

# Malaysia's 2030 Agenda Accessible and Sustainable Public Transport

*Azmi Abdul Aziz*  
*President & Group Chief Executive Officer*  
*Prasarana Malaysia Berhad*



# Overview

1. Prasarana Malaysia Berhad : An Introduction
2. History of Public Transport in Malaysia
3. Our Governments' Aspiration & The National Land Public Transport Masterplan
4. Where Prasarana Fits Into the Masterplan
5. Transit Oriented Development



# 1. Prasarana Malaysia Berhad -A Brief Introduction



 **praise**

 **pride**

 **prime**

 **rapidbus**

**rapidKL rapidPenang rapidKuantan**

 **rapidrail**

**rapidKL**



 **prasarana**

PRASARANA MALAYSIA BERHAD

Incorporated in 1998 by the Ministry of Finance, the Government-owned Prasarana Malaysia Berhad (Prasarana)

was set up **to facilitate, undertake and expedite public infrastructure projects.**

**Prasarana is also the asset owner and operator** of the Ampang and Kelana Jaya LRT Lines, the Monorail Line, as well as the majority of the bus services in the Klang Valley, Penang and Kuantan.

# Group Corporate Structure



Ministry of Finance  
(100%)



Dept. of Director General of Lands and Mines,  
Ministry of Natural Resources & Environment  
(1 share)



**prasarana**



**rapidrail**  
Operations &  
Maintenance  
for Rail



**rapidbus**  
Operations &  
Maintenance  
for Bus



**prime**  
Non-fare  
businesses  
**outside** the  
group's assets  
& operations



**pride**  
Non-fare  
businesses  
**within** the  
group's assets  
& operations

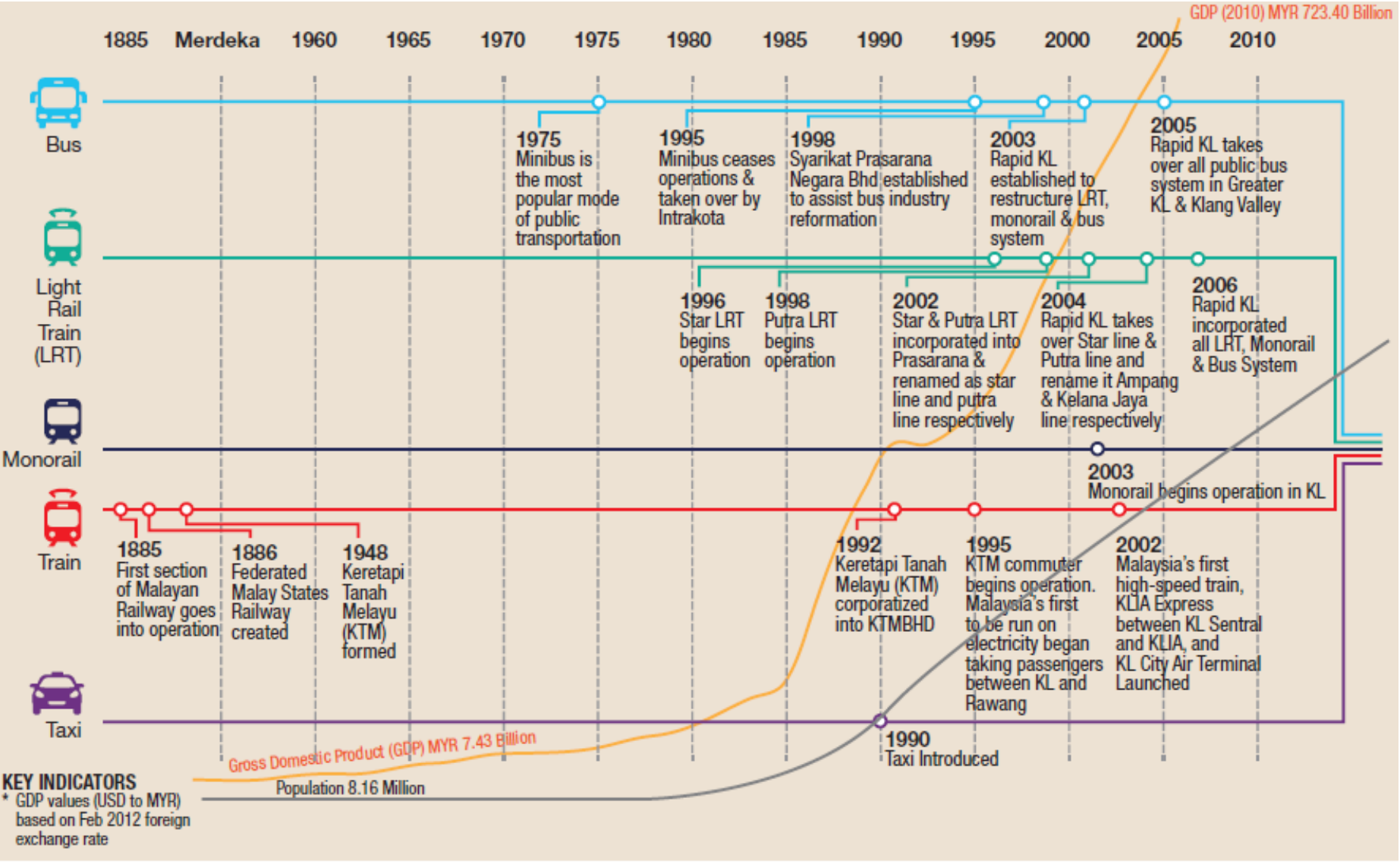


**praise**  
Project  
development  
company

## 2. Brief History of Public Transport -Malaysia



# History of Public Transport in Malaysia



# History of Rail in Peninsular Malaysia

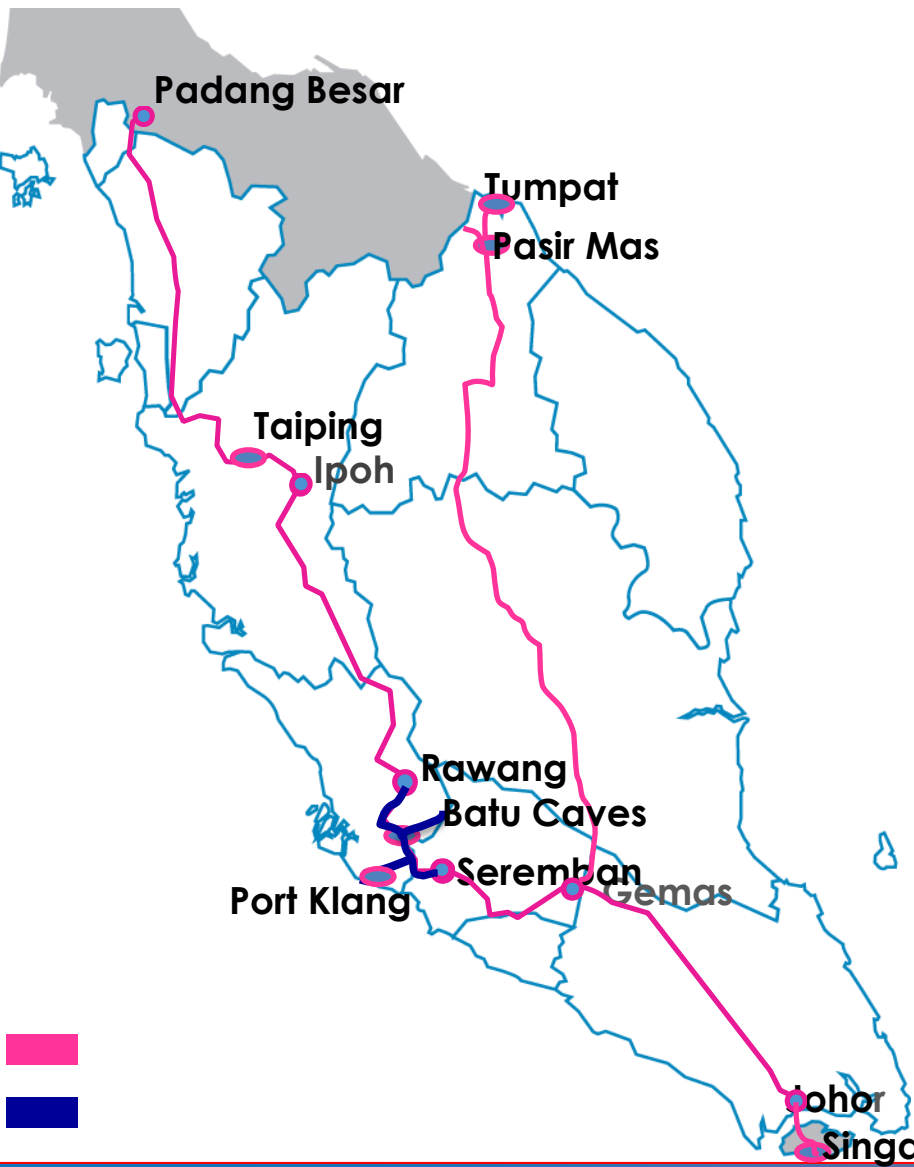


## Keretapi Tanah Melayu Berhad (KTMB)

- 1885 : First Railway track in Malaysia was built stretching 12.8 km from the tin mining town of Taiping to Port Weld.
- **1885** also saw the introduction of the steam locomotive service
- **Early 20<sup>th</sup> century** : Additional connections were completed from the northern states to Singapore , south of Peninsular Malaysia and also to southern Thailand , north of Peninsular Malaysia.
- **After WW II**, restoration on destroyed tracks were carried out. The British administration implemented the Malayan Railway Ordinance in 1948 streamlining rail administration, with the establishment of Malayan Railways Administration.
- **1992 : Post Independence** : Malayan Railway Administration became Keretapi Tanah Melayu Berhad with the establishment of Railways Act 1991.



# History of Urban Rail



- **1995** : KTM Komuter, an electrified commuter train serviced introduced.
- **1995** : Commuter service catering for Kuala Lumpur and surrounding suburban areas.
- Consists of 3 lines , serving 45 stations along a route of 175 km

# Urban Rail – K.Lumpur/ Greater K. Lumpur



KL MONORAIL

- Malaysia’s only Monorail system used for public transport in Kuala Lumpur
- Started operating in 2003
- 8.6 km long running through the CBD area



PUTRA LINE  
Now known as Kelana Jaya Line

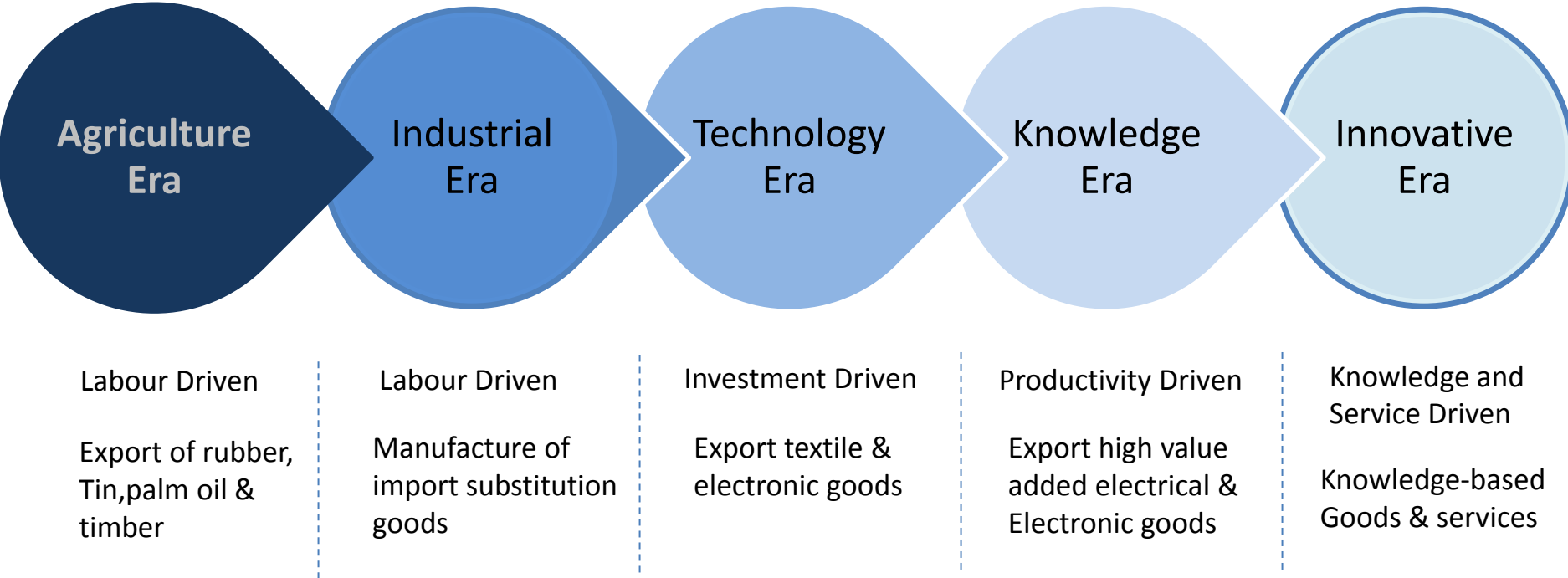
- A driver-less automatic system serving the most congested areas in Kuala Lumpur
- Started operating fully in 1999
- 29 km in length with 24 stations, 5 of which are underground.



STAR LINE  
Now known as Ampang Line

- Mostly at-grade outside of the city area and elevated in central Kuala Lumpur
- Started operating in 1998 in conjunction with the XVI Commonwealth Games
- 27 km in length

# Economic Transition Model



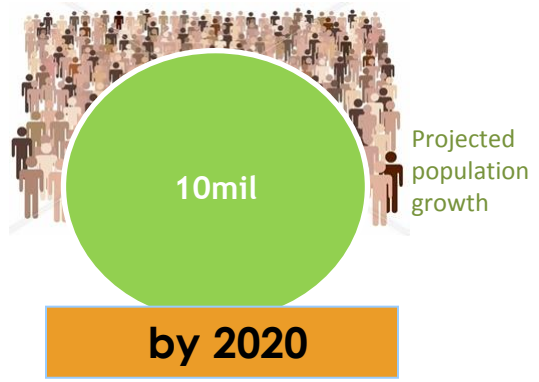


**SOUTHEAST ASIA**

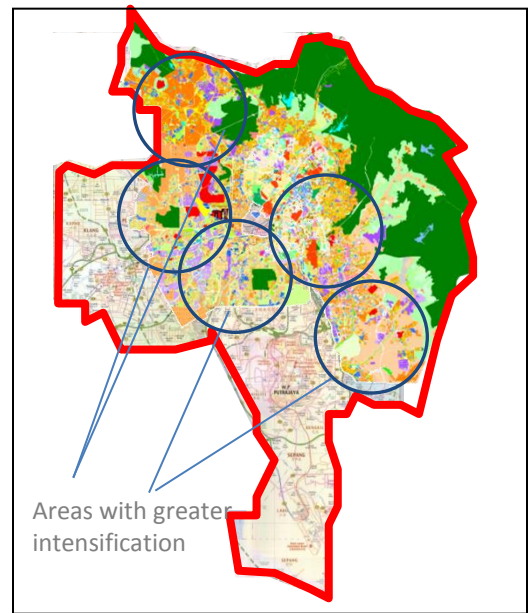
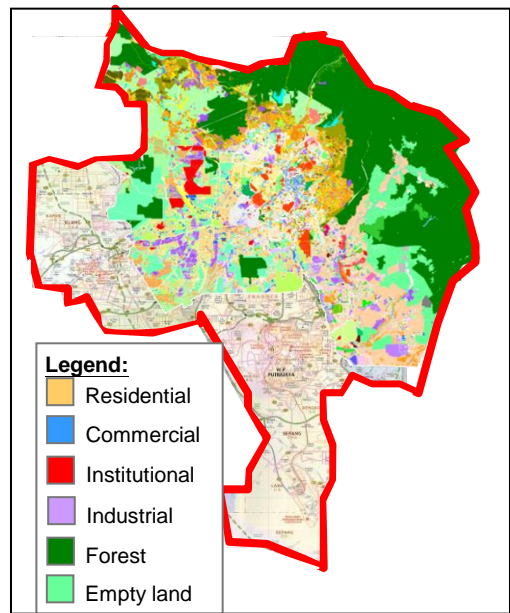


# KL/ Greater KL :Land Use & Urbanization

Land Use Plans-  
driving future demand...



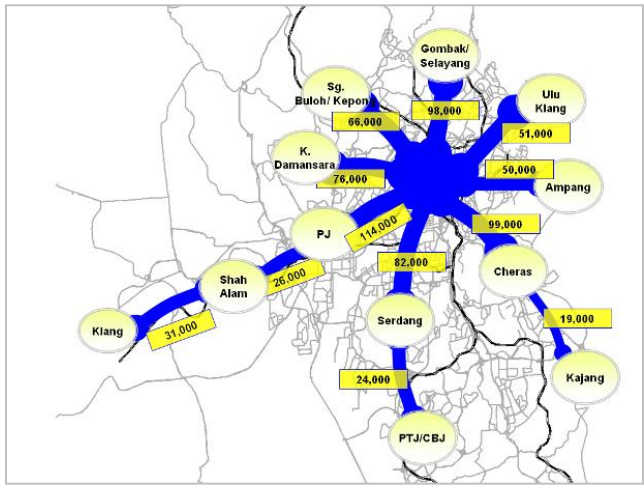
- Urban expansion to east and north
- Intensification in city centre .....



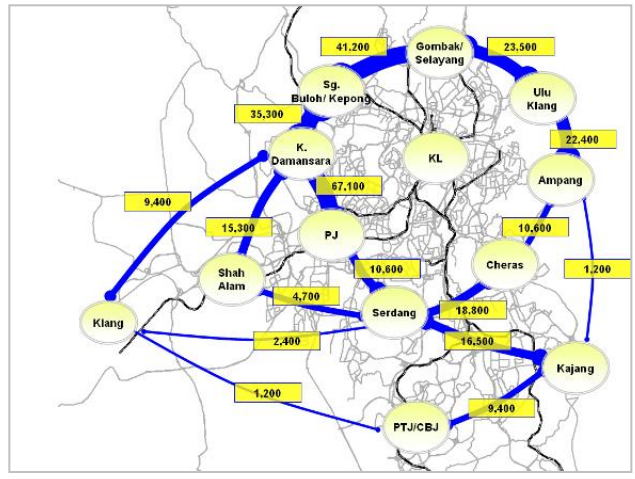
# KL / Greater KL :Land Use & Travel Demand

The development associated with the Land Use Plans will drive future travel demands. Over **3.0** million trips (all modes) in the peak period.....

Radial



Orbital



...increasing the pressure on the transport system  
Movements to other primary centres will grow  
Orbital movements will also grow



### 3. Our Government's Aspiration & The National Land Public Transport Masterplan

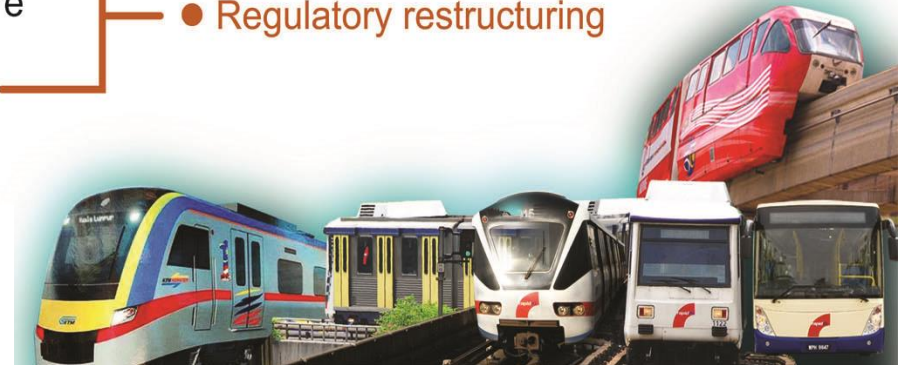


# GOVERNMENT ASPIRATION



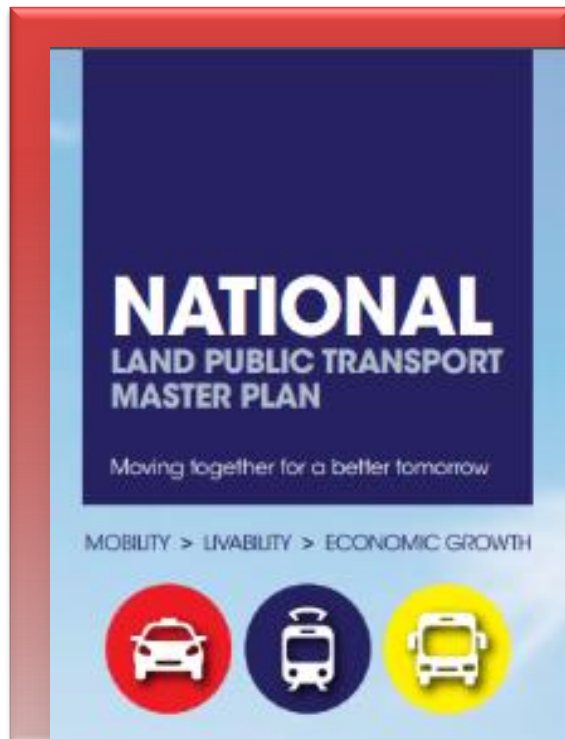
- Reducing Crime
- Fighting Corruption
- Improving Students Outcomes
- Raising Living Standards of Low-Income Households
- Improving Rural Basic Infrastructure
- Improving Urban Public Transport
- Addressing Cost of Living

- Improve vehicle availability
- Improve reliability and journey times
- Enhance comfort and convenience
- Improve accessibility and connectivity
- Regulatory restructuring





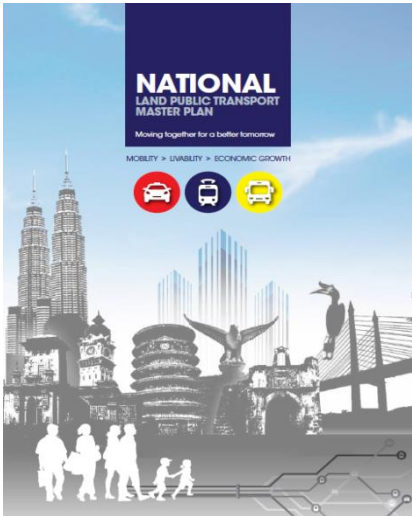
# The National Land Public Transport Masterplan



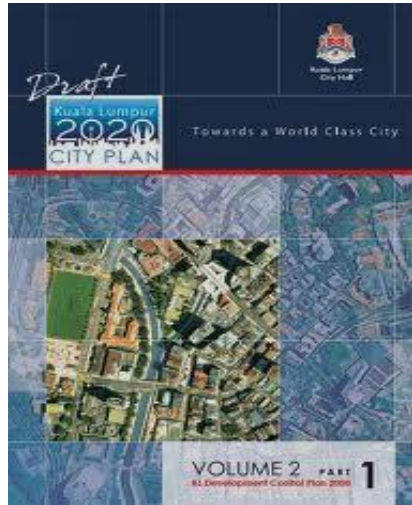
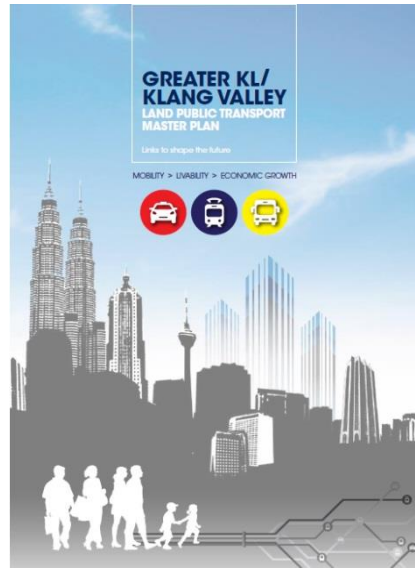
- 1 A Masterplan that supports Malaysia's efforts to become a high income nation by delivering a high impact public transport transformation
- 2 Intended to guide decisions on future land public transport
- 3 It is based on a review of existing conditions and establishing goals and objectives for the future
- 4 Guide for improving access in rural areas that are underserved & to improve connectivity between regions



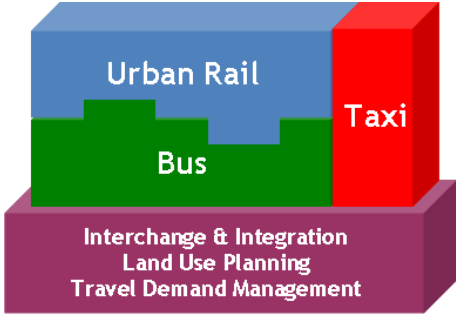
# Development Plans for Greater KL/Klang Valley



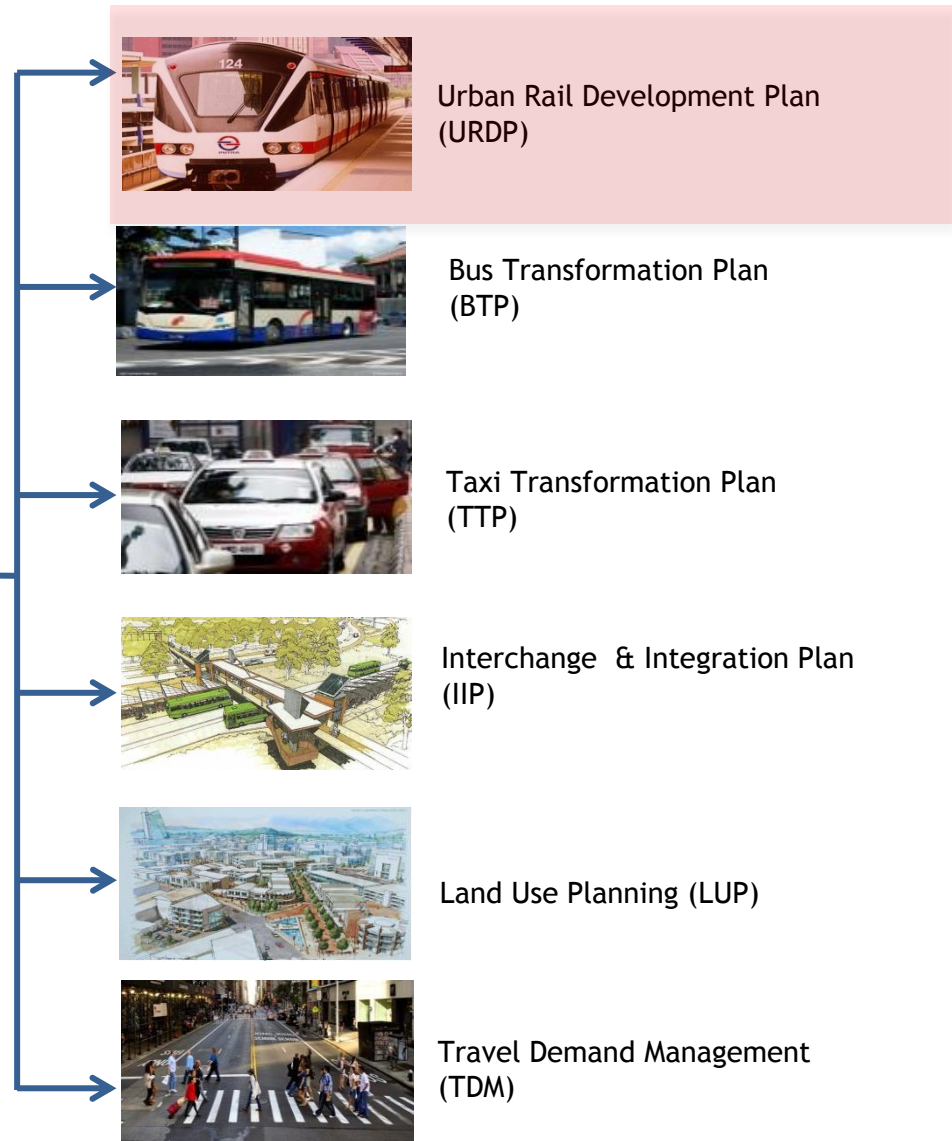
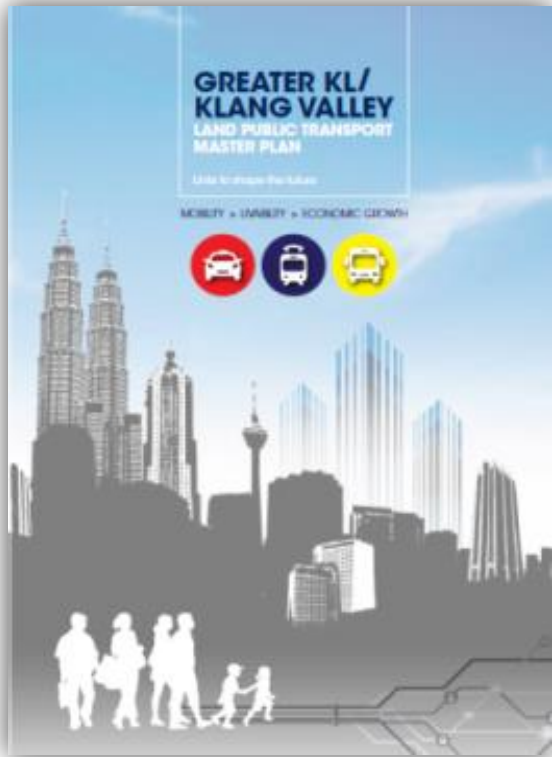
- Strategic thrusts:
  - Collaborative Planning
  - Regulatory Strengthening
  - Service Monitoring
  - Infrastructure & Capacity Building
- Policy on Integrated Planning (mode, ticketing, fare, spatial)



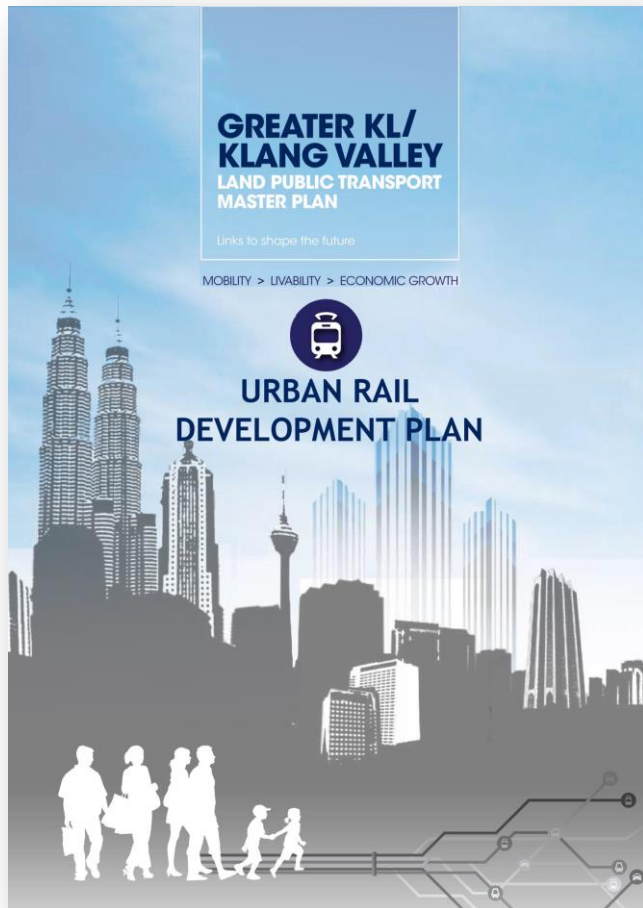
- Policy on land use, urban development, community requirements, traffic management



# GREATER KL/KLANG VALLEY PT MASTERPLAN



# Urban Rail Development Plan



**1** Development of rail network such as LRT Line and MRT Lines seeks not only to expand the public transport network, but also to meet the expectations and contribution to the economic growth of Kuala Lumpur and Greater Kuala Lumpur

**2** The corridors of future lines for example were identified with consideration of catchment area, CBD areas, and potential growth areas for possible revival and regeneration

**3** The URDP also assesses the changes in future land uses which results in change of travel patterns and demands of the rising urban population

# Increasing The Public Transport Modal Share

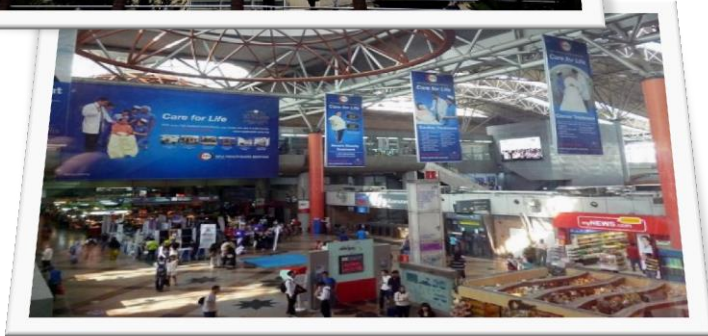
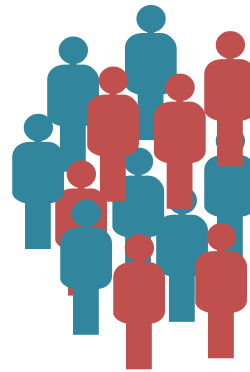


- **Target** is to have **40% PT** Modal share by 2030

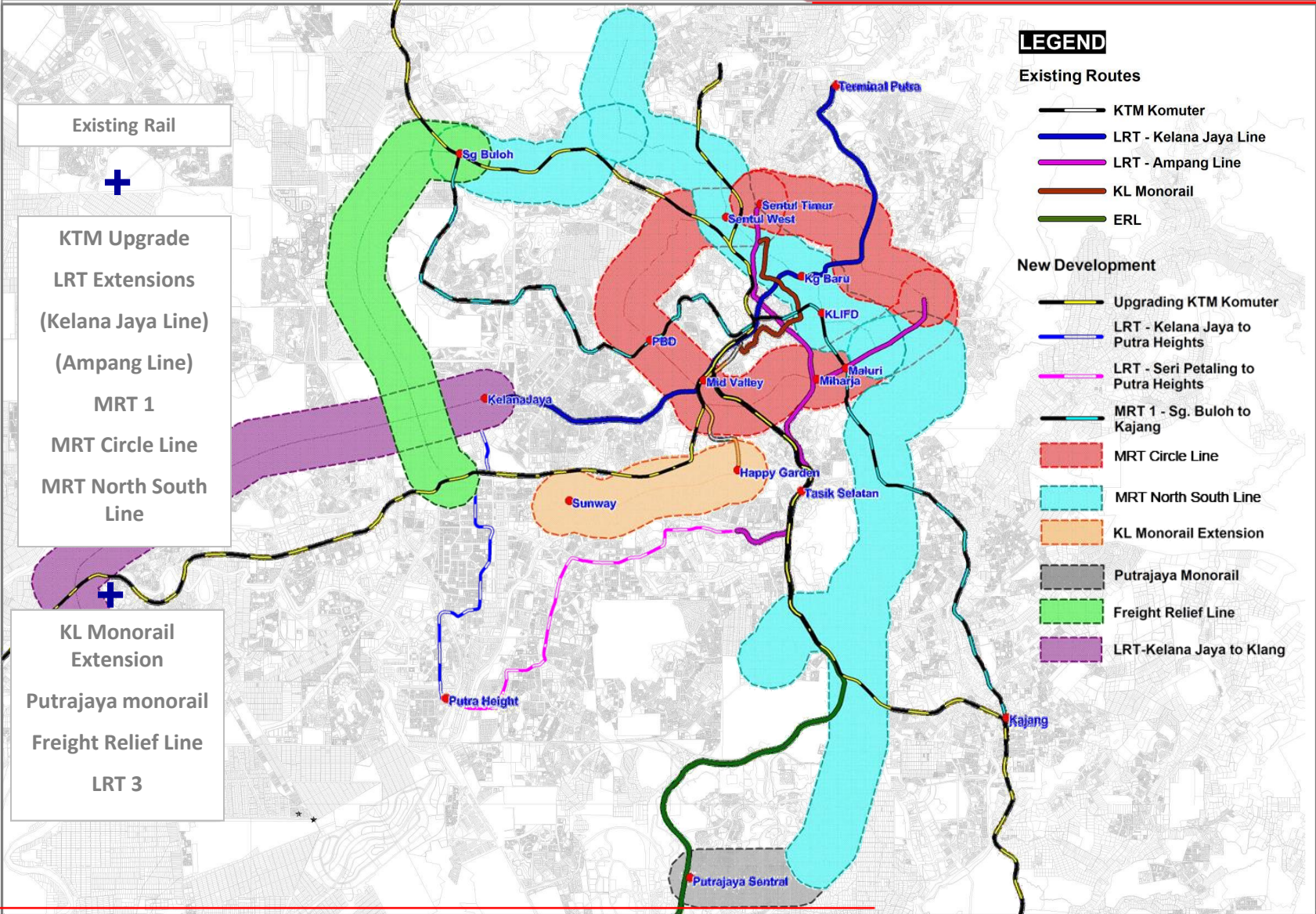
- **Connectivity enhancement** is needed between various transport networks that will help increase it

- Rapid Urbanization in Klang Valley will reach **75% by 2020**

- Exists a need to enable a smooth flow of people by enhancing connectivity



# KL / Greater KL : Rail Corridor



**LEGEND**

- Existing Routes**
- KTM Komuter
  - LRT - Kelana Jaya Line
  - LRT - Ampang Line
  - KL Monorail
  - ERL
- New Development**
- Upgrading KTM Komuter
  - LRT - Kelana Jaya to Putra Heights
  - LRT - Seri Petaling to Putra Heights
  - MRT 1 - Sg. Buloh to Kajang
  - MRT Circle Line
  - MRT North South Line
  - KL Monorail Extension
  - Putrajaya Monorail
  - Freight Relief Line
  - LRT-Kelana Jaya to Klang

- Existing Rail
- +**
- KTM Upgrade
- LRT Extensions (Kelana Jaya Line) (Ampang Line)
- MRT 1
- MRT Circle Line
- MRT North South Line
- +**
- KL Monorail Extension
- Putrajaya monorail
- Freight Relief Line
- LRT 3



## 4. Where Prasarana Fits In



# RAIL NETWORK

## Urban Rail Network

- 6
MRT

**LALUAN MRT SUNGAI BULOH - SERDANG - PUTRAJAYA**

MRT SUNGAI BULOH - SERDANG - PUTRAJAYA LINE

NEW LINE
- 1
MRT

**LALUAN AMPANG**

AMPANG LINE
- 2
MRT

**LALUAN SRI PETALING**

SRI PETALING LINE

+ EXTENSION LINE
- 3
MRT

**LALUAN KELANA JAYA**

KELANA JAYA LINE

+ EXTENSION LINE
- 4
MRT

**LALUAN MONOREL KL**

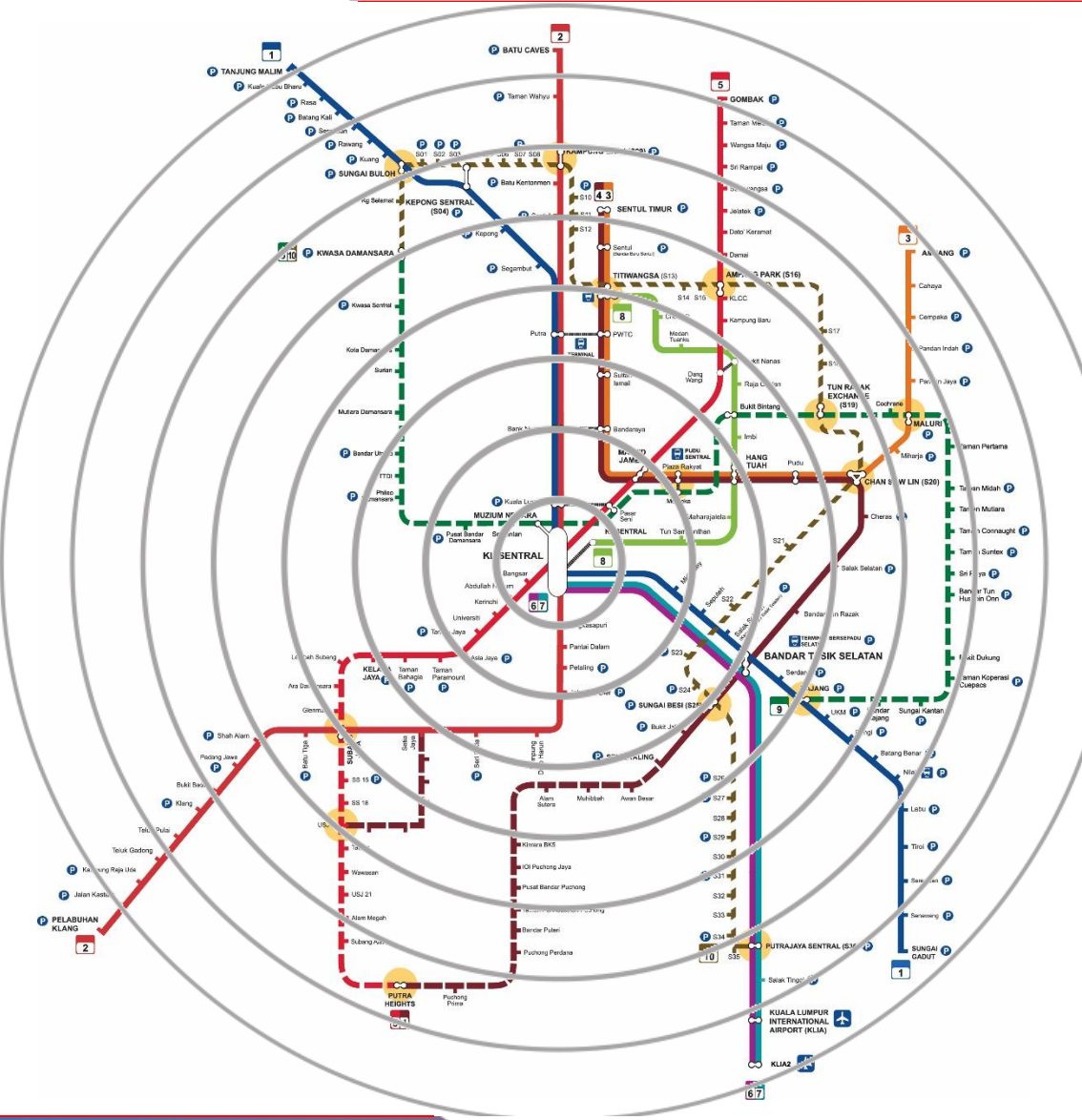
KL MONORAIL LINE
- 5
MRT

**LALUAN MRT SUNGAI BULOH - KAJANG**

MRT SUNGAI BULOH - KAJANG LINE

NEW LINE

Future Integration





# Existing urban rail systems in Greater KL

**60 stations, covering 65 kilometers**

**650,000 daily ridership**

**Service Reliability: 99.7%**

## Ampang Line



Light Rail Transit System operated by **driver**  
**30 units of 6-car trains**, with capacity of **1,000** per train

**2.87 min** headway at peak hours

## Kelana Jaya Line



**Automatic** Light Rail Transit System -driverless

**35 units of 2-car trains and 35 units of 4-car trains** with capacity of **740** per train.

**2.38 min** headway at peak hours

## Monorail

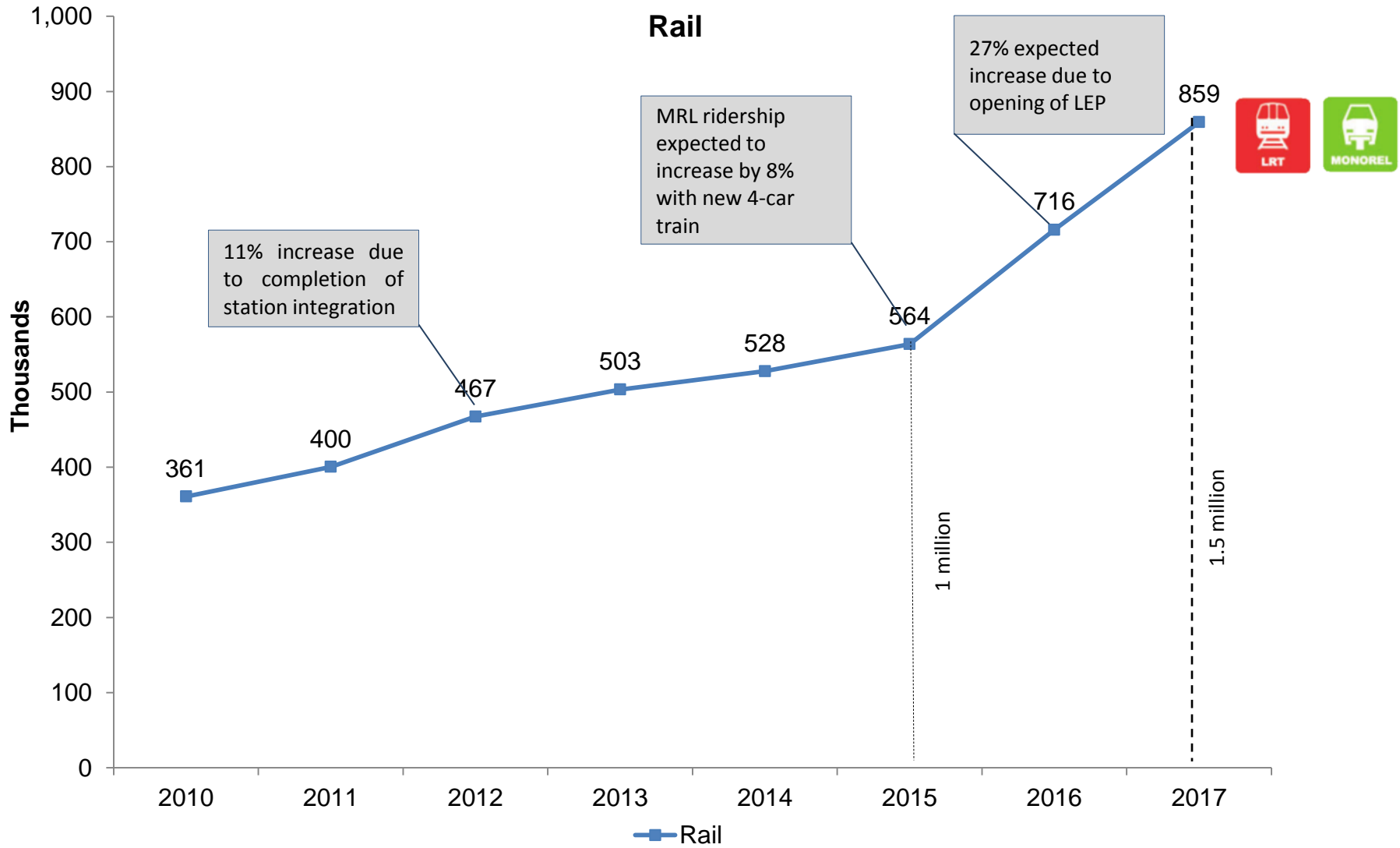


Monorail system operated by **driver**.

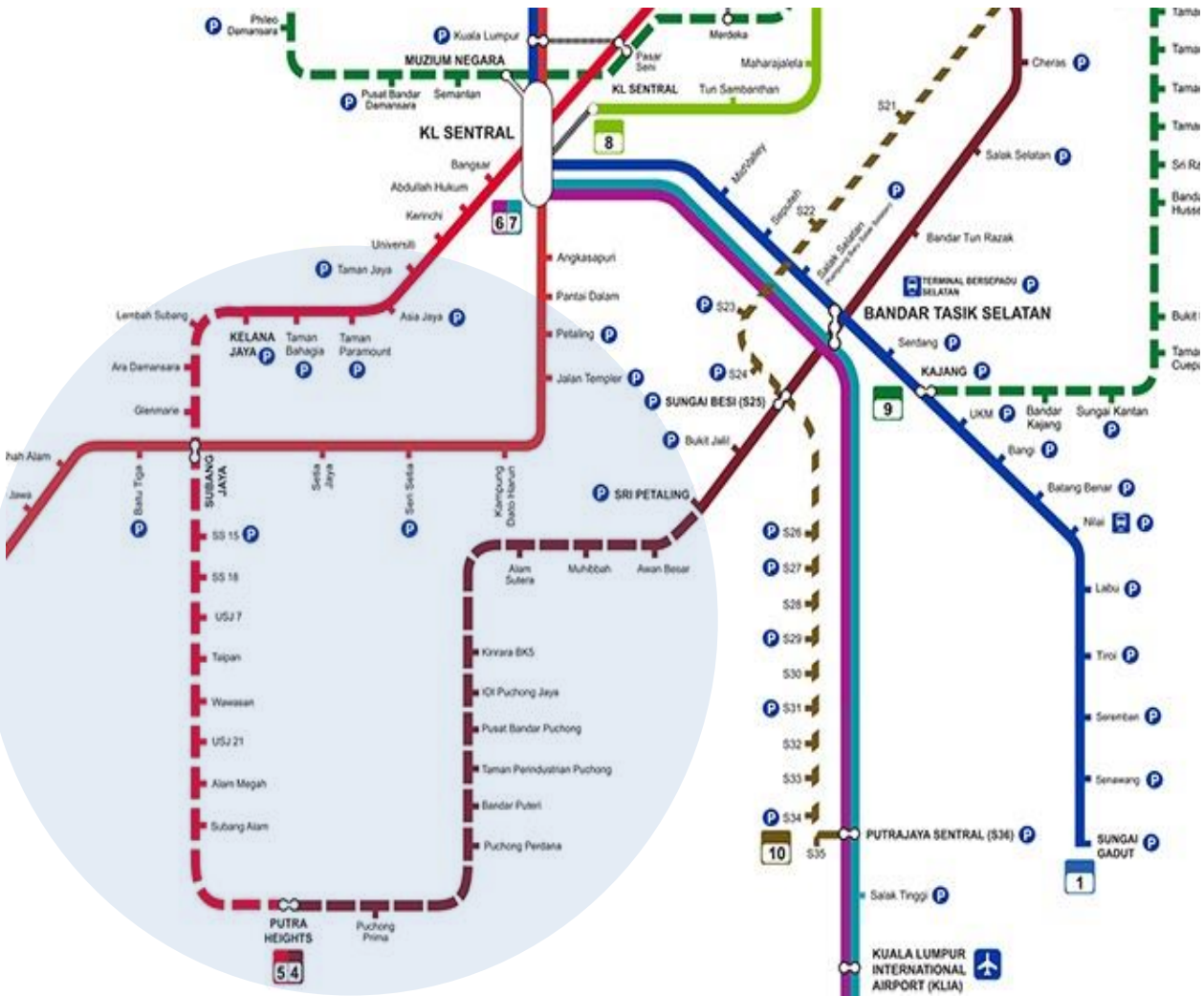
**7 units 2-car trains and 5 units of 4-car trains** with capacity of **214 and 430** per train.

**4.00 min** headway at peak hours

# Average Daily Ridership



# Line Extension



## Ampang Line

- Partially opened in phases starting October 2015
- Extension of 17.7 km and 13 stations and Park 'n' Rides'
- Serving South-East Corridor of Klang Valley

## Kelana Jaya Line

- To be fully operational by June 2016
- Extension of 17.4 km and 12 stations with Park 'n' Rides
- Several stations having integration with other rail operators to enhance transfer

# Expanding Our Fleet



- Fleet Expansion to cater for additional capacity due to existing load factor
- Expansion exercise to eventually phase out ageing fleet ( 2 > 4 car sets; 4 > 6 car sets; coupled with signaling migration
- Procured from China and Canada
- Train sets are better equipped



# Rapid Bus Network

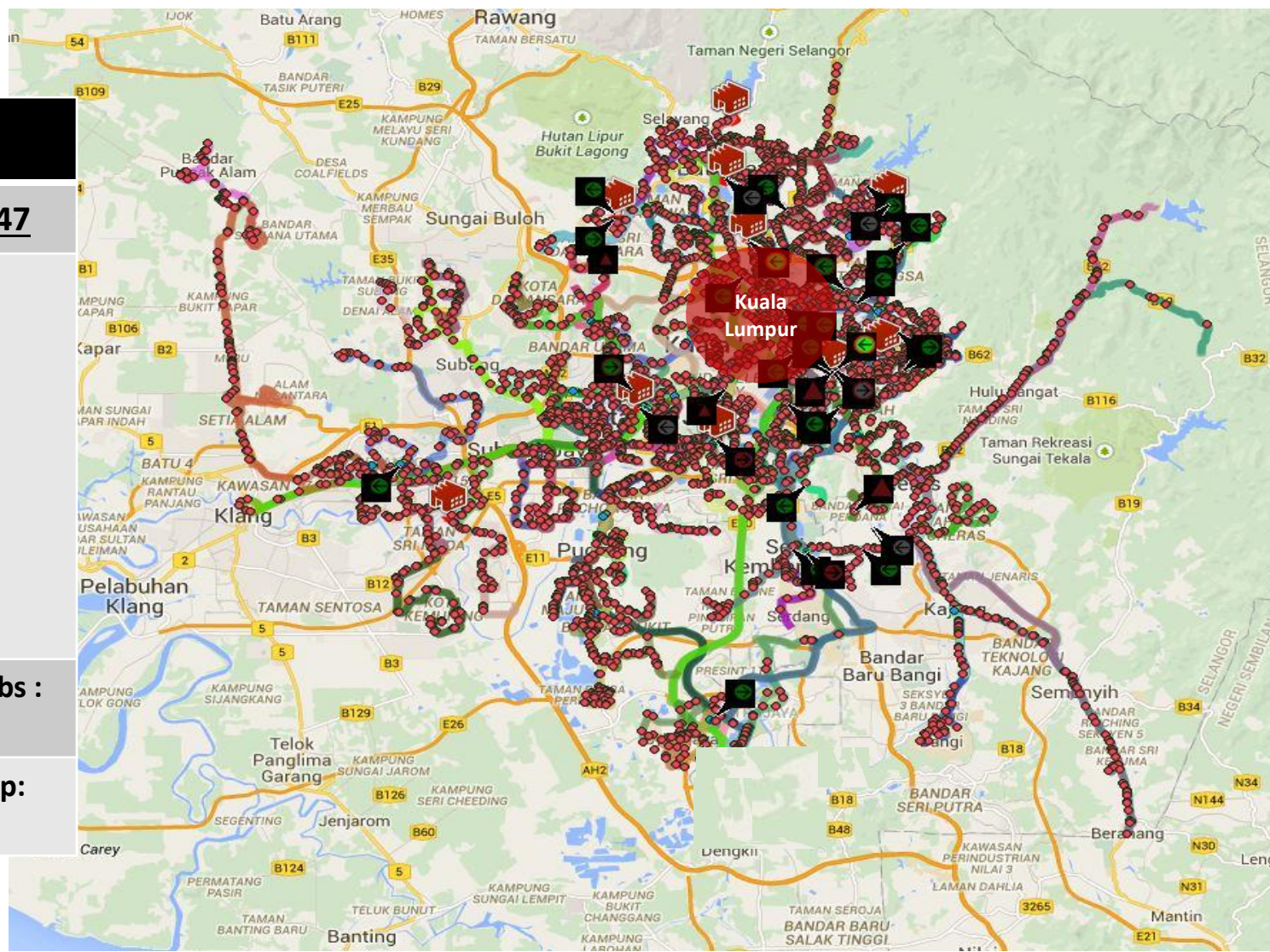
## RAPIDKL

Number of Buses : **1,347**

Total Routes : **165**  
 Main : 83  
 Local : 64  
 Town : 4  
 Premium Services  
 BET : 6  
 Ekspres : 3  
 Shuttle : 2  
 GoKL : 2  
 PJ CityBus : 1

Total number of Bus Hubs : **4,446**

Average Daily Ridership: **348,000**



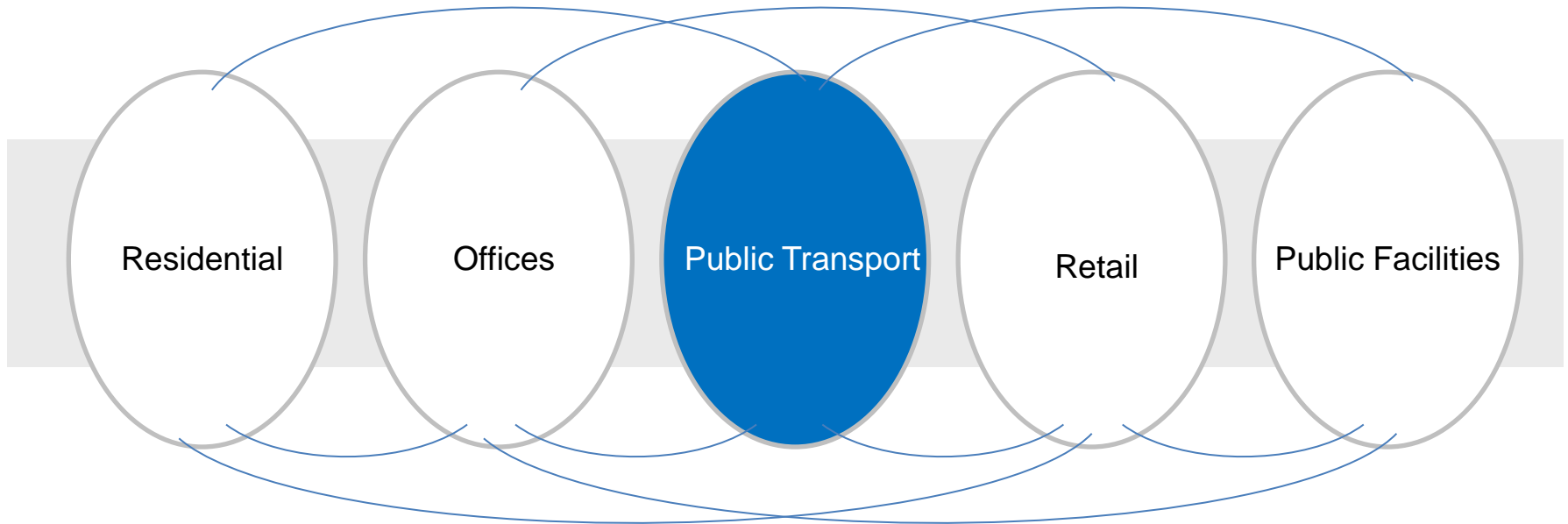


# 5. TRANSIT ORIENTED DEVELOPMENT

## *“Changing The Lifestyle Of The Community”*

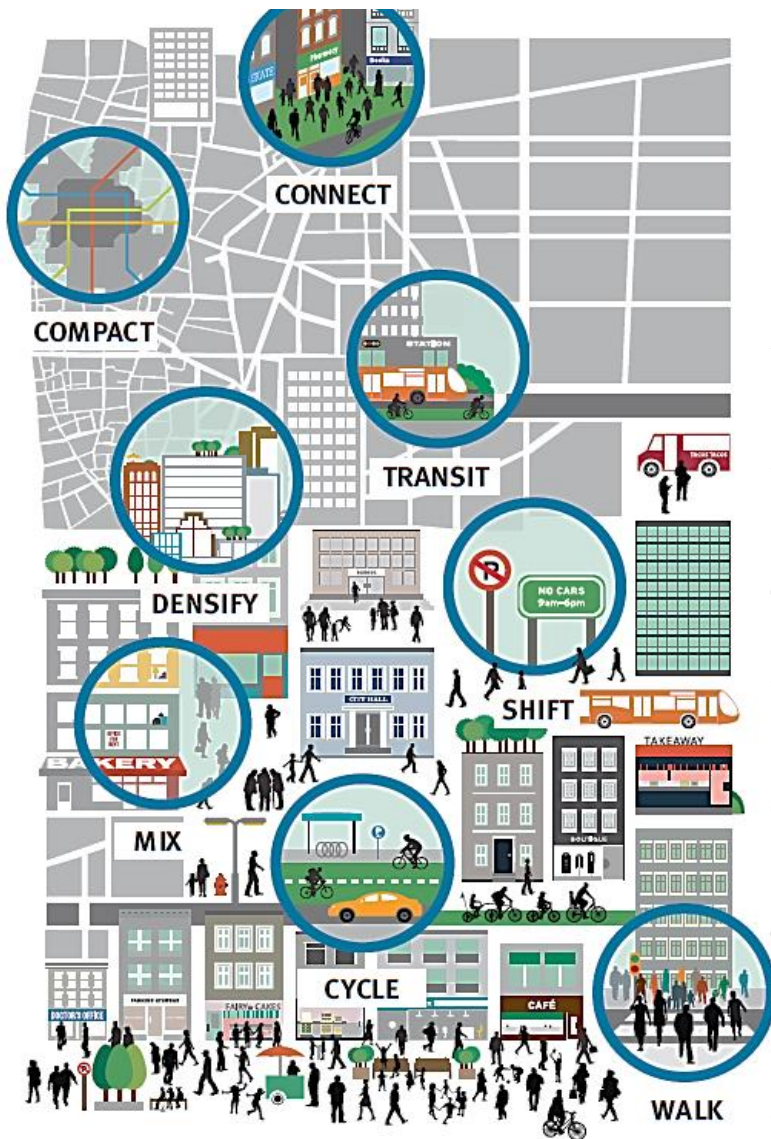


# Concept of Transit Oriented Development





# Concept of Transit Oriented Development



## 1. MIX

- Mixing the socio demographic through a mix of development price range
- Trip lengths are reduced by providing diverse and complementary uses & access to food
- Short commutes

## 2. DENSIFY

- Residential and job densities support high quality transit and local services

## 3. COMPACT

- The development is in an existing urban area
- Travelling through the city is convenient

## 4. SHIFT

- The land occupied by motor vehicles is minimized

## 5. WALK

- The pedestrian realm is safe, complete, active, vibrant, temperate and comfortable.

## 6. CYCLE

- The cycling network is safe and complete
- Cycling parking and storage is ample and secure

## 7. CONNECT

- Walking and cycling routes are short, direct and varied (shorter than motor vehicle routes)
- Fast and reliable virtual connectivity

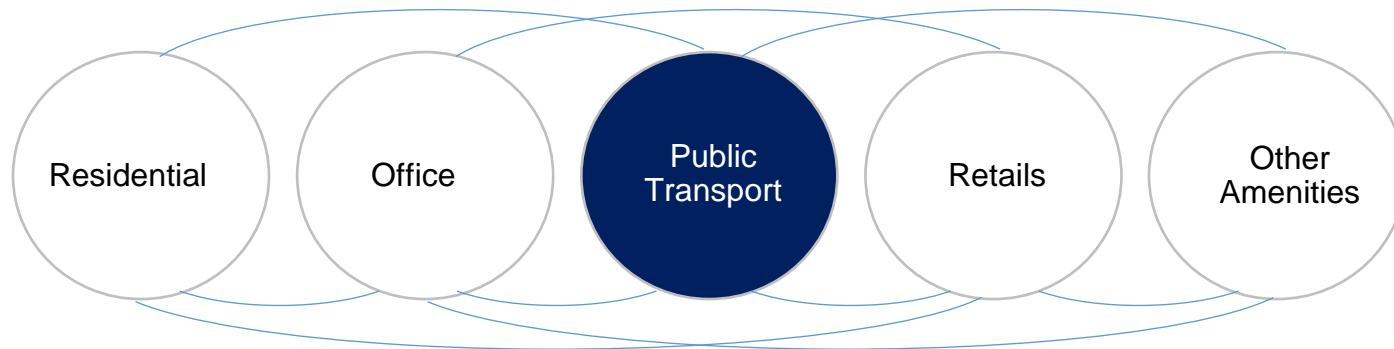
## 8. TRANSIT

- High quality transit is accessible by foot





# How will Transit Oriented Development benefit the people?



TOD development will positively contribute in particular as follows :

- Create a **cleaner environment**, reduce traffic congestion and number of private vehicles
- Occupants of TOD can work , play and perform **daily activities** 'on and along the line'
- Resolve the issue of " first mile " and " last mile " by creating opportunities and **choices** for the riders and residents of TOD
- Foster distinctive, **attractive communities** with strong sense of place in a walkable neighbourhood
- Wide-ranging **connectivity** will be achieved once LEP, MRT and LRT3 lines are completed.



# User experience will be enhanced through seamless and fast connectivity

## Interface



Cashless Payment



Mobile Device

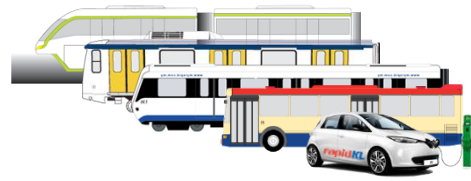


Digital Signage



Communities

## Lifestyle Elements



Comos, KL e-mobility

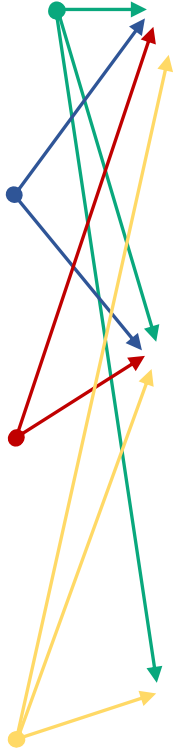
Retail Laundry Clinic Post Office



Entertainment Payment Kiosk



Schools Mosque Office Residence



## Smart Enabler

### Public Transport

- Public Transit Card
- Public Information System
- Mobile Applications

### Property Development

- Energy management
- Integrated Parking Management

### Municipal

- Sustainable energy, water and waste management
- Intelligent Parking Guidance

### Enterprise

- Network Services
- Retail and Payment Services

### Consumer

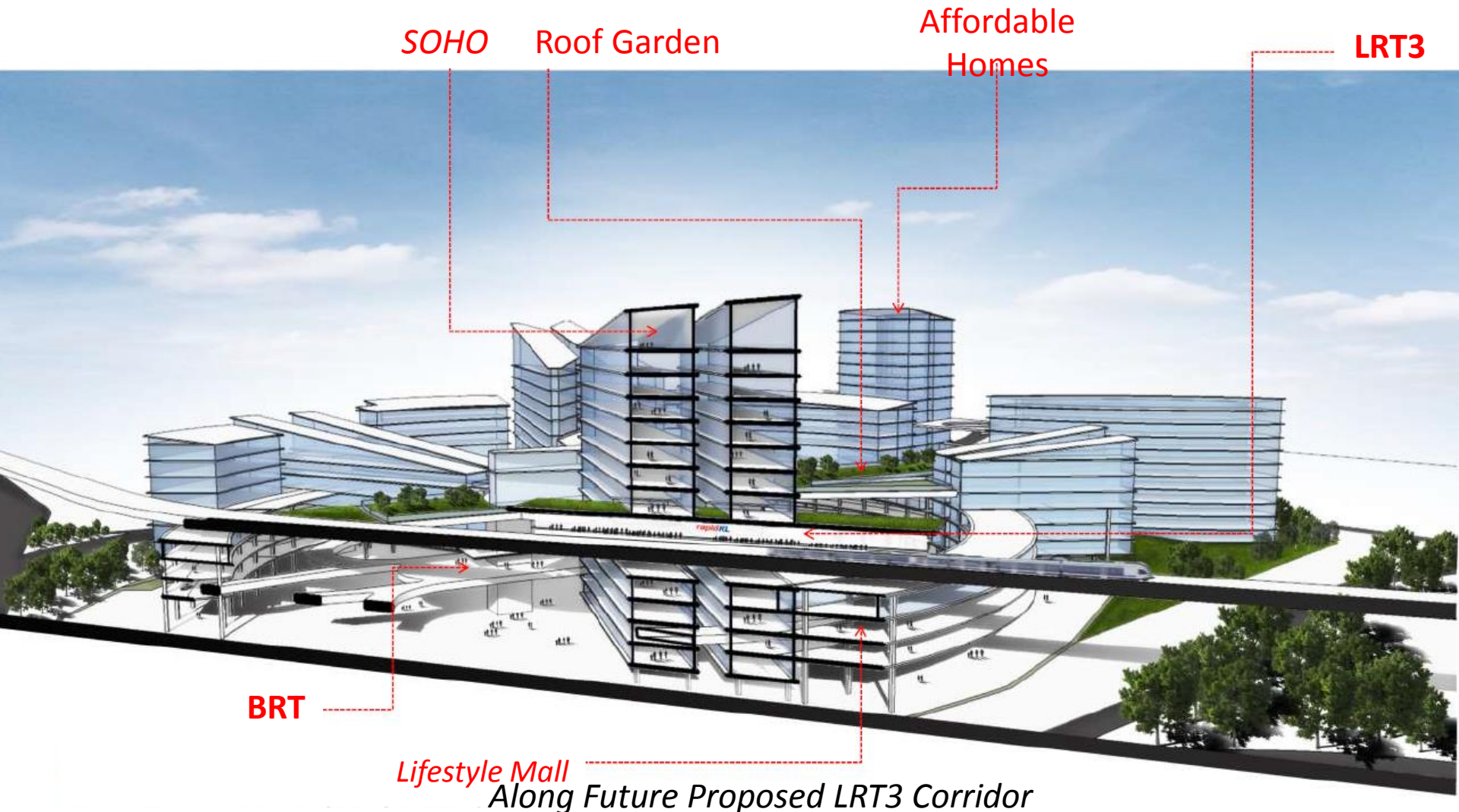
- Mobile Payment Services
- Advertisement and Entertainment Content

# Proposed TOD : Kuala Lumpur CBD



*Along Existing LRT Line : Location : Dang Wangi*

# Proposed TOD : Greater Kuala Lumpur



# Proposed TOD: Greater Kuala Lumpur



LRT3

Clubhouse

BRT

SOHO



Roof  
Garden

Affordable  
Homes

Surau

Public  
Parking



# Environmental Benefits – Prasarana’s Efforts



Introduction of Enviro500 Buses



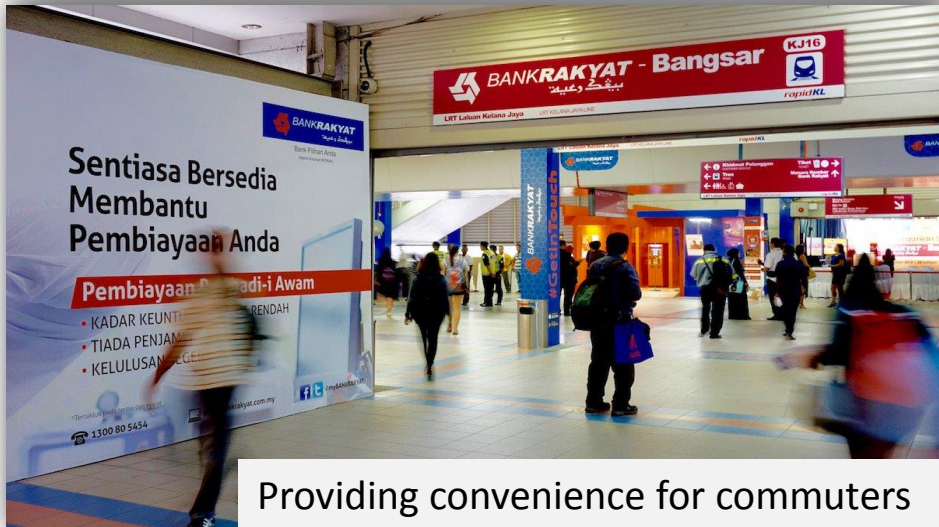
Electric Buses for BRT

# Enhancing Social Values



Connectivity for hassle free walking

- Public transport plays an important role in solving the problem of congestion and pollution, and ill effects of population growth in urban area
- Public Transport provides convenience for commuting to places of recreation and entertainment, by promoting a better quality of life



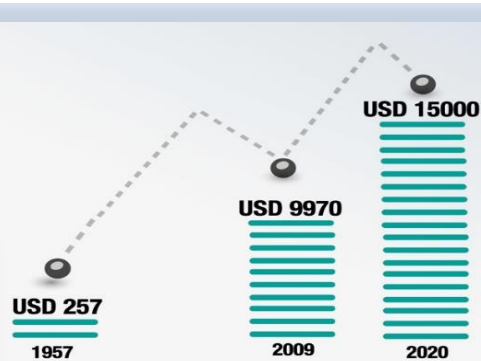
Providing convenience for commuters



Recreation Parks Accessible by Public Transport

# MOVING TOWARDS 2030

**GREATER**  
KUALA LUMPUR



Malaysia is undergoing rapid economic growth, aspires to achieve GNI per capita USD 15,000 in 2020 from USD 9,970 in 2009.



➤ **80%**  
Population

Living within 400m of LPT service

➤ **37%**  
Nations' GDP

Key Economic importance for the nation

➤ **Increased Mobility**

➤ **Livable Cities**



© Copyright



**THANK YOU!**  
**[azmi.aziz@prasarana.com.my](mailto:azmi.aziz@prasarana.com.my)**

