

# RISK MANAGEMENT

## SYSTEM FEATURES

Business units across the Company embrace the Company's Enterprise Risk Management ("ERM") framework that underpins their day-to-day business activities. The framework provides a simple and effective management process to:

- Identify and review risks across all business units of the organisation
- Prioritise resources to manage risks
- Give management a clear view of the significant risks facing the Company
- Support decision making and project execution for better business performance

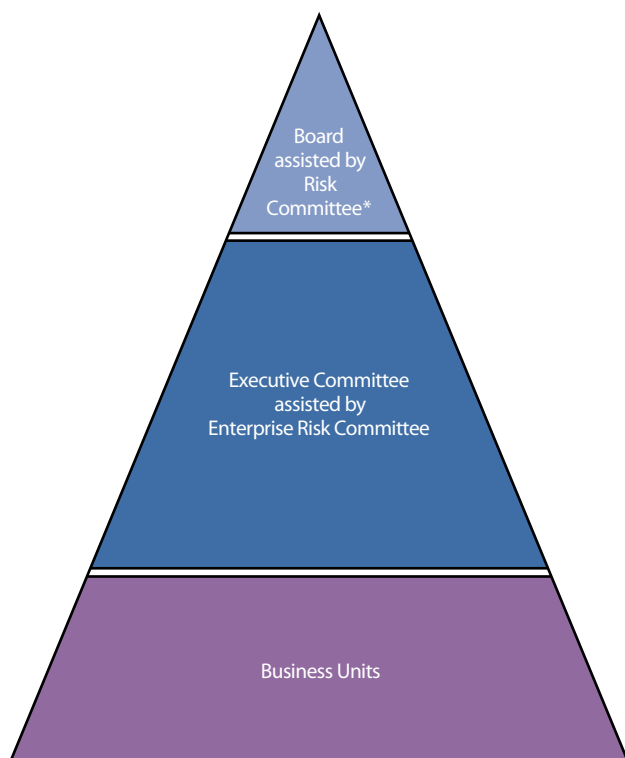
The Board, with the assistance of the Risk Committee, oversees the Company's ERM framework and top risks, whereas the Executive Committee, with the support of the Enterprise Risk Committee ("ERC"), is overall accountable for the ERM policy and system implementation and continuous improvement.

In 2017, the Company strengthened the top-down input to the Company's risk management process through the

introduction of a new Risk Oversight Group, a forum attended by 3-4 Executives each time on a rotational and quarterly basis for risk discussion, and a new half-yearly Blue Sky Workshop for all Executives.

The Company's risks are rigorously identified, assessed and managed. Each risk is evaluated on the basis of the likelihood of the identified risk and the consequence of the risk event, taking into consideration the control measures in place. A risk matrix is used to determine risk ratings (E1 – E4), with E1 being a very high risk and E4 being a low risk. The risk ratings reflect the required management attention and risk treatment effort, and take into account the Company's risk appetite. The highest category of risks, "E1", is subject to Board, Risk Committee and Executive Committee oversight.

While risk taking is inevitable in the course of business, the Company's appetite for risk varies, but is particularly low in certain areas, such as in relation to safety and the provision of a reliable transport service.



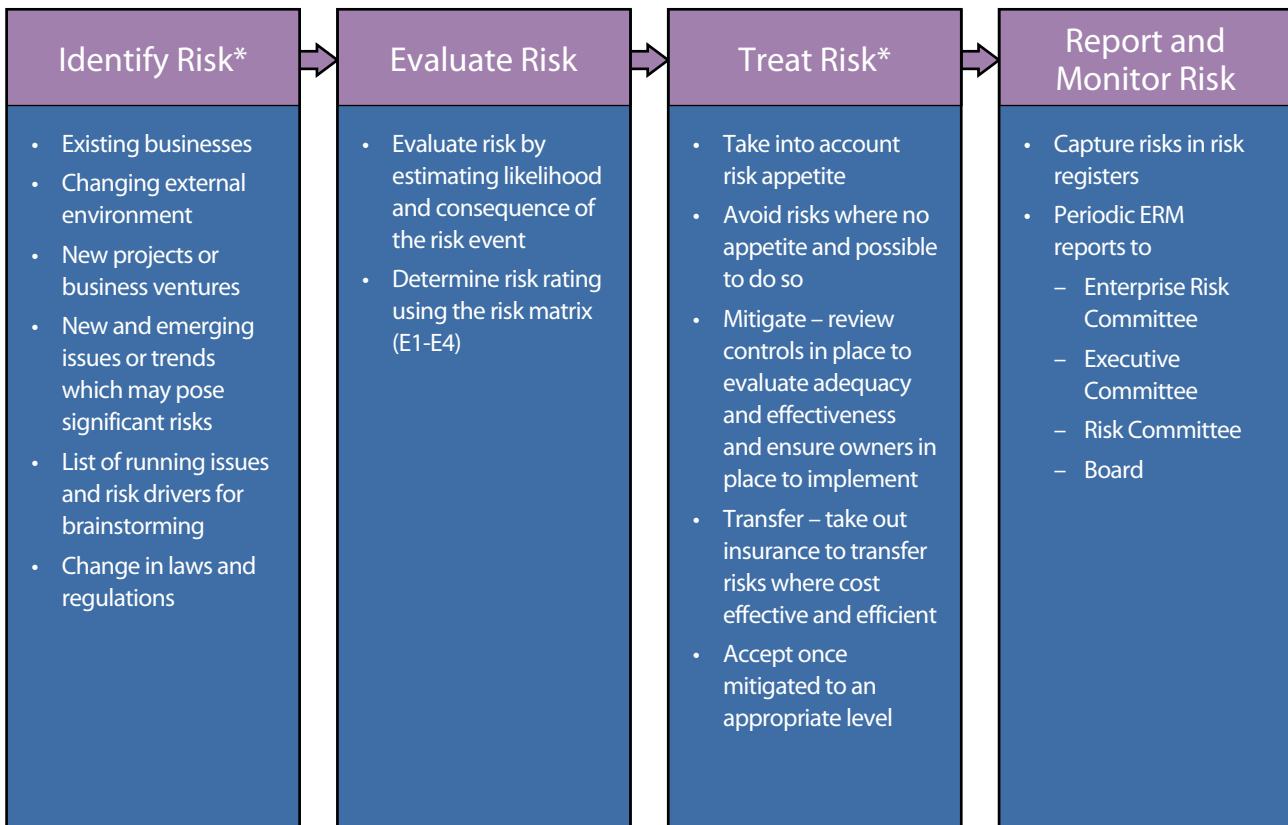
<ul style="list-style-type: none"> <li>• Exercise ongoing risk oversight</li> <li>• Establish appropriate risk management strategies</li> <li>• Oversee the ERM framework</li> <li>• Review top risks and emerging risks</li> <li>• Conduct annual review of ERM system effectiveness</li> </ul>
<ul style="list-style-type: none"> <li>• Implement and continuously improve ERM framework</li> <li>• Enterprise Risk Committee                             <ul style="list-style-type: none"> <li>– Chaired by Legal and European Business Director</li> <li>– Comprises representatives from key business functions</li> <li>– Steers framework implementation and improvement</li> <li>– Reviews Company's top risks and key emerging risks</li> <li>– Reports to Executive Committee and Risk Committee quarterly, and to Board every six months</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Establish arrangements and implement risk management process consistent with the Company's ERM framework and policy</li> <li>• Capture identified risks in risk registers for regular review and monitoring</li> </ul>

\* See the Risk Committee Report (pages 142 – 143 of this Annual Report) for duties and work performed by the Committee in 2017

## MANAGEMENT PROCESS FOR SIGNIFICANT RISKS

The Company takes proactive measures to identify, evaluate and manage significant risks arising from its recurrent and growth businesses and from the constantly changing business environment. Risk management strategies are developed for different areas including but not limited to construction, operations, finance, treasury, safety and insurance.

The ERM Team within the Legal and Secretarial Division maintains a list of running issues and risk drivers pertinent to the changing business and external environments, which is used to assist the ERC in identifying potential risks that may emerge. In addition, the ERC, the Executive Committee and the Risk Committee review the Company's enterprise risk profile and brainstorm emerging risks quarterly to ensure that key risks and those cutting across different areas of the business are captured.



\* Areas below are not exhaustive

# RISK MANAGEMENT

Focus areas for risk management of the Company include:

Effective and Balanced Relationship with Key Stakeholders	
Key Challenges	<ul style="list-style-type: none"> <li>Strive to seek a balance between the sometimes competing demands of the Company's key stakeholders</li> </ul>
Key Controls	<ul style="list-style-type: none"> <li>Implement engagement plan for key stakeholders to maintain effective communication channels</li> <li>Observe the Company's operating obligations and maintain good performance of the Company</li> </ul>

Operations Safety and Service Incidents	
Key Challenges	<ul style="list-style-type: none"> <li>Major railway service incidents</li> <li>Management of crowding</li> </ul>
Key Controls	<ul style="list-style-type: none"> <li>Investigations/technical studies conducted on individual incidents to identify opportunities for continuous improvement</li> <li>Enhanced crowd management plans in place</li> <li>Signalling systems being upgraded to enable more frequent train services to be run in the longer term</li> <li>Works Management Office established to oversee the integrated management of the combined risk of concurrent major capital projects that may have an impact on the operating railway</li> </ul>

New Projects Cost and Delivery	
Key Challenges	<ul style="list-style-type: none"> <li>Shortage and ageing of contractor workers</li> <li>Close proximity of construction activities to operating railway and urban developments</li> <li>Management of interfaces with different parties</li> <li>Adherence to the programme and cost of the projects</li> </ul>
Key Controls	<ul style="list-style-type: none"> <li>Work with Government to facilitate recruitment of workers and applications for labour importation</li> <li>Close coordination with parties involved in interfacing activities and enhancement of design and construction methodology</li> <li>Training for contractor workers and staff on railway safety</li> <li>Stringent control of contingency funds</li> </ul>

Workforce Transition/Competence/Institutional Knowledge/Resourcing	
Key Challenges	<ul style="list-style-type: none"> <li>Stream of staff reaching retirement age in coming years after MTR train service has been in operation since 1979</li> <li>Manpower shortages and retention challenge in several job types</li> </ul>
Key Controls	<ul style="list-style-type: none"> <li>Proactive manpower sourcing and succession planning</li> <li>Skills and competency enhancement</li> <li>Provide flexible resource pools and improve staff mobility for growth businesses</li> <li>Explore innovative solutions to mitigate manpower shortage</li> </ul>

New Business Model/Technological Disruption/Competition	
Key Challenges	<ul style="list-style-type: none"> <li>Current business model disrupted by new technology</li> <li>Manage competition from other transport modes</li> </ul>
Key Controls	<ul style="list-style-type: none"> <li>Capitalise on e-commerce and technology to explore new business models</li> <li>Monitor competition from other transport modes and implement initiatives to maintain market share</li> </ul>

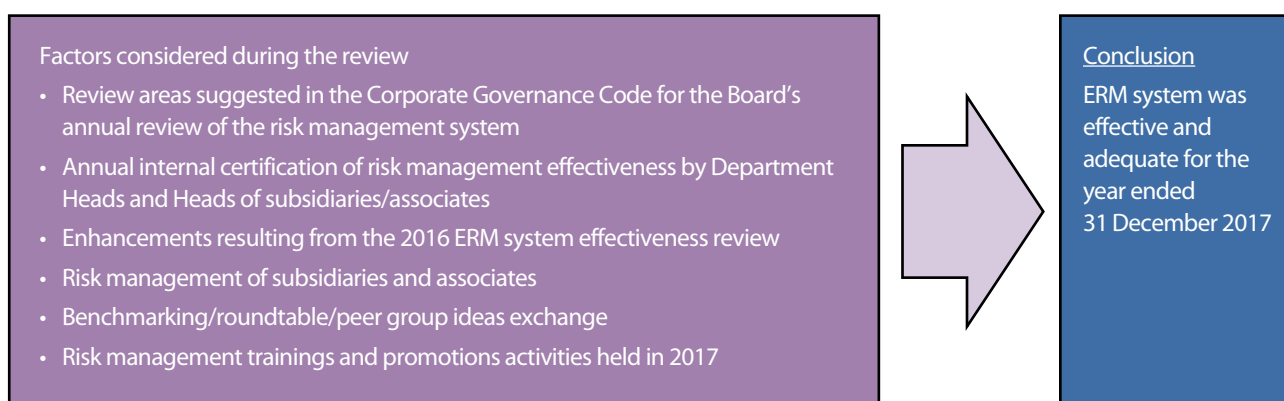
Delivery of Growth Strategy	
Key Challenges	<ul style="list-style-type: none"> <li>Challenging business model for future new lines in Hong Kong</li> <li>Strong competition for business opportunities outside Hong Kong</li> </ul>
Key Controls	<ul style="list-style-type: none"> <li>Formulate innovative business models for new lines in Hong Kong</li> <li>Maximise branding effect of the Company</li> <li>Conduct regular environmental scan for new business opportunities outside Hong Kong</li> </ul>

Security Threat (cyber/physical)	
Key Challenges	<ul style="list-style-type: none"> <li>Threat of cyber-attack on Operations and IT systems</li> <li>Terrorist attack threat, in particular for railway operations of the Company outside Hong Kong</li> </ul>
Key Controls	<ul style="list-style-type: none"> <li>Enhance IT network resilience to protect the Company against cyber attacks</li> <li>Implement cyber security protection systems for railway operations systems</li> <li>Enhance governance of corporate security framework</li> </ul>

## Process of System Effectiveness Review

On behalf of the Executive Committee, the ERC evaluates the effectiveness of the ERM system at least annually. The Legal and European Business Director, who chairs the ERC, presented the ERM system effectiveness review results for the year ended 31 December 2017 to the Executive Committee, which confirmed the review results, on 8 February 2018, and to the Risk Committee on 23 February 2018.

For the year ended 31 December 2017, the Risk Committee, with delegated authority from the Board, evaluated the effectiveness and adequacy of the Company's ERM system and concluded that it was effective and adequate, based on a number of review areas.



## CONTINUOUS PROCESS IMPROVEMENT

Key improvements in the ERM system implemented within 2017 include:

- The risk register template has been enhanced, supplemented by guidelines, to enable better articulation of risks and risk controls, assessment of the effectiveness of controls and the reinforcement of forward risk trends
- Enterprise risks have been reviewed for further differentiation and those risks assessed to be more appropriately monitored and managed by business units as part of normal business have been archived from the enterprise risk map, to enable more focused risk discussion at the enterprise level
- In June 2017, a series of half-day risk management workshops were attended by over 100 department heads/senior managers/ERC members/divisional risk coordinators at which global risk trends and lessons learnt from external real life case studies were discussed; another series of half-day workshops focusing on risk management principles and risk awareness were also organised and attended by over 110 managers and supervisors
- In late October 2017, the Company launched its Risk Awareness Week ("RAW") event for the fourth year to continue to promote risk awareness across all levels of the organisation. The event included a workshop on forward-thinking tools applicable for risk management, a lunchtime seminar on risk assessment tools, a series of interactive half-day workshops, and an online game. Over 400 staff participated in various activities during the RAW event. Key business units outside Hong Kong also promoted risk awareness in their respective local business units to echo Headquarters' efforts

We keep ourselves abreast of the latest developments in risk management through reviews with users, cross-industry benchmarking and experience sharing through various channels:

- Sharing and learning of best practice through the tenth UK ERM Roundtable and the ninth HK ERM Roundtable meetings
- Cross-learning among risk managers from different business units, including subsidiaries and associates in the Mainland of China and overseas, through the in-house "Audit & Risk Forum" held in Hong Kong in June 2017 and periodic teleconference meetings