

TRANSPORTATION AND LOGISTIC CONFERENCE 2009  
Impiana KLCC Hotel Kuala Lumpur  
25<sup>th</sup> March 2009

# Integrated mass rapid transit system

Delivering inter-connectivity with  
productivity

M Zulkarnain Hamzah  
TRANSIT Klang Valley

## So...who are you?

- The Association for the Improvement of Mass-Transit (TRANSIT), Klang Valley
- A united voice for diverse public transport users
- Our Goal
  - To ensure the voice of the passenger is heard in public transport planning, regulation, and operations
  - To increase awareness about what public transport can bring to our communities

## In a nutshell

- ISSUES
- SOLUTIONS?
- MINDSET CHANGE

What is public transport?

**TRIP**


- Collective movement of people

**ROUTE**

- Servicing common corridor with greater efficiency

**PLATFORM**

- Facilitated by pooled resources (stations, street signals, dedicated lanes etc)



Imagine balik kampung – NO PLUS Highway

Congestion: less quality time with family, chance that distant family members injured or died

Inflation-adjusted PLUS construction cost – 10 billion

Congestion – 2% GDP Productivity loss annually (fossil fuel, accidents)

SCENARIO WITHOUT PT...

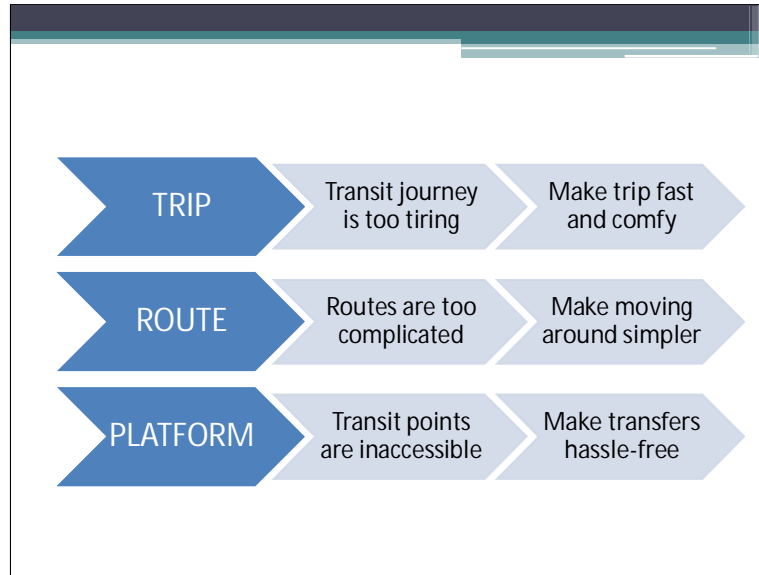
Quality of mobility ... social wellbeing, life...

PRESENTATION - Urban Areas – VIABLE

The time we take to get to work has hardly changed over the last 100 years, but the distance covered has multiplied several times.

Technology – efficient to work in close proximity in the CBD area

PT – tool for development – high density Manhattan



## Integrated mass rapid transit system

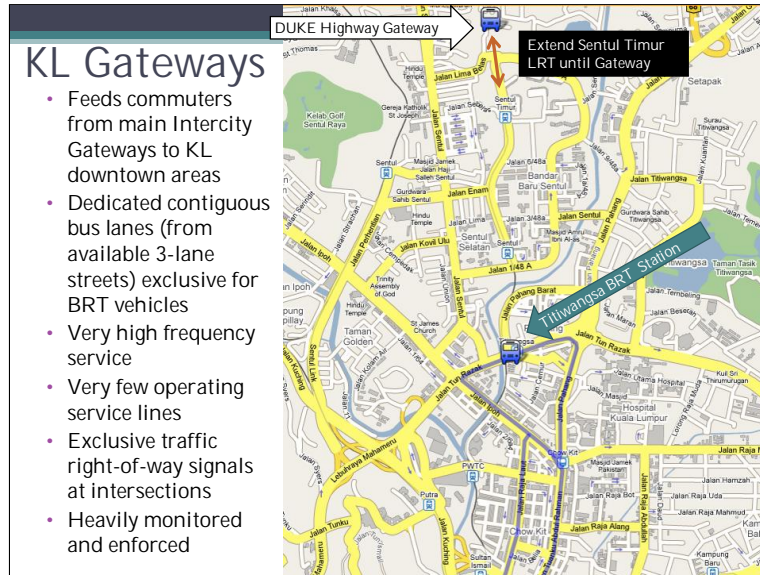
- The question is, how to move a whole lot of people fast and easy?
- The answer is fairly easy: integrate all support systems for mass rapid transit, and have all of it properly coordinated

## SOLUTIONS: Are we on the right track?



35 BILLION next 5 years

- Suruhanjaya Pengangkutan Awam Darat
- Soft loans for new buses
- Additional capacity for Komuter and LRT
- More RapidKL buses and driver
- Kota Damansara – Cheras LRT/MRT
- Extensions of 2 LRT lines:
  - Putra Heights to USJ to Kelana Jaya
  - Putra Heights to Puchong to Sri Petaling



DBKL Draft Str Plan – PT 60% share

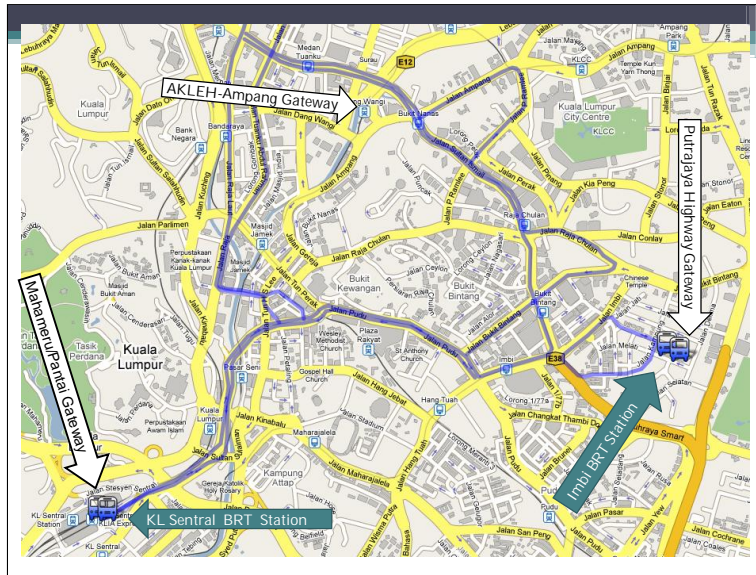
Effectiveness – working population out of CBD r/hrs  
2007 – 1 million commuters cross MRR1 = 600,000

RAIL: Walking – mean to access transit points

CCTV, safe, wide and accessible walkways, pedestrian crossings, trees that can resist storm damage

DBKL plan on skybridges and walkways – budget to spread the convenience to entire city?





### Maximize current capacity on available tech:

KJ Line: 4 coaches, 90 secs headway  
7,000 TO 25,000 pdph

SP/A Line / KL Monorail: 8 coaches, 2 mins. Headway  
4:30-7:30pm – less than 100,000 to 450,000

BRT – 50,000 r/hrs Jalan TAR/Pudu/Raja Chulan  
Bus lanes, priority signals and queue jump

Gateway – access to rest of Klang Valley

Mid-term: MRT – KL Sentral – Imbi via RChulan 500,000

(Less than \$5 billion, expandable to KT-Cheras)



**Have the  
transit  
operators  
overshoot in  
capacity?**

Sultan Selangor said in Early March: public-private transport ratio 10:90 - 50:50

"One-Hour Transport Module" - bus, rail and taxi network

Early March, Khalid quoted to say: wants the light-rail transit (LRT) system linked to Klang, Kajang, northern parts of Selangor to as far as Kuala Kubu Baru.

WP - 10% within transit catchments of existing rail stations. Selangor?

2007 – 1.6 million commuters cross MRR2 = 800,000

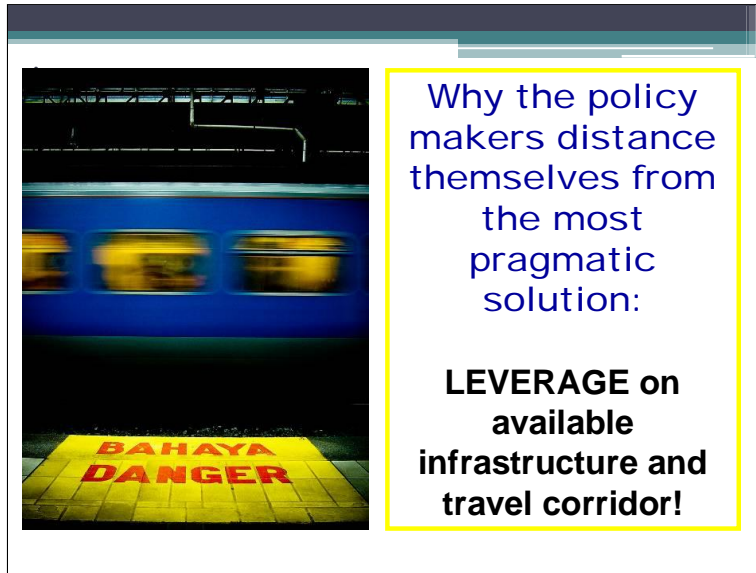
KTM, LRT, ERL : Less than 100,000

Max. capacity of 3 LRT Lines – 300,000...

Extension of LRTs = Pathways are unnatural

Putra Heights/S.Jaya – north to Kelana Jaya -> EAST

Putra Heights/Puchong – east to Sri Petaling -> NORTH



KTM Komuter – 8 coaches @ 5 minutes

Additional quarter million people away from CDB

ERL – expensive infrastructure – double deck commuter trains? Serdang Puchong...

Komuter: Add express and limited stop services, upgrade tracks for stability

Quadrupling of KTM Tracks to Klang, Rawang?

Komuter Bypass Serendah-Port Klang-Seremban

ERL: Open up stations at Serdang and South of Puchong, connecting to LDP



Cost per passenger per km: cheapest mass rapid transit  
 r/hours: max of 150,000 people/corridor

TransMilenio: RM 40 million per km

PUTRA LRT: RM 200 million per km

Extension KJ / SP Lines, > 10 billion, land acquisition

High capacity KT – Cheras MRT Line, > 10 billion

Less than RM 15 billion left. Rolling stocks, coaches?

Depot? Infrastructure?

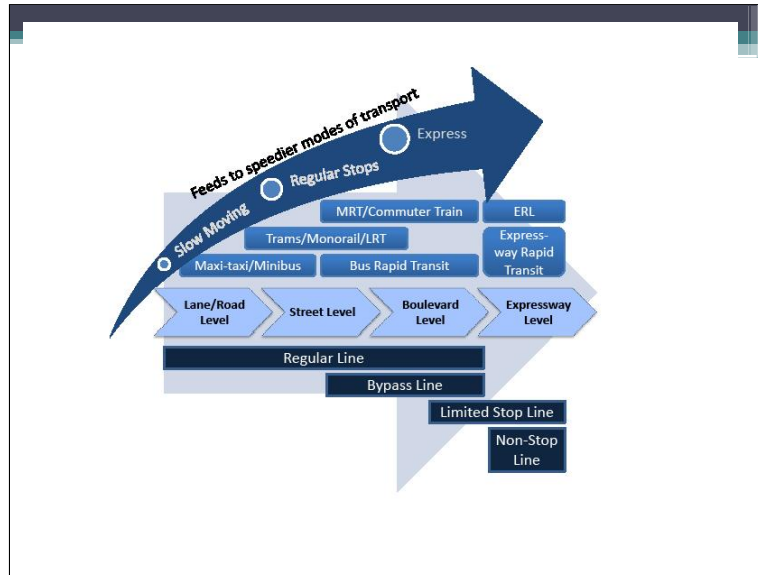
BTS Terminal: costs more than HALF billion... Gombak (north) and Sg Buloh (east cost)?

Other terminals badly needed in Klang Valley?

Rapid Transit infrastructure outside of Klang Valley and Selangor?

BRT, shared infra, excl. r-of-way:

Fed Hway, Loke Yew, Klang Lama, Puchong



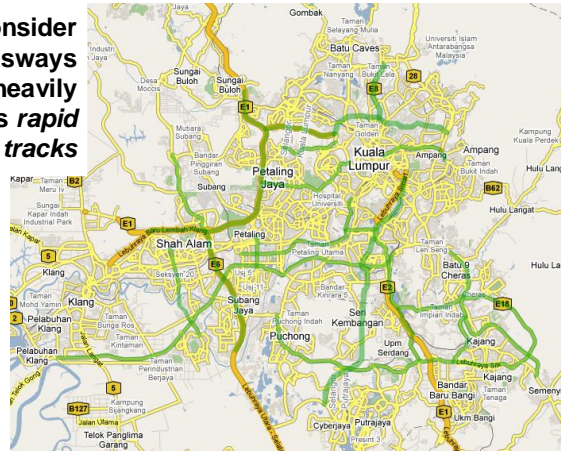
Preference of using private vehicle

Highways cut communities apart, trunk bus routes adapt

Open to different choices of Public Transport behavior

## Expressway Rapid Transit (ERT)

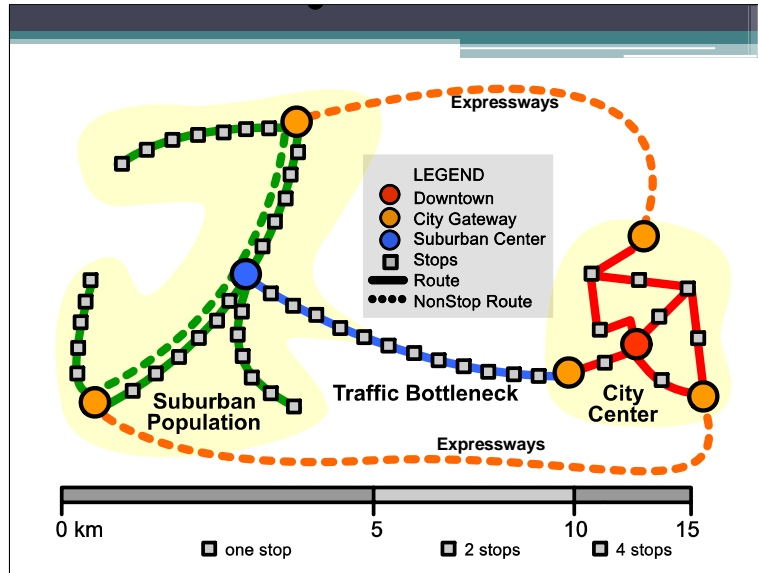
**Consider  
expressways  
not heavily  
utilized as *rapid  
transit tracks***



Closed system highways – toll rates, adjust traffic level for ERT buses, no need for bus lanes

Terminals@strategic points - satellite towns Klang Valley, well-distanced from each other

Bus never leave the highways



Effective than RapidKL's current Hub-N-Spoke, trunk lines stuck in bottleneck corridors

Reach Kuala Lumpur thru gateways

KL Sentral alone is insufficient, not properly designed to be integrated hub, does not include buses in planning

PANTAI/SPRINT Hway feeds to KL Sentral

NKVE/DUKE Hway feed to A/SP Line LRT (Sentul)

KESAS/P'jaya Hway feeds to Monorail Line (Imbi)

AKLEH feeds to KJ Line (Dang Wangi)

## EXPRESSWAY RAPID TRANSIT (ERT)



ERT terminals on top of highways across KV  
Connect to local terminals

A 13m long 70-passenger express bus/local bus can free up  
>2km of busy single lane traffic

30 buses (10 million) – replace 80kph SOV on one AKLEH (1  
billion)

No asset expenditure: incentive for interstate express  
buses to be contracted out ONLY during r/hours

30 secs headway @ 70/bus @ 10 corridors : 250,000

20 terminals @ ¼ billion each = RM 5 billion, covers entire  
Klang Valley areas that are connected hways





CBD to suburban areas. Last mile problem – reach to individual houses from last transit point (SP/A Lines)

Local lines, sometimes taking more than 30 minutes, Zig zag into deeper suburban areas (bad town planning)

Simplify local bus routes – boulevards and big roads

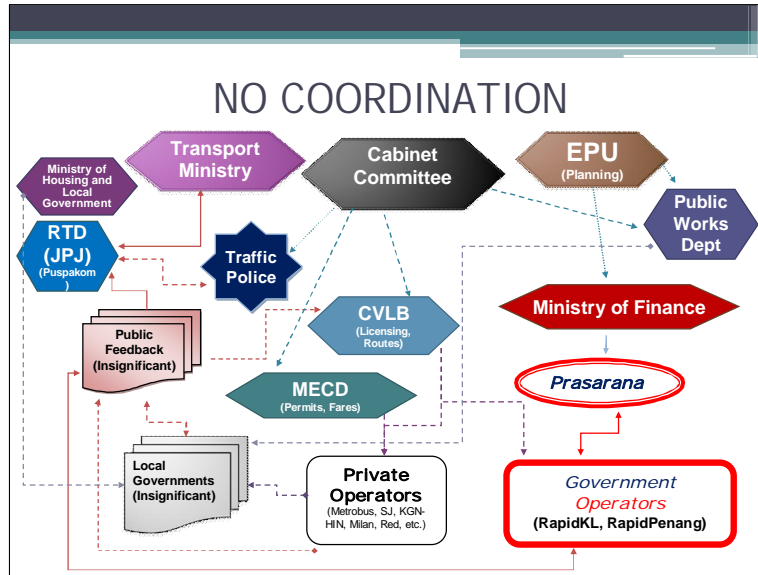
Same volume, achieve higher frequency 5-7 minutes

Local councils - short cuts to reach common transit points, rather than buses have to go deep to go to every housing pockets

Walking – missing social parameters in suburban planning: TRANSIT-oriented development... make it safe, secure and comfortable

Bike racks (rather than allocating space inside train coaches for bikes)

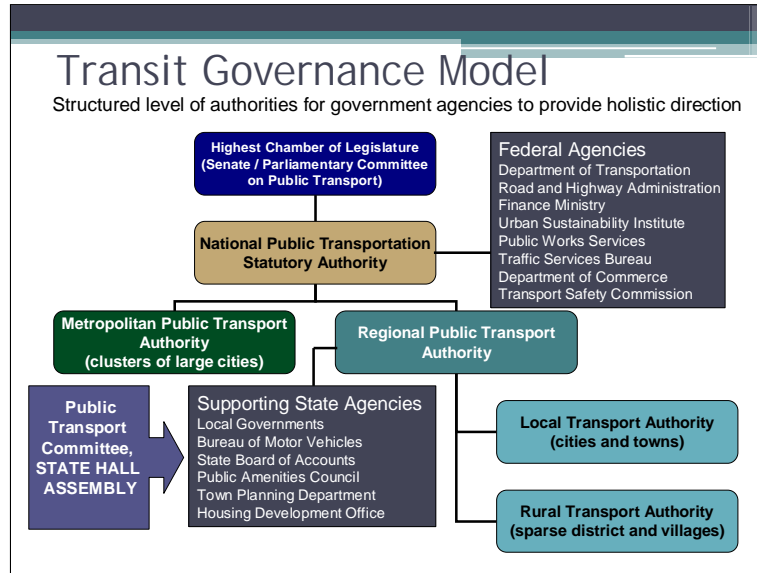
Energy-saving multistory automatic car park at busy transit points



Public-funded PT - a mobility right for every individual whose livelihood is affected by the population density and business activity of the surrounding area.

## Investment NOT subsidy – negative externalities

Subsidize roads, lamp posts, traffic lights for private vehicle users?



Parliamentary and DUN Committees

National Public Transportation Authority

Introduce and maintain National Standards

Integrated Planning across Malaysia

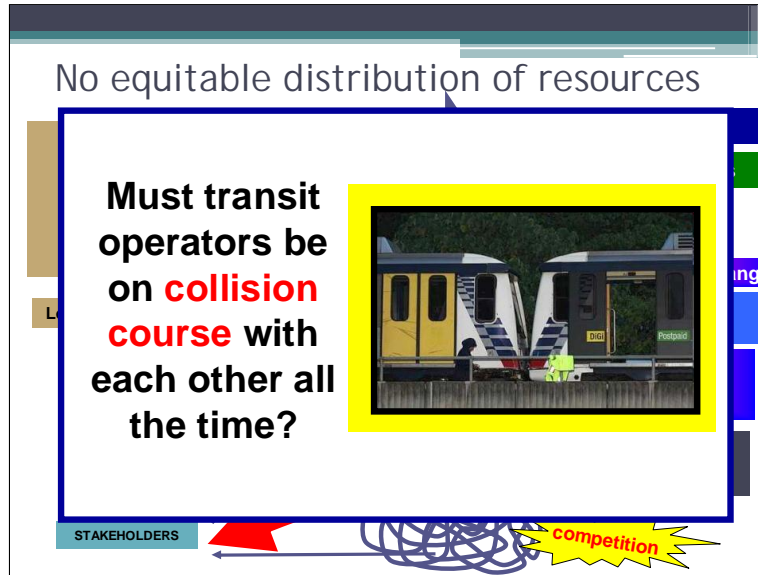
Local/Regional Public Transport Authorities

Regional and Local Planning e.g for Klang Valley

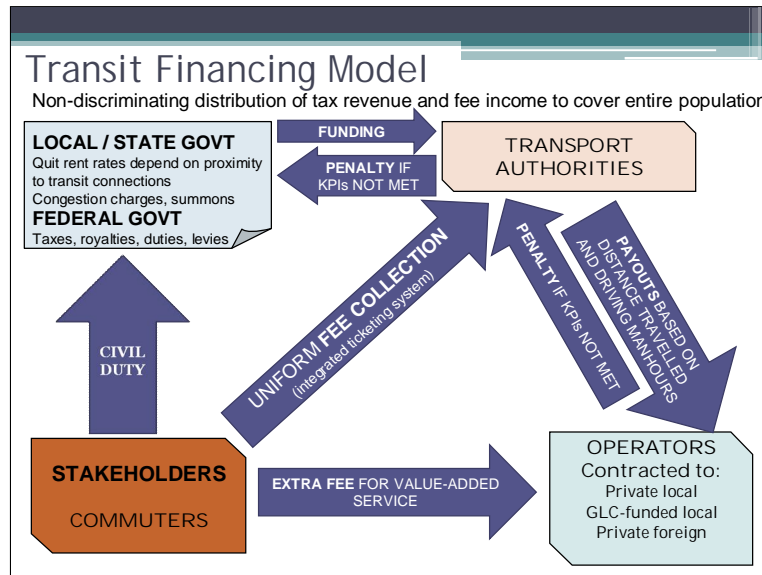
Controls routes, fares, assets, traffic enforcements, transit zones

Operators under contract to provide services

Encourage and use public feedback



If we think mass transit thrives in the presence of competition without governmental interference, then remember the single biggest nemesis to mass transit is private transport. Private transport monopolizes most of the government-funded infrastructure that mass transit relies on.



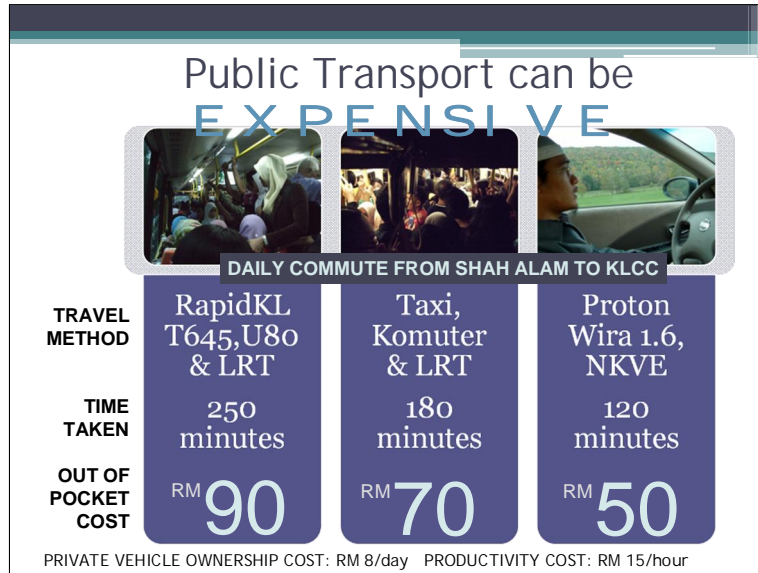
Authority → provides & owns all vital infrastructure (incl. routes)

Operators → contracted to the Local or Regional Authority for a 3-5 year period

Contract → through open tender and KPI

Operators are paid a contract fee for services provided with additional incentives for meeting/exceeding KPI

Feedback from passengers becomes vital



## INCENTIVES FOR PUBLIC TRANSPORT

Underinvestment of mass transit – stimulus package

- Every \$1 invested in public transportation projects generates up to \$9 in local economic activity.
- Every \$1 billion invested by the federal government in public transportation infrastructure supports approximately 47,500 jobs.

Pound-to-pound, with proper implementation (CAT)  
RM35 billion supports nearly 2 million job, generate at least RM 200 billion economic activity

City State – US\$40 billion... China – nearly US\$600 billion

MUST BE Supply driven. MOT STRATEGIC MASTERPLAN 2008-2013

## Get started NOW!

- Freeze land grabs from potential transit zones
- Get City Councils to improve walkability
- Faster, convenient and reliable rail lines
  - Upgrade Komuter tracks for stability & express line
  - Increase LRT and Komuter capacity & frequency
  - Include ERL as part of mass transit planning
- Park-n-ride facilities (i.e. Batu 3 Stadium, Lembah Subang RapidKL depot)
- Have a true hub and spoke (and rim) model
  - Put more nonstop E-service lines, not Cyberjaya DTS
  - Use expressways, avoid bottlenecks
  - Work with city councils to simplify local routes
  - Enforce emergency lanes as dedicated bus lanes

## FAITH IN PUBLIC TRANSPORT

Making it easy for people to move around is part of faith

✿ *"Belief has over sixty branches. The best of them is the words, 'There is no god but The God (Allah)' and the least of them is to remove an obstacle from the road." (Hadith)*



Abu Haraira reported Allah's Apostle (may peace be upon him) as saying: When you disagree about a path, its breadth should be made seven cubits.  
(MUSLIM)



## THANK YOU FOR YOUR TIME

Muhammad Zulkarnain Hamzah  
Shah Alam, Selangor

019-280-0608  
[zk9@hotmail.com](mailto:zk9@hotmail.com)

**Association for the Improvement of Mass Transit (TRANSIT)**  
<http://transitmy.org>  
[klangvalley.transit@gmail.com](mailto:klangvalley.transit@gmail.com)

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