

Leap-froging Public Transport Improvement in Kuala Lumpur City through NKRA

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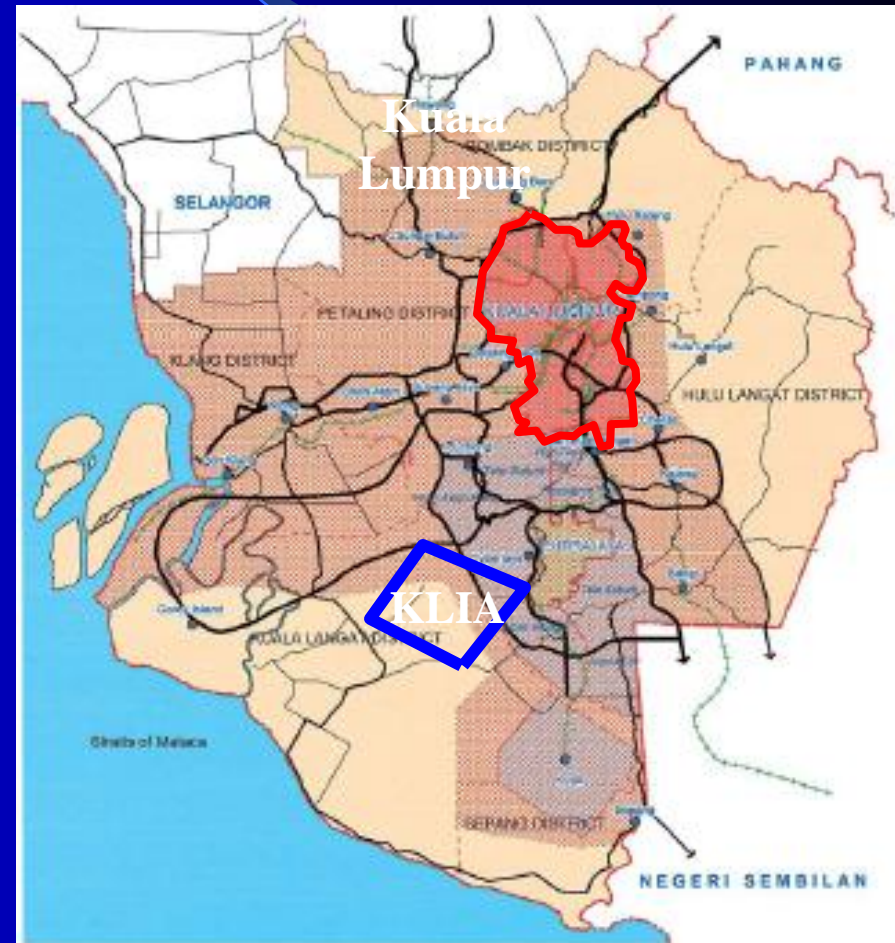
- Kuala Lumpur City : Landuse/Transportation
- Public Transportation Management : Issues & Solutions
 - Lessons & Experience
 - Moving Forward through NKRA

Kuala Lumpur- Capital City of Malaysia



Kuala Lumpur and Its Conurbation

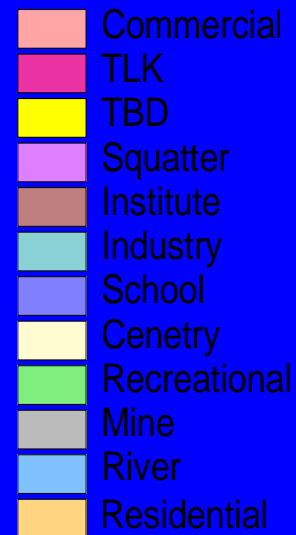
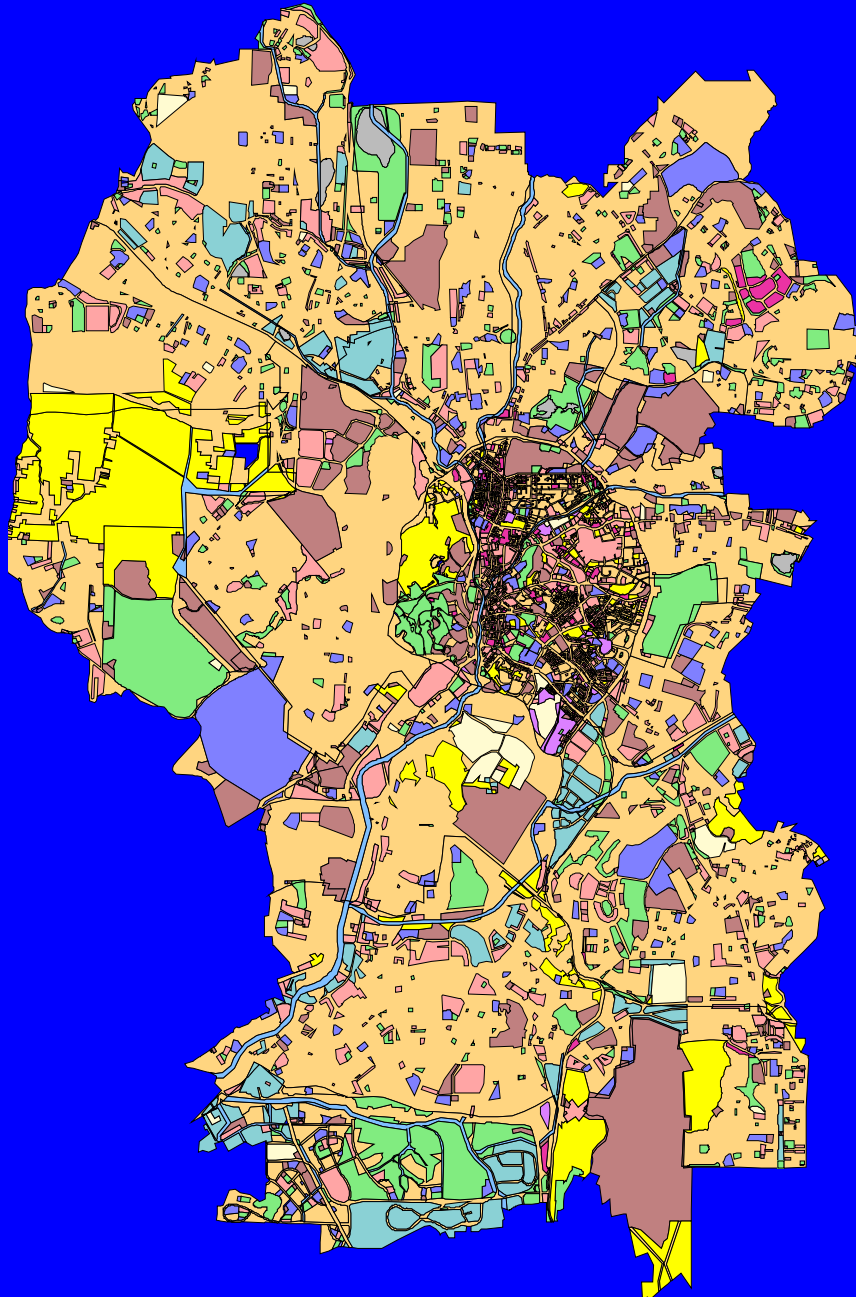
- 4,000 sq. km. (243.56 sq. km)
- 4.8 mil.pop. (1.6 mil) (2008)
Density: 6569 person/sq.km
- 6.0 mil.pop. (2.2 mil) (2020)
- 3.0 mil vehicle population:
1.89 cars/ person
- **Employments : 58 % of total employments**
- 9 local authorities



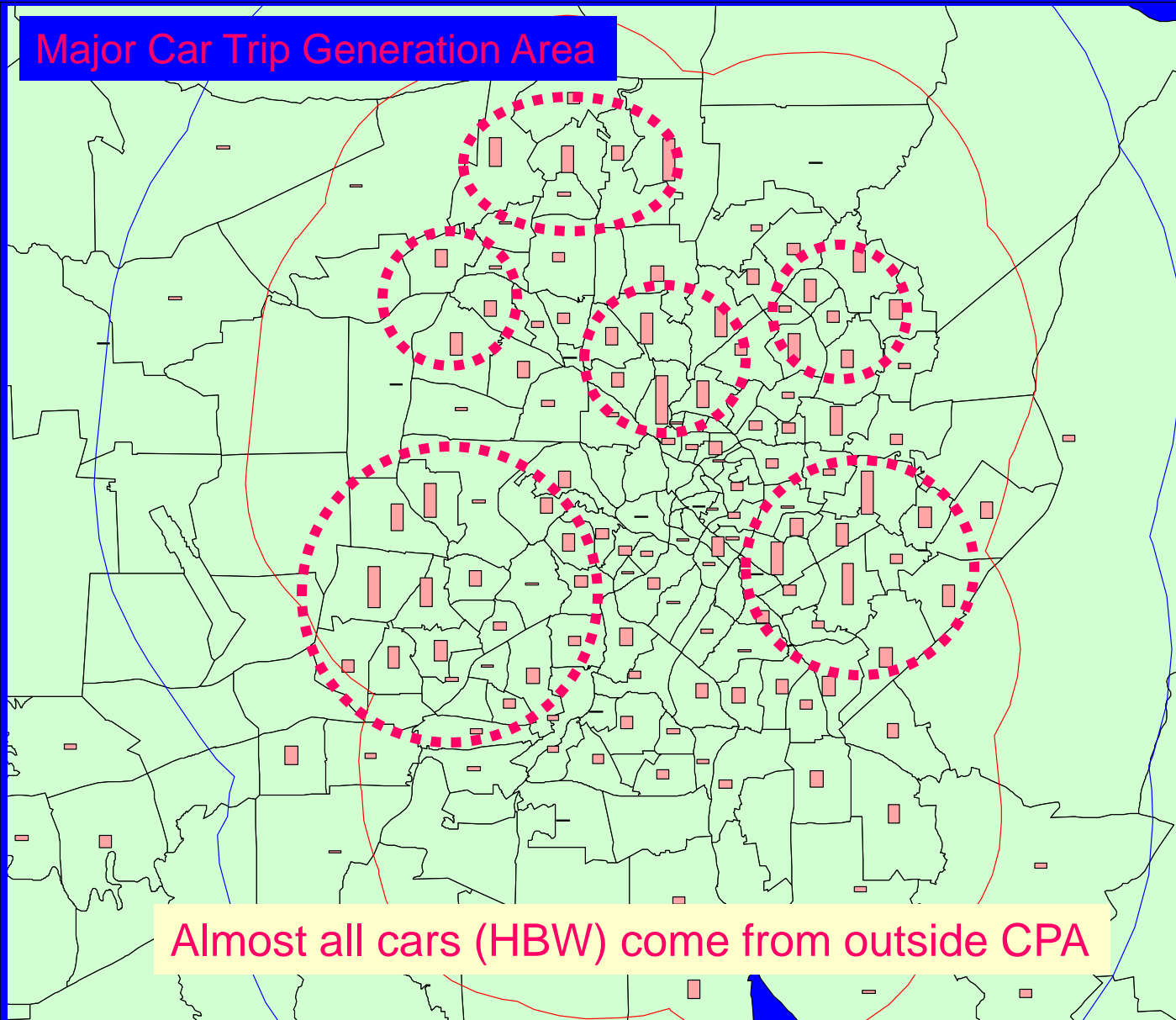
Land use of KL City

Most commercial / business activities are concentrated in CPA.

Residential areas are surrounding CPA.



Major Car Trip Generation Area



Home to Work
Trips to CPA
by Car in 1997

LEGEND

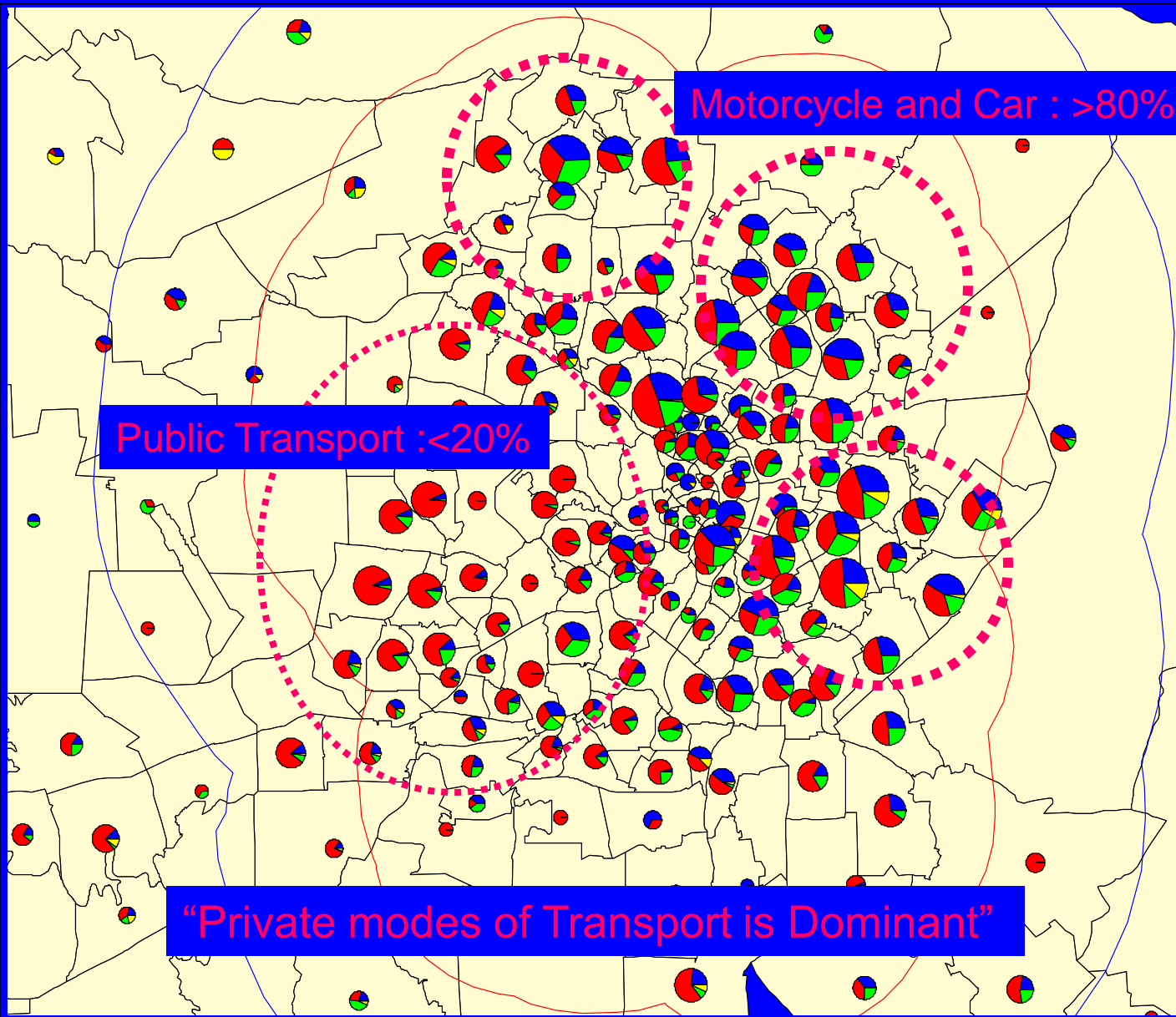
- KL_10km
- KL_5km
- Cpa_trip.shp
- Car



Almost all cars (HBW) come from outside CPA

SMURT-KL

INTEGRATED URBAN TRANSPORTATION STRATEGIES
FOR ENVIRONMENTAL IMPROVEMENT
IN KUALA LUMPUR



Home to Work
Trips to CPA
by Mode
in 1997

Public Transport : <20%

Motorcycle and Car : >80%

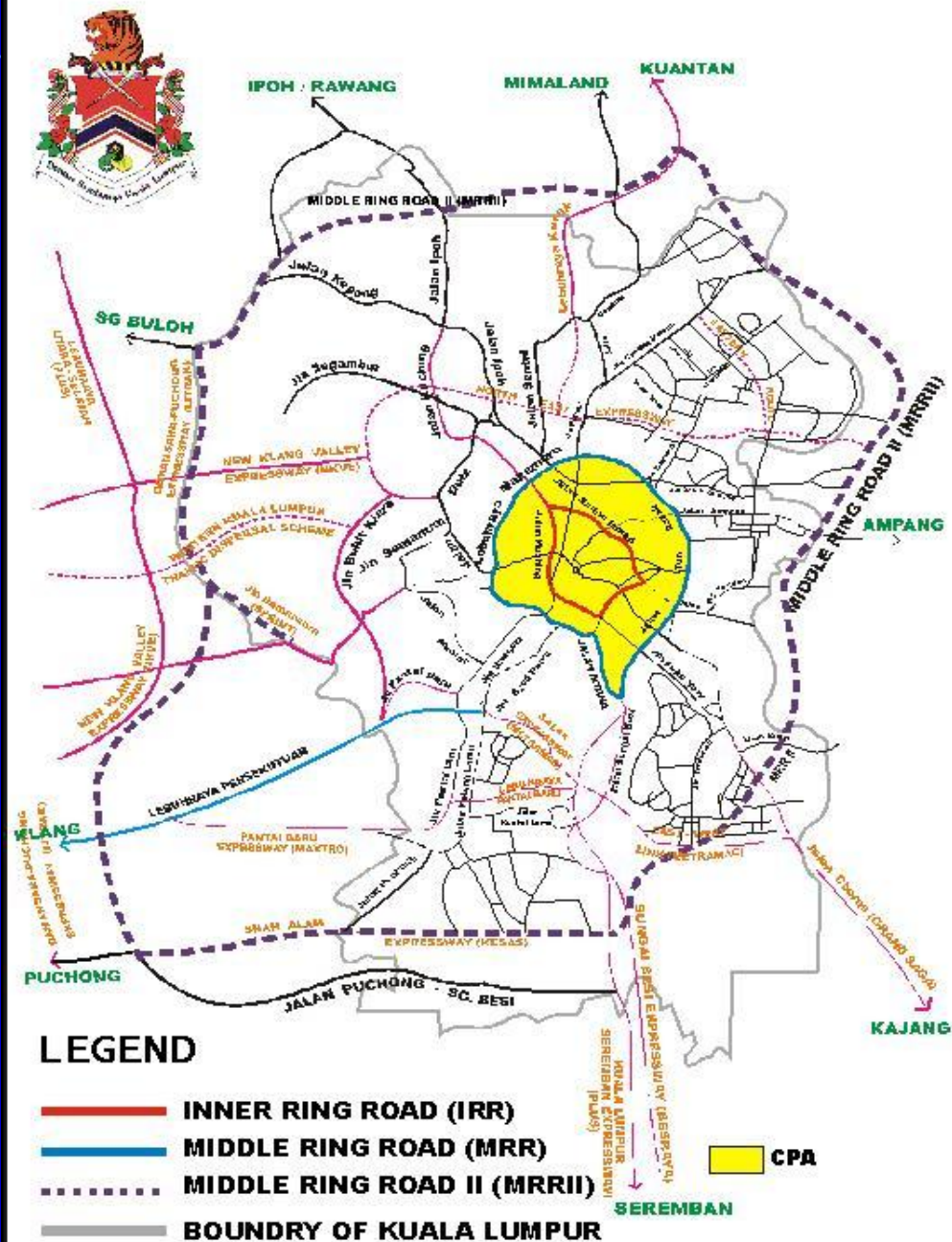
“Private modes of Transport is Dominant”

- KL_10km
- KL_5km
- Cpa_trip.shp
- Mc
- Car
- Bus
- Rail

SMURT-KL

INTEGRATED URBAN TRANSPORTATION STRATEGIES
FOR ENVIRONMENTAL IMPROVEMENT
IN KUALA LUMPUR

KUALA LUMPUR ROAD NETWORK



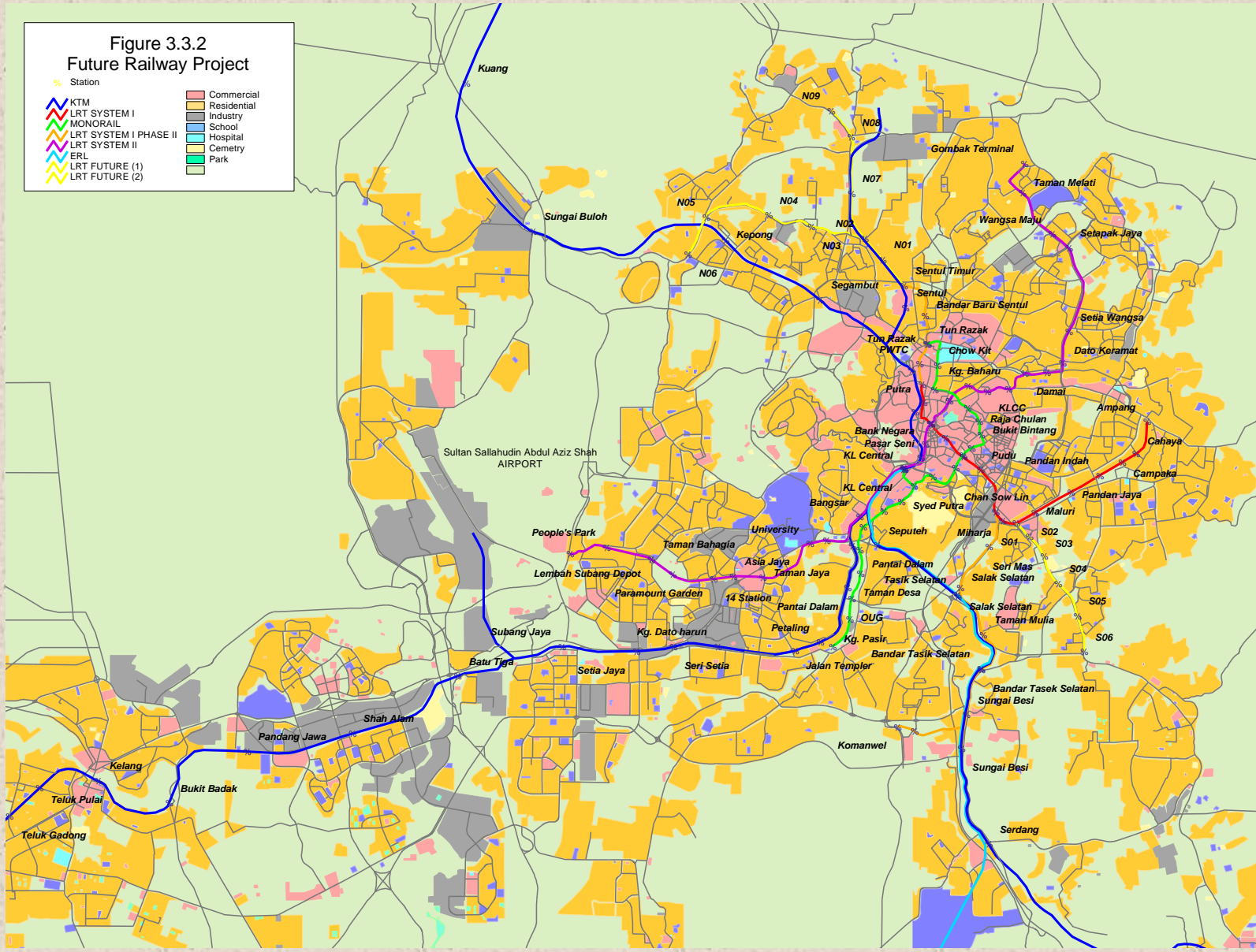
Comprehensive Ring/Radial Road System

- Toll Expressway
- Elevated Highway
- Elevated Interchanges

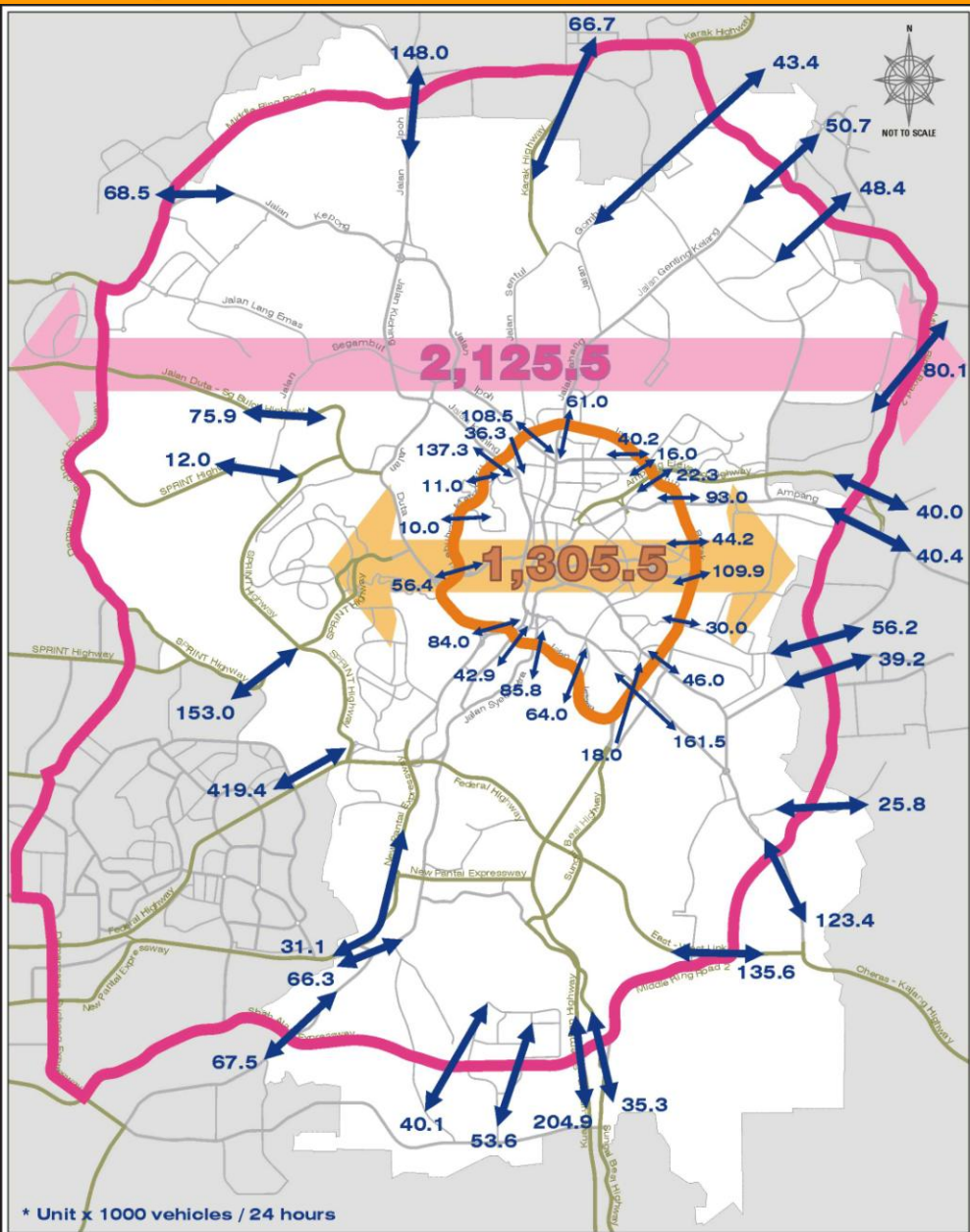
Current Rail Network Plan

Figure 3.3.2
Future Railway Project

- Station
- KTM
- LRT SYSTEM I
- MONORAIL
- LRT SYSTEM I PHASE II
- LRT SYSTEM II
- ERL
- LRT FUTURE (1)
- LRT FUTURE (2)
- Commercial
- Residential
- Industry
- School
- Hospital
- Cemetery
- Park



Daily Traffic Flow Situation on KL Road Network (2005)/(2008)



- On a daily basis:
- 1.305 million vehicles cross the MRR1 (1.462 mil)
 - 2.125 million vehicles cross the MRR2 (2.381 mil)
 - 70% vehicle trips crossing MRR1 (42,600 vehicles) and MRR2 (86,500 vehicles) during AM peak hour are SOV.
 - 65% crossing MRR1 (39,100 vehicles) and MRR2 (84,500 vehicles) during PM peak hour are SOV.
- Total Volume Entering CPA = 1,260,000 pcu/day (1,411,200)

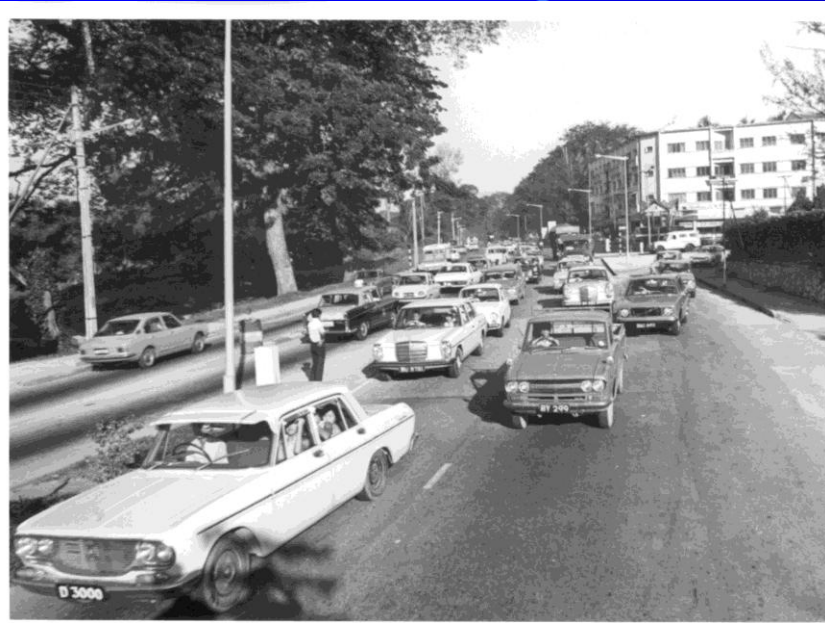
FIGURE

Total Daily Vehicles Crossing MRR1 & MRR2

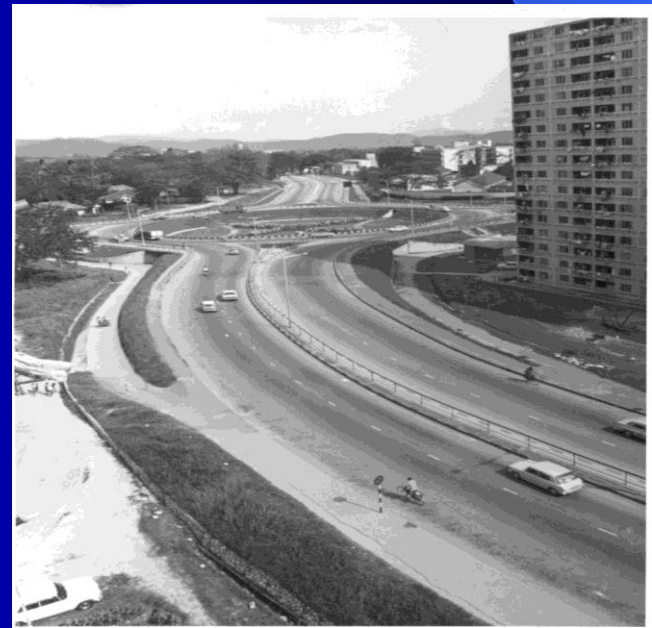
KL's Experience in Addressing Urban Congestion and Public Transport Improvements - Past and Present -

- 1960s
 - Road Constructions and improvements is the solution for traffic congestion
 - Focusing on vehicular traffic and mobility

Jalan Tun Razak: Traffic Congestion in the 1960s



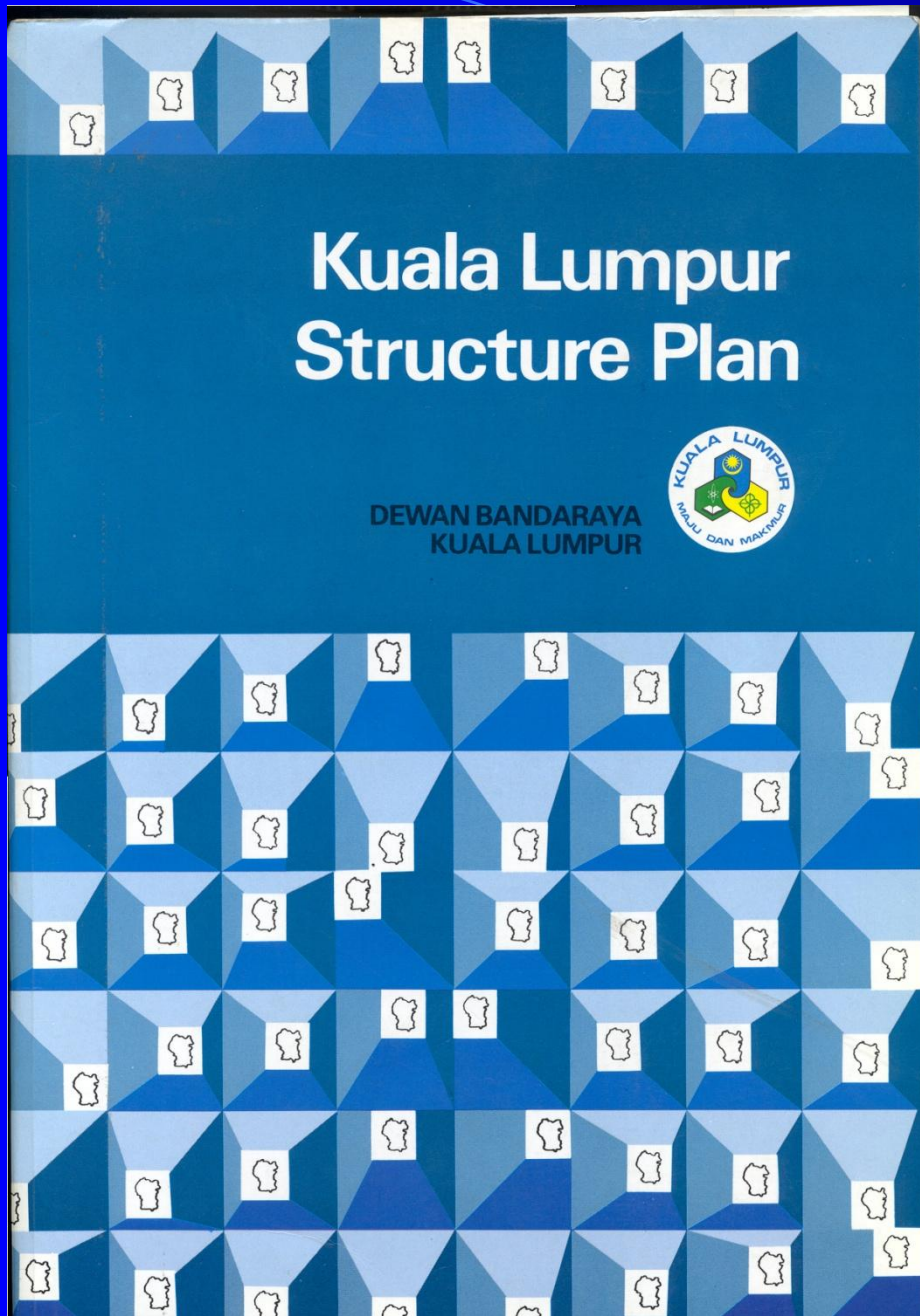
Solution of 60s: Construct new roads and interchange



1970s Solutions

- Realization of ‘more roads more congestion’
- Focus on traffic management
- Setting up Traffic Management Department in DBKL

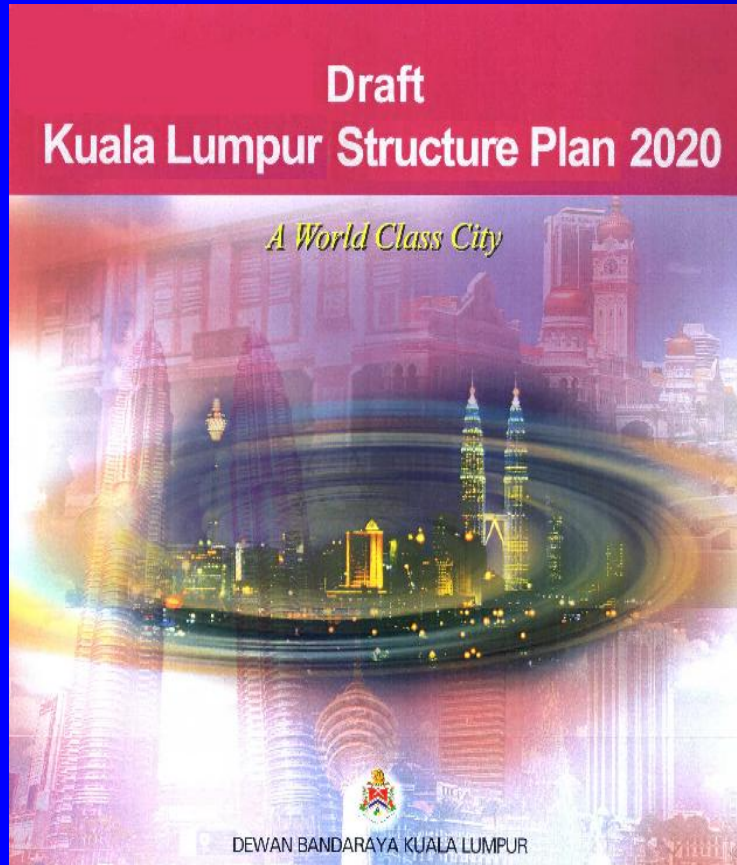
1980s: Integrated Landuse-Transportation Planning



- Balanced Public Transport and Private Transport Policy
- Proposed LRT routes
 - Reorganised bus network
 - Single regulatory authority

2000s STRATEGIC THRUSTS

- To promote a more sustainable and environmentally friendly transport system



KLSP Policies for Public Transport

- TT1: CHKL shall determine **Travel Demand Management** measures to increase public transport usage and liaise with the relevant authorities to ensure that these measures are implemented.
- TT4: CHKL shall establish a **Transit Planning Zone** to facilitate intensification of transit oriented residential, commercial and mixed-use development around rail stations.
- TT5: CHKL shall assist to coordinate the planning, development and operation of public transport and related private transport matters.
- TT6: CHKL shall assist in the implementation of a **fully integrated transportation system** in line with the government's policy.
- TT7: CHKL shall assist in the preparation of feasibility studies for future **extensions to the rail network** and coordinate with the relevant authorities with regard to implementation.
- TT8: CHKL shall assist in determining measures to **improve bus services** with maximum penetration into growth areas and all major employment and retail centres and coordinate with the relevant agencies and operators.

2000s Solutions

- Proposed Strategies for Public Transport
 1. Public Transport Authority
 2. Integrated Ticketing System
 3. New Rail Lines and Extension Lines
 4. Reorganized Bus Routes
 5. Bus Terminals
 6. Park-n-Ride

Revisiting Yesterday's Solutions for Public Transport Improvements

- Undergone 3 major stage of improvements and implementing Stage 4 strategic enhancement
- Fully complying to the strategic plans as proposed but resulting a scenario of 'Yesterday's Solution to Today's Problem'
- Outcome in terms of modal split is below expectation

The highlights of staged improvement of Public Transport

- Stage 1 : introduction of mini bus services in early 1980s
 - HK's model of mini bus services
 - Focus on wider coverage with more buses
- Stage 2 : revamp of bus system operation in early 1990s
 - Algamation of 8 operators & a fleet of 1200 mini buses
 - Implementation of bus lane network

The highlights of staged improvement of Public Transport

- Stage 3 : rapid rail transit implementation in late 1990
 - The Putra & Star LRT system
 - The electric commuter train system
 - The Monorail system

Urban Rail Transportation System



Light Rapid Transit



Light Rapid Transit

Monorail

Express Rail Link



Intercity Commuter Train



The outcome

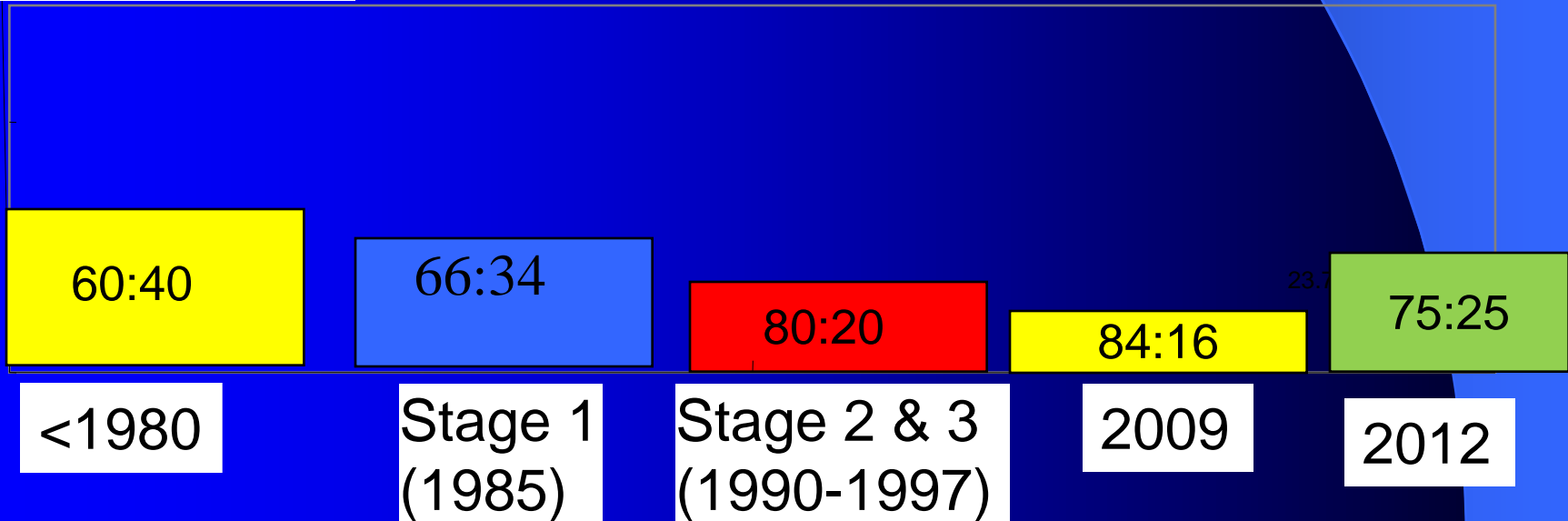
- **The mini bus syndrome**
 - Provide a fast & reliable service at the expense of traffic chaos and passenger safety
 - Totally out of control & eventually abolished
- **The Bus Almagation breakthrough**
 - From 8 operators to 2 and back to 14
 - A complete failure in the bus operation revamp
- **The arena of rapid transit operation**
 - Unprecedented achievement of rail implementation
 - Government intervention to prevent collapse of the rail operation

Contrasting Outcome with Reality

- Expected Outcomes:
 - very reliable public transport system
 - traffic congestion is a thing of the past
- Reality
 - more tolls to be paid
 - more congestion
 - more grouses for inefficient public transport

Change of Modal Split Composition : 1980 - 2009

Modal Split ratio
(Private : Public)



Lessons Learned From Yesterdays' Solutions

- **Top Commitment and political will**
- **Pull Factor is not enough**
- **Failure to gauge the importance of integrated bus/rail transit operation**
- **No system to effectively monitor and regulate performance of public transport operations**
- **Severe time-lag between planning and implementation**

The Transformation Improvement of Public Transport

- Stage 4 : The NKRA Approach
 - Part of the Government Transformation Programmes
 - Urban Public Transport is one of the six National Key Result Area
 - Focus on what the 'Rakyat' wants
 - Quick Win with Great Impact
 - Designate Ownership for programme implementation, coordinated and monitored by Special Unit responsible to Prime Minister

- Stage 4: The NKRA Approach–The Big Bang & Quick Win
 - **Debottleneck system capacity**
 - Increase rail capacity by adding more coaches
 - Increase number of operating stage buses
 - **Enhanced ‘Pull’ factor to draw passengers to public transport**
 - P & R at strategic rail stations
 - Introduce new BET services
 - Revamp common ticketing to integrated ticketing
 - Utilising ITS for stringent performance monitoring
 - **Relocate terminal facilities for inter-city express services**
 - Integrated Transport Terminals at fringe of city centre
 - **Regulatory restructuring**
 - SPAD
 - **Managing demand through “PUSH”**
 - Congestion charging

Expected Outcome from NKRA

- **Targeted Modal Split by 2012: 25% for Public Transport Usage in Peak Commuting Periods**
- **Bus services**
 - Addition of 850 buses operating on the road
 - 4 Bus Express Transit & 2 Bus rapid Transit services
 - 1700 unit of bus stops to be equipped with shelters
- **Rail services**
 - 61 x4-car train sets for existing LRT KJ line
 - 14 new trains for LRT AMG line
 - Completion of LRT extensions
 - Doubling the capacity of existing monorail
 - Refurbished 15 electric commuter EMUs
- **Terminals & Integration**
 - Completion of two Integrated Transport Terminals
 - Upgrade 2 existing terminals to be Inter-urban bus terminals
 - Addition of 6800 parking spaces for P&R
 - Integrated Enforcement & Performance Monitoring for public transport services

CONCLUSIONS

- Managing urban transportation systems in a city is a dynamic process and requires continuous innovative strategies.
- With the strategies implemented, we are optimistic to say that public transport usage will be increased and congestion will be within tolerable level
- Shaping a positive trend of public transport as the major mode of travelling choices

THANK YOU