Risk Management MN220:
Lecture 1: Introduction

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Lecture 1
Introduction to risk management

- Introduction
- Course overview
- Business (organisation) case study
- Risk management – an historical perspective
- Risk management – current trends and developments
- AS/NZS ISO 31000:2009 Risk management **– Principles and guidelines**
- IEC/ISO 31010:2009 Risk management **– Risk assessment techniques**
- The weeks ahead, leading to embedded Enterprise Risk Management (ERM) and the Risk Management Plan (RMP)

Course overview

- Refer to Unit Guide

Assessment components

Assessment Type	Value	Due Date	DESCRIPTION
1. Business Case	30%	Week 2	**The business case study should be up to a maximum 1500 words (excluding appendices). Areas Covered;** • Development of context, internal and external environment for the organisation– needs to be comprehensive; • Business mission and objectives – needs to show relatedness to organisational and industry issues; • Framework and all stakeholders; needs to be comprehensive; • Criteria table and likelihood table across the elements; • Risks identified – 10 (two from each of five different business framework areas). For each risk you should identify the risk owner, consequence and likelihood, risk score, cause and consequence.
2. Risk Management Plan	40%	Week 5	**The Risk Management Plan should be up to a maximum 2500 words (excluding appendices). Areas Covered;** • The preparation of the Risk Management Plan is to be completed individually and should cover the following areas: • Clear structure to the risk management plan • Thorough development of risks profiles, register, process, plans etc. • Thorough strategic and analytical thinking • Risks identified – 20 risks. For each risk you should clearly identify risks, assessment and management processes/ plans. • Development of 4 Risk treatment plans
3. Examination	30%	TBD	The examination is a closed book exam of two and a half (2.5) hours duration. The exam will comprise of 3 questions on a case study which will be provided to students.

Funny Risk Video

- https://www.youtube.com/watch?v=4ErkeFA-QWk

Article Reviews

A Group of 4-5 students is formed to review journals or other business databases to find the latest thinking on Risk Management based on each Risk lecture topics discussed over the next 6 sessions. **Students will be guided on how to deliver a short 10 minute presentation to the class.**

Business Case study & Risk Framework– Assignment 1

- Business

- Organisation or Project

- Use of AS/NZS ISO 31000:2009 Risk management **– Principles and guidelines (From Murdoch Library Database search)**

- Employer consent/release

- Benefits of using "real" data

Business Risk Management Presentation/ Plan – Assignment 2

- Risk Plan has to be comprehensive
  - ✓ Identify and asses 30 risks across organisation's framework
  - ✓ Identify and develop controls
  - ✓ Evaluate effectiveness of controls

- AS/NZS ISO 31000:2009 Risk management – Principles and guidelines **(From Murdoch Library Database search)**

- IEC/ISO 31010 Risk management- Risk assessment techniques Standard.**(From lectures)**

Why manage risk……?

"……..in all my experience, I have never been in an accident of any sort worth speaking about.

I have seen but one vessel in distress in all my years at sea….I never saw a wreck and have never been wrecked, nor was I ever in any predicament that threatened to end in disaster of any sort"

Captain Edward J Smith
RMS Titanic 1907
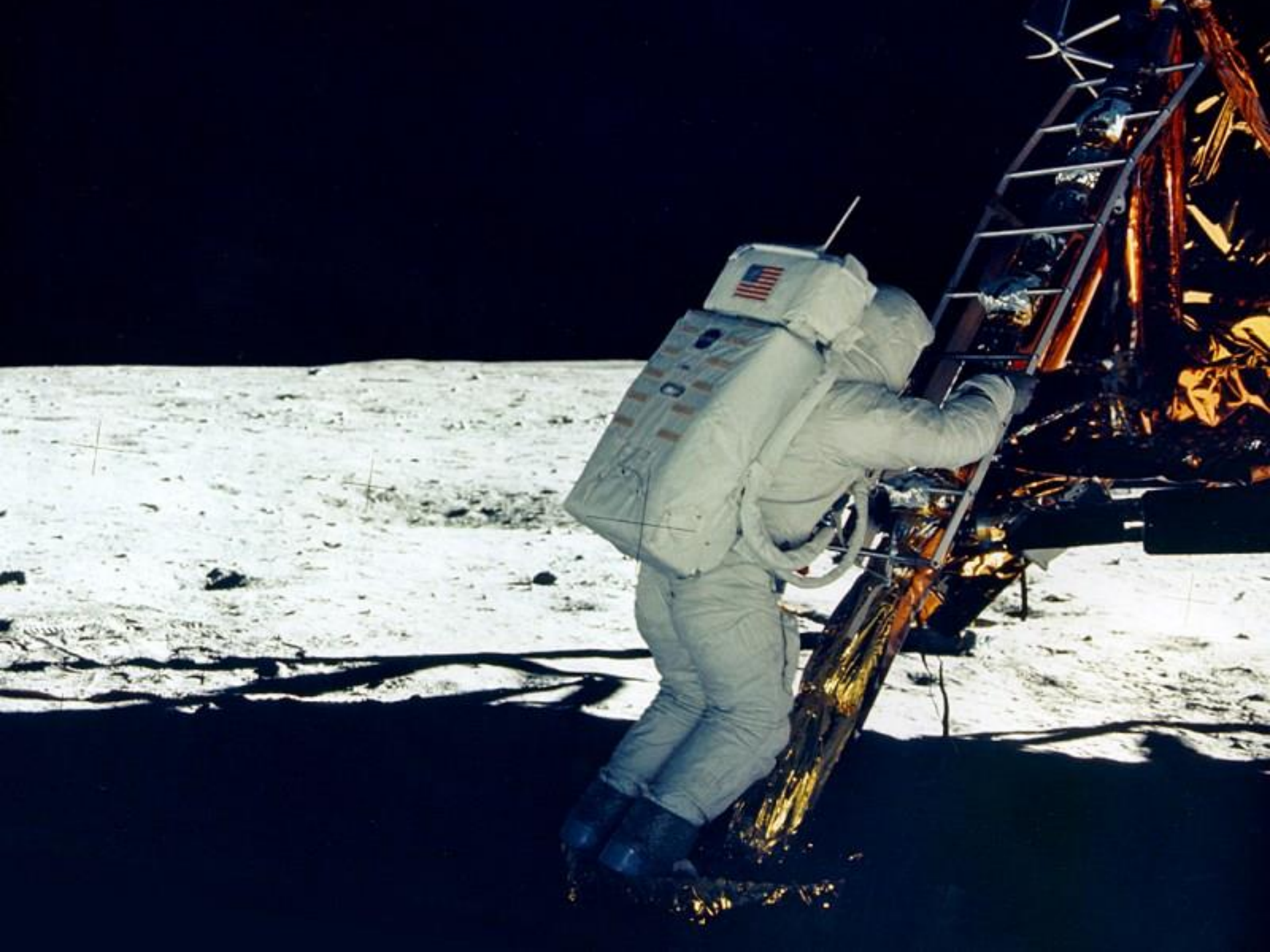
Risk, its origin

- The word "risk" is derived from early Italian, *risicare*, which means, "to dare".

- The American game "Craps" is derived from various games brought to Europe by the Crusades. Those games were referred to as "hazard", from *al zahr*, the Arabic word for dice.

- The development of bookkeeping encouraged the dissemination of new techniques of numbering and counting.

- The development of forecasting links risk-taking with direct payoffs.

Risk management – an historical perspective

Date	Event
500	Hindu - Arabic development of the numbering system we use today
1200	Hindu - Arabic numbering reaches the west
1202	Leonardo Pisano hand writes the book *Liber Abaci,* or *Book of Abacus*
1494	Franciscan monk Luca Paccioli publishes *Summa de arithmetic, geometria et proportionalita* (Introduces the concept of double-entry bookkeeping)
1545	Girolamo Cardano writes , *Liber de Ludo Aleae* (Which develops the principles of probability
1662	Port-Royal monastry publishes *Logic* (Discussing philosophy and probability)
1670	John Graunt publishes a distribution of life expectancy from ages 6 to 67
1696	Edward Lloyd launches Lloyd's list containing arrivals and departures of ships
1733	Abraham De Moivre publishes *Doctrine of Chances* (Introducing normal distribution)

Risk management – an historical perspective

Date	Event
1738	Daniel Bernoulli publishes a paper discussing theory on the measurement of risk
1801	Carl Friedrich Gauss publishes *Disquistiones Arithmeicae* (Discusses theory of numbers)
1936	John Maynard Keynes publishes the *General theory of employment interest and money*
1952	Portfolio selection revolutionises the process of investment
1972	The Mercantile Exchange in Chicago creates the International Money Market specialising in futures on currency markets
1982	Options on fixed income securities introduced
1992	COSO and Cadbury control standards introduced (USA)
1995	Australian/New Zealand (AS/NZS) 4360:1995 first published in Australia
1996	CoBit control standard introduced

Risk management – an historical perspective

Date	Event
1999	Second edition of AS/NZS 4360 published
1999	Turnbull Guidance published (UK) risk based approach to internal control of risk
2002	Sarbanes-Oxley Act introduced (USA) following Worldcom, Enron
2003	Australian Stock Exchange publishes *The essential corporate governance principles*
2004	Third edition of AS/NZS 4360 published (AS/NZS 4360:2004)
2009	AS/NZS ISO 31000:2009, Risk management- Principles, and guidelines
2009	IEC/ISO 31010:2009 , Risk management – Risk assessment techniques
2009	ISO Guide 73:2009, Risk management - Vocabulary

Risk management development

- Four disciplines leading to modern risk management:

  ✓ Actuaries
  ✓ Economists
  ✓ Quantitative analysts
  ✓ Management consultants

Risk in two dimensions

"A single stroke of lightning releases up to 500 million volts and a temperature of around 27,000ºC – three times hotter than the surface of the Sun" (Australian Geographic).

- The probability of being struck by lightening in Australia (1 in 1.6million) is a very small number, but many people are terrified when they hear thunder.

- *"Fear of harm ought to be proportional not merely to gravity of harm, but also to the probability of the event"*[1].

- The conclusion drawn from this logic is that both gravity and probability should influence a decision.

[1] Hacking, Ian, 1975. *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction, and Statistical Inference.*

What is Risk ?

- https://www.youtube.com/watch?v=ijLfY06br4A

What is Risk?

"Risk doesn't mean danger—it just means not knowing what the future holds" [2]

[2] Peter Bernstein

Nature of risk

OPPORTUNITY

- New products or services
- New clients or bigger contracts
- New technology or processes

HAZARD

- Hazards in workplace
- Use of hazardous materials/processes
- OHS

UNCERTAINTY

- Fire, drought, flood
- Burglary, vandalism, theft
- Political, economic, financial

Type of risk

STRATEGIC

- Impact on strategic imperatives
- Impact on access to markets, new product or business development

OPERATIONAL

- Impact on day to day project operations
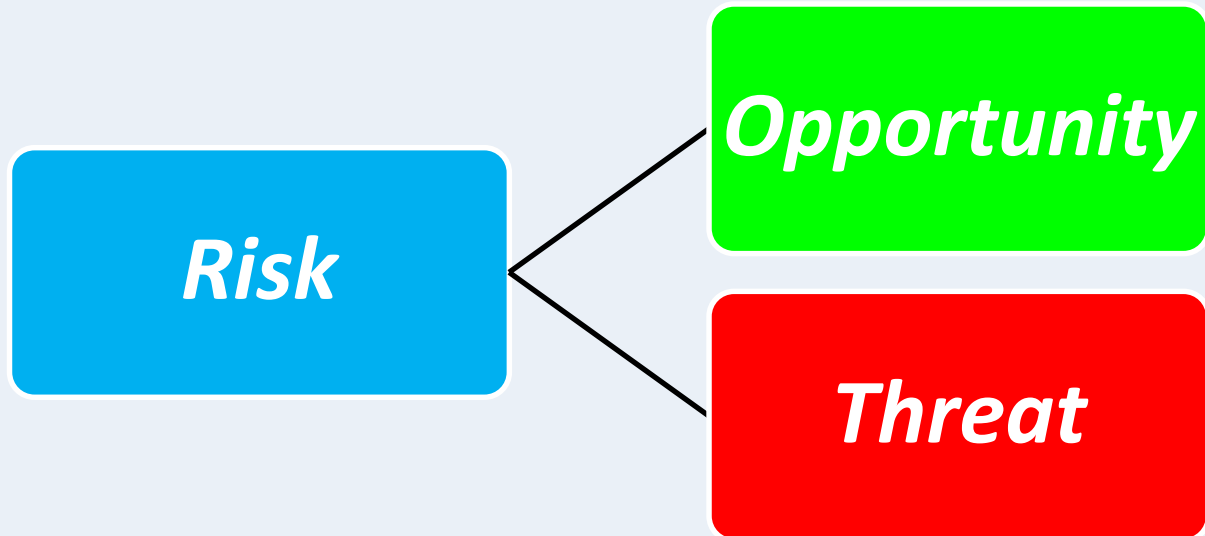- OHS, financial, environmental

Your Risk Profile

- Questionnaire & Survey

What is risk?

- *"effect of uncertainty on objectives"[3]*

[3]AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

What is Risk?

Strategic and operational risks

- **Strategic risks** impact upon the strategic imperatives and plans of the…
  - ✓ Business
  - ✓ Organisation
  - ✓ Project

- **Operational risks** impact the day-to-day activities and business/organisational processes.

What is risk management?

"coordinated activities to direct and control an organization with regard to risk"[4]

[4]AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

Risk management –trends

- **Compliance**
  - Driven by corporate failures and community expectations.

- **Business improvement**
  - Driven by realisation of impact of risk management on business planning and objectives.

AS/NZS 4360:2013 Risk Management
precursor to *AS/NZS ISO 31000:2009*

- Standard for managing risk
  - ✓ First published in 1995
  - ✓ Second publication 1999
  - ✓ Third publication 2004
  - ✓ Fourth publication 2013

- Used in Australia, New Zealand, Singapore, Malaysia, Canada, UK
- **Process driven standard**

- Australian and New Zealand heritage

- World leadership in risk management thinking

AS/NZS ISO 31000:2009

- ## Methodology for:
  - Establishing ...
  - ✓ **the context of the business, its environment (internal and external) plus the risk management undertaking; and**
  - ✓ **the risk management framework**

  - Which involves... identifying, assessing, evaluating, and treating risk;
  - Communicating the risk management activities and processes;
  - Monitoring and reviewing risks; and the risk management programme.

  - Collectively linking risk to business management.

AS/NZS ISO 31000:2009
Risk management – Principles and guidelines

- Principles

- Framework

- Process

- Also published as ISO 31000:2009

Videos

- Risk management - Applying ISO31000 Overview
- https://www.youtube.com/watch?v=DJ6A8Q7R75k

Risk Management Principles[5]

- Risk management should:

  ✓ Add value to the business;

  ✓ Be integral to the organizational processes;

  ✓ Explicitly address uncertainty;

  ✓ Be systematic, structured and timely;

  ✓ Be tailored to the business;

  ✓ Take into consideration human and cultural factors;

  ✓ Be dynamic, iterative and responsive to change; and

  ✓ Be part of managing the business.

[5]AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

Risk Management Framework[6]

- Risk management framework:

    ✓ Has mandate and commitment from the organisation;

    ✓ Establishes policy (Risk Management Policy);

    ✓ Has accountability (for managing risks);

    ✓ Integrates with organisational processes;

    ✓ Is adequately resourced;

    ✓ Establishes internal communication and reporting;

    ✓ Establishes external communication and reporting;

    ✓ Provide a monitor and review mechanism; and

    ✓ Be part of continual improvement of the business.

[6]AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

Risk Management Process[7]

- Designed to:

  - ✓ Establish the context;
  - ✓ Identify risks;
  - ✓ Assess risks (against criteria);
  - ✓ Evaluate risks (against criteria);
  - ✓ Treat risks (unacceptable to the business);
  - ✓ Communicate with stakeholders; and
  - ✓ Monitor and review .

[7]AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

Risk Management Process[8]
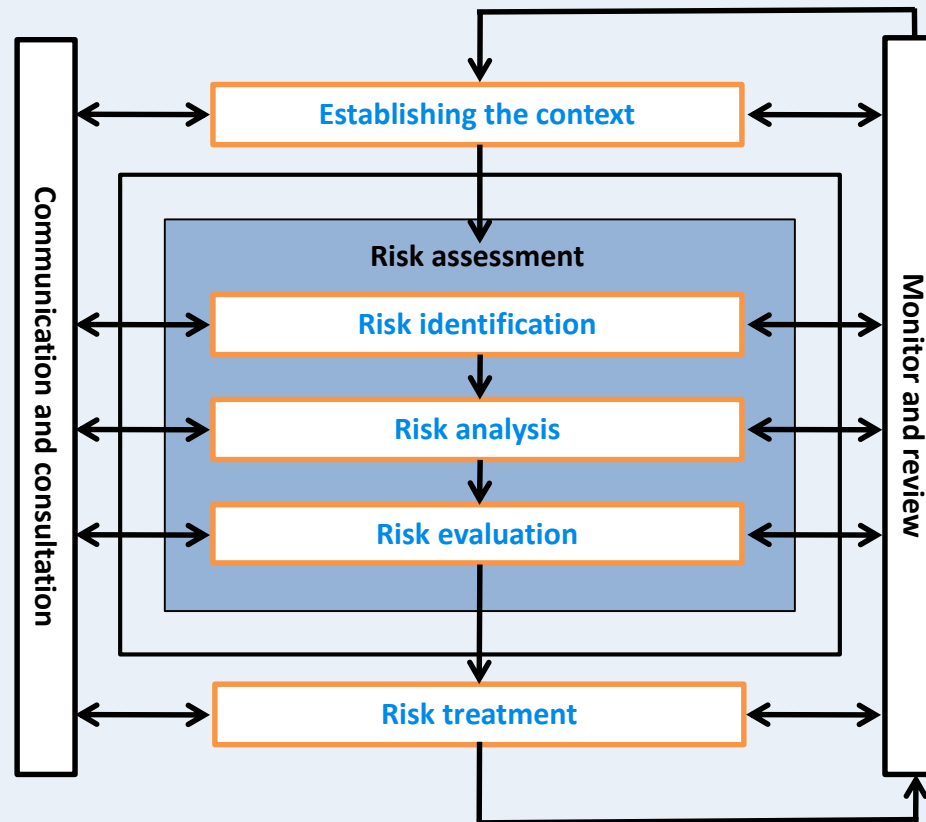
[8]AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

Tools and techniques

- Risks need to be <u>identified</u> before they can be assessed

- Tools and techniques:
  - ✓ Methods of identifying risks
  - ✓ Methods of assessing risks

- **IEC/ISO 31010:2009 Risk management – Risk assessment techniques**

IEC/ISO 31010:2009 Risk management - Risk assessment techniques

- 31 techniques for identifying and assessing risk

- Technical risk assessments

- Commercial/ business risk assessments

- Removal of techniques (i.e., matrix) from the main risk management Standard

IEC/ISO 31010:2009 Risk Management –Risk Assessment Techniques **(Main standard)**

SA/SNZ HB 436:2013 (Guidelines to AS/NZS ISO 31000:2009) **(Supplementary)**

Both copies are maintained at the library

SA/SNZ HB 436:2013 (Guidelines to AS/NZS ISO 31000:2009) Risk management – Vocabulary (Supplementary @ library)

- Extended risk management vocabulary

- Definitions of risk appetite, risk tolerance

- Supports 31000 and 31010

Risk Assessment Techniques[9]

- Hazard Analysis (HAZAN)

- Hazard and Operability Analysis (HAZOP)

- Failure Mode and Effects and Criticality Analysis (FMECA)

- Fault Tree Analysis (FTA)

- Root cause analysis

- Cause and effect analysis (Ishikawa - fishbone diagram output)

- **Consequence/ likelihood matrix**

- Past records/events

- Outcomes from internal discussion/regular meetings

- Brainstorming

[9]IEC/ISO 30010:2009 Risk management – Risk assessment techniques

The weeks ahead,…

toward embedded Enterprise Risk Management (ERM)

Videos

- Risk management – Funny videos!
- https://www.youtube.com/watch?v=KhG85i4hMjQ

Summary

- History of risk

- Risk management developments

- Risk management standards/methodologies

- New approach to risk management

- Future... the weeks ahead

Lecture 1 (Contd)
Principles, frameworks and processes

- Introduction
- AS/NZS ISO 31000:2009 Risk management – Principles and guidelines
- Vocabulary
- Risk management principles
- Risk management frameworks
- Risk management processes
- Case study

The Bridge

- https://www.youtube.com/watch?v=g4ZNMEpsocY

Facts

Official name - Le Viaduc de Millau

Carries - 4 lanes of traffic

Crosses – River Tarn

Design – Cable Staved

Longest span - 342 metres (1,122 ft)

Total length - 2,460 metres (8,071 ft)

Width - 32 metres (105 ft)

Clearance below - 270 metres (886 ft)

Opening date – December 14 2004

AS/NZS ISO 31000:2009 Risk management – Principles and guidelines

- Incorporates the process detailed in by AS/NZS 4360:2004, Risk management

- Takes a "broader" view of risk (uncertainty)

- Integrates risk management into the business
  - Strategic planning
  - Corporate governance

- Provides accountability for managing risk

Uncertainty

- Risks which we have "seen" before

- Risks which we have not encountered

- The "unknown unknowns"

- Opportunities which may yield high returns

- Opportunities which may yield low returns

TED Talks on Risk

- https://www.youtube.com/watch?v=WGZu5Lzgv1A

Vocabulary[1]

- Risk – "effect of uncertainty on objectives"

- Risk management – "coordinated activities to direct and control an organisation with regard to **risk**"

- Risk management framework – "set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring, reviewing, and continually improving risk management <u>throughout</u> the organization"

[1] ISO Guide 73 Risk Management :2009– Risk management - Vocabulary

Vocabulary[1]

- Risk assessment – "overall process of risk identification, risk analysis and risk evaluation"

- Risk owner – "person or entity with the accountability and authority to manage risk"

- Risk matrix – "tool for ranking and displaying risks by defining ranges for consequence and likelihood"

[1.] ISO Guide 73 Risk Management :2009– Risk management - Vocabulary

Vocabulary[1]

- Level of risk – " magnitude of a risk, expressed in terms of the combination of consequences and their likelihood"

- Risk evaluation – "process of comparing the results of risk analysis with risk criteria to determine whether the risk and/ or its magnitude is acceptable or tolerable"

- Risk management plan – "scheme within the risk management framework specifying the approach, the management components and resources to be applied to the management of risk".

1. ISO Guide 73 Risk Management :2009– Risk management - Vocabulary

Vocabulary[2]

- Risk attitude – "organization's approach to assess and eventually pursue, retain, take or 'turn away' from risk"

- Risk appetite – "amount and type of risk that an organization is prepared to pursue, retain or take"

- Risk tolerance – "organization's or stakeholder's readiness to bear the risk after risk treatment in order to achieve its objectives"

- Risk aversion – "attitude to turn away from risk"

[2] ISO Guide 73 Risk Management :2009– Risk management - Vocabulary

Risk management maturity

- *"An organization's culture and attitude toward risk management and the degree to which it is applied and integrated into the organization".*

[2.] Moore, P.

AS/NZS ISO 31000:2009[3]
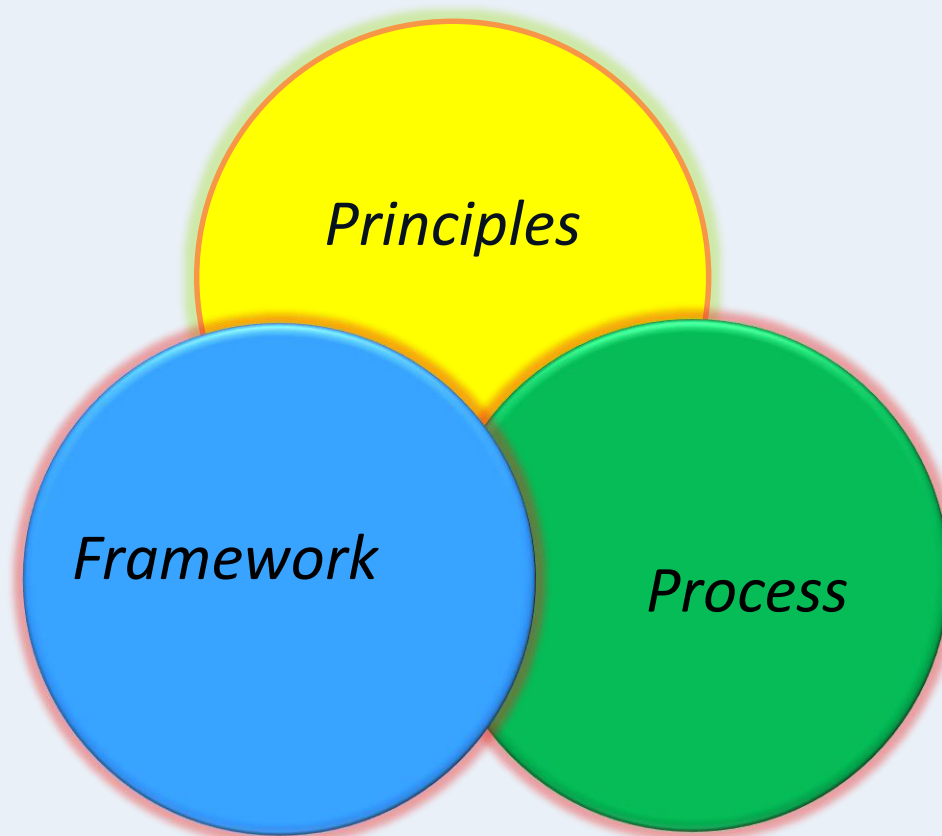
Principles

Framework

Process

3. AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines

Risk management principles[4]

- Risk management should:
  - ✓ Add value to the business;
  - ✓ Be part of organizational processes and be integrated;
  - ✓ Address uncertainty in how risks are described;
  - ✓ Be structured and carried out in a systematic and not ad-hoc fashion;
  - ✓ Be customised to meet the business needs;
  - ✓ Adjust to consider the human aspects in the business;
  - ✓ Be dynamic and responsive to change; and
  - ✓ Be part of managing the business.

4. AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines

Risk management

- **Improves chances** of achieving objectives
- Encourages **proactive** management
- Improves **governance** of the organisation
- Examines **opportunities and threats**
- Improves **decision making**
- Assists in the **allocation of resources**
- Assists in **continuous improvement**

Management of risk

- Establishes context
- Identifies threats and opportunities
- Manages risks through strategies aligned with the organization's risk appetite and risk tolerance
- Has accountable roles for managing each risk
- Reports on outcomes and actions
- Communicates risk management activities

Creates value in the business

- Assists in the achievement of objectives

- Improves business performance through better decision making

- Supports quality and business improvement

Integrated with business processes – (USE ISO9001)

- **Strategic planning**

- **Business planning**

- **Core business processes:**
  - **Finance**
  - **Administration**
  - **Sales**
  - **Human resources**
  - **Service delivery/ manufacture**
  - **IT/ Technological**
  - **Procurement**

Part of decision making

- Is part of how business decisions are made:
    - Will this decision improve the business?
    - Will this decision detract from the business outcomes?
- Assists in establishing priorities
- Through cost/ benefit analysis distinguished the best course of action

Addresses uncertainty in risk statements

- Risks are <u>not</u> factual statements

- Risk statements address uncertainty:
    - "Could happen" ?
    - "May happen" ?
    - "Is likely to occur" ?
    - "Is likely to not occur" ?

Your Organisation's Risk Survey

- Please take 15 mins to complete

Systematic, structured and timely

- Drives more predictable outcomes

- Drives more reliable outcomes:
  - Regular monitoring of activities
  - Periodic review of the risk management system

Source of best available information

- Historical data

- Experience

- Stakeholder feedback

- Forecasts

- Expert judgement

- Mathematical modelling

Tailored to the business

- Every business/ organisation is different
- Organisational objectives are unique
- Organisational culture is unique
- Industries in which business operate differ
- Risk appetite and risk tolerance position is unique in every business
- Context for risk management activities may vary

Transparent and inclusive

- Engaging at all levels of the business provides transparency:
    - Risk management is not the domain of one role in the organisation

- Includes and engages <u>all</u> personnel

- Reduces "not my job" attitude

Dynamic, iterative and responsive to change

- Organisations change over time
- Risk management frameworks need to support organisational change
- Some risks remain forever (e.g. terrorism)
- Some risks come and go (e.g. HFMD, H1N1)
- Some risks change in severity:
  - Higher
  - Lower

Supports continuous improvement

- Supports and drives strategic planning
    - S.W.O.T
- Focuses on goals and objectives
    - Planning (strategic and operational)
- Integrates with performance management
- Part of position description (senior personnel and business process owners
- Provides accountability
- Assists in developing Key Performance Indicators (K.P.I's)

Risk Management Framework[5]

- Risk management framework:

  - Has mandate and commitment from the organization
  - Establishes policy (Risk Management Policy)
  - Has accountability (for managing risks)
  - Integrates with organisational processes
  - Is adequately resourced
  - Establishes internal and external communication and reporting
  - Provides a monitor and review mechanism
  - Be part of continual improvement of the business

[5]AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines

Mandate and commitment

- Effective risk management requires sustained commitment by management of an organization

- Sets the risk management policy

- Ensures the risk management policy is <u>aligned</u> with the organization's culture

- Establishes risk management key performance indicators (K.P.I's)

- Aligns risk management objectives with the organization's business objectives

Mandate and commitment

- Ensures compliance to laws and regulations
- Assigns accountabilities and responsibility for risk management
- Ensures risk management is adequately resourced
- Communicates the benefits of risk management to stakeholders (internal and external)
- Ensures the risk management framework remains appropriate for and supports the organization

Framework design

- Understand the **internal** context:
  - Governance
  - Organization structure
  - Policies
  - Objectives
  - Information systems
  - Information flow
  - Standards and guidelines

Framework design

- Understand stakeholders

- Internal

  – Staff, shareholders, management

- External

  – Customers, suppliers, regulators,

Risk management policy

- Should contain:
  - Statement of the organization's objectives for and commitment to the risk management policy
  - Provide a link between existing policies
  - Link to business objectives (and business planning)
  - Accountabilities for managing risk (risk owners)
  - Commitment to adequately resource risk management activities to support those responsible
  - Risk management performance monitoring
  - Commitment to improvement

Accountability

- Assignment of risk owners

- Assignment of responsibility for establishing, monitoring and updating the risk management framework

- Establishment of performance measurement

- Establishment of escalation/ delegation

Integration with business processes

- Risk management is <u>embedded</u> within the organization and its processes

- Risk management is part of the strategic planning process

- Risk management is part of change management

- Risk management is part of quality management

Resourcing

- Adequate and appropriate resources are required for effective risk management:

    - People, skills, competence
    - Resources for each step in the process
    - Documentation of processes and outcomes
    - Training (induction, risk owner, risk champion)

Internal communication/ reporting

- Risk management framework is communicated within the organisation

- Internal reporting on risk management outcomes

- Relevant risk management information is available within the organization (i.e., risk management policy)

- Consultation with stakeholders

External communication/ reporting

- Engagement with external stakeholders

- External reporting to meet legal, regulatory and government requirements (i.e., ASX Principle 7)

- Feedback on the consultation process

- Communication with stakeholders in the event of an emergency or crisis

Implementation

- Establish the elements
- Establish the timeline
- Apply the risk management policy
- Comply with legal and regulatory requirements
- Align decision making with risk management (i.e., objective setting)
- Hold information and training sessions
- Communicate and consult with stakeholders
- Develop the risk management plan

Monitor and review

- Measure risk management performance against defined indicators (i.e., risk treatment for risk owners)

- Measure progress made in implementing the risk management plan

- Periodically review the risk management framework to ensure it meets the organization's requirements

Continual improvement

- Examine the outcome of the monitor and review processes

- Align changes with the quality management process

- Determine changes required

- Update the risk management framework

Risk management process[6]

- Communication and consultation

- Establish the context

- Risk assessment:
  - Risk identification
  - Risk analysis
  - Risk evaluation

- Risk treatment

- Monitor and review

6. AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines

Risk Management Process[7]
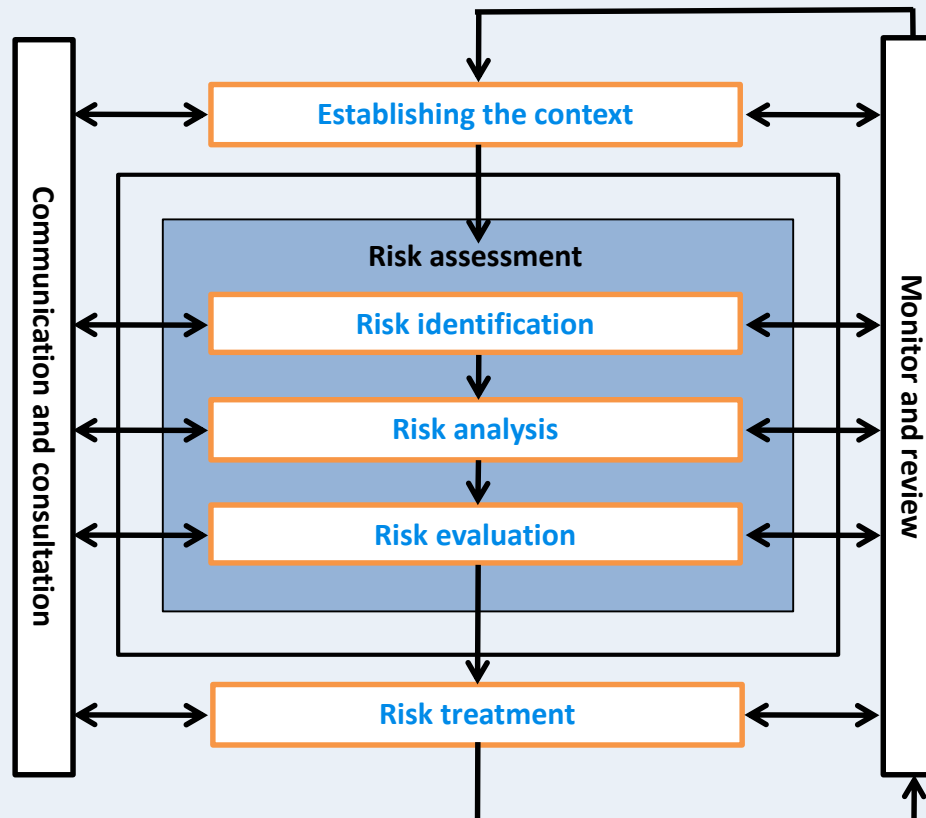
[7]AS/NZS ISO 31000:2009 Risk Management – Principles and guidelines

Establish the context

- External context

- Internal context

- Risk management context

External context

- Social

- Cultural

- Political

- Regulatory

- Financial

- Technological

- Regional/ local/ international

Internal context

- Organization's:
  - Culture
  - Processes
  - Structure
- Objectives
- Criteria
- Roles/ responsibilities
- Policies
- Governance

Risk management context

- Application of risk management:
    - Organizational
    - Divisional
    - Business unit
    - Project
- Goals and objectives
- Scope
- Processes
- Risk assessment techniques/ methodology
- Performance measurement (of outcomes)

Risk analysis

- Identification of risks

- Assessment of risks

- Evaluation of risks (against criteria)

- Risk treatment (based on risk appetite/ risk tolerance)

AS31000- Risk Management and corresponding Vocabulary – **Use In tandem with AS 31000**
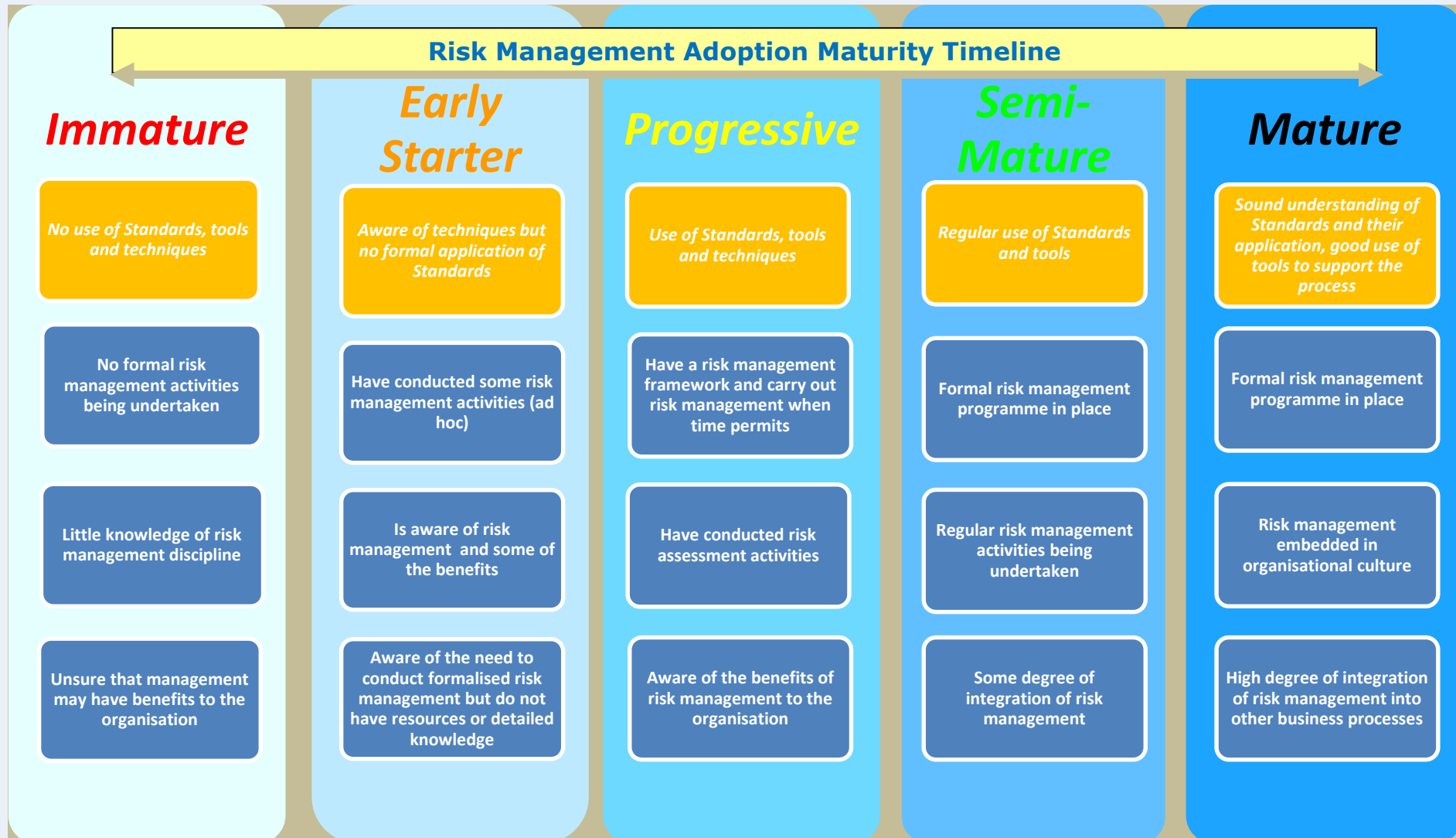
- https://www.youtube.com/watch?v=Cp_XEhexcDw

Timing (from 3.16- Finish)

Risk management maturity model[8]

Attribute	Maturity			
	NOVICE	**COMPETENT**	**PROFICIENT**	**EXPERT**
CULTURE	Risk averse Lacking awareness/ understanding Lacking strategy Lacking commitment	Patchy, inconsistent Some understanding / awareness Cautious approach, reactive	Prepared to take appropriate risks Good understanding of benefits across most of organization Strategy mapped into process implementation	Proactive Intuitive understanding Belief, full commitment to be the best
PROCESS	Where present tend to be inefficient informal, ad hoc	Inconsistent No learning from experience Standard approach /generic	Consistent approach but scaleable Tailored to specific needs	Adaptive Proactively developed Fit for purpose Best of breed
EXPERIENCE	None; nothing relevant	Basis competence	Proficient Formal qualifications	Extensive experience Leading qualifications Externally recognised high competence
APPLICATION	Not used	Inconsistent – major projects only Process driven Inadequately resourced	Consistently applied Adequately resourced	Proactively resourced Across entire business Flexible Measured for improvement

8. International Association for Commercial and Contract Management

Risk Management Maturity Model[9]

Risk Management Adoption Maturity Timeline

Immature	*Early Starter*	*Progressive*	*Semi-Mature*	*Mature*
No use of Standards, tools and techniques	Aware of techniques but no formal application of Standards	Use of Standards, tools and techniques	Regular use of Standards and tools	Sound understanding of Standards and their application, good use of tools to support the process
No formal risk management activities being undertaken	Have conducted some risk management activities (ad hoc)	Have a risk management framework and carry out risk management when time permits	Formal risk management programme in place	Formal risk management programme in place
Little knowledge of risk management discipline	Is aware of risk management and some of the benefits	Have conducted risk assessment activities	Regular risk management activities being undertaken	Risk management embedded in organisational culture
Unsure that management may have benefits to the organisation	Aware of the need to conduct formalised risk management but do not have resources or detailed knowledge	Aware of the benefits of risk management to the organisation	Some degree of integration of risk management	High degree of integration of risk management into other business processes

9. Moore, P.

Summary

- Three pillars to the new international standard:

    - Principles;
    - Framework; and
    - Processes.

- Risk management needs to be "part of the business," not a separate element

- Next week, the risk management process in detail.