



Public Sector Risk Management: Tools & Techniques



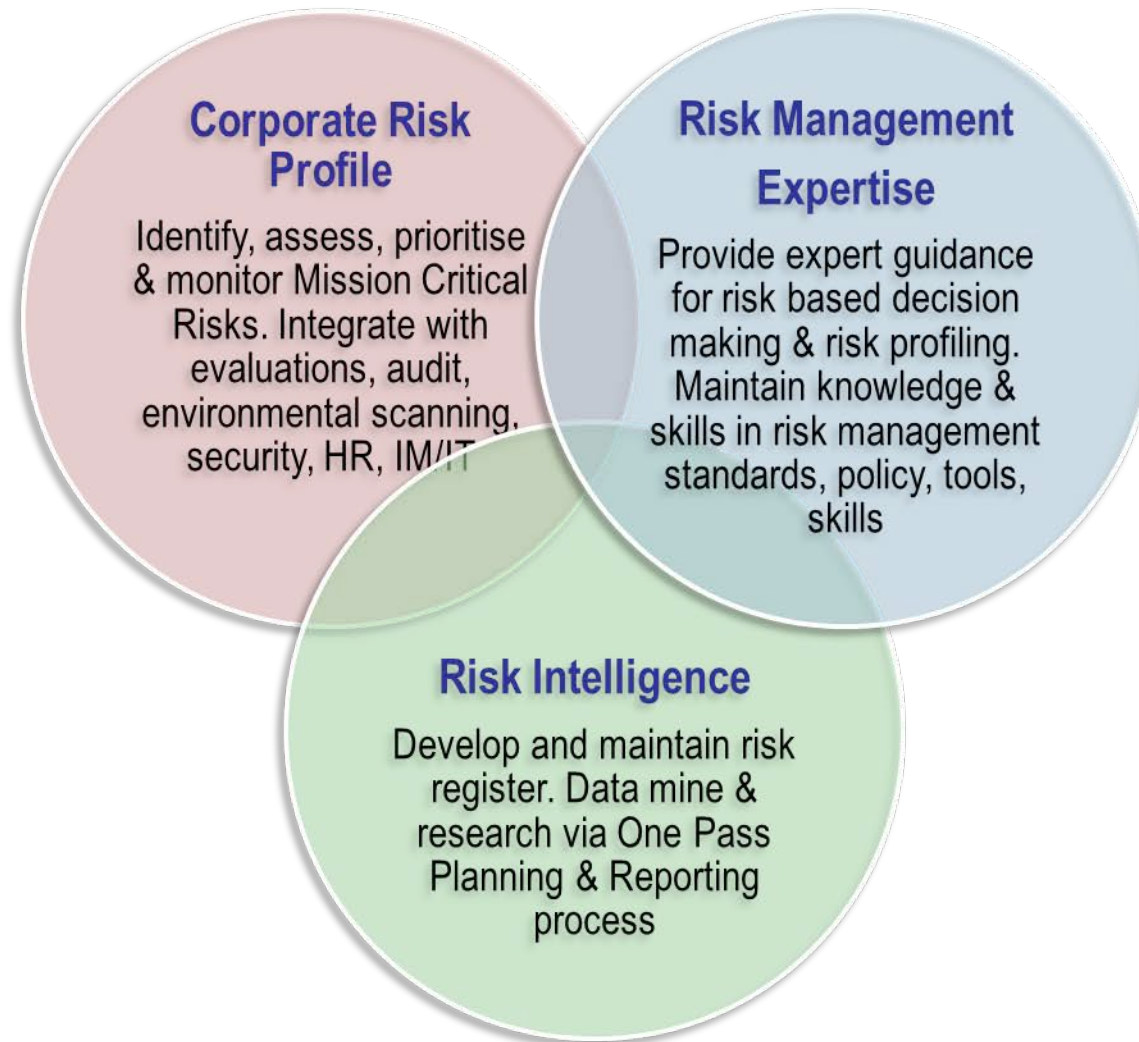
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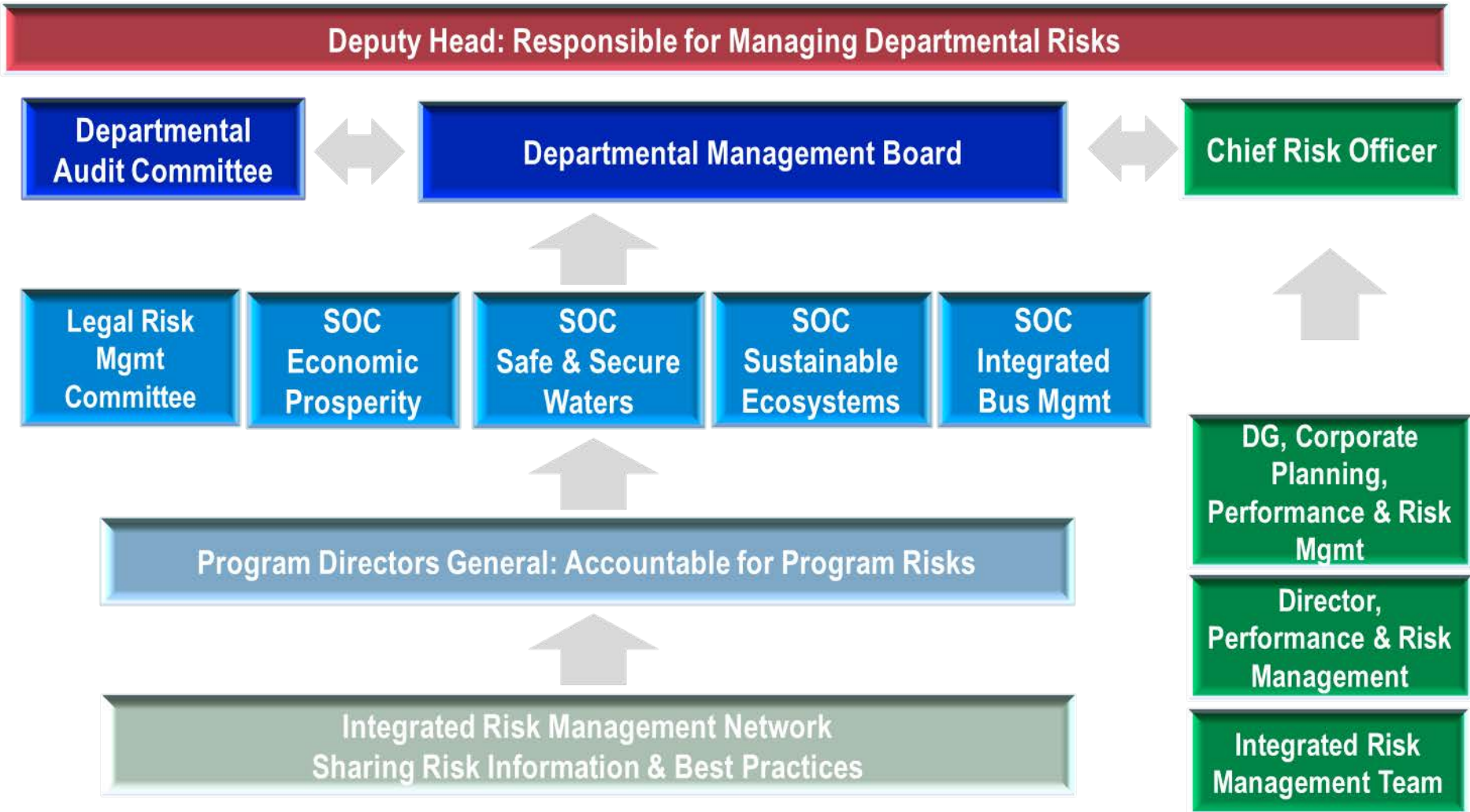


The IRM Program Components



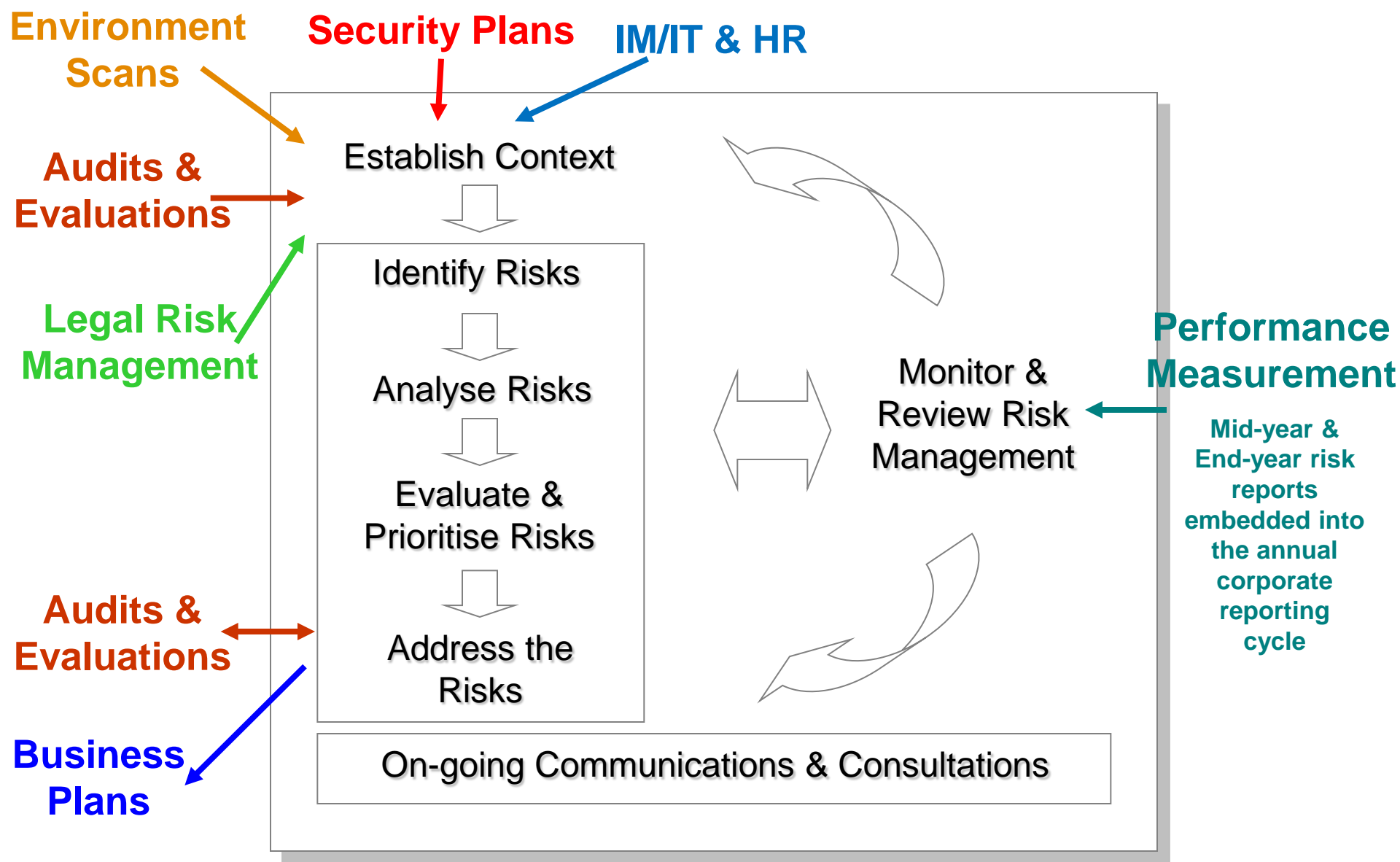


IRM Governance Structure at DFO



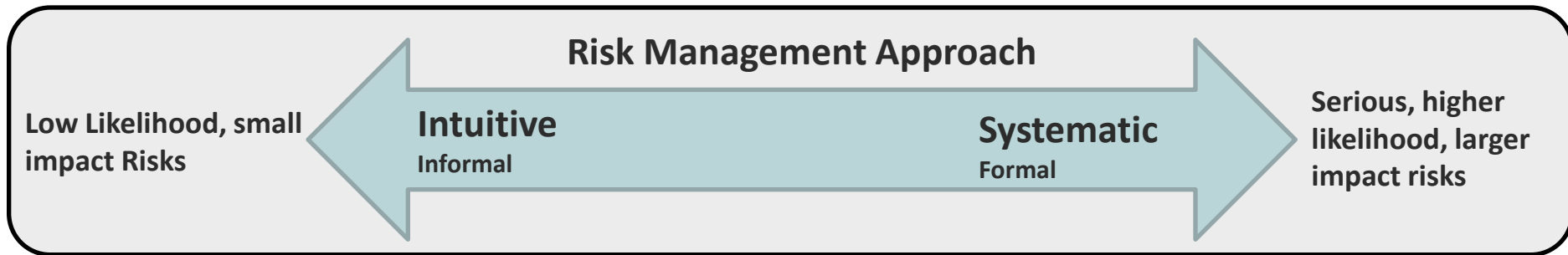


ISO 31000 Model + Relations with Risk Stewards





Risk is Managed Intuitively & Systematically



Sample Criteria to Help Balance Risk Response

- Normal day to day business decisions
- Location decisions
- Shorter time horizon
- Necessary for immediate decision demands
- Worthwhile for lower impact, lower cost scenarios, e.g.
 - Responding to media questions
 - Inspection decisions
 - Travel decisions
 - Minor process changes

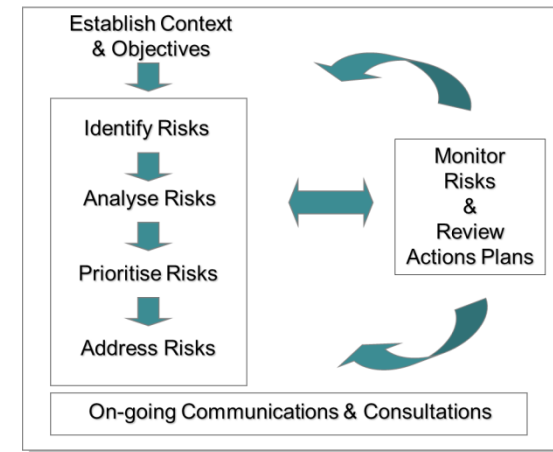
- Information-based structured analysis
- Takes more time and resources
- Short and longer time horizons
- Worthwhile for high impact, high cost scenarios, e.g.
 - Important initiatives/issues
 - Critical operations, functions and disciplines
 - Major projects
 - Key process/programs reviews



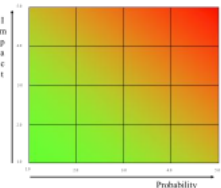
15 Minute Risk Assessment

Quickly develop a risk assessment by asking the following 7 questions:

1. What is the context of the problem & what are my objectives?
2. What are the risks to achieving my objectives?
3. How likely are the risks to happen and what are the impacts?
4. How significant are these risks?
5. How will I address each risk?
6. How will I monitor & report on the risks?
7. Who should I consult & who needs to know?



Risk Snapshot

Risk Name			
Risk Statement			
Impact to Objectives			
Risk Category(ies)			
Links to other Risks			
Risk Owner			
Risk Analysis			
Main Risk Drivers		Key Risk Indicators	
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Potential Consequences if Risk is Realised			
Opportunities:		Threats:	
Existing Key Controls		Effectiveness of Controls	
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Risk Prioritisation			
Impact			
Probability			
Response Strategy			
Position on Heat Map		Risk Rating & Rank (Probability x Impact)	
		Risk 1: Risk 2: Risk 3:	
Risk Actions			
Action Plans to Manage Risk	Responsible Lead	Key Performance Indicators	Targets to be Achieved
1.			
2.			
Report on Risk Actions (quarterly basis recommended)			
Progress of Risk Action Plans		Effect of Actions on Risk	
1.			
2.			
Changes to Risk Indicators (if any)		Trend of Risk: Increased / Decreased / Remained Same	

Risk identification

- Risk statement
- Links to other risks
- **Risk categories**

Risk Analysis

- Risk drivers
- Risk indicators
- **Existing controls**

Risk Prioritisation

- Impact
- Probability

Risk Actions Plans

- Risk response
- Actions & milestones
- Performance indicators

Risk Reports

- Progress on actions
- Effect of action on risk
- Changes to risk indicators



The Risk Register Components

Risk Name	Risk Statement Corporate	Program / Region	Risk Category	Link to Corporate Risks	Risk Rating	Risk Indicators	Key Controls	Action Plans	Status Reports
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DFO Risk Categories

External

- Political
- Societal
- Environmental
- Science & Technology
- Economy
- International
- Legislative
- Stakeholders and Partners

Internal

- Governance and Strategic Direction
- Program Delivery
- Financial & Resource Management
- Human Resources Management
- IT & IM
- Safety, Security and Privacy
- Legal and Compliance
- Values and Ethics



Controls effectiveness Guide

High	Existing controls in their entirety manage the risk to an acceptable level
Medium	Existing controls in their entirety have some effect on managing the risk
Low	Existing controls in their entirety have very little or no effect on managing risk

Residual Risk = Inherent Risk - Controls



Impact Assessment Scale

Vote	Level	Definition of Impact	
		A Threat	An Opportunity
5	Extreme	A critical event that will bring about threats, that will require the organisation to make extreme long term realignment of objectives, finances and operations, OR an event that cannot be addressed by making changes	A critical event that will provide opportunities, and that will require the organisation to make extreme long term realignment of objectives, finances and operations, OR an event that cannot not be addressed by making changes
4	Very High	A significant event that will bring about threats, that with large scale management action can be addressed by the organisation	A significant event that will provide opportunities, where large scale management action will be required to realize the opportunities
3	Medium	A major event that will bring about threats, that with additional management actions beyond existing controls can be addressed by the organisation	A major event that will provide opportunities, where additional management actions beyond existing ones to realize them will be feasible by the organisation
2	Low	An event that will bring about threats, that can be managed under normal circumstances, although adjustments to controls may be necessary	An event that will provide opportunities which can be realized under normal circumstances, although some adjustments to actions may be necessary
1	Negligible	An event that will bring about threats, the consequences of which can be absorbed through normal activity. Current controls may exceed requirements, so consideration on reducing existing controls may be required	An event that will provide opportunities, which can be realized through normal activity. The opportunity may not be worth pursuing, so consideration on reducing actions may be required



Risk Response Scale

Risk Response Strategies	These are options to address risks, and are not necessarily mutually exclusive or appropriate in all circumstances. Risk response strategies need to be tailored to the event, context and culture of the project, program or organisation. Key risks need to be monitored to be prepared for any changes and adjustments made as necessary
Treat	Mitigate risk by reducing impact and/or likelihood of a threat – a negative risk event.
Take	Increase the likelihood and/or impact of a risk in order to pursue an opportunity – a positive risk event.
Tolerate	Tolerate the risk where it is the only reasonable course of action, or if the cost of taking any action is prohibitive.
Transfer	Transfer the risk by completely transferring or partially sharing exposure or strategy with parts of the organisation or other organisations.
Terminate	In certain circumstances, the risk may jeopardize the reputation or even the existence of the entity. The activity then may need to be terminated to eliminate the risk in its entirety.
Avoid	Avoid the risk by deciding not to start the activity that gives rise to the risk.



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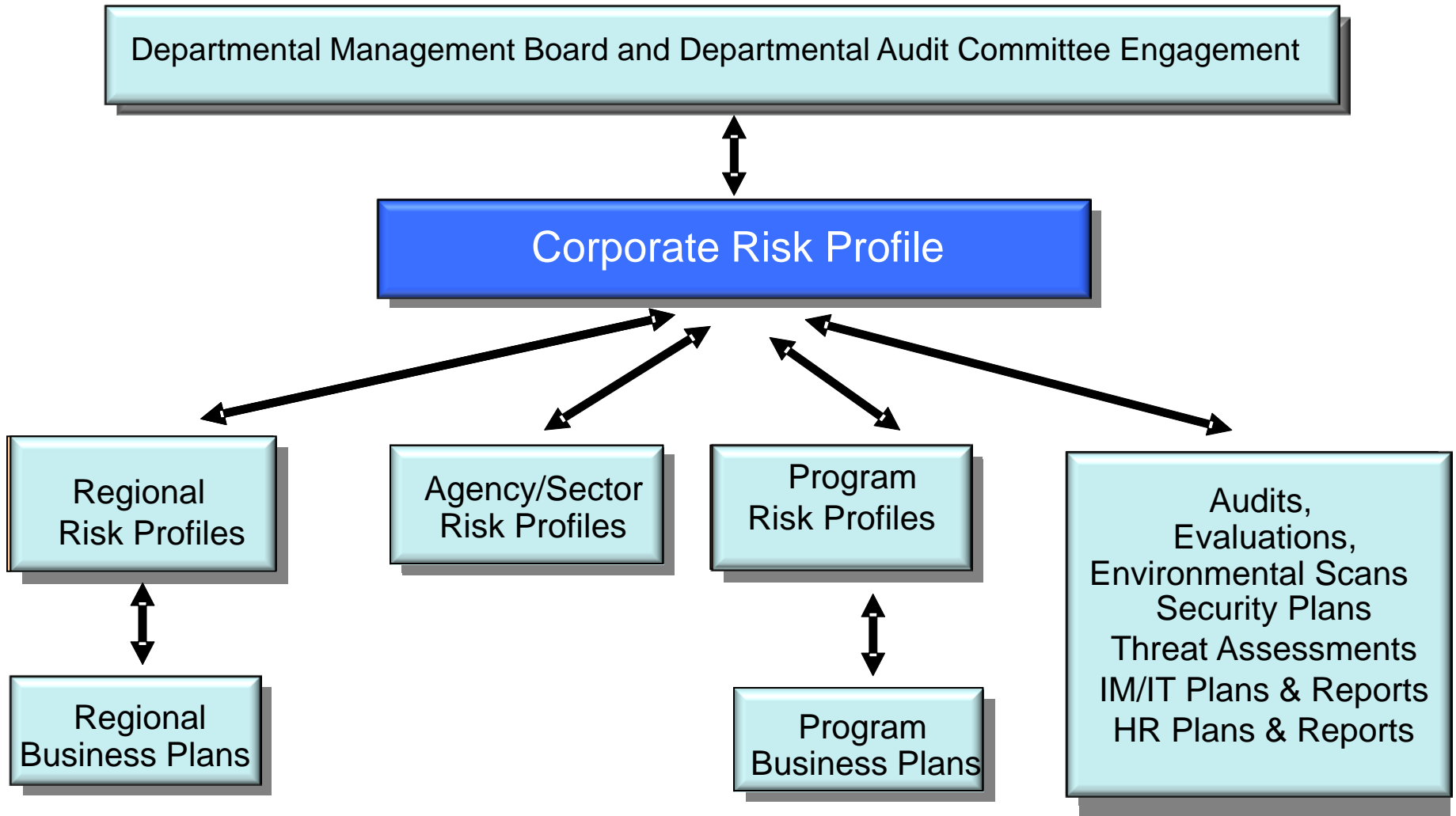
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Additional Slides



Top Down – Bottom Up Flow





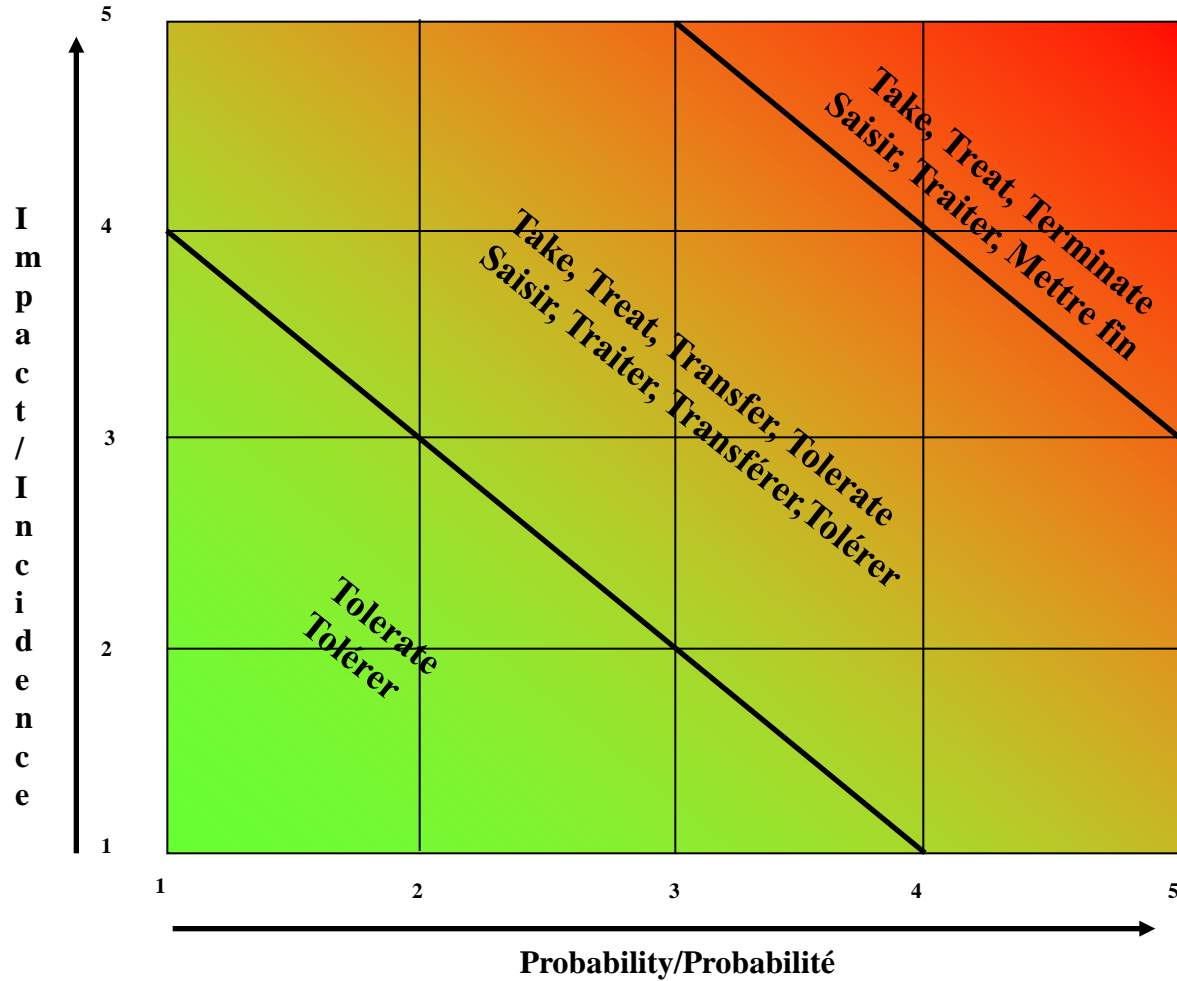
The Integrated Risk Management Process

Integrated **Risk Management** permeates everything we do. It ensures improved decision-making, better allocation of resources & increases likelihood of program results





Risk Tolerance on Heat Map





Probability Assessment Scale

Vote	Level	Experience / Observed Frequency	% Probability	History of Occurrence	Probability of Occurrence
5	Almost Certain	Occurs regularly here	More than 80 %	It has occurred more than once in the last five years	It may happen within the next two years
4	Likely	Has occurred here more than once, or is occurring to others in similar circumstances	61-80 %	It has occurred once in last three years	It may happen sometime in the next three to five years
3	Moderate	Has occurred here before, or has been observed in similar circumstances	41-60 %	It has occurred once in the last five years	It may happen sometime in the next five years
2	Unlikely	Has occurred infrequently before to others in similar circumstances, but not here	20-40 %	It has never occurred here, but there is a possibility it could occur in the future	Although possible, it is doubtful it will happen in the next five years
1	Rare	Almost never observed – may occur only in exceptional circumstances	Less than 20 %	It has never occurred here, nor is it expected to occur	It is almost impossible for it to happen in the next five years



Progress on Risk Action Plans

Progress on Risk Action Plans

Completed	The action was completed as planned and expected results were met
On-Track	The action is underway as planned and expected to meet objectives
Delayed	The action is underway but behind schedule or not all planned milestones have been achieved
At Risk	The action did not get initiated or was stopped or significantly changed in midstream

Impact of Action Plans on the Risk

Effective	The action(s) are effectively treating the risk as intended
Marginally Effective	The action(s) are showing marginal results in treating the risk as intended
Uncertain	The action(s) are having an uncertain impact (too early to see results or indicators are not showing change)
Ineffective	The action(s) are having no impact on the risk