

# Extending the Risk Process to Manage Opportunities

David Hillson



## Extending the risk process to manage opportunities



Presented by  
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## “Risk” = good or bad (or both) ?

- ▲ Dictionary :
  - ▲ noun “possibility of misfortune or loss, hazard”
  - ▲ verb “to expose to danger or loss”
  - ▲ adjective “involving danger, perilous”
- ▲ Common usage :
  - ▲ “Risk is **bad** for you”
- ▲ Do we agree?
  - ▲ technical usage may differ




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## Life is uncertain...



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## Risk and uncertainty

***Risk* ≠ *Uncertainty***

***Risk = Uncertainty that matters***  
(i.e. can affect *objectives*)

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## Two dimensions of risk

Risk has two dimensions :

1. **Uncertainty**
2. **Effect on objectives**




"probability"



"impact"

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## The impact dimension

- ▲ "Impact" assessed against objectives
- ▲ But what kind of impact?
  - ▲ Could be either **positive** or **negative**
  - ▲ Uncertainty that **helps** as well as uncertainty that **harms**
  - ▲ **Opportunities** as well as **threats**
  - ▲ Both need managing proactively

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## What is a risk?

**Risk connects uncertainty with objectives**

"An **uncertain** event or condition that, if it occurs, has a **positive or negative** effect on an **objective**"

(PMI® PMBoK Ch 11)

**Risk includes both opportunities & threats**

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## Assessing two dimensions

- ▲ **Uncertainty** : how likely?
  - ▲ "probability"
  - ▲ HIGH/MEDIUM/LOW
  - ▲ % probability of occurrence (1-99%)
  
- ▲ **Effect on objectives** : how bad? *or good??*
  - ▲ "impact"
    - ▲ time delay *or saving*
    - ▲ extra cost *or reduction*
    - ▲ performance shortfall *or enhancement*
    - ▲ reduced business benefits *or improved*
  - ▲ HIGH/MEDIUM/LOW
  - ▲ days/weeks/..., \$/€/..., etc.

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## What is risk management?

*"The systematic process of identifying, analysing and responding to risk. It includes maximising ... positive events and minimising ... adverse events."*

(PMBok)

The risk process should cope with both **threats** and **opportunities** ...

**Does it? Can it?**

**(One process or two ??)**

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## A risk management process



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## 1. Initiation

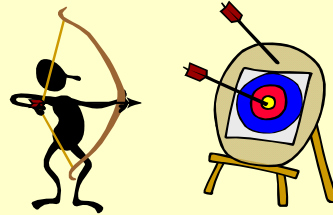
*"The process of deciding how to approach & plan risk management activities for a project"*

(PMBok®)

▲ Documented in **Risk Management Plan**

▲ Defines risk process for the project :

- ▲ Methodology
- ▲ Roles & Responsibilities
- ▲ Timing
- ▲ Thresholds
- ▲ Reporting formats
- ▲ Monitoring & reviews



▲ Can plan for **opportunities** as well as **threats**

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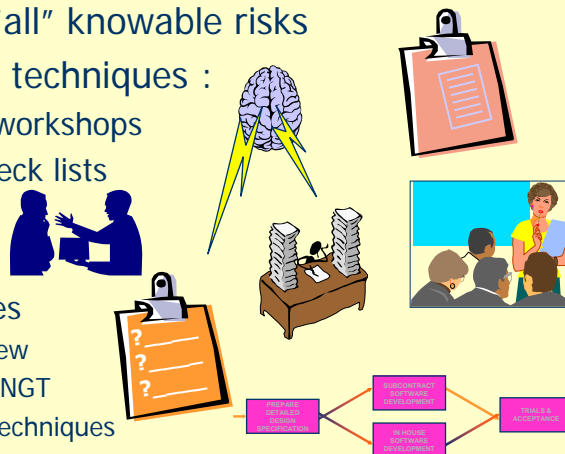


## 2. Risk identification

▲ Aim to expose "all" knowable risks

▲ Common risk id techniques :


- ▲ brainstorming/workshops
- ▲ prompt lists/check lists
- ▲ interviews
- ▲ questionnaires
- ▲ other techniques
  - ▲ document review
  - ▲ Delphi groups/NGT
  - ▲ diagramming techniques



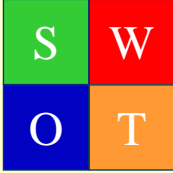

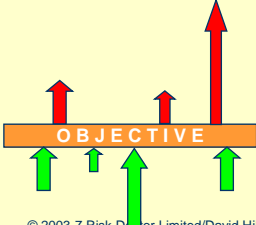
▲ Could use these to identify **opportunities**, but...

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## Specific opportunity id tools

- **SWOT analysis**  
structured brainstorm + and -  

- **Constraints & assumptions analysis**
  - "What if ...?" and "But what if not ...?"  

- **Force field analysis**  
influences on objectives + and -  


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## 3/4. Risk analysis

<h3>3. Qualitative analysis</h3> <ul style="list-style-type: none"><li>▲ What is the risk?</li><li>▲ Why might it occur?</li><li>▲ How likely is it? (Probability)</li><li>▲ How bad/good might it be? (Impacts)</li><li>▲ Does it matter?</li><li>▲ What can we do?</li><li>▲ When should we act?</li><li>▲ Who is responsible?</li></ul>	<h3>4. Quantitative analysis</h3> <ul style="list-style-type: none"><li>▲ modelling uncertainty</li><li>▲ simulate combined effect</li><li>▲ predicting outcomes</li><li>▲ range, min/max, expected</li><li>▲ testing scenarios</li><li>▲ setting confidence limits</li><li>▲ identifying criticalities</li><li>▲ determining options</li></ul>
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▲ Record/analyse in **Risk Register** ▲ Model in **software**

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## Qualitative prioritisation

PROBABILITY	VHI					
	HI					
	MED					
	LO					
	VLO					
		VLO	LO	MED	HI	VHI
		<b>IMPACT</b>				

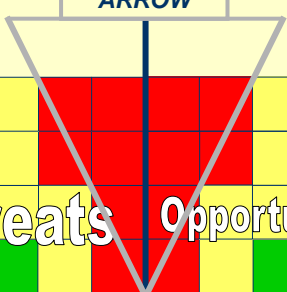
- ▲ Probability-Impact Matrix
  - ▲ define scales, then rank each risk in both dimensions
  - ▲ determine “size” and relative importance of risks
  - ▲ How to show both **threats** & **opportunities** on one grid?

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## “Mirror” P-I Matrix for both threats and opportunities

THE ATTENTION ARROW



PROBABILITY	VHI									PROBABILITY	
	HI										
	MED										
	LO										
	VLO										
		VLO	LO	MED	HI	VHI	VHI	HI	MED	LO	VLO
		<b>NEGATIVE IMPACT (Threats)</b>					<b>POSITIVE IMPACT (Opportunities)</b>				


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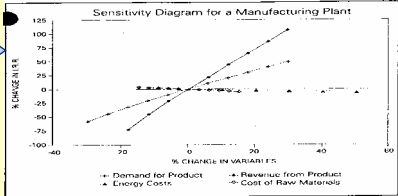
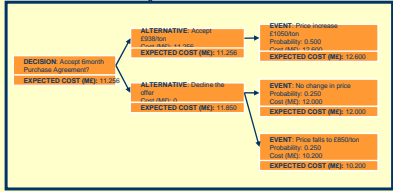
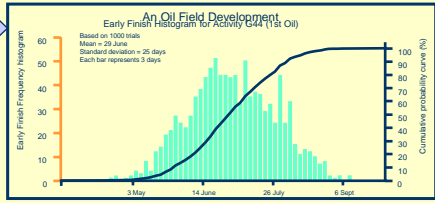


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## Quantitative techniques

- ▲ Sensitivity analysis → 
- ▲ Decision trees → 
- Statistical simulation (Monte Carlo) → 

▲ Good for both **threats** & **opportunities**  
 ▲ min/ML/max estimates cover both types

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## 5. Risk response planning

- ▲ Using risk information to make decisions
- ▲ Four common strategies:
  1. Eliminate uncertainty **avoid**
  2. Transfer liability/ownership **transfer**
  3. Reduce to “acceptable” **mitigate**
  4. Control & manage residual **accept**

*BUT these are only suitable for **threats***

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## Planning for opportunities

Generalise the four approaches :

THREAT	GENERIC STRATEGY	OPPORTUNITY
Avoid	ELIMINATE UNCERTAINTY	Exploit
Transfer	INVOLVE OTHERS	Share
Reduce	CHANGE SIZE	Enhance
Accept	TAKE THE RISK	Accept

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## 6. Implementation & review

- ▲ Purpose :
  - ▲ Take action to change risk exposure
  - ▲ Determine effectiveness of responses
  - ▲ Monitor changes in risks
  - ▲ Assess effectiveness of risk process
- ▲ OK for both opportunities & threats

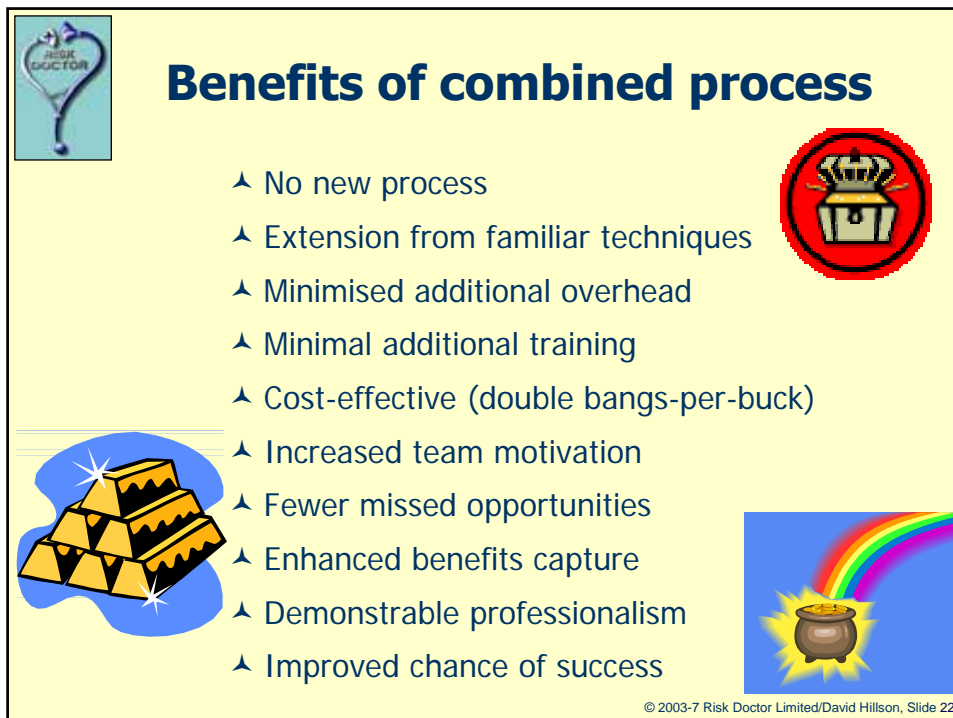
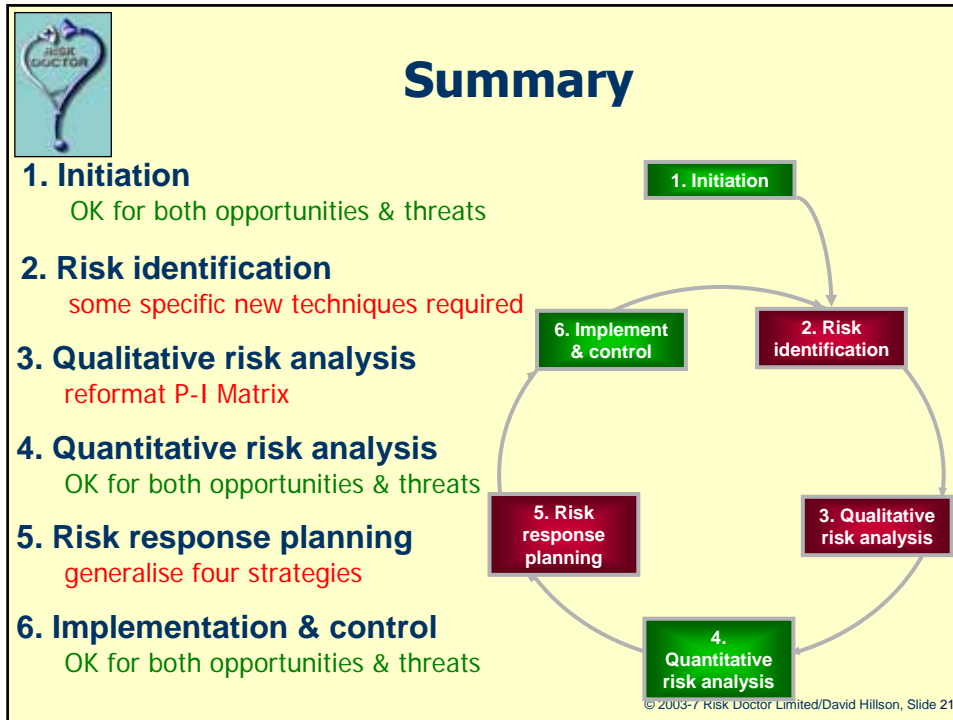
***j d i !!***

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## Nature of risk management

- ▲ "Just" good management
- ▲ Integral part of corporate culture
- ▲ Total Risk Management (TRM)
  - ▲ attitudes, behaviour, culture ...
- ▲ Proactive, not reactive

**All equally true for  
opportunity management**

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## Managing threats & opportunities

- ▲ Conclusions :
  - ▲ Standard risk process can handle both
    - ▲ no need for a separate opportunity process
  - ▲ Give both equal attention ...
    - ▲ ... because equally important
  - ▲ Some specific techniques for opportunities
    - ▲ development of existing techniques
  - ▲ Proactive, not reactive
    - ▲ **"Use it or lose it"**

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# *Thank you*

For more information, contact  
**Dr David Hillson at [david@risk-doctor.com](mailto:david@risk-doctor.com)**

Or read the paper: Download from  
**[www.risk-doctor.com/pdf-files/opp0601.pdf](http://www.risk-doctor.com/pdf-files/opp0601.pdf)**

Or read the book!  
***Effective opportunity management for projects***



Taylor & Francis, 2004. ISBN 0-8247-4808-5

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