

From Audit to Risk Management Case Study

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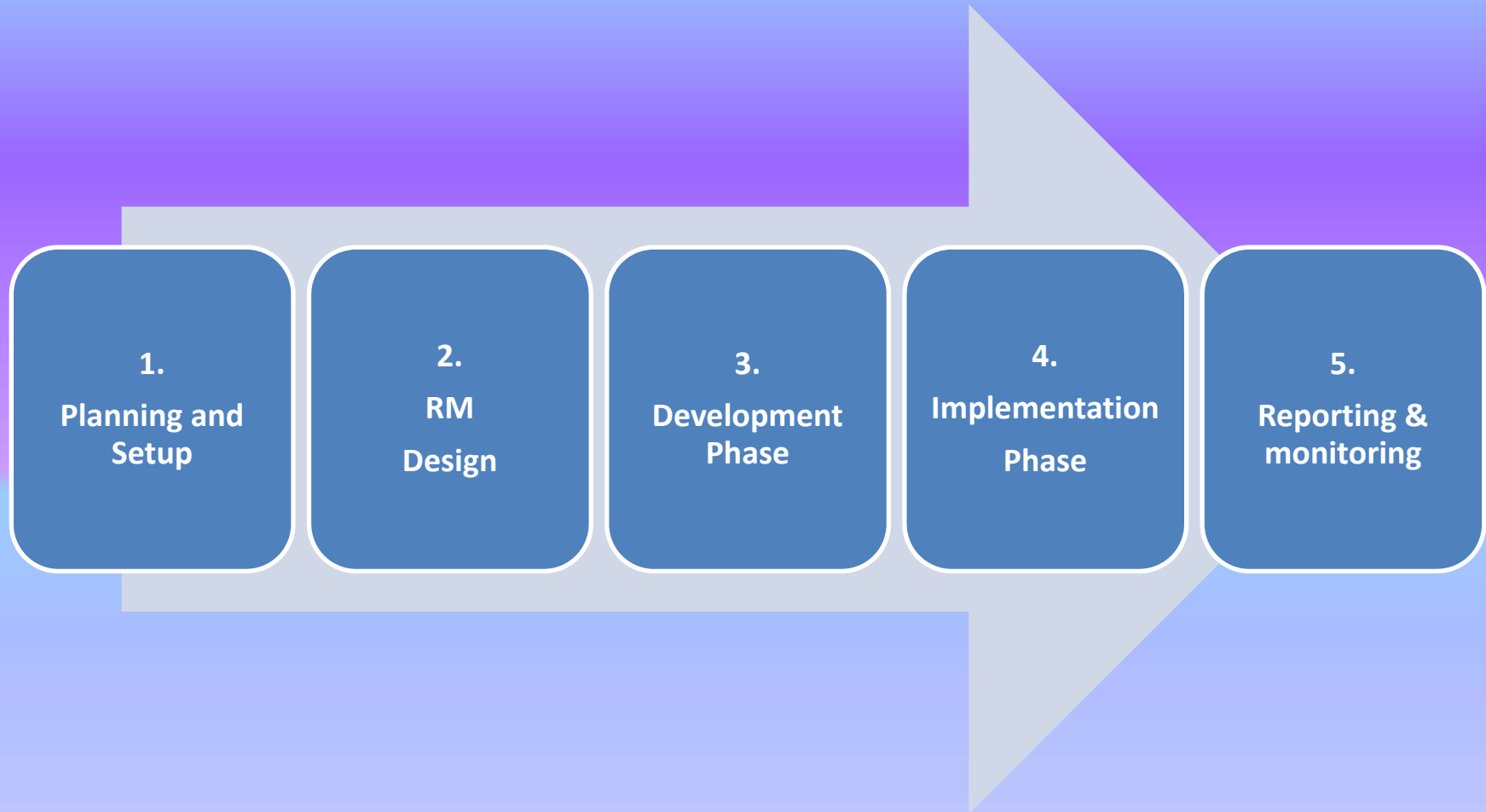
KEY QUESTIONS???

- How to move from IA to RM?
- What is Risk Management (RM)?
- How is RM different from Enterprise Risk Management (ERM)?
- What are the components of the Risk Management function?
- Whom to report to? What to report?
- Should I use a top-down approach? Or a bottom-up approach?
- What are the phases and stages to plan, design, develop, and implement a RM function?
- What are the requirements and outcome of each phase and stage?
- What is the expected timeframes for different phases and stages?
- What should be the order of the implementation?
- What is Risk, Control, Process, Risk Appetite, Risk Tolerance, KRIs, KPIs? How all these concepts linked together?
- Where to start a RM function from? How to start a RM function?
- What is your organization's RM maturity level?
- Do we need RM Software? If so, what is the best Software for this function?

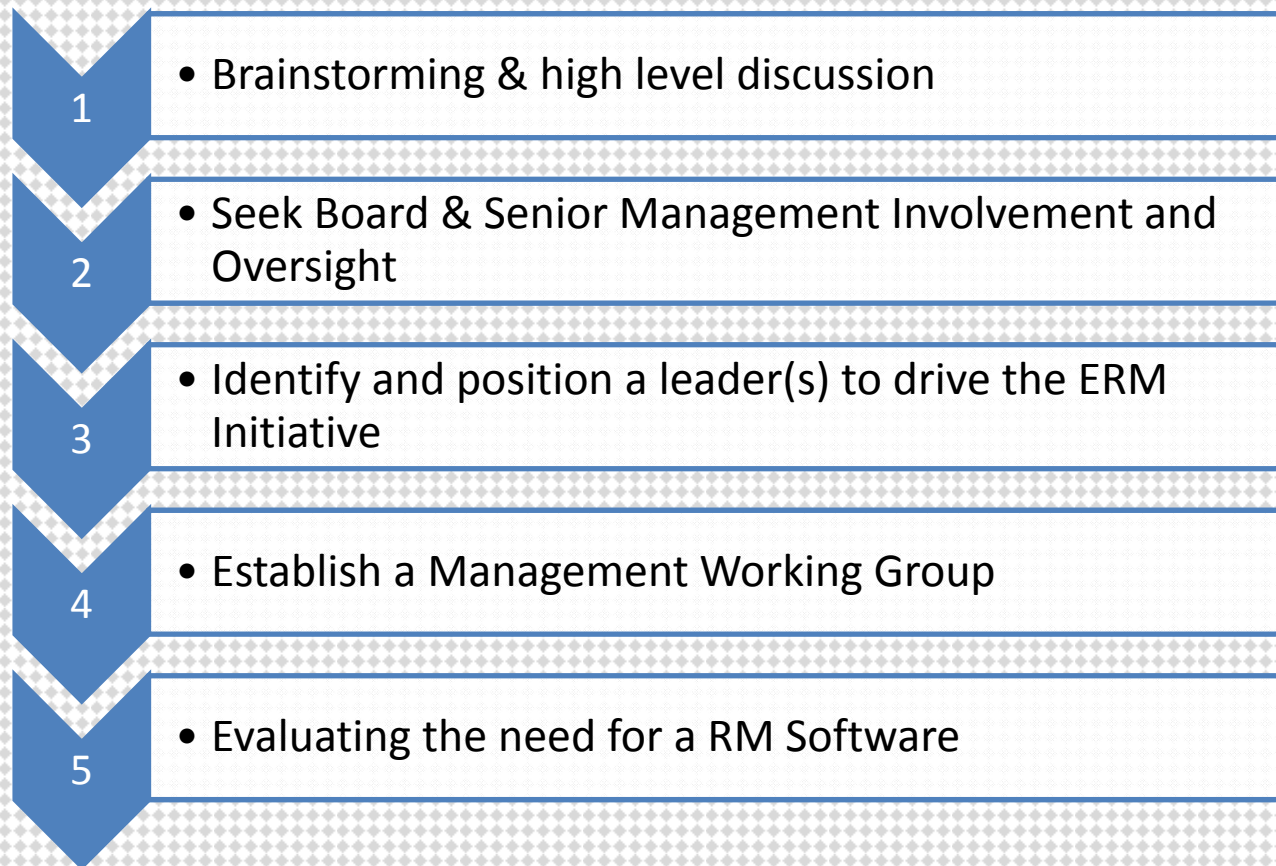
Walkthrough

- During this short session, we should be able to answer all these questions and have a decent idea as to how to implement a successful RM function.
- I will use a practical case study from my company that deals with various industries (Investment, Chemical & Oil, Real Estate, Mortgage, Distribution, and Manufacturing) and operates in 30+ countries.

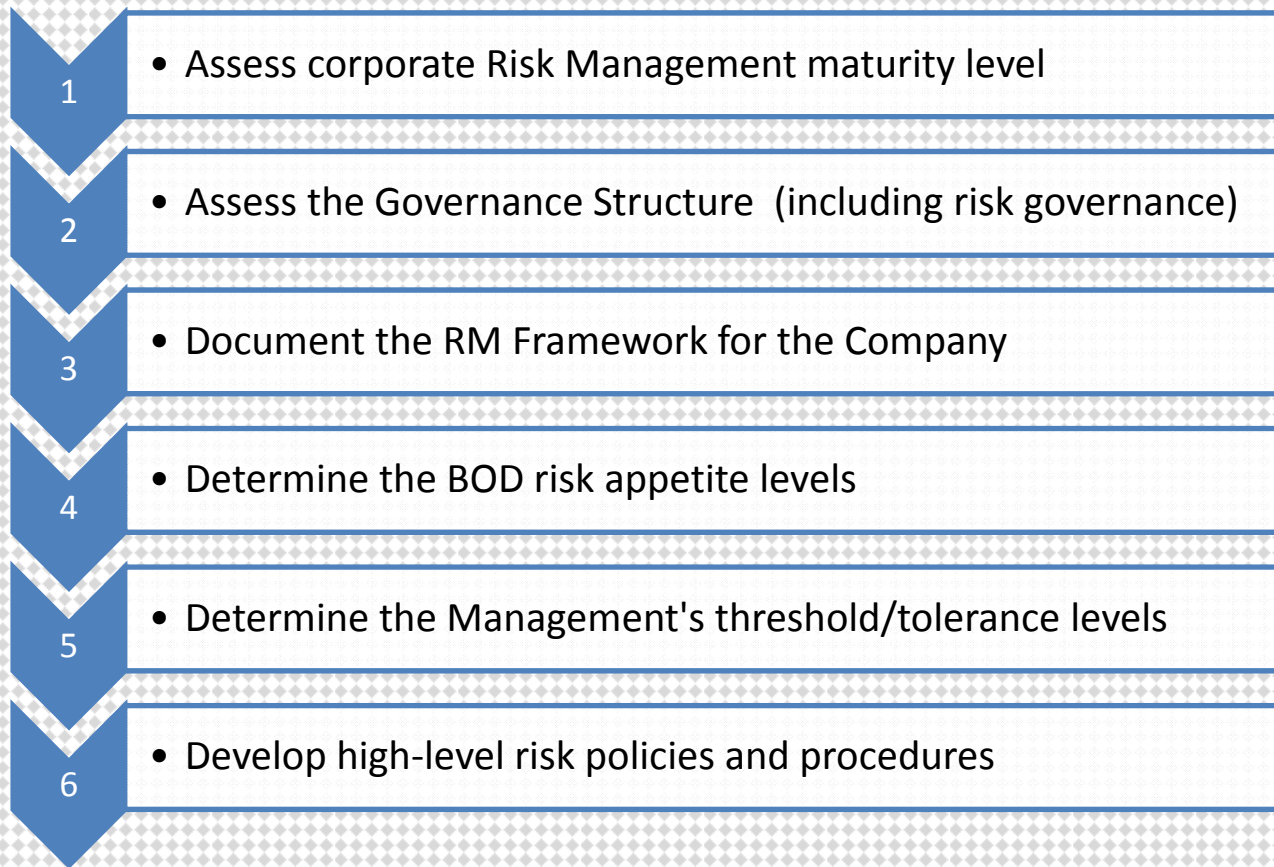
RM Phases



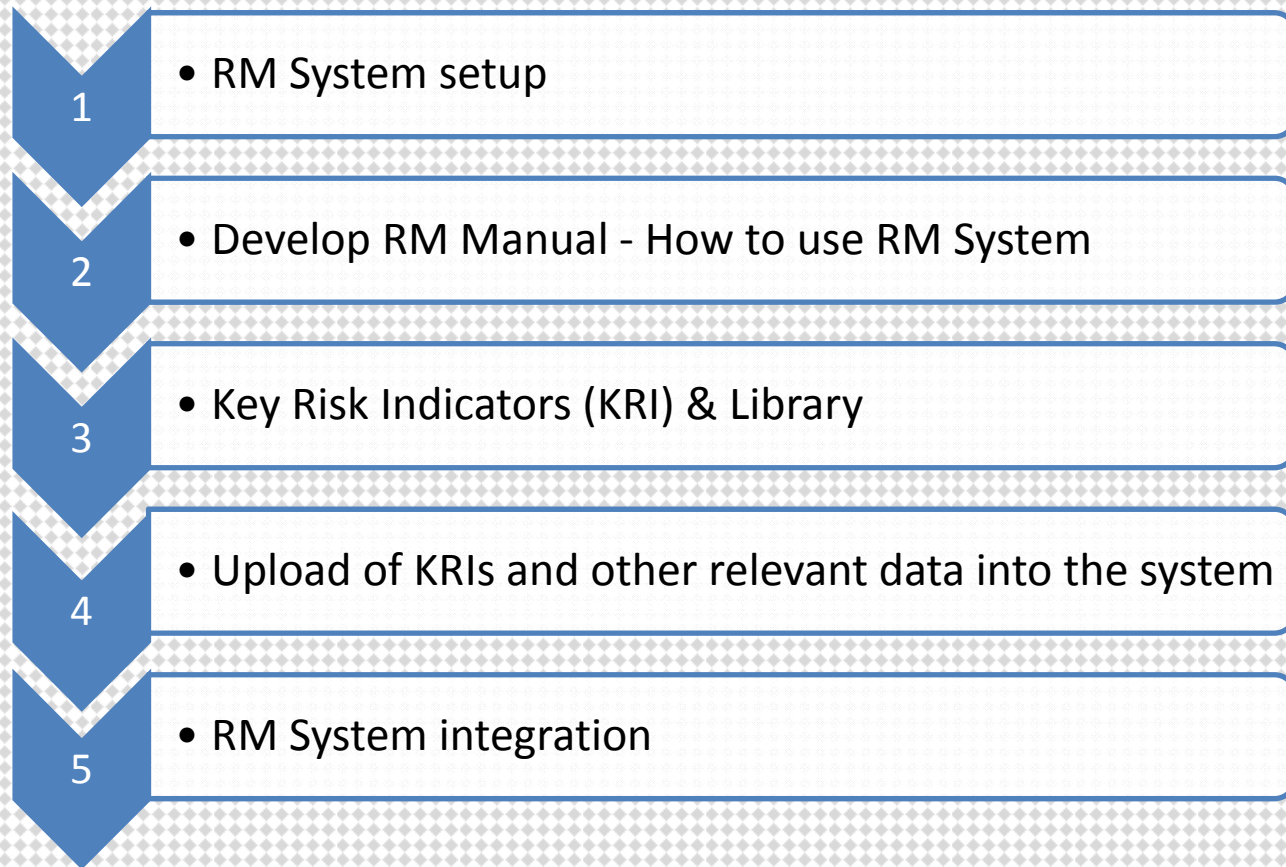
Phase 1 - Planning and Setup - Stages



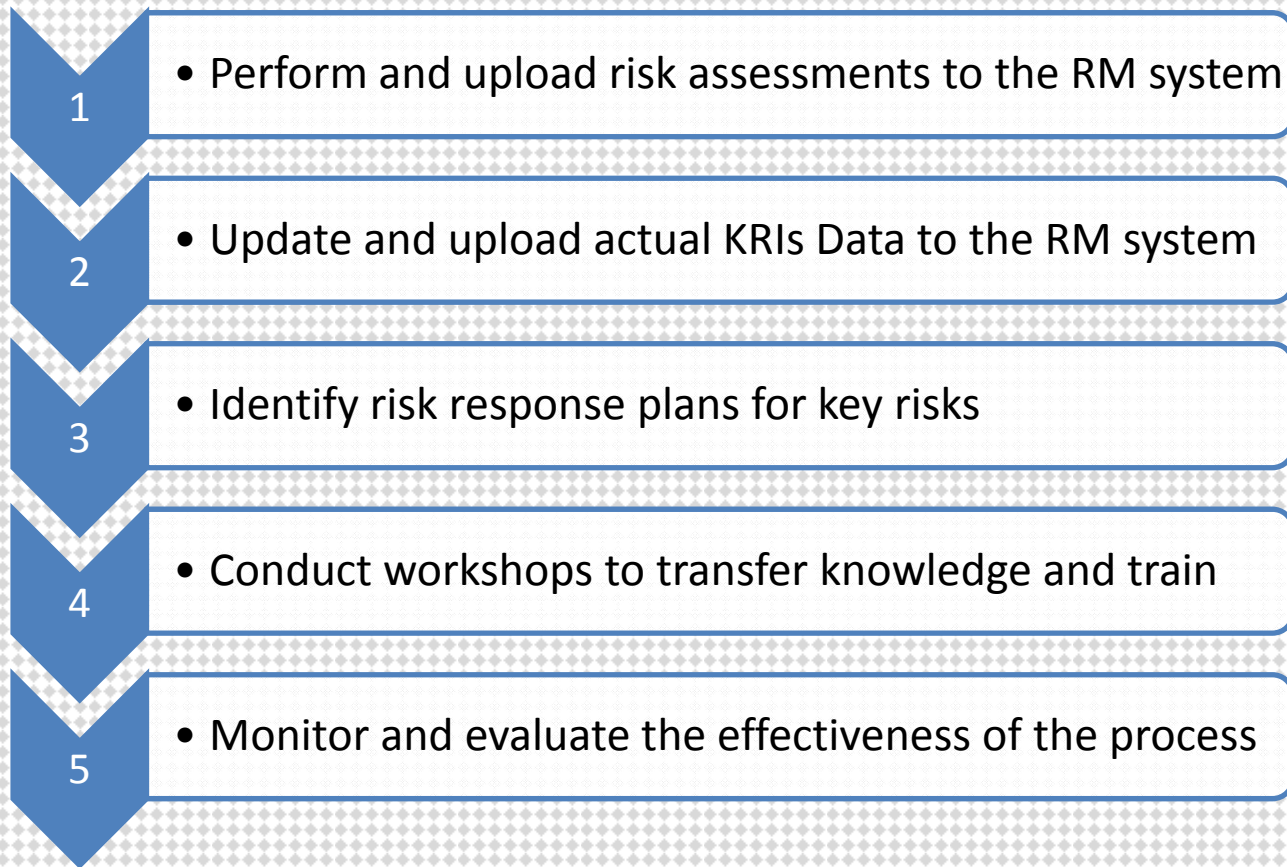
Phase 2 - RM Design- Stages



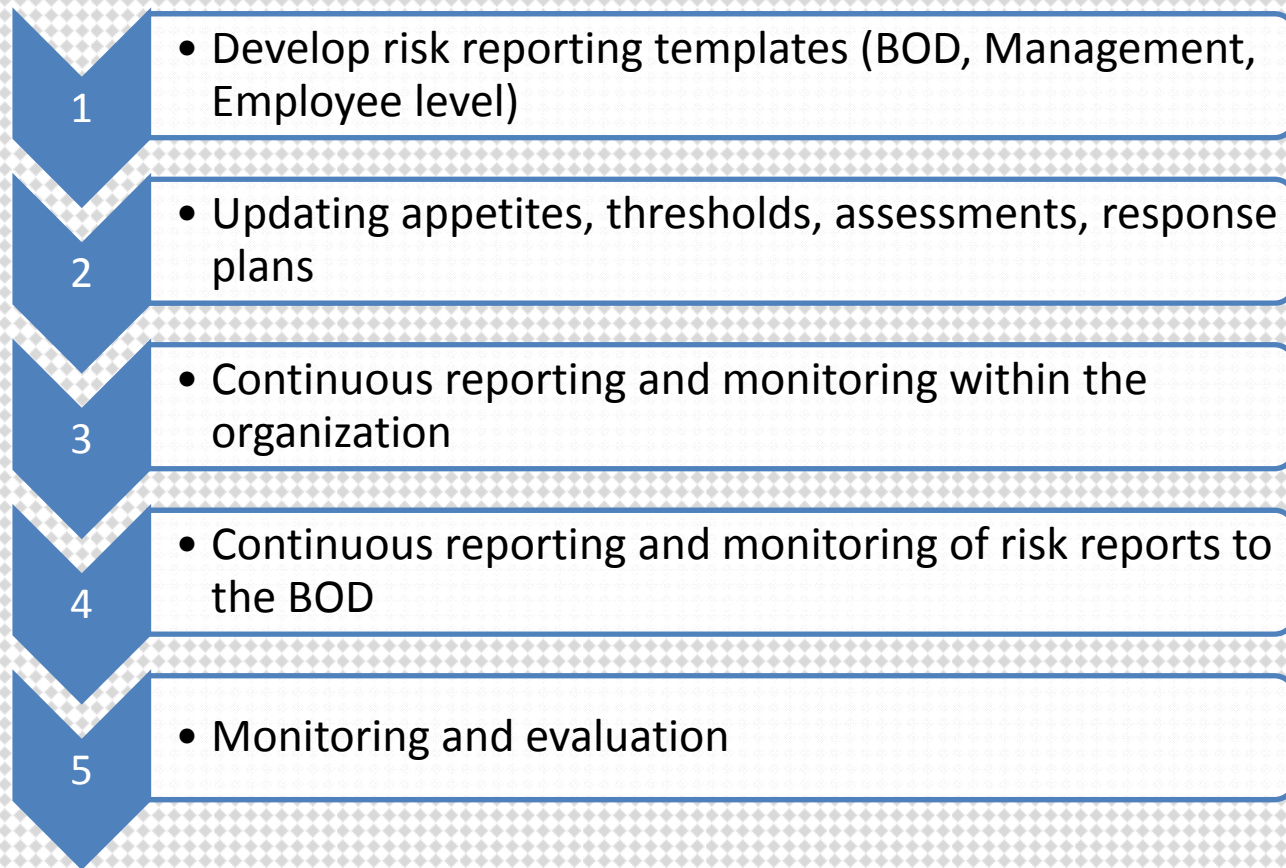
Phase 3 - RM Development - Stages



Phase 4 - Implementation - Stages



Phase 5 - Reporting & Monitoring - Stages



RISK APPETITE TABLE

1. Company 5 – Risk Appetite Table

Risk	Sub-Risk	Risk Appetite Level (i.e. Willingness to tolerate risk)
Strategic Risk	Short-term strategic risk	Green
	Long-term strategic risk	Red
	Reputational risk	Red
	Capital Risk	Green
Liquidity Risk	Short-term liquidity risk	Green
	Long-term liquidity risk	Yellow
Credit Risk	Customer credit risk	Yellow
Operational Risk	Fraud risk	Red
	Internal controls risk	Yellow
	Compliance risk	Yellow
	Human capital (HR) Risk	Green
	IT risk	Yellow
Financial Risk	Reporting Integrity risk	Red
	Customer concentration risk	Yellow
	Supplier concentration risk	Red
Market Risk	Interest rate risk	Green
	Currency risk	Green

Definitions of the above risks can be found in the glossary section.

Symbol	Definition
Green	The BOD accepts the impact of potential risk in materializing.
Yellow	The BOD has a moderate appetite to accept its exposure to risk.
Red	The BOD attempts to avoid/limit/mitigate its exposure to risk.

RISK APPETITE STATEMENT

2. Risk Appetite Statements Company 5 – (C5)

2.1 Strategic Risk Appetite Statement

Strategic risk is the current and prospective impact on earnings and shareholder value arising from business decisions. In order to maintain shareholder value:

- C5's strategy will strive to reflect changes in the company's business needs and will not limit the company from seizing opportunities that arise. Hence, C5 will accept variations in its short-term strategy.
- C5 will have little tolerance for not achieving long-term targets.
- C5 will assess the fit of any new opportunity with the company's strategy, and will target to achieve IRR of not less than 17% over a 3 year period.

2.2 Credit Risk Appetite Statement

Credit risk is associated with the default or deterioration in credit quality of customers or counterparties.

- C5 has Medium tolerance to oversights on customer credit performance. C5 expects that defaulted receivables not to exceed 10% of gross receivables.

2.3 Financial Risk Appetite Statement

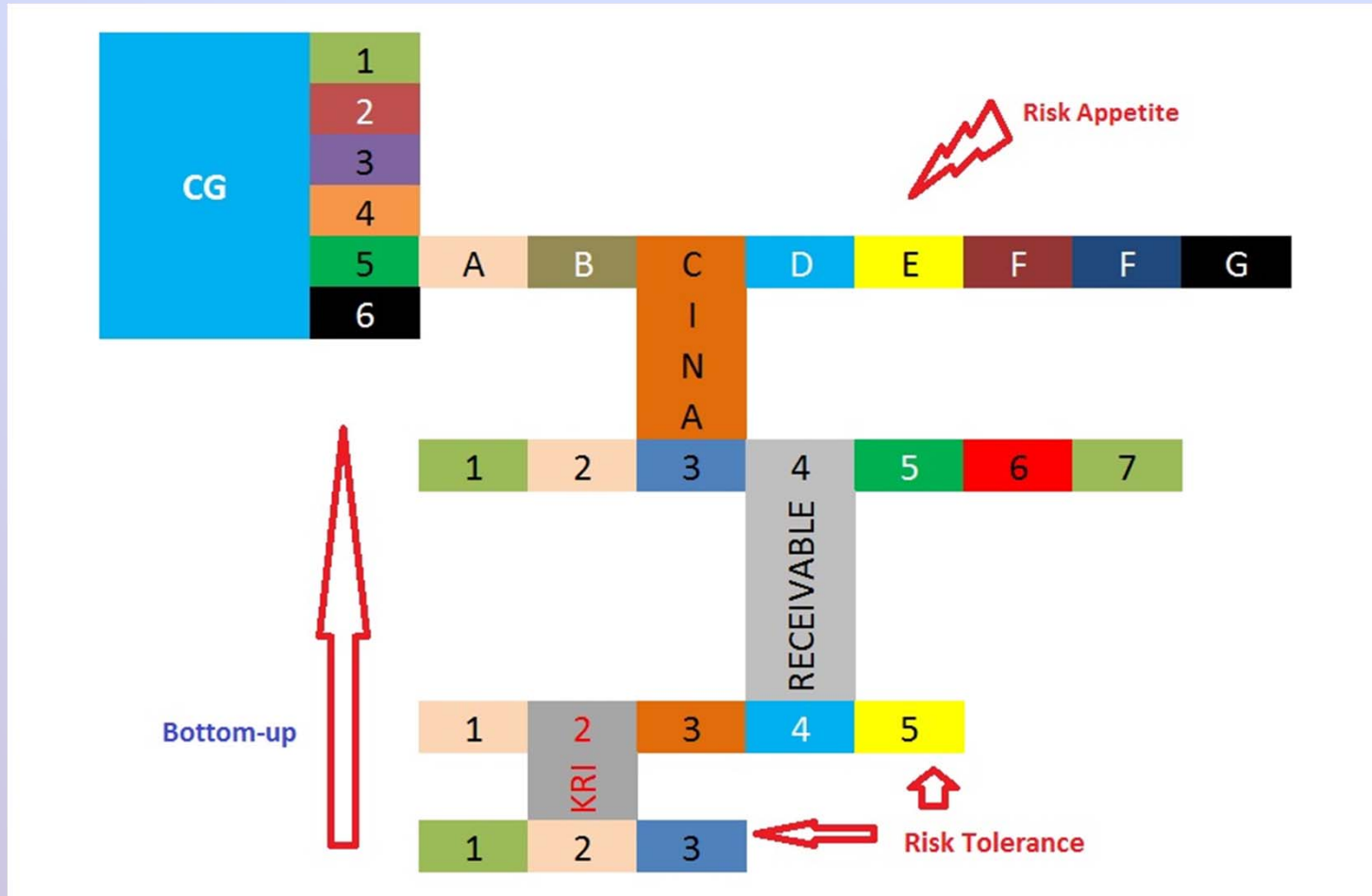
Financial risks includes those that may have a direct impact on the financial ratios, financial

C5 will try to monitor customer and supplier concentration limits as follows:

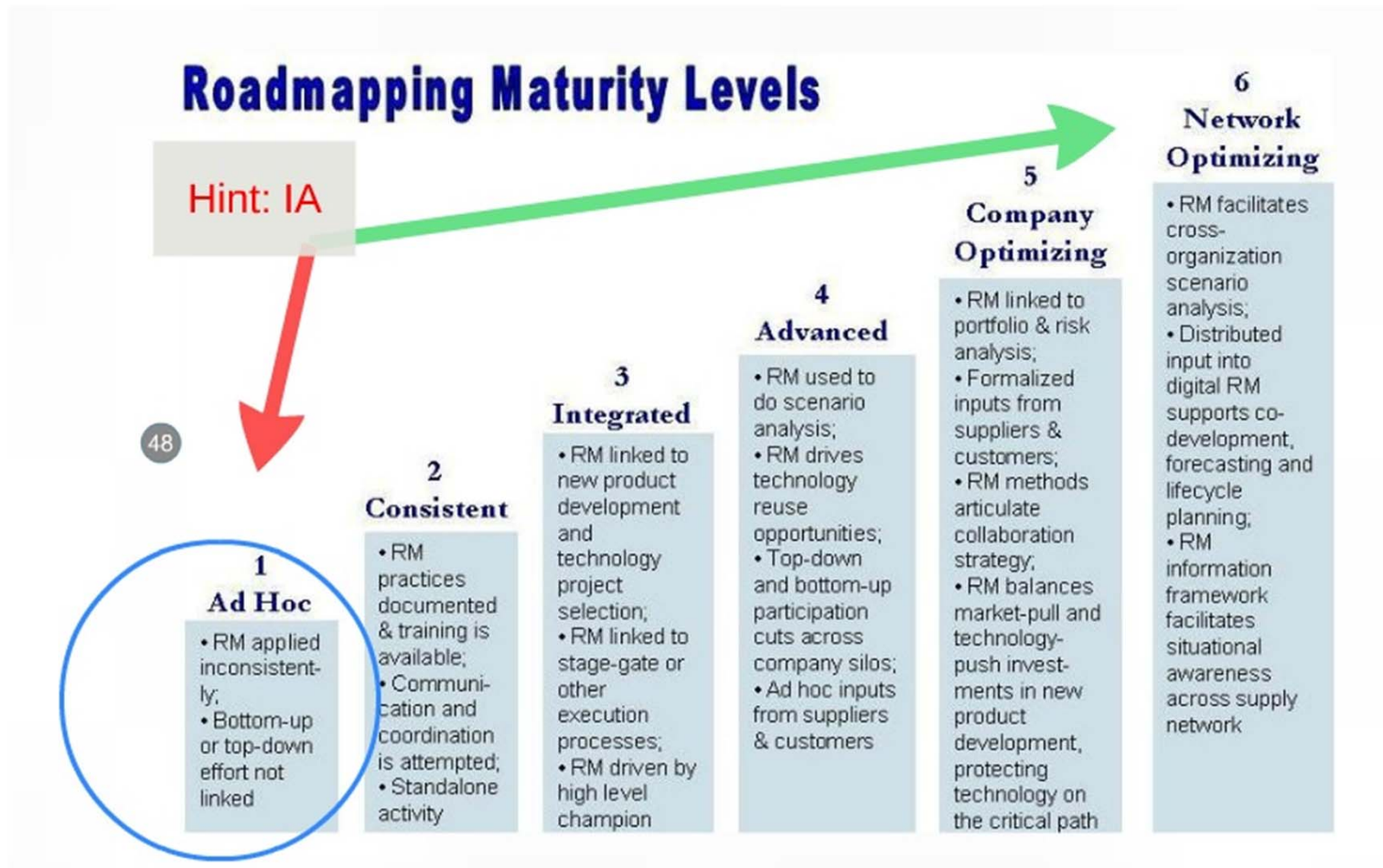
- Customer concentration – 25% of gross sales per customer.
- Supplier concentration – 12% for largest supplier.

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GROUP STRUCTURE



MATURITY LEVELS



RM USER MANUAL

MetricStream RSK Management User Guide V 6.0 SP2

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AUTHORITY MATRIX

COMPANY 5 AUTHORITY MATRIX									
EXPENSES TYPE / AUTHORITY LEVEL	BOD	Invst. Comt.	CEO/COO	VP F&A	SVP	VP	Manager	Supr. Visr.	HR
Purchasing & Expenditure (capital and non-capital)									
Less than \$5,000, in budget									a
Less than \$5,000, not in budget								a	i
Greater than \$5,000, less than \$25,000, in budget.							a	a	i
Greater than \$5,000, less than \$25,000, not in budget.					a		a	i	
Greater than \$25,000, less than \$ 50,000, in budget.						a	i	i	
Greater than \$25,000, less than \$ 50,000, not in budget.			a	a	i	i			
Greater than \$50,000			a	a	i	i			
Treasury Management / Finance / Capital									
Opening and closing of bank accounts					a				
Budget Approval / Business Plan	a		i	i	i				
Obtain finance / Negotiate new finance terms			a	i					
Loan amendment			a	i					
Increase or decrease of share capital (Capital Call / Distribution)			a	i	i				
Cash Management & Short Term Cash Investment					a				

NOTES:

- "a" refers to the approval level
- "i" refers to the involvement level

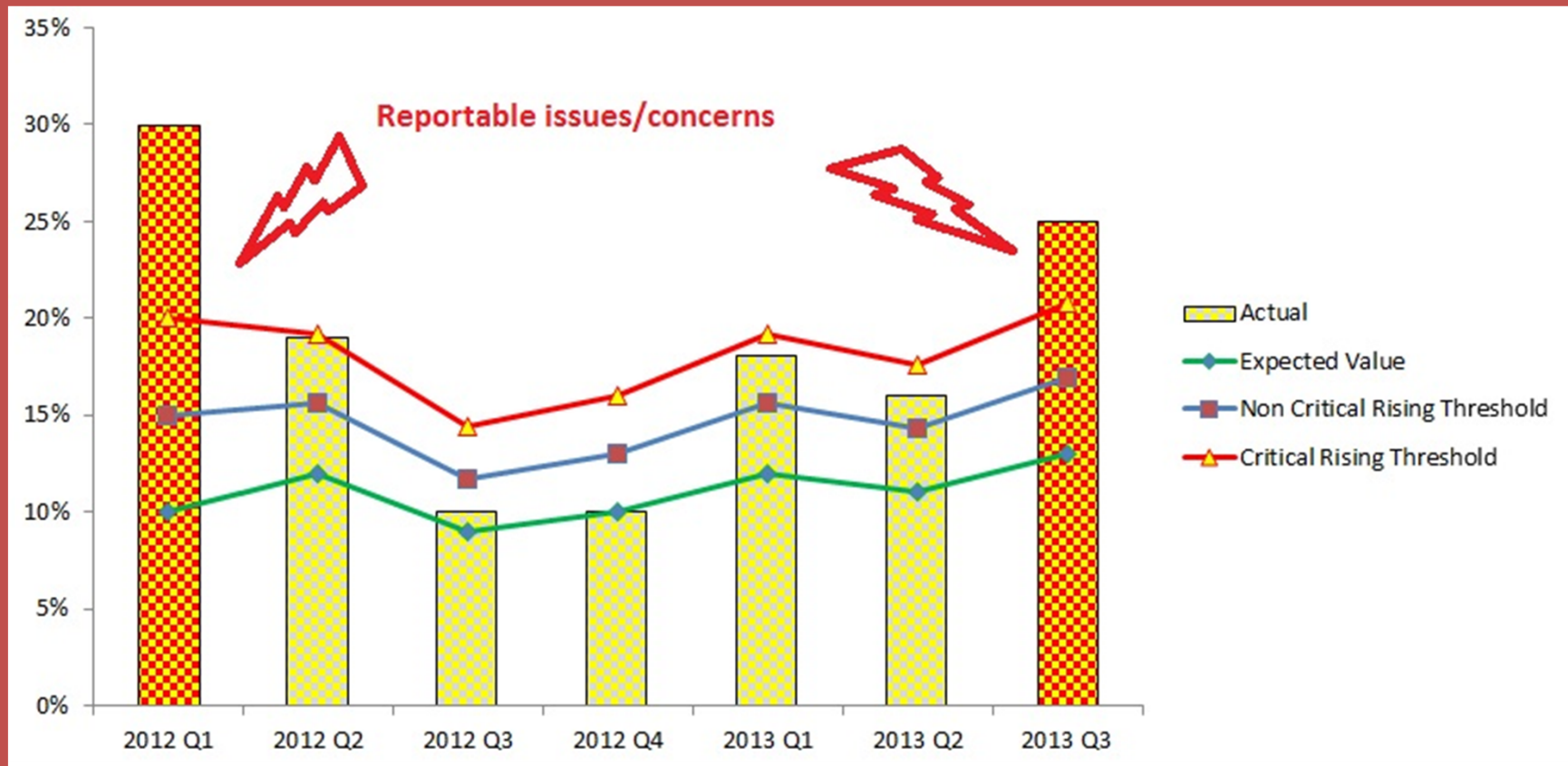
MANAGEMENT THRESHOLD

KRI NO.	Key Indicators to Monitor	Threshold Type	Monitoring Trend	Monitoring Frequency	Critical Max	Non Critical Max	Expected	Non Critical Min	Critical Min
KRI 7	% of deviation from approved/ expected Sales target	Percentage	RISING	Semi-annually	20%	15%	10%		
KRI 9	Value of cash in Bank	Value (USD)	BOTH	Monthly	500,000	350,000	250,000	200,000	150,000
KRI 13	Receivable turnover	Ratio	DROPPING	Quarterly			3.00	2.00	1.00

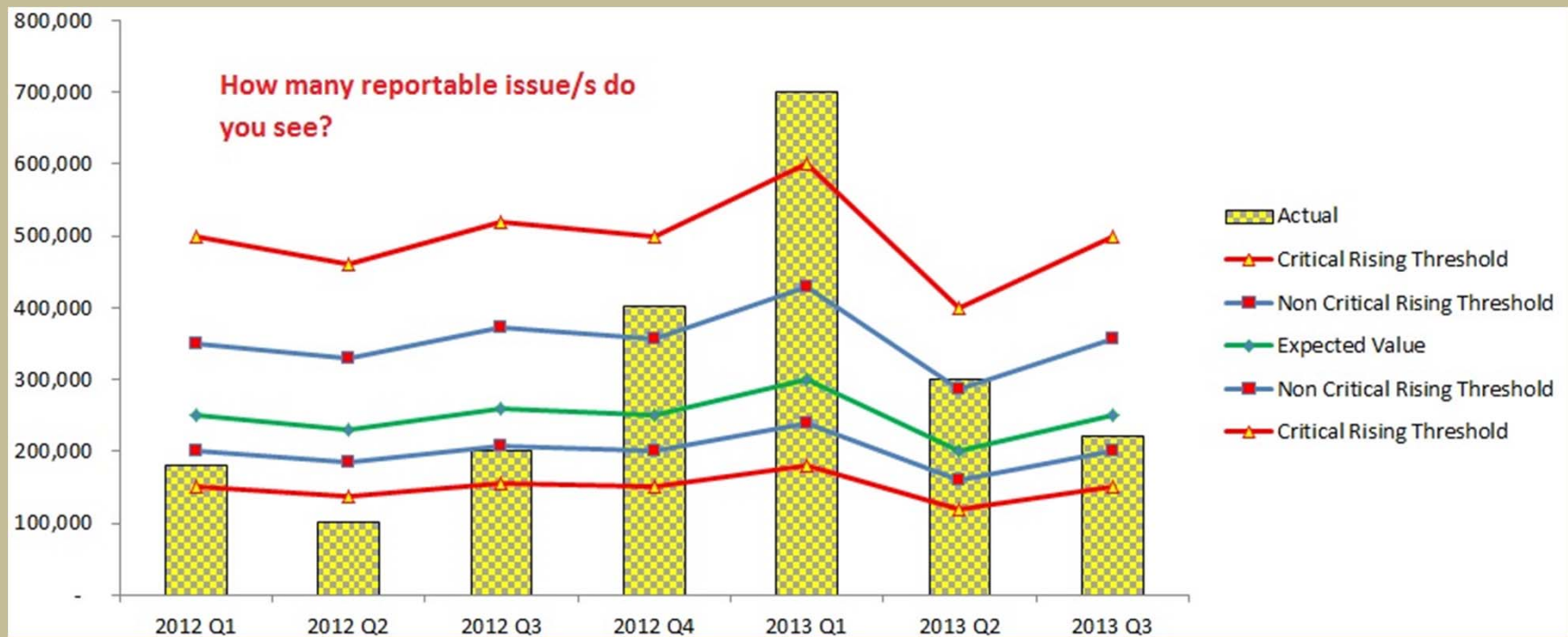
KRI 7 – ACTUAL DATA

	% of deviation from approved/ expected Sales target				
	Expected Value	Non Critical Rising Threshold	Critical Rising Threshold		Actual
2012 Q1	10%	13%	16%		30%
2012 Q2	12%	16%	19%		19%
2012 Q3	9%	12%	14%		10%
2012 Q4	10%	13%	16%		10%
2013 Q1	12%	16%	19%		18%
2013 Q2	11%	14%	18%		16%
2013 Q3	13%	17%	21%		25%

KRI 7 – FINAL DELIVERABLE



KRI 9 – FINAL DELIVERABLE



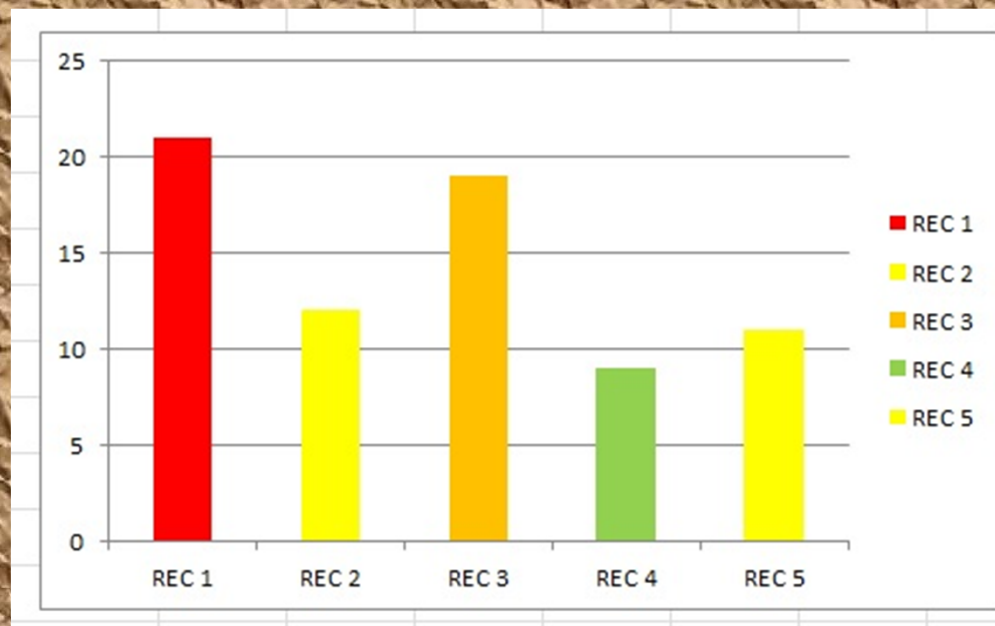
HEAT MAP

Likelihood	Impact				
	1 - Incidental	2 - Minor	3 - Moderate	4 - Major	5 - Catastrophic
5 - Almost Certain Will occur multiple times (i.e. within 1 year)	11	16	20	23	25
4 - Likely The event will occur once (i.e. within 1 year)	7	12	17	21	24
3 - Possible The event may occur within the foreseeable future or medium term (i.e. within 3 years)	4	8	13	18	22
2 - Unlikely The event may occur at some time but not likely to occur in the foreseeable future (i.e. Within the next 3 - 10 years)	2	5	9	14	19
1 - Rare The event will only occur in exceptional circumstances or as a result of a combination of unusual events (i.e. within the next 10 to 100 years)	1	3	6	10	15

RISK ASSESSMENT

PROCESS	RISK DESCRIPTION	RISK #	RANKING	
Receivable				
	Inefficient collectability to the receivables	REC 1	21	Avoid
	Lack of segregation of duties among the receivable function	REC 2	12	Reduce
	Low turnover to the receivable	REC 3	19	Avoid
	Inadequate bad-debt allowance	REC 4	9	Accept
	Delay in depositing collected cash	REC 5	11	Reduce

RECEIVABLE - RISK CHART



COMPANY P&P

COMPANY 5

LIQUIDITY POLICY & PROCEDURES

1. POLICY:

Company's Liquidity, cash in-flow, and cash out-flow should be handled based on Company 5 guidelines described in this document.

2. PROCEDURES:

1.0 DEFINITIONS

- 1.1 **Cash:** Currency and coins on hand, bank balances.
- 1.2 **Cash Equivalents:** - Short-term, highly liquid investments that:
 - 1.2.1 Are readily convertible to known amounts of cash;
 - 1.2.2 Have original maturities of three months or less;
 - 1.2.3 Are so near their maturity that they present insignificant risk of changes in value because of changes in interest rates.

2.0 CASH HANDLING RESPONSIBILITIES:

- 2.1 Appropriate segregation of duty at all times:
 - 2.1.1 A single employee may not handle a cash transaction from beginning to end;
 - 2.1.2 The cash handling function is separated from the function of recording cash transactions in the books of account;
 - 2.1.3 Employees not involved with cash processing prepare bank reconciliations.
- 2.2 Centralization of the cash receipt function;
- 2.3 Depositing of cash receipts to the bank intact on a daily basis;
- 2.4 Recording of all cash receipts to the appropriate sub-ledger and general ledger on the date of receipt;
- 2.5 Unapplied cash should be cleared (applied to a specific A/R account and customer) daily;
- 2.6 Payments should be limited to checks rather than actual currency.
- 2.7 All sites are required to complete the "Bank Account Opening Form" whenever new bank or other related investment accounts are needed. This form:
 - 2.7.1 Highlights the accounts currently open;
 - 2.7.2 Determines why the new account(s) are needed;
 - 2.7.3 Provides an estimated cost in opening needed accounts.

RISK P&P

COMPANY 5

LIQUIDITY RISK POLICY & PROCEDURES

1. Policy

The following guiding principles provide a framework for decision-making and are consistent with Company' overall risk management objectives and approved appetite:

- The Company will attempt to limit its engagement in heavy capital expenditure activities which require utilizing available cash resources and could strain the company's ability to operate in the short-term.
- The Company will strive not to exceed a 50% leverage ratio in order to comply with bank covenants.
- The Company will always sustain credit lines with financial institutions to provide additional liquidity when necessary.

2. Liquidity Risk Management Procedures

The liquidity risk tolerance ratios and limits are determined based on:

- Strategic requirements – as envisioned by the BOD;
- The short-term Liquidity Risk;
- Historic liquidity trends; and
- Stressed liquidity (i.e. Stress test results).

The Company needs to ensure full abidance by the ratios & limitations mentioned in its Risk Appetite and liquidity thresholds defined in this document.

Deliverables Per Phase

PHASE 1 - PROJECT PLANNING & SETUP

- Executive Summary;
- List of potential names to be involved
- Email communication to the whole organization
- White paper, Frequently Asked Questions
- White paper, ERM the role of Executive Management

PHASE 2 - ERM DESIGNING

- Maturity diagram
- Description of the principles and processes of RM
- White paper, Most common ERM barriers
- Risk appetite & Tolerance statements
- Risk Management policy and Risk committee charter
- ERM program roadmap, Organization and Governance structures, and roles and responsibilities

PHASE 3 - ERM DEVELOPMENT

- Risk Matrix
- ERM manual
- Risk Management Checklist, and Implementation summary
- Organization Chart, Job descriptions, and evaluation Matrix
- Process flows and descriptions

PHASE 4 - IMPLEMENTATION

- Workshops
- Questionnaires
- Risk register
- Key risks identified and quantified, Risk response options
- Identified and optimized, Risk response plans developed

PHASE 5 – REPORTING & MONITORING

- Key risk indicators identified and monitoring plans developed
- Risk reports designed and developed
- Key risks quantified, correlated, and aggregated into risk profile
- Risk reports updated with risk measures

Progress & Level of Involvement

RISK MANAGEMENT PROJECT COMPANY 5 - PROGRESS

PHASE	STAGES	PERIOD		LEVEL OF INVOLVEMENT											KEY DELIVERABLES	PROGRESS						
		Start Period	End Period	AC	BOD	CRO	CEO	CFO	COO	IT	HR	MGMT	IA	OTHER		% OF COMPL.	N/A	IN PROGRESS	DELAY	DONE		
2. RM DESIGN PHASE	1. Assess corporate Risk Management maturity level	Jan-12	May-13	X	X	X	X									X	<ul style="list-style-type: none"> RM Maturity assessment 	50%			X	
	2. Assess the Governance Structure within the company (including risk governance)	Jan-12	Apr-13	X	X	X	X									X	<ul style="list-style-type: none"> AC, RM, Compensation Committee Charters Update authorization matrices 	40%		X		
	3. Document the RM Framework for the Company	Jan-12	Mar-12			X	X	X									<ul style="list-style-type: none"> RM Framework structure to be incorporated in the risk charter OR risk appetite 	100%				X
	4. Determine the BOD risk appetite levels	Jan-12	Feb-12	X	X	X	X										<ul style="list-style-type: none"> Risk appetite questionnaires to BOD Risk appetite comparison matrix Company group Risk appetite statement 	100%				X
	5. Determine the Management's threshold/tolerance levels	Mar-12	Mar-13				X	X	X					X			<ul style="list-style-type: none"> Key risks and risk tree matrix + CEO's desired thresholds and indicator levels 	45%		X		
	6. Develop high-level risk policies and procedures	Apr-12	Jun-13				X							X		X	<ul style="list-style-type: none"> High-level risk policies and procedures (credit, operational, strategic, liquidity) 	30%		X		

Tips for success

- Think out of the box;
- Step-back and look at/evaluate the big picture;
- Show value-added;
- Be creative and pro-active;
- Be a leader not a manger;
- Communicate as early as possible;
- Communicate to the appropriate level;
- Be efficient & effective by utilizing in house resources.
- Plan & Budget.