



Risk management : best practice & future developments



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What is “*best practice*”?

- “*Routine activities that lead to excellence*”
- Not “*what everyone does*” ...
... but “*what everyone should do*”
- Accepted by leading professionals
- Implemented by leading practitioners
- Widely accessible
- Scalable, easily tailored or modified

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Various approaches

Vision Strategy Programme Project Tasks

Corporate governance/PD6668

MoR (OGC) 2002

RAMP (ICE) 2002

BS6079-3:2000

IRM/AIRMIC/ALARM:2002

AS/NZS 4360:2004

PRAM (APM) 2004

PMBok (PMI) 2004

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Elements of best practice

- Definition of “risk”
- Components of process

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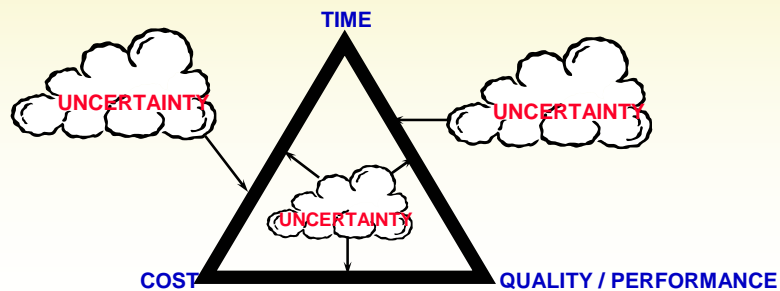




Where does risk come from?

All projects contain risk, arising from interactions between

- **objectives** ...
 - what must happen
- **uncertainty** ...
 - what might happen



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What is a risk?



“An **uncertain** event or set of circumstances that, should it occur, will have an **effect** on achievement of one or more of the project’s **objectives**”

(APM PRAM Guide)

Risk connects uncertainty with objectives



“The combination of the **probability** of an event and its **consequences**”

(IRM/AIRMIC/ALARM RM Standard)

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Two dimensions of risk

Risk has two dimensions :

1. **uncertainty**
2. **effect on objectives**



"probability"

"impact"



Risk connects uncertainty with objectives

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Two dimensions of risk

- Uncertainty estimated as "probability"
- "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**



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Two-dimensional definitions

- **APM PRAM Guide (second edition) :**
 - “Uncertainty can affect achievement of project objectives either **positively or negatively**. The term ‘risk event’ is therefore used to cover both uncertainties that could hinder the project (threats) as well as uncertainties that could help the project (opportunities).”
- **PMI® PMBoK® Third Edition :**
 - “An uncertain event or condition that, if it occurs, has a **positive or negative** effect on a project objective.”

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Two levels of risk

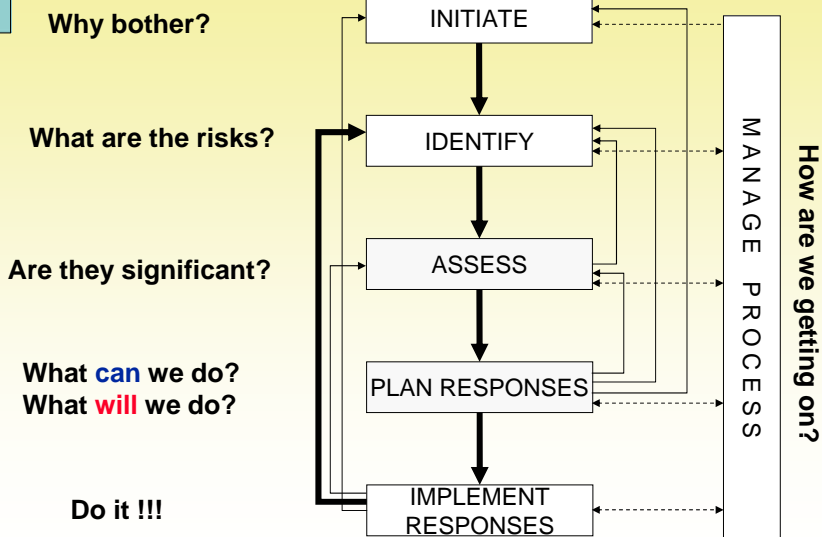
- **APM PRAM Guide (second edition)**
 - “**risk event** ... an individual uncertainty which can be identified, assessed & managed ... defined as *‘An uncertain event or set of circumstances that, should it occur, will have an effect on achievement of one or more of the project’s objectives’.*”
 - “**project risk** ... the joint effect of risk events & other sources of uncertainty ... defined as *‘The exposure of stakeholders to the consequences of variations in outcome’.*”

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Best-practice process



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Risk assessment

- **Qualitative** assessment
 - What is the risk?
 - Why might it occur?
 - How likely is it? (*Probability*)
 - How bad/good might it be? (*Impacts*)
 - Does it matter?
 - What can we do?
 - When should we act?
 - Who is responsible?
- Record/analyse in **Risk Register**
- **Quantitative** assessment
 - modelling uncertainty
 - simulate combined effect of risks
 - predicting outcomes
 - range, min/max, expected
 - testing scenarios
 - setting confidence limits
 - identifying criticalities
 - determining options
- Model in **software**

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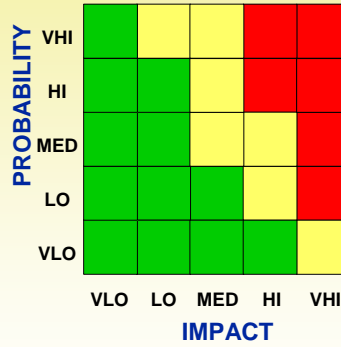




Qualitative techniques

1. Probability/Impact matrix

- define terms HI/MED/LO
- prioritise risks R/Y/G



2. Risk categorisation (RBS)

- common sources
- “hot-spots” of exposure

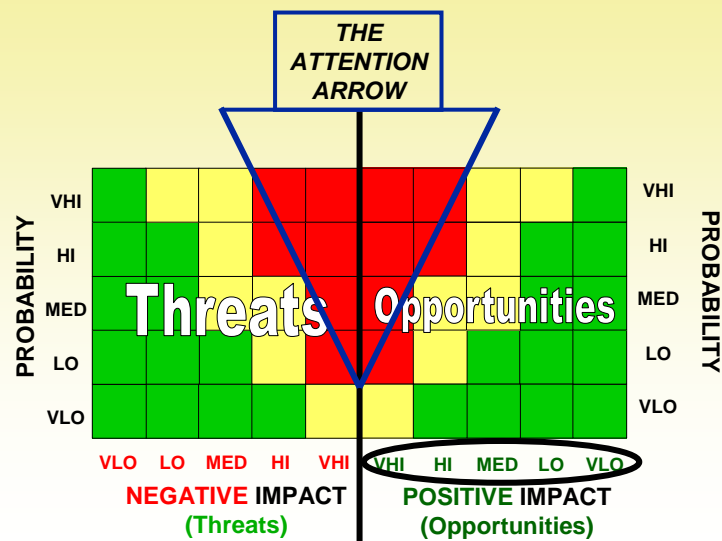


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The “mirror” double P-I Matrix

Use two matrixes : rotate opportunity half



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Risk response planning

- Using risk information to **make decisions**
- Based on :
 - type & nature of risk
 - manageability
 - impact severity
 - resource availability
 - cost-effectiveness
- Identify :
 - **best owner** for response
 - **appropriate** response
 - **effective** management action



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Threats & opportunities

THREAT	GENERIC STRATEGY	OPPORTUNITY
Avoid	ELIMINATE UNCERTAINTY	Exploit
Transfer	ALLOCATE OWNERSHIP	Share
Mitigate	MODIFY EXPOSURE	Enhance
Accept	INCLUDE IN BASELINE	Accept

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Benefits

Do it because it works (for you)

- **Hard benefits**
 - credible plans
 - increased chance of success
 - better contingency
 - metrics for future projects
 - comparison of alternatives
 - identifies best risk owner
- **Soft benefits**
 - improved communication
 - common understanding
 - develops risk awareness
 - focuses attention
 - facilitates risk-taking
 - demonstrates professionalism

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Vision for the future

- **Risk management is not static**
 - still developing and moving forward
- **Three areas for development**
 - integration
 - increased depth & breadth
 - behavioural aspects

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Integration

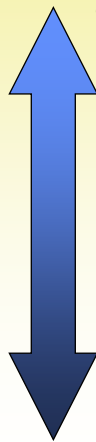
- **Integral to management of projects**
 - culture
 - process
 - tools
- **Integral to corporate culture**
 - **Enterprise risk management**
 - across the business, top to bottom
 - **TRM** :
 - a way of thinking
 - attitudes lead to actions

Quality is not a tool or

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Increased **depth** & breadth



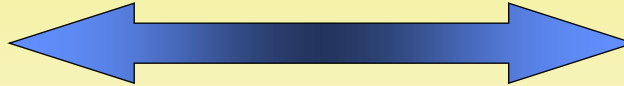
- **Depth** of risk analysis
 - better tools & techniques
 - user-friendly
 - functionality
 - integration
 - use of AI, IKBS, expert systems
 - knowledge management
 - learning from experience
 - draw on other disciplines
 - value management
 - system dynamics
 - safety and hazard analysis
 - scenario planning

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Increased depth & **breadth**

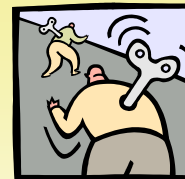


- **Breadth** of application
 - not just threats to project time & cost
 - risk as **opportunity**
 - **other objectives** : performance, quality ...
 - **soft objectives** : environment, HF, reputation ...
 - **programme/portfolio** risk assessment
 - inter-project issues
 - **business** risk assessment
 - business drivers, investment appraisal
 - corporate governance, holistic risk

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Behavioural aspects



- Risk is not managed by robots
 - Human psychology is major influence
- Awareness ⇔ understanding ⇔ modification
 - “*Know thyself*”
- Aim for “risk maturity”
 - Appropriate choice of attitude & approach to meet specific needs of situation

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Risk attitudes

- Range :
 - Risk-averse
 - Risk-neutral
 - Risk-tolerant
 - Risk-seeking
- Why does it matter?
 - Attitudes create heuristics
 - Heuristics influence judgement
- Need to identify & manage risk attitudes
 - Personal and corporate
 - Develop emotional literacy



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Where are we going?

- Project risk management has a **future**
 - not just a passing fad
- **Develop** or **die**
 - pioneers or settlers
- **Do it** - because it works!



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Thank you

Questions are welcome

More information from David Hillson

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