FUTURE TRENDS

مؤسسة دبي للمستقبل
DUBAI FUTURE FOUNDATION

In collaboration with

مجالس دبي للمستقبل
DUBAI FUTURE COUNCILS
النقل
Transportation

FUTURE OF TRANSPORTATION

INSIGHTS IN BRIEF

The COVID-19 pandemic has resulted in over four billion people being placed in lockdown.

The impact of lockdown has led to a decrease in farebox revenues – with a reduction in patronage exceeding 90% in some cities.

The pandemic offers a unique opportunity to re-imagine the transportation system and move it towards a more resilient, equitable and seamless experience.

CURRENT SITUATION

With more than five million people infected with COVID-19 around the world[1], many countries have resorted to social distancing and lockdown as strategies to 'flatten the curve' of cases. This in turn is having an impact on stock markets, schools, workspaces, tourism, and public transportation.[2] The COVID-19 pandemic has resulted in over four billion people being placed in lockdown and this has resulted in a decrease in farebox revenues – with a reduction in patronage exceeding 90% in some cities.[3]

Coronavirus: Effects on Public Transit Usage Around the World

Mar 19, 2020

Los Angeles, CA: **-25.8%**
Berlin/Brandenburg: **-39.8%**
London and South East: **-27.2%**
Madrid: **-67%**
NYC, New York - New Jersey: **-33.9%**
Roma e Lazio: **-84.3%**
Milano e Lombardia: **-83.4%**
Paris: **-55.4%**
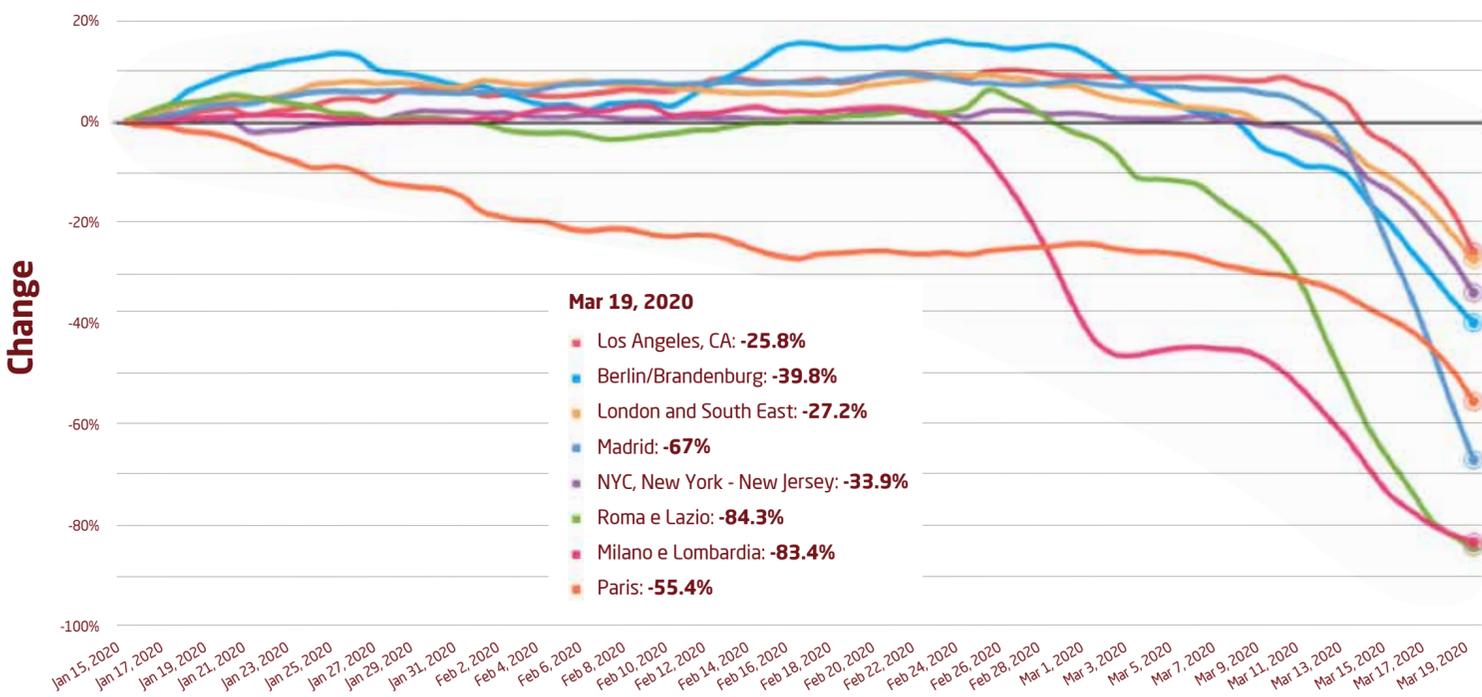
Source: Moovit

In countries such as Italy where the number of infected citizens has been one of the highest in the world, use of public transportation has seen sharp falls compared to previous months. In Lombardy, a region that includes Milan and Bergamo, there was a decrease of 47% in public transport usage. Public transport ridership in the countryside also dropped by 50% by early March.[4]

[1] Statista 2020.
[2] "Coronavirus & Your Commute: How COVID-19 is Affecting Public Transportation Around the World", Moovit, 2020.
[3] "Resuming Public Transport Services Post-Lockdown", International Association of Public Transport, 2020.
[4] https://company.moovit.com/blog/coronavirus-effect-public-transportation-worldwide/

In Egypt, public transport companies have appealed to the government for a package of economic support measures to counter the negative impacts of COVID-19, as they have seen a decline in revenues of over 75%.[5]

Saudi Arabia has suspended public transportation companies including bus and taxi operators to prevent the spread of the virus.[6] Saudi Arabia has also announced a package of initiatives to support the private sector as part of its efforts to lessen the economic impact of the COVID-19 pandemic. The initiatives include paying minimum salaries to individuals who are working in passenger transport and whose activities were stopped due to the COVID-19 precautionary measures[7].

In Dubai, the Dubai Metro, tram and marine transport operations have been suspended temporarily, allowing for an intensive cleaning and sanitization program.

[5] "Public transport companies request government aid due to COVID-19", Daily News Egypt, 2020.
[6] Tayyeb, H., "Knock-on effects of COVID-19 on Public Transportation in Saudi Arabia", Saudi Gazette, 2020.
[7] Nagraj, A., "Saudi reveals new measures to support the private sector due to COVID-19 impact", Gulf Business, 2020.

Country /City	Main initiatives implemented	Future Actions to be taken
Dubai	• Halting the metro, trams and maritime transport temporarily • Sterilization program • Providing free bus services • Mandating public transport users to wear masks • Reducing 50% fares of taxis	• Gradually reopening the Metro and other transport modes
Morocco	• Reducing tram services - every 8-10 minutes in peak, otherwise every 15 minutes • 50 passengers per carriage limit • Suburban rail running reduced service • Masks compulsory in all public spaces since April 20th • Countrywide lockdown until May 20th, extended on May 18th until June 10th	• A city-wide three-stage plan for emerging from the lockdown

Country /City	Main initiatives implemented	Future Actions to be taken
France	• Sterilization program • Reduced service for all modes of public transportation • Mandating transit drivers to wear masks	• Managing crowds to reduce physical contact between employees and public • Distributing tasks and responsibilities between sectors (such as transportation, health, police and security)
USA	• Reducing capacity of public transportation by 50% (New Jersey) • Mandating all transit users to wear masks (New Jersey)	• Classifying the main factors affecting the transport sector using scientific methods • Identifying priorities while studying scenarios and developing action plans
Germany	• Continuing construction of infrastructure projects • Creating platform for all government entities to exchange information	• Communicating transparently and positively with partners and public • Focusing on financial resource management and post-crisis planning • Developing simulation system for impact of crises on transport
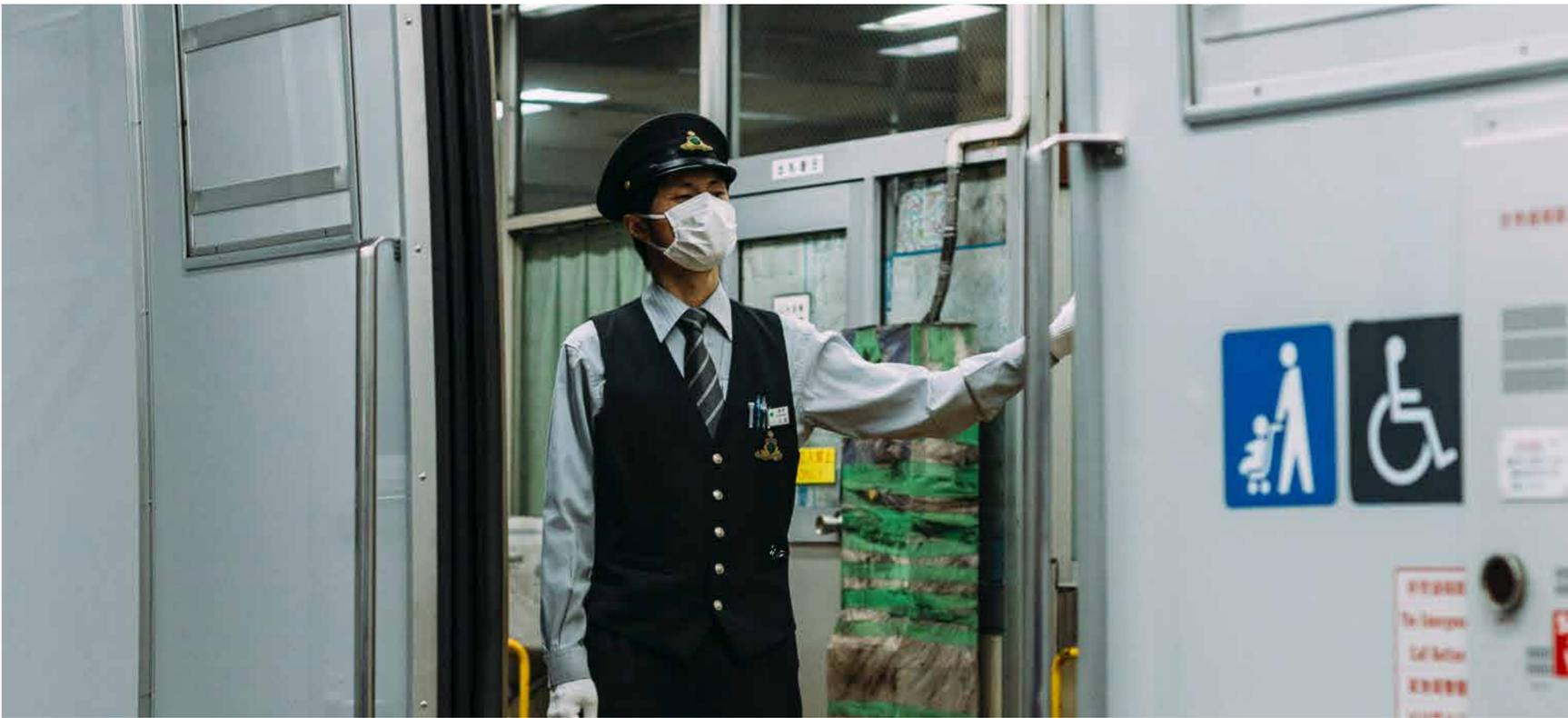
The main challenges discussed in a meeting with the Dubai Future Council on Transportation were as follows:

1. The absence of a global standard to address the virus in a public transport setting

- There is no unified global standard or methodology to address the risk of the virus spreading in the transport sector.

- Some countries have completely shut down their metro and tram facilities, while most countries have preferred to reduce services.

2. The possibility of several waves of pandemic

- Hong Kong has faced this challenge and other countries could possibly face it.

- Lessons can be learned from successful practices of countries such as Singapore, Taiwan, and Hong Kong as they have faced similar crises previously (such as SARS in 2003).

3. The degree of readiness to deal with coronavirus in different sectors

- Experts explained that the degree of most sectors' readiness was 2 out of 10.

- They agreed that the degree of readiness of the transport sector was 4 out of 10, because the transport sector is dynamic and flexible in nature and has benefitted from existing contingency plans to anticipate a range of potential disruptions.

- Experts emphasized that, based on the data, the degree of Dubai's readiness is similar to that of other leading economies such as Taiwan and Singapore, even though Dubai was not previously exposed to the SARS crisis.

4. The sterilization mechanism

- Sterilization programs are implemented manually, and there is an opportunity to automate them.

Image Source: WAM
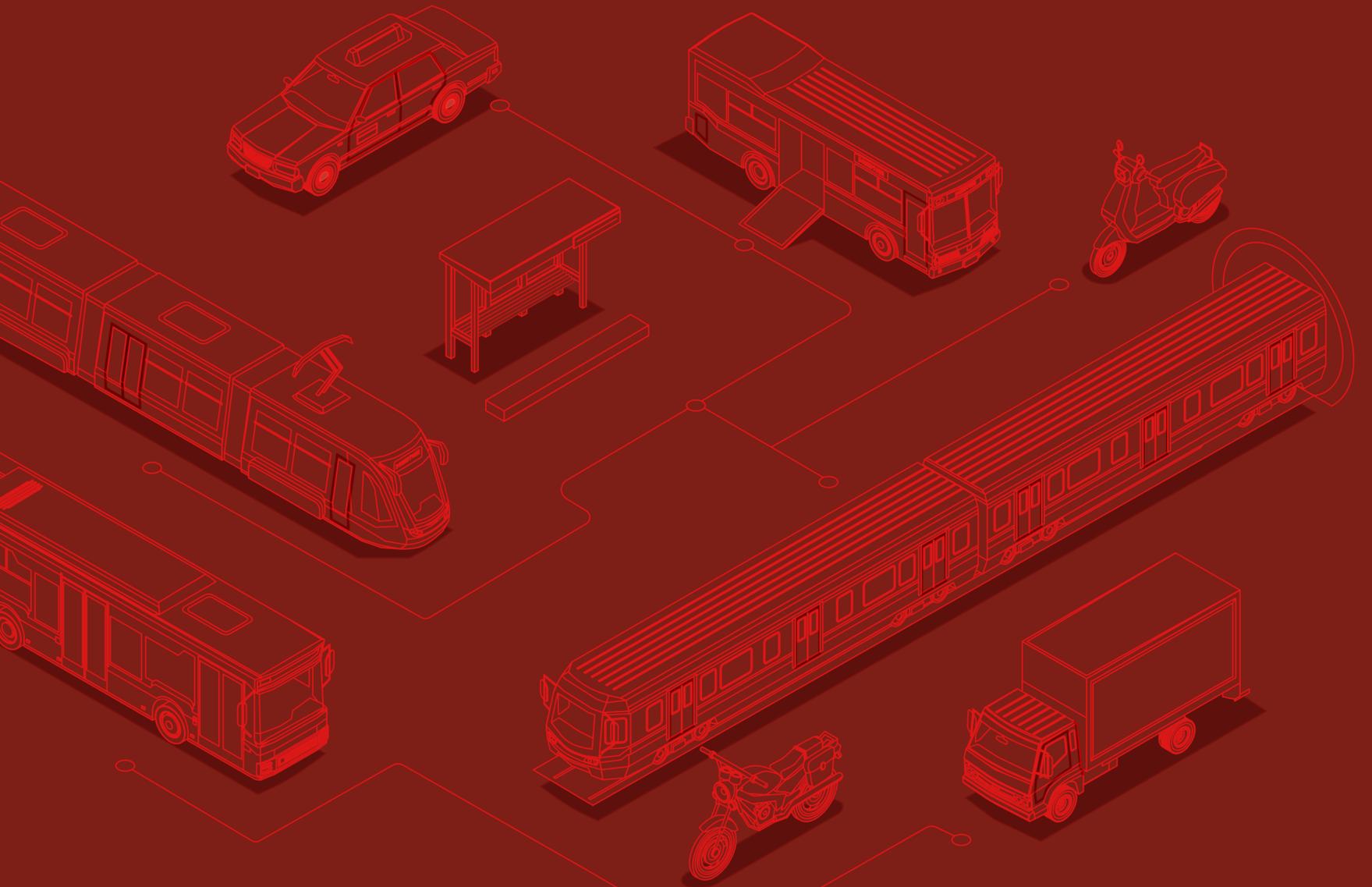
OPPORTUNITY

The speed with which people's lifestyles have been affected has led to many changes within the public transportation sector. The social distancing and lockdowns implemented globally have led to a steep drop in revenues across different sectors but have also presented new opportunities to re-imagine familiar economic activities. In particular, countries now have a unique opportunity to re-imagine the transportation system and move it towards a safer, more resilient, equitable and seamless experience.[8]

For example, the Dubai Roads and Transport Authority (RTA) has recently partnered with Dubai-based companies that offer online shopping services to deliver orders to customers using Dubai Taxi vehicles and franchised taxis, thereby re-skilling labor to match high demand jobs.

The current reduction in transportation demand could also be an opportunity to introduce and pilot projects that in normal circumstances would disturb the traffic flow, such as self-driving vehicles.

[8] Papandreou, T., "Is The Coronavirus The Transportation Industry's Opportunity?", Forbes, 2020

LOOKING AHEAD

Short term insights
(during the COVID-19 outbreak)

1. Use drones and robots to reduce numbers of human operators, hence reducing costs.

2. Reuse parking lots for other activities, in coordination with health or social services.

3. Take the opportunity to promote soft mobility modes such as cycling and scooters. This can be done through expansion of soft mobility modes and investment in related infrastructure.

4. Study the impact of free transport services in the city.

5. Develop scenarios to prepare for potential new waves of the pandemic.
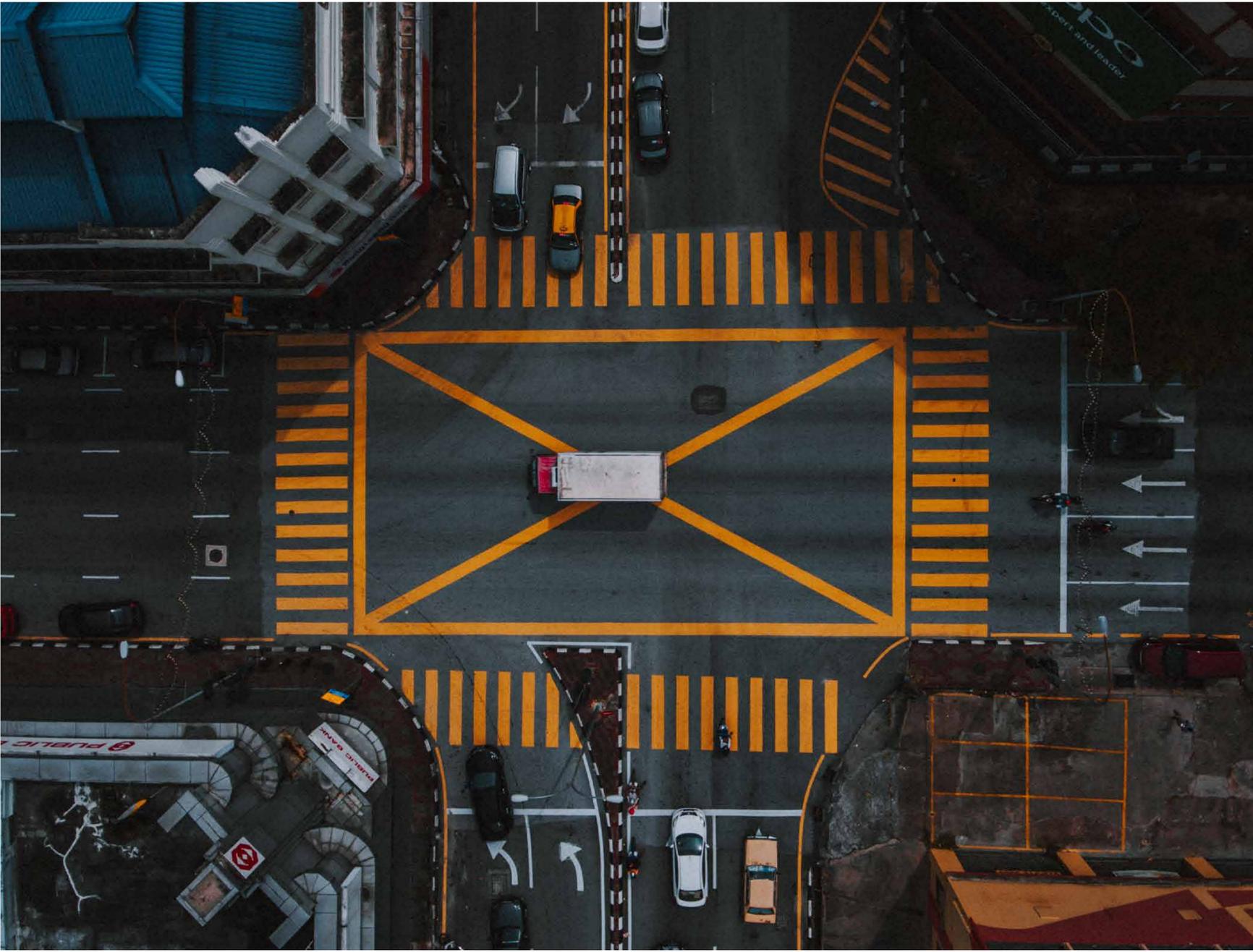
Short to long term insights
(post COVID-19)

1. Investment in a technology-driven economy.

2. Invest in autonomous mobility modes and infrastructure for passengers and goods delivery.

3. Enhance use of big data analytics to track passengers' travel patterns.

4. Develop new policies and regulations in transportation sector, such as regulations to manage active modes during the crisis and to manage cycle lanes and sidewalks.