

Press Release

14 June 2023

## **MTR and ASTRI Sign Memorandum of Understanding Join Hands in Exploring Innovative Technology for Smart Railways**

The MTR Corporation is committed to making good use of technology to promote smart railway operations management and intelligent maintenance. The Corporation today (14 June 2023) signed a Memorandum of Understanding (“MoU”) with the Hong Kong Applied Science and Technology Research Institute (“ASTRI”). Under this MoU, the Corporation will reserve an additional HK\$20 million to deepen the collaboration between the two parties.

Witnessed by Dr Tony Lee, Operations Director of MTR Corporation and Dr Denis Yip, Chief Executive Officer of ASTRI, Mr Chan Hing-keung, Chief of Operations Engineering Service & Innovation of MTR Corporation and Mr David Chan, Chief Operating Officer of ASTRI signed the MoU, establishing a framework for further exploring innovative solutions and technology applications. With ASTRI's rich research and development and application experience in communication technology, artificial intelligence technology, the Internet of Things and data analytics, the collaboration between the two parties will help further enhance the performance and efficiency of MTR's railway operations and intelligent maintenance.

Since 2021, MTR has allocated approximately HK\$50 million to embark on collaboration projects with ASTRI. Multiple contracts and projects have commenced, including the use of precise automatic optical inspection technology to monitor railway safety, joint research and development of a portable escalator gap clearance inspection tool and application of digital twin for enhancing the operation efficiency of maintenance centre in the future. In the future, MTR and ASTRI will continue to jointly research, develop and apply new technologies such as Internet of Things, artificial intelligence and data analysis to build a smarter railway system.

“MTR has always spared no effort in applying technology to improve operational and management performance and has been striving for excellence to provide safe and reliable railway services to passengers. ASTRI has been our close partner for many years, helping us improve our operational and management efficiency with innovative solutions. We look forward to working with ASTRI's experts to contribute to ‘industry-academic-research’ collaboration and facilitate the development of Hong Kong's smart railways.” said Dr Tony Lee, Operations Director of the MTR Corporation.

Dr Denis Yip, Chief Executive Officer of ASTRI, expressed great anticipation for working with MTR to promote the comprehensive application of intelligent railway technology. “MTR is closely related to the daily lives of the public. ASTRI is pleased to establish a close cooperative relationship with MTR to develop an intelligent railway using various advanced technologies, including artificial

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intelligence, big data, Internet of Things, digital twin, optical inspections and more. Intelligent railway service is an important part of building an international smart city. We believe that this collaboration can bring epoch-making breakthroughs to smart mobility technology in Hong Kong, continuously providing passengers with better travel experience and services and empowering smart living with technology.” said Dr Yip.

Under the new corporate strategy "Transforming the Future", the MTR Corporation actively cooperates with research institutions, universities and start-ups, hoping to continuously promote smart railway services and operations while also contributing to local scientific research to keep Hong Kong moving.

Committed to making Hong Kong an international smart city, ASTRI actively supports the improvement of the innovation and technology ecosystem, and promotes cooperation among government, industry, academia and research sectors to transform advanced technology into practical applications, providing the public with intelligent living and business environments.

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## **About MTR Corporation**

To Keep Cities Moving, MTR makes encounters happen and rendezvous for a more connected tomorrow. As a recognised world-class operator of sustainable rail transport services, we are a leader in safety, reliability, customer service and efficiency.

MTR has extensive end-to-end railway expertise with more than 40 years of railway projects experience from design to planning and construction through to commissioning, maintenance and operations. Going beyond railway delivery and operation, MTR also creates and manages dynamic communities around its network through seamless integration of rail, commercial and property development.

With more than 40,000 dedicated staff\*, MTR carries over 13 million passenger journeys worldwide every weekday in Hong Kong, the United Kingdom, Sweden, Australia and Mainland China. Together, we Go Smart and Go Beyond.

For more information about MTR Corporation, please visit [www.mtr.com.hk](http://www.mtr.com.hk).

\*includes our subsidiaries, associates and joint ventures in Hong Kong and worldwide

## **About ASTRI**

Hong Kong Applied Science and Technology Research Institute (ASTRI) was founded by the Government of the Hong Kong Special Administrative Region in 2000 with the mission of enhancing Hong Kong's competitiveness through applied research. ASTRI's core R&D competence in various areas is grouped under four Technology Divisions: Trust and AI Technologies; Communications Technologies; IoT Sensing and AI Technologies and Integrated Circuits and Systems. It is applied across six core areas which are Smart City, Financial Technologies, New-Industrialisation and Intelligent Manufacturing, Digital Health, Application Specific Integrated Circuits and Metaverse.

Over the years, ASTRI has nurtured a pool of research, I&T talents and received numerous international awards for its pioneering innovations as well as outstanding business and community contributions. As of 2022/23, ASTRI has transferred almost 1,400 technologies to the industry and has been granted over 1,000 patents in the Mainland, the US, and other countries.

For further information, please visit [www.astri.org](http://www.astri.org)

Photo captions:

1. Witnessed by Dr Tony Lee, Operations Director of MTR Corporation (1<sup>st</sup> right) and Dr Denis Yip, Chief Executive Officer of ASTRI (1<sup>st</sup> left), Mr Chan Hing-keung, Chief of Operations Engineering Service & Innovation of MTR Corporation (2<sup>nd</sup> right) and Mr David Chan, Chief Operating Officer of ASTRI (2<sup>nd</sup> left) signed the MoU today (14 June 2023).



2. The portable escalator gap clearance inspection tool co-developed by MTR and ASTRI recently won a Silver Medal in the Geneva International Exhibition of Inventions 2023.



3. Since 2021, MTR has allocated approximately HK\$50 million to embark on collaboration projects with ASTRI. Multiple contracts and projects have commenced, including the use of precise automatic optical inspection technology (below left), joint research and development of a portable escalator gap clearance inspection tool (below right), and application of digital twin for enhancing the operation efficiency of maintenance centre in the future.

