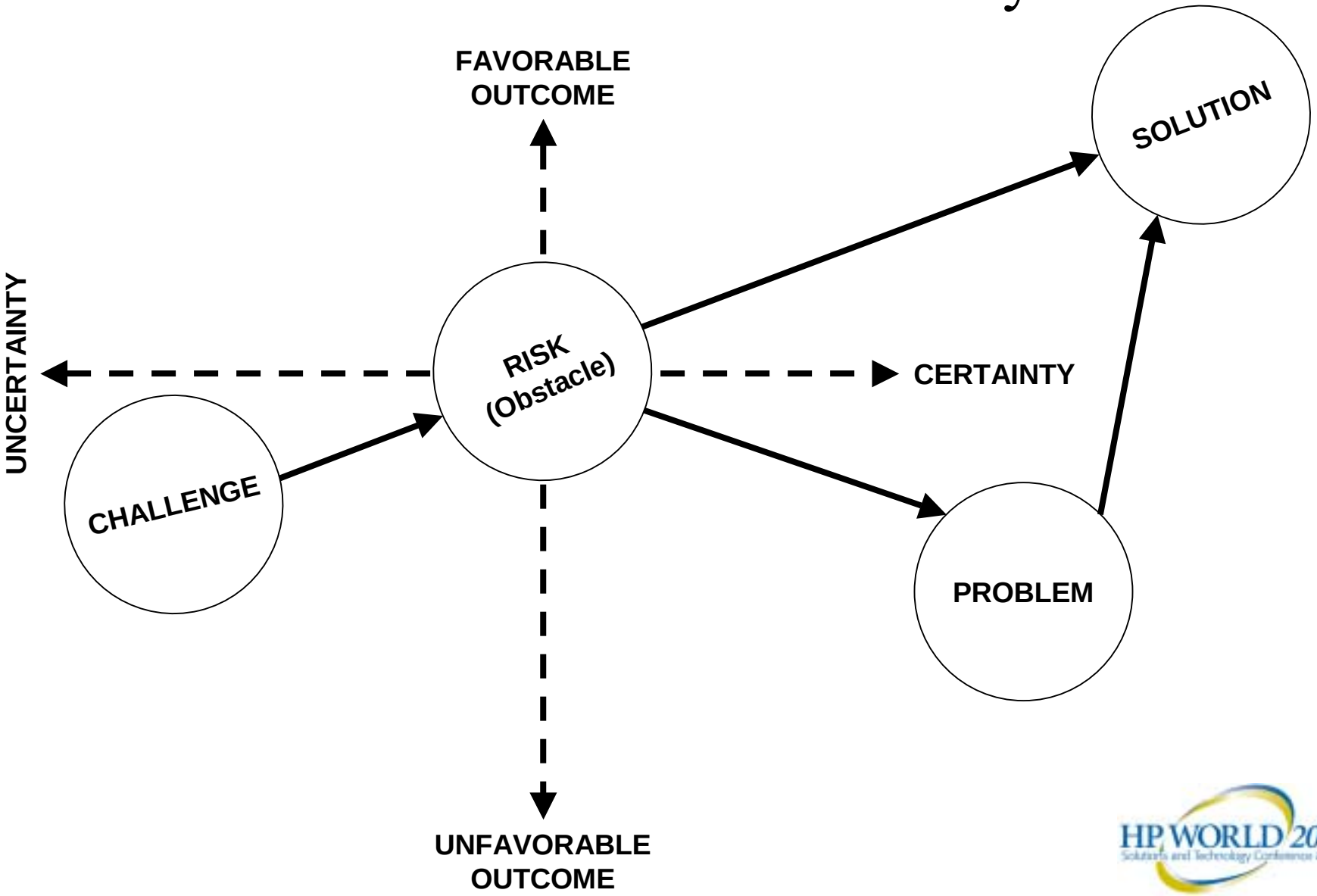
When does a "Risk" become a "Reality"?



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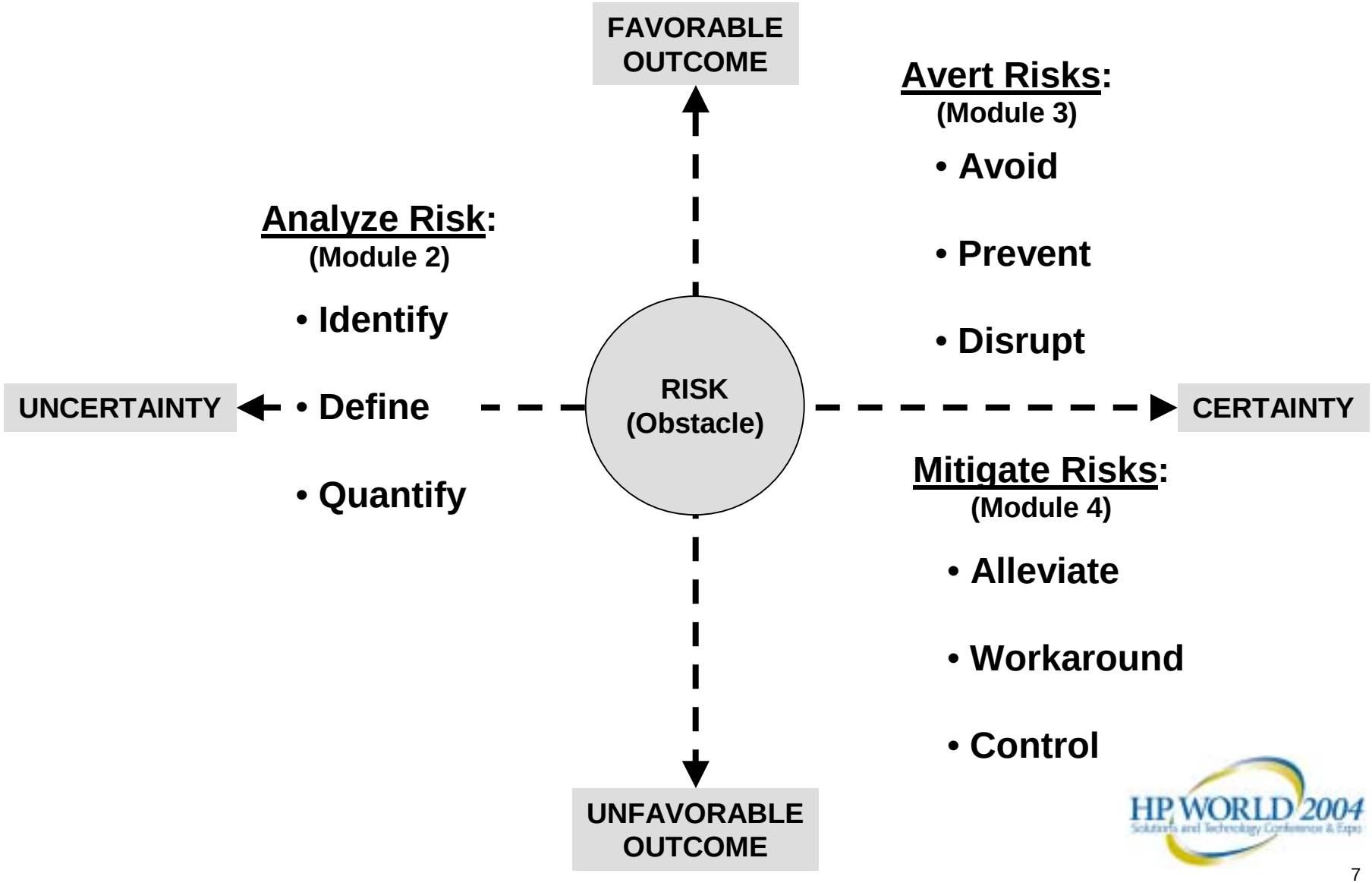
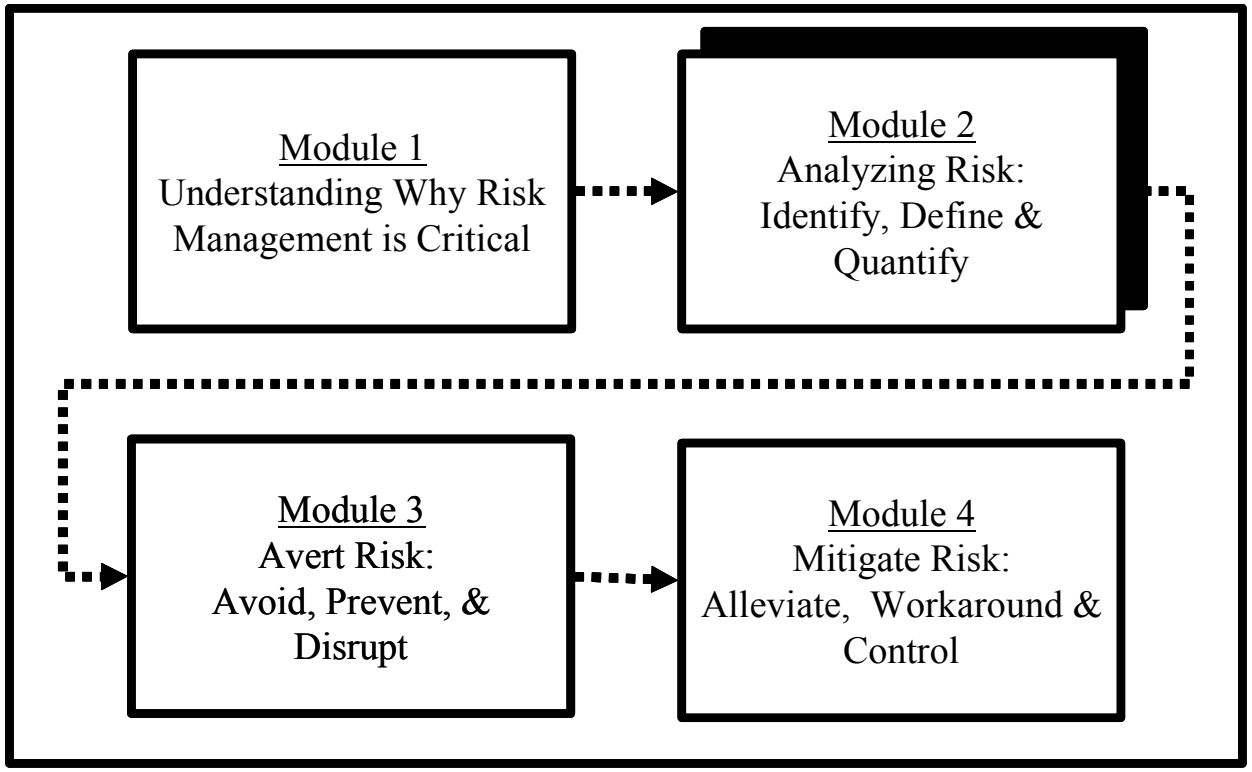
Risk Management means "When" and "How"



Course Outline:
Risk Management Strategies for I.T. Success



For the balance of this Introduction we will focus on Module 2.

Any Questions?

Module 2: Analyze Risk – Identify, Define & Quantify

Risk Analysis Process:

- The objective of the Risk Analysis Process is to prepare Options to be implemented should certain situations or threats – the Risk Profile – materialize.

- The Risk Profile facilitates the creation of a Risk Management Budget that includes criteria for releasing reserved funds, as unneeded, when events have passed.

- The Risk Profile, Options, and Risk Management Budget are recorded in the Risk Management Plan.

Module 2: Analyze Risk – Identify, Define & Quantify

Risk Analysis Process:

- The Team must insure that responses are credible, cost-effective, and can be implemented timely.

- The Team must maintain an independent and objective perspective. Therefore it benefits from a cross-functional membership.

- Sometimes a Consultant is mandatory.

Module 2: Analyze Risk – Identify, Define & Quantify

Risk Analysis Process: Creating the Risk Profile

Step 1 – Identify

- Types of Risk
- Sources of Risk
- Specific Risks

Step 2 – Define

- Environmental Actors
- Impact Zone – Direct and Collateral
- Stakeholder Success Metrics

Step 3 – Quantify

- Occurrence Probability
- Expected Severity
- Stakeholder Priority

Module 2: Analyze Risk – Identify, Define & Quantify
Risk Analysis Process: Creating the Risk Profile

Step 1 – Identify Types of Risk

- Acts-of-God
- Regulatory
- Competitor-induced
- Customer-induced
- Organizational (i.e., Politics)
- Resource (i.e., Cashflow, Attrition, Prioritization)
- Technical (i.e., Ability & Availability; Legal & Physical)
- Timing
- Unknown

Knowing the types of risks helps identify the sources of risk.

Module 2: Analyze Risk – Identify, Define & Quantify
Risk Analysis Process: Creating the Risk Profile

Step 1 – Identify Sources of Risk

- Acts-of-God: Implementing in Oklahoma during tornado season.
- Regulatory: AB1637 is pending on the floor of the House.
- Competitor-Induced: Microsoft just acquired our major competitor.
- Customer-induced: Suppliers need DCMAO certification.
- Organizational: The CFO opposes the project.
- Resource: Design Engineer must be IEEE with security clearance.
- Technical: Requires material that conducts heat in a vacuum.
- Timing: Network upgrade must be complete by Monday 3AM.
- Known Unknown: Competitor's product release plan is unclear.
- Unknown Unknown: It has never been done before.

Module 2: Analyze Risk – Identify, Define & Quantify
Risk Analysis Process: Creating the Risk Profile

Step 1 – Identify Sources of Risk

RESOURCES for identifying Unknown Unknown risks:

- Trade Groups and Research Institutes
- Standards Agencies and Universities
- Benchmarking Groups (i.e., IEEE, ASME)
- Analyst Groups (i.e., Gartner, Meta, IDC)
- Symbiotic Non-competitors (i.e., Biotechnology and Electronics)
- Coop-etition (i.e., SNIA)

Module 2: Analyze Risk – Identify, Define & Quantify
Risk Analysis Process: Creating the Risk Profile

Step 1 – Identify Specific Risks

- Customer-induced: Suppliers need DCMAO certification.

  Current supplier not certified. Willing = Yes. Able = ?

  Cost recovery for certification unresolved.

- Resource: Design Engineer must be IEEE with security clearance.

  Zvi Wojciechowski is only qualified associate. Zvi is working on Mars Rover. Schedule availability unclear.

- Technical: Requires material that conducts heat in a vacuum.

  No currently available graphite meets requirement. Basic research and product development needed. Probability of success and R&D time/cost unclear.

- Unknown: It has never been done before. Competitor's product development status unclear.

Module 2: Analyze Risk – Identify, Define & Quantify

Risk Analysis Process: Creating the Risk Profile

Step 2 – Define Environmental Actors, Impact Zone & Stakeholder Success Metrics

Environmental Actors:

- What are the situational constraints?
- Who has choices to make?
- What conditions will "trigger" or "activate" the risk?

Impact Zone:

Direct:

Missed Product Launch?

Cost Overrun?

Schedule Slip?

Collateral:

Lost Future Sales?

Regulatory Sanctions?

Brand Depreciation?

Module 2: Analyze Risk – Identify, Define & Quantify

Risk Analysis Process: Creating the Risk Profile

Step 2 – Define Environmental Actors, Impact Zone & Stakeholder Success Metrics

Stakeholder Success Metrics:

	OBJECTIVES	
STAKEHOLDER	Recovery Point (RPO)	Recovery Time (RPO)
• Regulators	• Stabilize reactor core.	• < 15 minutes
• Customers	• Notified proprietary data compromised.	• 24 – 48 hours
• CFO	• No lost data.	• Three days
• V.P Engineering	• One day's data loss.	• Overnight

Module 2: Analyze Risk – Identify, Define & Quantify
Risk Analysis Process: Creating the Risk Profile

Why invest the time and effort to do a thorough Step 2?
(i.e., Define Actors, Impact Zones & Stakeholder Success Metrics)

So we can do an accurate Step 3!!

Step 3 – Quantify

- Occurrence Probability
- Expected Severity
- Stakeholder Priority

Module 2: Analyze Risk – Identify, Define & Quantify

Risk Analysis Process: Creating the Risk Profile

Quantify: Occurrence Probability

The value of the probability is between 0 and 1

Statistical "Smoozing"

To estimate the Occurrence Probability and impress (silence) management use the formula:

$$E_e = (O_e + 4ML_e + P_e) \div 6$$

Where:

E_e = Event Probability Estimate.
O_e = Optimistic Estimate.
ML_e = Most Likely Estimate.
P_e = Pessimistic Estimate.

Module 2: Analyze Risk – Identify, Define & Quantify
Risk Analysis Process: Creating the Risk Profile

Quantify: Expected Severity

Estimate the expected negative financial impact.

Quantify: Stakeholder Priority

- Multiply the Probability times the Expected Severity to establish Expected Financial Value.
- Identify and describe non-financial impacts.
- Rank-order the risks

"Thinking is the hardest work there is… that's why so few people do it."

Henry Ford

Founder, Ford Motor Company

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