

Public Consultation on the
**LAND TRANSPORT
MASTER PLAN**

2040



Introduction

A good land transport system is crucial for Singapore's social and economic development. It connects people with their homes, communities and workplaces. It brings Singapore together.

The Land Transport Authority (LTA) is working on the next Land Transport Master Plan, to chart the future of Singapore's land transport system to 2040 (LTMP 2040). It is important that the LTMP 2040 seeks everyone's views and aspirations, including yours, so that we can take a fresh look at our land transport vision, policies and targets, and make sure they can keep pace with emerging trends and commuters' changing needs.

We want to encourage you to choose Walk Cycle Ride (WCR) modes of transport, since these are more efficient and sustainable.

WCR includes: active mobility modes, which are walking, cycling and using personal mobility devices such as electric scooters; mass public transport such as buses and trains; and shared transport such as taxis, private hire cars and car-sharing.



Progress since Land Transport Master Plan 2013

In our LTMP 2013, we described a people-centred land transport system. We promised more connections, better service and a transport system that supports a liveable and inclusive community.

We said that by 2030 we would have:

- 8 in 10 households living within 10 minutes' walk of a train station;
- 85% of our mass public transport journeys under 20km completed within 60 minutes; and
- 75% of all journeys during peak hours made on public transport.

We are on track to meet these targets¹.

We have seen several major shifts in land transport since LTMP 2013:

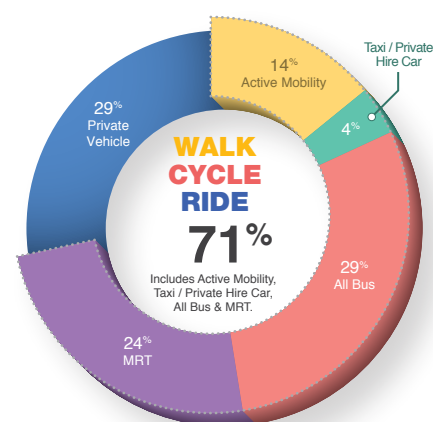
1. The Government has invested heavily in mass public transport over the past

few years, including running more public buses and trains as well as expanding the network by adding new rail lines and bus routes;

2. More people are using active mobility modes for their first-and-last-mile travel;
3. Disruptive technologies have created more transport options that can bring you from point-to-point, such as private hire cars and ride/bicycle-sharing services; and
4. Our vehicles are getting greener, with initiatives such as the Vehicular Emissions Scheme to encourage buyers to choose vehicles with lower emissions, BlueSG, Singapore's first large-scale electric car-sharing scheme, and ongoing trials for electric and diesel-hybrid public buses.

Today, 71% of all journeys during peak hours are made through Walk Cycle Ride (WCR) (see Figure 1). By including active mobility means, mass public transport, and shared transport such as taxis, private hire cars and car-sharing in its scope, WCR recognises the shifts in the land transport landscape in recent years.

Figure 1: Peak-Hour Walk Cycle Ride Mode Share (2016)¹



Ultimately, we want to realise a car-lite Singapore where Singaporeans from all walks of life choose WCR as their preferred mode of transport so that we will need less land for roads and can have more space for greenery and community facilities. This is a more sustainable way forward for our land transport system, and will improve the quality of life for Singaporeans in the long run.



¹ 2016 Household Interview Travel Survey (HITS) and other data. Refer to Annex for more information on the 2016 HITS results.

Your views on the future of transport matter to us

Our land transport system must evolve to meet your changing needs and support Singapore's developments.

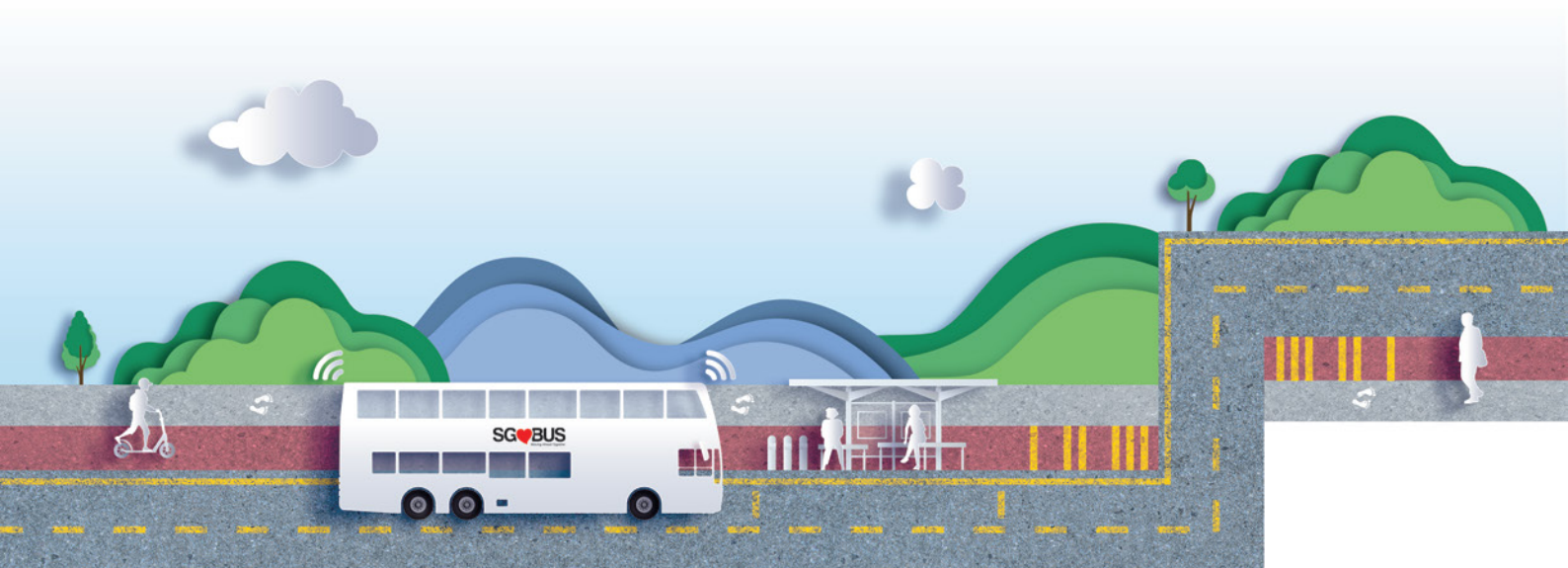
There are three broad ideas we want to explore as part of the next LTMP:

1. We want to make WCR your preferred way to travel, as the future of land transport must be car-lite to be sustainable;
2. We want WCR travel options to be easier and more inclusive to meet the needs of all Singaporeans as our society ages and matures; and
3. We want our land transport system to enhance liveability, through safer roads and paths, cleaner and quieter environments, or freeing up land for more community spaces.

Some of these goals will require us to balance competing needs from different commuter groups, while working within our land, manpower and fiscal constraints.

We want LTMP 2040 to be an opportunity to bring Singapore together, not just through a comprehensive and sustainable transport master plan, but also through the conversations among Singaporeans on how we can achieve that plan and balance different priorities.

In the rest of this document, we have outlined three possible starting points for discussion on LTMP 2040.

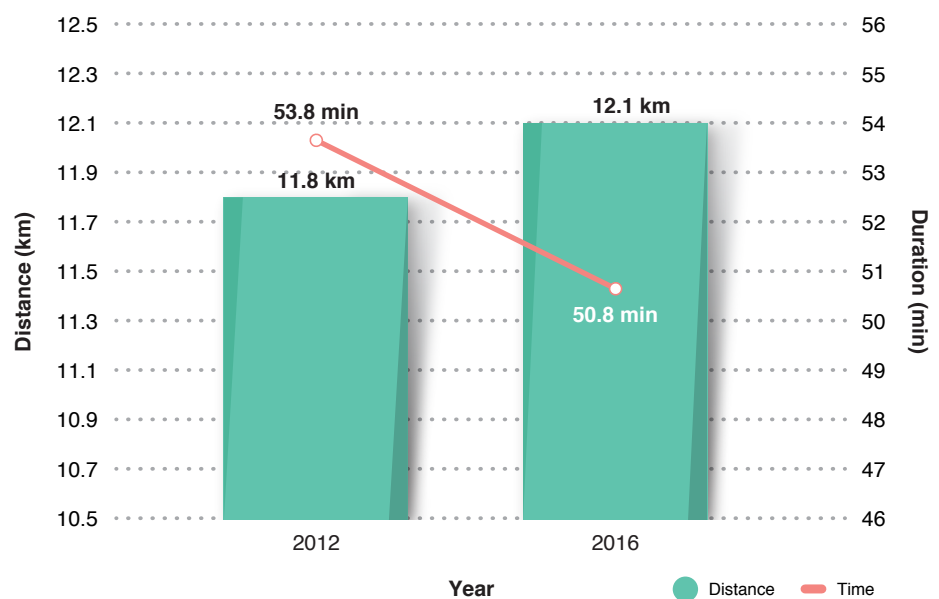


How might we make WCR your preferred way to travel?

Like other urban centres such as London and Hong Kong, our land constraints mean that we must rely less on private vehicles and more on efficient and sustainable transport options like WCR to get around Singapore.

Singaporeans have consistently ranked total journey time as one of the most important elements of their travel experience. Many WCR journeys today are already completed within 60 minutes. Travel time for mass public transport journeys has reduced due to infrastructure improvements over the years² (see Figure 2).

Figure 2: Average Trip Duration (min) and Distance (km) on Public Transport in 2012 and 2016



We believe that WCR journeys can be made even faster and more attractive to you. Our analysis shows that long commutes today are mostly due to long-distance journeys, multiple transfers and slow bus speeds.



² Based on geographical distance.

We have identified three broad ways to make WCR journeys faster:

Strategy 1 – Bring jobs and amenities closer to homes

By developing regional centres with mixed uses outside of the city centre, we can bring jobs and amenities closer to homes, shortening travel distances. This will in turn reduce travel time and make WCR, including walking and cycling, more feasible.

Strategy 2 – Give greater priority to WCR through road redesign

We are already giving WCR more priority today. To make it even more attractive, we want to set aside and create even more space for mass public transport and active mobility. One way is to develop more Transit Priority Corridors (TPCs) which have dedicated bus lanes and seamless cycling paths for travel within and across towns. The upcoming North-South Corridor will be a major TPC.

Strategy 3 – Provide and facilitate more direct travel

Compared to point-to-point options such as taxis and private hire cars, options for mass public transport today are typically less direct due to transfers. In the future, we can expect that fewer or no transfers will be needed as we continue to expand the rail network, provide more real-time information on WCR options to help you make more informed travel choices, and facilitate the introduction of more innovative, technology-enabled transport options by industry players, including on-demand dynamically-routed bus services.

For WCR journeys, what is more important to you: speed, comfort, choice or directness? If you have to prioritise one over another, what will you choose and why?

How much importance do you place on transport connectivity and convenience when you decide where to live, work and play?

How might we design roads and paths to make WCR more attractive to you?

How might we combine existing transport options, such as scheduled mass public transport on fixed routes, with new ones such as on-demand dynamically-routed buses as well as bike- and ride-sharing services?

What do you think?



How might we make WCR easier and more inclusive for all?

Research has shown that an easily accessible and comprehensive transport system makes people feel happier and more included. We think that the following strategies will make this possible:

Strategy 4 – Hardware: provide inclusive, accessible infrastructure design

We already have many initiatives in place or in the works to make travel easier and inclusive. We can and want to do more to meet the needs of all Singaporeans. For instance, we plan to install family-friendly facilities, such as nursing rooms and diaper changing stations at key transport nodes, to make public transport more welcoming to families with young children.

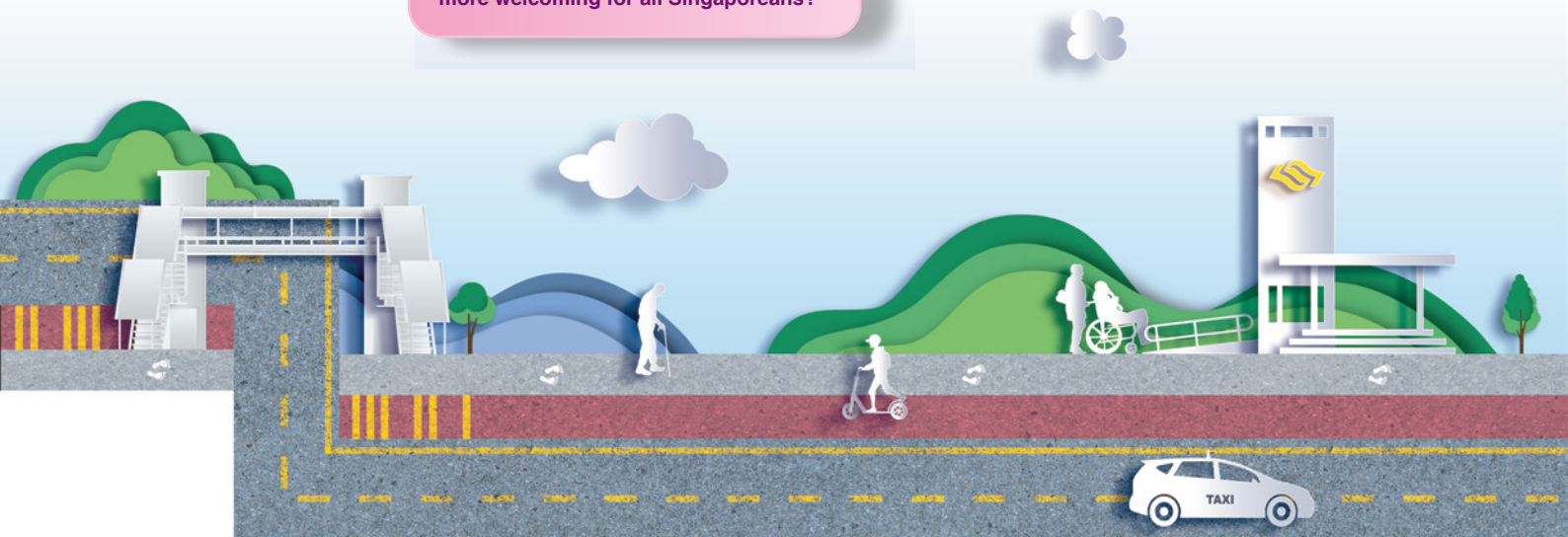
Strategy 5 – Heartware: partner the community to foster shared responsibility

Investing in infrastructure alone is not enough to provide a seamless and inclusive WCR experience. A caring commuter culture is also important. In 2014, we launched a “Graciousness on Public Transport Campaign” where we partnered you to create two of our five Thoughtful Characters³ who personify gracious commuting behaviour. The campaign was successful only because you embraced and adopted these traits to make your rides more pleasant. We hope to continue to work with you on more ground-up initiatives to foster positive social norms and build a more inclusive commuter culture.

What do
you think?

How might we better help people who still have difficulty making full use of the different WCR options?

How might we work with you and other stakeholders to make WCR easier and more welcoming for all Singaporeans?



³ The five characters are Stand-Up Stacey, Move-In Martin, Give-Way Glenda, Bag-Down Benny, and Hush-Hush Hannah.

How might we improve the quality of living for all Singaporeans through our land transport system?

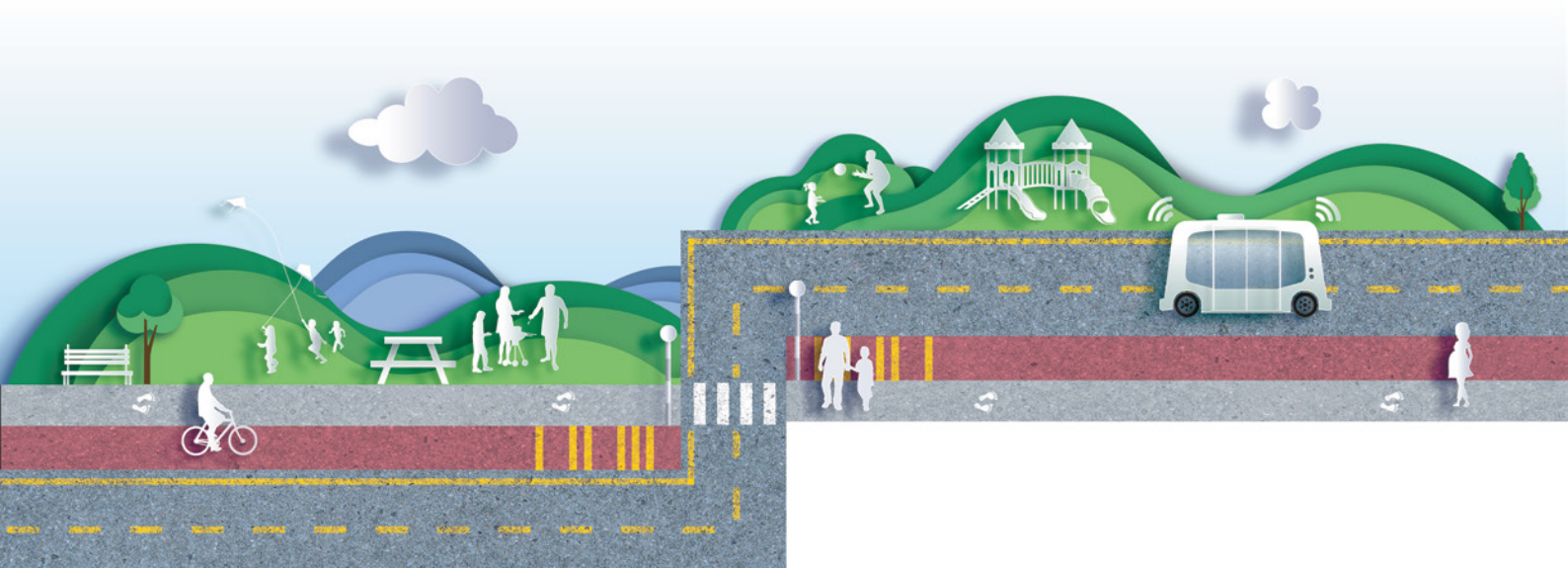
Liveable cities place a great deal of importance on their residents' well-being. Accessible transport options, vibrant public spaces and safe neighbourhoods are some key ingredients of a liveable city.

We believe that our transport system can do more to improve our quality of life, and make Singapore one of the most liveable cities in the world. We plan to achieve this through these strategies:

Strategy 6 – Create and reclaim more spaces for the community

We want to create more space for mass public transport and active mobility, as this will encourage more people to use WCR and free up land for community

spaces. We are planning new towns such as Tengah and Kampung Bugis to be car-lite precincts from the start, and gradually redeveloping mature towns to encourage WCR. We hope to transform more precincts into car-lite areas that are safer, more walkable and more pleasant for the community.



Strategy 7 – Build a safer environment, towards a future with zero land transport-related deaths

Working with other stakeholders, we are using a combination of education, engineering and enforcement to create a safer and more pleasant environment that encourages people to share limited public spaces. This is especially important as pedestrians, motorists and active mobility users are increasingly sharing spaces on both roads and paths.

Education is key to helping people understand the importance of safe and gracious behaviour. This will be complemented with engineering solutions such as collision detection sensors on buses and roller barriers to mitigate the impact of road accidents. More effective and efficient modes of enforcement that use new technologies such as closed-circuit television video (CCTV) analytics will also nudge cyclists and users of personal mobility devices to ride safely.

Strategy 8 – Use cleaner, quieter vehicles and greener construction techniques

A cleaner and quieter transport system promotes sustainable living and improves future generations' well-being. We have already started to green our vehicle fleet through tighter emissions standards and by introducing electric vehicles on our roads. We are also exploring cleaner and greener construction techniques and materials for our transport infrastructure.

What do
you think?

How much should we prioritise the building of more shared community spaces over the convenience of individual motorists?

How might we work with you and other partners to prevent transport-related deaths?



Overall considerations

The three starting points we have outlined represent complementary but also possibly competing priorities for our land transport system. We have highlighted some potential areas of tension between them below:

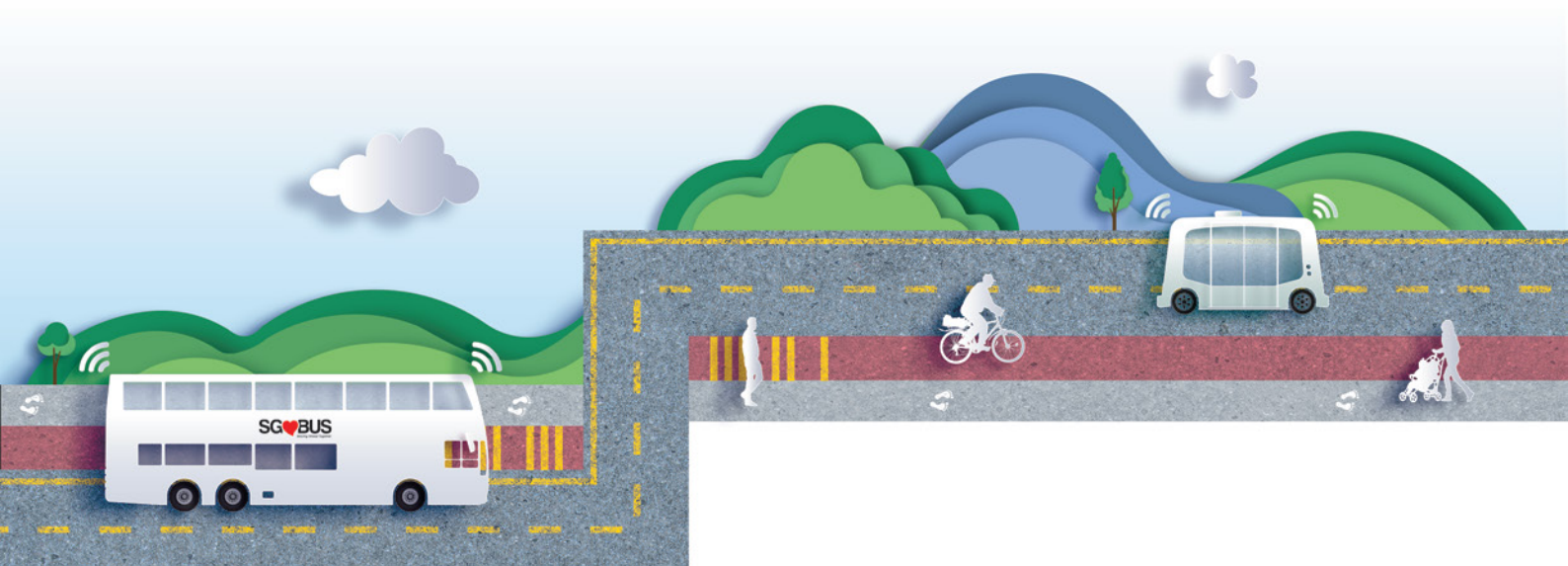
How might we operate an efficient transport system centred on WCR that still meets the diverse transport needs of all Singaporeans?

How might we make WCR fast, efficient and integrated without compromising safety?

Some people prefer their own private vehicles for comfort and convenience. With limited land, this means less space for more efficient modes of transport that can be enjoyed by all, such as public buses, trains and cycling paths. What is the right balance?

We want our land transport system to be more convenient, inclusive and improve quality of life, but we also have limited land, money and manpower. How might we strike a balance?

What do
you think?

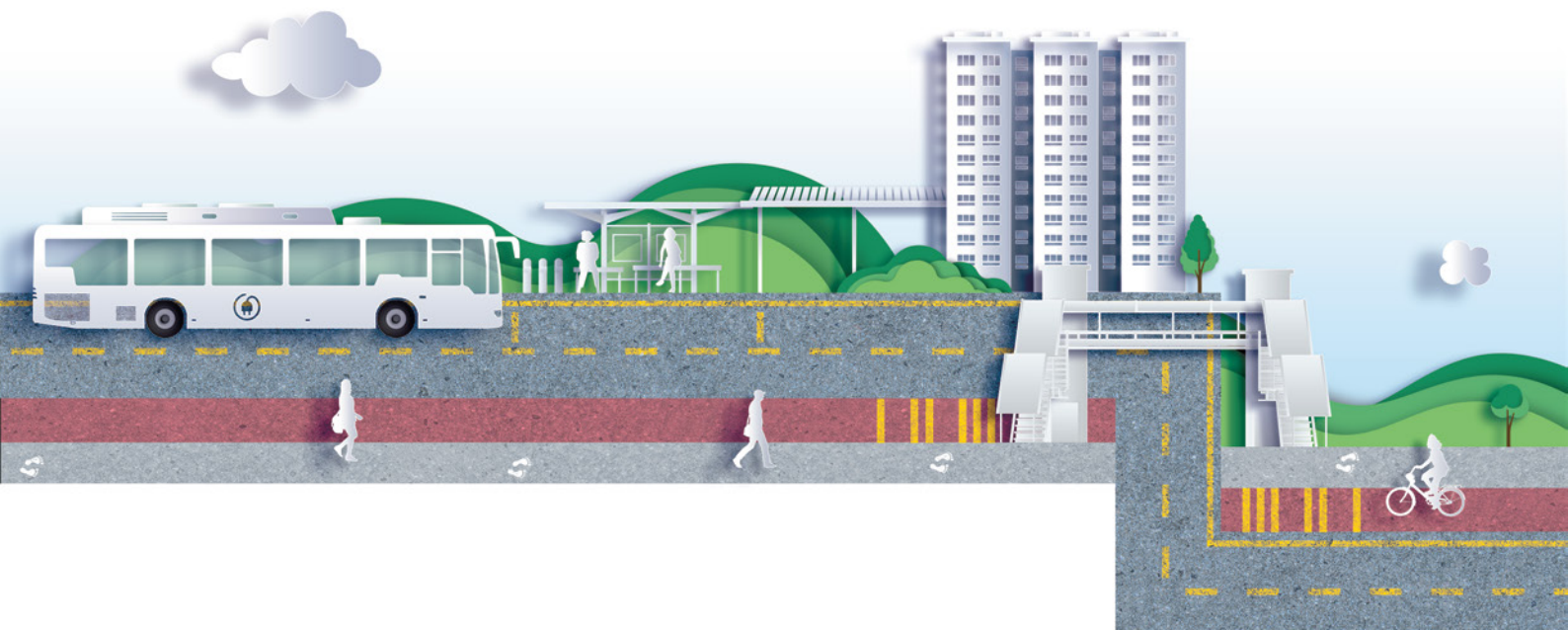


Join in the conversation

Land transport has a big impact on the well-being of our economy, society and community. The choices we make today will have far-reaching consequences for the future. This is why we want people from all walks of life to help shape the priorities for the LTMP 2040. We also welcome any suggestions and ideas that can help us to improve our land transport system.

Your views will help shape our transport system and living environment for generations to come. Together, we can create a transport system that realises the hopes and aspirations of all Singaporeans.

To join this conversation, please visit <http://bit.ly/LTMP2040PCD> from now until 31 December 2018.



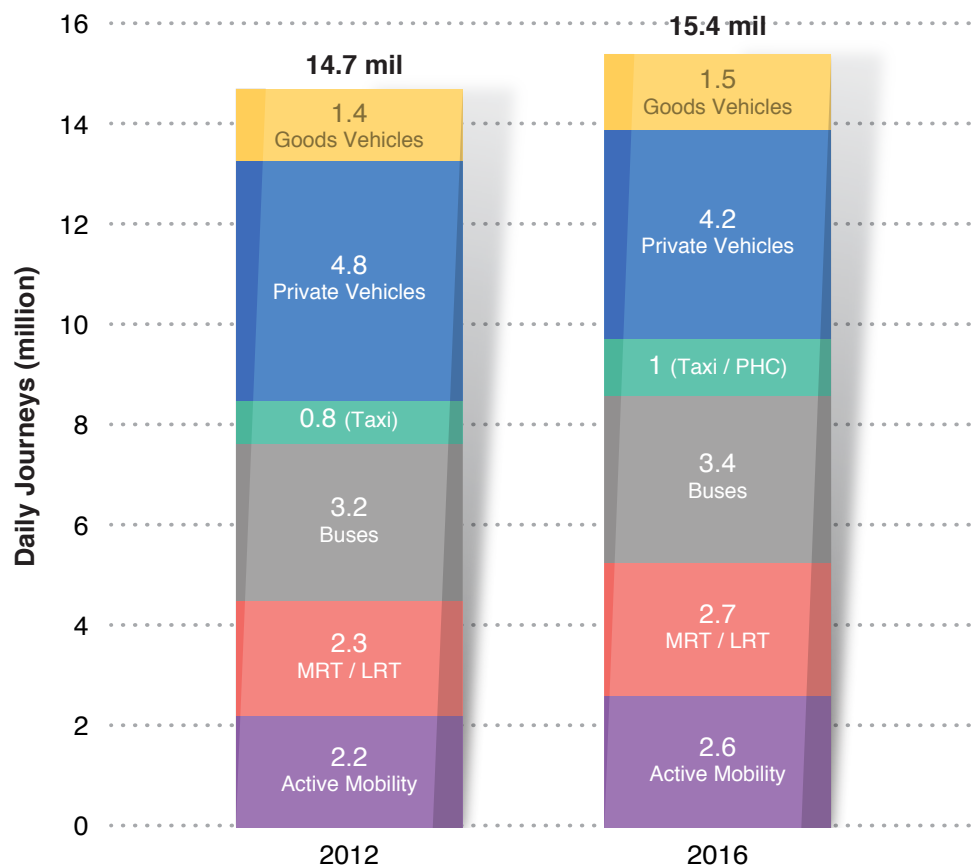
Annex:

Trends observed from Household Interview Travel Survey (HITS) 2016

Conducted every four years, LTA's Household Interview Travel Survey (HITS) gives insight on the progress of various LTMP initiatives. The latest HITS survey was conducted between August 2016 and May 2017 ("HITS 2016"), with responses from a total of 45,000 participants.

Based on HITS 2016, a record 6.1 million bus and rail journeys were made daily. Private vehicle journeys declined for the first time since 1997, even as total travel demand increased by 5% from HITS 2012 to 15.4 million journeys. This points to a possible shift of Singapore residents switching from private vehicles to public transport for their daily commute.

Figure A1: Travel Demand by Different Modes of Transport (daily journeys in millions)



Public transport peak period mode share recorded an increase from 63% to 67%, putting Singapore firmly on track to achieving our LTMP 2013 target of having 75% of all journeys during peak hours made using public transport by 2030.

Figure A2: Public Transport Mode Share (Peak Period)

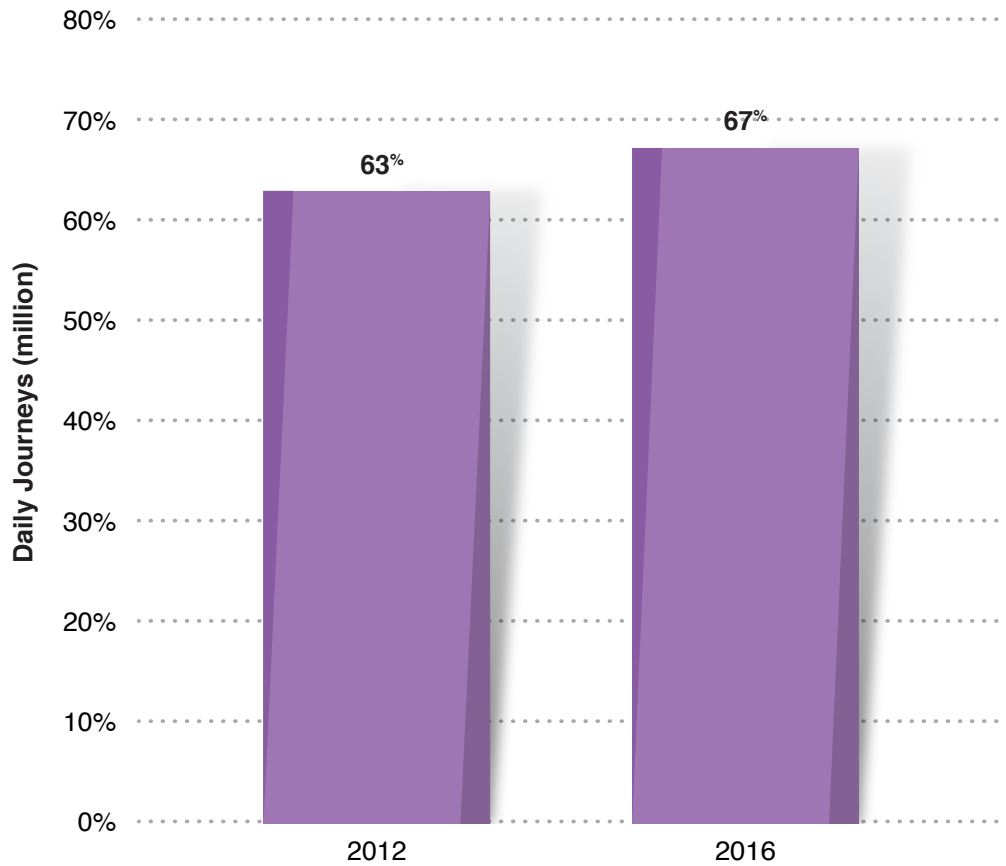
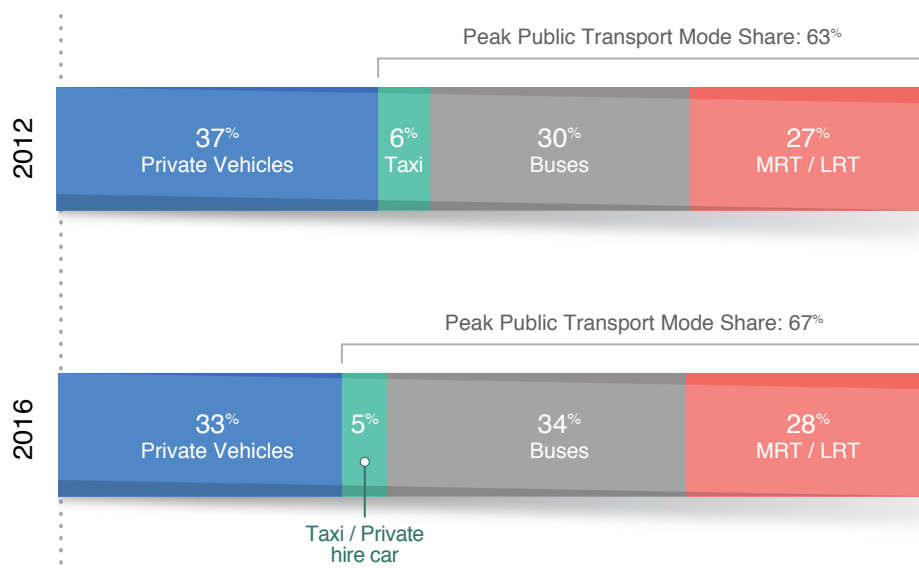


Figure A3: Public Transport Mode Share Breakdown (Peak Period)



The percentage of daily public bus and rail journeys under 20km completed within 60 minutes increased from 76% in 2012 to 79% in 2016. This puts us well on track to achieving our LTMP 2030 target of having 85% of such journeys completed within 60 minutes by 2030.

