



Effective Project Risk Management

*A 3 day programme for IITA project leaders
Ibadan, 2nd - 4th May 2017*



Leading the risk profession

Delivered by Martin Carter, Institute of Risk Management




Programme Content



1. Welcome & Introductions
2. Introduction to Risk Management
3. Risk Framework & Context
4. Risk Management Process
5. Risk Monitoring & Reporting
6. Summary

Programme Content



- 
- A topographic map with a compass resting on it. The compass is a standard circular one with a black casing and a clear lens showing the needle pointing towards North. The map shows various geographical features like rivers, roads, and elevation contours in different colors (green, brown, blue).
- ✓ 1. Welcome & Introductions
 - 2. Introduction to Risk Management
 - 3. Risk Framework & Context
 - 4. Risk Management Process
 - 5. Risk Monitoring & Reporting
 - 6. Summary

EXERCISE



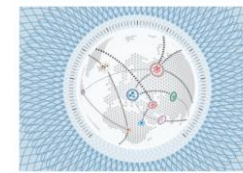
What's your biggest risk?

EXERCISE



According to the 2017 World Economic Forum what are the:

- ▶ 10 biggest global risks in terms of likelihood
- ▶ 10 biggest global risks in terms of impact



The Global Risks 2017 (WEF)

Top 10 risks in terms of Impact

- 1 Weapons of mass destruction
- 2 Extreme weather events
- 3 Water crises
- 4 Natural disasters
- 5 Failure of climate-change mitigation and adaptation
- 6 Large-scale involuntary migration
- 7 Food crises
- 8 Terrorist attacks
- 9 Interstate conflict
- 10 Unemployment or underemployment

Top 10 risks in terms of Likelihood

- 1 Extreme weather events
- 2 Large-scale involuntary migration
- 3 Natural disasters
- 4 Terrorist attacks
- 5 Data fraud or theft
- 6 Cyberattacks
- 7 Illicit trade
- 8 Man-made environmental disasters
- 9 Interstate conflict
- 10 Failure of national governance

Categories

- ◆ Economic
- ◆ Environmental
- ◆ Geopolitical
- ◆ Societal
- ◆ Technological

complexity

Characteristics: The situation has many interconnected parts and variables. Some information is available or can be predicted, but the volume or nature of it can be overwhelming to process.

Example: You are doing business in many countries, all with unique regulatory environments, tariffs, and cultural values.

Approach: Restructure, bring on or develop specialists, and build up resources adequate to address the complexity.

Clarity

volatility

Characteristics: The challenge is unexpected or unstable and may be of unknown duration, but it's not necessarily hard to understand; knowledge about it is often available.

Example: Prices fluctuate after a natural disaster takes a supplier off-line.

Approach: Build in slack and devote resources to preparedness—for instance, stockpile inventory or overbuy talent. These steps are typically expensive; your investment should match the risk.

Vision

ambiguity

Characteristics: Causal relationships are completely unclear. No precedents exist; you face “unknown unknowns.”

Example: You decide to move into immature or emerging markets or to launch products outside your core competencies.

Approach: Experiment. Understanding cause and effect requires generating hypotheses and testing them. Design your experiments so that lessons learned can be broadly applied.

Agility

uncertainty

Characteristics: Despite a lack of other information, the event's basic cause and effect are known. Change is possible but not a given.

Example: A competitor's pending product launch muddies the future of the business and the market.

Approach: Invest in information—collect, interpret, and share it. This works best in conjunction with structural changes, such as adding information networks, that can reduce ongoing uncertainty.

Understanding

HOW MUCH DO YOU KNOW ABOUT THE SITUATION?



Risk Management



***To dare
to press
towards
port***





Preparation & Planning

- ▶ Vessel
- ▶ Equipment
- ▶ Systems & Processes
- ▶ Detailed Planning
- ▶ Team Selection & Training

⇒ ***Static Risk Management***

Situational Awareness

- ▶ Future Orientated
- ▶ Constant Vigilance
- ▶ Proactive Decision Making
- ▶ Clear Communication
- ▶ Esprit de Corps

⇒ ***Dynamic Risk Management***

Welcome Back!



1. Welcome & Introductions ✓
2. Introduction to Risk Management
3. Risk Framework & Context
4. Risk Management Process
5. Risk Monitoring & Reporting
6. Summary

Why do cars have brakes?



**Statutory
Legal
Requirement**



**Avoid
Undesirable
Outcomes**



**Enable
Desirable
Outcomes**

Enterprise Wide Risk is like the brakes on a car...



**Statutory
Legal
Requirement**



**Avoid
Undesirable
Outcomes**



**Enable
Desirable
Outcomes**

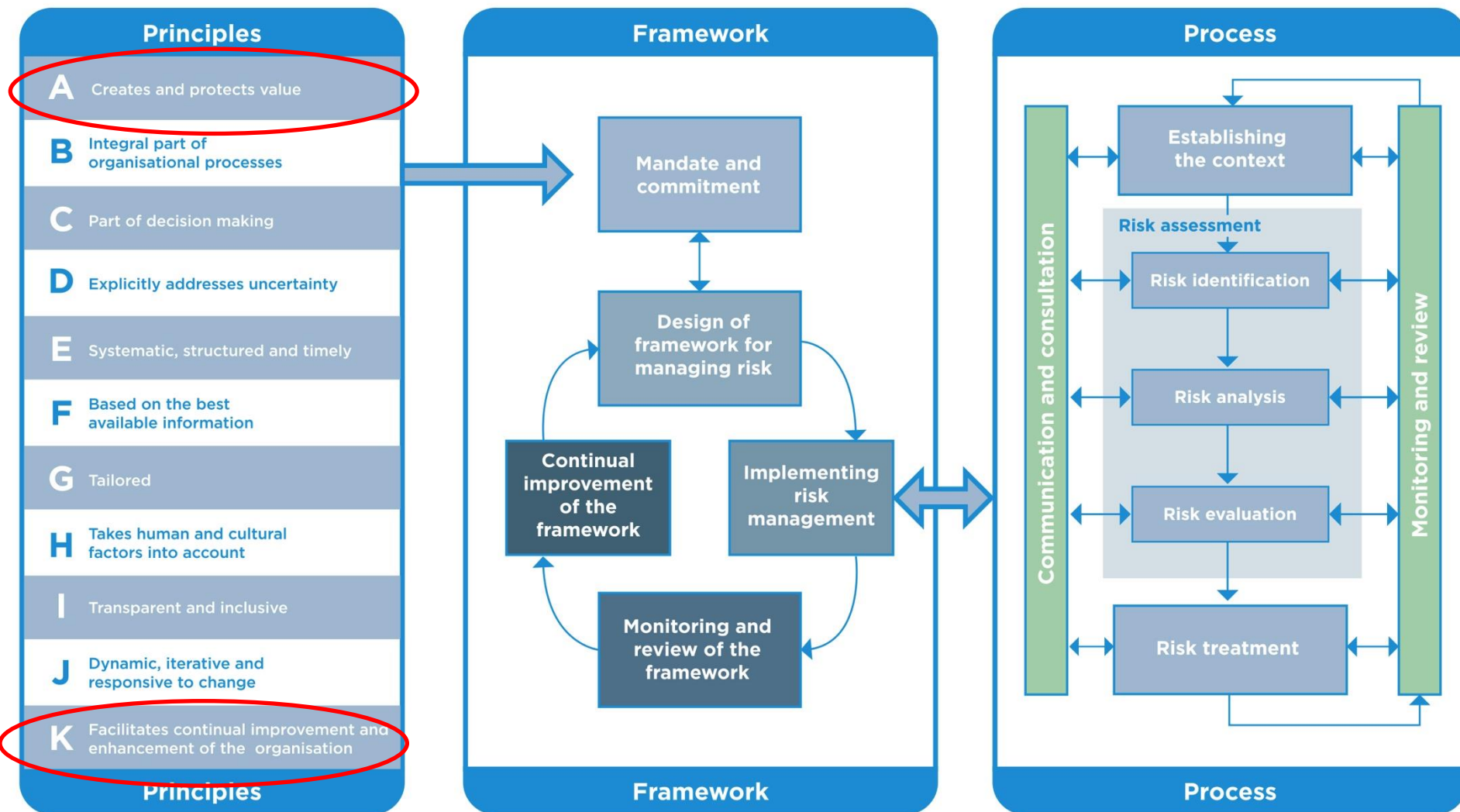
QUESTION



In your day-to-day work, what are the advantages of (enterprise wide) risk management



ISO 31000 : Risk Management Standard



EXERCISE



How would you rate yourselves in terms of these risk principles?

Assessment of Current Risk Management Foundations

Rate your current level of performance against the following foundational principles of robust and effective risk management

Rating: 1 = low, 10 = high

irm
Leading the risk profession

Creates value	1 2 3 4 5 6 7 8 9 10
Integral part of organisational processes	1 2 3 4 5 6 7 8 9 10
Enables decision making	1 2 3 4 5 6 7 8 9 10
Systematic, structured & timely	1 2 3 4 5 6 7 8 9 10
Based on best information available	1 2 3 4 5 6 7 8 9 10
Transparent & inclusive	1 2 3 4 5 6 7 8 9 10
Dynamic, iterative & responsive to change	1 2 3 4 5 6 7 8 9 10

How well equipped are you to do so?



1

- Fragmented awareness of RM
- RM done in silos
- Ad hoc implementation
- Limited learning from events
- Risks are only seen as being negative (not positive)
- No feeling of personal responsibility

2

- Risks allowed to occur
- RM processes exist but not designed or implemented effectively
- The Risk Department is responsible for risk
- Focus on compliance

3

- Risks are anticipated
- RM built into routine business
- Implemented throughout the organisation
- Formalised processes
- Benefits understood
- May not be consist / integrated

4

- Risk Aware Culture
- "the way things are done"
- Risk inherent in all processes
- Risk information actively used in decision making
- Risk is embedded
- Used to gain competitive advantage

What is Risk?



ISO31000

Effect of uncertainty on objectives (where an effect may be positive, negative, or a deviation from the expected. Also, risk is often described by an event, a change in circumstances or a consequence)

IRM

Risk is the combination of the probability of an event and its consequence. Consequences can range from positive to negative

IITA

any event that could affect negatively or positively the achievement of objectives, deliveries and performance

What is Risk Management?



ISO31000

Coordinated activities to direct and control an organisation with regard to risk

IRM

Process which aims to help organisations understand, evaluate and take action on all their risks with a view to increasing the probability of success and reducing the likelihood of failure

IITA

A systematic process for identifying and managing significant risk relating to the achievement of the Institute's objectives and sub-objectives of operating units and projects,

80%

of projects fail
to deliver on all
their objectives
APM, 2015

12%

of all project
spend is wasted
PMI, 2016

Projects with good
risk management can
expect:

17 % increase in
cost efficiency

50%

Of companies
fail to deliver
on their brand
promises
Gallup, 2015

72%

of IT projects
fail to deliver
on time or
budget (
PMI, 2005

15 % increase in
schedule efficiency

15 % higher
success rate overall

Source : IRIS / PMI)

Projects where risk management is rated as 'fully adequate'
come in 5 % under composite cost and schedule target

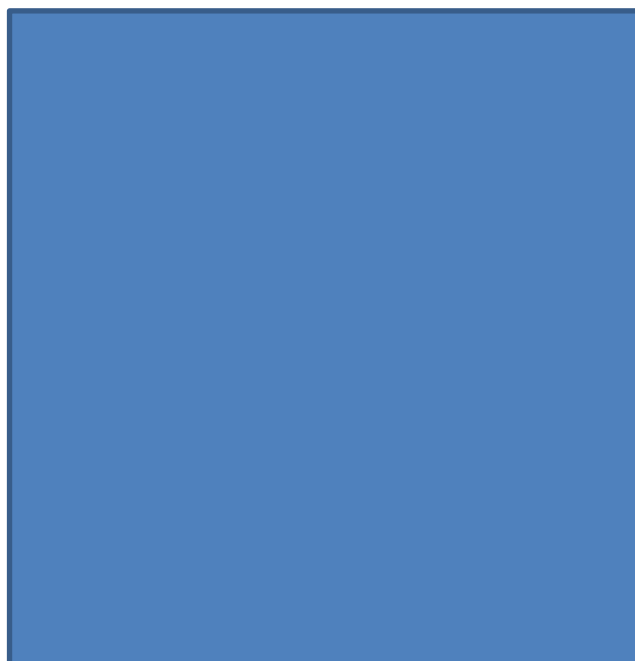
Projects where risk management is rated as 'not at all adequate'
come in 70 % over composite cost and schedule target

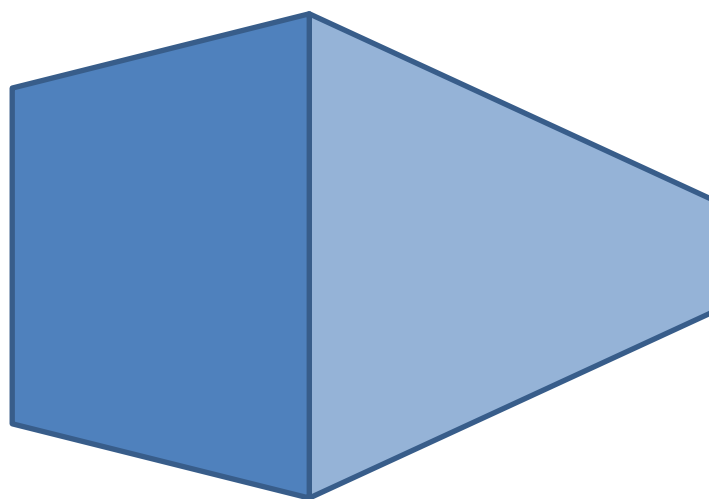
Source: Cooke-Davis, 2002)



What makes it so difficult...







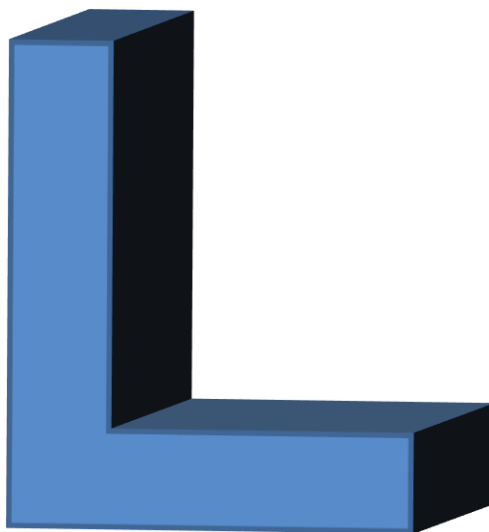


Risk Perspective





Risk Perspective



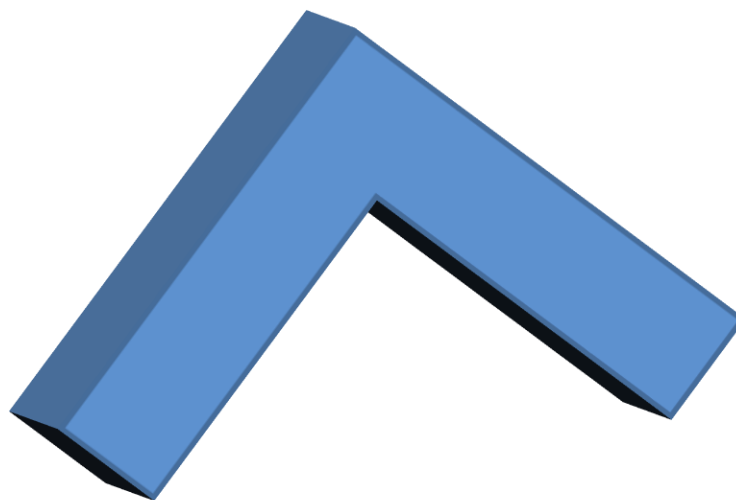


Risk Perspective





Risk Perspective





Risk Perspective

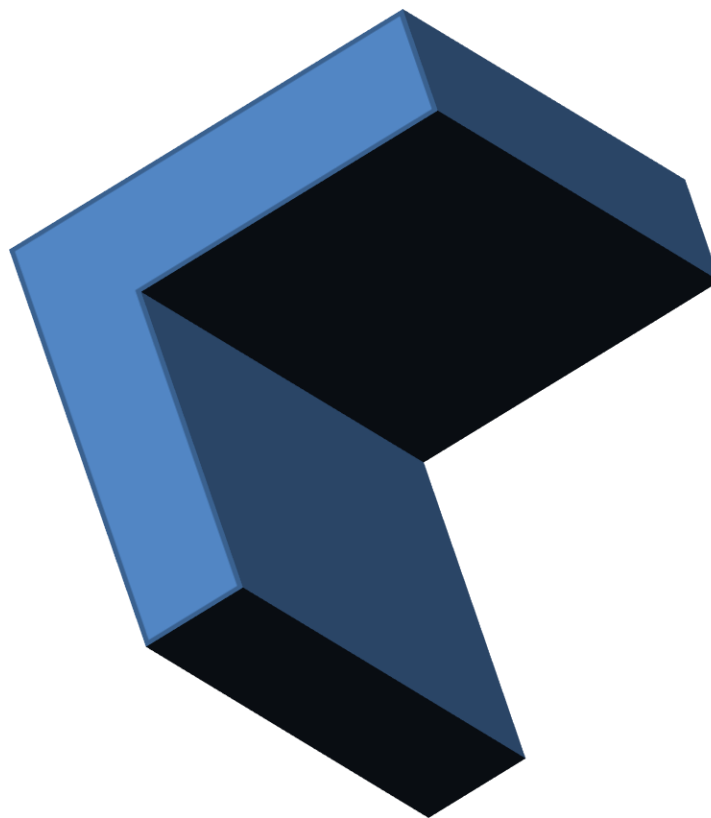




Risk Perspective

Risk Assimilation

Confirmation Bias

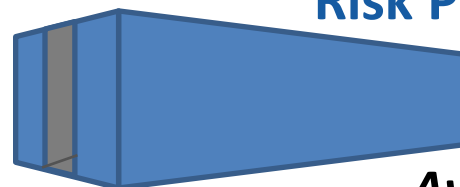
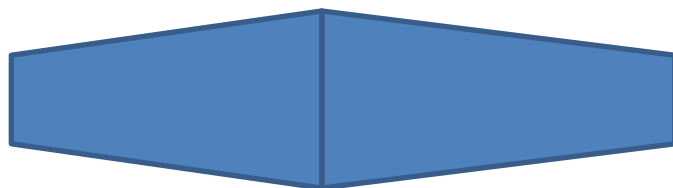




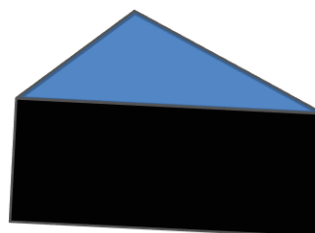
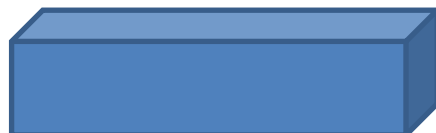
Risk Perspective

Risk Assimilation

Risk Proximity



Availability Bias





Risk Perspective

Risk Assimilation

Risk Proximity

Risk Scaling

Availability cascade





Risk Perspective

Risk Assimilation

Risk Proximity

Risk Scaling

Risk Familiarity

Hindsight bias



Risk Perspective

Risk Assimilation

Risk Proximity

Risk Familiarity

Risk Scaling

Risk Trade-off

Anchoring bias



Risk Perspective

Risk Assimilation

Risk Proximity

Risk Familiarity

Risk Scaling

Risk Trade-off

Risk Segmentation

Normalcy bias

Personal predisposition to risk and organisational culture

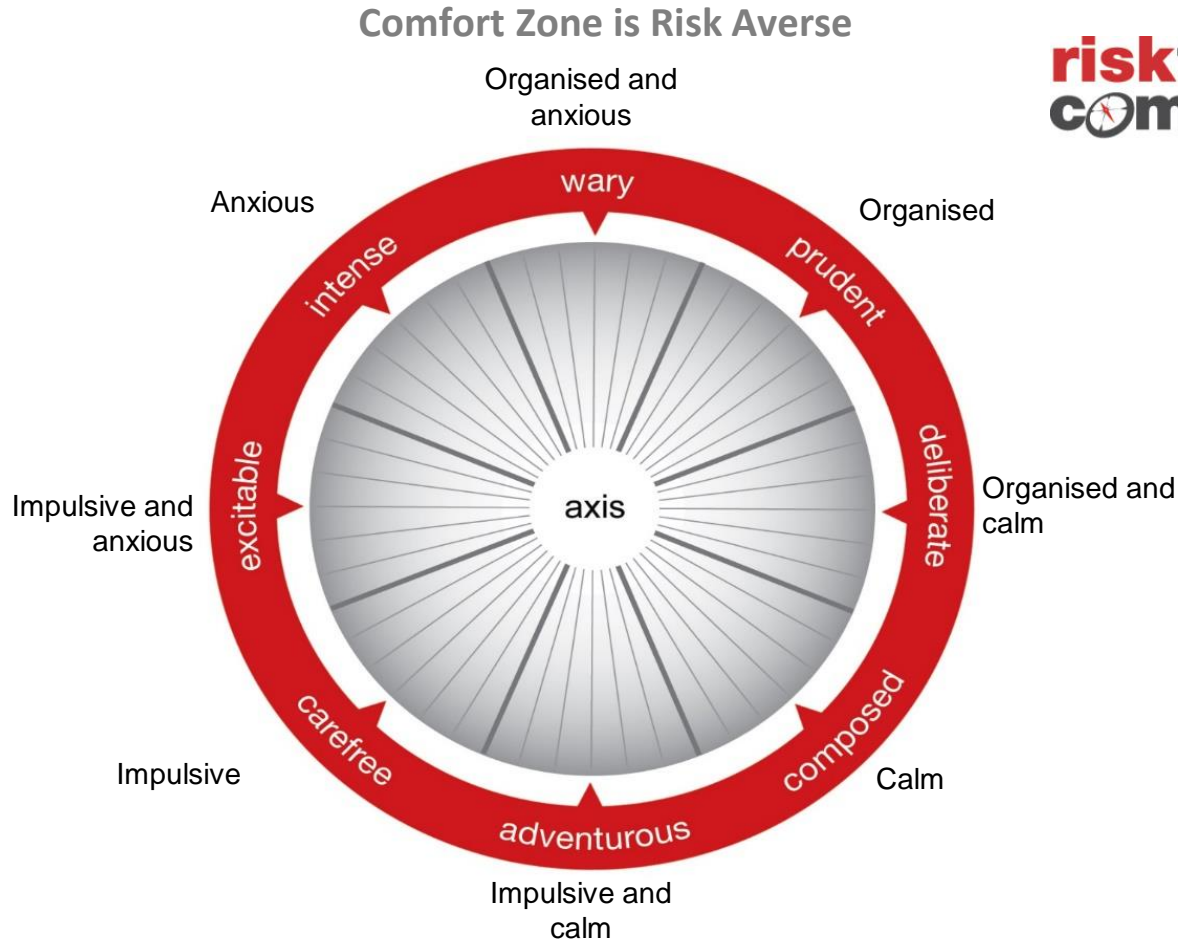


Predisposition to risk

Risk-type compass



risktype
compass



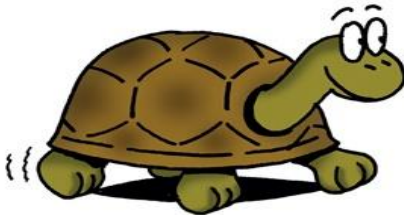
Comfort Zone is Risk Seeking

[The Risk-Type Compass™ -
Psychological Consultancy Ltd]



Clockspeed

The rate at which information necessary to understand & manage risk becomes available (Smith 2010)



SLOW

Those that are managed and mature over a long period of time. Can be dealt with by PROCESS. These are the risks that most risk management systems are designed to work with.



Fast

Those where there is an unplanned or unexpected event or situation where a response is required faster than internal controls are designed to manage. Can't rely just on process, need CULTURAL mechanisms too (heuristics, rules of thumb, etc).

In an increasingly fast industrial world with 'lean' workforces, making more decisions, in less time within increasingly complex systems, we can expect more fast clockspeed errors

IITA's Risk Categorization, Matrix, Scoring Guideline and Register



Table 6: Speed of onset (time for risk event to manifest)

Rating	Descriptor	Definition
5	Very high	Very rapid onset, little or no warning, instantaneous
4	High	Onset occurs in a matter of days to a few weeks
3	Medium	Onset occurs in a matter of few months
2	Low	Onset occurs in a matter of several months
1	Very low	Very slow onset, occurs over a year or more
*Source: COSO-ERM		

Taken from IITA document Risk categories v3(Fin)

Programme Content



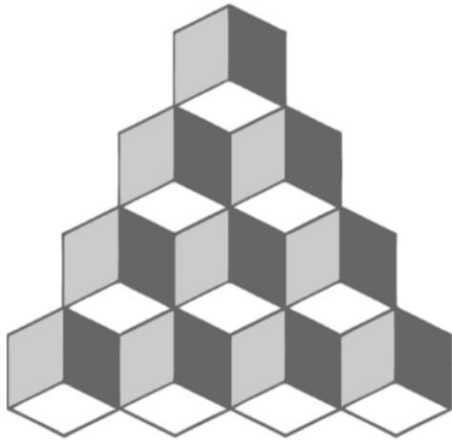
- ✓ 1. Welcome & Introductions
- ✓ 2. Introduction to Risk Management
- 3. Risk Framework & Context
- 4. Risk Management Process
- 5. Risk Monitoring & Reporting
- 6. Summary



Effective Project Risk Management

Welcome to day 2





How many cubes are there in the picture on the left?



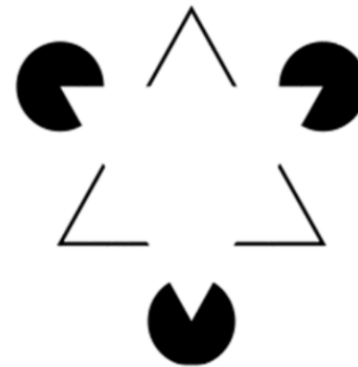
How many of each **type** of animal did Moses take into the ark?



A bat and ball cost €1.10.

The bat costs €1.00 more than the ball.


How much does the ball cost?



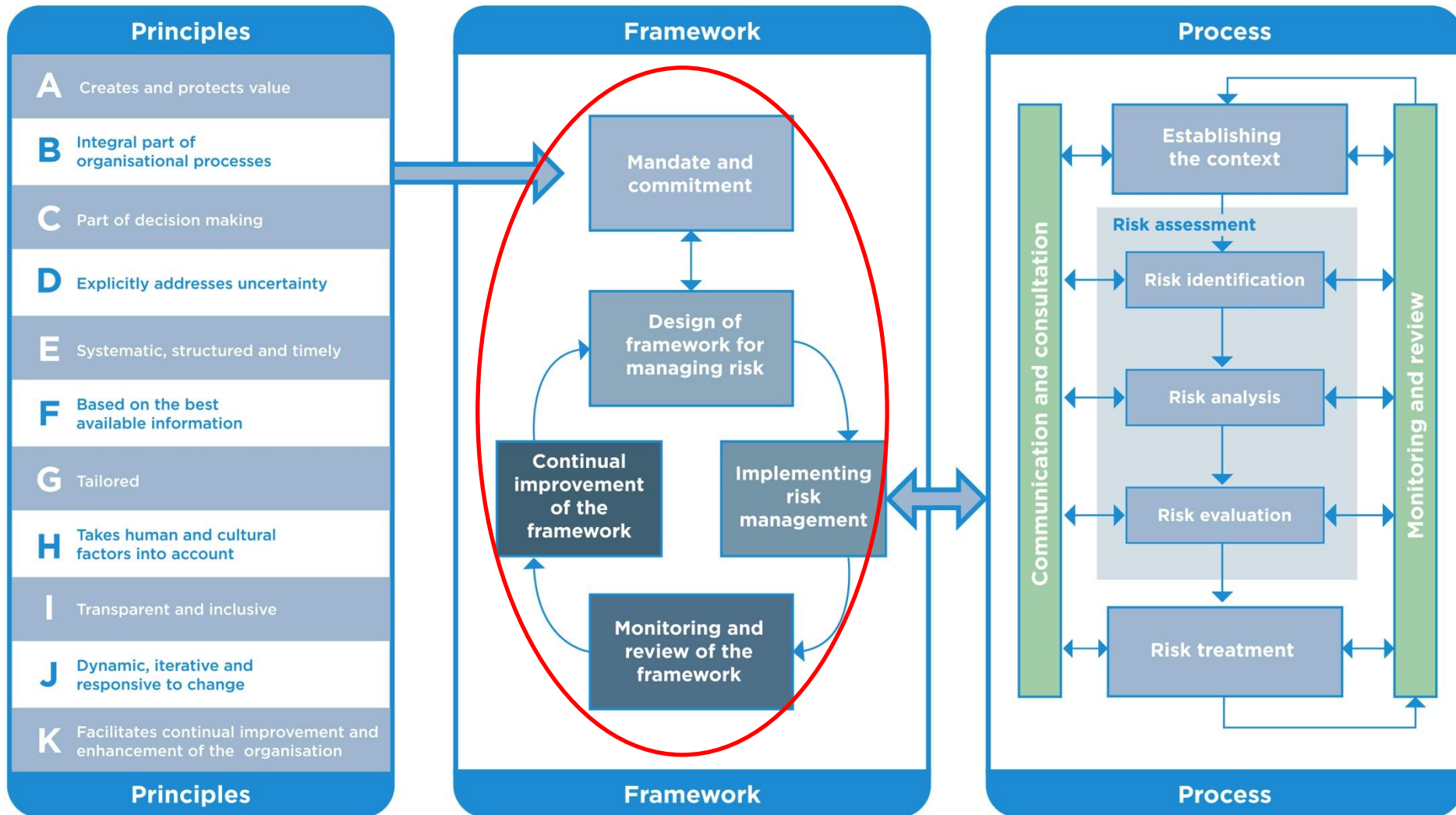
How many triangles are there in the picture on the left?

$$(17 \times 24) \div 8$$

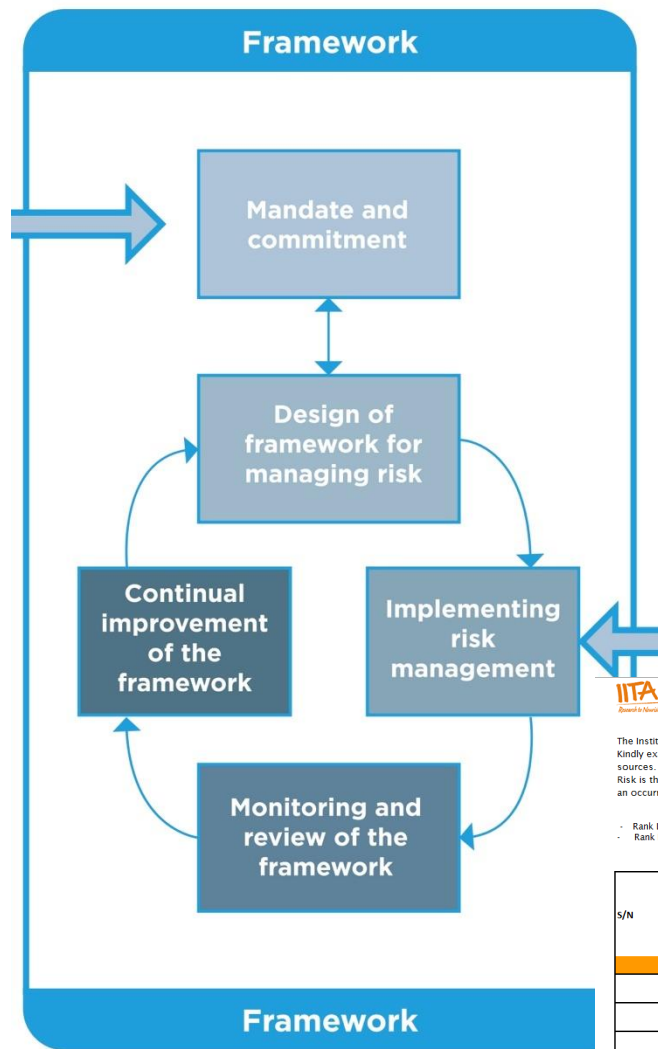


- 
- ✓ 1. Welcome & Introductions
 - ✓ 2. Introduction to Risk Management
 - 3. Risk Framework & Context
 - 4. Risk Management Process
 - 5. Risk Monitoring & Reporting
 - 6. Summary

ISO 3100 : Risk Management Standard



ISO 3100 : Risk Management Standard



Section - Risk Management Policy

Policy #18.1	No: IITA/ /
	Date: 27/11/2015
	Revision No.: 1
	Revision Date: 23/11/2015
	Page 1

1. Background

IITA defines risk as "any event that could affect negative achievement of objectives, deliveries and performance". In 2015, objectives contained in the refreshed strategy document the Institute systematic process for identifying and managing significant risk. IITA seeks mechanism for embedding risk consideration in decision making across the organization.

2. Purpose

The policy describes the risk management process in the Institute's arrangement for risk management, roles and responsibilities of arrangement for risk and mechanism for embedding risk management across the Institute. It forms part of the Institute's overall internal arrangement.

3. Objectives

The policy aims to establish a systematic process for identifying a risk relating to the achievement of the Institute's objectives and sub units and projects, as stated in the refreshed strategy document donors.

The specific objectives are:

- Creating a risk-aware culture through continuous sensitization
- Communicating the Institute's overall risk management strategy



Risk Register Template

The Institute requires every Unit, Project, or activity to periodically carry out and maintain records of significant risks to its operations and existence. This template has been designed to start the process of identifying risks. Kindly examine your Unit, Project, or Activity and operations in consultation with other unit/project personnel and provide the information required in the template. Identified risks could arise from internal (i) or external (x) sources. Please indicate this by placing an "i" or "x" in the appropriate column.

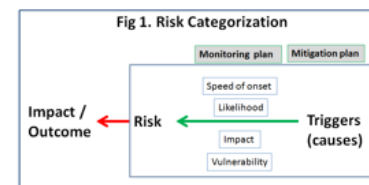
Risk is the uncertainty of outcome of actions and events that we see or sense around us in our day to day work environment. Likelihood refers to the possibility of occurrence while Impact refers to how mild or severe such an occurrence would be.

- Rank Likelihood on a scale of 1 to 5 where 1=inconceivable, 2=possible but unlikely, 3=possible, 4=probable at some point, 5=happens regularly
- Rank impact on a scale of 1 to 5 where 1=negligible damage, 2=moderate damage, 3=moderate to serious damage, 4=very serious damage, 5=catastrophic

S/N	Identified Risk Description	Internal (i) or External (x)	Likelihood of occurrence	Impact on Operations	Likelihood x Impact	Weight %	Current efforts/control in place (Please refer to your Unit's procedure, manual, business continuity plan, SOP, and operating practices, etc.)	Control Gaps (identified deficiencies and reasons)	Residual Risk Rating	Additional Controls Required (to address inadequacies in the current procedures and practices, SOP, etc.)	Person Responsible for further actions
					0	#DIV/0!					
					0	#DIV/0!					
					0	#DIV/0!					
					0	#DIV/0!					
					0	#DIV/0!					
					0	#DIV/0!					
					0	#DIV/0!					
					0	#DIV/0!					
					0	#DIV/0!					

Risk Categorization, Matrix, Scoring guideline and Register

Following a re-examination of aspects of the risk management process in the Institute with a view to streamlining the categorisation, the matrix, register, and guideline for scoring risks certain changes have become necessary. Amongst this is the Trigger → Risk → Impact/Outcome relationship. A diagrammatic representation of the relationship is given in Figure 1.



It has thus become necessary to replace the term *consequence* with *impact/outcome*, and *causes* with the word *trigger* and to reclassify some of the triggers based on similarity of impact. Thus

- The initial 10 categories of risk have been harmonised based on similarities in the risk triggers to arrive at 8 categories of risks as presented in Table 1 below.

hazards
orange
policy
contractual/

ing it in line with the
Institute have been

Impact
(3)
Reputation; finances; delivery

Effective risk management has the following attributes (PACED)



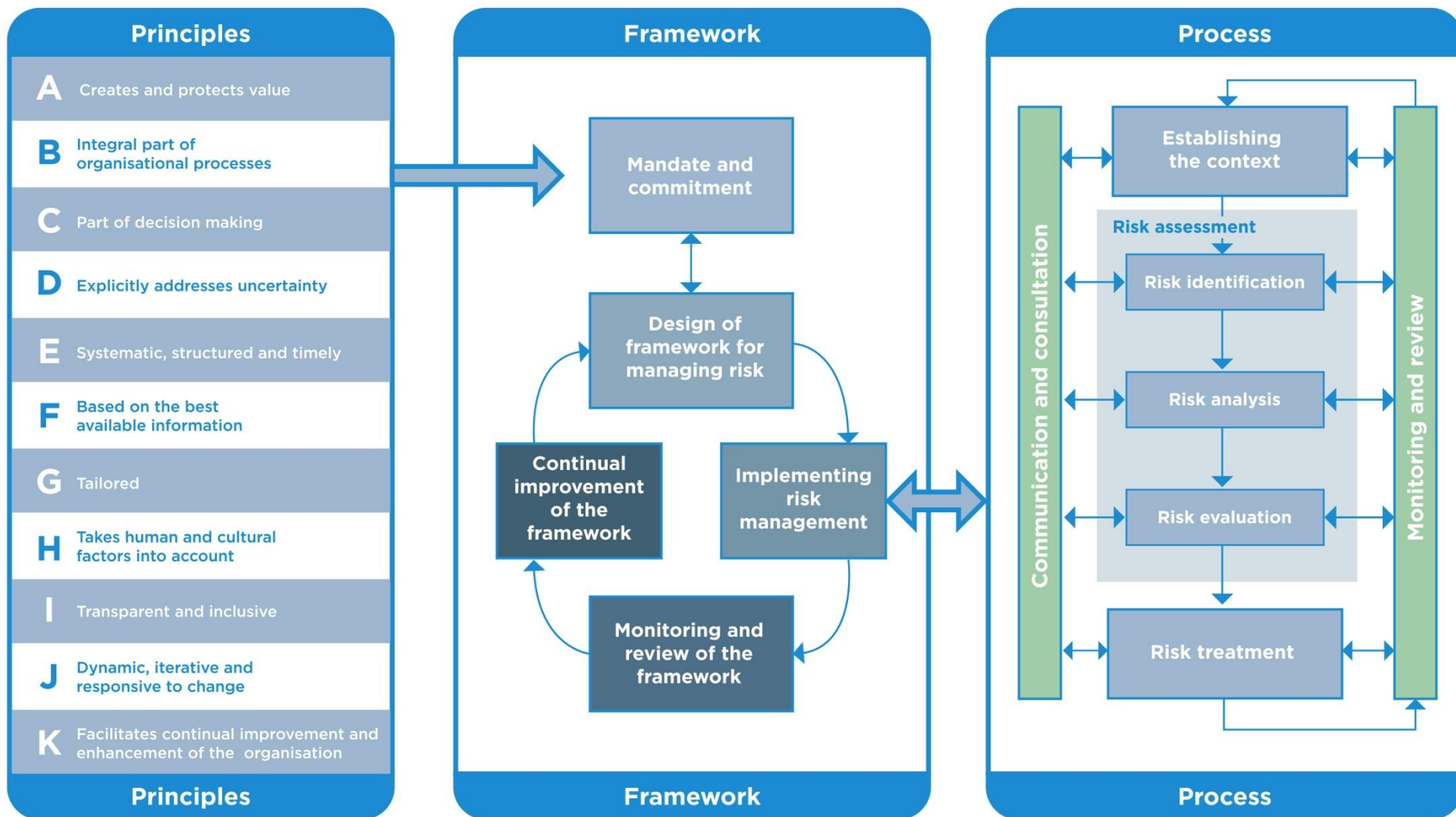
Proportionate
Aligned
Comprehensive
Embedded
Dynamic

Welcome to Day 2



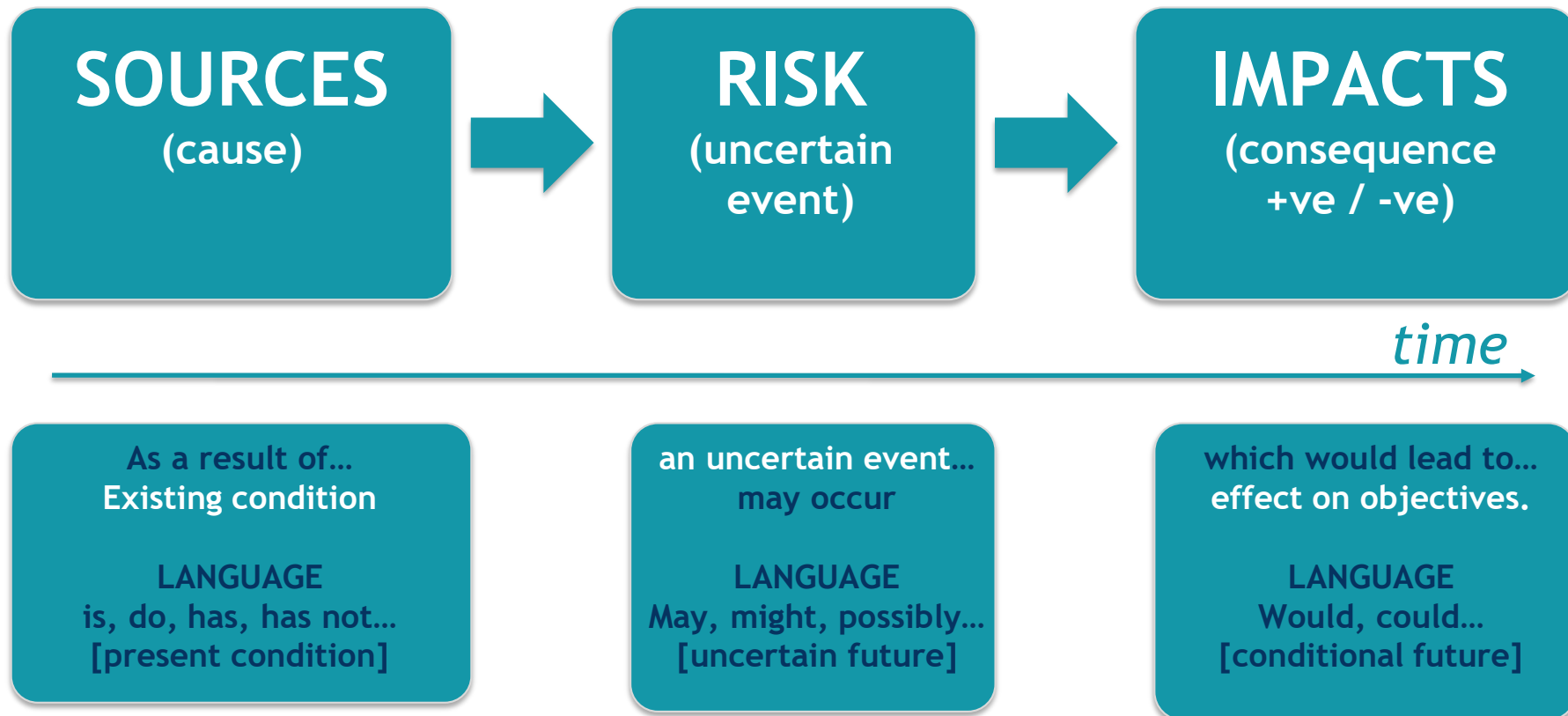
- ✓ 1. Welcome
- ✓ 2. Introduction to Risk Management
- ✓ 3. Risk Context & Framework
- 4. Risk Management Process
- 5. Risk Monitoring & Reporting
- 6. Summary

ISO 3100 : Risk Management Standard



Describing Risk (*the risk story*)

OBJECTIVES / CONTEXT





IITA's Risk Categorization, Matrix, Scoring Guideline and Register

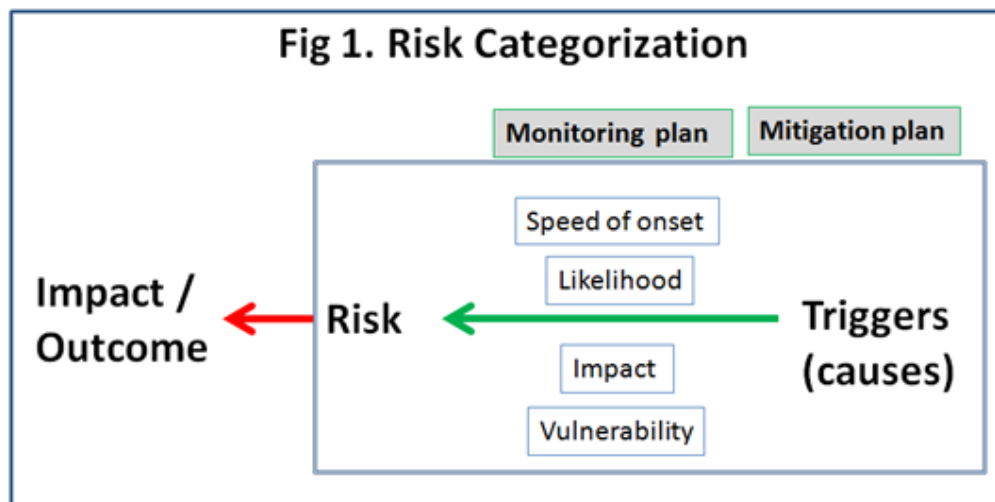


Table 6: Speed of onset (time for risk event to manifest)		
Rating	Descriptor	Definition
5	Very high	Very rapid onset, little or no warning, instantaneous
4	High	Onset occurs in a matter of days to a few weeks
3	Medium	Onset occurs in a matter of few months
2	Low	Onset occurs in a matter of several months
1	Very low	Very slow onset, occurs over a year or more
*Source: COSO-ERM		

Bad (*and better*) risk descriptions:



► “Risk of being hacked”

(more specific) Risk of unauthorised access to customer database, due to firewall being wrongly configured, resulting in loss of customer trust and 20% drop in revenues this financial year

► “Risk of competition”

(this is not a risk - it is a certainty) Risk of failing to detect changes in core markets due to excessive focus on emerging markets, resulting in destabilising revenue streams

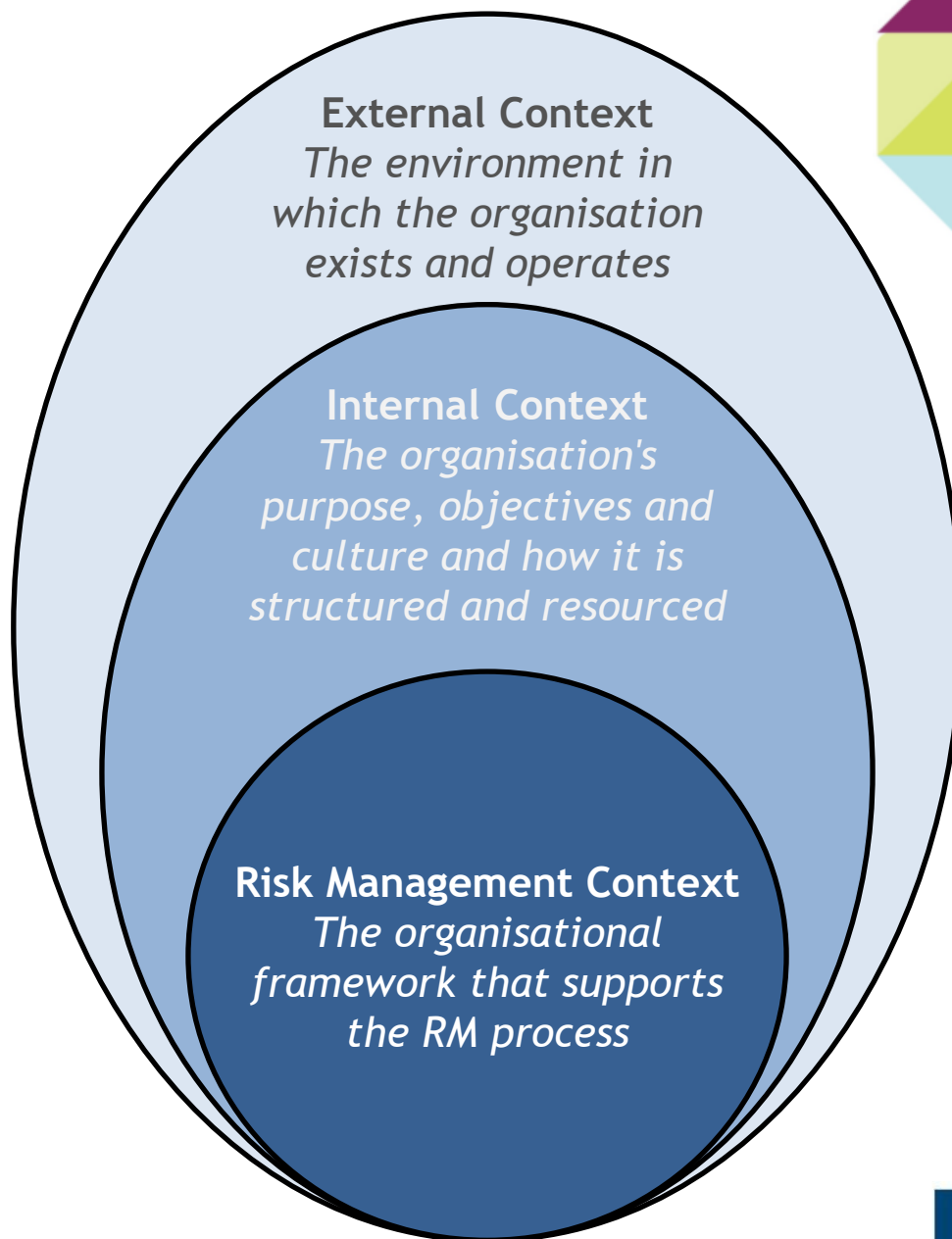
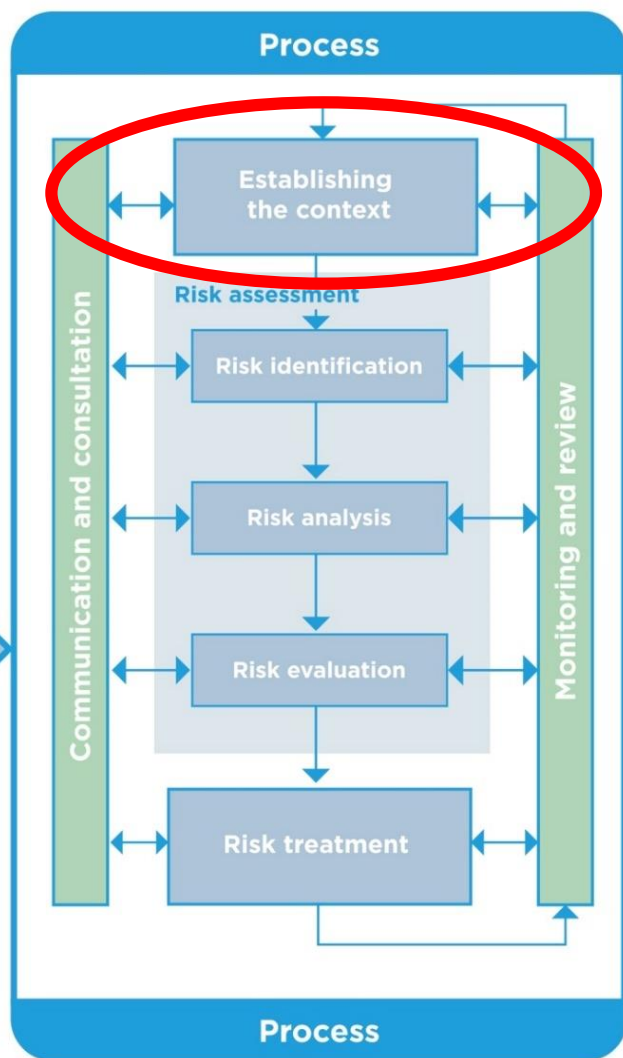
► “Risks coming from IT implementation project”

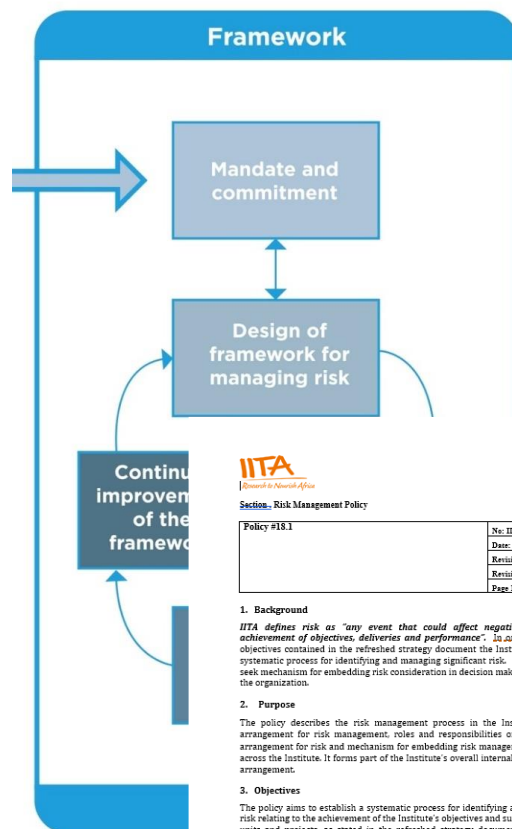
Risk that user requirements are changed outside of the design phase of project, due to absence of any change management mechanisms in project governance, resulting in loss of strategic opportunity & wasted CAPEX up to the value of \$200M

► “Risk that we could have reputation damage”

Risk of decreasing Customer Satisfaction, due to insufficient & timely monitoring of product quality perception trends, resulting in an inability to respond to problems before losses are incurred

Risk Context





Section. Risk Management Policy

Policy #18.1

	Date: 27/11/2015 Revision No.: 1 Revision Date: 23/11/2015
--	--

1. Background

IITA defines risk as "any event that could affect negative achievement of objectives, deliveries and performance". In an objectives contained in the refreshed strategy document the Institute systematic process for identifying and managing significant risk. I seek mechanism for embedding risk consideration in decision making the organization.

2. Purpose

The policy describes the risk management process in the Institute, arrangement for risk management, roles and responsibilities of arrangement for risk and mechanism for embedding risk management across the Institute. It forms part of the Institute's overall internal arrangement.

3. Objectives

The policy aims to establish a systematic process for identifying a risk relating to the achievement of the Institute's objectives and sub-units and projects, as stated in the refreshed strategy document donors.

The specific objectives are:

- i. Creating a risk-aware culture through continuous sensitization
- ii. Communicating the Institute's overall risk management strategy

Risk Categorization, Matrix, Scoring guideline and Register

Following a re-examination of aspects of the risk management process in the Institute with a view to streamlining the categorisation, the matrix, register, and guideline for scoring risks certain changes have become necessary. Amongst this is the **Trigger** → **Risk** → **Impact/Outcome** relationship. A diagrammatic representation of the relationship is given in Figure 1.

Fig 1. Risk Categorization



It has thus become necessary to replace the term *consequence* with *impact/outcome*, and *causes* with the word *trigger* and to reclassify some of the triggers based on similarity of impact. Thus

1. The initial 10 categories of risk have been harmonised based on similarities in the risk triggers to arrive at 8 categories of risks as presented in Table 1 below.



Risk Register Template

The Institute requires every Unit, Project, or activity to periodically carry out and maintain records of significant risks to its operations and existence. This template has been designed to start the process of identifying risks. Kindly examine your Unit, Project, or Activity and operations in consultation with other unit/project personnel and provide the information required in the template. Identified risks could arise from internal (i) or external (o) sources. Please indicate this by placing an "I" or "O" in the appropriate column.

Risk is the uncertainty of outcome of actions and events that we see or sense around us in our day to day work environment. Likelihood refers to the possibility of occurrence while impact refers to how **mild** or **severe** an occurrence would be.

- Risk likelihood on a scale of 1 to 5 where 1=inconceivable, 2=possible but unlikely, 3=possible, 4=probable at some point, 5=happens regularly
- Risk impact on a scale of 1 to 5 where 1=negligible damage, 2=moderate damage, 3=moderate to serious damage, 4=very serious damage, 5=catastrophic

- Rank Likelihood on a scale of 1 to 5 where 1=inconceivable, 2=possible but unlikely, 3=possible, 4=probable at some point, 5=happens regularly
- Rank Impact on a scale of 1 to 5 where 1=negligible damage, 2=moderate damage, 3=moderate to serious damage, 4=very serious damage, 5=catastrophic

[illegible]

harazds
orange
olicy
ontractual/
|

ing it in line with the
: Institute have been

(3)	Impact Reputation; finances; delivery

Risk Management Context
The organisational framework that supports the RM process

Risk Context



2012–2020
Refreshed Strategy

*The lead research partner
facilitating agricultural solutions for
hunger and poverty in the tropics*

2012 - 2020

XIII. Risk management

Research is inherently a risky business, more so agricultural research in SSA where infrastructure is weak, national institutions are fragile, policies and markets are inefficient, and the political and economic conditions are unstable. The challenges and opportunities facing African agriculture and R&D are constantly evolving, and recognized challenges are shifting as new challenges are emerging. Obstacles to the realization of the Vision and Strategic Plan need to be overcome. If not, even the best research will have little impact. IITA will have to become more nimble and flexible to better respond to future unforeseen challenges and to simultaneously address chronic, emerging, and new challenges. We will deploy the professional expertise of IITA staff in a systematic, proactive, and continuous manner to achieve the best results and manage associated risks of conducting research in Africa. We will strengthen IITA internal scientific, administrative, financial, and institutional audit functions to provide more rigorous analysis and management of risks. We will continually assess these risks and develop innovative strategies on how to best manage them to have the greatest impacts. We will engage the Board's unique talents, skills, and abilities to continually assess our strategies, devise intelligent solutions to adapt to new challenges and opportunities, ensuring that we maintain exemplary performance within all our strategic interventions. IITA will continue to build its oversight framework, comprised of internal and external auditing, self assessment, quality assurance, board reporting, monitoring and evaluation, and risk management.



IITA needs to be able respond to emerging and new agricultural challenges.

61

Internal Context
*The organisation's
purpose, objectives and
culture and how it is
structured and resourced*



Risk Context



Insight Report

The Global Risks Report 2017 12th Edition

HOW WELL CAN YOU PREDICT THE RESULTS OF YOUR ACTIONS?

+ Complexity

Characteristics: The situation has many interconnected parts and variables. Some information is available or can be predicted, but the volume or nature of it can be overwhelming to process.

Example: You are doing business in many countries, all with unique regulatory environments, tariffs, and cultural values.

Approach: Restructure, bring on or develop specialists, and build up resources adequate to address the complexity.

+ Volatility

Characteristics: The challenge is unexpected or unstable and may be of unknown duration, but it's not necessarily hard to understand; knowledge about it is often available.

Example: Prices fluctuate after a natural disaster takes a supplier off-line.

Approach: Build in slack and devote resources to preparedness—for instance, stockpile inventory or overbuy talent. These steps are typically expensive; your investment should match the risk.

+ Ambiguity

Characteristics: Causal relationships are completely unclear. No precedents exist; you face the unknown.

Example: Immigrant launch companies.

Approach: Cause hypothesis experiments.

+ Uncertainty

Characteristics: Despite a lack of other information, the event's basic cause and effect are understood.

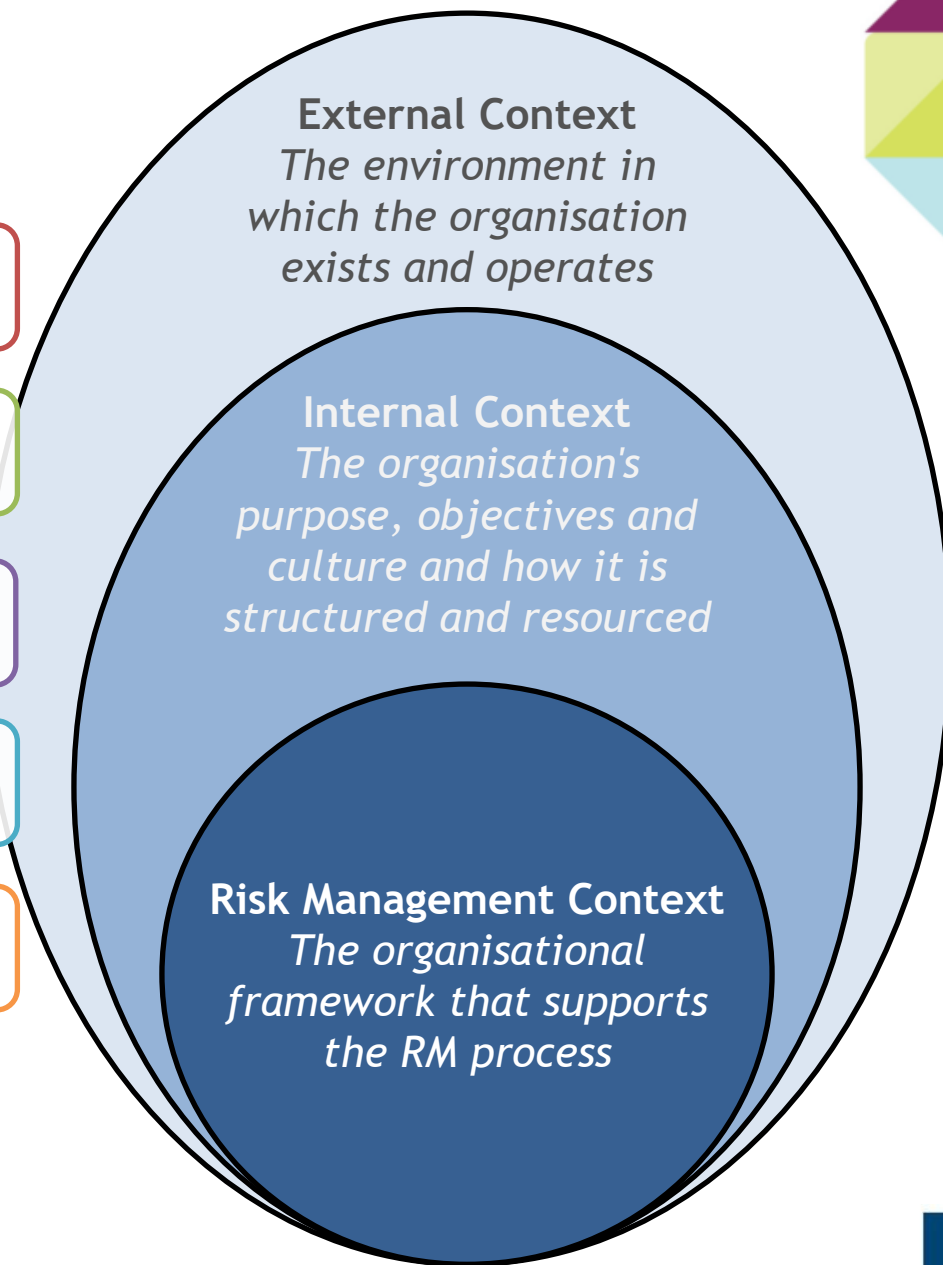
Sustainable Development Goals



External Context
The environment in which the organisation exists and operates



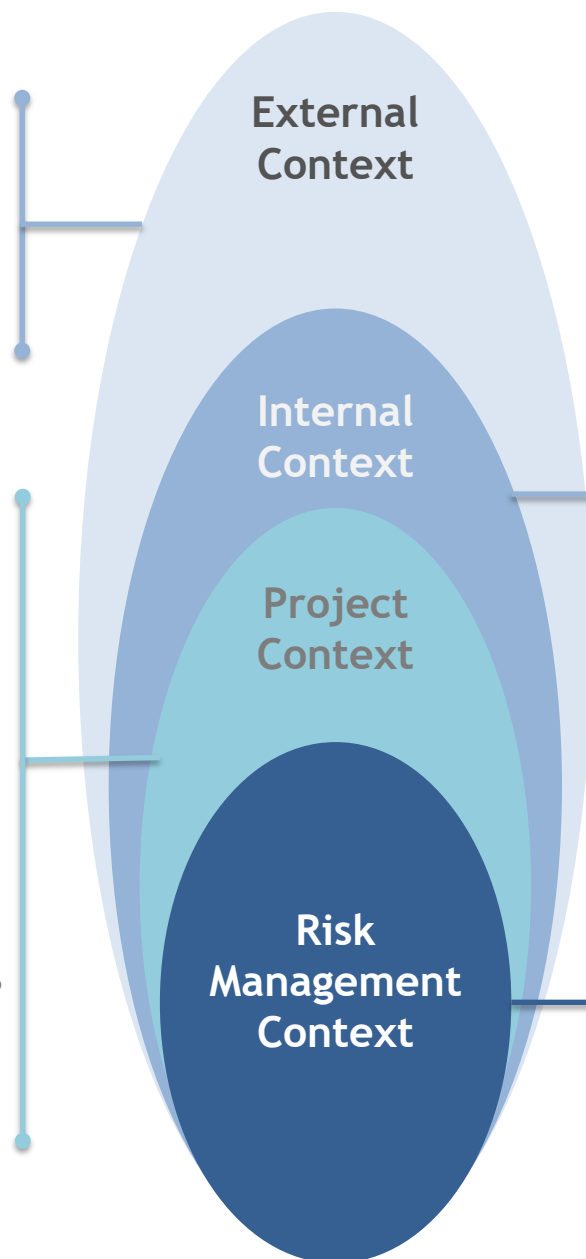
Risk Context



Risk Context



- ▶ What does our world look like?
- ▶ What are the drivers and trends?



- ▶ What are our overall objectives?
- ▶ What is our capacity?
- ▶ What are our constraints?
- ▶ How do we make decisions?

- ▶ How will risks be assessed?
- ▶ Who & what determines whether a risk is acceptable?
- ▶ How will risks be reported?
- ▶ How will risks be monitored?
- ▶ How will risks be escalated?
- ▶ How and by whom will conflicting risks be managed?

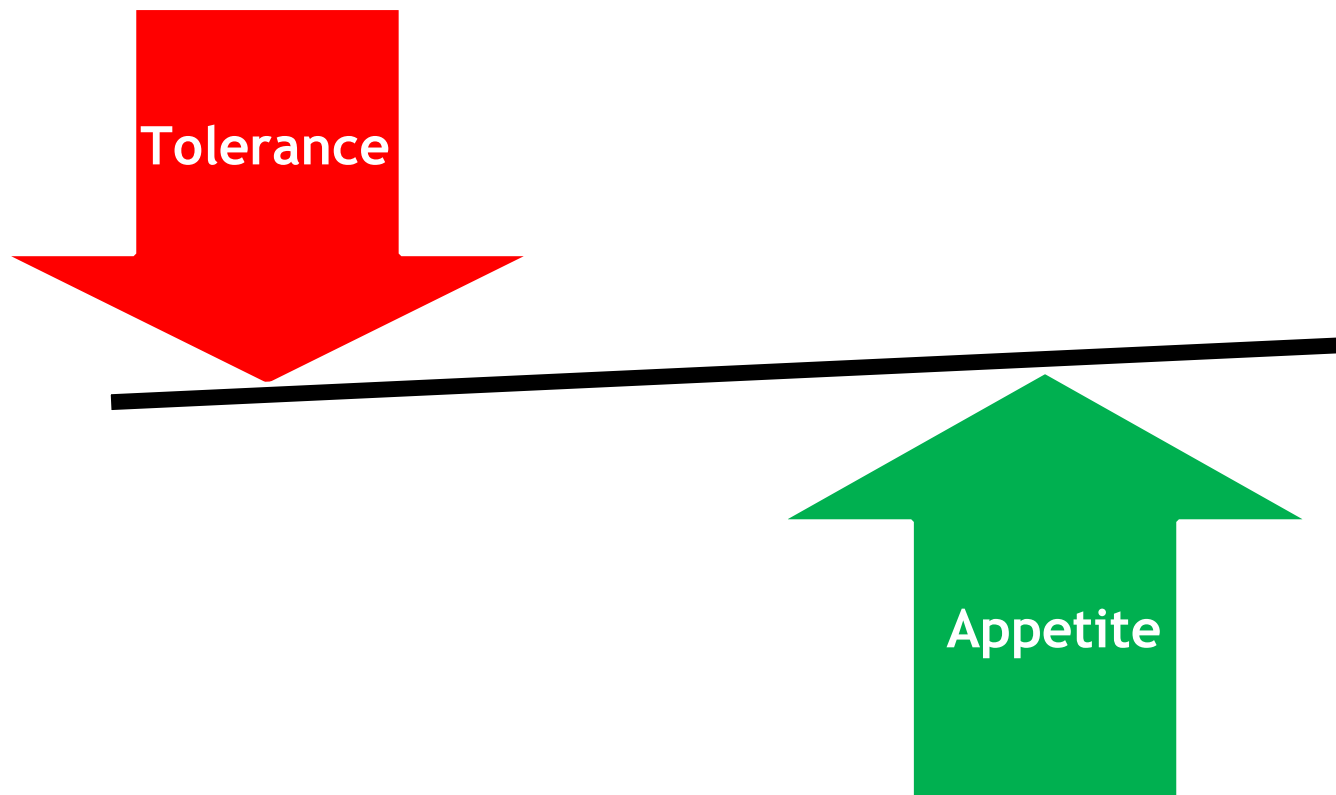
- ▶ Why is the project necessary?
- ▶ What does success look like?
- ▶ Who is the customer?
- ▶ Who are the stakeholders?
- ▶ Who is responsible (& for what)?
- ▶ What are the inter-dependencies?
- ▶ What resources are available?
- ▶ Any limitations or constraints?

EXERCISE



Establish the Risk Context for the Example Project Provided

The Risk Balancing Act



The organisation has to balance this...

Key terms

Risk capacity : the amount of risk an organisation **CANNOT** exceed

Universe of risks

The full range of risks which could positively or negatively impact the organisation's ability to achieve its long-term objectives

Risk tolerance

The boundaries of risk taking outside of which the organisation is not prepared to venture in pursuit of its long-term objectives

Risk appetite

The amount of risk an organisation is willing to seek or accept in pursuit of its long-term objectives

Risk appetite - key terms

Risk universe

- the full range of risks which could impact, either positively or negatively, on the ability of the organisation to achieve its long-term objectives

Risk capacity

- the amount of risk an organisation CANNOT exceed

Risk tolerance

- the boundaries of risk taking outside of which the organisation is not prepared to venture in pursuit of its long-term objectives

Risk appetite

- the amount of risk an organisation is willing to seek or accept in pursuit of its long-term objectives



Stakeholder Management



Establish the
context



Identify the
stakeholders



Evaluate the
stakeholders



Manage the
stakeholders

A stakeholder is...

... any individual, group or organization that can affect, be affected by, or perceive itself to be affected (in a positive or negative way) by a project.

Stakeholder management..

...is the process of taking into consideration the different interests, values and expectations of all of the stakeholders and addressing and managing these throughout the project to the satisfaction of everyone involved.

It helps IITA achieve its strategic objectives by...

- Purposefully taking into account the external and internal environments;
- Understanding and proactively managing the expectations of each stakeholder;
- (and hence) Creating a positive relationship by proactively managing and then delivering on their expectations;
- Using these positive relationships to build future success via (e.g.) further collaboration, coalitions and partnerships; and
- Identifying and addressing less positive relationships which currently get in the way of delivering IITA's strategic and programme objectives

Stakeholder Management



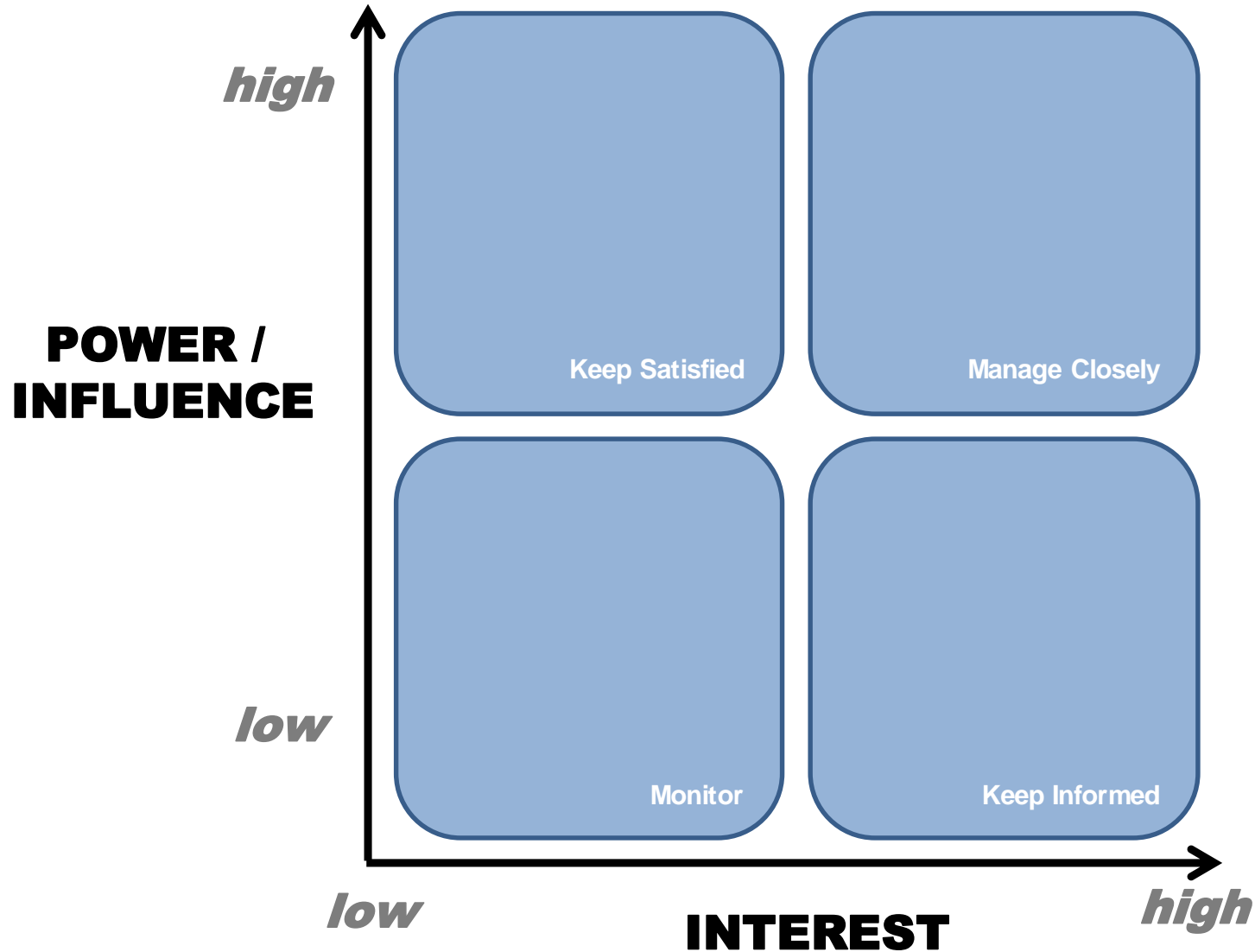
External to project

Internal to project

Inside IITA

Outside IITA

Stakeholder Management



EXERCISE

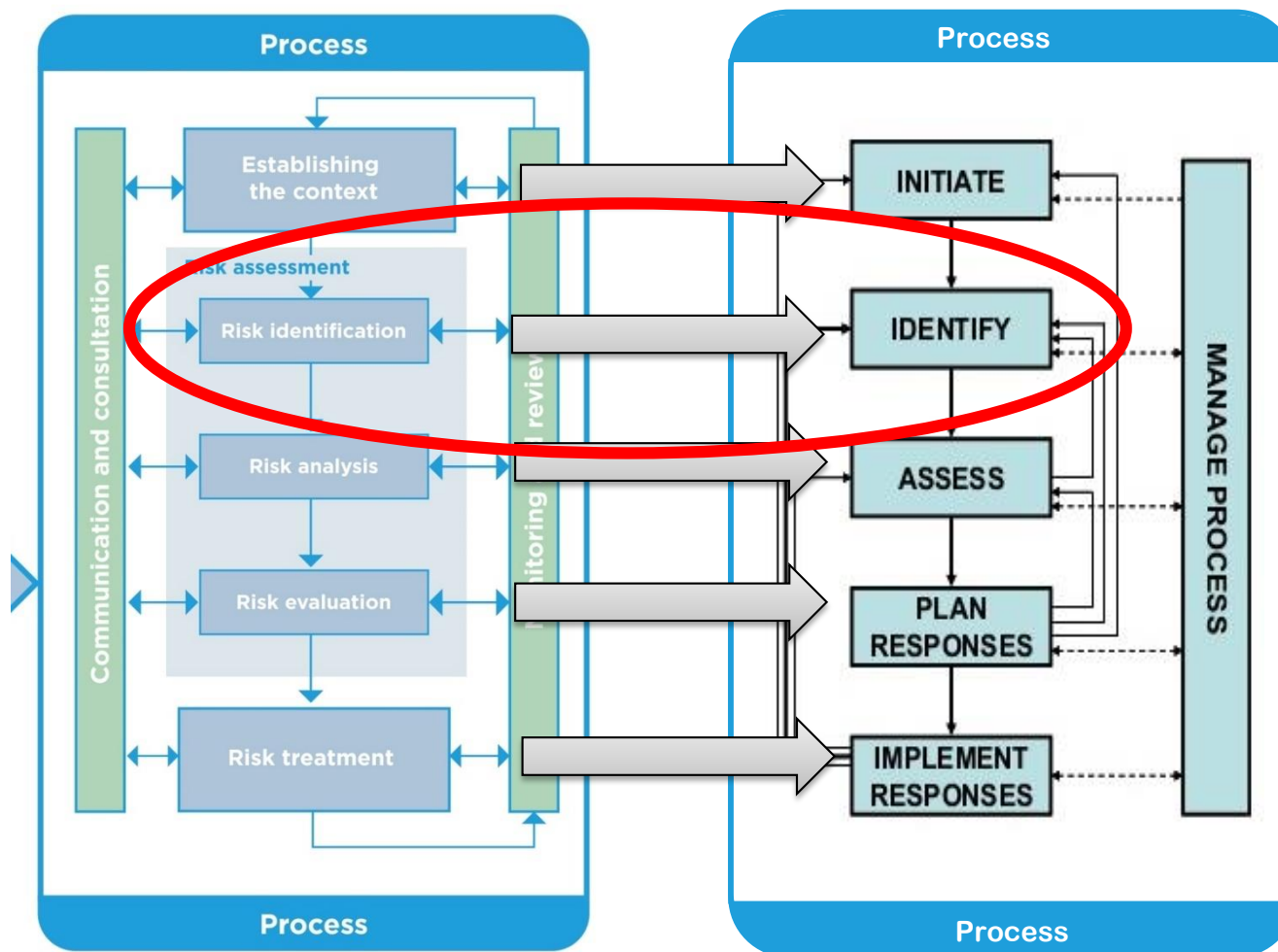


Produce a Stakeholder mapping for the example project



ISO:31000 Risk Management Standard

APM Project Risk Analysis & Management (PRAM) Guide



How much risk can you tolerate?

What's risky & why?

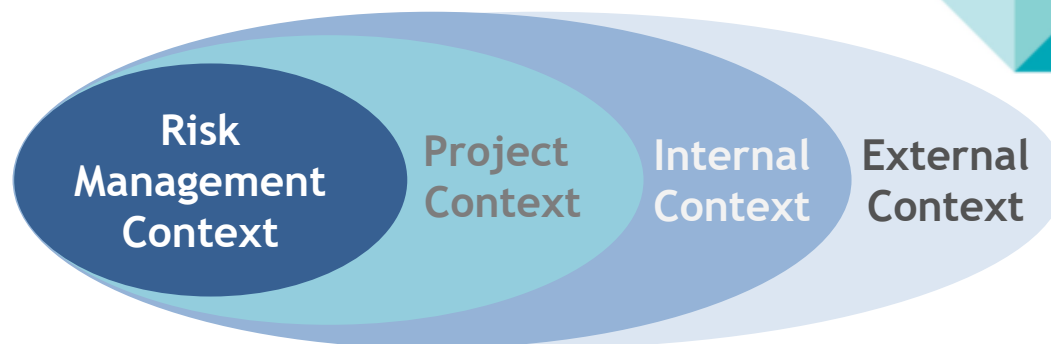
*What's the impact
(individually and collectively)?*

*What can & will you do about
it?*

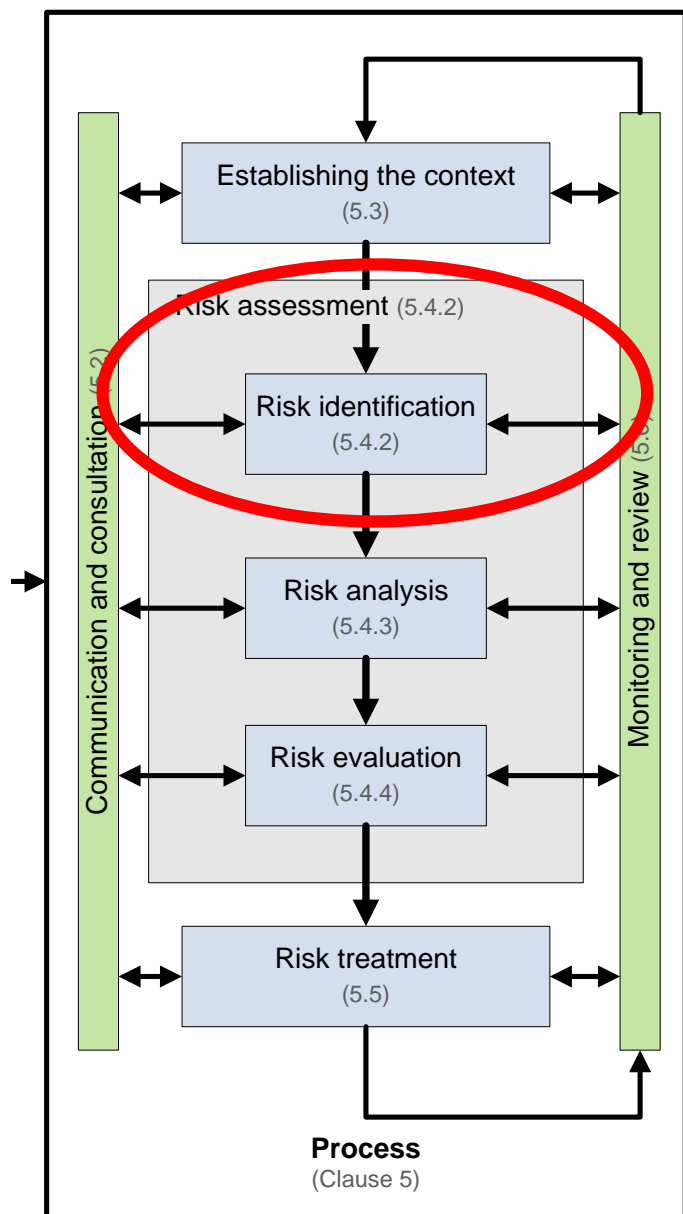
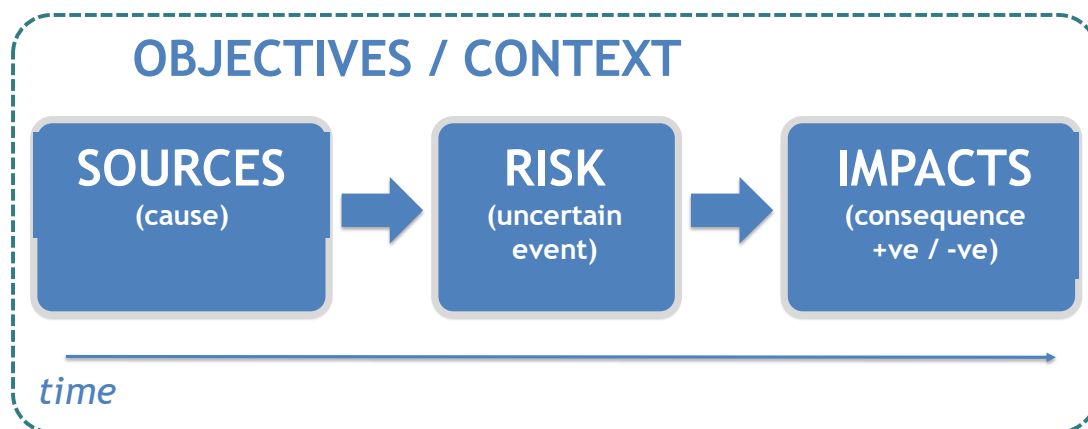
*How will you know and check it
is effective?*



**Comprehensive risk context
enables accurate risk identification**

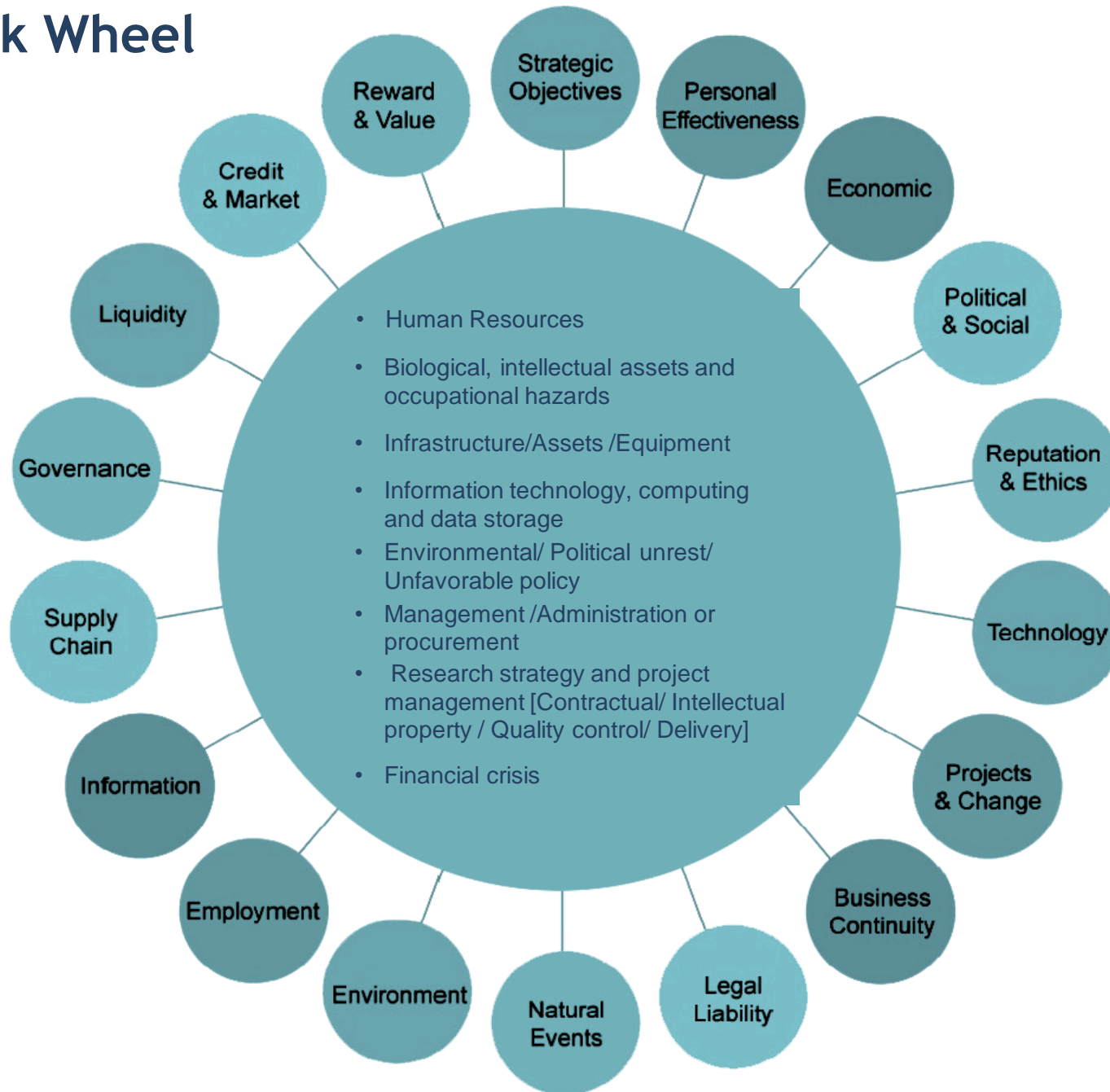


**Accurate risk description enables later risk
assessment**

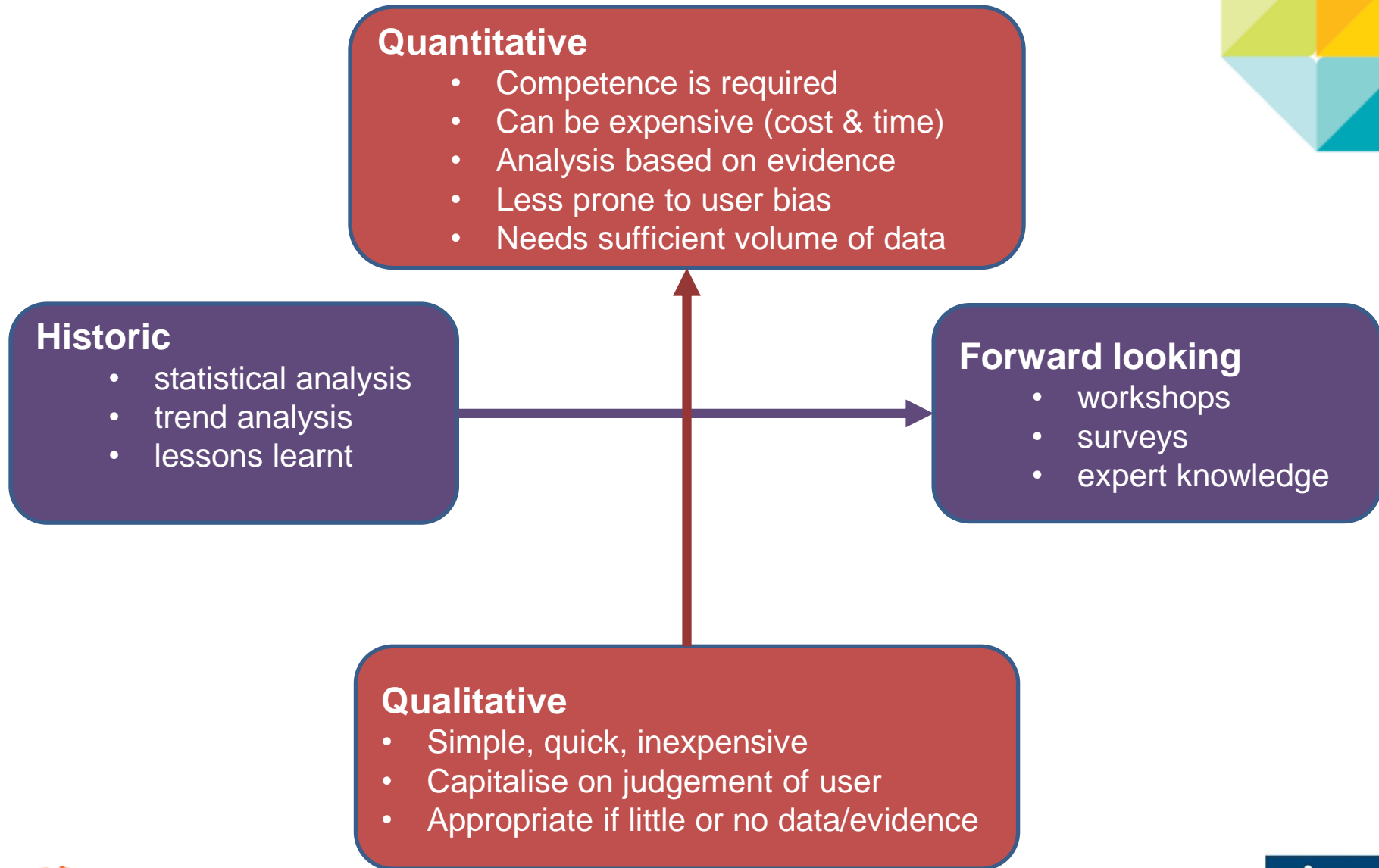


Reproduced from ISO 31000:2009

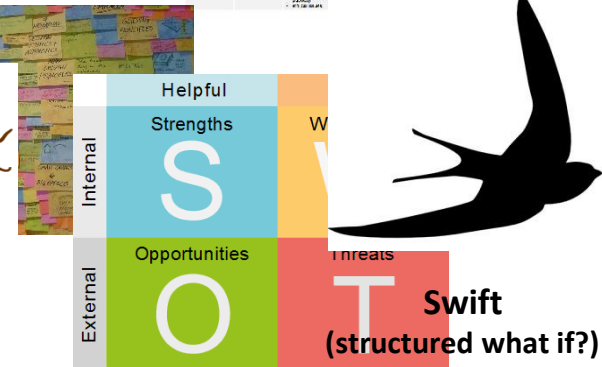
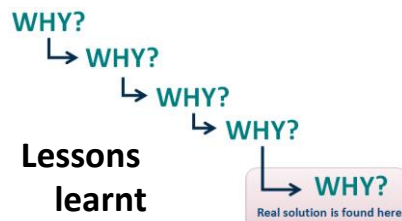
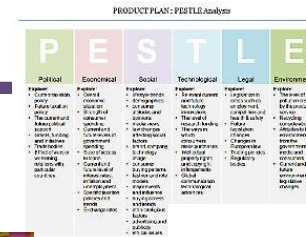
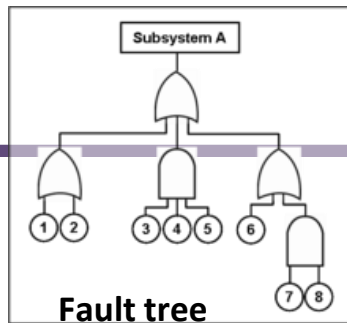
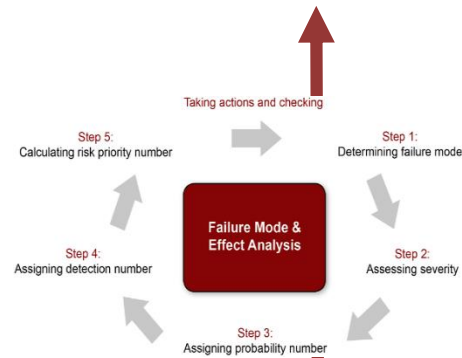
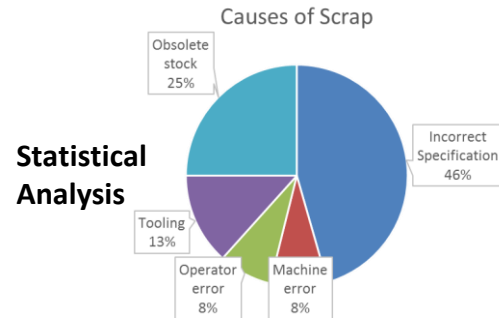
IRM Risk Wheel



Risk Identification Spectrum



Sl. No.	Abbreviation	Risk category
1	HR	Human Resources
2	BIO	Biological, intellectual assets and occupational hazards
3	INF	Infrastructure/Assets /Equipment
4	IT	Information technology, computing and data storage
5	ER	Environmental/ Political unrest/ Unfavorable policy
6	MAP	Management /Administration or procurement
7	RSP	Research strategy and project management [Contractual/ Intellectual property / Quality control/Delivery]
8	FIN	Financial crisis



Qualitative

Risk Brainstorming



Where a group of people meet to identify risks, using rules that enable people to think more freely to get their ideas, view points and interests expressed

- ① Reiterate the topic to be brainstormed = everyone on the same page
- ② Either allow people to shout out to the facilitator who writes (or types) down the ideas; or allow each person to write down their own ideas (on sticky notes)
- ③ All ideas are welcomed and supported, with encouragement for identification of both opportunities (upsides) and threats (downsides).
- ④ Further clarify ideas with the originator to ensure cause, risk and consequence are identified and the risk is understood (if necessary).
- ⑤ Invite others to support and share information to better understand the risks identified

SWIFT (Structured What-If)

Structured brainstorming method for analysing process or system

Usually applied to systems or processes not deemed to be safety critical but which do have safety related failure modes



- ① Define the systems/processes being analysed.
- ② Brainstorm possible hazards. List but do not discuss hazards yet.
- ③ Structure the hazards into a logical sequence for discussion.
- ④ Consider each hazard in turn, starting with the major ones
- ⑤ Consider possible causes of the event.
- ⑥ Consider possible consequences if the event occurs.
- ⑦ Consider safeguards that are in place to prevent the event occurring.
- ⑧ Consider frequency and consequence.
- ⑨ Record discussion on SWIFT log sheets
- ⑩ Reconsider whether any hazards have been omitted
- ⑪ Use checklists and where available previous accident experience to check for completeness.

5 Whys (Sakichi Toyoda)

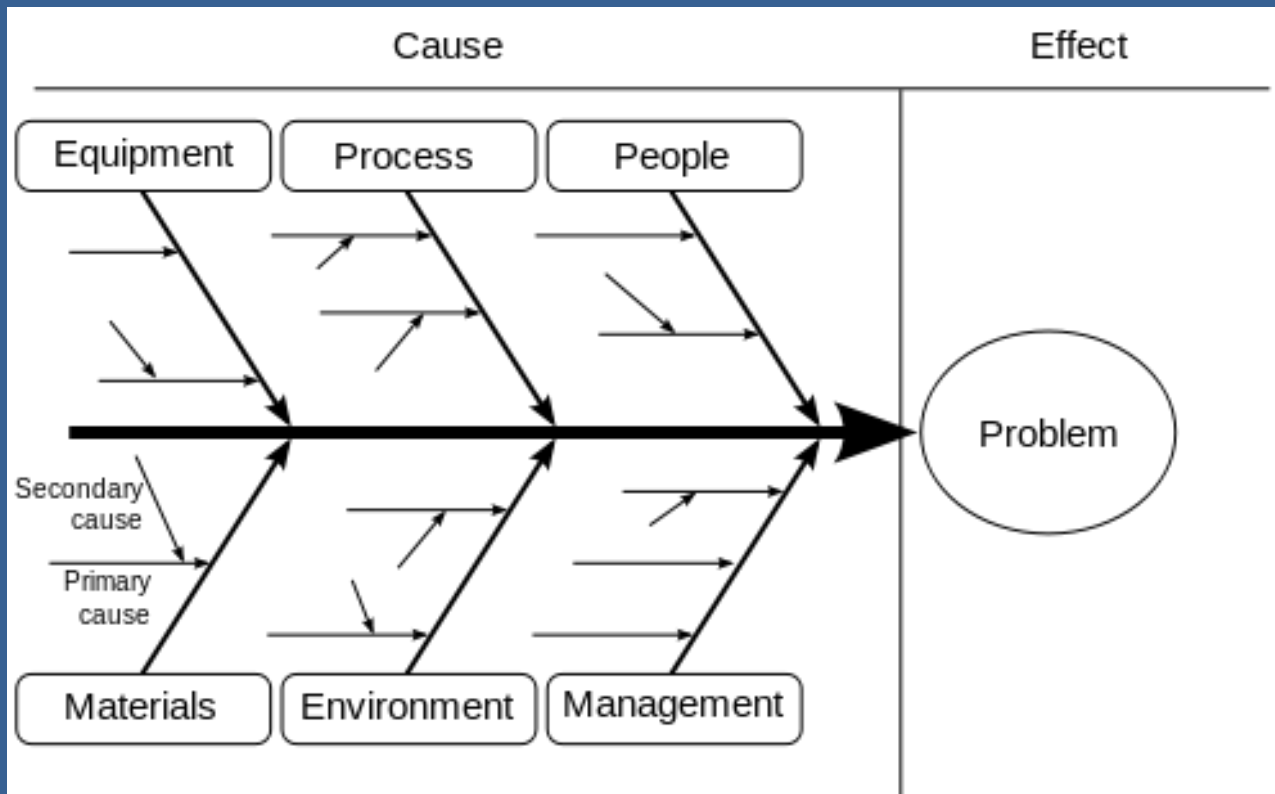
An iterative interrogative technique used to determine the root cause of a an actual or possible defect or problem by repeating the question "Why?" It seeks to identify counter-measures rather than solutions. A counter-measure is an action or set of actions that seeks to prevent the problem arising again, whereas a solution often just seek to deal with the symptom



- ① Write down the specific problem. Writing the issue helps you formalize the problem and describe it completely. It also helps a team focus on the same problem.
- ② Ask Why the problem happens and write the answer down below the problem.
- ③ If the answer you just provided doesn't identify the root cause of the problem that you wrote down in Step 1, ask Why again and write that answer down.
- ④ Loop back to step 3 until the team is in agreement that the problem's root cause is identified. Again, this may take fewer or more times than five Whys.

5 Whys (Sakichi Toyoda)

An iterative interrogative technique used to determine the root cause of an actual or possible defect or problem by repeating the question "Why?" It seeks to identify counter-measures rather than solutions. A counter-measure is an action or set of actions that seeks to prevent the problem arising again, whereas a solution often just seek to deal with the symptom



Ishikawa diagram, in fishbone shape, showing factors of Equipment, Process, People, Materials, Environment and Management, all affecting the overall problem. Smaller arrows connect the sub-causes to major causes. Fabian Lange at de.wikipedia

Risk Survey

An inexpensive and very effective way of gathering risk perspectives for geographically diverse organisations. A good communication tool and a source of clear attributable data and insight.

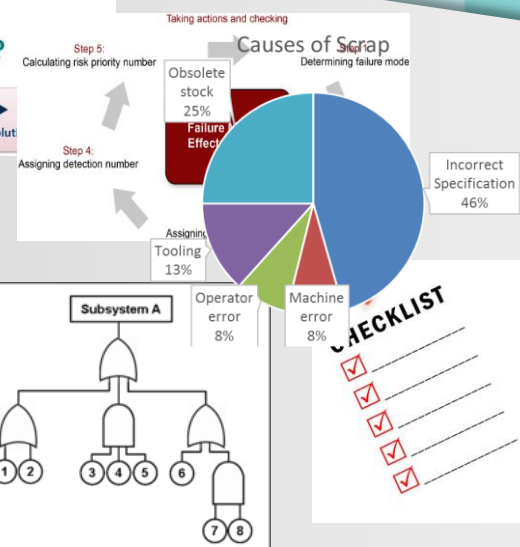
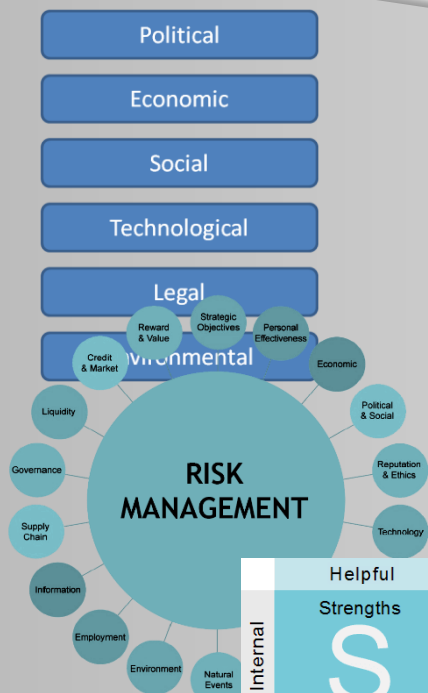
Needs (often significant) analysis and consolidation and relies on people responding. To help, keep questions to a minimum with capacity for 'free-text'.



RISK SURVEY



- 1) What are the key risks you face within your team?
- 2) For which of those risks in (1) are you responsible?
- 3) For which of those risks in (1) is someone else responsible?
- 4) Are there any risks to the organisation's objectives not currently captured?



Operational

Tactical

Strategic

Table 1: Revised risk categories		
Sl. No.	Abbreviation	Risk category
1	HR	Human Resources
2	BIO	Biological, intellectual assets and occupational hazards
3	INF	Infrastructure/Assets /Equipment
4	IT	Information technology, computing and data storage
5	ER	Environmental/ Political unrest/ Unfavorable policy
6	MAP	Management /Administration or procurement
7	RSP	Research strategy and project management [Contractual/ Intellectual property / Quality control/Delivery]
8	FIN	Financial crisis

EXERCISE



Using the tool provided, conduct a risk identification exercise for the example project

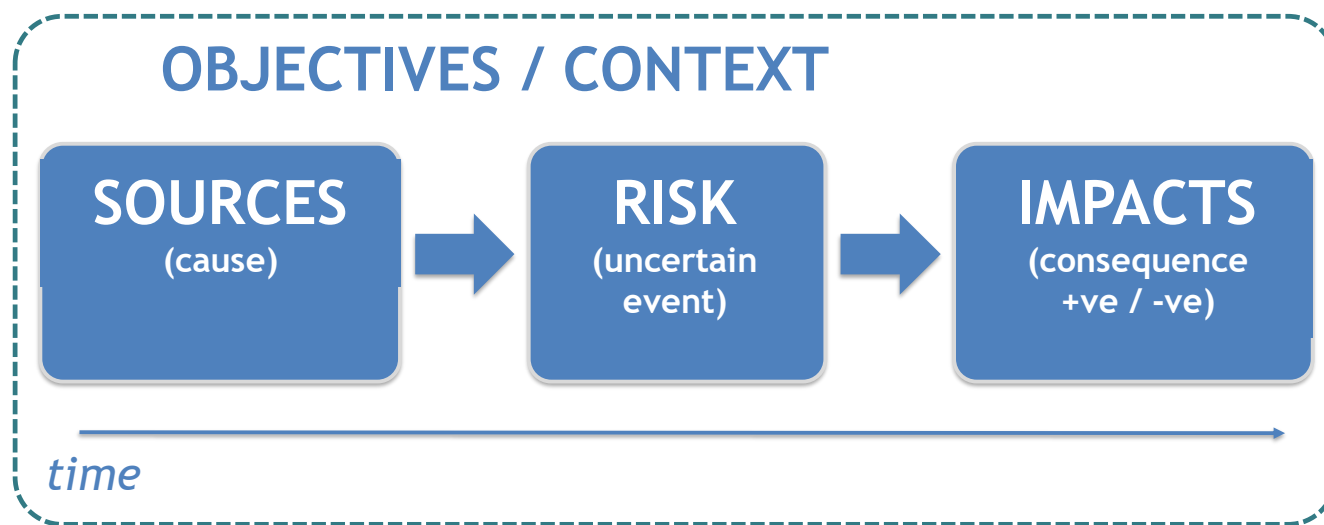
Risk Brainstorming Using Prompt Words



Human Resources	Environmental/ Political unrest/ Unfavorable policy
Biological, intellectual assets and occupational hazards	Management /Administration or procurement
Infrastructure/Assets /Equipment	Research strategy and project management [Contractual/ Intellectual property / Quality control/Delivery]
Information technology, computing and data storage	Financial crisis

- ① Reiterate the topic to be brainstormed = everyone on the same page
- ② Either allow people to shout out to the facilitator who writes (or types) down the ideas; or allow each person to write down their own ideas (on sticky notes)
- ③ All ideas are welcomed and supported, with encouragement for identification of both opportunities (upsides) and threats (downsides).
- ④ Further clarify ideas with the originator to ensure cause, risk and consequence are identified and the risk is understood (if necessary).
- ⑤ Invite others to support and share information to better understand the risks identified

Do your risks pass the story test?



“Delays to project X due to lack of detailed Planning Time”



“As a result of schedule overruns on project Y, staff committed to project X may not be released in time leading to schedule delays to project X”

“Staff availability”

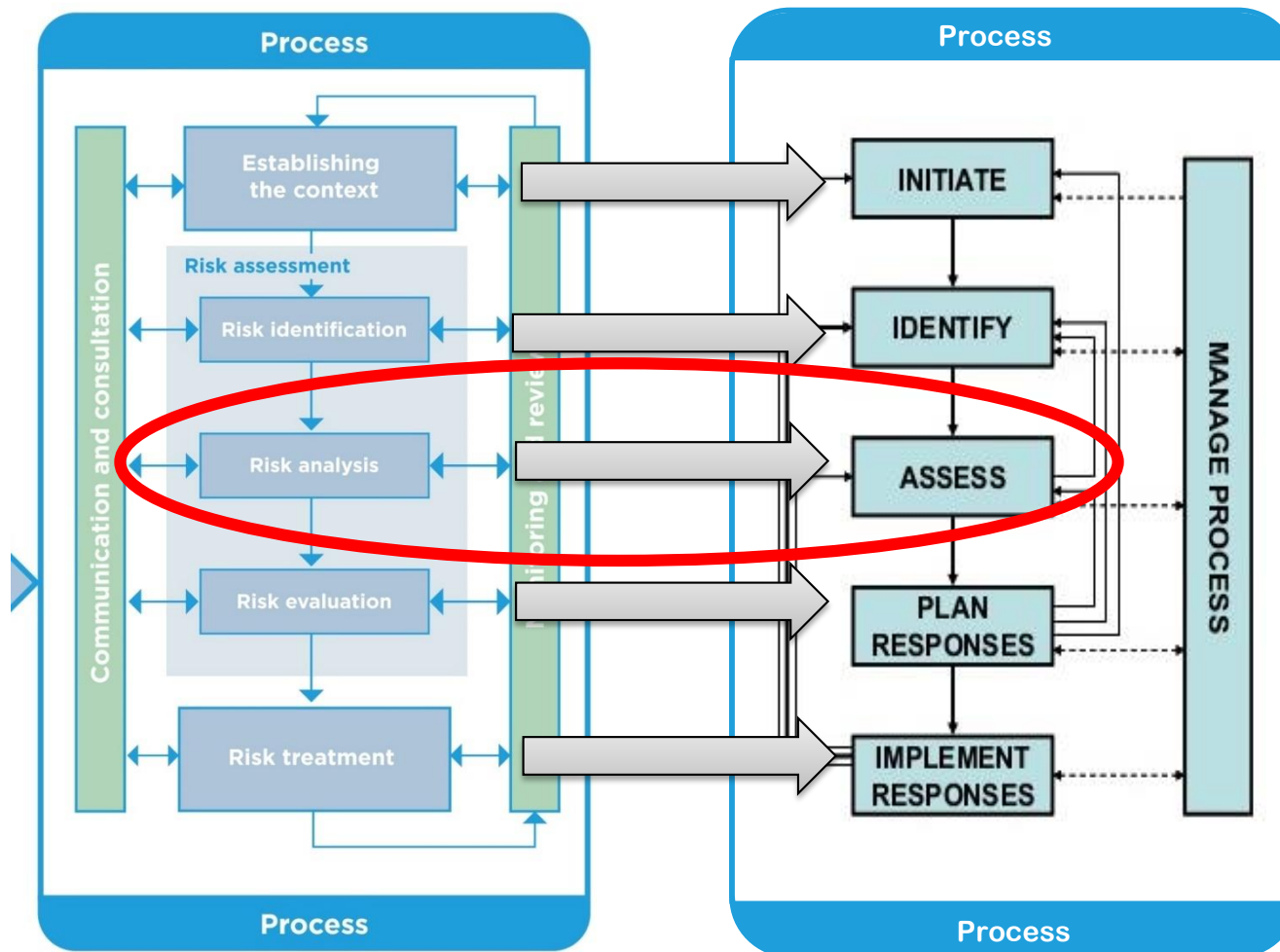


“Delay to staff training programme may lead to severe project overruns if existing concessions for lab staff is not extended by the certification body”



ISO:31000 Risk Management Standard

APM Project Risk Analysis & Management (PRAM) Guide



How much risk can you tolerate?

What's risky & why?

*What's the impact
(individually and collectively)?*

*What can & will you do about
it?*

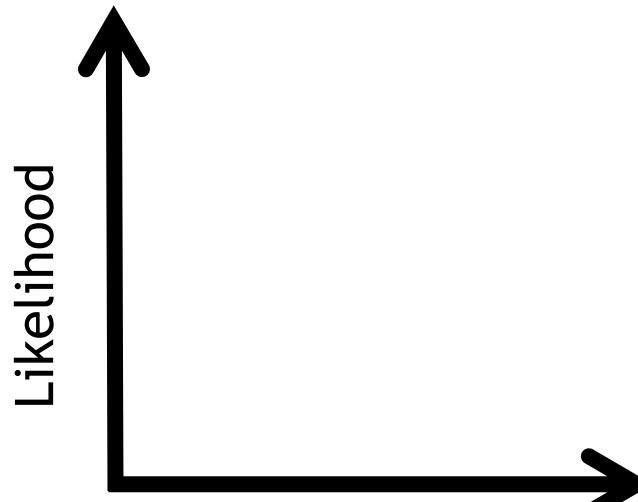
*How will you know and check it
is effective?*

Risk Ratings Matrix



A risk ratings matrix allows you to **compare different risks** and **prioritise** them. They should prompt **discussion** and **decision making**

Likelihood	
Rating	Definition
5	Happens regularly
4	Probable at some point
3	Possible
2	Possible but unlikely
1	Inconceivable



Impact

Impact	
Rating	Definition
5	Catastrophic
4	Very serious damage
3	Moderate to serious damage
2	Moderate damage
1	Negligible damage

IITA's Risk Ratings Matrix



Table 4: Standard likelihood scale*			
Likelihood	Rating	Criteria	Probability
Almost certain	5	It is expected to happen. Will certainly happen this fiscal year or during the three year period of the Service Plan.	80% to 100% or once a year or more frequently
Likely	4	We expect it to happen. It would be surprising if this did not happen.	61% to 79% or once every 3 yrs
Possible	3	Just as likely to happen as not. We don't expect it to happen, but there is a chance.	40% to 60% or once every 5 yrs
Unlikely	2	Not anticipated. We won't worry about it happening.	11% to 39% or once every 15 years
Almost certain not to happen	1	It would be surprising if this happened. There would have to be a combination of unlikely events for it to happen.	0 to 10% or once every 25 yrs
Source: RMB risk registry template			

IITA's Risk Ratings Matrix



Table 5: Standard impact scale*			
Consequence	Rating	Criteria	Monitoring /mitigation
Catastrophic	5	<ul style="list-style-type: none"> - Major problem from which there is no recovery. - Significant damage to credibility or integrity. - Complete loss of ability to deliver a critical program. 	Periodic monitoring; scenario plan; contingency and crisis management measures; and long term risk mitigation plan
Major	4	<ul style="list-style-type: none"> - Event that requires a major realignment of how service is delivered. - Significant event which has a long recovery period. - Failure to deliver a major commitment. 	Periodic monitoring; scenario plan; contingency and crisis management measures; and long term risk mitigation plan
Moderate	3	<ul style="list-style-type: none"> - Recovery from the event requires cooperation across departments. - May generate media attention. 	
Minor	2	<ul style="list-style-type: none"> - Can be dealt with at a unit level but requires Executive notification. - Delay in funding or change in funding criteria. - Stakeholder or client would take note. 	
Insignificant	1	<ul style="list-style-type: none"> - Can be dealt with internally at the branch level. - No escalation of the issue required. - No media attention. - No or manageable stakeholder or client interest. 	
*Source: RMB Risk Register			

Risk ratings matrix inducing action & decision making



LIKELIHOOD

Almost certain Once every 24 hours 2/3	11	16	20	23	25
	7	12	17	21	24
	4	8	13	18	22
	2	5	9	14	19
	1	3	6	10	15
Unlikely Once every year 1/10					
Possible Once every month 1/5					
Likely Once every week 1/2					
Almost certain Once every 24 hours 2/3					
	Insignificant	Minor	Moderate	High	Major
SAFETY [Lives saved / lost]	First aid case	Medical treatment	LTI	Life	Multiple lives
FINANCIAL [\$ made / lost]	<\$10k	\$10k - \$100k	\$100k - \$1m	\$1m - \$10m	> \$10m
PRODUCTION [Production hours saved / lost]	<3 hours	3hrs - 1 week	1 week - 1 month	1 - 6 months	6 months
REPUTATION [Positive / negative comments]	<50 comments	50 - 100 comments	100 - 500 comments	500 - 1000 comments	>1000 comments

IMPACT

IITA's Risk Ratings Matrix



Risk Prioritization Map

Likelihood	5 Certain	Low	Moderate	High	Extreme	Extreme
	4 Likely	Low	Moderate	High	High	Extreme
	3 Possible	Low	Moderate	Moderate	High	High
	2 Unlikely	Low	Low	Moderate	Moderate	Moderate
	1 Rare	Low	Low	Low	Low	Low
		1 Insignificant	2 Minor	3 Significant	4 Major	5 Catastrophic
		Significance				

IITA's Risk Ratings Matrix



Table 6: Speed of onset (time for risk event to manifest)

Rating	Descriptor	Definition
5	Very high	Very rapid onset, little or no warning, instantaneous
4	High	Onset occurs in a matter of days to a few weeks
3	Medium	Onset occurs in a matter of few months
2	Low	Onset occurs in a matter of several months
1	Very low	Very slow onset, occurs over a year or more

Table 7: Vulnerability scale (susceptibility to risk)

Rating	Descriptor	Definition
5	Very high	<ul style="list-style-type: none"> • No scenario planning performed • Lack of enterprise level/process level capabilities to address risks • Responses not implemented • No contingency or crisis management plans in place
4	High	<ul style="list-style-type: none"> • Scenario planning for key strategic risks performed • Low enterprise level/process level capabilities to address risks • Responses partially implemented or not achieving control objectives • Some contingency or crisis management plans in place
3	Medium	<ul style="list-style-type: none"> • Stress testing and sensitivity analysis of scenarios performed • Medium enterprise level/process level capabilities to address risks • Responses implemented and achieving objectives most of the time • Most contingency and crisis management plans in place, limited rehearsals
2	Low	<ul style="list-style-type: none"> • Strategic options defined • Medium to high enterprise level/process level capabilities to address risks • Responses implemented and achieving objectives except under extreme conditions • Contingency and crisis management plans in place, some rehearsals
1	Very low	<ul style="list-style-type: none"> • Real options deployed to maximize strategic flexibility • High enterprise level/process level capabilities to address risks • Redundant response mechanisms in place and regularly tested for critical risks • Contingency and crisis management plans in place and rehearsed regularly

*Source: COSO-ERM

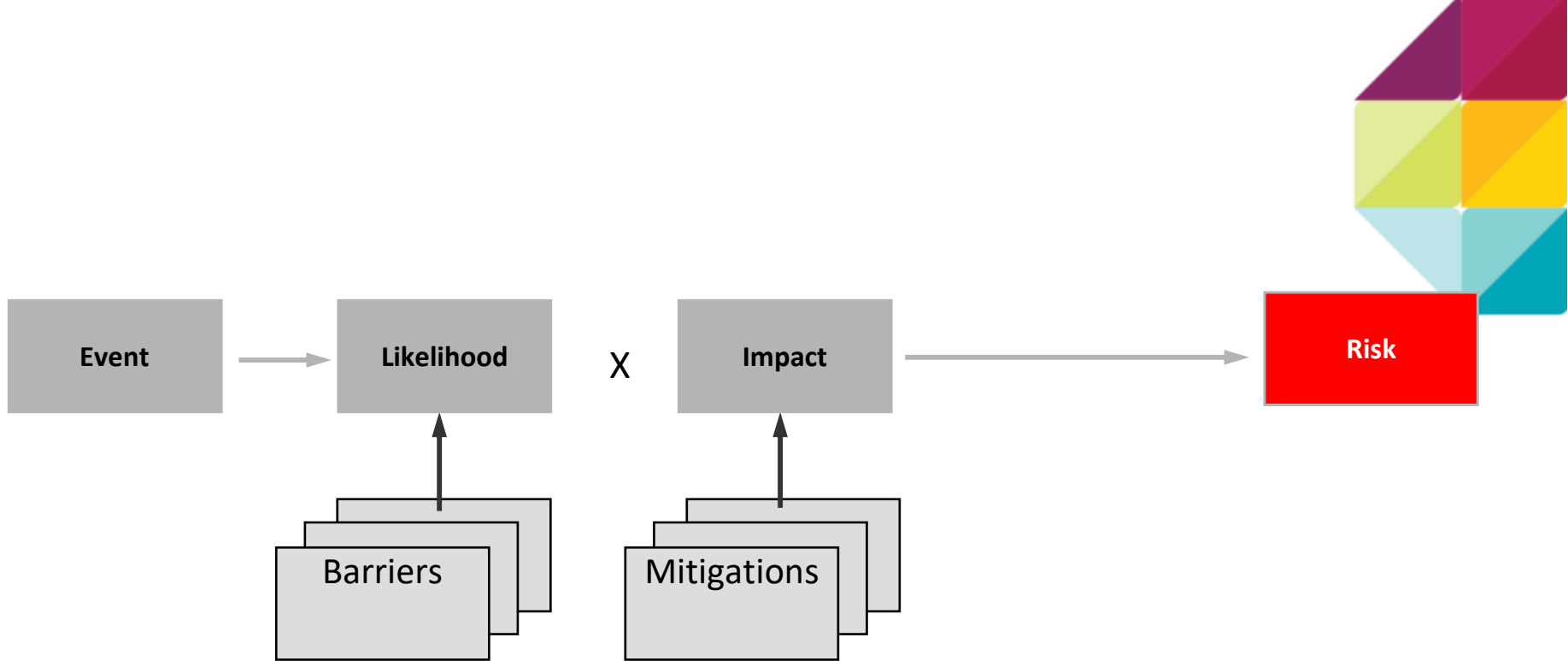
Butterfly Matrix

An alternative version of the single risk matrix is the ‘butterfly risk matrix’. This breaks negative risks out from positive risks and is more in line with the traditional risk matrix.



Gold			PROBABLE (1:2)			Red
	Silver		POSSIBLE (1:10)		Amber	
		Bronze	UNLIKELY (1:100)	Green		
MAJOR: Multiple objectives exceeded beneficially	MODERATE: Objectives delivered significantly early, better, or cheaper	MINOR: Delivered slightly early, better or cheaper		MINOR: Slippage and minor deviation from objectives	MODERATE: Failure to meet an objective	MAJOR: Extinction of organisation

A simple 3x3 matrix is portrayed here, however this can be extended to a 5x5 or beyond.

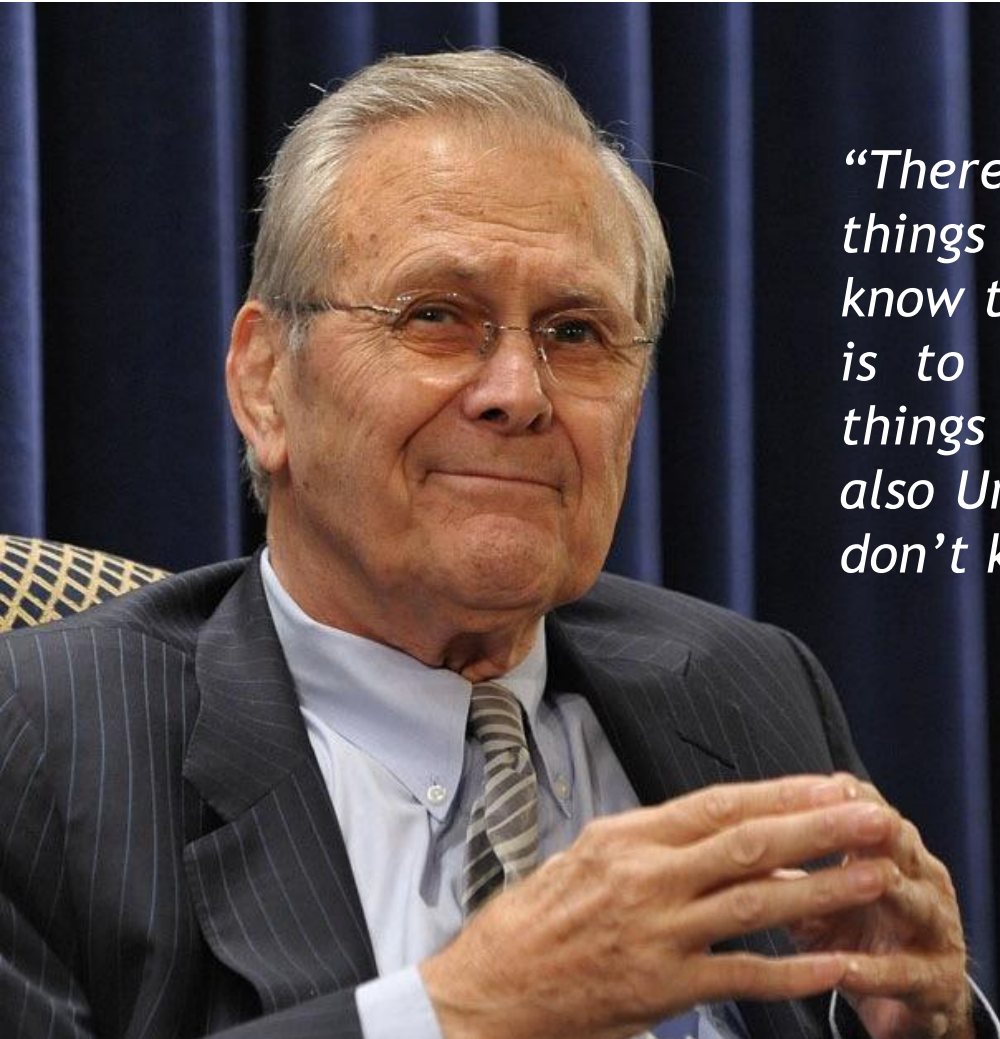


How many types of risks are there?

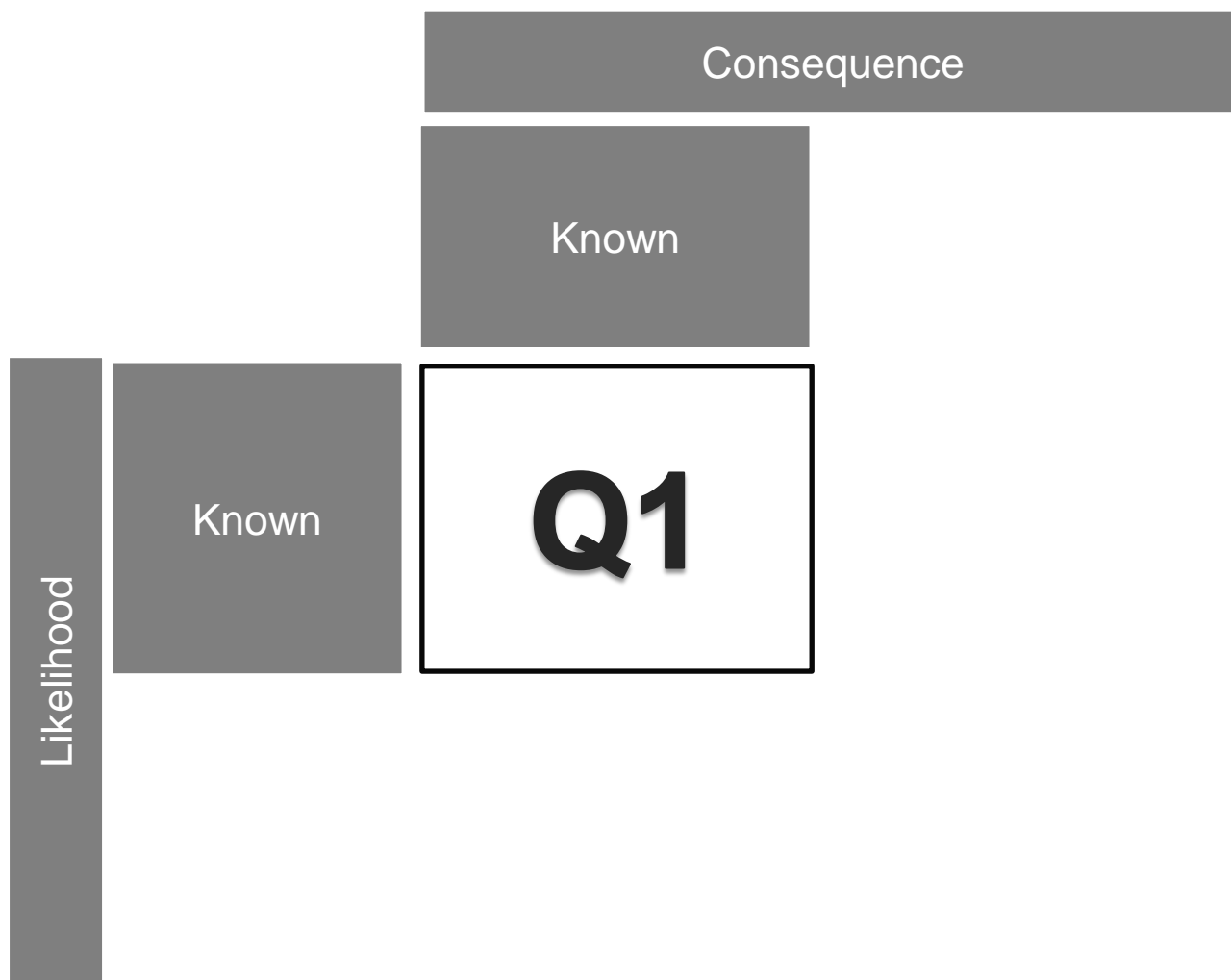


Donald Rumsfeld

US Defence Secretary 2001-2006



“There are Known Knowns, there are things we know we know. We also know there are Known Unknowns; that is to say we know there are some things we do not know. But there are also Unknown Unknowns - the ones we don’t know we don’t know”

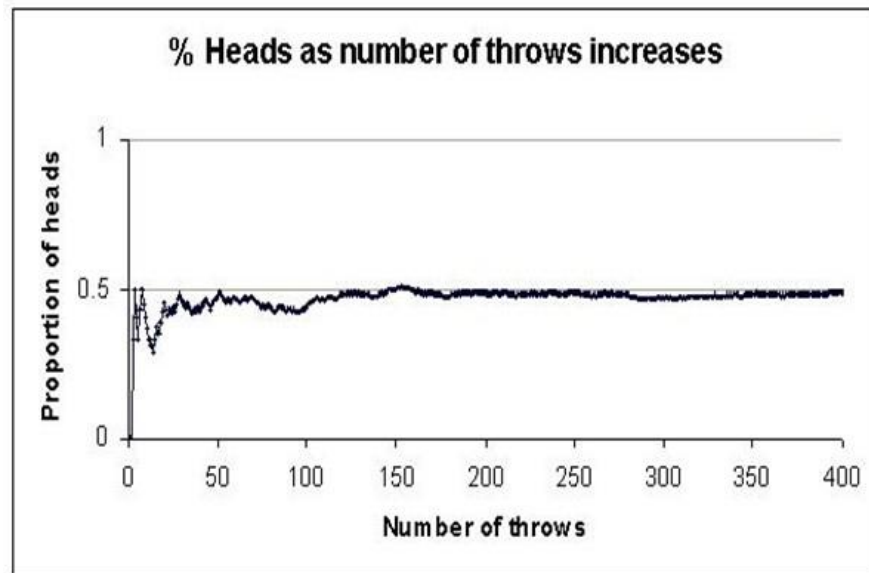


Q1

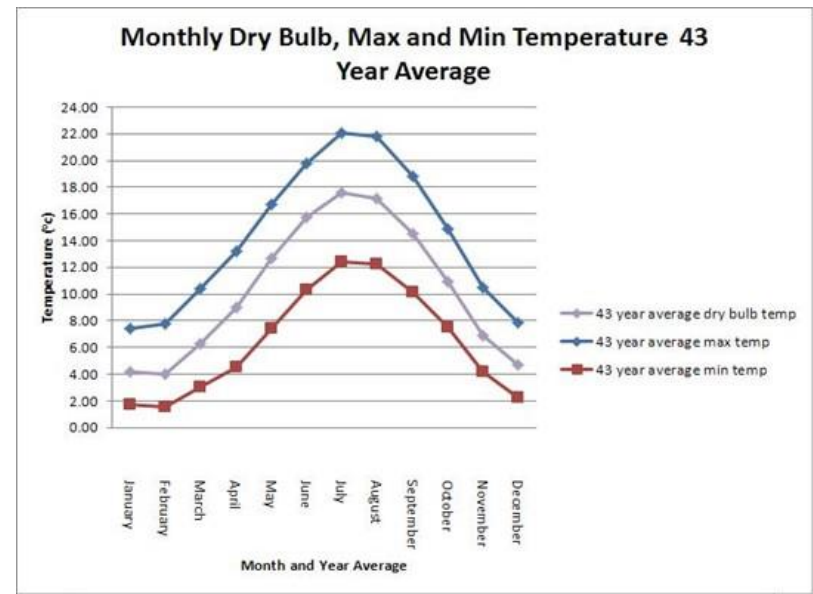


Q1 Risks

Binary Outcomes Like Coin Tosses



Small Range of Known Possible Outcomes Like Seasonal Weather

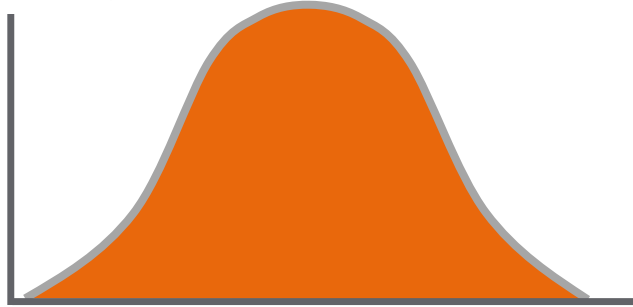


Q1 : “Fixed Odds Betting”

Simple systems with predictable outcomes and/or slow
clockspeed e.g. financial, strategic & schedule Risks



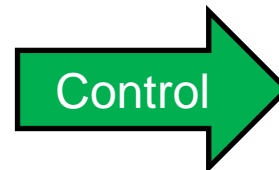
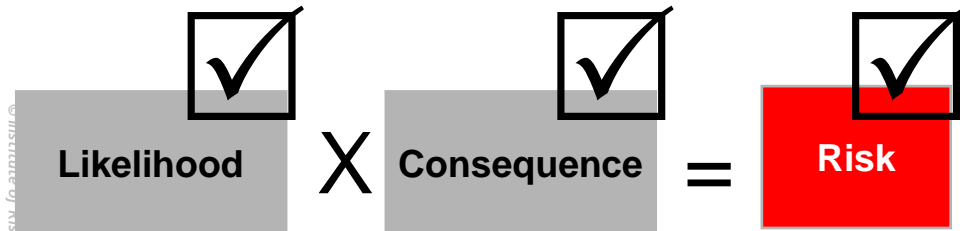
Probability



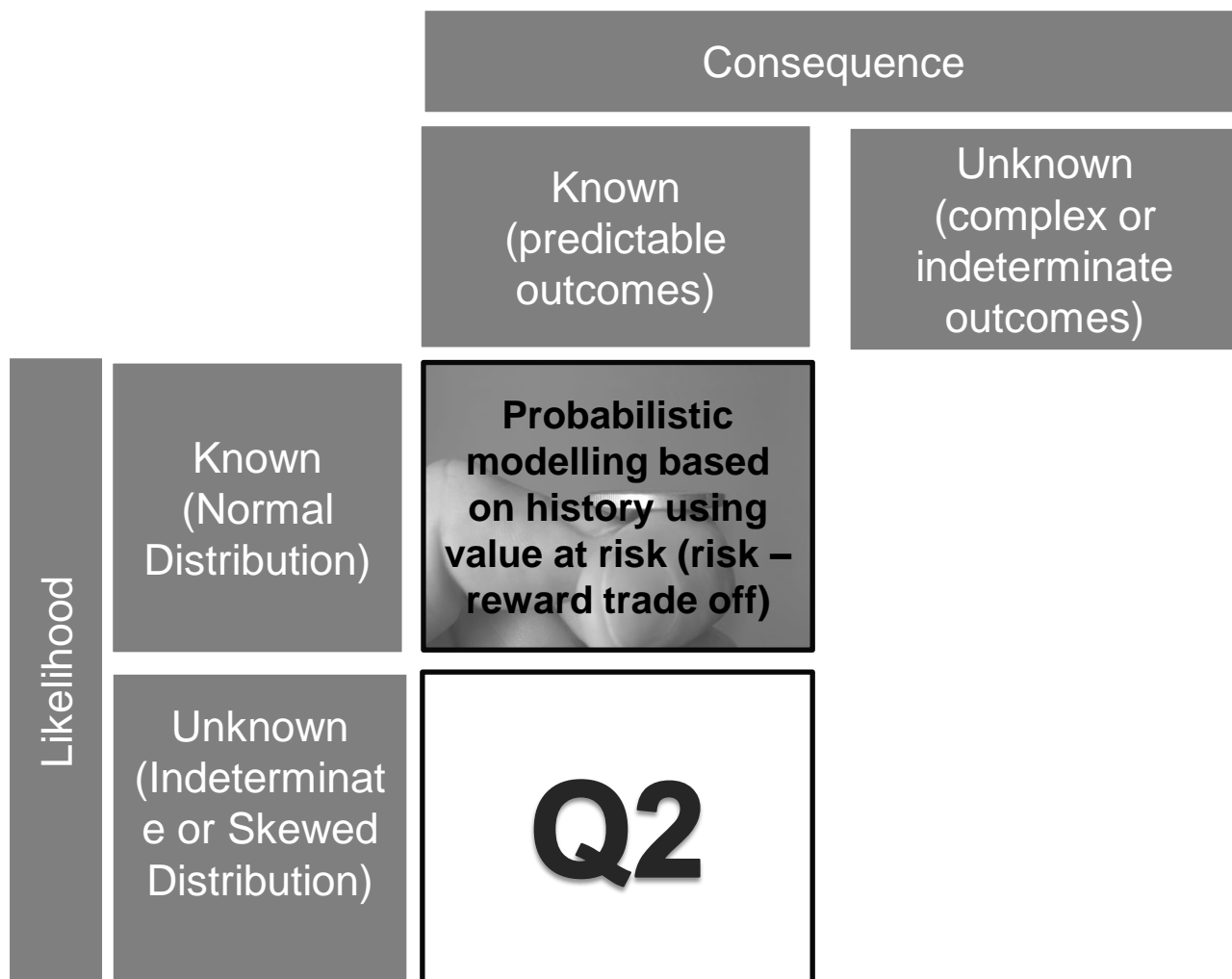
Outcome



Known, predictable &
repeatable



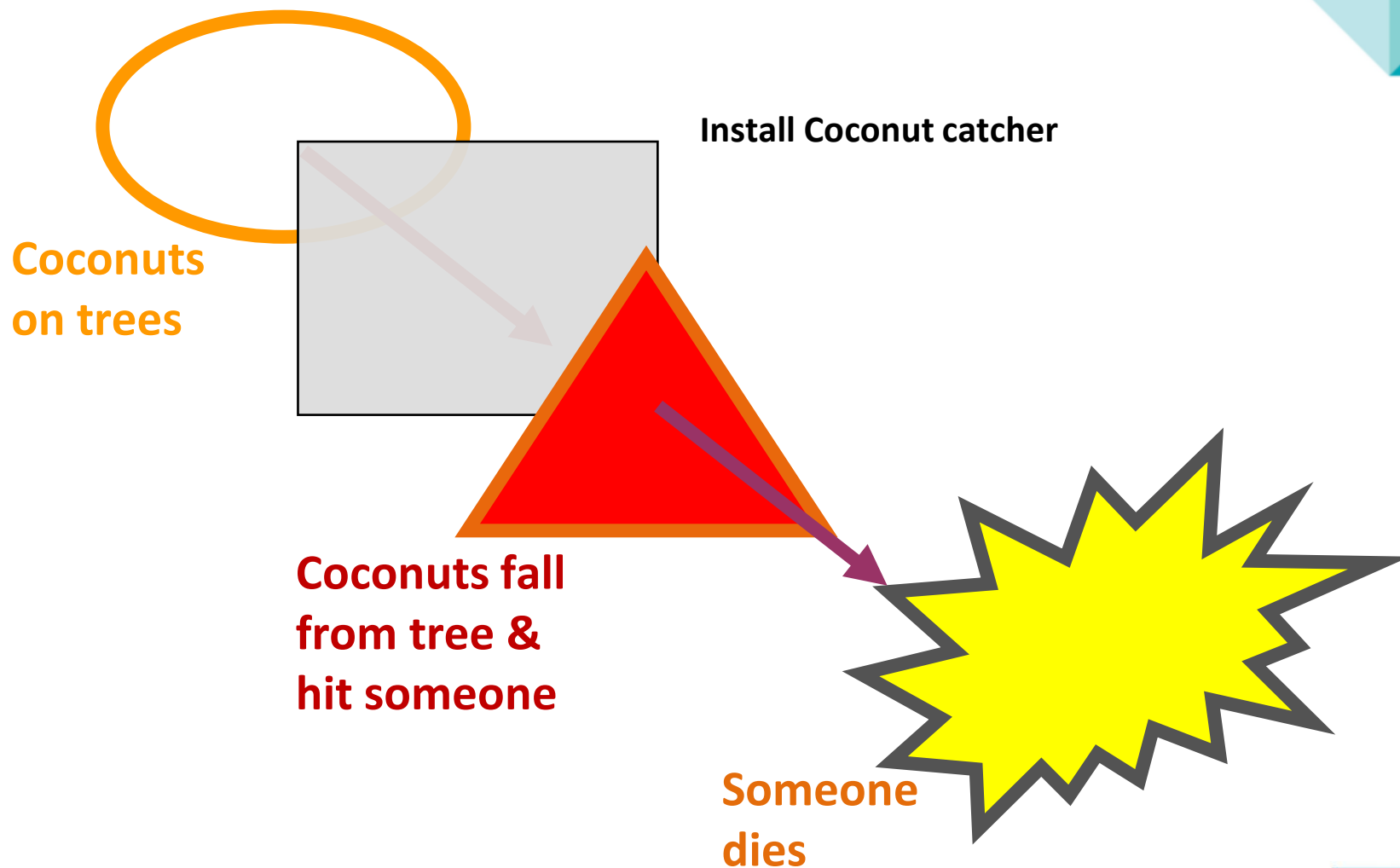
You don't really need to,
provided you aren't stupid,
and the dice aren't loaded.
But you do need to be clear
about Value at Risk (VaR)

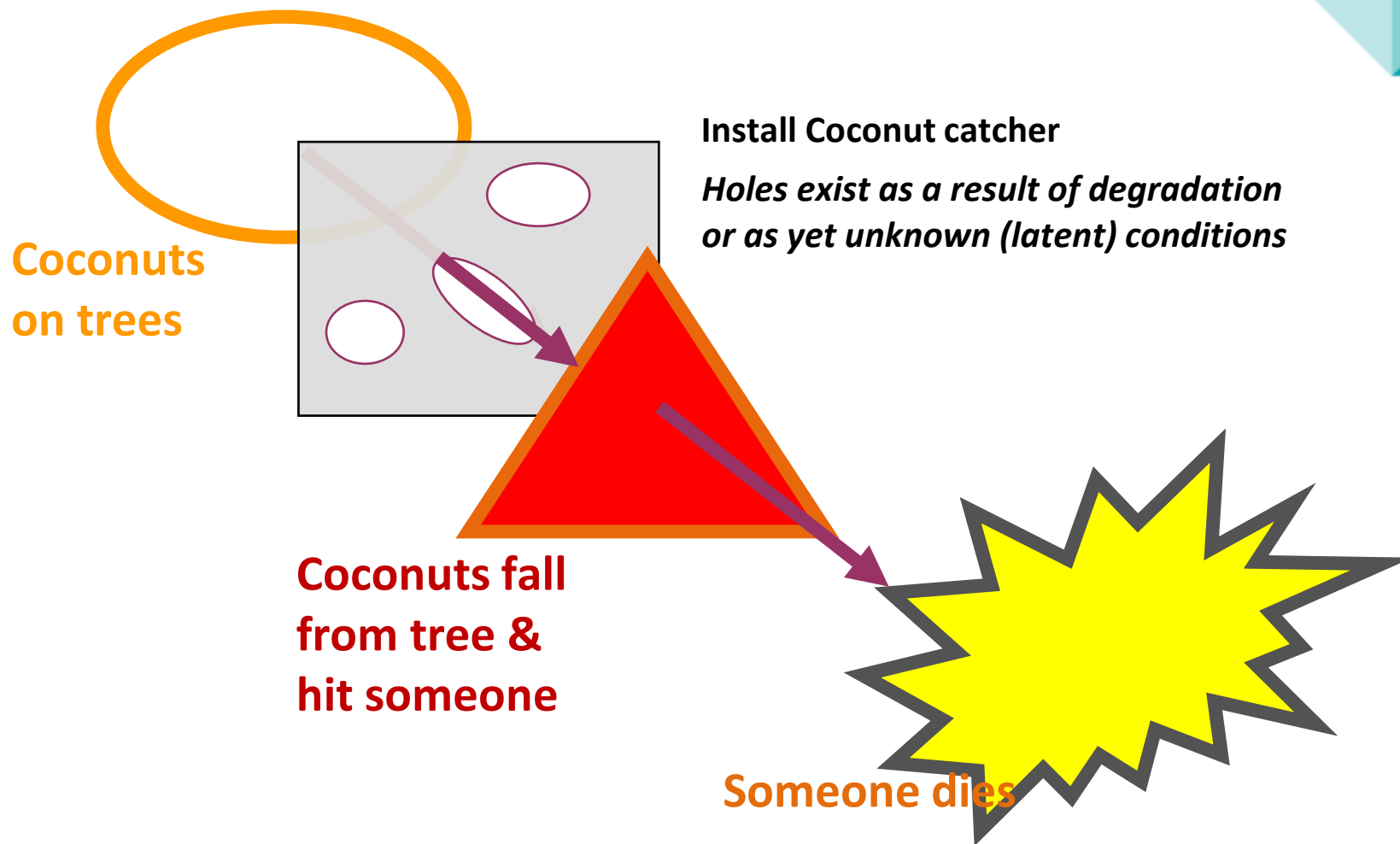




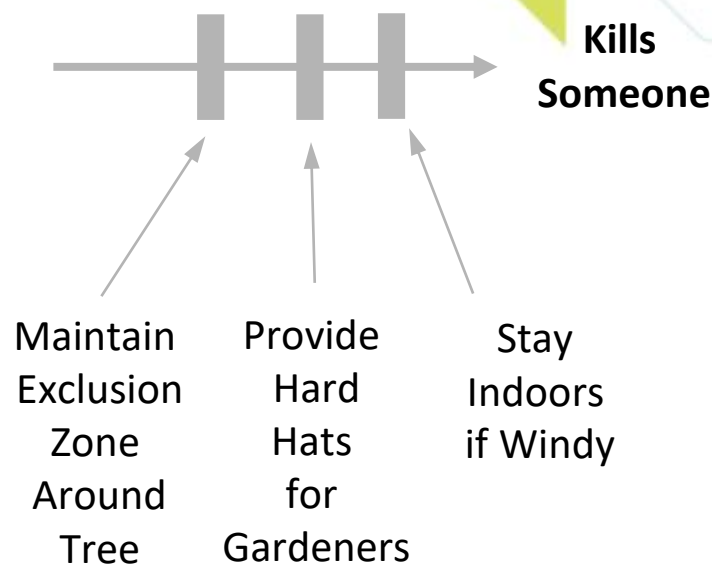
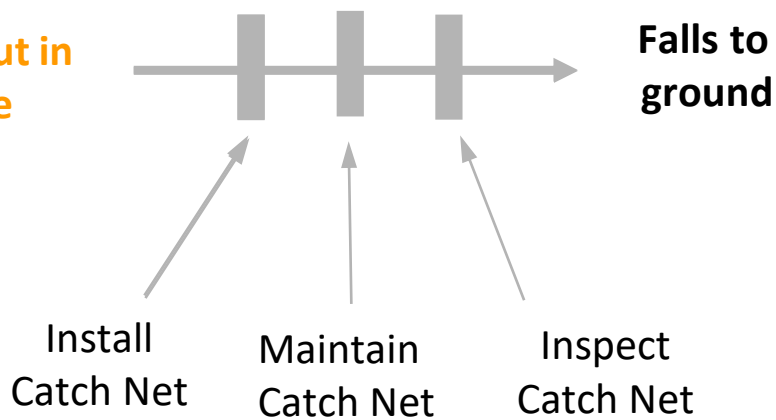
Q2

Coconuts





Coconut in
tree





Q2 Risks : “Sports Betting”

Simple systems with occasional extreme events
e.g. occupational HSE Risks & natural disasters

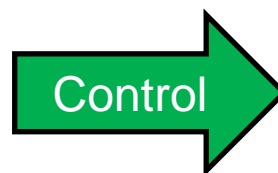
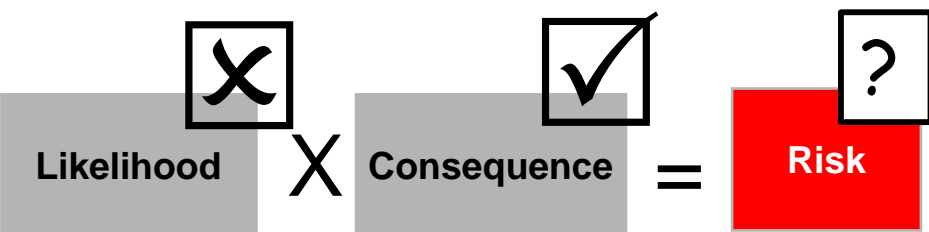
Probability



Outcome



You know the outcome,
but can't predict when it
will happen



Focus on proactive event
containment using
protective systems and
procedural control

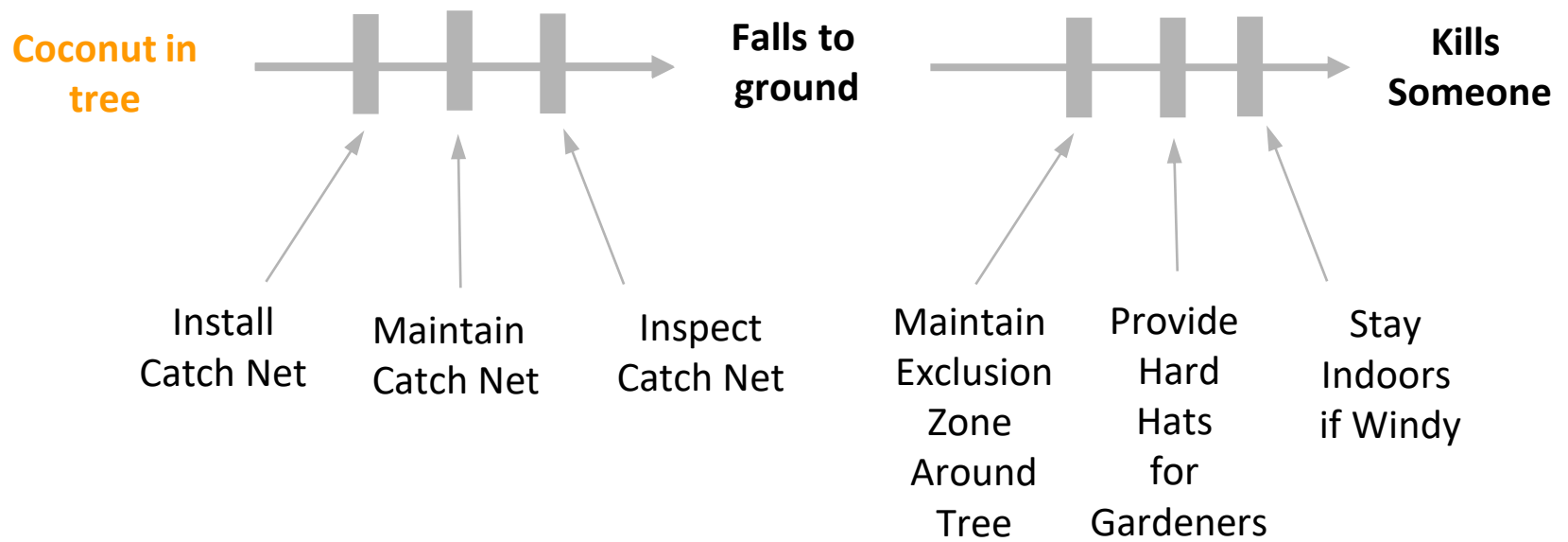


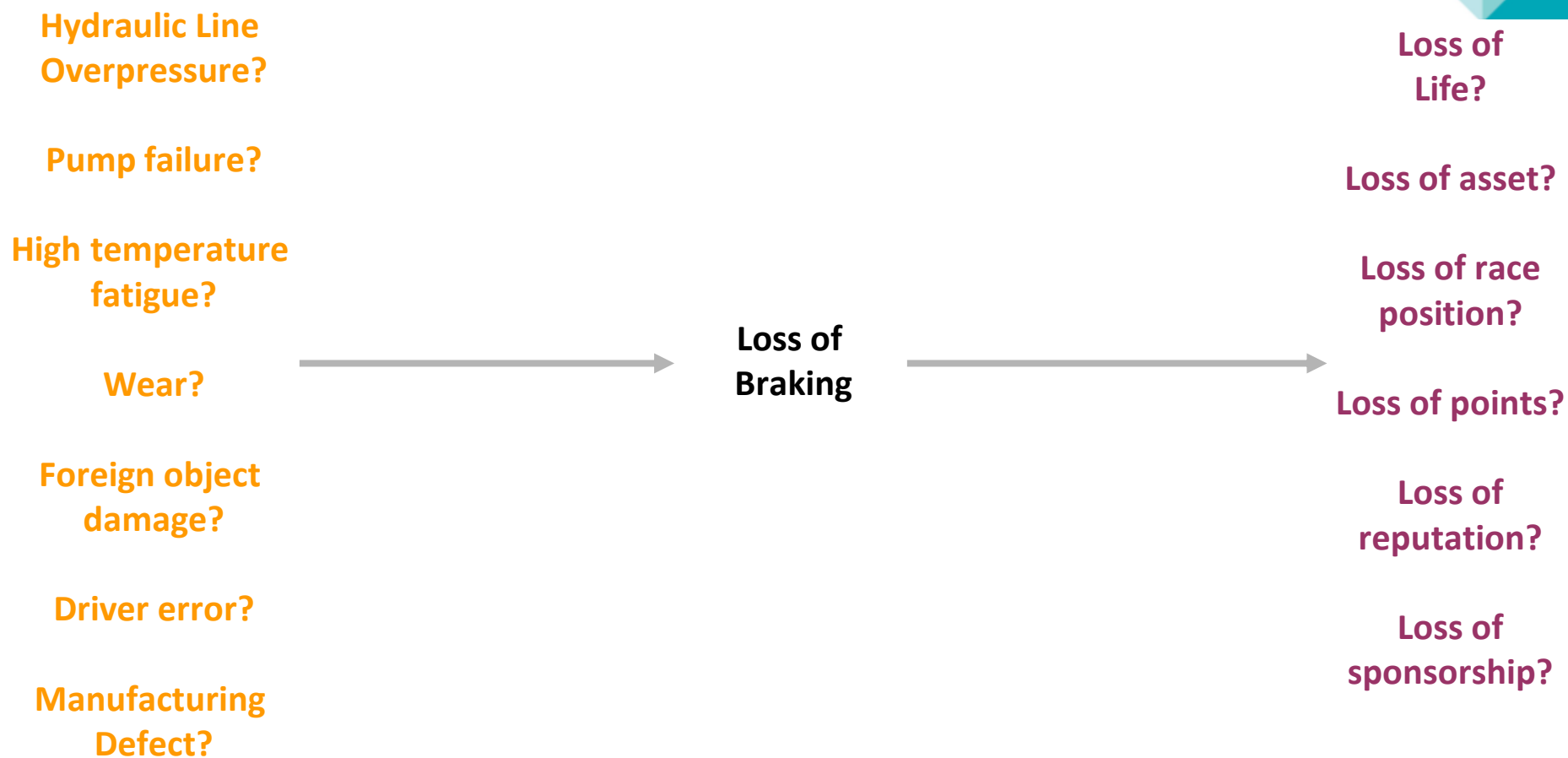
		Consequence	
		Known (predictable outcomes)	Unknown (complex or indeterminate outcomes)
Likelihood	Known (Normal Distribution)	Probabilistic modelling based on history using value at risk (risk – reward trade off)	Q3
	Unknown (Indeterminate or Skewed Distribution)	Proactive hazard management based on ERIC PD & procedural control	

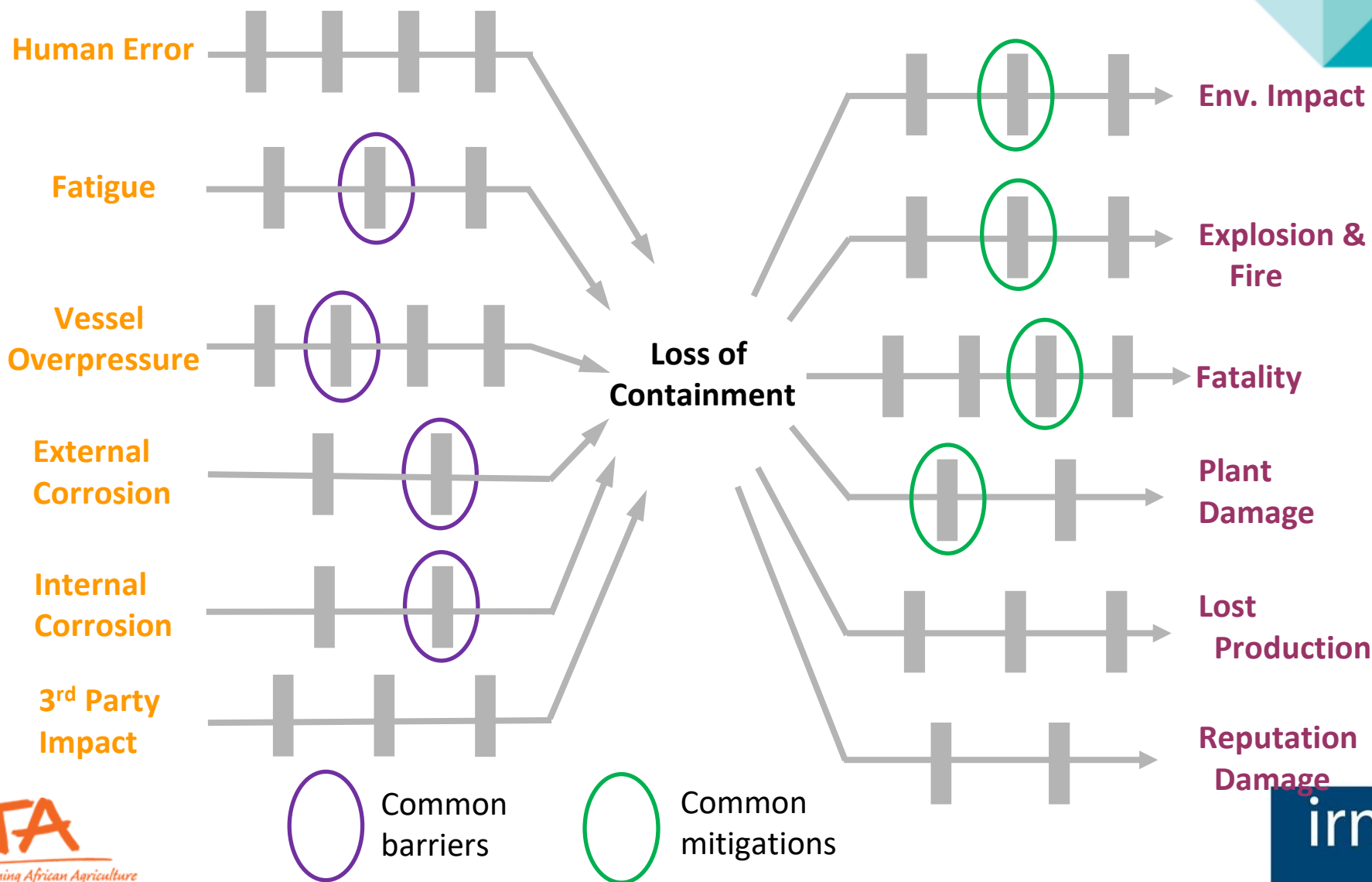
Q3

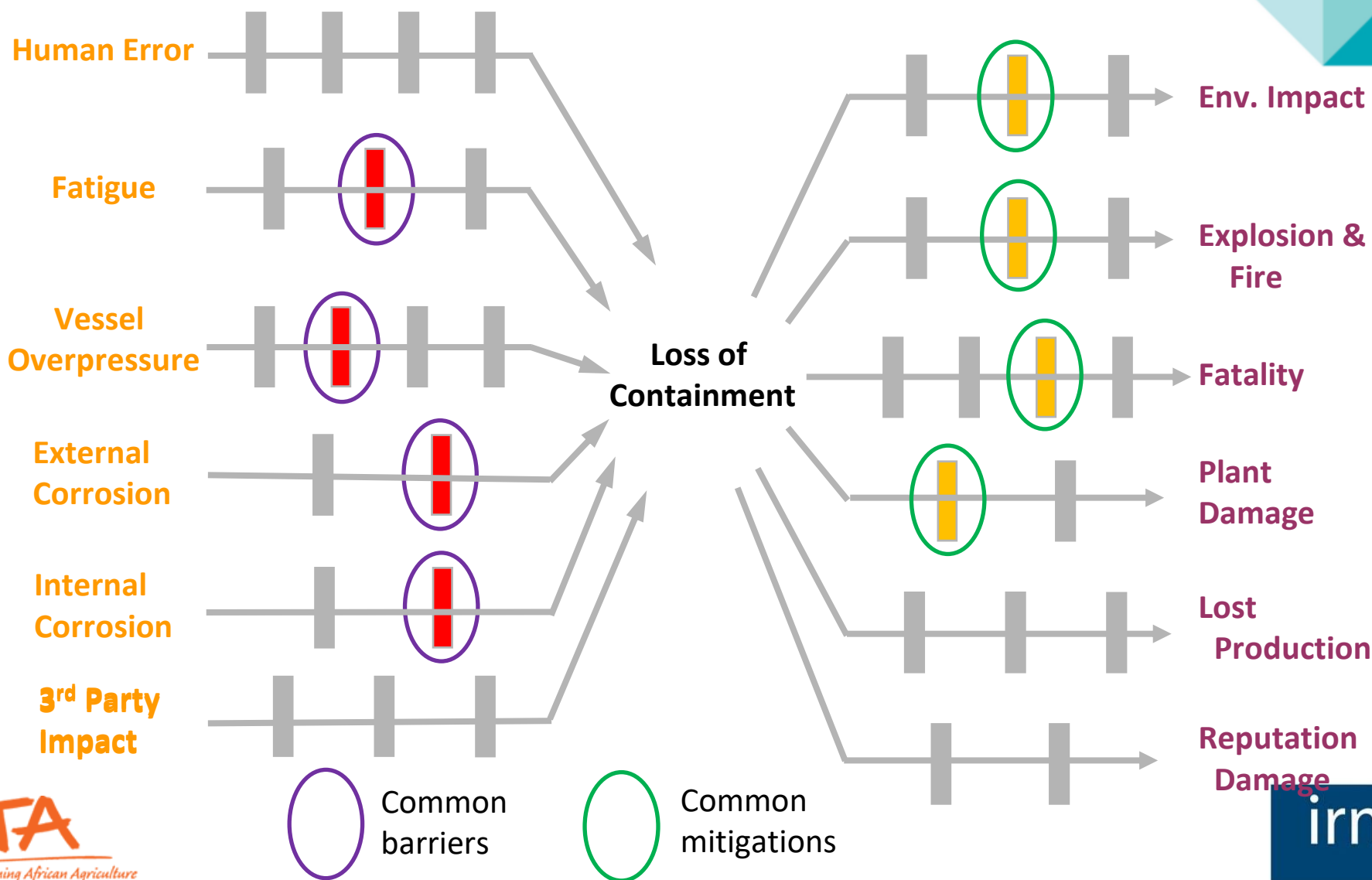


Racing Cars



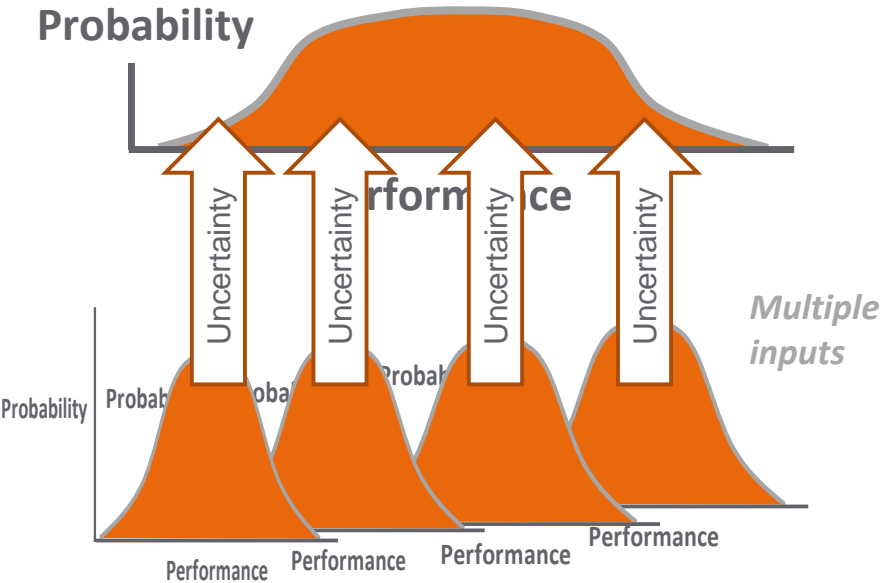




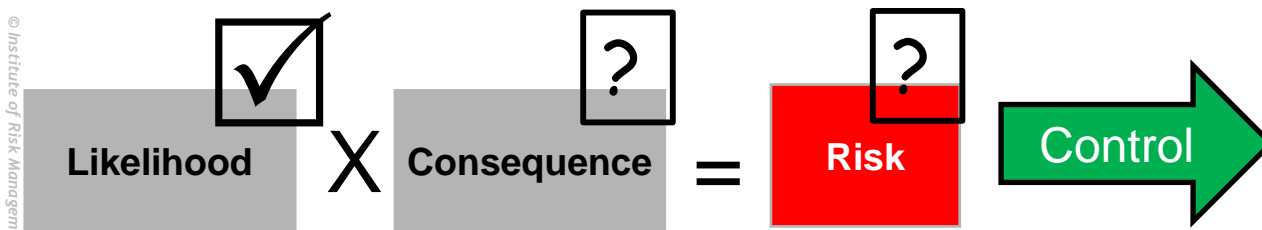


Q3 Risks : “Spread Betting”

Complex systems (lots of components and interconnections) with many possible outcomes and often high clockspeed although performance of individual parts is often well understood. e.g. most operational systems

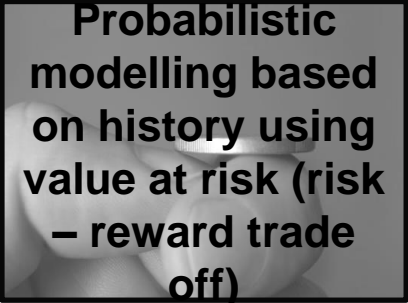

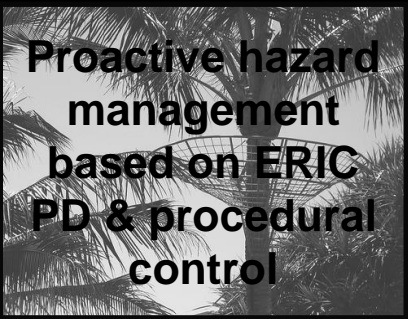


Numerous independent parts working together as a complex interdependent whole, governed by physical laws and normal distributions



Resilience is essential. Risk management needs to focus on designing in and maintaining reliability, robustness, redundancy and fail-safe systems.

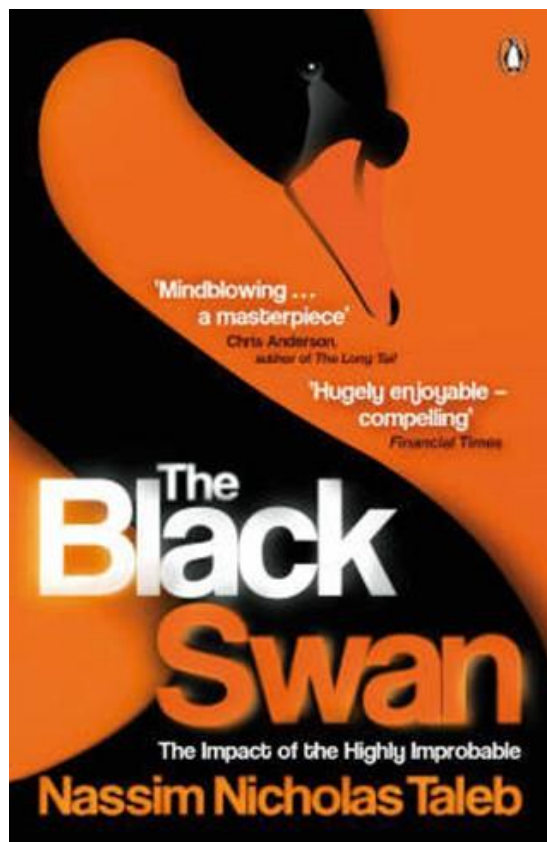


		Consequence	
		Known (predictable outcomes)	Unknown (complex or indeterminate outcomes)
Likelihood	Known (Normal Distribution)	Probabilistic modelling based on history using value at risk (risk – reward trade off) 	 Build in reliability, resilience, robustness & resourcefulness
	Unknown (Indeterminate or Skewed Distribution)	 Proactive hazard management based on ERIC PD & procedural control	Q4

Q4



Turkeys

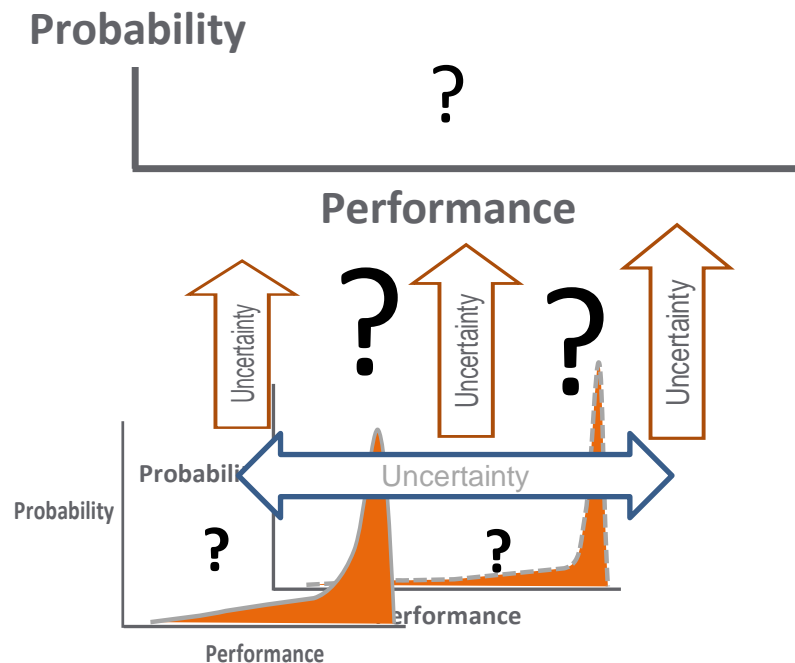


“An event or occurrence that deviates beyond what is normally expected of a situation and that would be extremely difficult to predict”

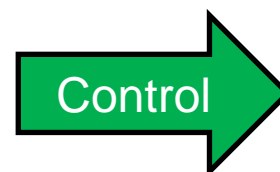
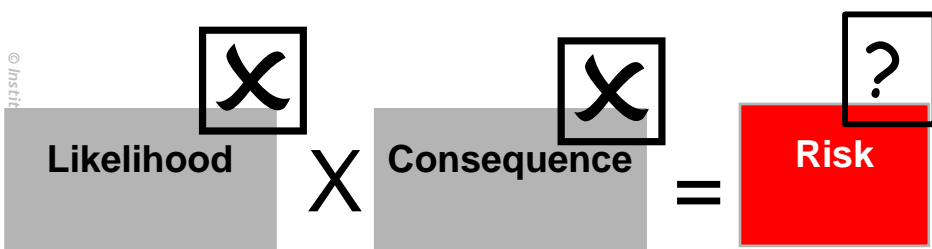
Since the event has not occurred in the past, risk management models based on historic data are useless.

Q4 Risks : All Bets are Off....

Unforeseen (or unimagined) events of unpredictable magnitude



Complex systems, with huge interconnectedness with infrequent but potentially catastrophic events that are almost impossible to predict or pre-empt



Risk models don't apply. Only viable option is to exit, but reducing leverage, contractually limiting the downsides. Insurance may help.

Segmented Risk Management



		Outcome	
		Simple	Complex
Probability	Normal Distribution (uncertainty driven)	Probabilistic modelling based on history using value at risk (i.e. risk – reward trade off)	Build in reliability, resilience, robustness & resourcefulness
	Indeterminate or ‘fat tail’ distribution (event driven risk)	Proactive hazard management based on ERIC PD & procedural control	Cannot manage or model Q4 risks. Seek to shift or exit where possible plus review preparedness

EXERCISE



Allocate the risks identified from your risk identification exercise, to the relevant quadrant



Effective Project Risk Management

Welcome to day 3





One lifeboat, 6 seats...

Which 5 people do you take with you?

- A mother and her daughter (counts as two spaces)
- A world famous astronomer
- A midwife
- The ship's navigation officer (45 years' experience, due to retire next month)
- A secondary school teacher
- The ship's 3rd mate (qualified 6 months ago, wife is pregnant with twins)
- A doctor
- A business man (on the run after stealing the content of his employees' company pension fund)
- A professional ballet dancer
- A scout leader





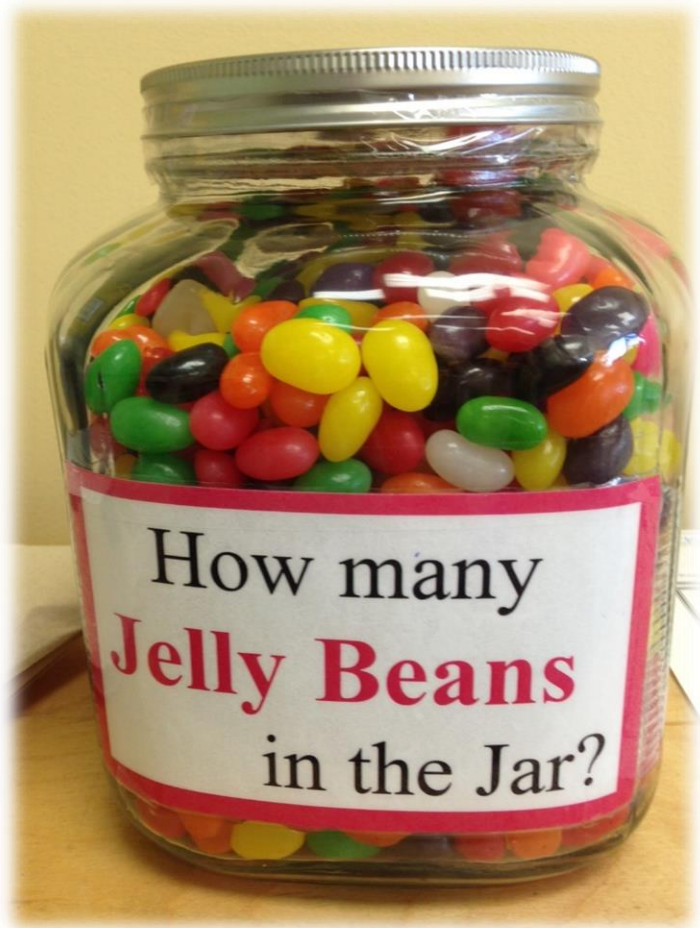
One lifeboat, 6 seats...

Which 5 people do you take with you?

- A mother and daughter: *Mother is 98 and suffering from a terminal illness. Her daughter is 80 and has arthritis*
- A world renowned astronomer : *83 years old, and blind*
- A midwife: *a former paramedic*
- The ship's navigation officer: *unconscious following the explosion*
- A secondary school teacher: *an experienced single handed yachtsman*
- The ship's 3rd mate: *qualified 6 months ago, wife is pregnant with twins*
- A doctor: *has a Doctorate in History*
- A business man, on the run after stealing the content of his employees' company pension fund : *29 years old and is a top-class amateur rower*
- A professional baller dancer : *male, who takes part in iron man triathlons*
- An experienced scout leader: *1.4m tall, 50kg (112lbs), one arm, asthmatic, afraid of water*



Three Point Estimates



Useful for gaining better quantification of qualitative risks.

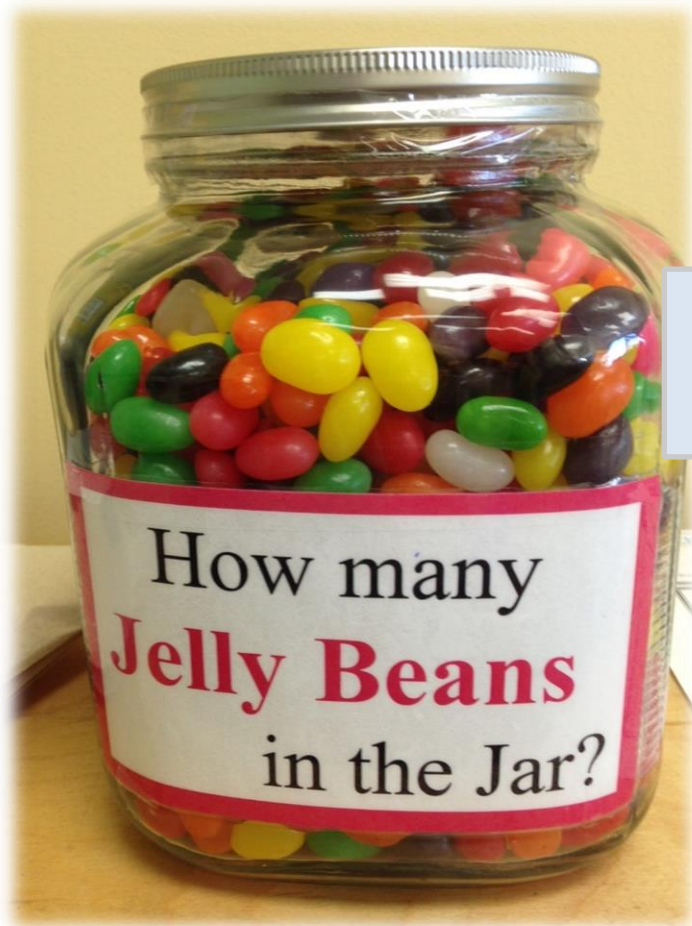
Allows us to move from looking at one specific scenario to a portfolio of scenarios

- ▶ Layering Risk
- ▶ Multiple passes through a bow-tie

Key is to decide on what is being measured (i.e. the x and y axis)

May be used with Monte Carlo Simulation to give probability distributions

Three Point Estimates



Probability

School holidays, no accidents, no roadworks, Good weather. All traffic lights green

Normal midweek traffic
No accidents or roadworks
Normal weather
Some traffic lights red

Heavy Monday traffic
Major accident and/or roadworks
Poor weather
All traffic lights reds

15

25

50

Time (mins)

Best (or Minimum)

An optimistic estimate of might happen assume everything goes as well as possible

Most Likely

The expected outcome the one that is right more often than not

Worst (or Maximum)

An extremely pessimistic estimate, based on things going as badly as possible

QUESTION

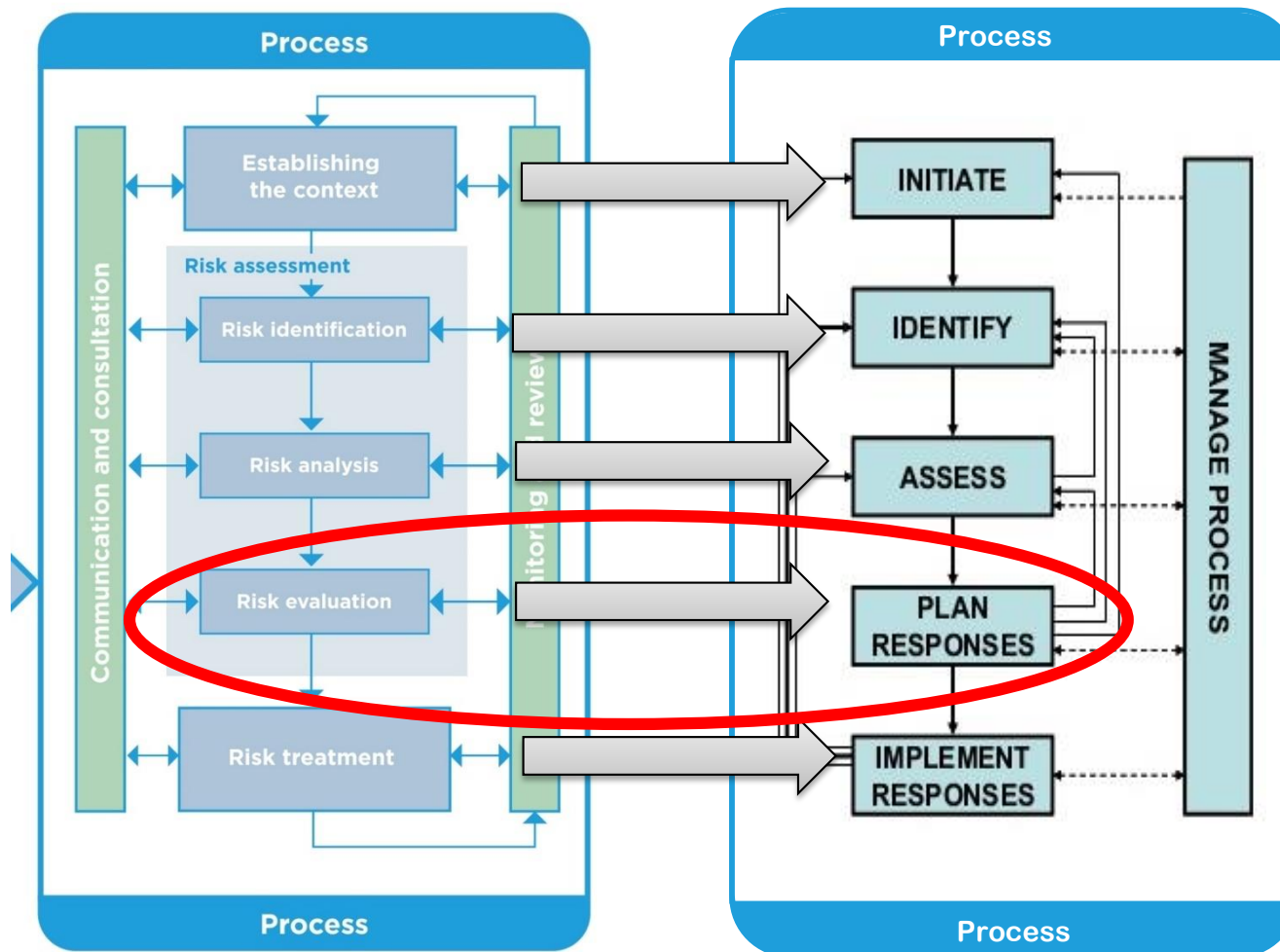


Where might three point estimates help your projects?



ISO:31000 Risk Management Standard

APM Project Risk Analysis & Management (PRAM) Guide



How much risk can you tolerate?

What's risky & why?

*What's the impact
(individually and collectively)?*

*What can & will you do about
it?*

*How will you know and check it
is effective?*



What is a risk action / treatment?

A process to modify risk (ISO 31000)

Risk treatment (or response) involves:

- the selection of one or more options for modifying risks
- implementing those options
- the treatments then provide controls or modify current controls

Controls include any process, policy, device, practice or other actions which modify the risk



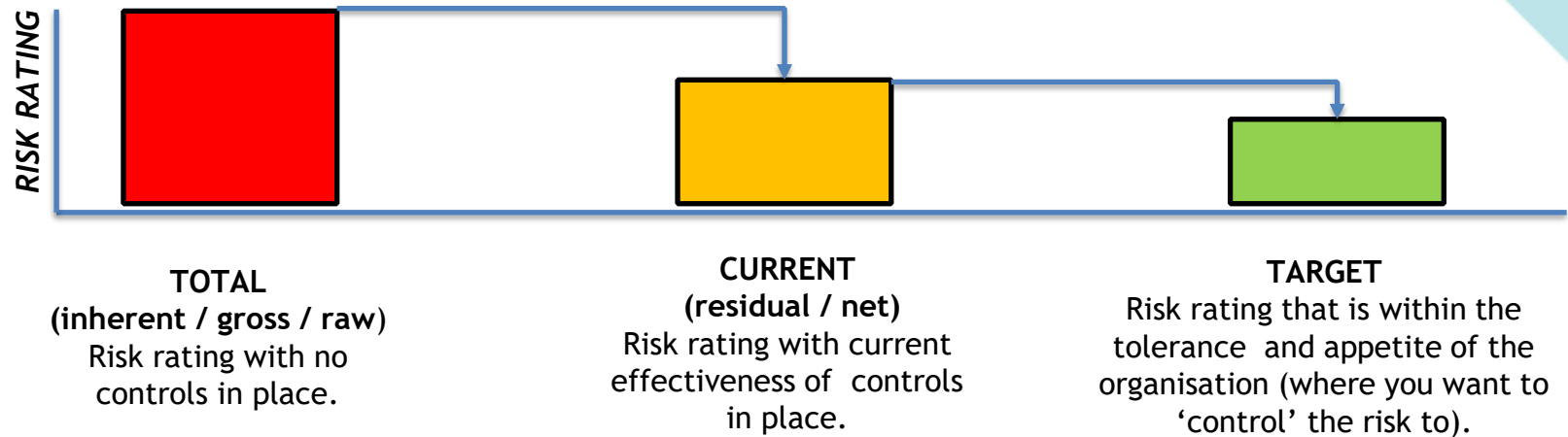
Consideration in Risk Mitigation

The decision to mitigate a risk should be guided by certain key questions which includes;

- A. Has the mitigation plan identified relevant stakeholders
- B. How confident are we of a successful completion of the mitigation plan
- C. By what level would the risk be reduced upon implementation of the plan
- D. Work plan
 - who is responsible for the mitigating activities or tasks
 - what consequence would the mitigation actions/task have on the project/unit activities
 - would the risk being mitigated impact critical deliverables or milestones
- E. Cost
 - What would the plan cost and how likely is it to succeed
 - Is the mitigation cost less or more than actual cost of the risk consequence
 - Can funding be sourced from current year budget
- F. What are the costs of mitigation versus the benefits and uncertainties of risk reduction

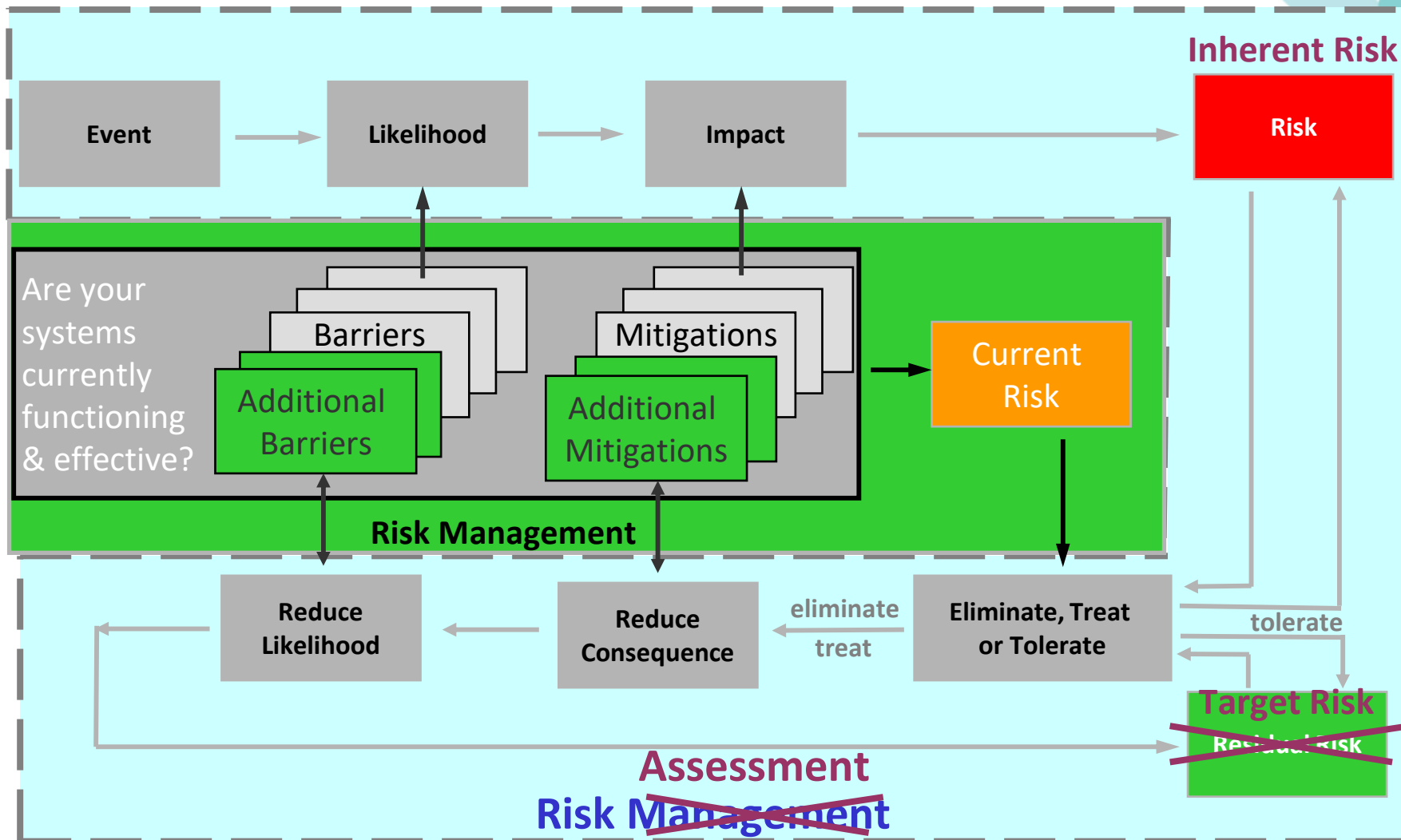
Risk Levels & Treatment

Risk Levels:



Risk Treatment:

THREAT	GENERIC STRATEGY	OPPORTUNITY
Avoid	ELIMINATE UNCERTAINTY - TERMINATE	Exploit
Transfer	INVOLVE OTHERS - TRANSFER	Share
Reduce	CHANGE SIZE - TREAT	Enhance
accept	TAKE THE RISK - TOLERATE	Accept





Risk



Are your
defences
currently
functioning
& effective?

Barriers

Additional
Barriers

Mitigations

Additional
Mitigations

old

Catastrophe
'risk-taking'



Inefficiency
'risk-averse'

Delivery
'risk-aware'

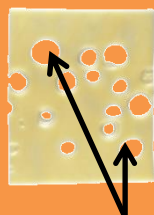


Utilisation of Resources



Multiple controls

Swiss Cheese model



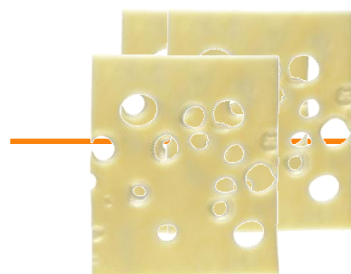
Cheese = control

Holes = weaknesses in control



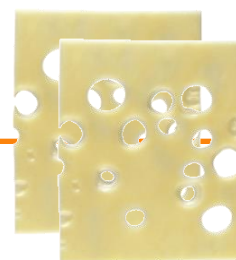
You want multiple controls to manage a risk incase some controls fail

Cause
Cause
Cause



Proactive controls

Risk

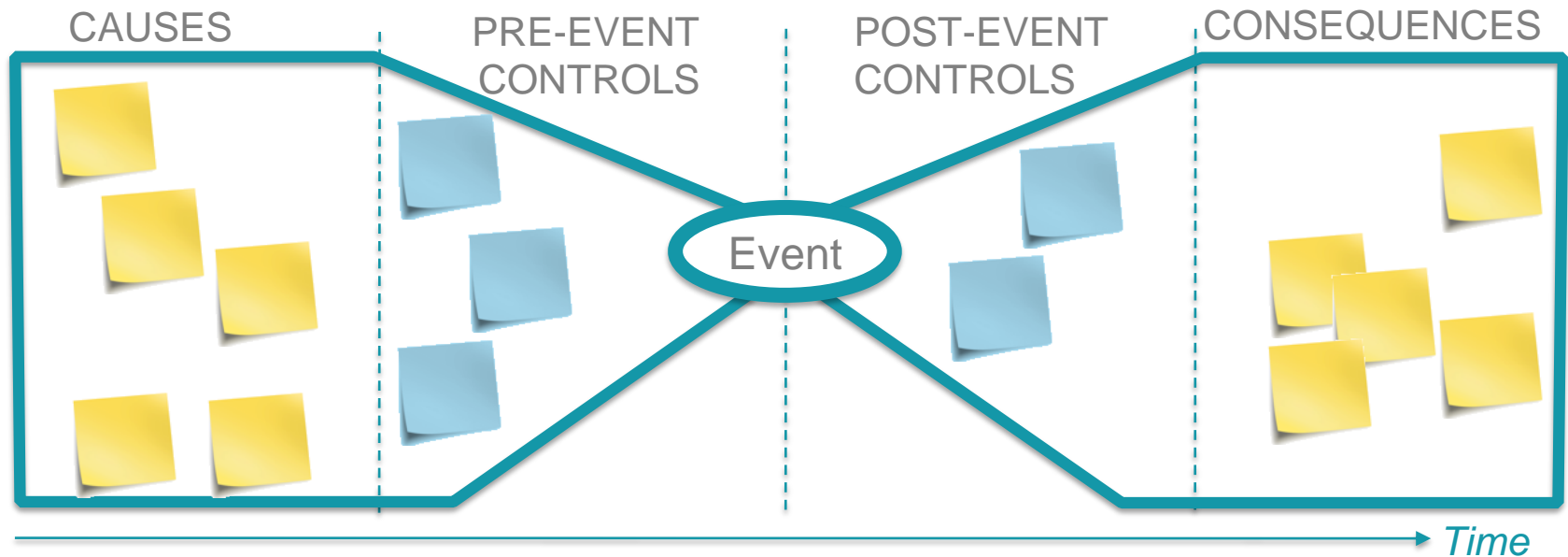


Reactive controls

Consequences
Consequences
Consequences

Risk bow-tie

A risk bow-tie can be simple or complex. Used to **better understand a risk** (causes, consequences and controls).
Facilitation tool; problem solving tool; decision tool;
communication tool; investigation tool...



Assessing the strength of an agreed risk response



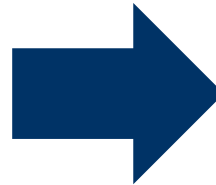
Assessment of control effectiveness:

No control in place

Weak controls

Sufficient controls

Strong controls



Decision:

Acceptable

**Consider
strengthening
Controls**

Unacceptable

EXERCISE

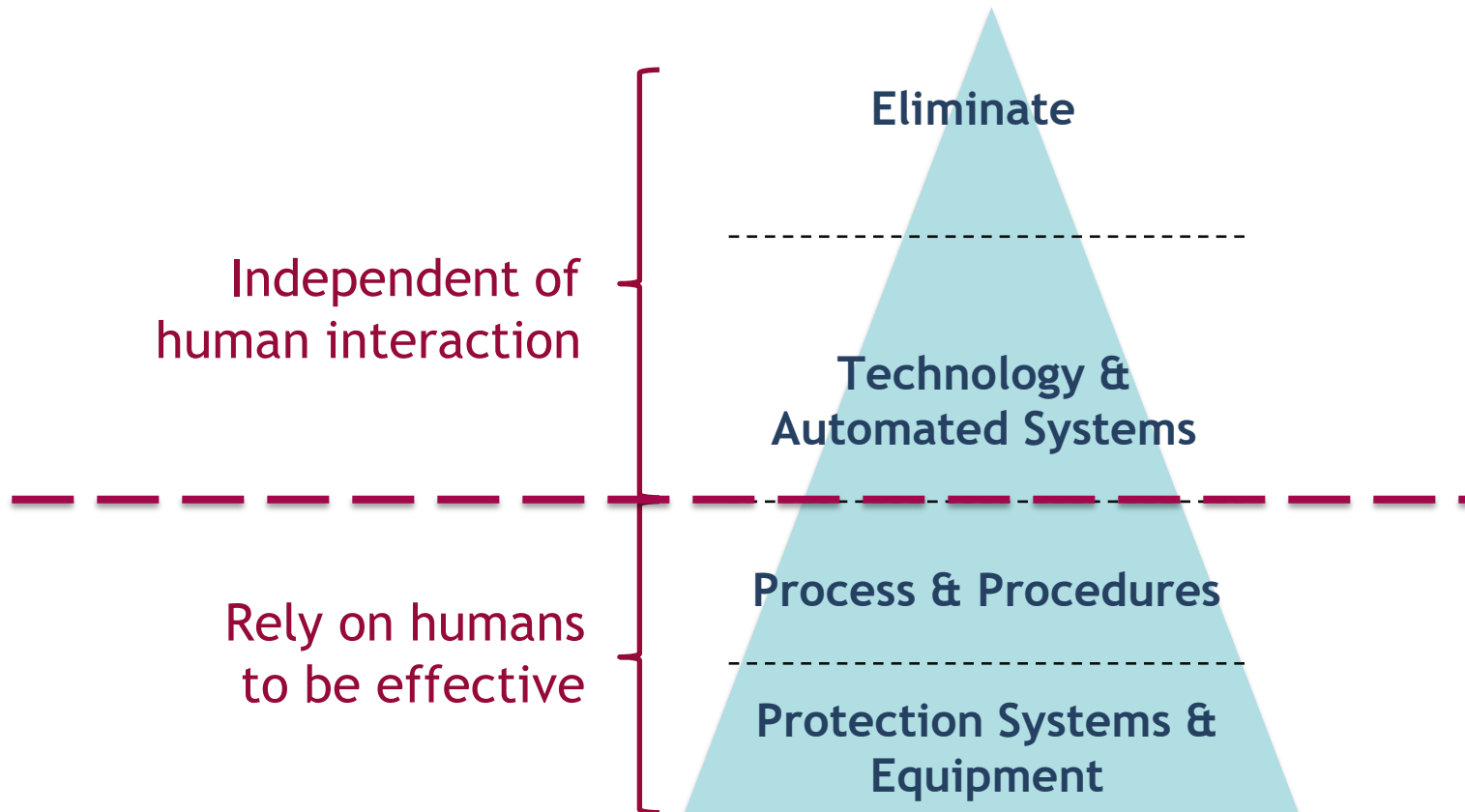


Produce a bow-tie for one of the top line risks from your risk identification exercise

Control effectiveness






HIERARCHY OF CONTROL





How effective are your controls?

<div>    </div> Control Effectiveness				
(1) Easy to implement (easy to hard)				
1	2	3	4	5
(2) Easy to maintain/ keep in place (easy to hard)				
1	2	3	4	5
(3) Reduces likelihood of risk (completely to hardly any)				
100-80%	80-60%	60-40%	40-20%	20-0%
(4) Reduces impact of risk (completely to hardly any)				
100-80%	80-60%	60-40%	40-20%	20-0%
(5) Cost of control (minimal to very expensive)				
< £10K	£10-50K	£50-250K	£250-1M	>£1M

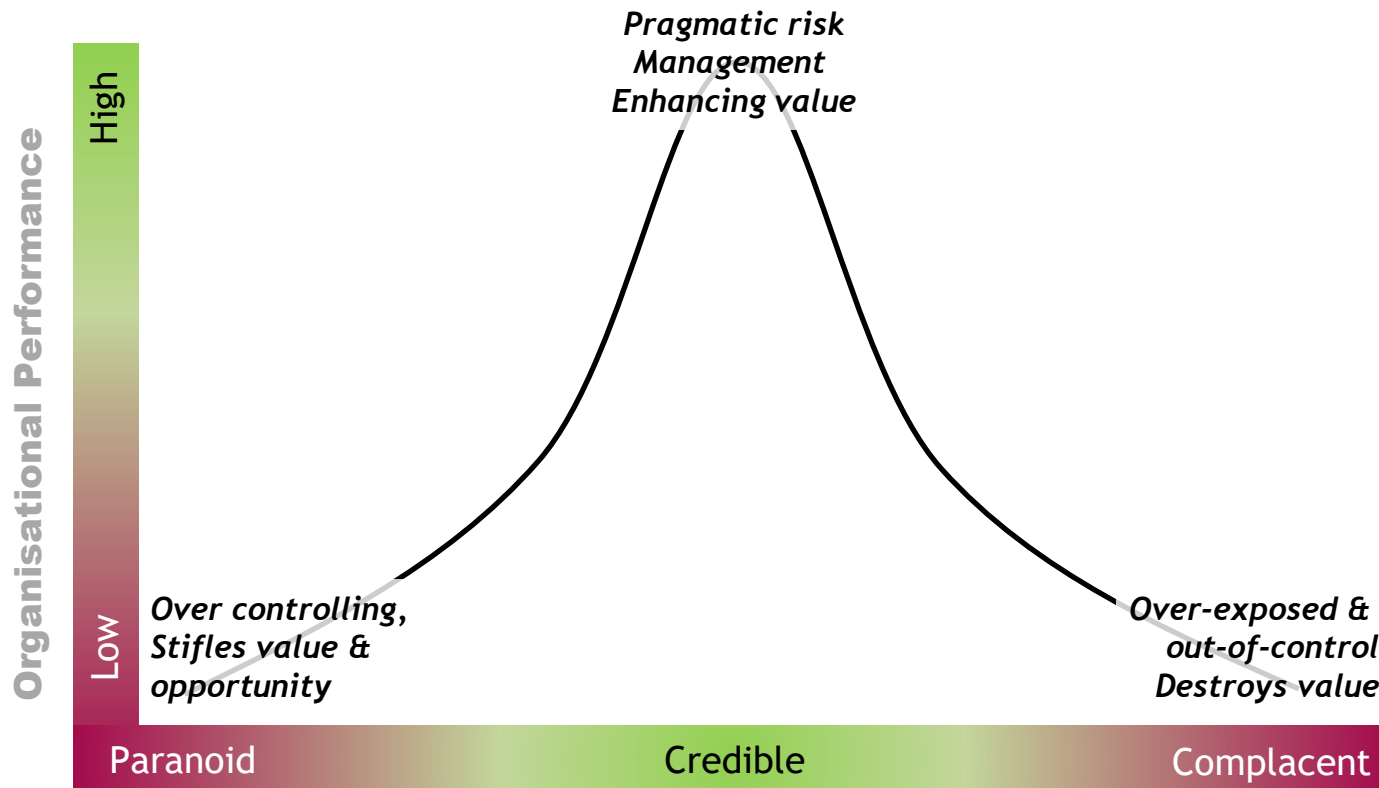
How confident are you in your assessment?

Use of high-medium-low confidence level on IITA risk prioritization map

Likelihood	5 Certain	Low	Moderate	High	Extreme	Extreme
	4 Likely	Low	Moderate	High	High	Extreme
	3 Possible	Low	Moderate	Moderate	High	High
	2 Unlikely	Low	Low	Moderate	Moderate	Moderate
	1 Rare	Low	Low	Low	Low	Low
		1 Insignificant	2 Minor	3 Significant	4 Major	5 Catastrophic

Significance

Being Practical about Risk



“I see risks everywhere and they are all really, really bad”

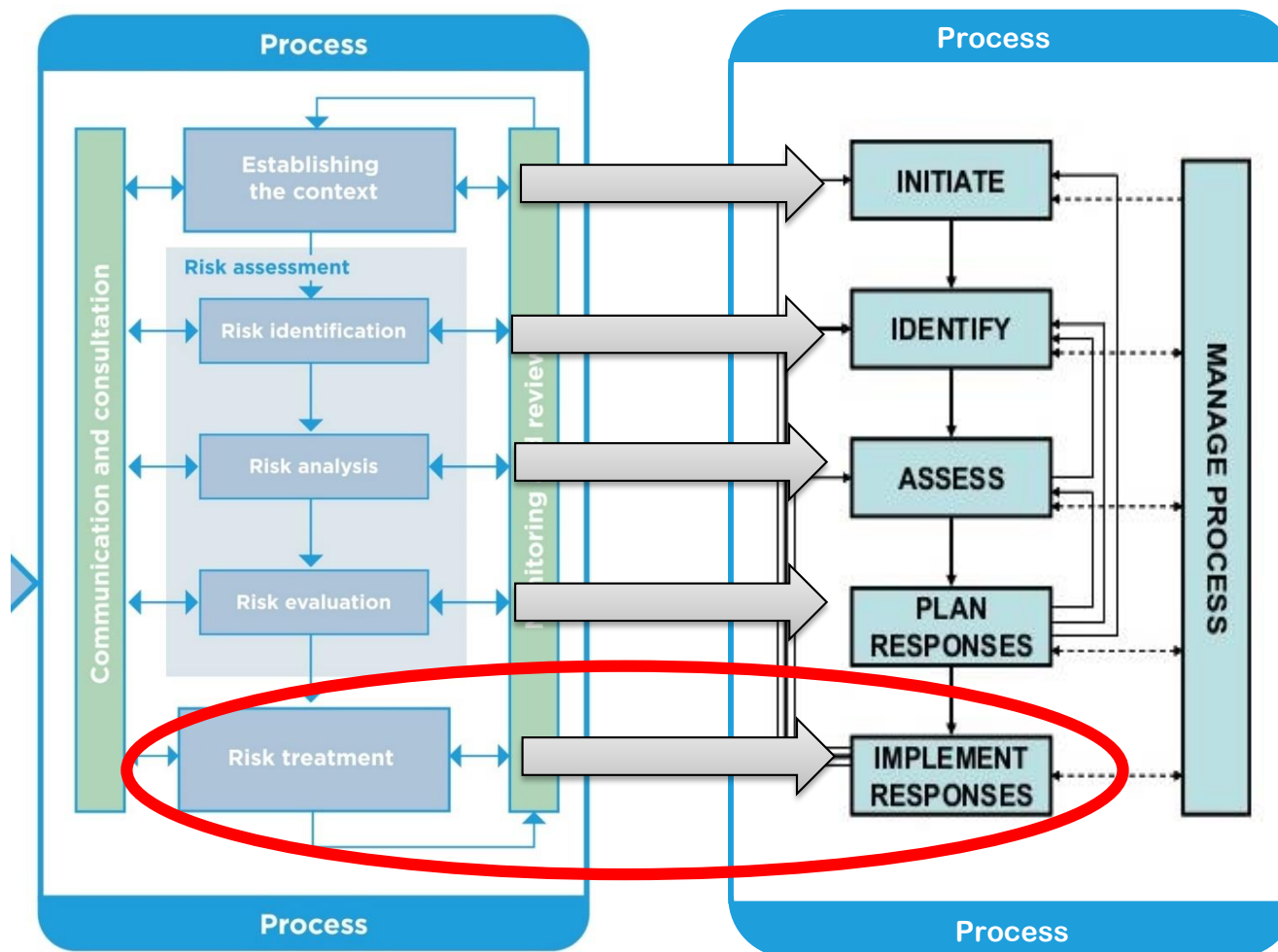
“I need to draw your attention to this emerging trend which could have implications”

“All our risks are perfectly under control & there’s nothing to be concerned about”



ISO:31000 Risk Management Standard

APM Project Risk Analysis & Management (PRAM) Guide



How much risk can you tolerate?

What's risky & why?

*What's the impact
(individually and collectively)?*

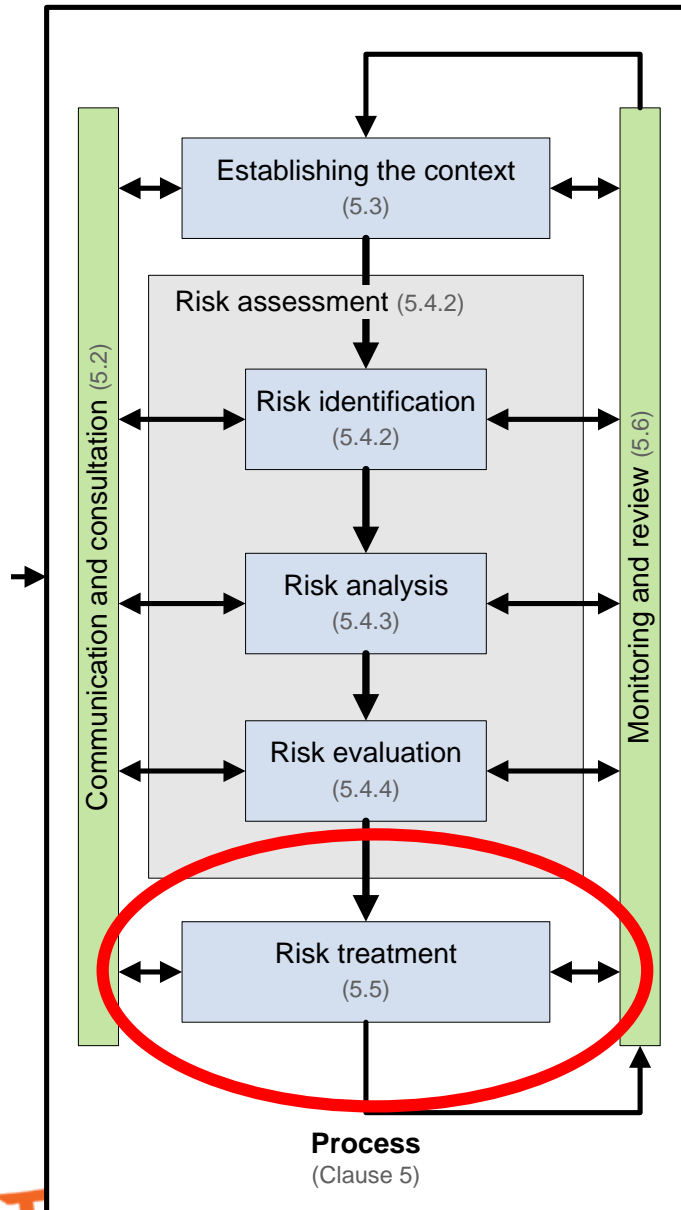
*What can & will you do about
it?*

*How will you know and check it
is effective?*

Risk Treatment



Risk treatment (or action) plans explain how the agreed risk treatment actions will be implemented and monitored



Risk treatment plans should include:

- a description of the planned action
- the expected benefit(s)
- the performance measurements
- any constraints or conditions
- Identify accountabilities (i.e. risk owners, control owners, reviewers)
- the reporting, monitoring & assessment requirements (including frequency based on pace of change)
- resourcing required
- timing and scheduling
- Likely effectiveness of the control action

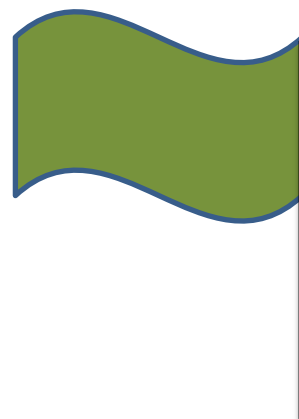
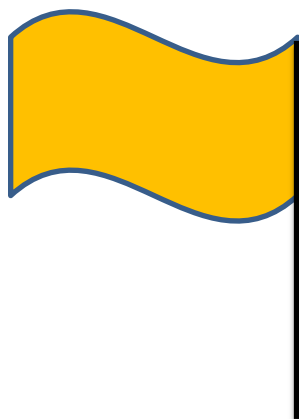
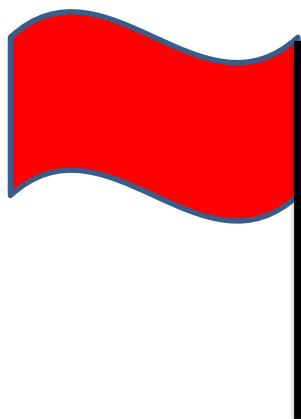
Reproduced from ISO 31000:2009

How effective are your controls?

At assessment & treatment stage

Control Effectiveness				
(1) Easy to implement (easy to hard)				
1	2	3	4	5
(2) Easy to maintain/ keep in place (easy to hard)				
1	2	3	4	5
(3) Reduces likelihood of risk (completely to hardly any)				
100-80%	80-60%	60-40%	40-20%	20-0%
(4) Reduces impact of risk (completely to hardly any)				
100-80%	80-60%	60-40%	40-20%	20-0%
(5) Cost of control (minimal to very expensive)				
< £10K	£10-50K	£50-250K	£250-1M	>£1M

In service



Risk Treatment & Control

Risk Description



Inherent Risk

Likelihood	Impact	Risk	Confidence	Strategy

Mitigation Strategy

Control Actions	Effectiveness

Target Risk

Likelihood	Impact	Risk	Confidence	Monitoring & Review

Programme Outline



- ✓ 1. Welcome
- ✓ 2. Introduction to Risk Management
- ✓ 3. Risk Context & Framework
- ✓ 4. Risk Management Process
- 5. Risk Monitoring & Reporting
- 6. Summary

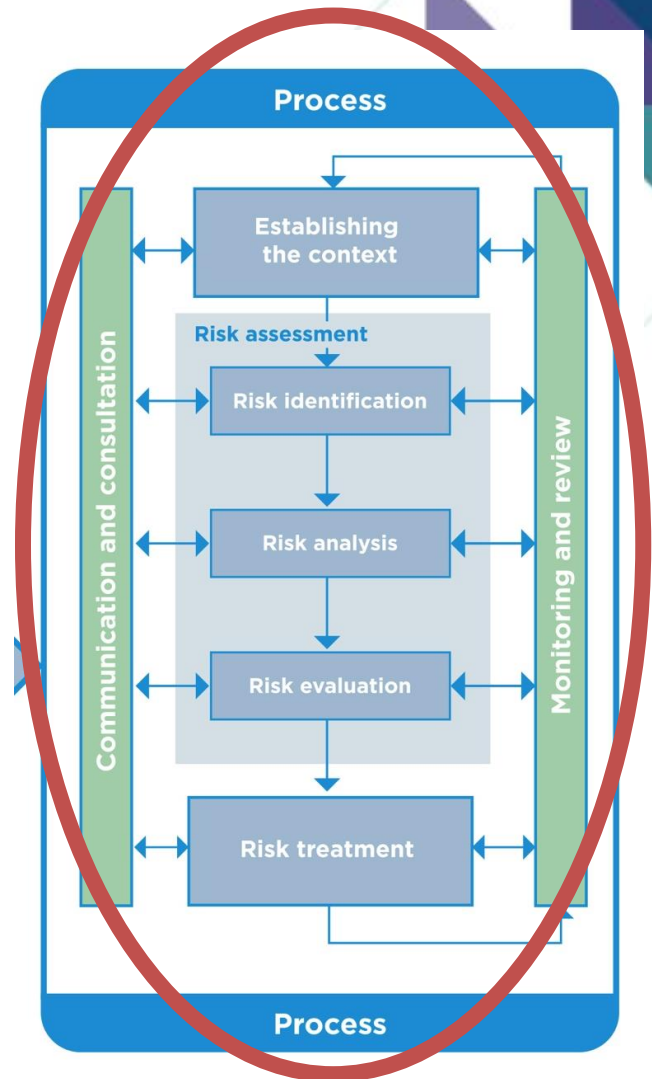
Risk Registers

The primary record of your current risk knowledge

Effective risk registers are:

- **comprehensive**
- **accurate**
- **tailored to your organisation**
- **is updated regularly**
- **user friendly**
- **enables teams, projects & organisations to prioritise and manage their risks**
- **embedded within, not bolted onto, management, execution and review activities ;**

And hence are used to inform decision making throughout the organisation



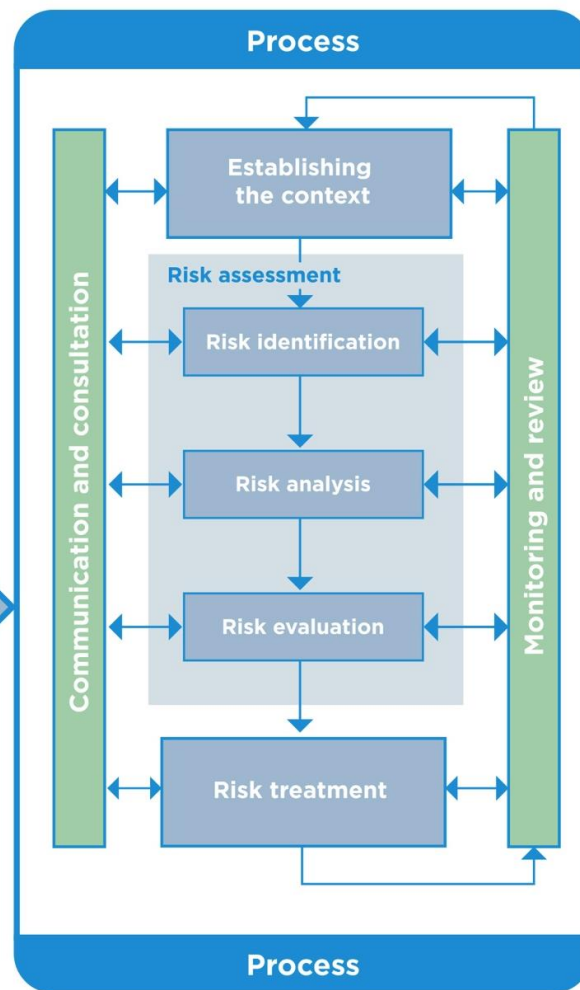
Risk Registers

The primary record of your current risk knowledge

UID		Organisational context				Describing the risk											
#	Risk Name	Date reviewed	Business Unit	Site / Operation	Operation Type	Risk Description	Risk Category	Sources	Causes (Inc. root cause)	Consequences	Consequence Type						
											Safety	Health	Environmental	Financial	Legal/Regulatory	Social/Community	Reputation
	Brief name that best describes the risk generally to be used for searching and sorting of risks	Date the risk was reviewed					Discipline/area of risk to			List of the potential							
			Target risk status				Action management										
			Current Control Likelihood	Current Risk Rating	Target Control Consequence	Target Control Likelihood	Target Risk Rating	Action Strategy	Applicable Internal and External Standards	Action UID #	Action Item						
101											Action description						
			Assurance														
			Action contact information														
			Name	Role	Contact details	Expected Completion Date	Action status	Assurance Provider 1	Assurance Provider 2	Assurance Provider 3							
			Persons responsible and accountable for implementing the treatment action to completion				Date by which the action is expected to be closed out	Commentary on the action status	The company or function that is going to provide assurance on the risk and/or controls	The company or function that is going to provide assurance on the risk and/or controls	The company or function that is going to provide assurance on the risk and/or controls						

Your 2nd biggest challenge is making them comprehensive enough to be useful and simple enough to use...

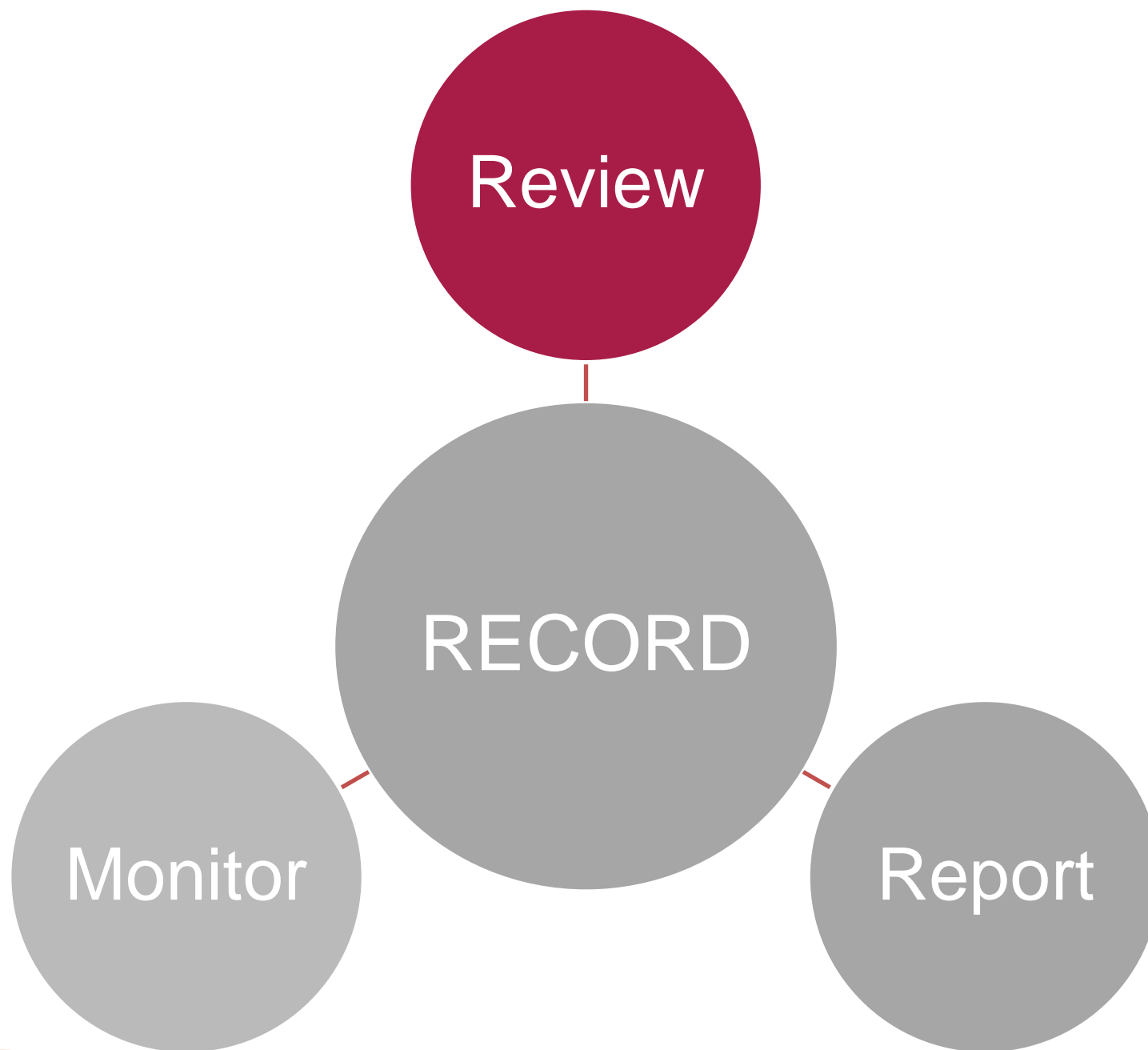
...your biggest challenge is getting people to use them



EXERCISE



Produce a risk register to record all of the relevant data for the risks you have captured so far.

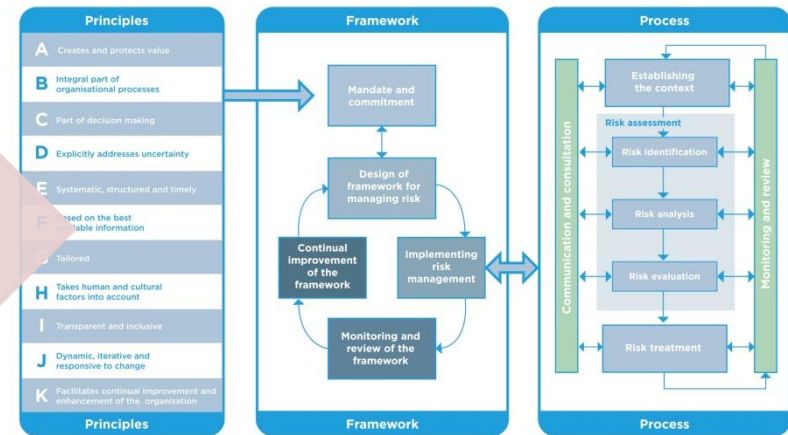


Reviewing risks



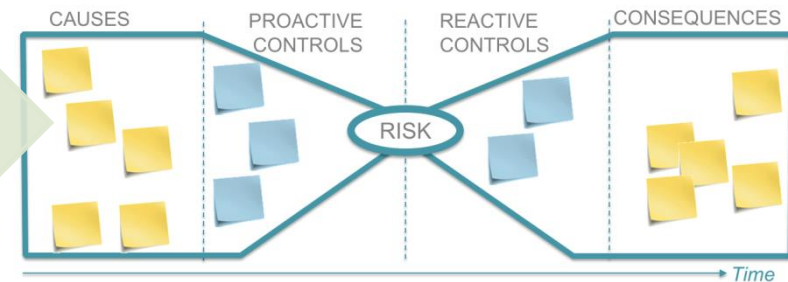
A

How we 'do' risk management (e.g. effectiveness of framework and process).



B

- Management of key risks (e.g. effectiveness of critical controls).



Assessing the strength of an agreed risk response



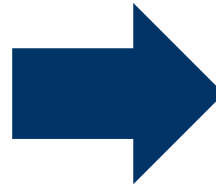
Assessment of control effectiveness:

No control in place

Weak controls

Sufficient controls

Strong controls

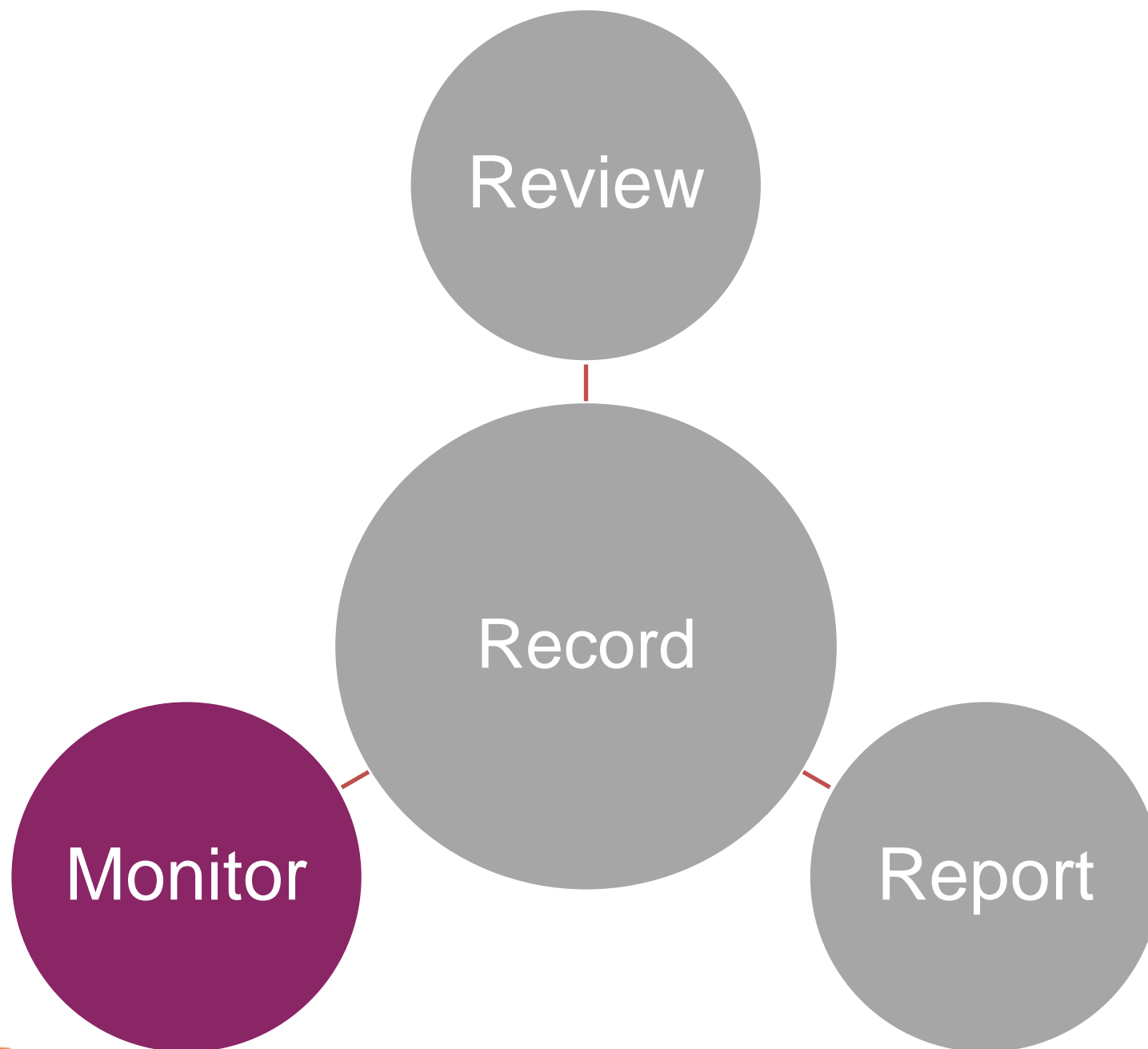


Decision:

Acceptable

**Consider
strengthening
Controls**

Unacceptable





Monitoring risk

“Continually gauging the pulse of the organisations risks”

Can monitor:

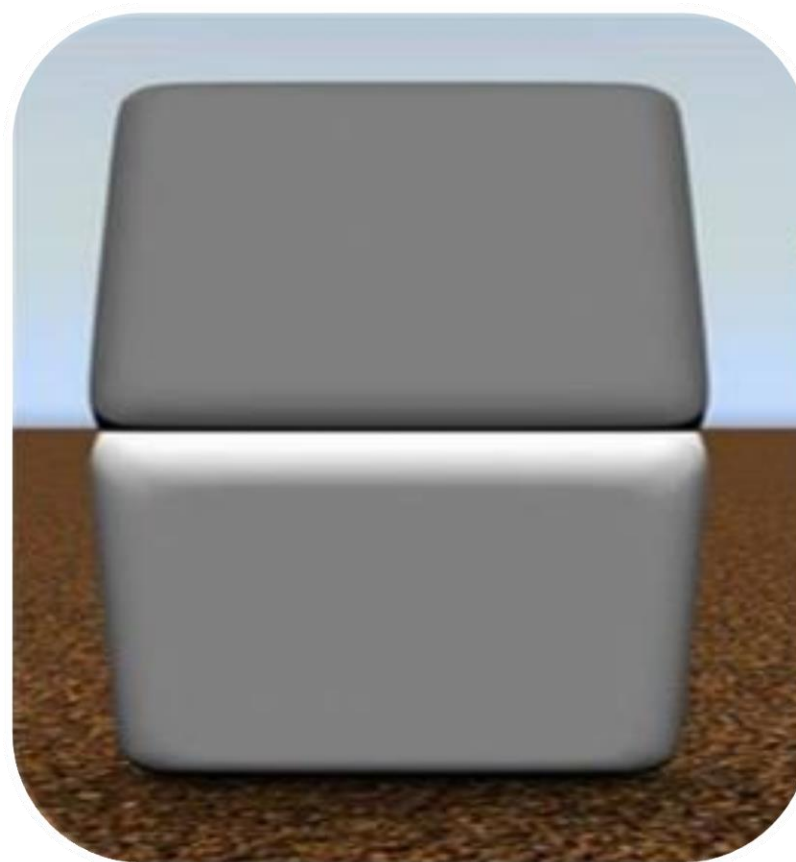
- Status of risks
- Status of controls
- Status of causes
- Status of consequences
-



What is a key risk indicator?

“Key risk indicators are metrics used by organizations to provide an early signal of increasing risk exposures in various areas of the enterprise ”
COSO 2010





Always play 3 lines of defence



Line & functional management (1st line)

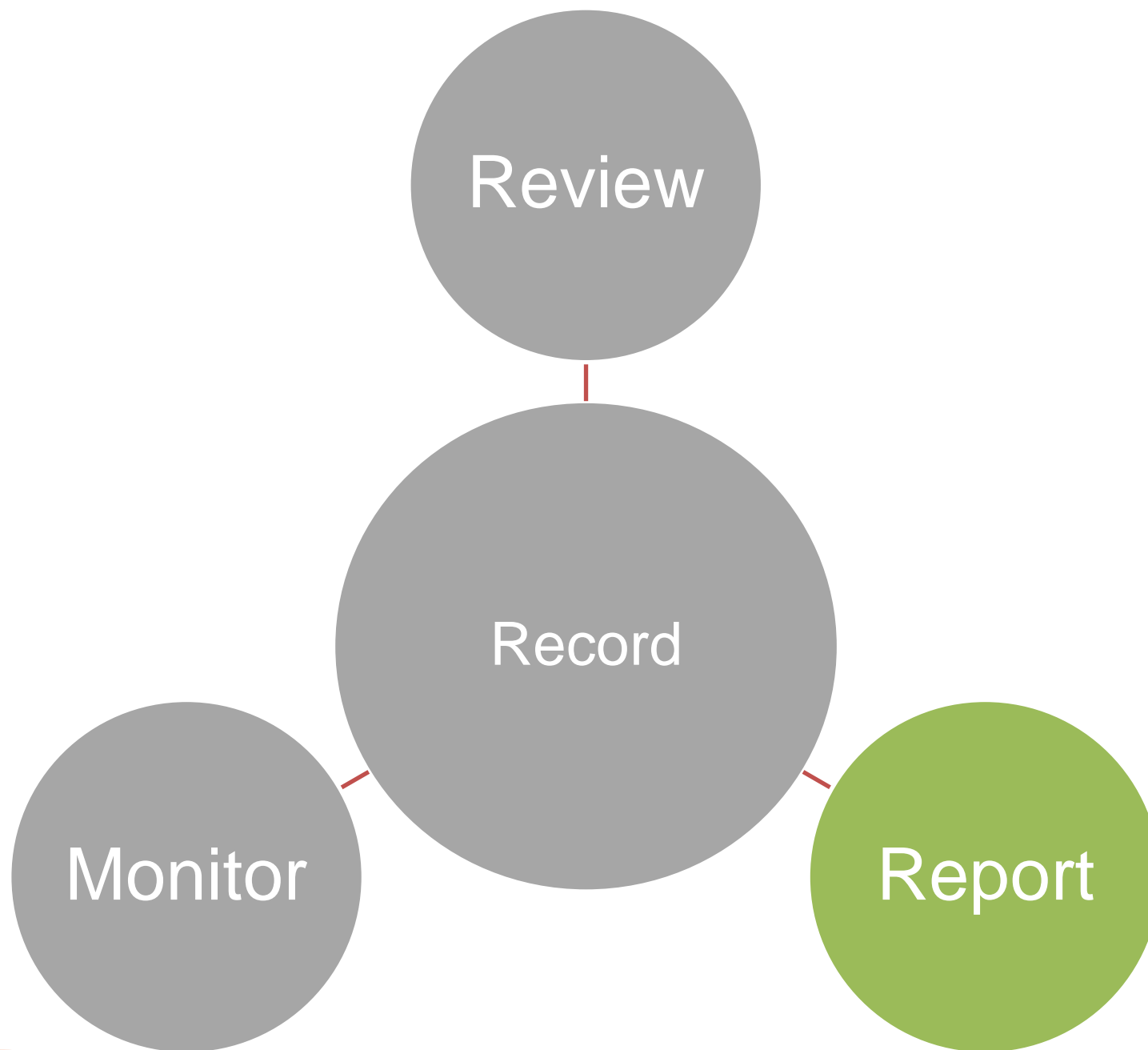
- Establishing context in their area of responsibility
- Assessing risks in their area of responsibility
- Taking decisions on risk responses (with authorisation)
- Providing local assurance over risks in their responsibility area
- Being accountable for local risk management

Risk Management (2nd-line)

- Facilitating establishing the risk management context
- Helping managers to assess risks
- Helping the Board to decide on and implement risk appetite
- Maintaining and improving RASP
- Facilitating advances in risk culture and maturity
- Advising about choices of risk responses
- Providing risk management support, learning and training
- Developing ERM for Board review
- Consolidating ERM reporting

Internal Audit (3rd-line)

- Giving independent assurance over the management of key risks
- Giving assurance over the effectiveness of RM framework/process
- Evaluating the reporting of risks
- Providing independent assurance over the level of risk maturity



Communication

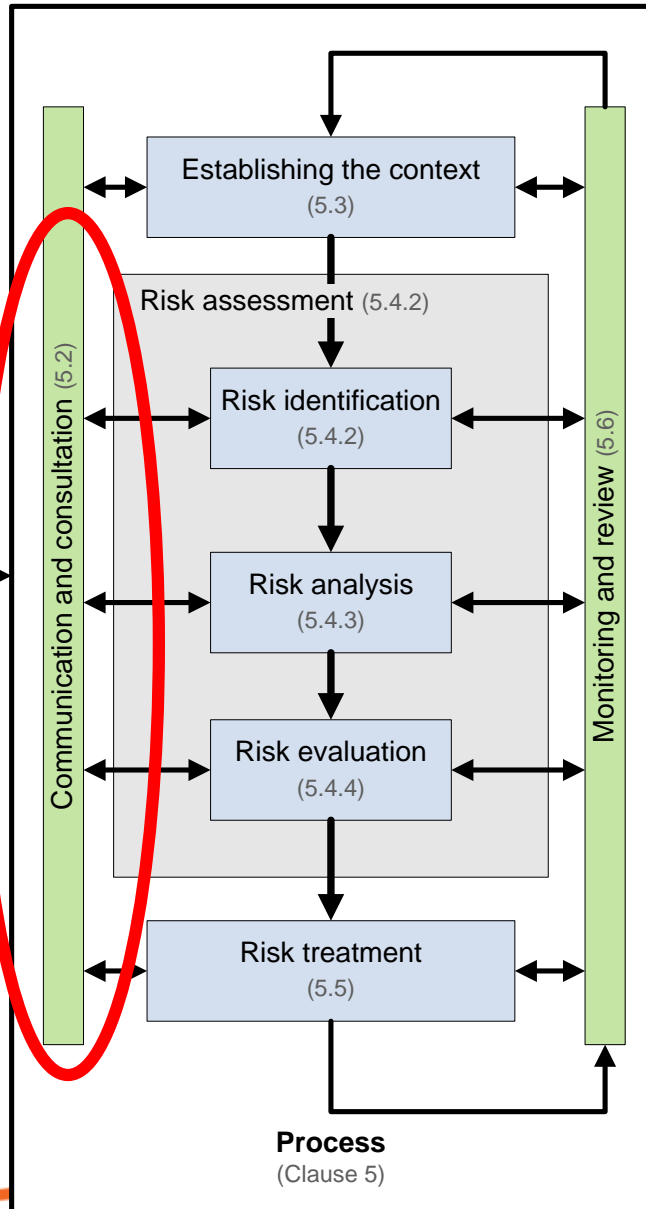
a continual and iterative process that an organisation conducts to provide, share or obtain information and to engage in dialogue with stakeholders

Consultation

a two-way process of informed communication between an organisation and its stakeholders on an issue prior to making a decision or determining a direction on that issue

Stakeholders

- a person or organisation that can affect, be affected or perceive themselves to be affected by a decision or activity



Reproduced from ISO 31000:2009



Internal & external reporting

Internal reporting - The Board need assurance that Risk Management is effective in reducing risks that impact on core objectives to an acceptable level and to be good value for money - reports usually not governed by law and regulations.

External reporting - The external stakeholders need assurance that their 'stake' in the business is effectively risk managed and that they can reasonably expect to be satisfied - reports often governed by law and regulations

EXERCISE



Based on your original stakeholder analysis produce a risk report template

EXERCISE



Look back at the project risk history you have created:
How does it compare to a typical project?

QUESTION



What are you going to do differently when you get back to the day job?

Contact Details



Email: training@theirm.org / MartinCarterAssociates@gmail.com

Web: www.theirm.org

Tel: +44 20 7709 4114 / 4117