



# Capability Statement 2022

International Consultancy



caring for life's journeys

## Who are we

Today, MTR provides over **10 million** passenger journeys **every day** through our mass transit services across the world. We are regarded as one of the world's leading railway operators for safety, reliability, customer service and cost efficiency.

MTR has been established for more than 40 years, our aspiration remains unwavering – to **connect** and **grow communities** across the globe. With operations in Hong Kong, Macao, Shenzhen, Beijing, Hangzhou, Stockholm, Sydney, Melbourne and London, we are serving communities and connecting people in these cities with dedication and heartfelt services.



## What we do

MTR delivers efficient and customer-centric services to rail passengers with over **50,000 staff worldwide** across a spectrum of mass transit solutions.



*Metro, Airport Express, Sub-urban Rail, Light Rail, Intercity and High-speed Rail*



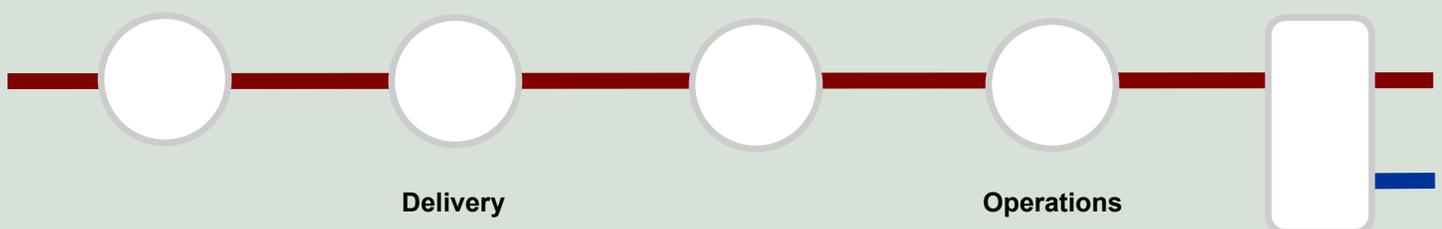
## Our Service

With MTR's global network and wealth of railway expertise, we can tailor our service to meet your needs along the journey from project planning to customer experience management.

Planning and Procurement

Testing & Commissioning

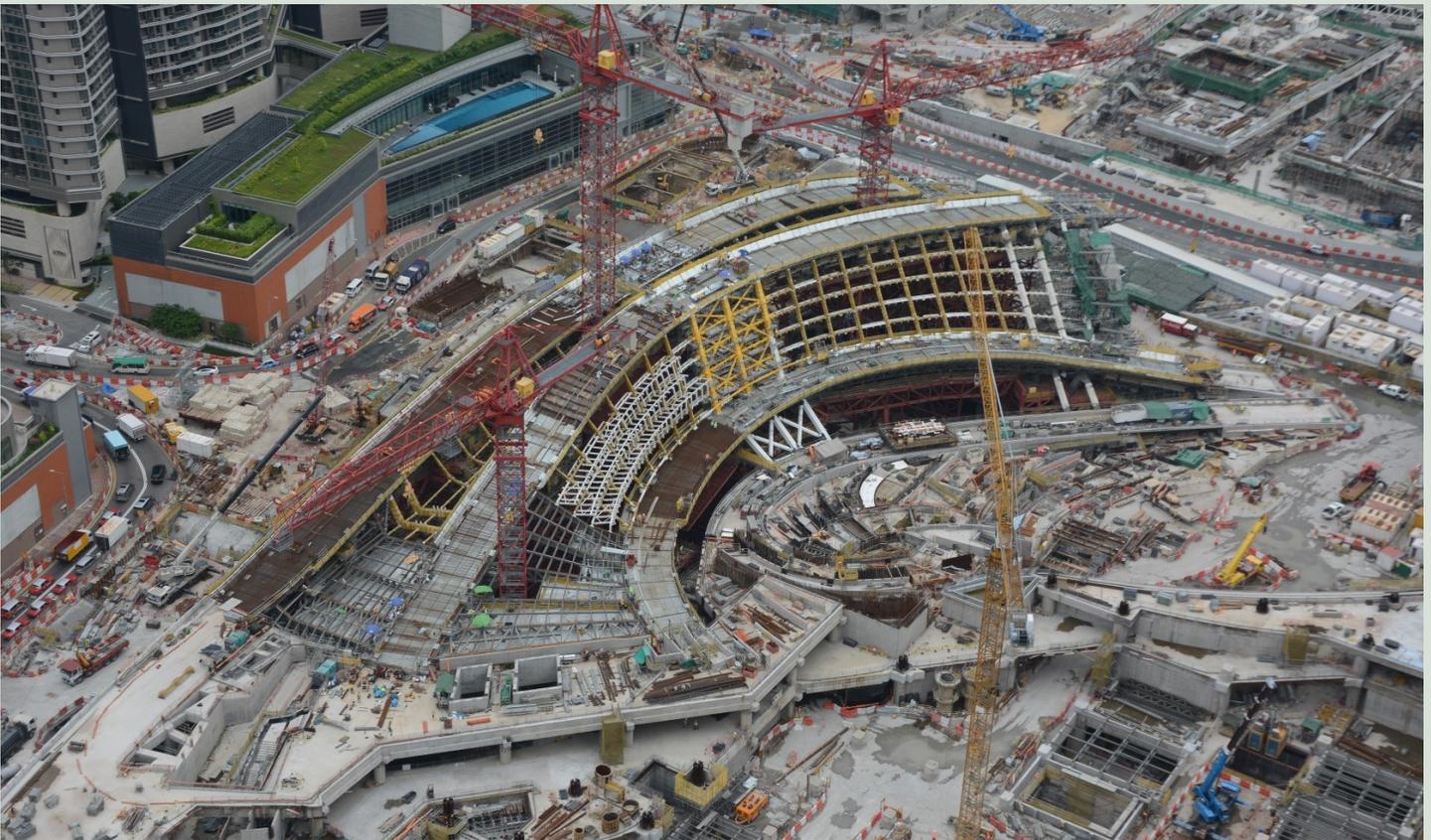
Asset Renewal



## Project Management

- ⇒ **Railway Planning**
- ⇒ **Design Management**
- ⇒ **Construction Management**
- ⇒ **Factory Inspection Service for Rolling Stock**
- ⇒ **Testing and Commissioning**

MTR has planned, designed and delivered complex railway projects with world-class standards. With increasing project complexity and public expectation, we ensure that key project objectives and requirements are met through risk management, innovation, financing and sustainable development. We develop solutions around our operational needs and requirements across our projects as we recognise its significance along a project's lifecycle.



*West Kowloon Terminus during construction*

## Operations and Maintenance Planning

- ⇒ **Operation Strategy**
- ⇒ **Planning for Trial Operations**
- ⇒ **Operation readiness assessment**
- ⇒ **O&M documentation**
- ⇒ **Independent Review / Due Diligence**
- ⇒ **Benchmarking**
- ⇒ **Testing and Commissioning**

With a consistent on-time performance of over 99.9%, MTR is recognised for its efficient railway operations and maintenance. We adopt an operator-led approach to new railway projects, which ensures that the resulting design is robust, customer focused and with optimal life cycle cost.

We act as the “Shadow Operator” to provide operations and maintenance (“O&M”) input before an operator is appointed. It ensures that the O&M requirements, strategy, and customer needs are translated into the relevant design specifications and project documents at the project inception stage.

We provide a full range of O&M consultancy services to deliver innovative and tailored solutions to railway organisations, consultants and various government organisations across the globe.



*Our Operations Control Centre (“OCC”) controls the Hong Kong rail network from Tsing Yi*

## Smart Operation and Maintenance

MTR is pioneering innovations to improve the safety and productivity of railway operations and maintenance. This includes digitalised track access management to minimise processing time and improve traceability, smart train planning to maximise fleet utilisation, and smart sensors for predictive maintenance.



Track Intrusion Detection System



Robots deployed across HK network



Train Car Loading Indicator

## Integrated Speed and Position Supervision System (iSPS)

Our award-winning iSPS is an integrated operational safety digital solution that monitors platforms, junctions and the speed and position of rolling stock fleet with audible alert to train drivers and passengers as danger arises. The accident rate of our Light Rail system in Hong Kong has been significantly reduced by 58% since its implementation in 2019.

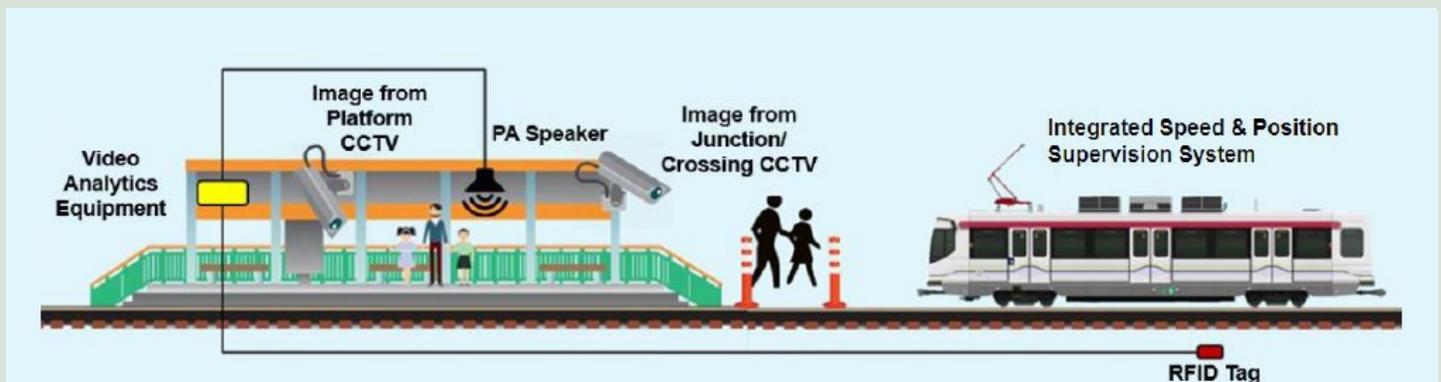


Illustration of iSPS system

# Asset Management

MTR is the first railway operator in the world to have obtained the ISO 55001 certification, which is the highest international standard on asset management. Our risk-based asset management framework helps the organisation with better operational and financial performance, from setting corporate goals & policy to asset life assurance.



*MTR Asset Management Framework*



*MTR uses an early involvement process throughout the entire fleet acquiring from design, planning, project, operating to maintenance.*

MTR offers a wide range of solutions to maximise the life cycle value of rolling stock – from the study and implementation of asset life extension programmes, the selection and procurement of new fleets, to the cost estimation and execution planning of overhaul maintenance and refurbishment programme for existing fleets.

With over 40 years of experience, MTR also offers consultancy services to evaluate asset conditions of various railways systems from trackwork, power supply systems to rolling stock and signalling systems through a combination of desktop study, non-destructive testing and site inspections.

## Business Improvement

### Transit-Oriented Development

We adopt the “Rail + Property” integrated development model to capitalise on the synergy between property development and railway services. This offsets the railway construction capital, making us as one of the few profitable rail companies in the world. With our experience, we can provide advice on the best solutions to capitalise the property rights adjacent to a rail facilities and integrate the two elements – rail and property in a seamless way.



*Kowloon Station, one of the TOD successes in Hong Kong*



*Bustling scene at one of our stations*

### Non-fare Revenue

MTR has a track record of leveraging railway assets to explore and maximise revenue beyond railway fares to provide additional financial support to its railway operations. Through rearranging and utilising station space, we help railway operators to maximise the value of their assets and unlock the commercial potential of their assets, whilst improving the passenger convenience and experience.

## Training Solutions

The MTR Academy continued to offer high quality programmes that bring MTR's railway management and engineering expertise to the Mainland of China and Belt and Road Initiative countries, as well as accredited programmes and

short courses for the next generation of railway professionals. Currently, MTR's team of full-time trainers offer about 7,000 classes in functional and management training every year for the company's 17,000 staff in Hong Kong and international business partners. With dedicated headquarters in Hong Kong and utilising the full suite of MTR's advanced railway training facilities and resources locally and the affiliated training centres in its railway operation hubs in the Mainland of China and overseas, the MTR Academy offers:

- ⇒ Tailor-made signature Corporate Service programmes designed for railway executives and management worldwide
- ⇒ Accredited programmes to nurture the next generations of railway professionals for the local community
- ⇒ Short courses for industry-related professionals across a wide spectrum of topics covering safety, railway operation, asset management, system engineering and customer service
- ⇒ Customised training programmes



## Safety and System Assurance

Risks often arise from the implementation of new technologies and their interfaces with the existing systems. We have developed a comprehensive management system, Safety Management System (SMS), to identify, allocate and manage safety risks across all aspects of our daily operations. With this framework, we can assist railway operators to conduct review on safety assurance and safety management, including:

- ⇒ Risk Management
- ⇒ RAMS Strategy
- ⇒ System Improvement
- ⇒ Cost Benefit Analysis





## GET IN TOUCH

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