



Risks Management in Complex and Dynamic Systems

Moving away from traditional ways

Gilbert Mwalili

Managing Director

Protecht Africa

gilbert.mwalili@protecht.co.ke

www.protecht.co.ke

Agenda

1. Traditional approach . an overview
2. Risk Management in complex and dynamic systems

Agenda



1. Traditional approach . an overview
2. Risk Management in complex and dynamic systems

Perception of Risk



HINDERANCE

The internal audit syndrome

If my risks are known/high/reported – I am a bad performer

Am just too busy for risk management – professional issues managers

Traditional risk management

Risk management – governance structure

Mostly, no risk management unit/department

Risk function is in the internal audit department

Risk manager usually a junior officer – no say in senior management

Traditional risk management

Reporting lines

One way reporting – bottom-up

Senior management limiting reported risk intelligence to CEO/MD

Top management limiting reported information to Boards

Traditional risk management

Boards' oversight

Not empowered

No questions asked

No Board risk committee

Traditional risk management

Internal audit

Usually in charge of risk management

Identifies risk and then audits – ‘risk-based audit’

No value additions – just reporting

A risk management unit within Audit if lucky

Traditional risk management

Risk Registers

Normally auditors property

Little to tell

Been the same last 2-5yrs

Developed from desk-top risk assessment

Risk Registers

RISK REGISTER PROCUREMENT DEPT.

FUNCTIONAL AREA	PROCESSES/ ACTIVITIES	RISKS IDENTIFIED/RISK FACTORS	RISK EVALUATION/ MEASUREMENT	RISK MGT PLAN CONTROL/ TREATMENT.	IMPLIMENTATION/ RISK TREATMENT OPTIONS/ACTIONS	MONITORING AND REVIEW.
PROCUREMENT Department	PURCHASE OF GOODS/SERVICES	<ol style="list-style-type: none"> 1. Poor quality goods/services. Low pricing of goods by the suppliers and poor specifications 2. High prices of goods increase in cost and over budget/insufficient funding. 3. Continuity of supply. Security for supply of critical goods 4. Biased specifications hence inadequate 	<ol style="list-style-type: none"> i) Perform periodic due diligence of vendors using a risk-based approach. ii) Analyze procurement trends, payment patterns, and changes in the mix of products and services procured to find indications of wasteful or collusive behavior. 	<ol style="list-style-type: none"> 1. Select capable and competent suppliers and develop standard specifications to meet quality required. 2. Use procurement methods as per the Public Procurement and Disposal Act. Improve planning 3. Appraisal of supplier performance to ensure a lean supply base with enough capacity to avoid delay in delivery or non delivery 4. Availability of appropriate Skills. 5. Agree on prices and a formula for calculating variations. 	<p>Choose the best option/ combination of controls and implement by taking action.</p> <p>Implement control measures to reduce the impact.</p> <p>Consolidate vendors and streamline procurement processes.</p>	Monitor performance against targets to ensure controls are effective and efficient.

Traditional risk management

Risk reports

No specific risk reports

Long reports

Generic reports as opposed to targeted reports – one size fits all

Agenda

1. Traditional approach . an overview

 2. Risk Management in complex and dynamic systems

Perception of Risk



ENABLER

Risk owned by ALL staff

Freely reported and shared

Applied in decision making

Risk in a complex & dynamic system

Risk: the effect of uncertainty on objectives

ISO 31000: Risk Management - Principles and Guidelines



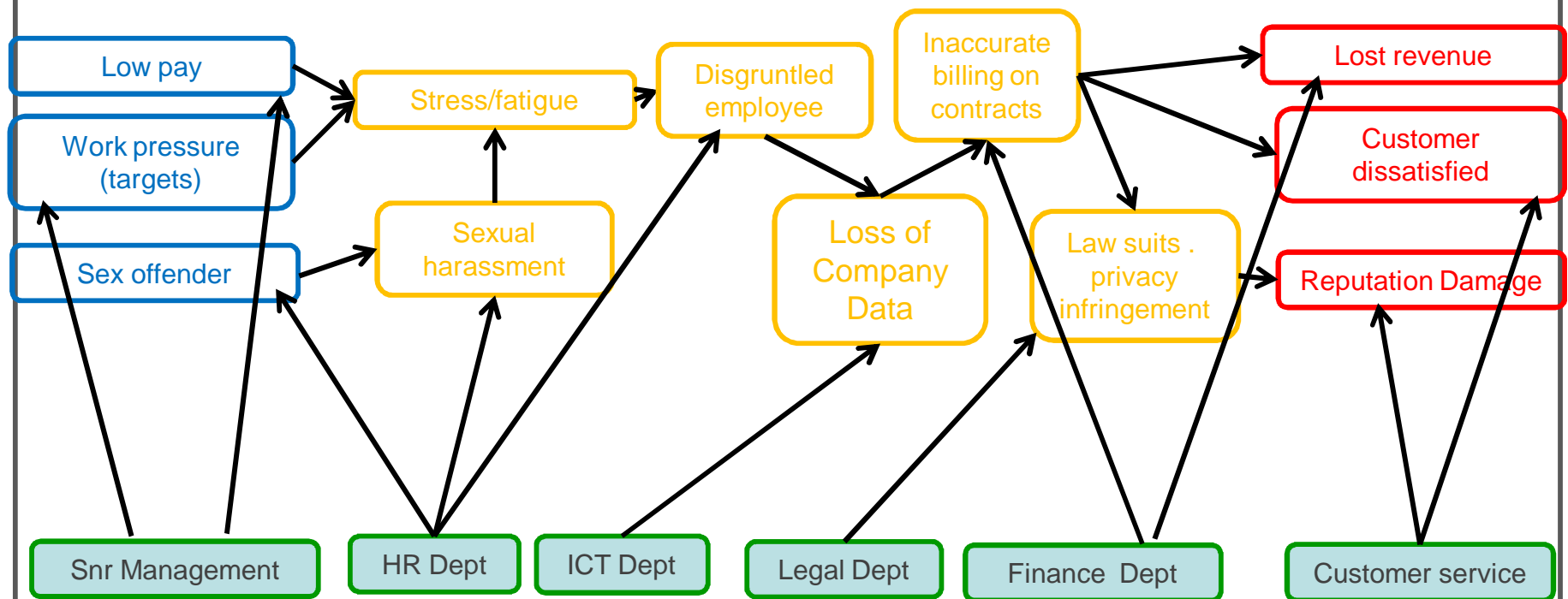
***Risk Management is really Objectives
Management is really Outcome Management***

The 5 Lines of Defense

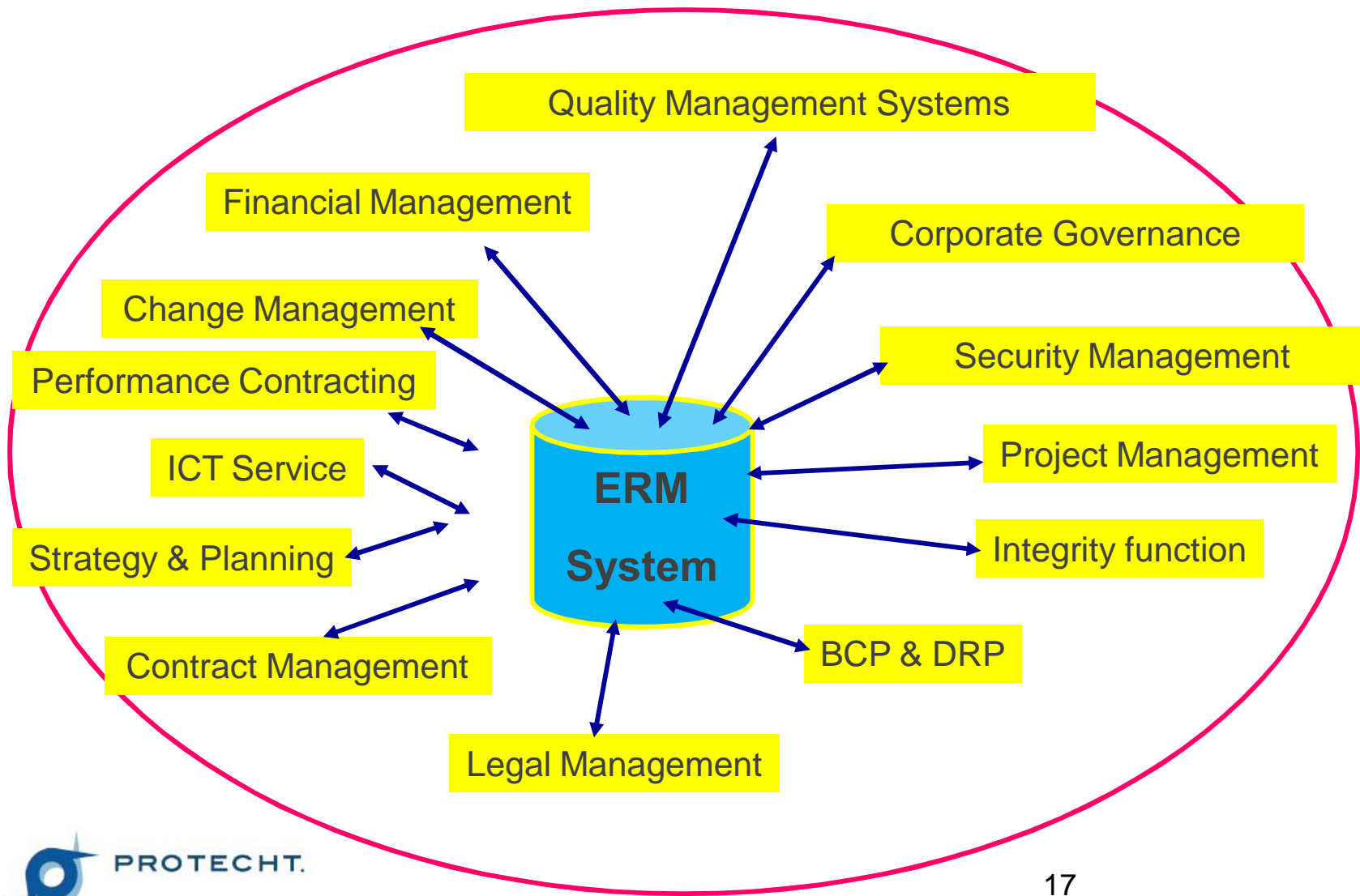


Integrated approach

All inclusive – no island functions within the organization



Breaking the silos



Breaking the silos



Integrated into day-to-day - the Use Test

- “ Risk information is used by management in decision making
- “ Make decisions based on reward / risk
- “ Staff think about risk as part of their everyday jobs
- “ Staff have some part of incentive plan linked to risk management
- “ Staff have some element of risk management included in their job role

Leading to ã ..

Risk Management is not mentioned as a separate concept. It is integrated into day to day business.

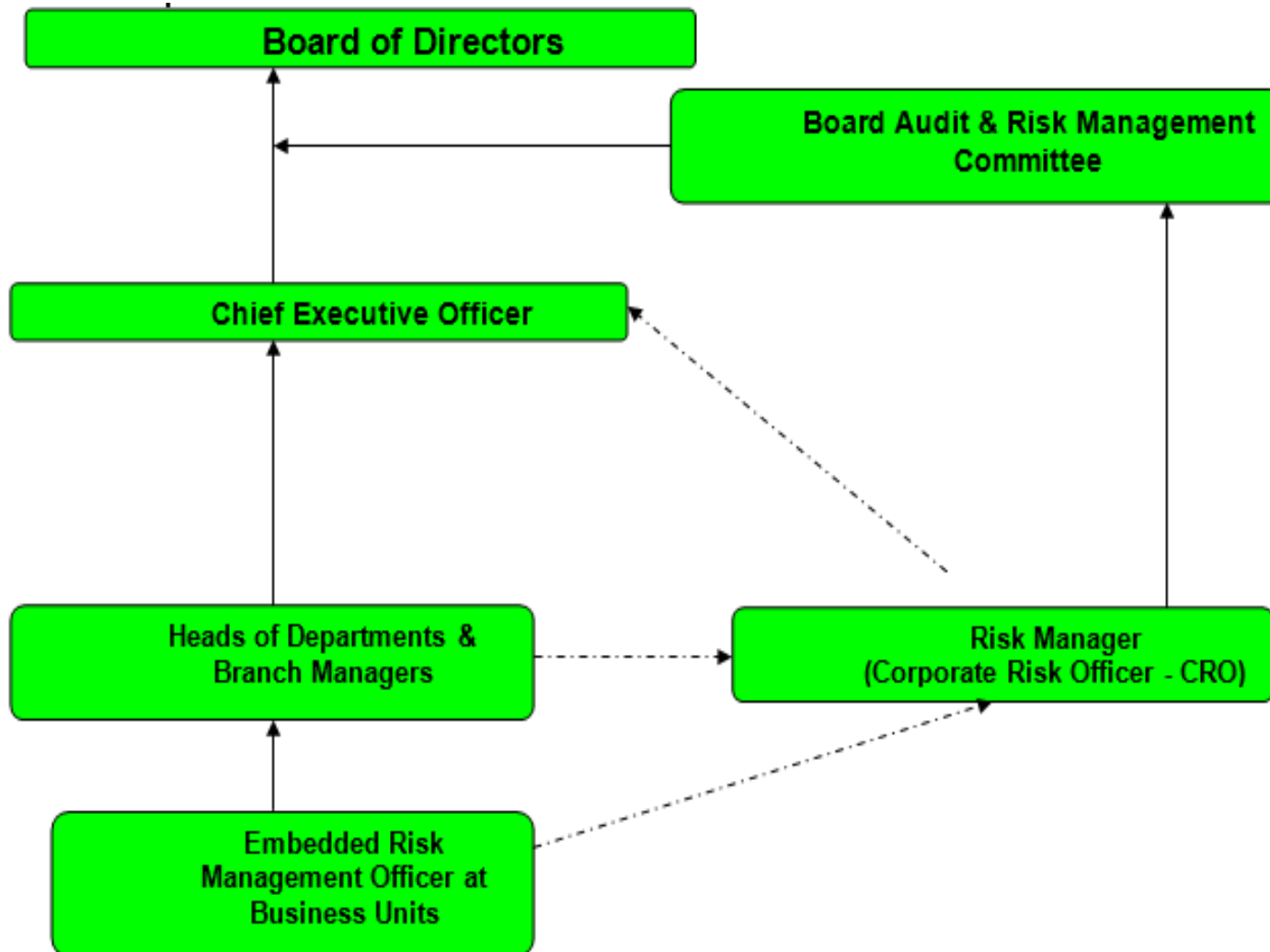
Prominence given to risk management

Risk manager part of senior/top management

All reports are risk-based

Risk language used in all meetings

ERM Governance Structure



Meticulous risk management systems

Not just a risk register

System caters for linkage to objectives, comprehensive risk assessment, monitoring and continuous improvement

Risk Management System

Risk Appetite Measures

Tolerance to variation from objectives

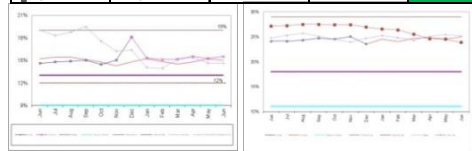
Objective	Value	Tolerance
ROE	5%	+/- 1%
Growth	8%	+/- 2%
Bad Debts	0.15%	+/- 0.05%
Memb Sat	85%	- 5%
Staff Sat	85%	-5%
etc		

Specific Risk Measures

Risk Cat	Measure	Objective	Tol +/-	Policy Reference
Mkt	VaR	1%	-1 / +2%	TRM ####
Cr	LVR%	80%		CRM ####
Liq	Liq %	14.5%	+/- 0.5%	TRM ####
Op	Loss \$	\$50k	+25k	ORM ####
Cap	Cap Ad %	24%	+/- 4%	TRM ####

Risk Appetite Reporting

Risk Cat	Measure	Objective	Tol Var +/-	R.A.G.
Mkt	VaR	1%	-1 / +2%	Green
Cr	LVR%	80%	0%	Yellow
Liq	Liq %	14.5%	+/- 0.5%	Yellow
Op	Loss \$	\$50k	+25k	Red
Cap	Cap Ad %	24%	+/- 4%	Green



Reporting

Board Level

Management Level

Risk Analytics



Risk Measurement and Monitoring systems

Enterprise Risk Management

Operational Risk Mgt

Interest Rate Risk Mgt

Liquidity Risk Mgt

Credit Risk Mgt

The Board

Strategic and Emerging Risk Assessment

Stress Testing



RAS

The Future
NEXT EXIT
Strat Plan

ICAAP

Risk Area	Capital Percentage
Counterparty Default – Diversified Portfolio	7%
Operational Risk	1%
Pillar 1 - Capital %	8%
Pillar 2 – Risks requiring uplifts – as per annual document (concentration, liquidity etc)	7%
Total Capital Requirement	7%
Current capital position as dd/mm/yyyy	x% (surplus of y% to ICAAP req)

Policy Framework



Risk Management

Risk Appetite Statement

Interest Rate Risk Management

Derivatives and Hedging

Operational Risk Management

Sub Policies
Governance
BCP / DRP
Outsourcing
Fraud

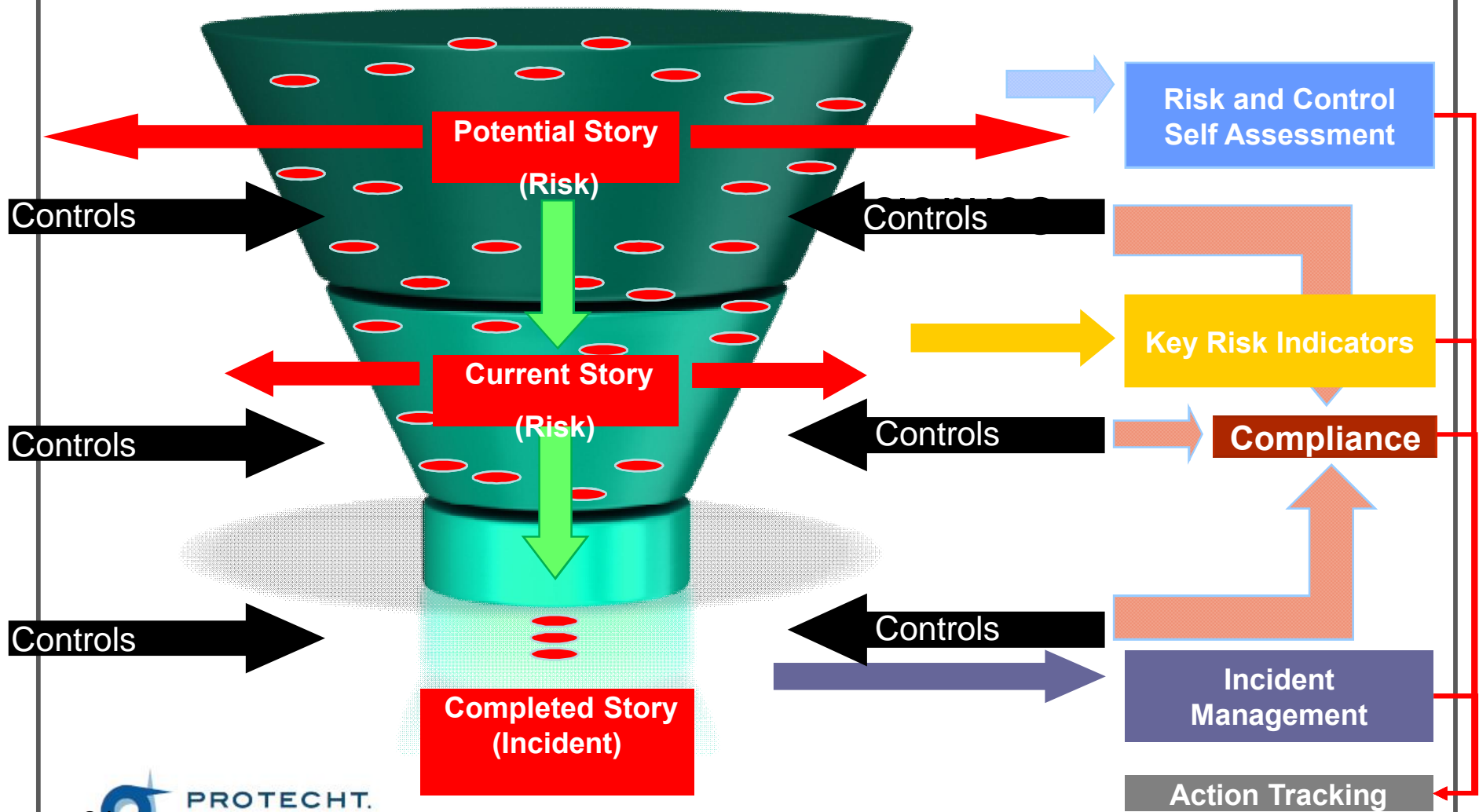
Credit Risk Management

Liquidity Risk Management

Capital Management

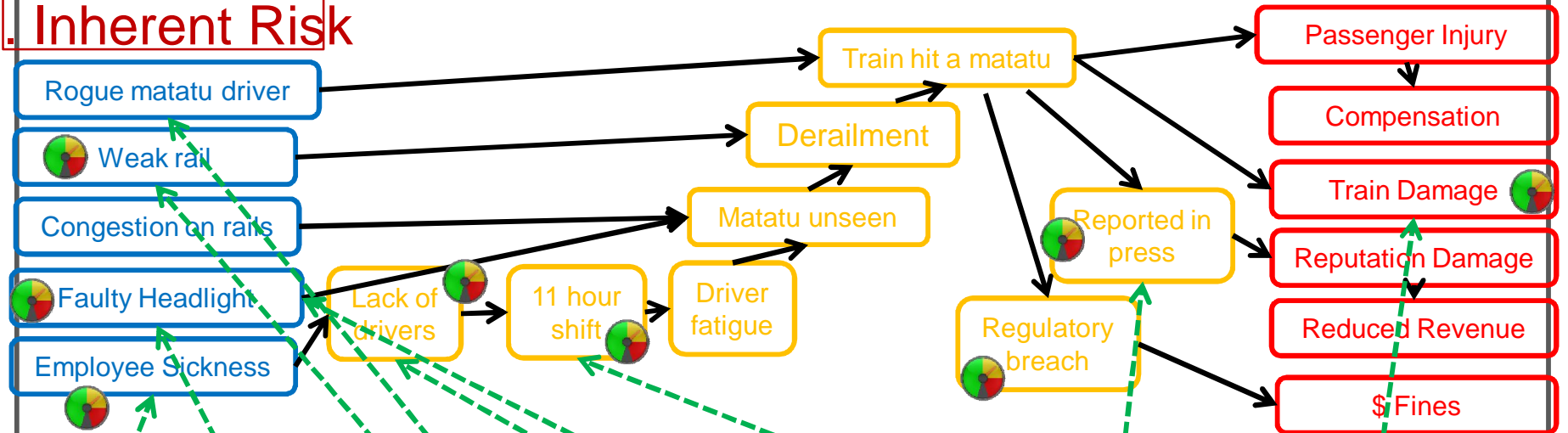
ICAAP

Risk Management System



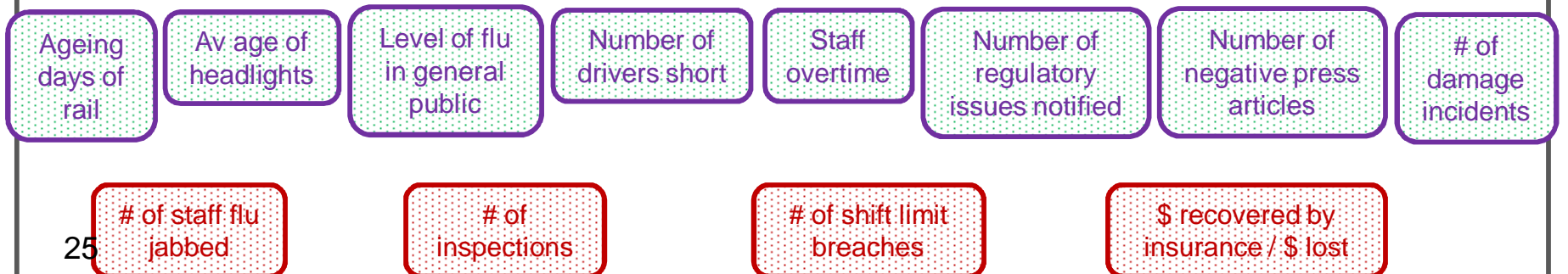
Risk Analysis

1. Inherent Risk



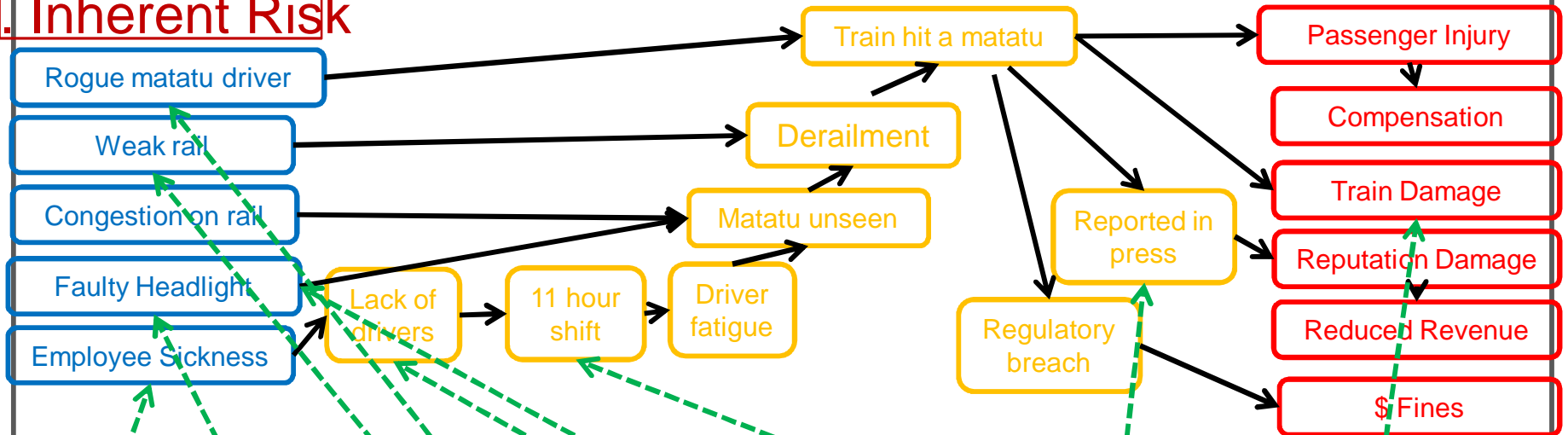
2. Controls

3. Key Risk Indicators

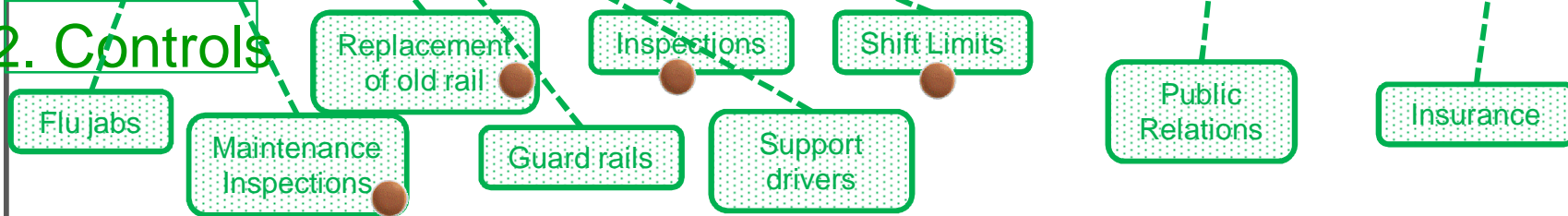


Risk monitoring and improvement

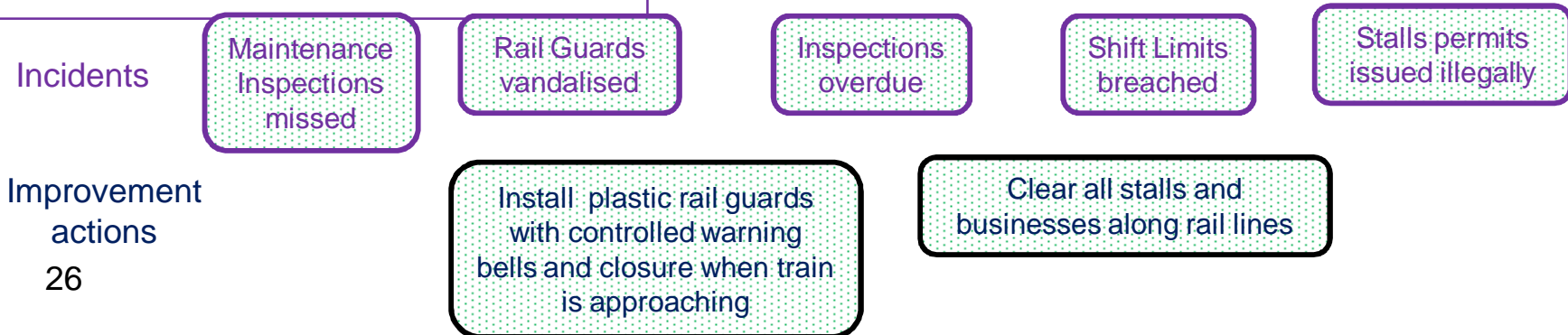
1. Inherent Risk



2. Controls



3. Incidents and Actions



Effective Board on risk management

Defined Board Risk Appetite Statement – not just likelihood & consequence matrix

Established board risk committee

Reporting from Risk Manager

Questions asked by board

BOARD DASHBOARD

RCSA DASHBOARD

Strategic Objective 1: Reduce operational losses by 80%

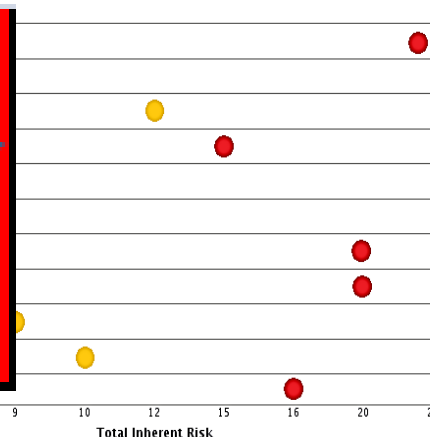
Self Assessment Details

Strategic Objective

Risk Name

Total Inherent Risk

Fraud risk



RISK INDICATORS

RISK: FRAUD

Number of fraud cases per month



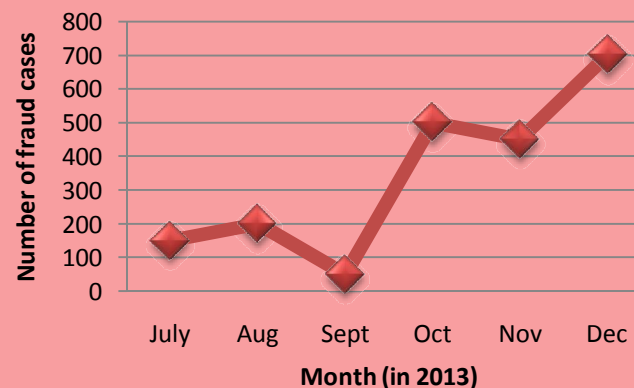
Number of prosecutions of fraud per month



Percentage of amounts recovered on enforcement



Trend Analysis: Number of fraud cases



ACTIONS

Red Risk Indicators

Number of prosecutions of fraud per month

Action Taken

Engage 5 law firms to speed up prosecution process

Status

Overdue

Percentage of amounts recovered on enforcement

Prioritize recovery of amounts greater than 100 million

WIP

TOP 10 RISKS Report

TOP 10 RISKS	Total Risk Score		Risk and Control Self Assessment Results as at June 2009				Key Controls Compliance for month		Key Risk Indicators		Action Plans outstanding		Risk Incidents			
			Key: Green 0-4, Amber 5 – 14, Red 15-26													
			Average branch score		Worst branch score						Total	Overdue	Month		Year to Date	
			Inherent risk – Before controls	Residual risk – After controls	Inherent risk – Before controls	Residual risk – After controls	Yes %	No %					#	\$m	#	\$m
1. Potential Breach of Food Safety legislation		■	16	14	25	16	97	3	■	■	7	2	2	2.10	24	13.20
2. Potential Breach of OH&S legislation		■	16	8	20	10	92	8	■	■	16	0	4	0.90	32	9.10
3. Excessive controllable expenses		■	12	7	15	7	100		■	■	10	6	2	0.20	12	1.10
4. Excessive inventory holdings		■	16	6	16	6	96	4	■	■	34	12	6	4.70	8	5.00
5. Loss of stock		■	15	6	20	6	98	2	■	■	22	2	1	1.20	4	3.20
6. Loss of key employee(s)		■	9	5	12	7	N/A ¹		■	■	3	1	0	0.00	2	1.10
7. Loss of cash		■	10	4	12	5	97	3	■	■	6	2	2	0.02	3	0.25
8. Loss due to incorrect receipting process		■	9	4	12	5	94	6	■	■	16	1	5	0.43	14	0.92
9. Inadequate product ranging	■	■	6	4	12	5	N/A ¹		■	■	12	8	2	1.60	17	7.50
10. Uncompetitive prices and margins	■	■	6	3	12	3	97	3	■	■	10	9	1	1.10	3	22.40

Risk Culture

1. Level of Risk Awareness
2. Freeness of communication. Strong and open communication . whistleblower
3. Understanding of: objectives, risks, controls
4. Seriousness to ~~control~~ compliance
5. ~~Time~~ to complacency
6. Integrity / ethics / honesty / corruption
7. Take responsibility
8. Simplicity, ease and level of understanding, keeping it real etc.



Risk Awareness

There are known
knowns. These are
things we know that
we know. There are
known unknowns.
That is to say, there
are things that we

know we don't know.

But there are also
unknown unknowns.
There are things we
don't know we don't
know.+

Donald Rumsfeld

Unknowable .

Low L,

High I

Knowable .

Med L,

Med I

The end result = *Risk Smart*

1. Performance measure is a function of performance and risk management.
2. Optimized, risk management principles and processes are integrated in the management and operational process.
3. Intuitive understanding of Risk management and full commitment by all staff levels.
4. Risk management is adaptive and proactively developed and managed.
5. Extensive experience and high level qualifications with proactive training of staff on risk management.
6. Active measurement of risk management.

Ultimate Enterprise Risk Management



Risk Management . where are you?



Q & A



Thank You

Risks Management in Complex and Dynamic Systems

Moving away from traditional ways

Gilbert Mwalili

Managing Director

Protecht Africa

gilbert.mwalili@protecht.co.ke

www.protecht.co.ke

+254 716 216 451