

Rosina Howe-Teo

Singapore's Smart Mobility 2030 : Big Data and Car-Lite Society

1. From building roads and transit infrastructures to paying greater attention to commuters' needs for comfort, reliability and safety. Such has been the journey of the Land Transport Authority over the past 20 years. So, what will we be seeing in the next 20 years? This journey is encapsulated in the recently-published "Smart Mobility 2030" – a masterplan involving the use of smart sensors, big data and analytics, the availability of relevant, useful information on-the-move and promoting a car-lite Singapore.
2. Addressing urban mobility in a high growth, land-scarce city like Singapore is a major challenge confronting the LTA. Having leverage on technology and successfully deploying innovative intelligent transport system (ITS) solutions to manage traffic more efficiently, the next big move is to encourage the use of public transport, like trains and buses, as a preferred-means of transportation that is no less efficient than private vehicles. This is a tall order given the need to keep Singapore roads free-flowing, balanced with the perennial aspiration of Singaporeans to own a car as testament of social success.
3. In spite of these challenges, the journey for the next lap has started in earnest. Policies espousing massive transformation of the public transport sector have been announced by the Singapore government. The Government is taking on the role of Central Planner cum Owner of Public Transport assets. This bold move will need to rationalise, synergise, optimise and maximise resources and investments to deliver sustainable public transport services that better meet growing urban needs.
4. The strong synergy between ICT and transportation is offering almost unlimited possibilities. The volume and speed at which data is generated, processed and stored will alter the transport sector. Location-sensing technologies and smart devices can locate and track people movement quite precisely and fusing data from crowd sourcing enables new insights about transport demands. These patterns can predict future demands, adjust supply and offer timely intervention measures to avert incidents. At the same time, non-classified transport data can be shared openly for research and third-party development to spur creativity and innovation.
5. In land-scarce and manpower-scarce Singapore, Smart Mobility 2030 will see the use of advanced technologies in ERP2 (or 2nd Generation Electronic Road Pricing) using GNSS technology to support road pricing. Together with our Green Mobility initiatives, the test-bedding of Electric and Autonomous vehicles underscores Singapore's commitment towards a sustainable and environment-friendly society.