9th Urban Mobility India Conference & Expo 2016
Planning Mobility for City's Sustainability

MULTIMODAL INTEGRATION TO DEVELOP A CITY WIDE PUBLIC TRANSPORT NETWORK

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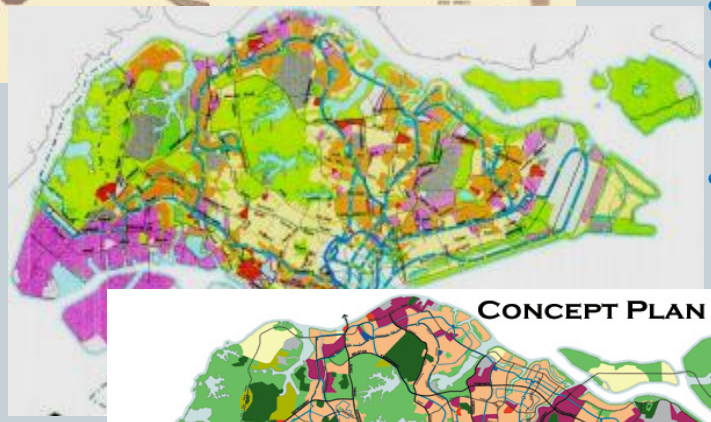
Integrated Master Planning & Development

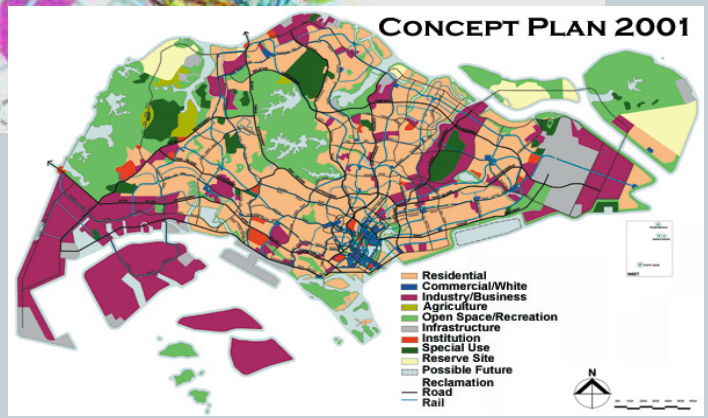
Concept Plans

- Ring Plan structure
- High-density satellite towns built around central water catchment area
- Shaped the key transport developments – Changi Airport, MRT, expressways network

Concept Plan1991



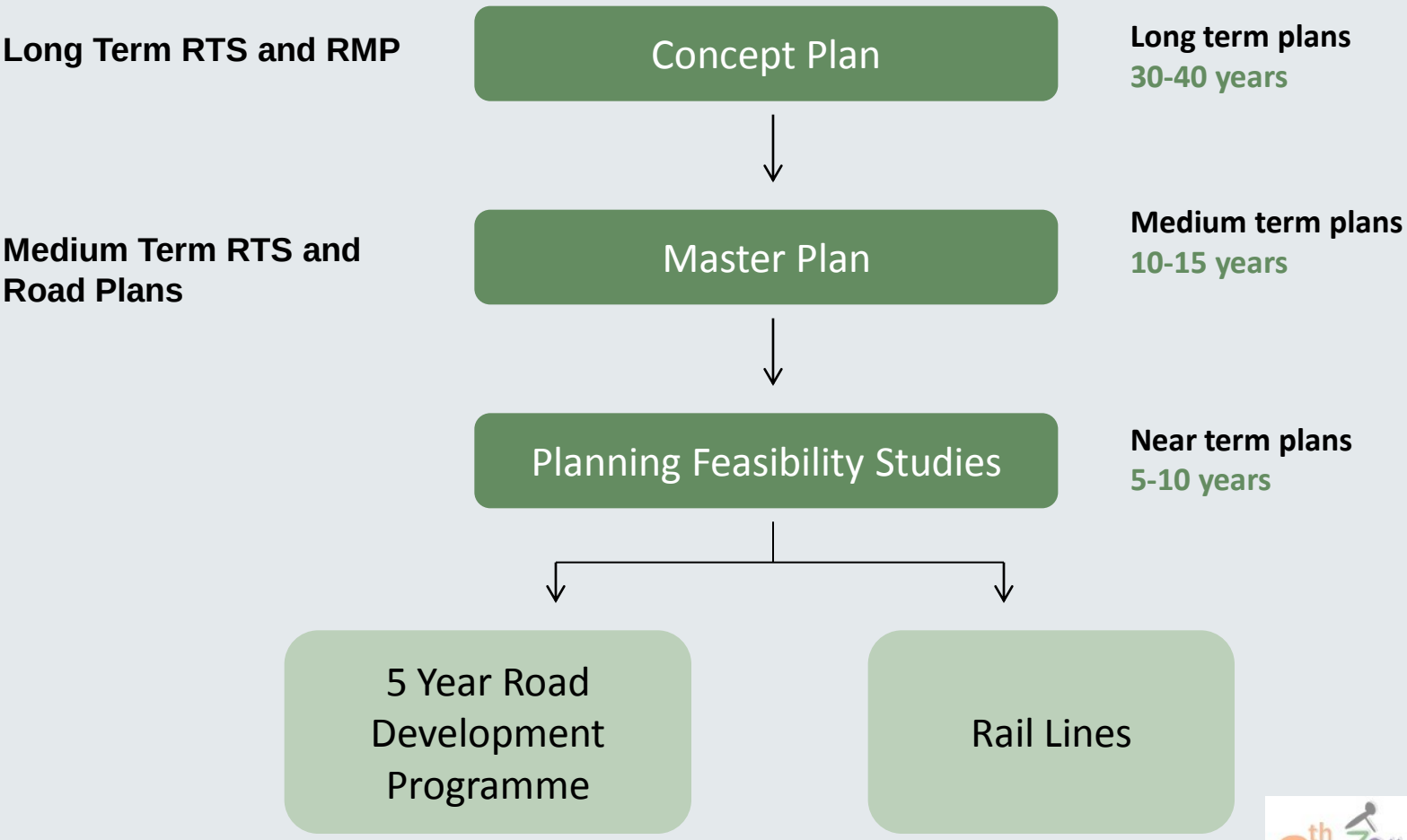
- Decentralisation strategy
- Commercial centres to be developed in different parts of Singapore
- Bring jobs closer to homes and alleviate congestion in the city centre



- Focused on providing a high quality living environment
- More housing options in the city to inject vibrancy into central area
- Set aside land in CBD for development of global financial hub

Integrated Master Planning & Development

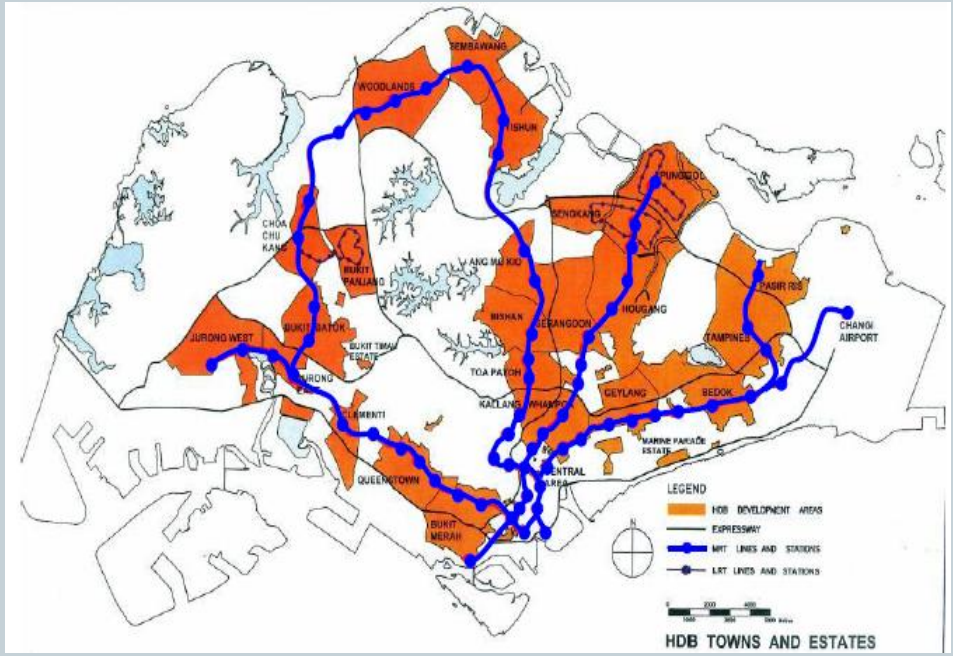
Planning Process



Benefits of Integrated Master Planning

- Enhance accessibility to public transport
- Reduce traffic and car dependency
- Promote high density, compact public transport-centric urban fabric (Transit-Oriented Development - TOD)
- Safeguard future transport corridors

Integration of Transport and Housing Estates



Integrating transit with developments

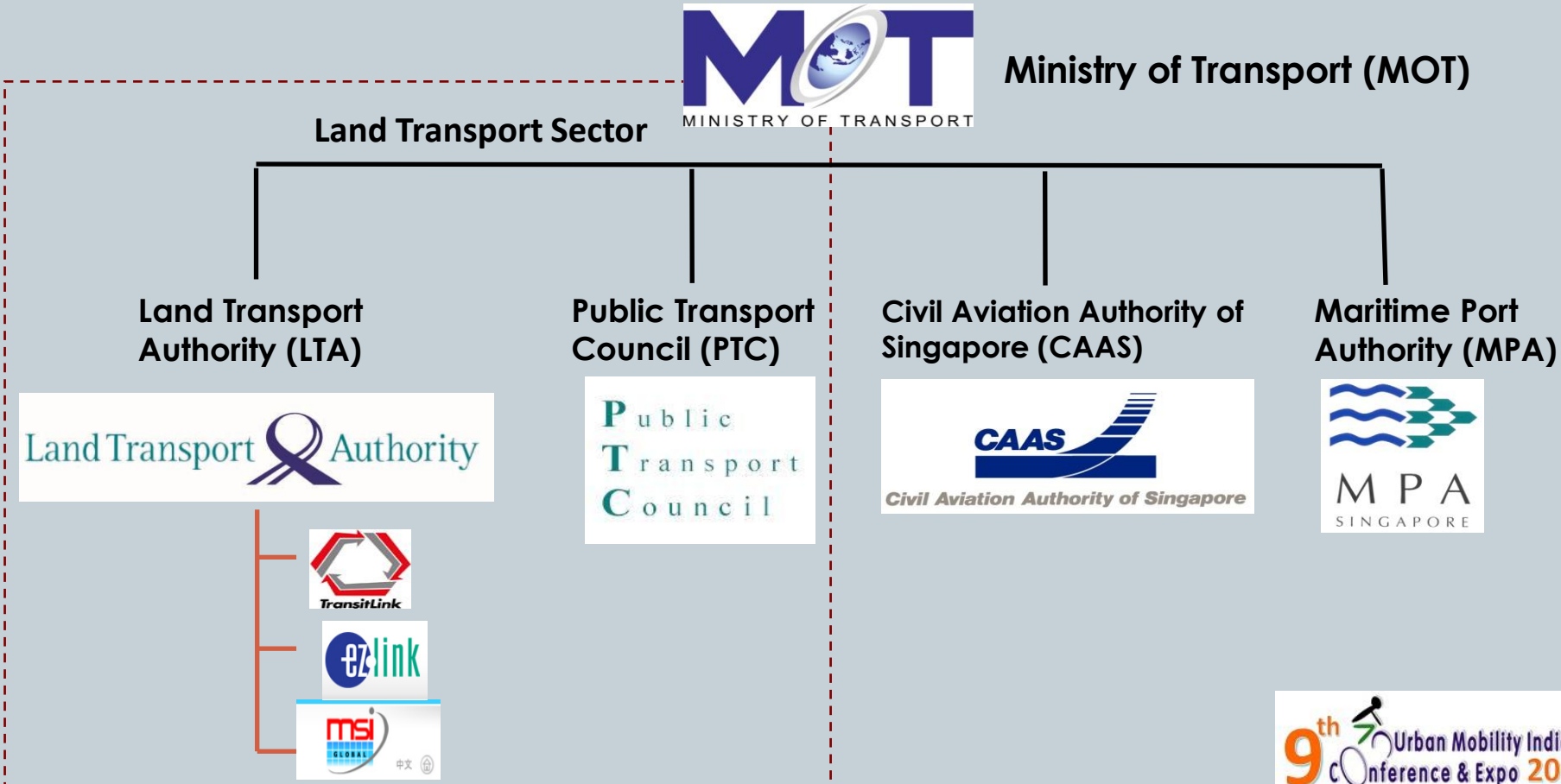
- A mix of uses
- High density
- Good connectivity
- Integrated transport

INTEGRATING PUBLIC TRANSPORT WITH CITY PLANNING

Promenade station

Institutional Integration

Organizational Structure



Unified Transport Authority - Land Transport Authority (LTA)

Mass Rapid Transit Corporation	• Planned and built the MRT • Regulated the operator (SMRT)
Public Works Department (PWD)	• Planned, built and managed roads and pedestrian infrastructure and commuter facilities
Registry of Vehicles	• Administered, regulated and enforced land transport; as well as vehicle polices
Ministry of Communications	• Developed land transport strategies and policies

Merged to form an integrated land transport authority (LTA) in September 1995

Public Transport Framework

Planning

- Public transport infrastructure planned, and developed by LTA

Financing

- Capital outlay funded by Government
- Operations run by private companies

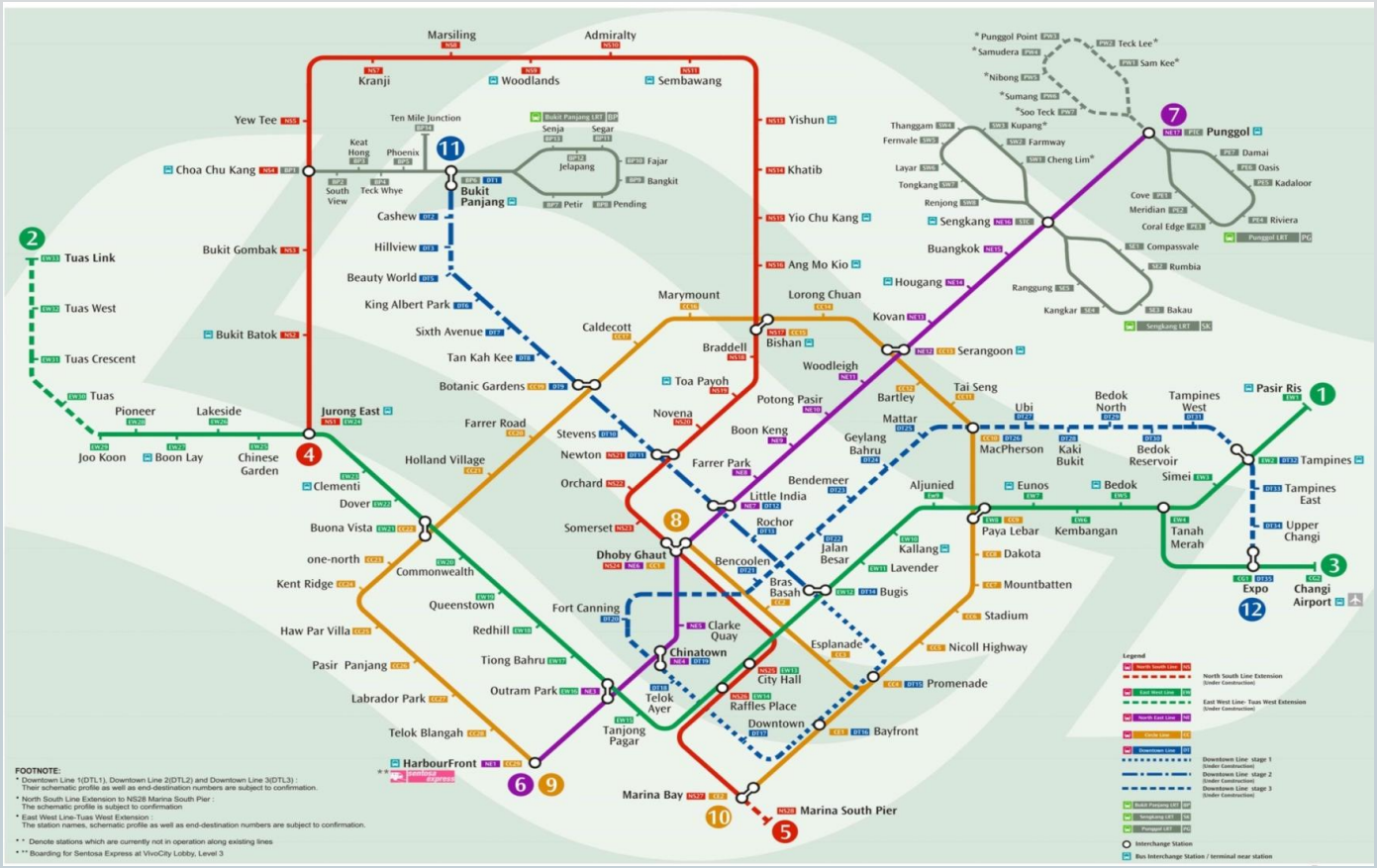
*No direct operating subsidies given to operators

Regulation

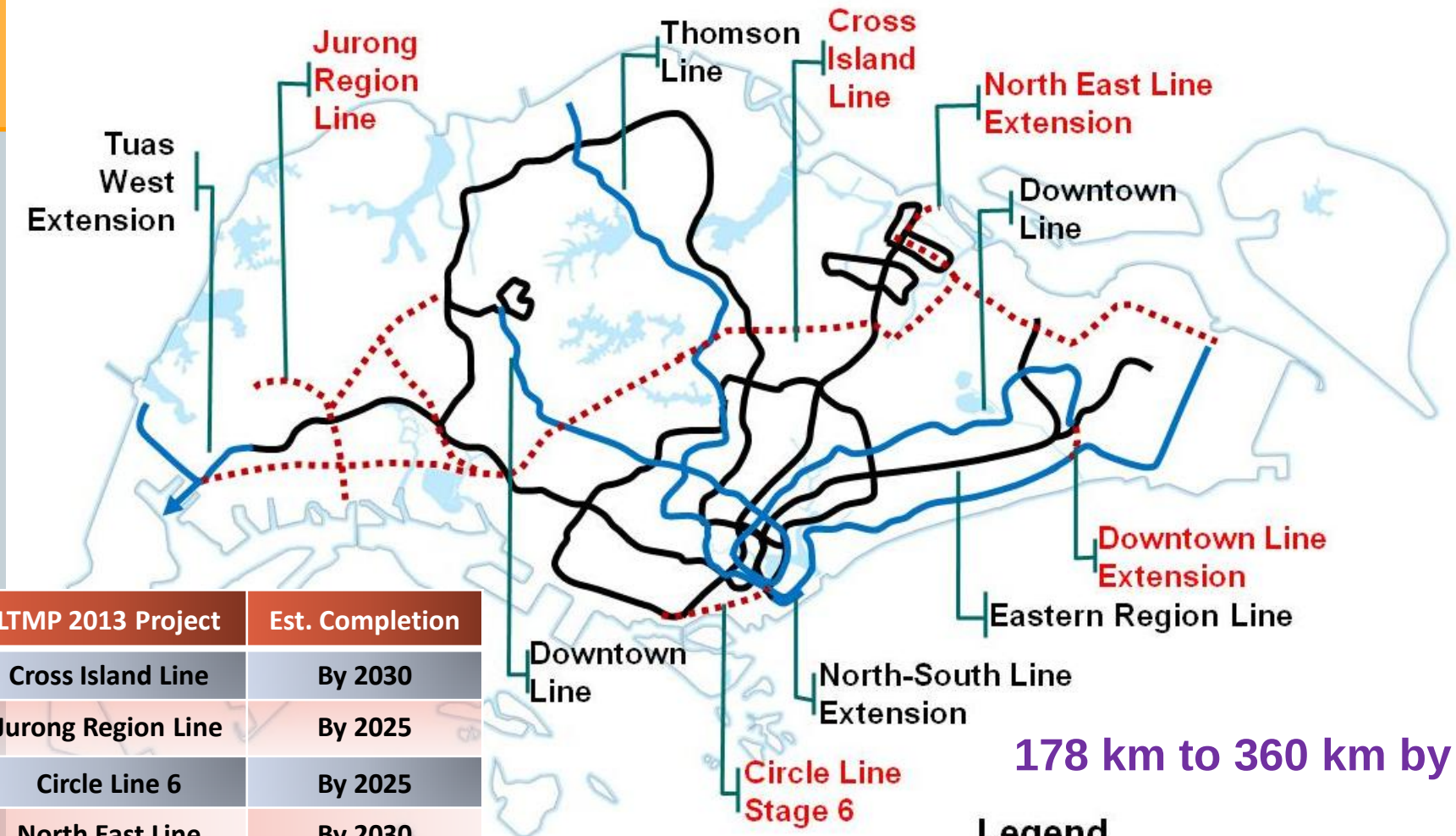
- Public transport service standards regulated by LTA
- Fares regulated by Public Transport Council (PTC)

Rail Network Today

Rapid Transit Network – Today (182 km)



Rail Network Expansion

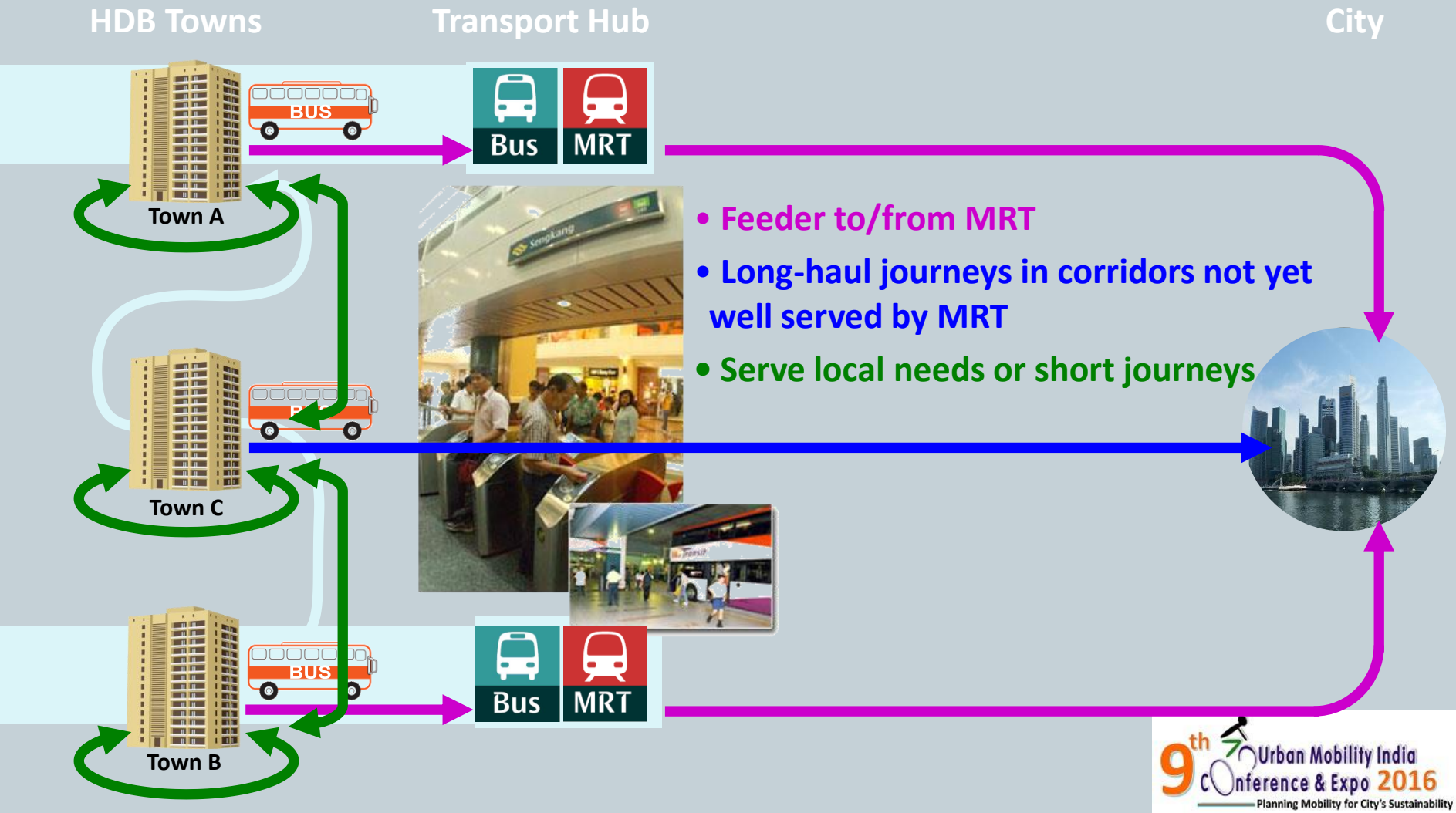


LTMP 2013 Project	Est. Completion
Cross Island Line	By 2030
Jurong Region Line	By 2025
Circle Line 6	By 2025
North East Line Extension	By 2030
Downtown Line Extension	By 2025

Public Transport - Buses

- Provide comprehensive coverage
- 2 multimodal operators and 3 bus operators
  - Assigned areas of responsibility
- Fares and service standards are regulated

Public Transport - Buses



Plans for the Bus Network

Reorganisation of Bus Services

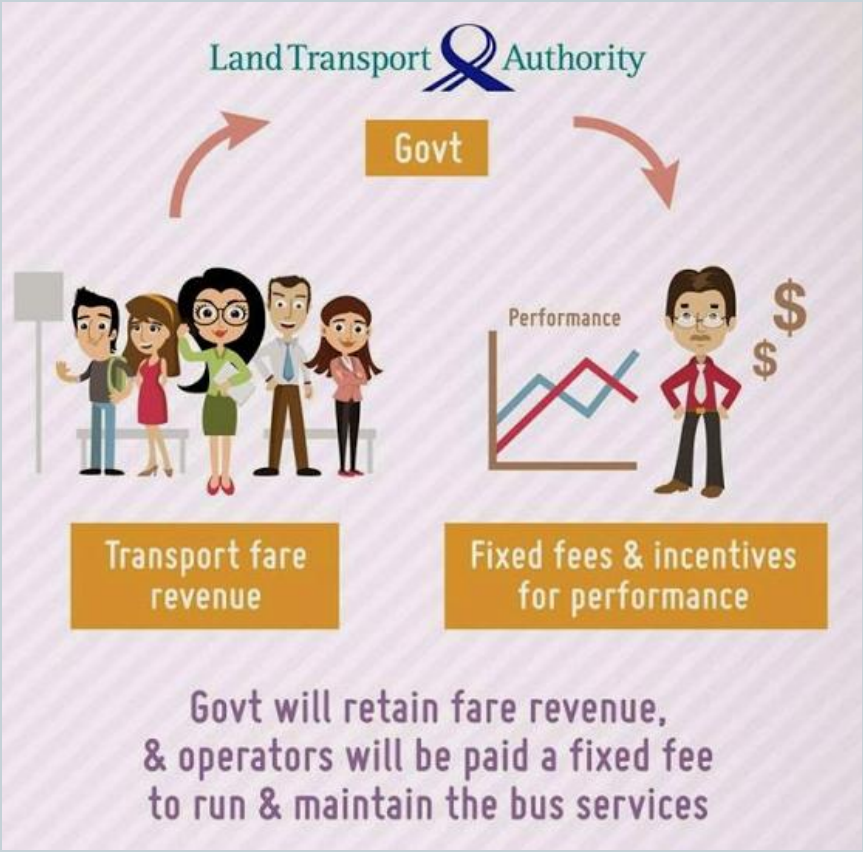
- **Singapore will transition to a bus contracting model**
- **by 2016 when the Government will:**

➢ **Own all buses and infrastructure**

➢ **Contract out packages of routes**

➢ **Retain fare revenue and pay operators a fee to operate and maintain services.**

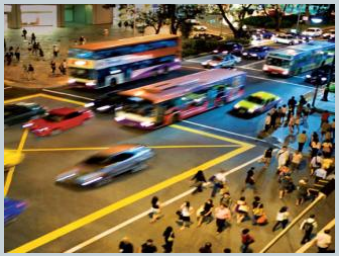
Roll-Out of Bus Contracting



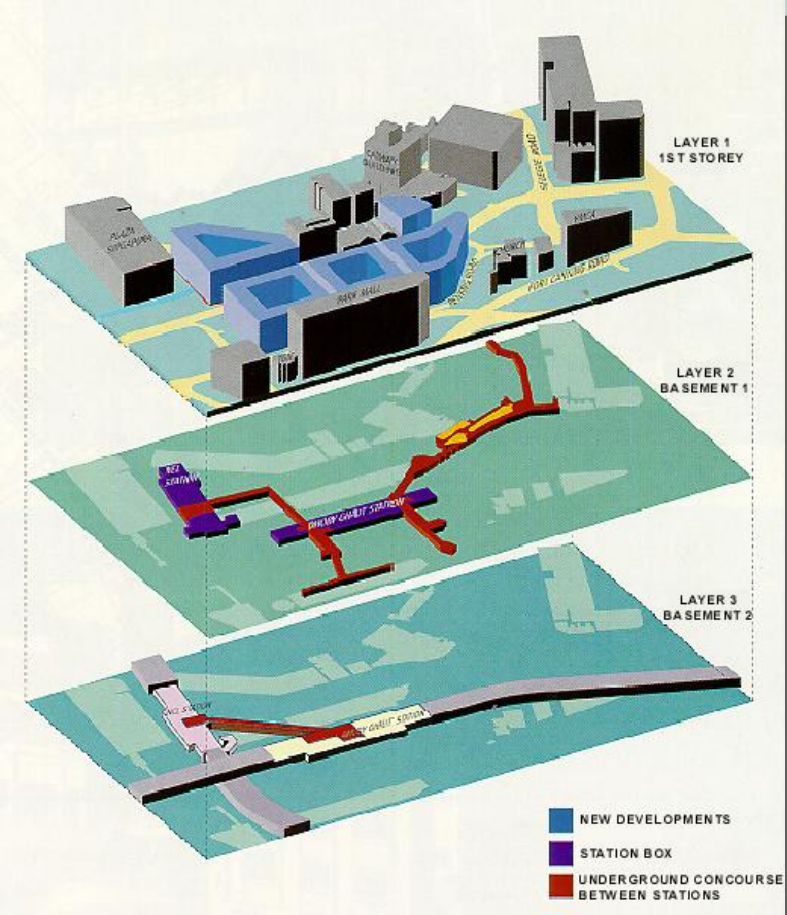
Integrating Public Transport

- Physical Integration
- Integration of Transport Modes
- Fare Integration
- Information Integration




Integration with Developments



Dhoby Ghaut Station

- Basement 3 : North-South Line
- Basement 4 : Circle Line
- Basement 5 : North-East Line

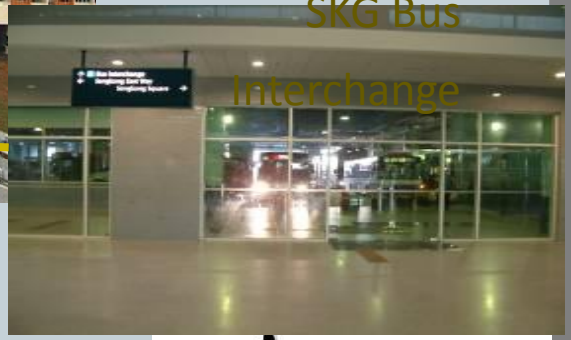
Sengkang Town Centre

Compass Point

SKLRT

Compass Height

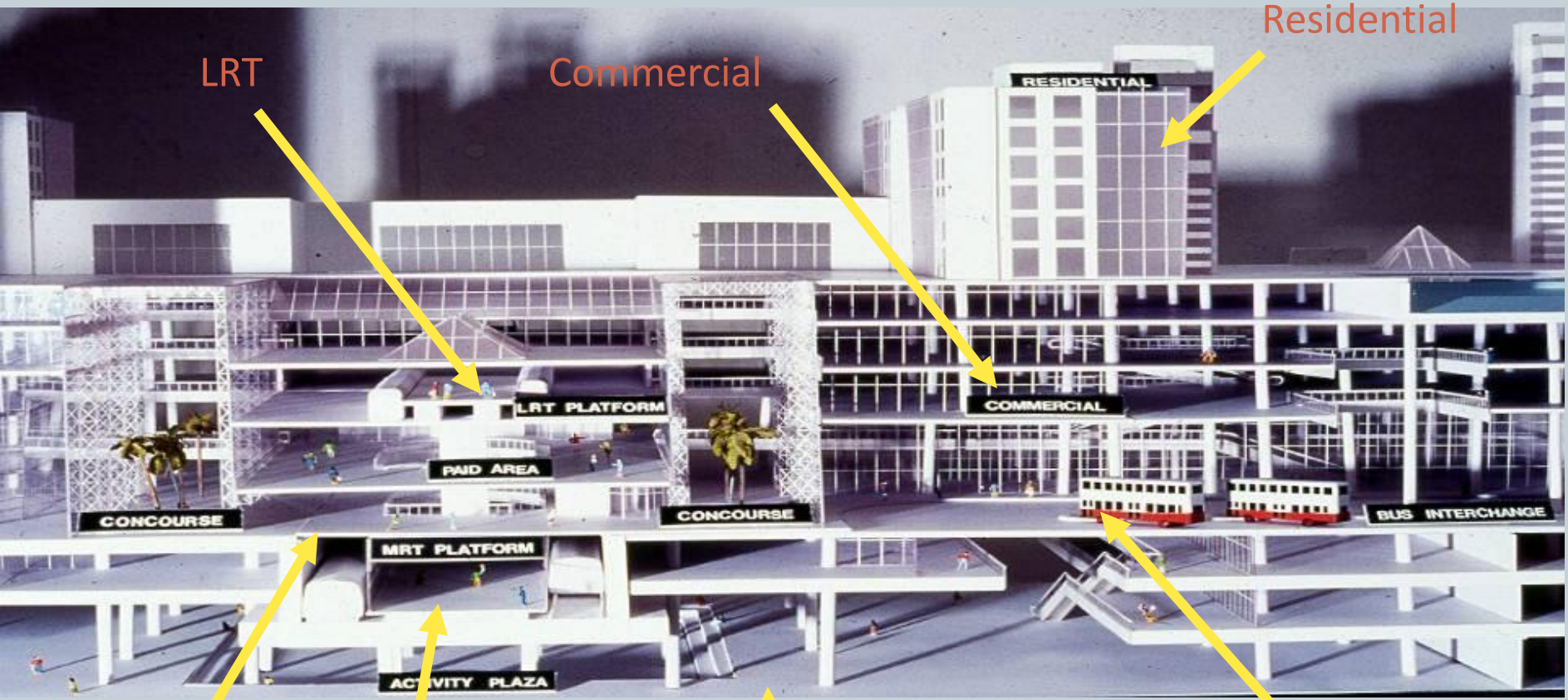
SKG Bus Interchange



NEL

Sengkang Interchange

Sengkang Interchange (cross section)



Integrating Transport Modes





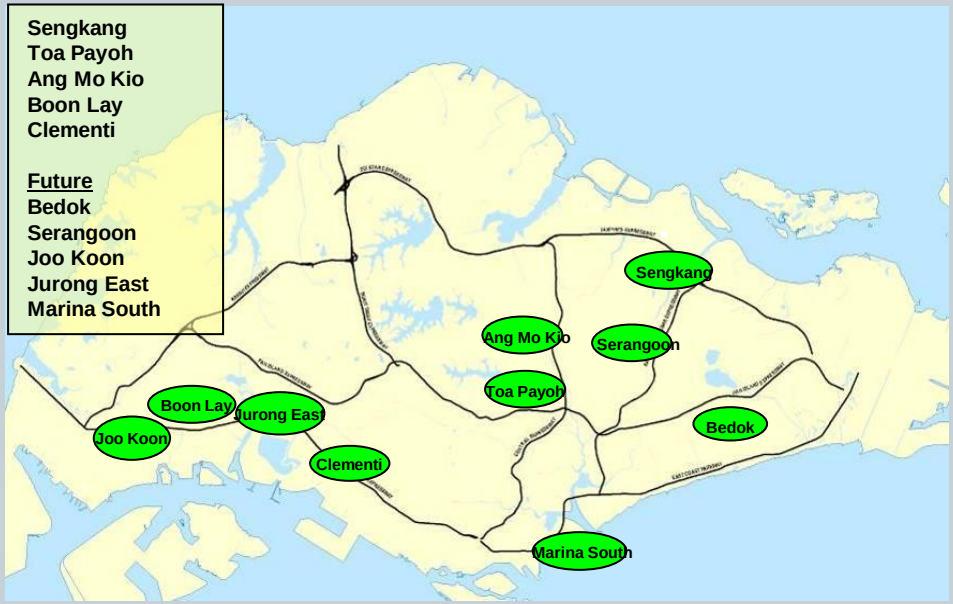


- Transit stations are designed to integrate physically with or connected to other transport facilities.
- Includes bus interchanges, taxi stands and pick up/drop off points
- Transfer between modes made as “seamless” and as sheltered as possible
- Network Integration – bus and rail systems should be an integrated network
- Integrated Fare System

Integrated Public Transport Hubs

Sengkang
Toa Payoh
Ang Mo Kio
Boon Lay
Clementi

Future
Bedok
Serangoon
Joo Koon
Jurong East
Marina South



Ang Mo Kio Hub

Clementi Hub

Integrated Public Transport Service Information

MyTransport.SG

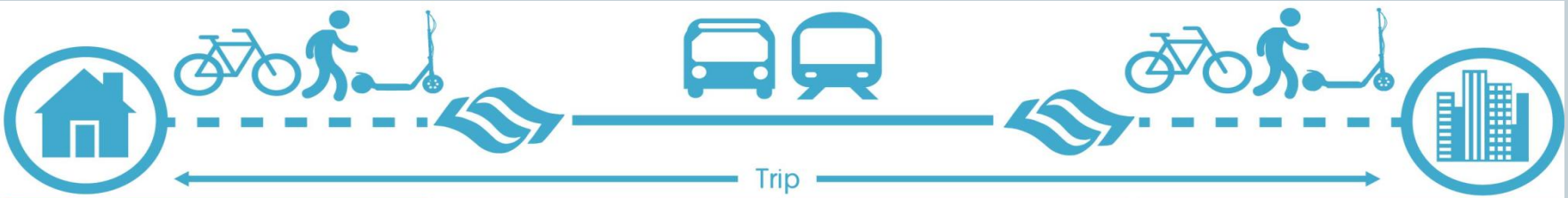
- One Stop E-channel for Integrated Public Transport and Motoring Information/Services
- Portal groups transport information according to the travel profiles of commuters
- More than 20 mobile applications are available for download
- Third-party developers able to tap on Singapore's transport, traffic and geospatial data

Travel Information System

- Expand Real Time Bus Arrival Information on SMS
- Through Internet
- Through hotlines

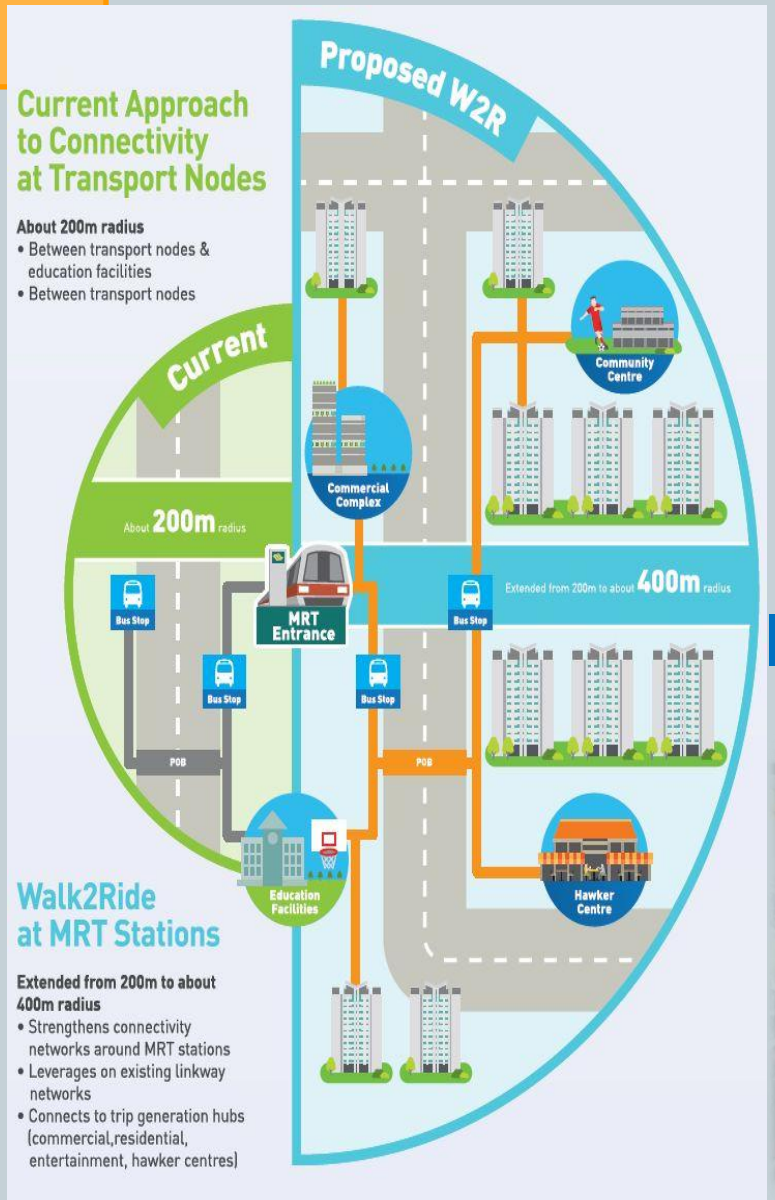
First and Last Mile Connectivity

Providing more 1st mile and last mile commute options to supplement existing public transport system



First Mile	Bus	Rail	Last Mile
From the point of origin, commuter walks, takes a feeder service, cycles or scoots to the nearest transport node or train station.	At the transport node or bus stop, the bus arrives on time and reliably. Buses are easy for all commuters to board.	At the train station, the train arrives on time and the ride is enjoyable. Direct services are preferred and any transfers required will be short and easy.	The destination is at or near the disembarka-tion point. The overall journey is completed within 45 minutes.

Walk2Ride at MRT Stations



Promoting Cycling

Cycling towns

Dedicated bicycle tracks

Bicycle racks at MRT stations

Bicycling sharing

Integrated Transport Hubs

Air-con bus interchanges and MRT/LRT stations integrated with shops

7 more to be completed in the next 10 years


THANK YOU