Hong Kong’s MTR is widely recognised as one of the world’s leading railways, moving about four million passengers daily with greater than 99% on-time reliability, as well as a further 400,000 passengers travelling daily on one of the world’s most intensely used light rail systems.

After a long and productive period at MTR, McCusker recounts that one of his lasting legacies will be MTR’s ongoing commitment to being a learning and customer focused organisation.

“When I first arrived at MTR back in 1987, my first impressions were of a very traditional engineering and management approach, despite MTR’s holding a premium position in the industry,” he says.

“While performance levels were good by industry standards, I saw that these could be boosted by greater focus on people and the customer.”

McCusker is a full member of the Chartered Institute of Personnel and Development, and says he has always been aware of the potential of human resources as the key asset within railways – something that highly technical and capital asset driven organisations sometimes leave behind.

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With human resources across industry shifting away from having a primary focus of supporting line managers to manage their people well, to one of delivering sustainable organisation capability and performance, he says that the focus is now on empowering people to learn continuously and be able to make decisions on the ground.

"It is important we understand that the strict command and control features of traditional management are moribund and unable to cope with the modern world of frequent and rapid change," he says.

Two of the first programs McCusker implemented at MTR were very orientated towards people. The first program aimed to orientate the general workforce away from the pure engineering and technical focus towards a focus on giving the customer what they want, which he says was the key element in providing consistency in train operation.

"I ignited a people engagement and competence building program that aimed to swing the culture of MTR towards learning and continuous improvement at the shop floor level," he explains.

Adopted company wide, the tenets of the Work Improvement Program were to build competence across all staff, and a culture of continuous improvement, to facilitate staff to make changes in the workplace, and to recognise and reward staff where customer service upgrades have been achieved.

Maintenance restructure frees rolling stock

Process re-engineering was another area McCusker assisted MTR in improving the business of running a railway.

During the 1990s at MTR, McCusker substantially changed the organisation's approach to maintenance across all aspects of the rail business, commencing with the early introduction of outsourcing of key train and infrastructure systems including safety critical systems.

Despite the reservations from rail regulators, and the "genuine disbelief" of railway professionals that this could be done, McCusker says radical restructuring of fleet maintenance saw great results and MTR was able to achieve very high availability rates for service delivery.

"As a result of this re-engineering, train sets were released from various forms of maintenance into daily service to enhance passenger comfort and improve service during morning and evening peaks," he says.

"Interestingly, this meant capital purchase of additional trains was able to be deferred for eight years."

In the mid-1990s, McCusker took over MTR's Operational Railway Engineering Department, where design specification and modification works were planned and executed for very large capital projects.

He says he is quite proud of the fact that MTR was able to undertake a complete fleet modernisation program without loss of service to the public, and to deliver this on time and under budget.

CoMET finds best practice benchmarks

Another project of interest to rail practitioners is McCusker's success in moving MTR's systems central control room from Kowloon Bay into a new facility at Ching Yi, in conjunction with the introduction of the Airport Line in Hong Kong.

Having achieved a seamless move through the first application of risk and systems assurance approaches that he developed, McCusker says when he recounts the project there is always a high measure of disbelief from metro practitioners that this had been achieved without any change or disruption to normal service timetables.

"I have had a lot of international interaction with metro train operators due to my role in helping to establish the international organisation known as CoMET and being president of the group," he says.

CoMET is a program of international railway benchmarking and comprises a consortium of large metro systems from around
the world – Beijing, Berlin, Guangzhou, Hong Kong, London, Mexico City, Madrid, Moscow, New York, Paris, Santiago, Shanghai and Sao Paulo.

McCusker and MTR played a leading role in the formation of the group.

"In 1994, MTR and I felt that it would be of value to exchange performance data and investigate best practice amongst similar heavy metros. We proposed forming a benchmarking consortium to metros in London, Paris, New York and Berlin," he explains.

The issues of control and cost were addressed by using the Railway and Transport Strategy Centre at Imperial College London to facilitate the program, and McCusker says that from its first days case studies that identified best practice in line capacity, investment effectiveness and maintenance provided immense value.

"The first line capacity study, for example, showed that one of the best ways to increase capacity was by the control of the ‘dwell time’ in stations. It was a bilateral study between London and us in Hong Kong, and in accordance with the philosophy of the group, we shared the results with the other members."

At this point, he says things became "very interesting."

"New York City Transit (NYCT) immediately seized on the study's results and subsequently launched a pilot project in New York, Step Aside – Speed Your Ride," he says.

"The project produced an immediate 4.5% improvement in capacity on one of New York's busiest lines. This was done with minimal investment, merely some markings to tell people where to stand and some departure clocks to allow the drivers to standardise their 'dwell time'."

Following the success of CoMET, the Nova group was formed in 1998 and currently comprises 14 small to medium sized metros, of which Sydney passenger operator, RailCorp, is a member.

**New opportunity**

MTR has provided incredible career highlights but McCusker admits that he has come to live in Australia for a lifestyle change.

"I have had a wonderful time in Hong Kong but my daughter has started university studies in Australia and that coincided with my thinking about the next stage of my career," he says.

While McCusker has not before lived permanently in Australia he has spent considerable time here for work, and over the last two years has sat on the Board of Metro Trains Melbourne (MTM), which operates Melbourne's metropolitan train network. MTM has three shareholders, one of whom is Hong Kong's MTR Corporation.

"SMART's start-up phase offers a clean page of opportunities and challenges which are highly appealing," he says.

"The University of Wollongong has a significant track record and experience with the rail industry. Its Faculty of Engineering was one of the founding members of Australia's first National Rail Research Centre, the Cooperative Research Centre for Railway Engineering and Technologies."

He says that SMART is ideally placed to complement the university's existing substantial relationships with the rail industry with its simulation, modelling and analysis abilities.

Now that McCusker is in Australia and establishing SMART Rail's research operations he is keen to meet with government and industry as soon as possible.

"I want to listen to what the priorities for government and rail operators are. It is important that I hear that and then move to position SMART's resources and expertise into assisting in the delivering of these," he says.

"Rail in Australia is undergoing a renaissance – road congestion, sustainability and the desire to get freight moving more efficiently into intermodal hubs are all pushing the demand for more rail. I hope that I can contribute and that SMART can bring solutions.

"It is going to be an exciting time."