**STAFF REPORT
INFORMATION ONLY**

Introduction to TTC's Enterprise Risk Management (ERM) Program

Date:	September 11, 2015
To:	TTC Audit and Risk Management Committee
From:	Chief Executive Officer

SUMMARY

This is the inaugural meeting for the Audit & Risk Management Committee (ARM), the attached presentation is an introduction to TTC's Enterprise Risk Management Program.

Financial Summary

This report has no financial impact.

Contact

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Attachments

TTC Enterprise Risk Management (ERM) Program

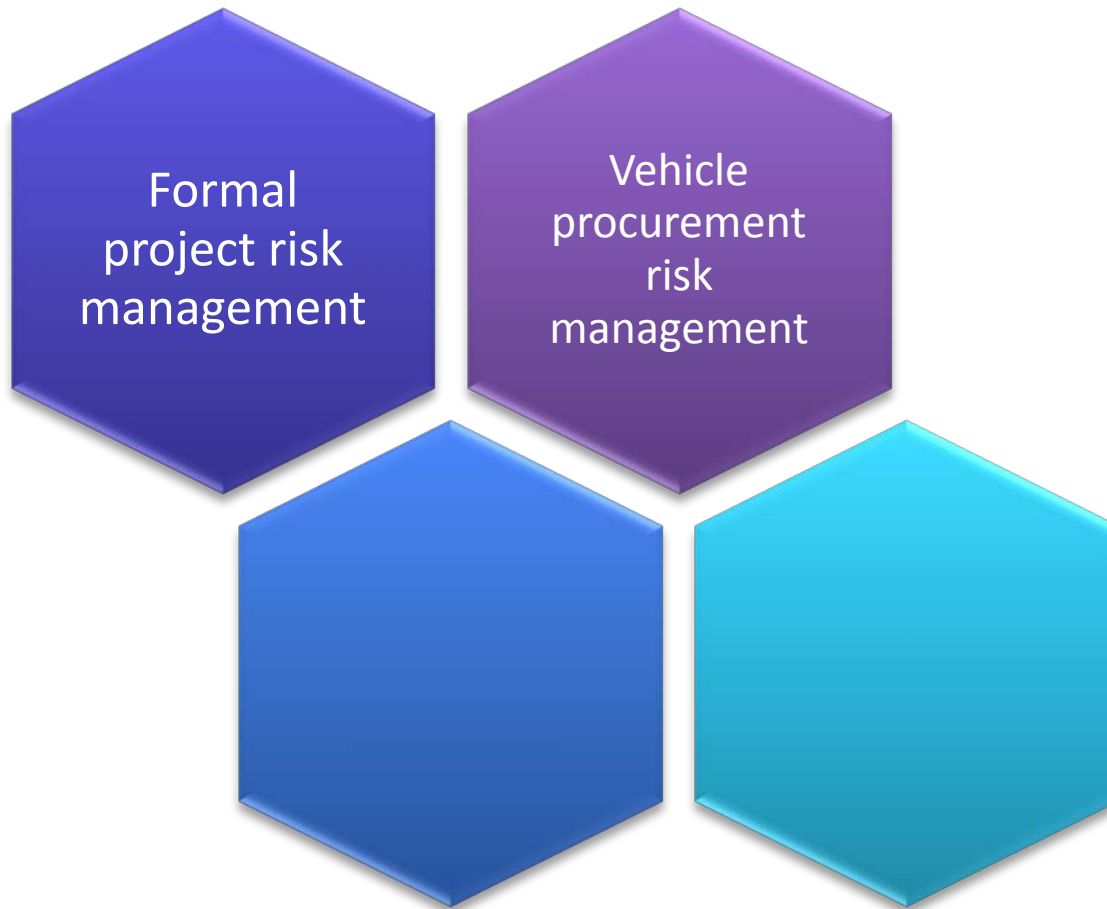# TTC ENTERPRISE RISK MANAGEMENT (ERM) PROGRAM

1. Why Do We Need Risk Management?

2. TTC ERM Program Plan and Approach

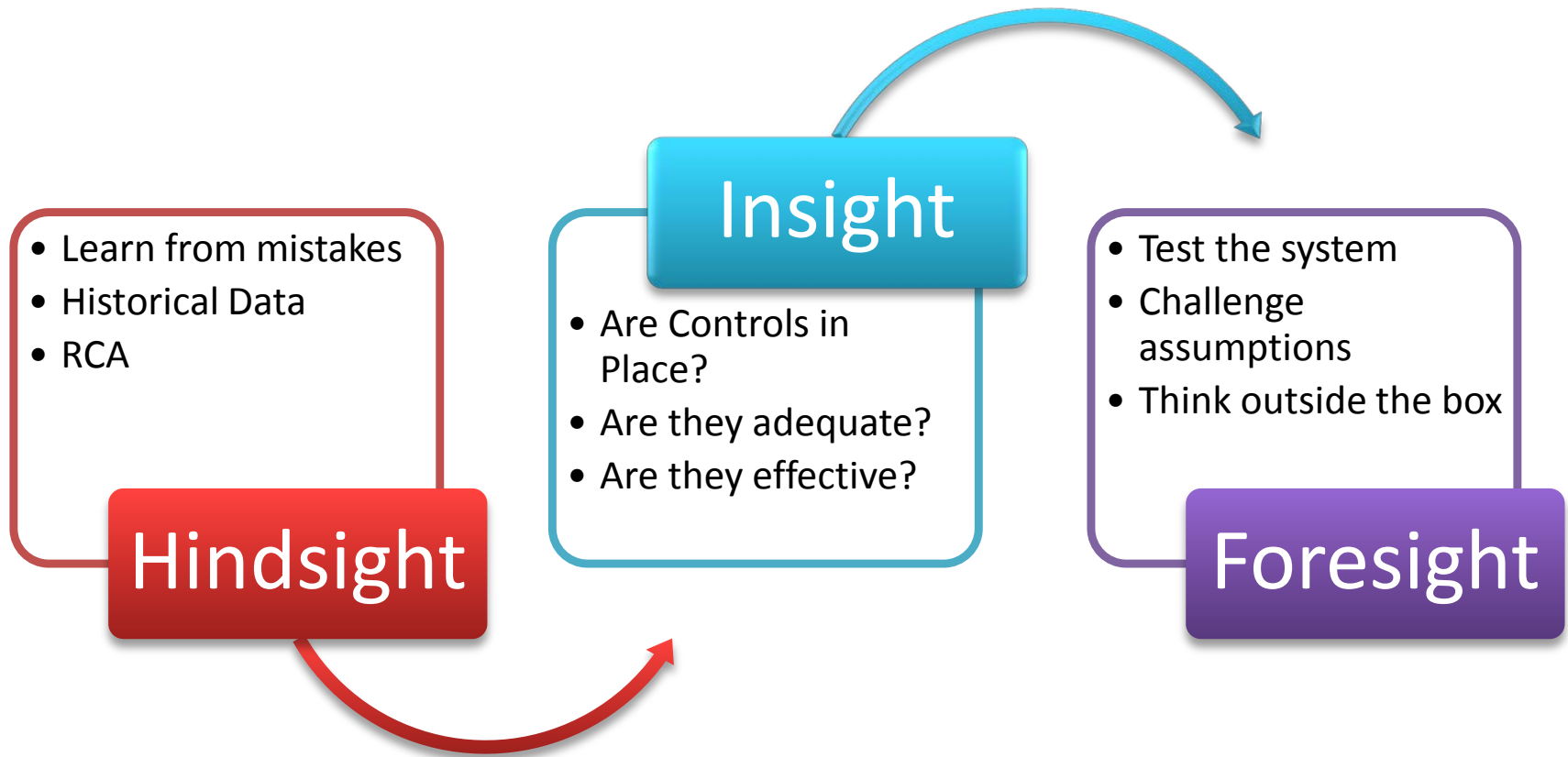3. TTC ERM Platform- First Priority

4. ERM & Audit

5. Next Meeting

WHY DO WE NEED RISK MANAGEMENT?

Formal project risk management

Vehicle procurement risk management

Hindsight
- Learn from mistakes
- Historical Data
- RCA

Insight
- Are Controls in Place?
- Are they adequate?
- Are they effective?

Foresight
- Test the system
- Challenge assumptions
- Think outside the box

Oversight

- Central system for the management of enterprise risks
- A consistent methodology for risk informed decision making and capital allocation
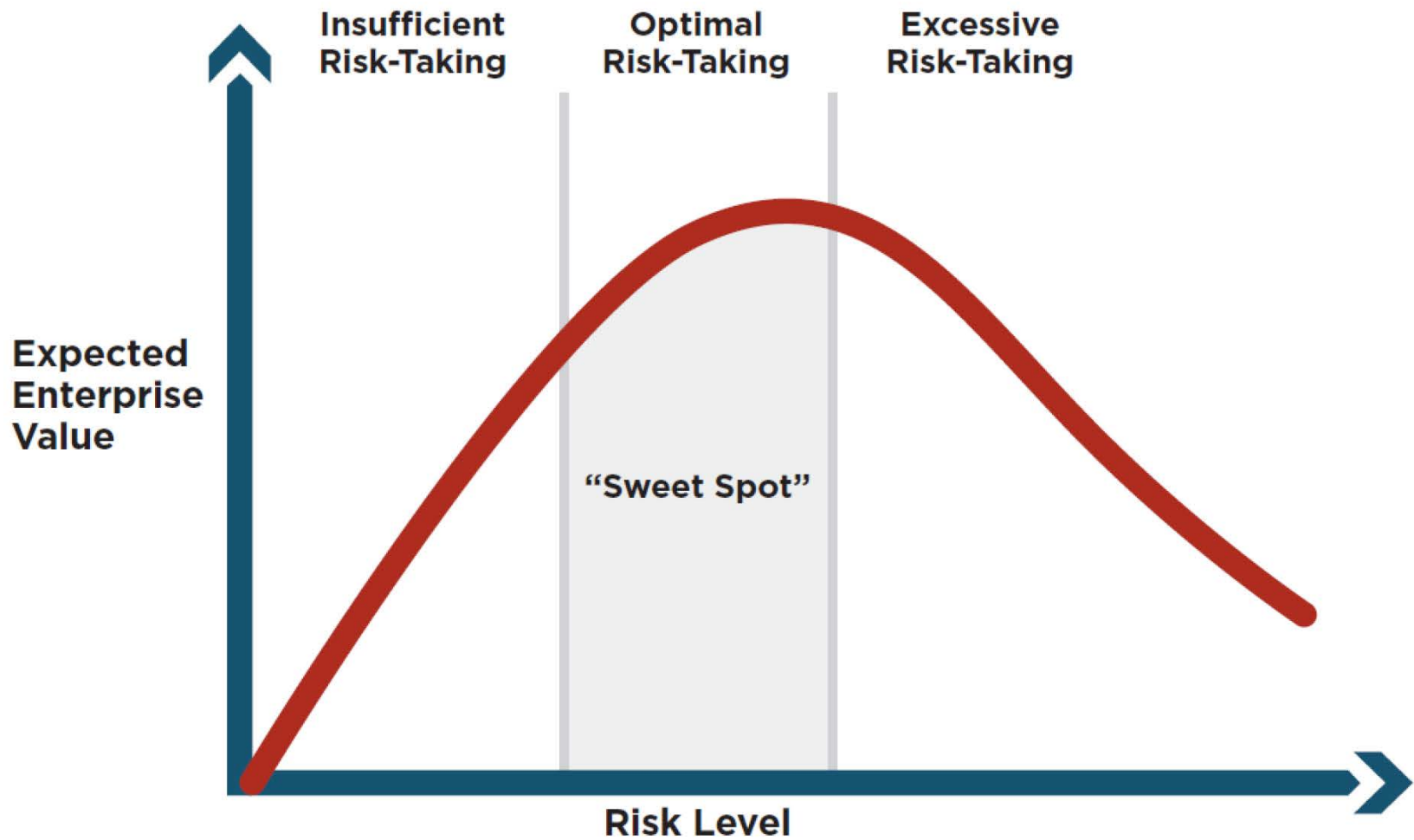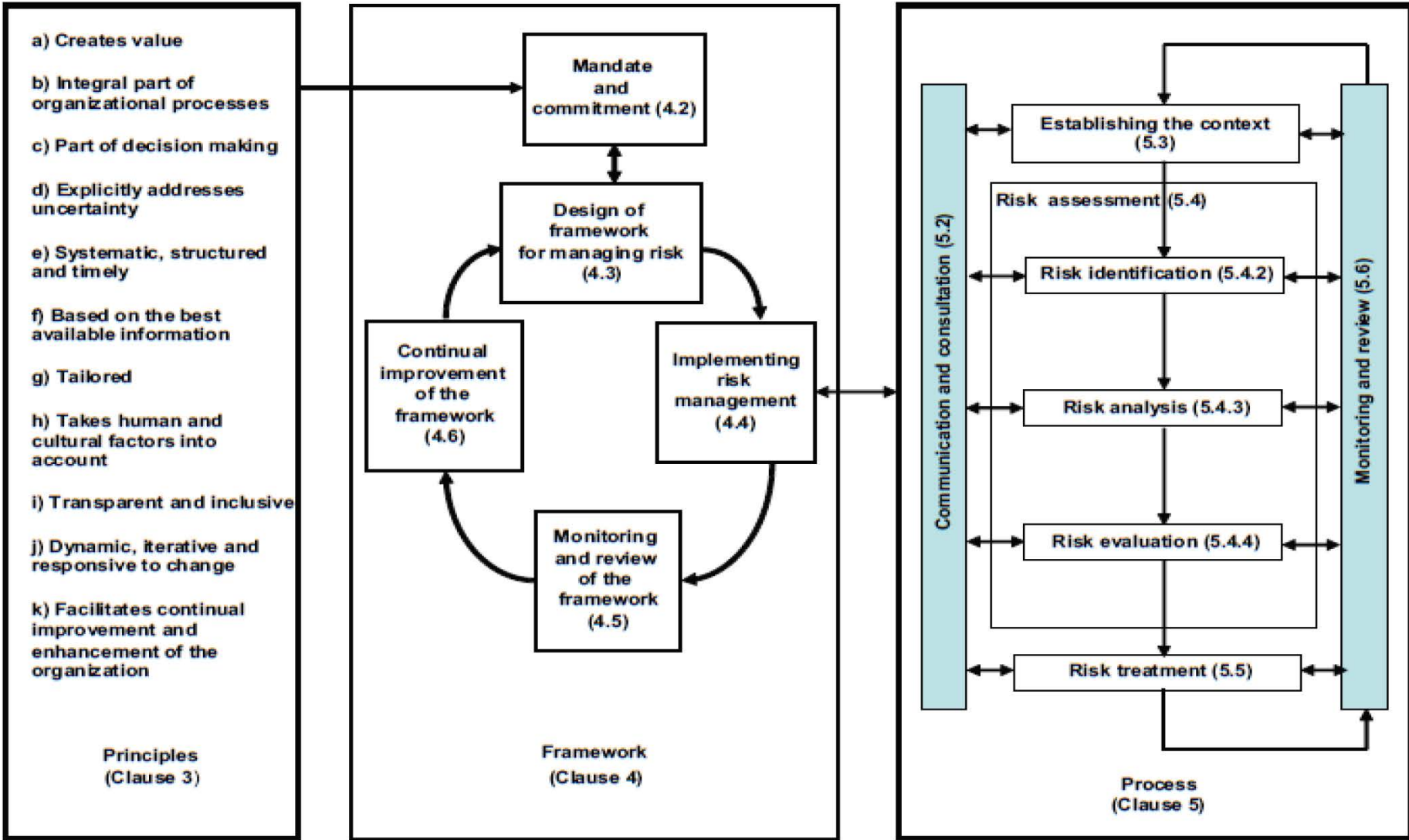- Ability to direct resources to risks of greatest significance or impact

Less Surprises!

OPTIMAL RISK-TAKING

RISK MANAGEMENT PROCESS

PLAN & APPROACH

- Integrate risk management into the TTC`s culture and business processes

- Monitor and diligently maintain the integrity and effectiveness of risk controls

- Communicate and provide visibility to risk

- Inform strategic decision making including the prioritization of capital

Driven by international best practices, APTA's audit report, and feedback received from the Auditor General, the TTC has developed an ERM Roadmap to Maturity.

APTA:

APTA is very much encouraged that TTC is moving in what we see as the right direction on managing commission risk which will include some safety risk at the higher levels.

Auditor General – City of Toronto:

There are a number of existing software applications to facilitate enterprise risk management. To our knowledge, (within the city) only the TTC has acquired a software platform to facilitate monitoring, communication, and reporting of their ERM program.
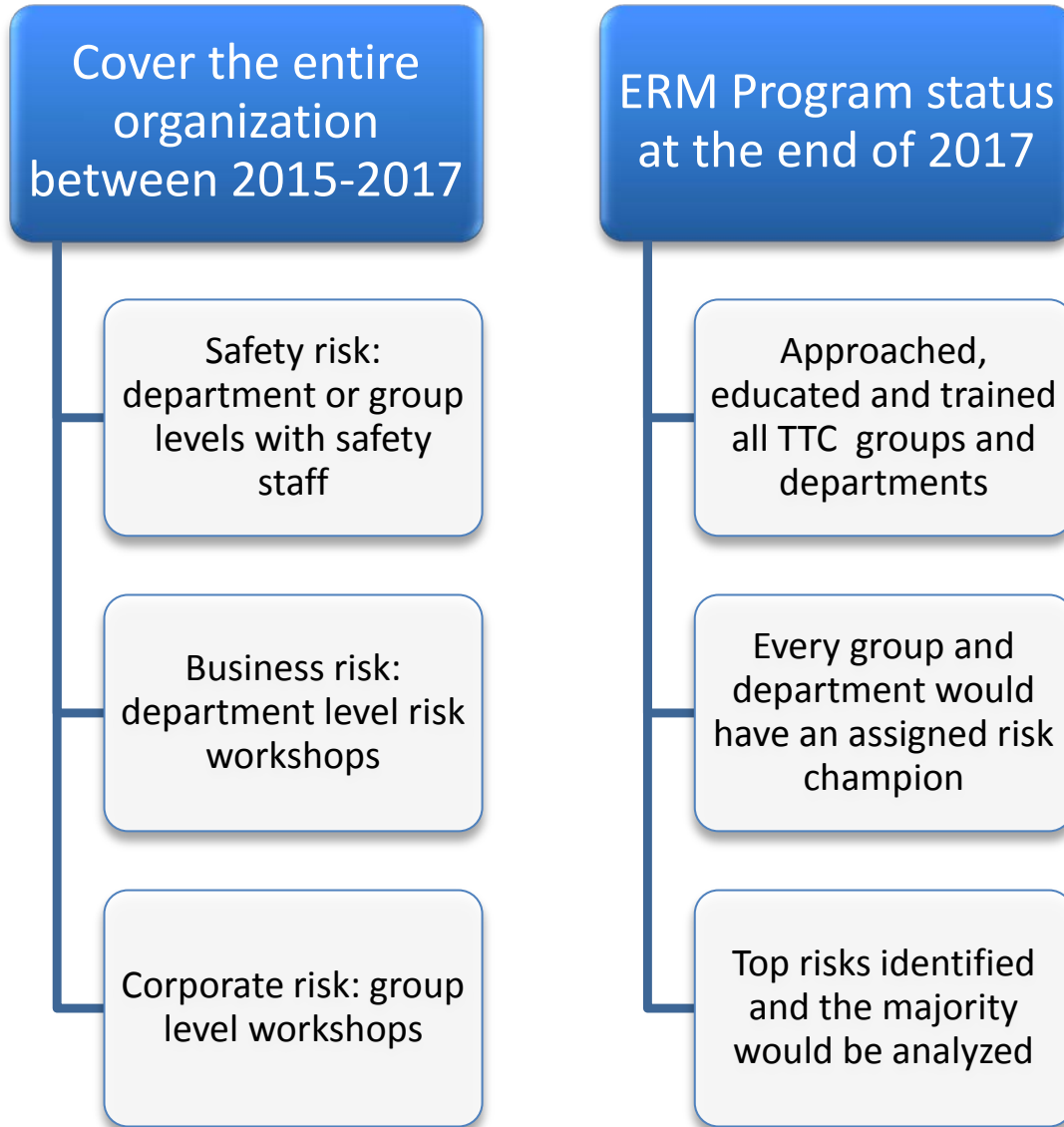
- Focus on significant risks

- Top down & bottom up

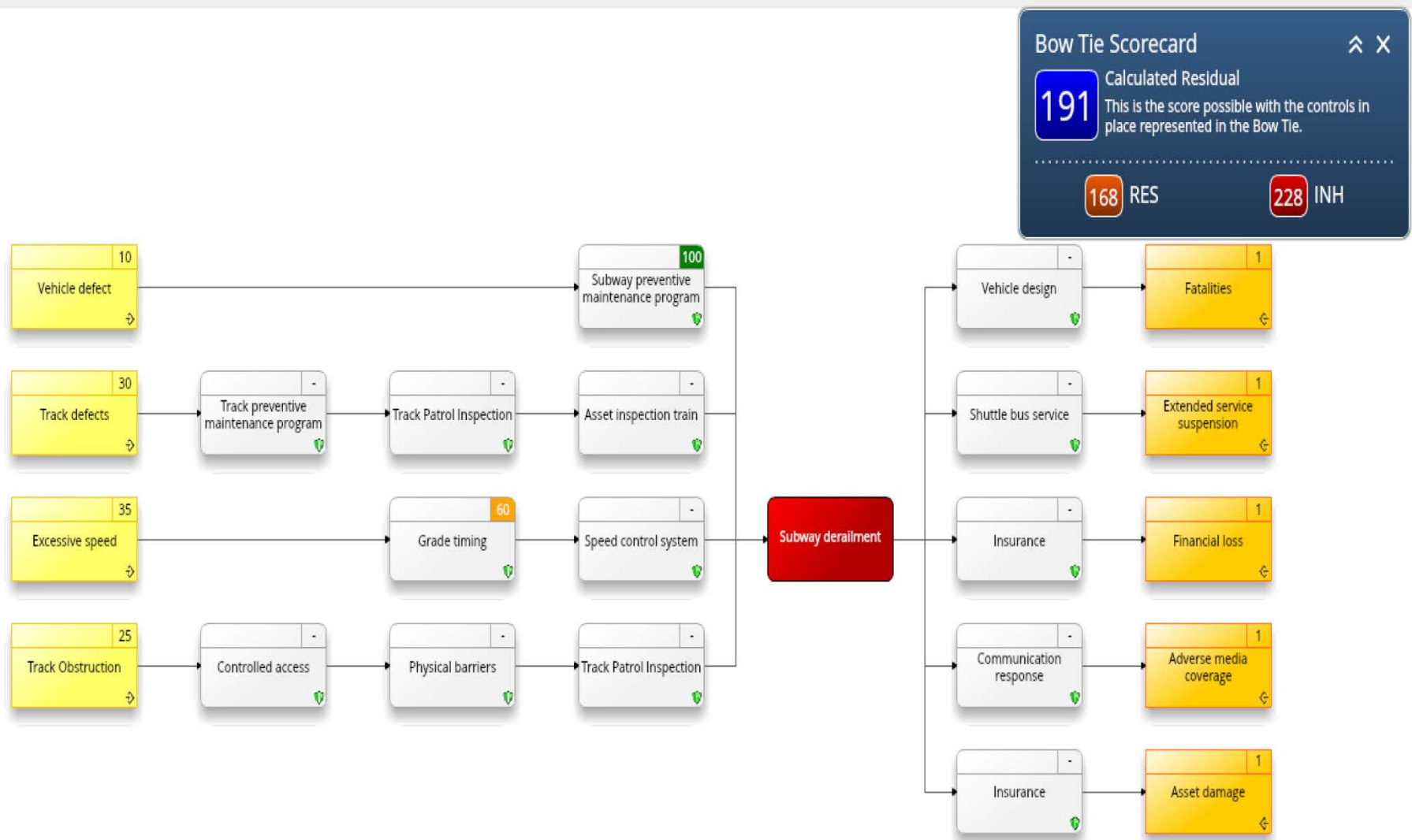- Detailed analysis & tracking

- Clear risk and control ownership

Cover the entire organization between 2015-2017

- Safety risk: department or group levels with safety staff
- Business risk: department level risk workshops
- Corporate risk: group level workshops

ERM Program status at the end of 2017

- Approached, educated and trained all TTC groups and departments
- Every group and department would have an assigned risk champion
- Top risks identified and the majority would be analyzed

TTC ERM PLATFORM - FIRST PRIORITY

Provides a central system for the management of enterprise risks

Manages risk ownerships and control accountability

Monitors control effectiveness

Provides a platform for risk communication and reporting

Facilitates effective performance monitoring, measurement and review

Provides a proven, logical structure to qualitative risk assessment

SOFTWARE EXAMPLE

RISK ANALYSIS EXAMPLE

TTC Risk Summary & Listing
Corporate: Subway derailment

FIRST PRIORITY enterprise

RISK IDENTIFICATION — TTCRK15040056

Classification(s)	Description	Register	Risk Owner
Hazardous Events		Chief Operating Officer's Office	Chief Operating Officer

RISK ANALYSIS

Causes	%	Cause Controls	Status	Eff.	Conf.	Control Owner
Excessive speed	(35)	1. Grade timing	✓	70	60	Head of Subway Infrastructure
		2. Speed control system	✓	90		Head of Subway Infrastructure
Track defects	(30)	1. Asset inspection train	▲	70		Head of Subway Infrastructure
		2. Track Patrol Inspection	✓	50		Head of Subway Infrastructure
		3. Track preventive maintenance program	✓	70		Head of Subway Infrastructure
Track Obstruction	(25)	1. Controlled access	✓	70		Head of Plant Maintenance
		2. Physical barriers	✓	50		Head of Plant Maintenance
		3. Track Patrol Inspection	✓	50		Head of Subway Infrastructure
Vehicle defect	(10)	1. Subway preventive maintenance program	✓	90	100	Head of Rail Cars/Shops

Consequences		Consequence Controls	Status	Eff.	Conf.	Control Owner
Adverse media coverage	(1)	1. Communication response	✓	50		Executive Director Corporate Communications
Asset damage	(1)	1. Insurance	✓	100		Director Treasury Services
Extended service suspension	(1)	1. Shuttle bus service	✓	30		Head of Bus Transport
Fatalities	(1)	1. Vehicle design	✓	50		Chief Vehicle Engineer (Rail Cars/Shops)
Financial loss	(1)	1. Insurance	✓	100		Director Treasury Services

RISK ACTIONS

Action	Action Owner	Due	Completed
1. Asset inspection train	Head of Subway Infrastructure	04-30-16	

RISK ASSESSMENT

Context	Type	Likelihood	Severity	Score	Overall
Objective	Safety (Inherent)	Probable (4)	Disastrous (6)	10	Very High
Objective	Customer (Inherent)	Probable (4)	Disastrous (6)	10	Very High
Objective	People (Inherent)	Probable (4)	Major (4)	8	High
Objective	Assets (Inherent)	Probable (4)	Catastrophic (5)	9	High
Objective	Growth (Inherent)	Probable (4)	Major (4)	8	High
Objective	Financial Sustainability (Inherent)	Probable (4)	Catastrophic (5)	9	High
Objective	Reputation (Inherent)	Probable (4)	Disastrous (6)	10	Very High
Objective	Safety (Residual)	Remote (2)	Disastrous (6)	8	High
Objective	Customer (Residual)	Remote (2)	Disastrous (6)	8	High
Objective	People (Residual)	Remote (2)	Major (4)	6	Medium
Objective	Assets (Residual)	Remote (2)	Catastrophic (5)	7	Serious
Objective	Growth (Residual)	Remote (2)	Major (4)	6	Medium
Objective	Financial Sustainability (Residual)	Remote (2)	Moderate (3)	5	Medium
Objective	Reputation (Residual)	Remote (2)	Disastrous (6)	8	High
Overall	Inherent Overall Assessment	Probable	Disastrous (I)	228	Very High
Overall	Residual Overall Assessment	Remote	Catastrophic (II)	168	Serious
Quantative	Current Risk Score			191	

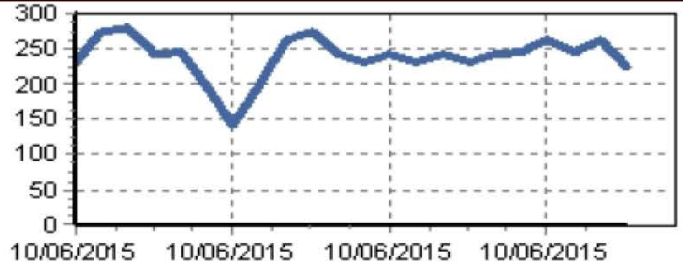# RISK DASHBOARD EXAMPLE
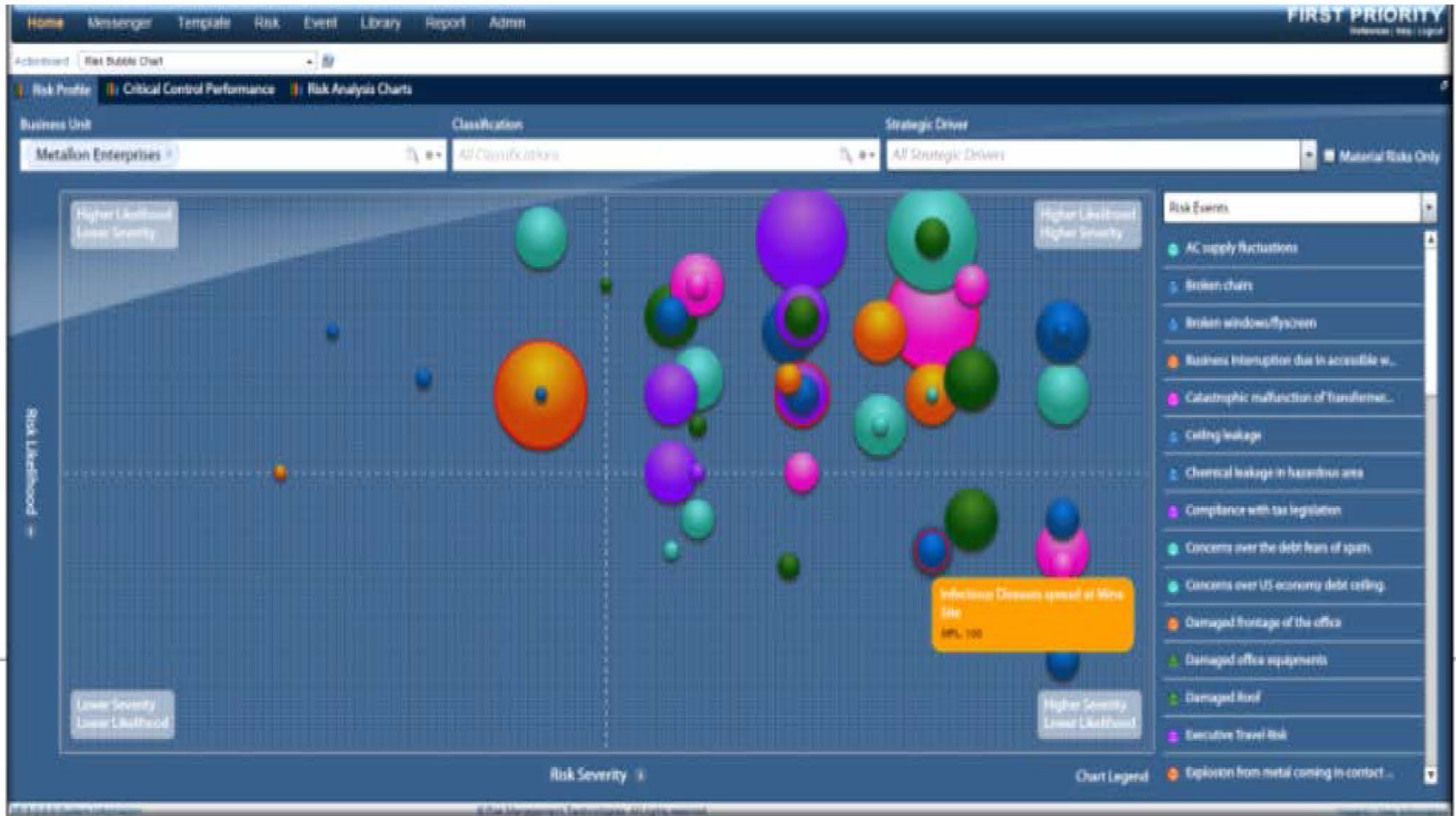
TOP RISKS UPDATE (EXAMPLE)

TTC — **Top Risks Update** — **First Priority**

Title: Bus collision during revenue service

Register: Bus Transportation

Owner: Head of Bus Transport

Current Status: Assessing

Previous Report Status: New

Inherent: 240
Current: 226
Residual: 192

ERM & AUDIT

INTERFACE OF INTERNAL AUDIT & ERM

- Internal Audit will use the TTC risk register as a source for the risk-based audit plan

- Internal Audit will work with RMO to add risks of significance that are not already identified

- Internal Audit will request verification or evaluation of risk assessments not deemed reasonable

- Audit findings will be fed back into the ERM

NEXT MEETING

- Risk Governance

- How TTC scores risk

- TTC's Risk Appetite

- TTC's Top Risks

Questions?