

Organisers:



Co-organiser:



Speaker: Ir Prof Vincent HO, FCILT
Head of Corporate Safety, MTR Corporation Ltd.
30 August 2016, Tuesday

Supporting Organisations:



From great to greater –
getting it right with corporate safety governance

Vincent Ho
Head of Corporate Safety
MTR

Contents

- Overview of MTR
- Corporate Safety Governance
- Our Challenges
- Our Roadmap
- Looking Ahead



Overview of MTR

MTR's Hong Kong Transport Operations



Heavy Rail



Airport Express



Intercity



Light Rail



Bus



Disneyland Resort Line



NP360 Cable Car

48.5%
Share of Franchised
Public Transport Market

99.9%
Passenger
Journeys On-time

Over
1.9 billion
Total
Patronage

MTR in Hong Kong

We carry more than **5.5** million passengers every weekday in Hong Kong



Our Vision

“We aim to be a **leading multi-national company** that connects and grows communities with **caring service**”

Mainland of China and International Businesses

Over

1.59 billion

in

6 Cities

Passengers carried by our rail services

Outside of Hong Kong

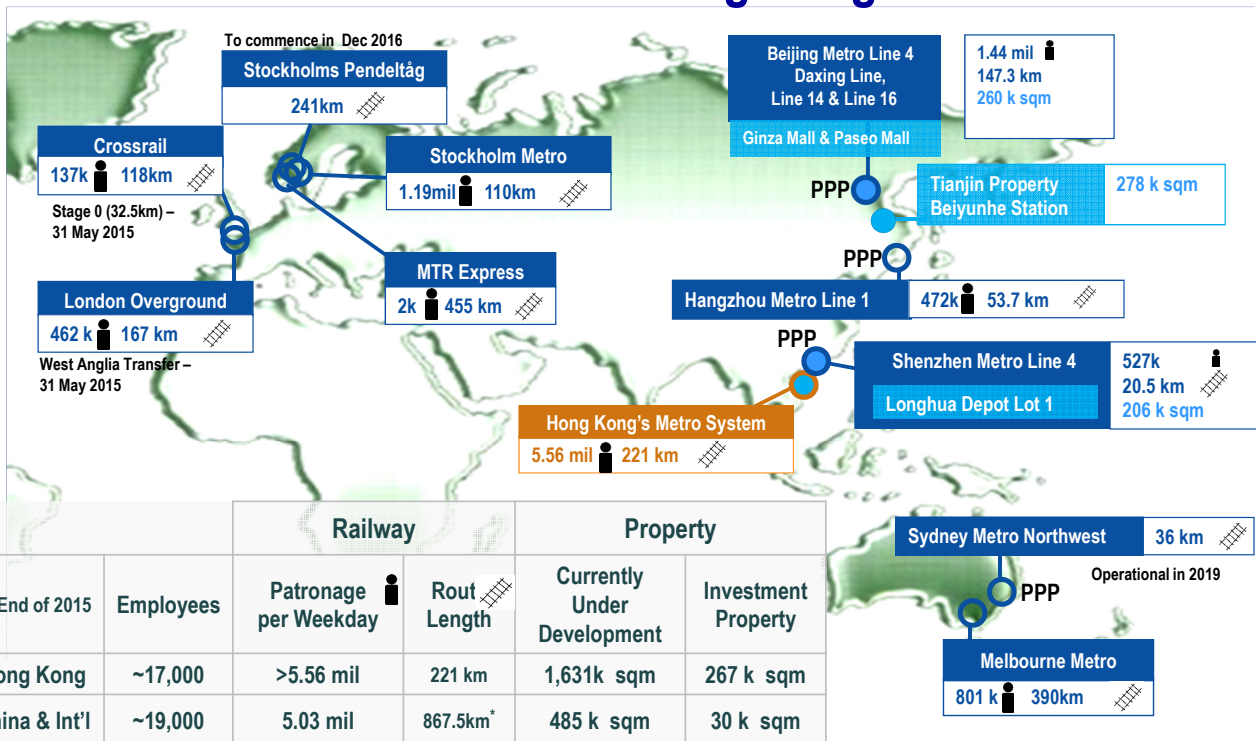


MTR Corporation Limited

12/10/2016

Page 7

MTR Presence Outside of Hong Kong



* If the future opening lines are also included, the total route length will reach 1,283.5km. MTR Express 455-km route length is based on an open-access track, with this included the total route length served by MTR C&IB will be 1,738.5km in total.
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12/10/2016

Page 8

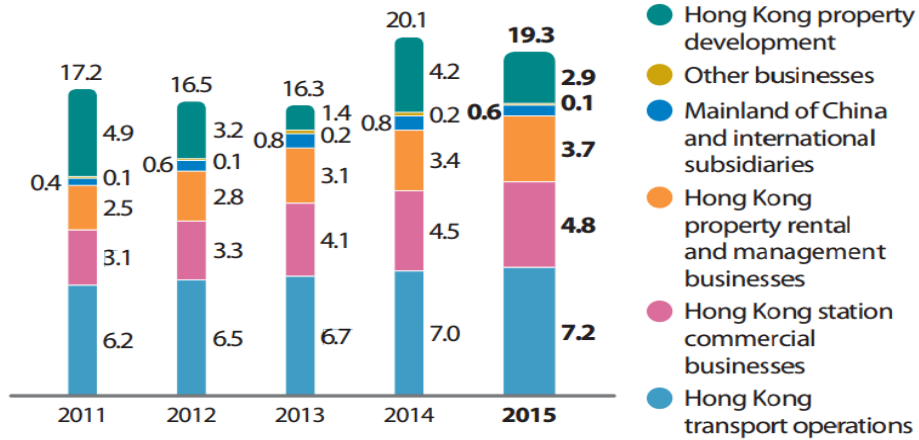


Performance of MTR's Business Segments

Operating Profit Contributions*

In 2015, the Group recorded reasonable profits from our recurrent businesses and moderate profits from our property development business.

(HK\$ billion)



* Excluding project study and business development expenses

35+ Years of Serving Hong Kong



- Established in 1975, listed in 2000, government maintains ~76% shares
- Commercially prudent
- Weekday patronage: 5.5million
- Share of Franchised Public Transport: 48.5%
- Currently building new lines expanding the current network
- Best-in-class rail performance per international benchmark
- Strong non-fare revenues
- Contactless smart card - Octopus
- Property Development and Property Management
- Consultancy services
- Training – MTR Academy

Unlike most metro operators, MTR also build railways, develop and manage property projects, operate non-fare services, and expand globally

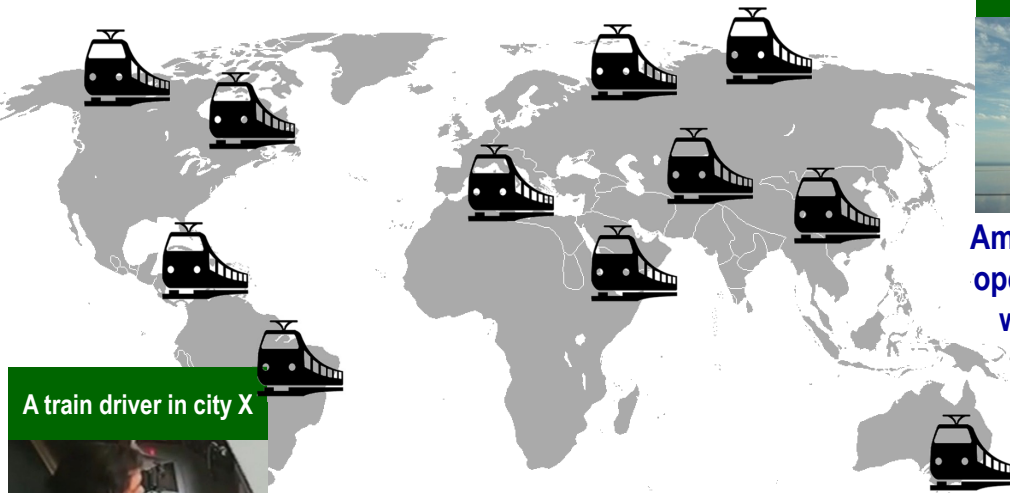
What is MTRC?

- There is not such thing as MTRC
- We are known as MTR, MTR Corporation, or MTRCL

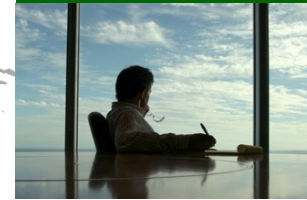


Corporate Safety Governance

What Safety Governance is about?



CEO of a multi-national company



Am I confident that my operations around the world are all safe?

A train driver in city X



Playing Pokémon Go while driving

MTR Corporation Limited

“Governance” is the mechanisms, processes and manner by which organisations are directed and controlled by their directors

12/10/2016

Page 13



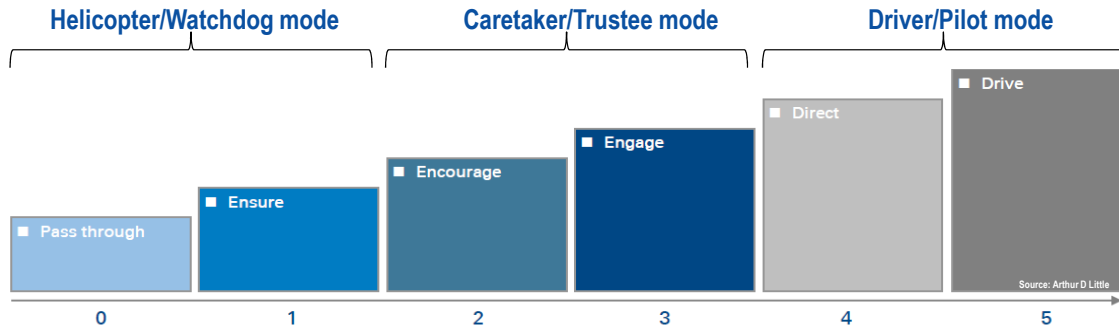
Characteristics of Top Management Exercising Sound Corporate Safety Governance (CSG)



- Set clear safety objectives, strategic direction, and key performance indices
- Maintain oversight on internal controls
- Review safety performance against defined accountabilities
- Ensure availability of resources, define boundaries & respective authorities
- Ensure communication channels in place are effective
- Ensures obligations to stakeholders / shareholders are met

Top management Actively Lead by example with a passion

Styles of Governance – Stairway Model



There is no absolute “best” style but “optimal” style”, some companies adopt multiple styles, balancing business needs

- Each style has its pros and cons, and different levels of involvement/ investment
- Good safety performance can result from any style
- A company usually displays a style that reflects the collective mind-set of the Board but may not be aligning to its particular needs

Simply Speaking, Corporate Safety Governance (CSG) is

The **checks and balances** that a company puts in place to ensure that

- Safety is properly managed at all levels in the interests of all stakeholders
- Safety systems are in place at business units, meeting corporate requirements and allowing effective oversight
- The company is ahead of its competitors through continuous improvement in safety

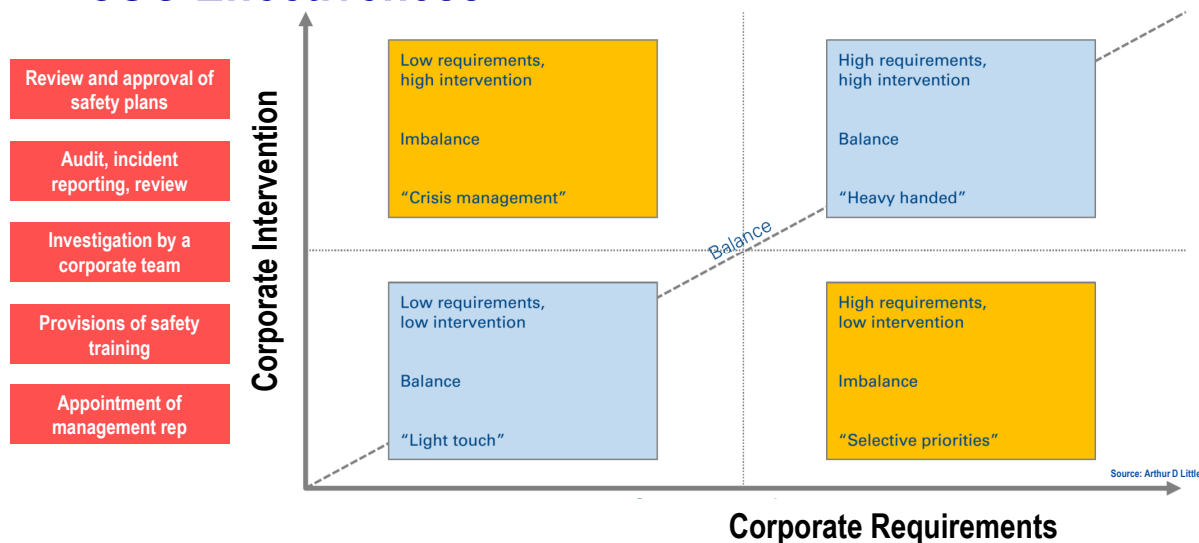
Safety governance is distinct from safety management

WW2

WW3

- WW2** Safety governance refers to a higher level processes by which the management is held accountable, and through which the organisation is directed and controlled by their directors – how management protects the corporation's brand name and our investment
Windows User, 18/06/2016
- WW3** Safety management can be thought of as regular day-to-day safety decisions and actions to run the operations – how organization manages the workforce to deliver safety objectives
Windows User, 18/06/2016

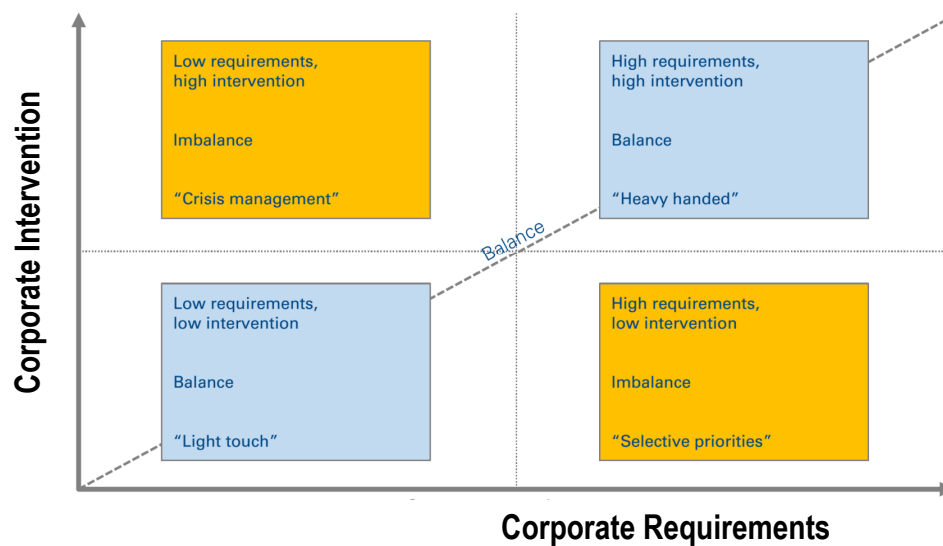
A Simple Two Dimensional Model to Compare CSG Effectiveness



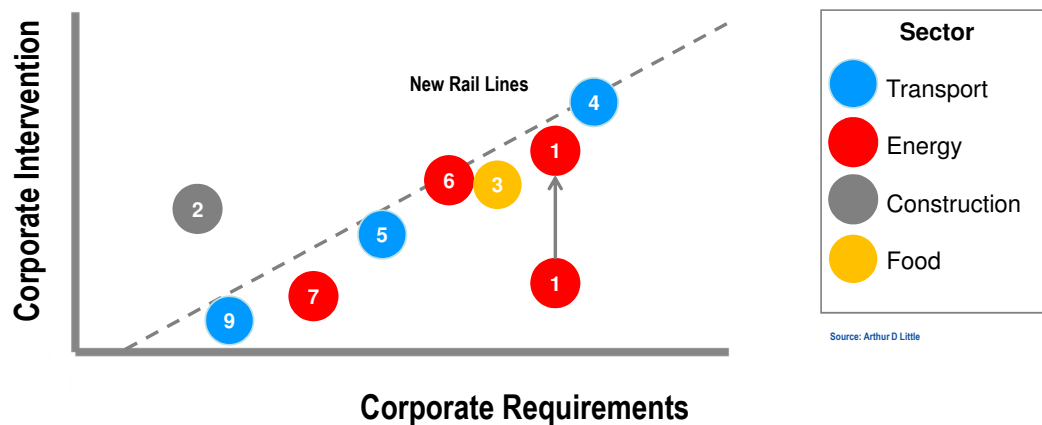
- Corporate safety policy
- Reporting of performance
- Specification for structure of a SMS
- Detailed standards set by corporation
- Req. to comply with external standards
- Goals developed in line with corporate model

Most companies tend to think they have a balanced CSG approach

If you run MTR, where will you want to be on this chart?

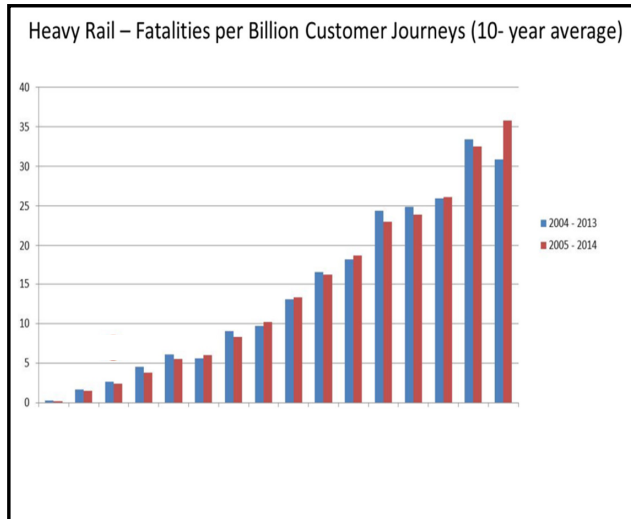


How does MTR position itself in CSG?



- We tend to have relatively more intervention (review, audit, board meetings), and apply fit-for-purpose CSG style to different businesses
- Statistics do not show direct correlation between CSG style and accident rate

Benchmarking on Customer/Public and Workforce Safety Performance amongst international railways

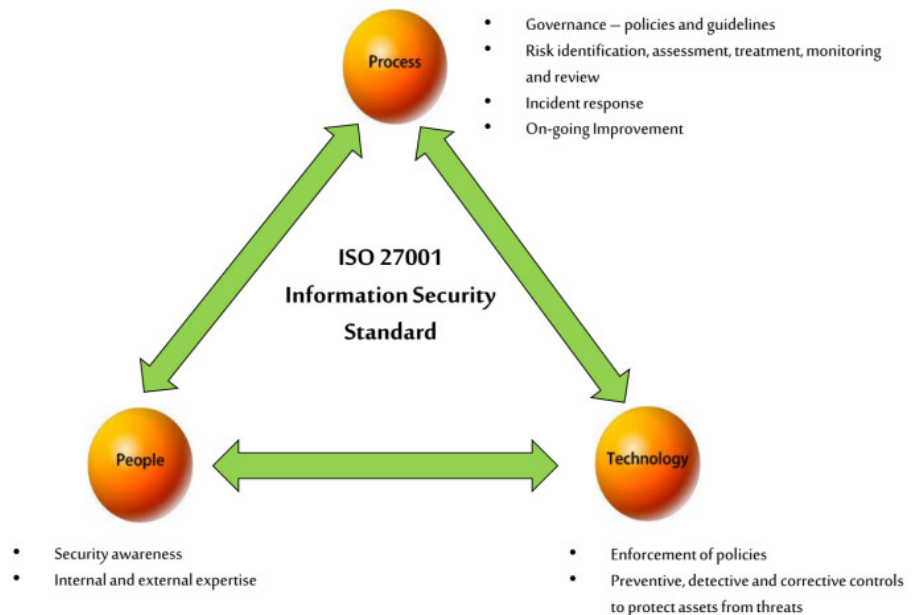


MTR safety performance has been amongst the very best in the world

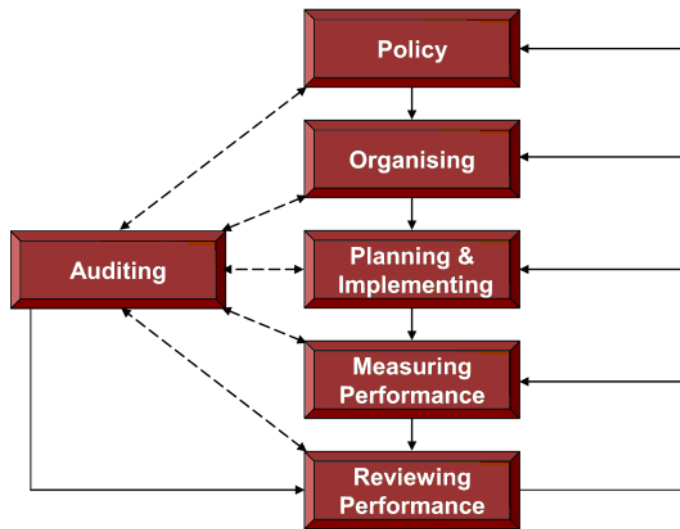
Other Governance Models

- People
- Process
- Technology

- Leadership
- Organisation



Managing for Health and Safety (HSG65) Model



Elements of HSG65 - POPIMAR

- Policy
- Organising
- Planning & Implementing
- Measuring performance
- Audit
- Reviewing performance



We have been doing Great... (I think)
How did we do it?

MTR Corporate Safety Governance Framework

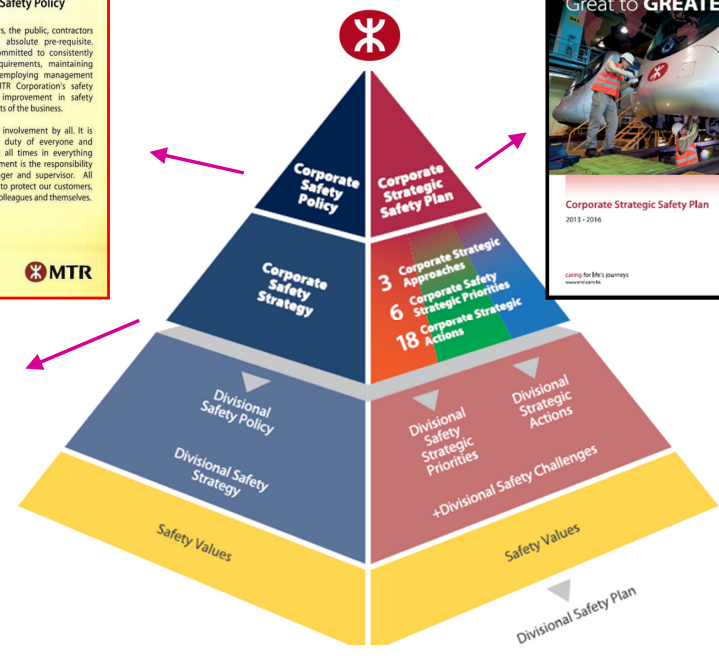
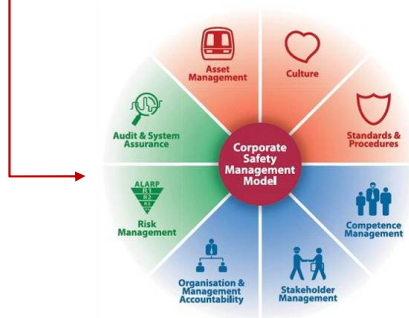
公司安全政策 Corporate Safety Policy

確保顧客、公眾人士、承辦商和員工的安全是公司經營的先決條件。為此，港鐵公司承諾持續符合所有法定要求，並致力維持一個安全至上的文化，以及採用有效的管理機制，不斷提升各業務範疇的安全表現，務求達到港鐵公司的安全目標。
 Safety of our customers, the public, contractors and employees is an absolute pre-requisite. MTR Corporation is committed to consistently meeting statutory requirements, maintaining a safety-first culture, employing management systems to achieve MTR Corporation's safety goals for continuous improvement in safety performance in all aspects of the business.

確保安全是每個人應特別履行的責任和義務，需要公司全體人員共同積極實踐。我們無論做任何事情，在任何時候，均須謹記安全至上。每位總監、經理和督導均有責任進行安全管理，而每位員工均有責任保障顧客、公眾人士、
 Safety demands active involvement by all. It is the responsibility and duty of everyone and should be foremost at all times in everything we do. Safety management is the responsibility of each director, manager and supervisor. All employees have a duty to protect our customers, the public, contractors, colleagues and themselves.

MTR

- Corporate Safety Strategy include :**
1. Safety Values
 2. Safety Aspirations and Strategic Approaches
 3. Corporate Safety Management Model
 4. Framework of Safety Management Committees
 5. Safety Responsibilities



MTR Safety Values



Absolute Pre-requisite
Keeping safety-first in our hearts and minds and in everything we do.

Learning and Sharing
Sharing lessons learned and knowledge across our businesses. Learning from other railways and industries to seek continuous improvement.

Excellent Performance
Always being committed to improving safety performance and not being complacent. Setting high safety standards and, as a minimum, meeting or exceeding statutory requirements.

Responsible Citizen
Being a responsible corporate citizen caring for the safety of stakeholders. Listening and responding to the safety needs of communities and stakeholders.

Total Commitment and Ownership
Safety is everyone's responsibility and must be ingrained in our DNA. Safety management is the responsibility of each director, manager and supervisor.



MTR Safety Aspirations

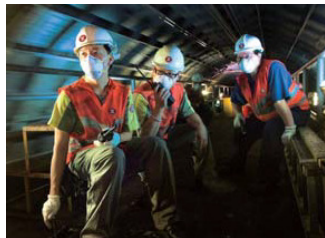


(1) To be amongst the very best in safety performance globally

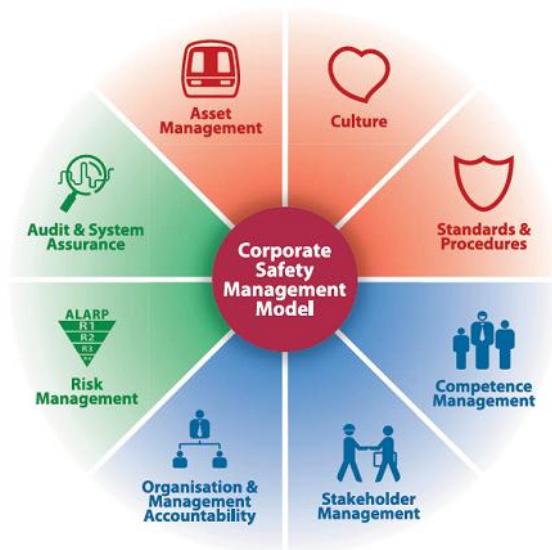
(2) To be the safest mode of public transport in City where we operate

Set clear objectives

Strategic Approaches to Achieve our Safety Aspirations



Fostering a Safety - First Culture



Engaging Stakeholders



Driving Continuous Improvement

Corporate Safety Management Model

All business units use the same safety language

CSG Requirements for all Subsidiaries

- **MTR's Corporate Safety Strategy to be adopted**
- **Corporate Safety Values to be shared and**
- **Corporate Strategic Safety Plan to be referenced, with the extent to be agreed by the relevant MTR Management**

CSG procedures lay down detailed arrangements

WW13

WW14

Slide 28

WW13 Safety governance refers to a higher level processes by which the management is held accountable, and through which the organisation is directed and controlled by their directors – how management protects the corporation's brand name and our investment

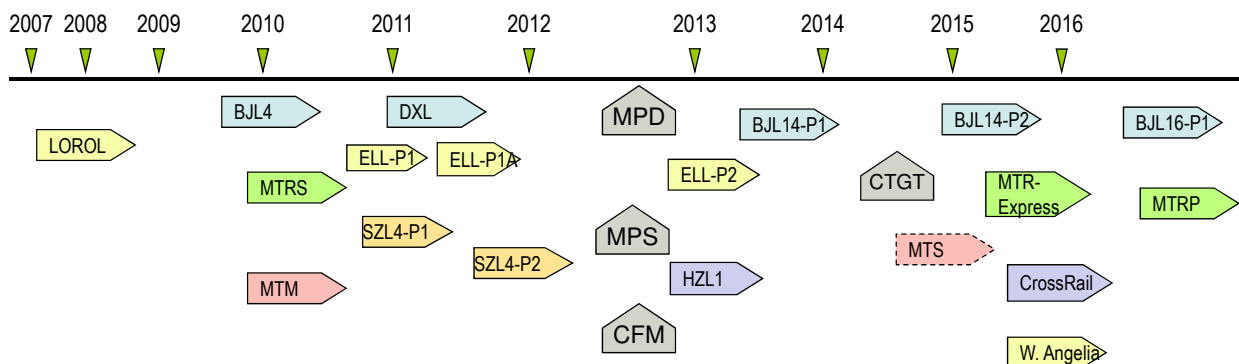
Windows User, 18/06/2016

WW14 Safety management can be thought of as regular day-to-day safety decisions and actions to run the operations – how organization manages the workforce to deliver safety objectives

Windows User, 18/06/2016

We do have our own challenges...

MTR Expansion to Overseas ...



To date, MTR has transport and property operations in
Ten cities, four countries, three continents

Safety Challenges

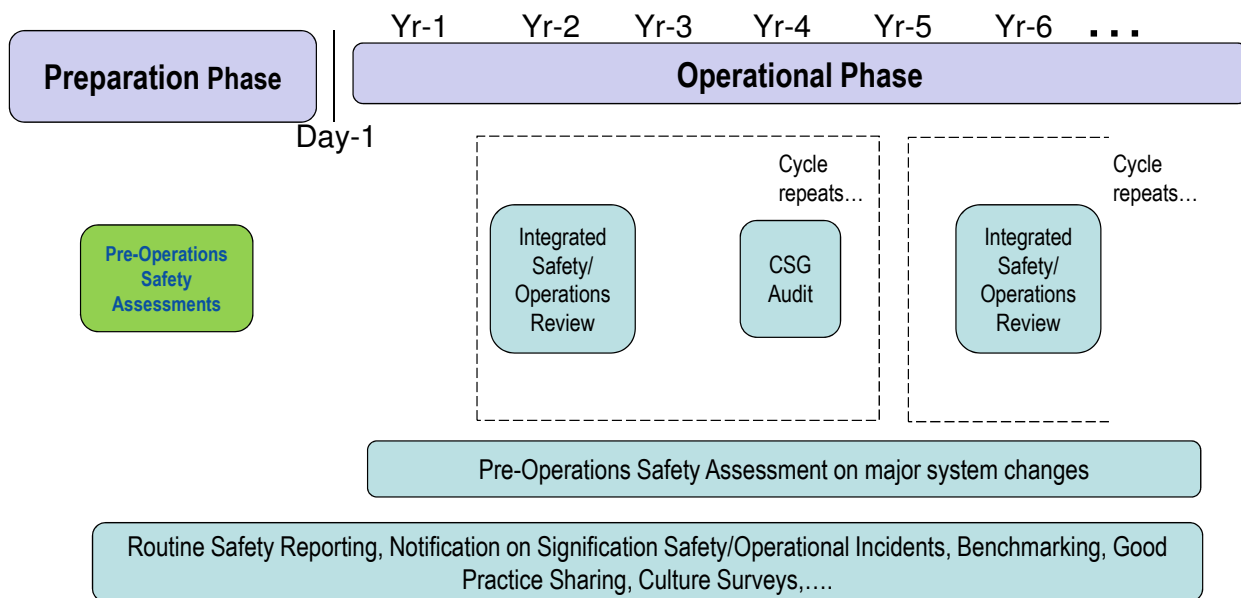
- Each business unit has its own local culture, while under one umbrella of safety governance
 - Complex nature and diverse locations of business
 - China – Beijing, Shenzhen, Hangzhou
 - Europe – London, Stockholm
 - Australia – Melbourne, Sydney
 - Pressure and focus in business, timeline and resources
 - Internal/ external safety standards and requirements
 - Maturity level and social settings
 - Levels of expectation
 - Contractors safety awareness
- Universal response when addressing CSG req't:
- This is not HK, we do things differently
 - We don't have the time, money or resources
 - This duplicates our local processes
 - Workers are uncooperative
 - *Don't bother me with these safety stuff, I need to meet business targets.*

Hierarchy of How Subsidiaries Response to HQ Requirements

- Fight it
- Ignore it
- Hide it
- Delay it
- Too chaotic to enforce it
- Other people's problem
- Resent it – come up with its own solution
- Team up with local
- Do it
- **Love it (??)**

Our roadmap to make them “Love it” – Fostering a Pan-Corporate Learning and Sharing Culture

Simplifying CSG Framework for Project Life Cycle



2-2 Framework: Intervention on a fit-for-purpose basis

Integrated Safety/Operations Review (ISOR)

- A structured, scalable framework for Peer Review, which first took place in 2012

Objectives of ISOR

- Identify good practices to be shared between Businesses
- Identify areas to further improve operations

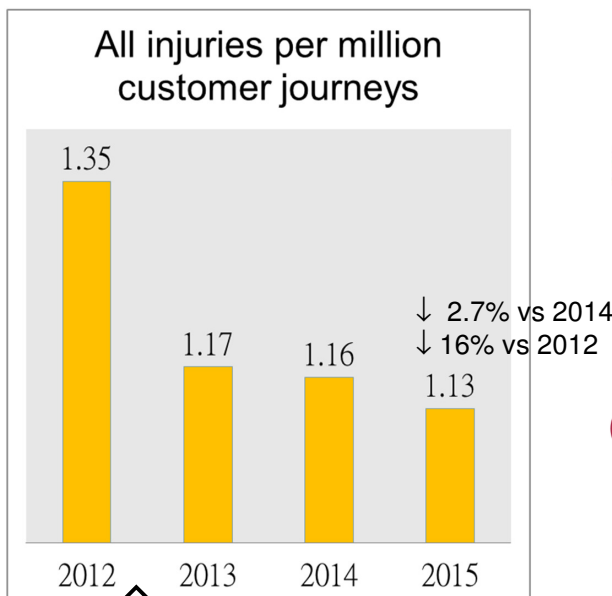


Participants of ISOR

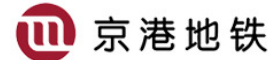
- Heads of discipline in Safety, Operating, and Asset Management from each MTR Business Unit
- Local regulators and business partners are welcome

Skeptical at first but now everyone loves it now

Safety Performance of Subsidiaries/Affiliates



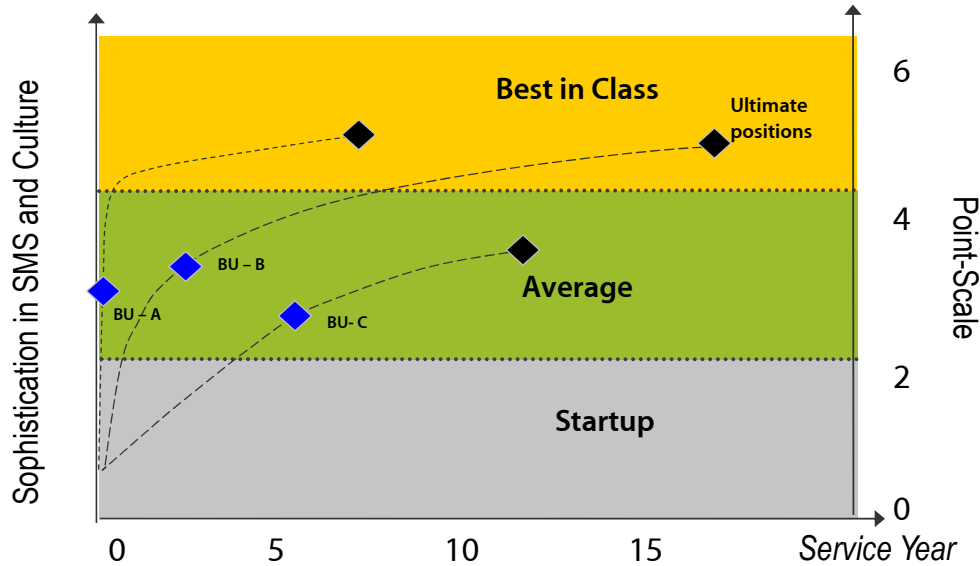
First Peer Review



Stockholm



Safety Management Maturity Model that Allows Business Unit to Chart its Own Pace

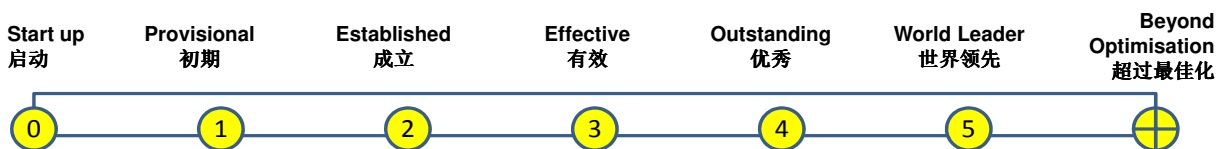
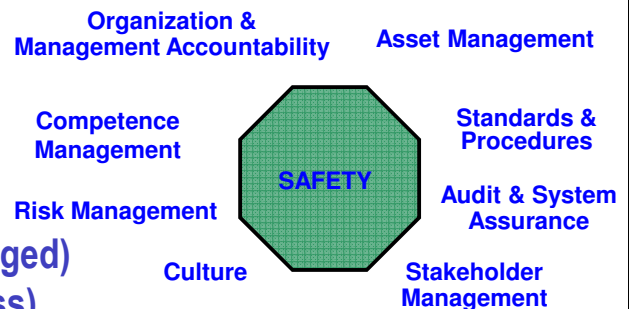


It takes time to build castles, Rome was not built in one day...
So does SMS

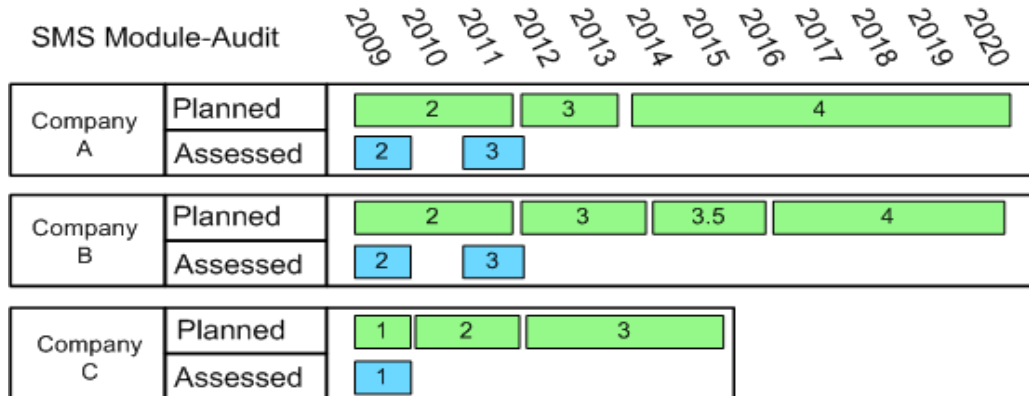
SM³ – Basis and Assumptions

- SMS growth are measurable based on the 8 core elements (pillars or modules) in MTR-SMS
- For each core element, criteria are developed for achieving each stage in maturity scale

- Stage 0 – Start-up
- Stage 1 – Provisional (ad hoc)
- Stage 2 – Established (managed)
- Stage 3 – Effective (operational)
- Stage 4 – Outstanding (well-managed)
- Stage 5 – World leader (world class)
- Stage ☆ – Beyond optimisation (might have gone too far!)



Plan and Gauge SMS Maturity Rate

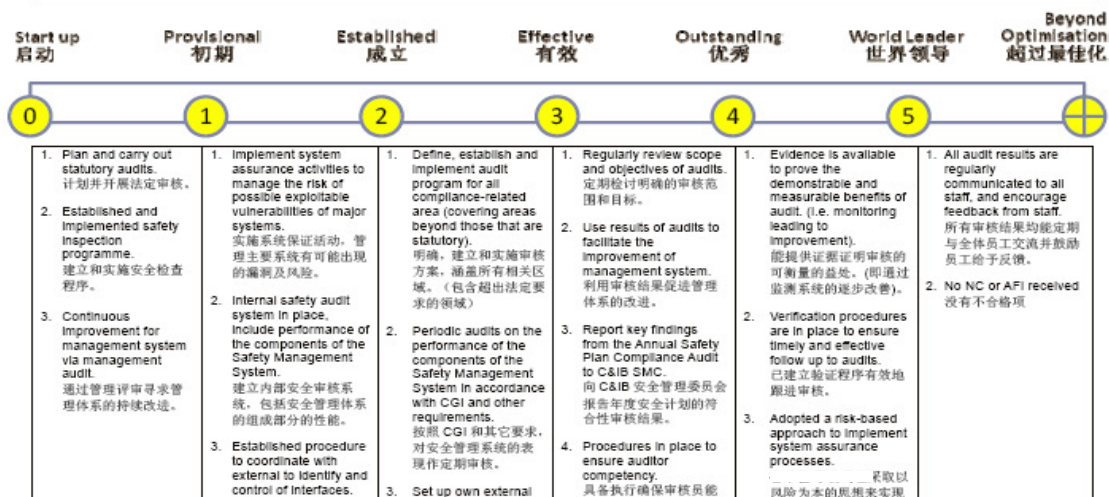


We apply a 6-point scale to give flexibility to businesses, and encourage business units to learn from each other

Criteria Developed for Meeting Each Stage

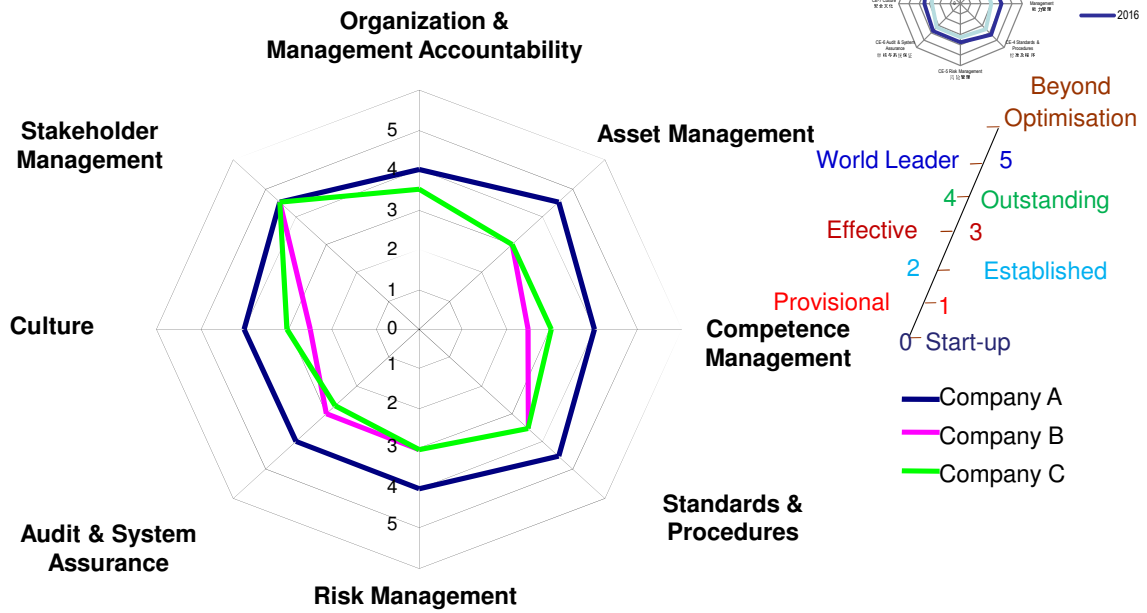
Core Element 6: Audit & System Assurance
核心要素 6: 审核与系统保证

Objective: Achieve effective and efficient internal safety audit and system assurance
目的: 实现自给自足的内部安全审核与系统保证



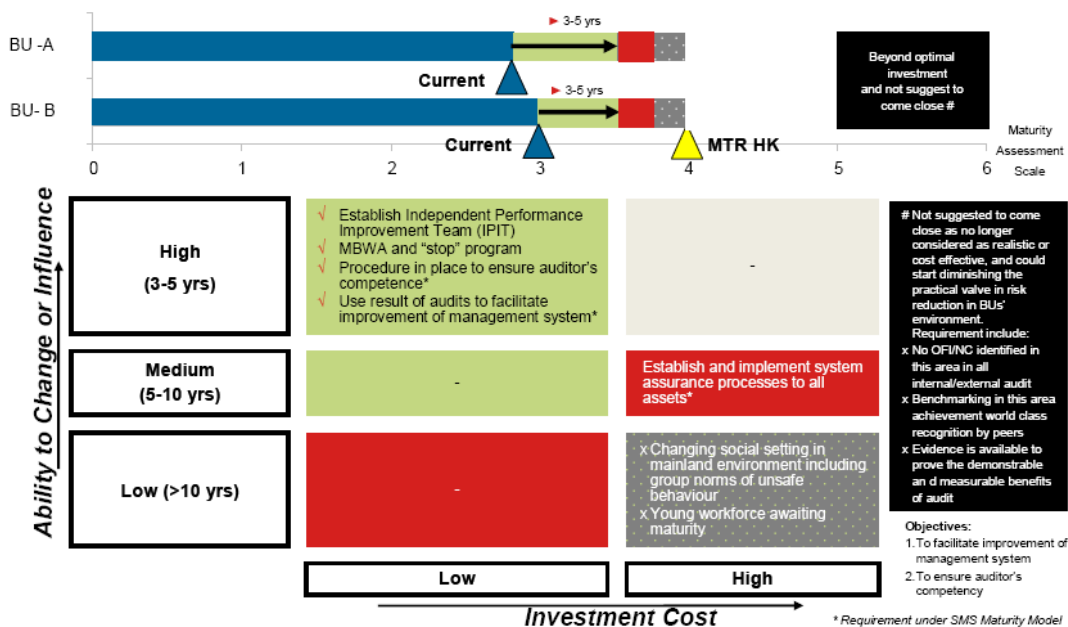
A Stage is achieved after fulfilling its criteria; assessment is conducted by Peer Reviewers

Oversee and Align SMS Growth Progress

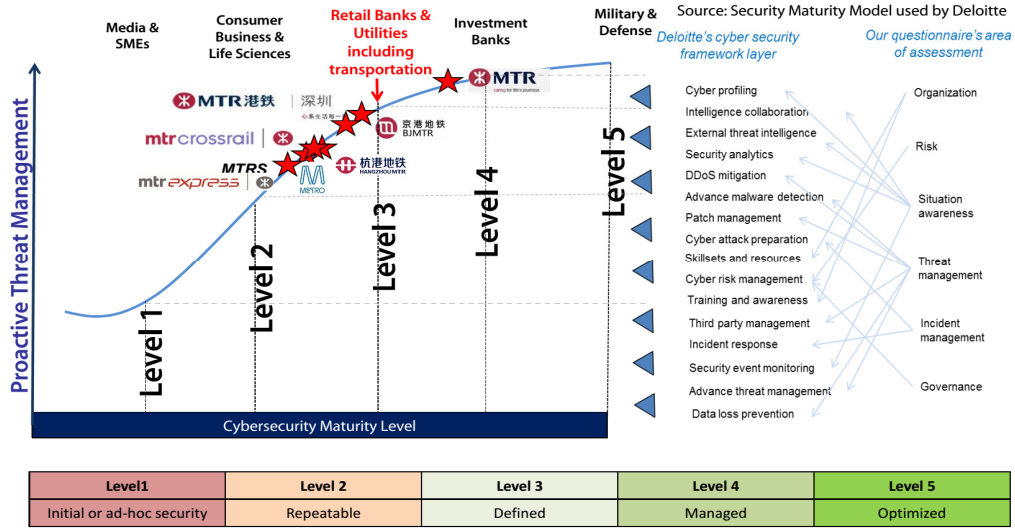


SM³ is a tool to plan and track SMS maturity; also help identify focus for attention and benchmark.

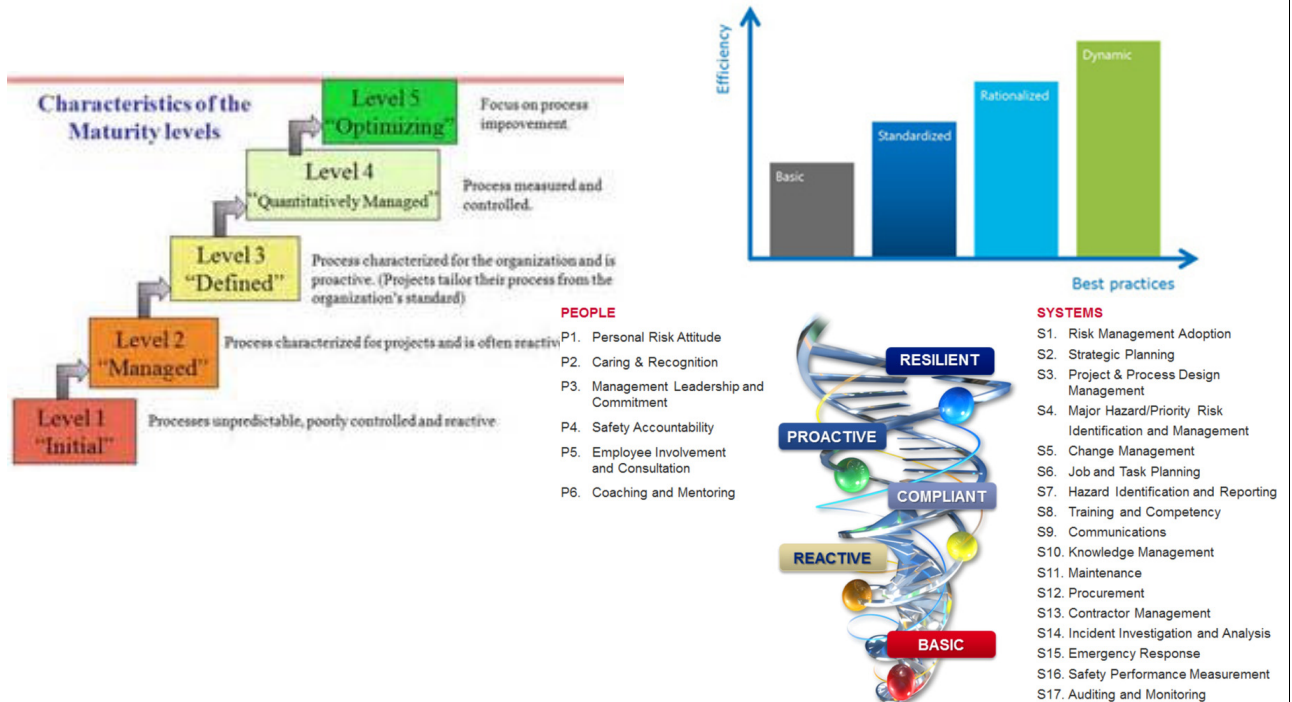
Identify Gaps and Way Forward



There are Other Maturity Models



There are Other Maturity Models



Sharing of Good Practices – The Journey of “MTRisation”



We aim to be influential, not dictating

Corporate Portals for Safety Learning




Regular Benchmarking on Safety Topics and Sharing of Good Practices

Mechanical Protection

- Door bottom tapered panel or plate
 - Tapered blocking panel of PSD can bottom to block the door sill area, preventing passenger from standing here
 - A tapered bottom for APG to prevent the door drive mechanism
- Alternatively, a TP tapered plate on PSD bottom to alert passengers or guide passengers back into the train
- This feature is commonly found in China trains

Incident location

- The Metro-North train's locomotive and passenger derailed as the train went into a curve due to the derailed door near Spouton derail station.
- None of the carriage moved into the adjacent Platform at Spouton, where a derailed passenger pictures from the scene suggest this rarely happened.

Mechanical Protection

- Door edge blocking plate
 - Black yellow plate APG door bottom edge to prevent passenger from entering the PSD door sill. PSD can't close. Features a standing tapered plate.
 - Typically installed for PSD with the tapered plate. PSD/ APG with blocking panel does not need this plate
 - Unique to S&L/SG, an additional waist height blocking plate to prevent passenger from entering into the head panel gap
 - Unique to N&T, black yellow door edge blocking plates are also installed on APG

Summary of PSD Trapping Risk Control Measures

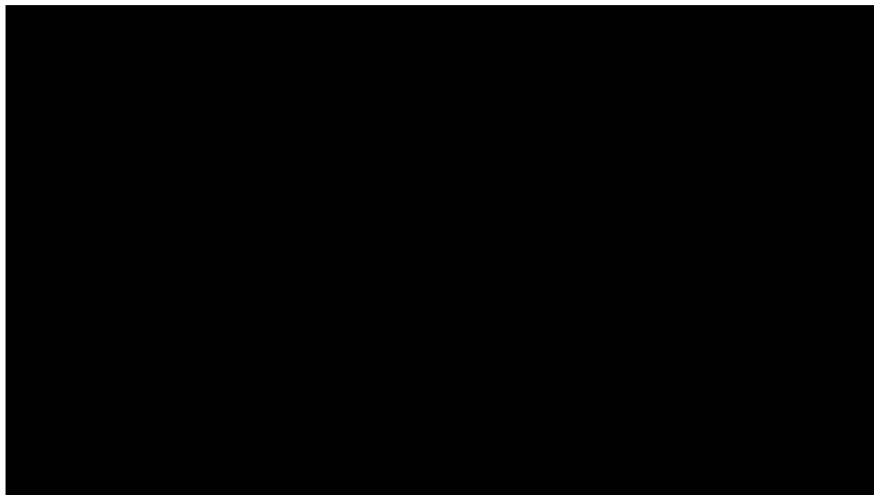
Control Measures	MTR/CG	BLK/CK	BLK/N	SL&P	SL&T	N&T
Mechanical Protection	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel
CGI	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel
Others	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel	APG door bottom tapered panel

Overview of Overlap Protection for Passenger Trains

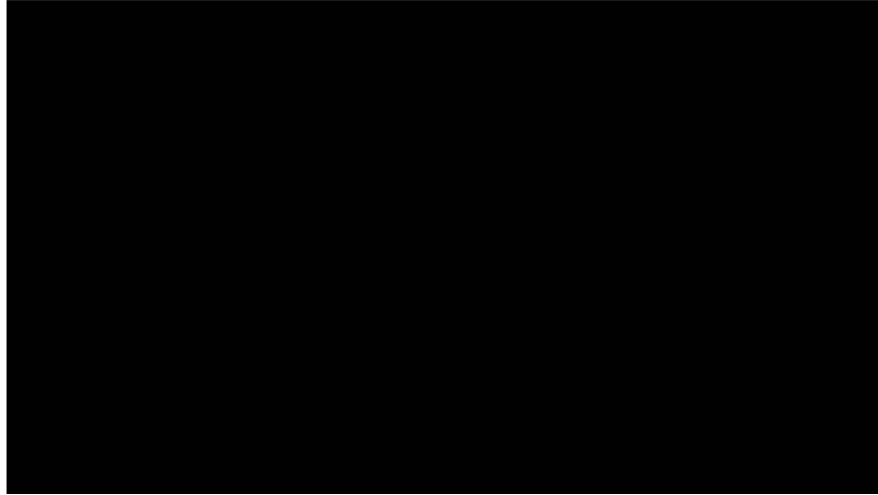
	BLK/CK	BLK/N	SL&P	SL&T	N&T
APG door bottom tapered panel	Yes	Yes	Yes	Yes	Yes
APG door bottom tapered panel	Yes	Yes	Yes	Yes	Yes
APG door bottom tapered panel	Yes	Yes	Yes	Yes	Yes

Year	Benchmarking Topic
2009	CGI Compliance
2010	CGI Compliance
2011	2011 C&IB Safety Performance Benchmarking
2012	CGI Compliance
2012	Benchmarking of Safety Performance
2012	Injury Reporting Criteria
2012	Audit Finding Categories
2012	Train Cab Door Interlocking Practice
2012	Safety Initiatives for Top Passenger Incident Categories
2012	External Certification Status
2012	Escalator Maintenance Management
2012	SWOT Analysis
2013	Passenger Accident Reporting Mechanism
2013	CGI Compliance
2013	Benchmarking of Safety Performance
2013	Falling Objects
2013	Unauthorised Train Movement Under Manual Mode
2013	Handling of Intoxicated or Disorderly Person
2013	Practice in Preventing the SNCF Accident (12-7-2013)
2013	Control And Prevention of Avian Flu in China BU
2013	Injury Reporting Criteria
2013	Suicide Prevention and Unauthorised Track Access
2013	External Certification Status
2013	Protection against Train Derailment due to Overspeed
2013	Change Management
2013	Safe Use of Mobile Phone while on Duty
2014	Crisis Management
2014	Safety critical operations under which the staff / contractor should be prohibited from using mobile phone during such operation
2014	Injury Reporting Criteria
2014	Benchmarking of Safety Performance
2014	CGI Compliance
2014	Train Door/PSD Gap
2014	Safety Training Requirements
2014	Adverse Weather related arrangement and control measures
2014	Risk management of interfacing works on operating railway and C&R works / new railway and extension project
2015	Tunnel Fire Emergency
2015	Driver fit for duty
2015	Crowd management (Public panic or disorder)
2015	Assault
2015	Escalator - safety feature

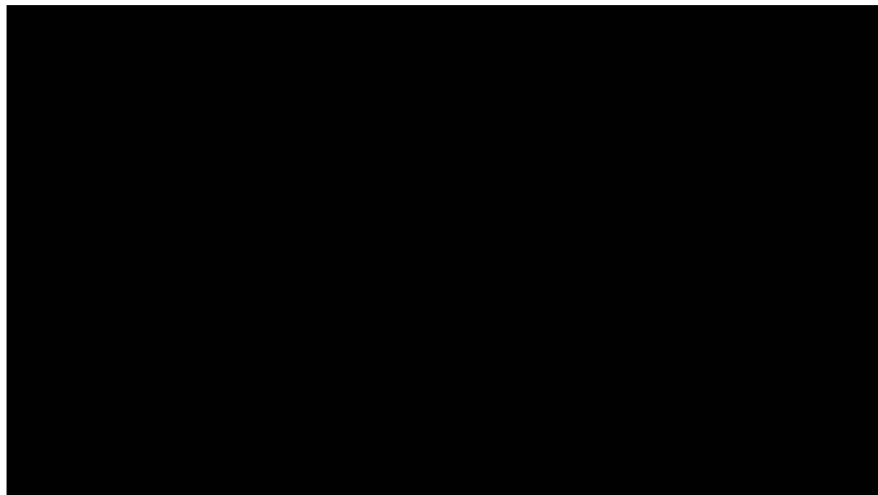
Share Lessons Learnt from Worldwide Incidents and Accidents



Sharing of Pan-Corporate Safety Promotion Initiatives



Project Safety Video



Looking ahead

Food for Thought and Takeaway...

- **Effective Safety Governance depends on the company's growth and development, the nature of the industry, local legal requirements/standards, culture, and preference**
- **Companies can put in place different levels of controls and requirements across different business units, aligning to its particular needs**
- **Lead with a passion from top down**
- **Effective CSG can be fun and enjoyable by businesses**

**There is no magic bullet, no single one right CSG style.
A fit-for-purpose, adaptive CSG model can help your company to excel**

Food for Thought and Takeaway...



Corporate Strategic Safety Plan
2013-2016

caring for life's journeys
www.mtr.com.hk



Ingrained in our corporate DNA is an uncompromising Safety-First culture. Our commitment is for continuous and proactive improvement. We listen to all stakeholders and engage them to improve safety performance.



輕便工作平台資助計劃
Light-Duty Working Platforms Sponsorship Scheme

Safety is an absolute pre-requisite of everything we do and is a key factor for the Corporation's on-going success. Let us work together to achieve greater safety performance.

Enhance Risk Awareness, Foster Learning, Prevention Culture

港鐵 MTR

心繫生活每一程 *Caring for Life's Journeys*

Thank you!