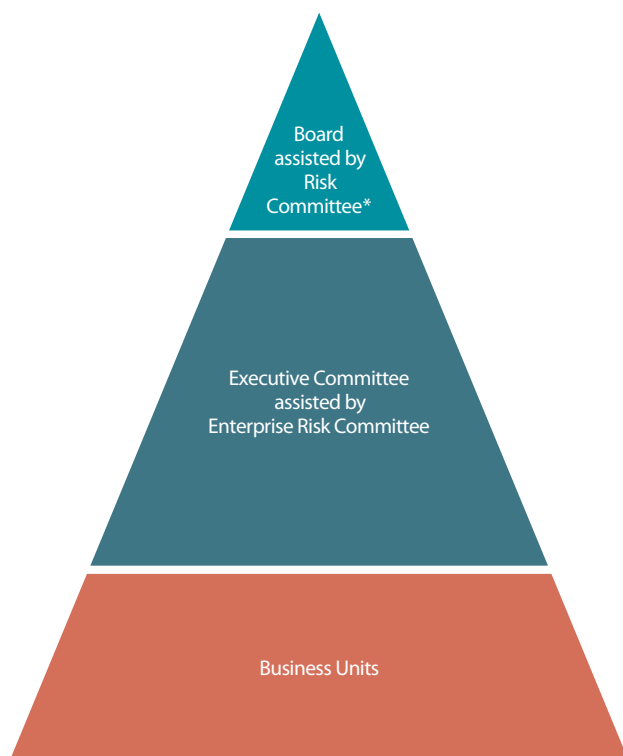# RISK MANAGEMENT

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.

The Executives provided top-down views on the key risks of the Company through discussions on the quarterly enterprise risk reports. Two "Blue Sky" workshops were also held in 2019 to discuss (i) the objectives of and expected outcomes from the ERM function; and (ii) possible longer term risk scenarios associated with the recent public order events in Hong Kong and possible risk controls.

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.

Board assisted by Risk Committee*

• Exercise ongoing risk oversight
• Establish appropriate risk management strategies
• Oversee the ERM framework
• Review top risks and emerging risks
• Conduct annual review of ERM system effectiveness

Executive Committee assisted by Enterprise Risk Committee

• Implement and continuously improve ERM framework
• Enterprise Risk Committee
  – Chaired by Legal and European Business Director
  – Comprises representatives from key business functions
  – Steers framework implementation and improvement
  – Reviews Company's top risks and key emerging risks
  – Reports to Executive Committee and Risk Committee quarterly, and to Board every six months

Business Units

• Establish arrangements and implement risk management process consistent with the Company's ERM framework and policy
• Capture identified risks in risk registers for regular review and monitoring

* See the Risk Committee Report (pages 122 to 123 of this Annual Report) for duties and work performed by the Committee in 2019

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.

The Company's ERM system provides an important internal control in identifying and managing enterprise risks affecting the Company. As a learning organisation, the Company constantly looks for improvement opportunities through internal and external reviews and studies, as well as learning from incidents encountered during its operations. Investigations of material incidents such as issues seen in relation to the Shatin to Central Link project, the train collision during signalling testing on the Tsuen Wan Line and the derailment near Hung Hom Station on the East Rail Line, have been undertaken and improvement actions have been identified for implementation.
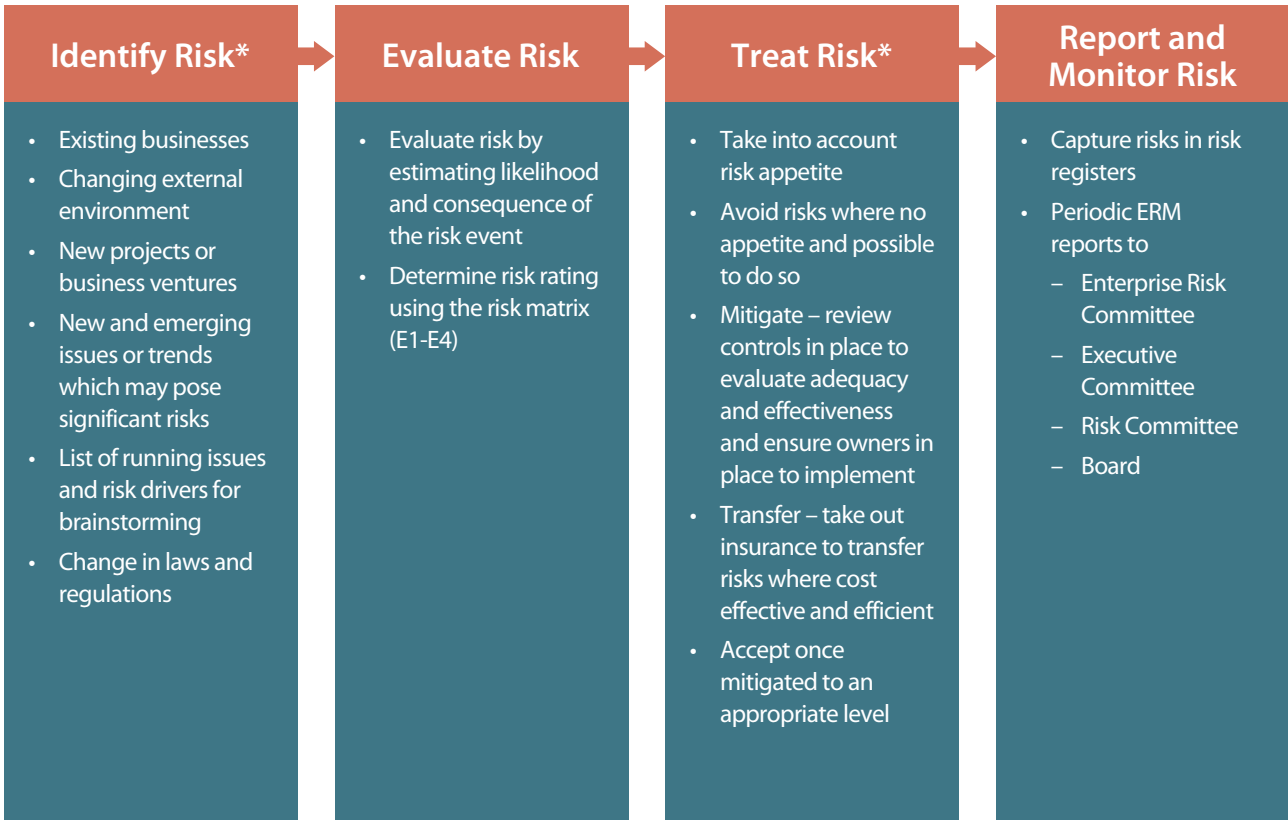
MANAGEMENT PROCESS FOR SIGNIFICANT RISKS

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 2019, the ERM Team had reviewed the external case of the Boeing 737-Max airplane failure to understand the issues involved and identify lessons learned that could be applied to the Company.

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.

Identify Risk*	Evaluate Risk	Treat Risk*	Report and Monitor Risk
• Existing businesses • Changing external environment • New projects or business ventures • New and emerging issues or trends which may pose significant risks • List of running issues and risk drivers for brainstorming • Change in laws and regulations	• Evaluate risk by estimating likelihood and consequence of the risk event • Determine risk rating using the risk matrix (E1-E4)	• Take into account risk appetite • Avoid risks where no appetite and possible to do so • Mitigate – review controls in place to evaluate adequacy and effectiveness and ensure owners in place to implement • Transfer – take out insurance to transfer risks where cost effective and efficient • Accept once mitigated to an appropriate level	• Capture risks in risk registers • Periodic ERM reports to – Enterprise Risk Committee – Executive Committee – Risk Committee – Board

*   Areas below are not exhaustive

RISK MANAGEMENT

Key focus areas for risk management of the Company include:

Effective and Balanced Relationship with Key Stakeholders	
Key Challenges	• More challenging political landscape and diverse stakeholders' expectations • Uphold trust and public confidence in light of the Shatin to Central Link incident, the Public Order Events and operational incidents
Key Controls	• Implement tailored engagement plans for different stakeholders to maintain effective communication and understanding • Observe the Company's operating obligations and maintain good performance of the Company

People and Operations safety	
Key Challenges	• Safety and security threats associated with the Public Order Events • More challenging staff relations management due to more diverse profiles and polarised views • Health threat and loss of production arising from the coronavirus pandemic
Key Controls	• Enhanced security arrangements • Review of asset and design standards • Proactive engagement of staff through enhanced communication channels • Implementation of business continuity arrangements • Enhanced cleaning and sterilisation at business premises, including trains, and provision of personal health protective equipment for staff

New Projects Quality, Delivery and Cost	
Key Challenges	• Adherence to programme and cost of projects • Compliance with quality standards and record keeping requirements
Key Controls	• Periodic audits and assurance to ensure compliance with processes and procedures • Monitoring project quality and progress against Key Performance Indicators • Familiarization of staff with the processes and procedures relevant to their work and encouraging lessons learned to be shared • Adoption of technology to strengthen supervision and record keeping • Stringent control of contingency funds

New Business Model / Technological Disruption / Competition	
Key Challenges	• Current business model disrupted by new technology • Manage competition from other transport modes
Key Controls	• Capitalise on e-commerce and technology to explore new business models • Monitor competition from other transport modes and implement initiatives to maintain market share

Delivery of Growth Strategy	
Key Challenges	• Challenging business model for future new lines in Hong Kong • Keen competition for business opportunities outside Hong Kong • Business performance below the bid models and assumptions
Key Controls	• Formulate innovative business models for new lines in Hong Kong • Maximise branding effect of the Company • Conduct regular environmental scan for new business opportunities outside Hong Kong • Formulate and implement business plans for underperforming businesses for improvement and monitoring

Security threat (cyber / physical)	
Key Challenges	• Threats associated with Public Order Events • Threat of cyber-attack on Operations and IT systems • Terrorist attack threat, in particular for railway operations of the Company outside Hong Kong
Key Controls	• Enhanced security measures • Enhanced IT network resilience to protect the Company against cyber attacks • Implementation of cyber security protection systems for IT and railway operations systems • Enhanced corporate security governance framework

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 2019 to the Executive Committee, which confirmed the review results, on 6 February 2020, and to the Risk Committee on 18 February 2020.

For the year ended 31 December 2019, the Risk Committee, with delegated authority from the Board, has evaluated the effectiveness and adequacy of the Company's ERM system and considers that it is overall effective and adequate, based on a number of review areas.

Factors considered during the review
- Review areas suggested in the Corporate Governance Code for the Board's annual review of the risk management system
- Annual internal certification of risk management effectiveness by Department Heads and Heads of subsidiaries/associates
- Risk management of subsidiaries and associates
- Benchmarking/roundtable/peer group ideas exchange
- Risk management training and promotion held in 2019

Conclusion
The ERM system was considered overall effective and adequate for the year ended 31 December 2019.

CONTINUOUS PROCESS IMPROVEMENT

Key initiatives undertaken in relation to the ERM system in 2019 include the following:

- The ERM Team continued to produce quarterly ERM Newsletters for dissemination to all staff focusing on topical issues in risk management, aiming to raise risk awareness, share good risk management practices and lessons learned from case studies.

- A series of 3 bite-size animated videos, which form a story to promote risk management principles and application, has also been developed. Two of the three videos have been launched, with the last one released in early 2020. The fun and innovative approach has received a good response with over 2,000 staff having watched the videos and participated in the quizzes.

- Acting through the Audit Committee and the Risk Committee, the Board has mandated a review of the Company's internal control and risk management systems for Hong Kong operations, as the first phase, by PwC ("Review"). The first phase of the Review has been completed and the observations were presented to the Audit Committee and the Risk Committee in September 2019. An action plan will be brought back to the Board in 2020 for implementing the recommendations, and one of the key recommendations is an in-depth review of ERM's positioning and structure.

We keep ourselves abreast of the latest developments in risk management through reviews with users, cross-industry benchmarking and experience sharing, including through participation in the UK ERM Roundtable and the HK ERM Roundtable meetings.