In Melbourne and Sydney, current investment levels in transit infrastructure are at an unprecedented high. As part of our Imagine 2060: Delivering Tomorrow’s Cities Together partnership with the Asia Society, a global non-profit organization, AECOM’s Tim O’Loan and MTR’s Terry Wong discuss how these two cities are learning from places with developed transit-related value capture models, such as Hong Kong, Los Angeles and London, to ensure that the investment brings broad, long-lasting social value and environmental benefits to the surrounding communities.

Melbourne is currently experiencing a heavy rail renaissance, with the State of Victoria looking to invest AU$57 billion (US$37 billion) in major infrastructure and smart technology over the next decade to build greater capacity in existing public transport networks that will serve as a catalyst for future urban land development. New South Wales also has a similar amount planned. However the recent coronavirus pandemic has thrust a series of unforeseen and profound challenges on our cities. They are, however, not completely without precedent.

So how will this significant investment in rail infrastructure best serve its current and future communities? And how can we make sure that it leads to equitable growth? To get people involved in the long-term planning of infrastructure, there needs to be a clear communication of social value and broader benefits. Even before the pandemic these questions were becoming increasingly relevant. How will the shock of the shut down and a deepening economic downturn change the value we place on the health of our society?

**Governance and social value**

Building transportation infrastructure is, at its core, about building environments for communities of the future. In this context, we can define ‘social value’ to mean the benefits received by communities from large infrastructure projects. In other words, this ‘value’ is a measure of the financial benefits of sustained employment opportunities, provision of health and education, access to open space and a general uplift in liveability.
In the United Kingdom, the Public Services (Social Value) Act requires major publicly-funded projects to assess and report their qualifiable impact in terms of economic, environmental and social benefits. Effectively this requires the community benefits to be quantified as part of the business case, thereby providing a more effective and clear statement of expected outcomes derived from the project funding. In the United States, the Los Angeles Metro has a similar model in place, driving social value through planning and design.

In Melbourne and Sydney, ‘social value’ and ‘value capture’ are not yet actively-measured as part of the funding or delivery considerations for major transit infrastructure. However, planners and designers involved in some major projects – such as Sydney Metro’s West and Greater West projects, Victoria’s Suburban Rail Link and Melbourne Airport Link – have started to build in social value and value capture measures. Awareness of the importance of these considerations is likely to further increase as major cities analyze the effects of the coronavirus on urban populations.

CONTINUOUS VALUE CAPTURE: ‘TRANSIT GENERATIONS’

Using the term ‘transit generations’, MTR’s Terry Wong has put forward his own systematic view of how cities evolve symbiotically with their transit systems and how social value increases as a result.

First generation: rail systems are initially developed to move people and goods along single alignments. Property speculation then develops following this investment.

Second generation: combinations of rail alignments and other transit modes to create a network with major transfer hubs are seen as increasingly valuable, attracting more coordinated investment, although still reactive to the transit investment, not leading it.

Third generation: costs of improving network capacity and efficiency are shared by developers seeking to improve land value adjacent to or within the transit corridors, creating more complex partnerships for management.

Fourth generation: shared governance of the network allows revenue generation through a range of means, effectively running the transit and land use developments as commercially self-sustaining entities.

Fifth generation: the combined transit and land use development conglomerate provides effective large-scale solutions to the challenges facing cities including social equity and resilience.
Hong Kong: advancing through generations

Hong Kong has undergone several iterations of its transport infrastructure to reach the level of sophistication enjoyed today, using urban transit as the primary driver in developing compact, efficient and more liveable communities.

The MTR has overseen some of the most successful integrated transport and urban development projects in the Asia Pacific region, as government policy deliberately links transportation and urban development. By looking for the best alignment of integrated infrastructure, not just from a transportation-efficiency perspective but to also maximise value for real estate developments, the business case is extended. The government strives to achieve an ongoing stream of income, helping to fund maintenance, asset upgrade and further system expansion.

Buildings sit over nearly half of the 96 stations on MTR’s system in Hong Kong, although the best projects don’t always have large buildings sitting atop them. The West Kowloon Station is a multi-level underground station with a footprint of over 11 hectares and a massive green rooftop. Overall, Hong Kong’s over-station developments are an excellent example of maximising value when land is in short supply. This integrated development approach gradually shapes station precincts and allows MTR to keep fares affordable.

Australia: progressing to third generation thinking

Australia has started to operate in the third transit generation. While Hong Kong’s form of over-station development isn’t yet viable in Australian cities, the lessons of integrated development are very relevant — bringing the cities towards environmental sustainability, social inclusion and financially viable transit precincts.

There are moves in the right direction. As part of the Sydney Metro project, new stations are being built under the city’s most valuable commercial property. Victoria Cross, Martin Place and Pitt Street stations have been termed ‘integrated station developments’ as new commercial and retail buildings have been included at the entrances to stations, with new rail infrastructure built under the existing city. In Melbourne, the Melbourne Metro project will be delivering developments in two locations with very similar challenges.

This level of integration is unprecedented in Australia and these examples are situated in the most densely populated — and most valuable — areas of their respective cities. The economics are such that this type of development is unlikely to be repeated elsewhere.

Outside of the central business district and areas of high land value, the cost of building over an active railway station often outweighs the uplift in land value, which in inner urban areas is not as high as in Hong Kong or London. If they want transit investment to include a commercial offering, authorities in both cities may need to adopt a sophisticated approach in collaboration with private landowners nearby.

Making the next ‘generational leap’ in Australia

By looking at London, Los Angeles and Hong Kong, we can see that practical social value is most effectively realised by delivering integrated development. If Australian State governments consider more sophisticated models of value capture, their cities will be able to advance to higher generations.

With populations now at five million each, Melbourne and Sydney have an opportunity to leap into the fourth ‘transit generations’. To get there, state governments must start planning and designing transit infrastructure inclusive of social value as well as measurable and sustained economic and environmental benefits. Decisions should be based on an objective business case that considers the indirect and direct benefits to the community. There is a much greater chance of moving up the ‘transit generations’ scale if a genuinely comprehensive planning process covering private investment and partnerships is followed thoroughly.

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