

# ‘Smart mobility



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**ITDP**  
Institute for Transportation  
& Development Policy

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# Future of our cities....





















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, BUT.....



































**SPENDING 3 DAYS IN DELHI,  
INHALING THE WORLD'S MOST TOXIC AIR  
COULD SHORTEN YOUR LIFESPAN BY 6 HOURS**

Road crashes to be 3<sup>rd</sup> biggest killer

Source: <http://delhibreathes.org>



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Is this the future of  
our cities?





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NO! of course not!

But....

What's the solution?

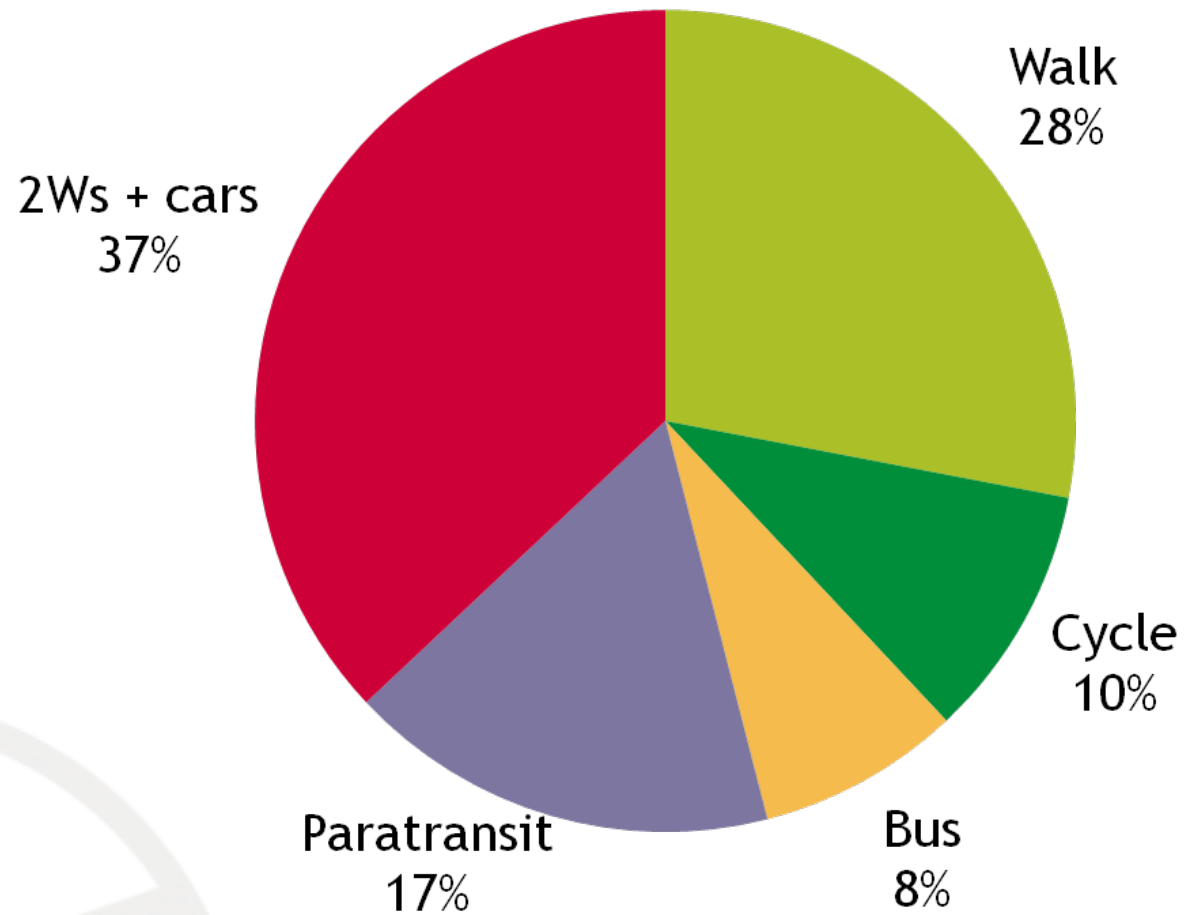


Let' see some facts!





# Typical mode share of Indian cities



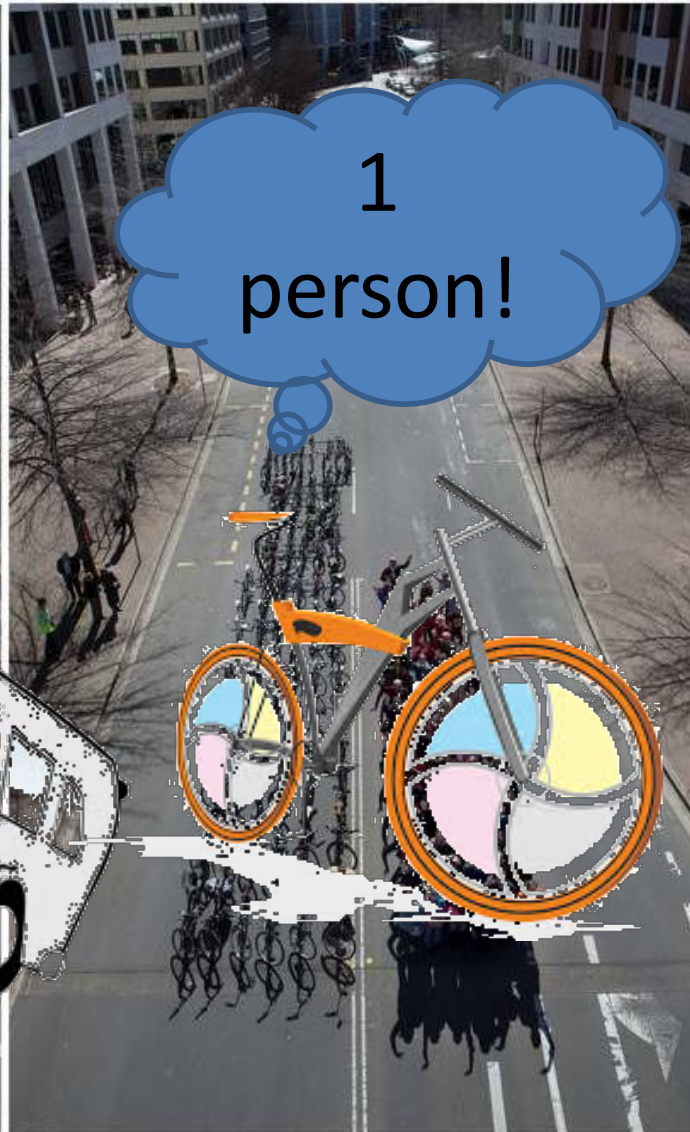




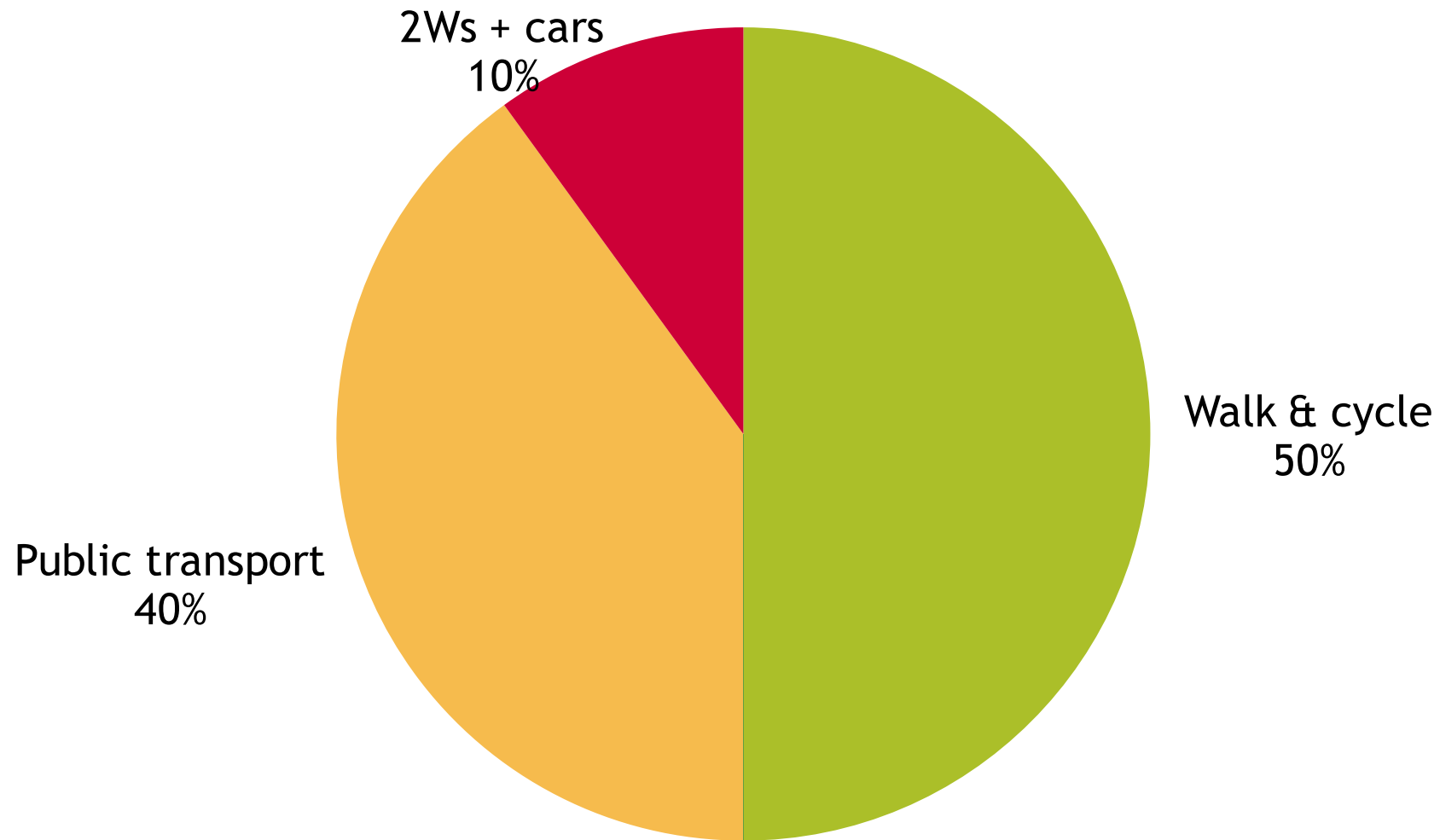


# Remember the fact!

## Space Vs occupancy



# Set Vision for your city!



*Pune CMP goal*











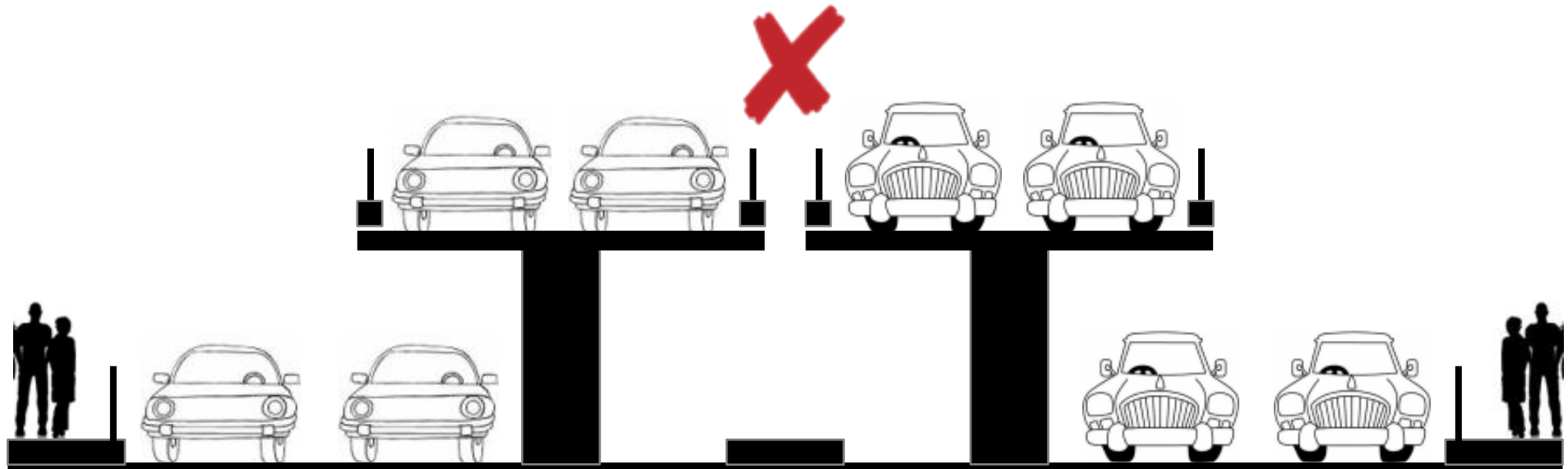
# More roads, more vehicles!



Capacity= 3,000 pphpd



# More roads, more vehicles!



## Elevated road

Capacity= 5,000 pphpd

Capacity increases only  
**1.5 times**

Min.  
Rs 50  
Cr/km



# Better public transport, better mobility!



## BRT system

Capacity= min 15,000 pphpd

Capacity increases  
**5 times**

Rs 15  
Cr/km



# Seoul in 1970s



A 5.4 km highway ~\$100 million in the 1970s



Today!

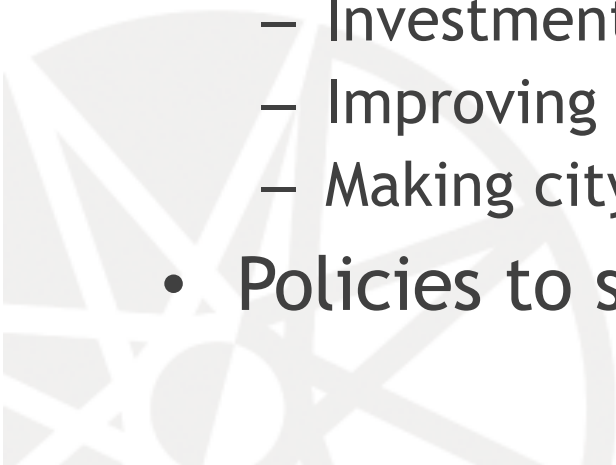


Seoul, October 2005



# Make Investments towards sustainable transport to achieve the goal

- Smart cities mission
  - Complete streets
  - BRT
  - Pedestrianisation
  - Use of technology
- City annual budget
  - Priority to long term sustainable transport projects
  - Streets for people not for vehicles
  - Investments in public transport
  - Improving walkability
  - Making city cycle friendly
- Policies to support projects





# Complete streets

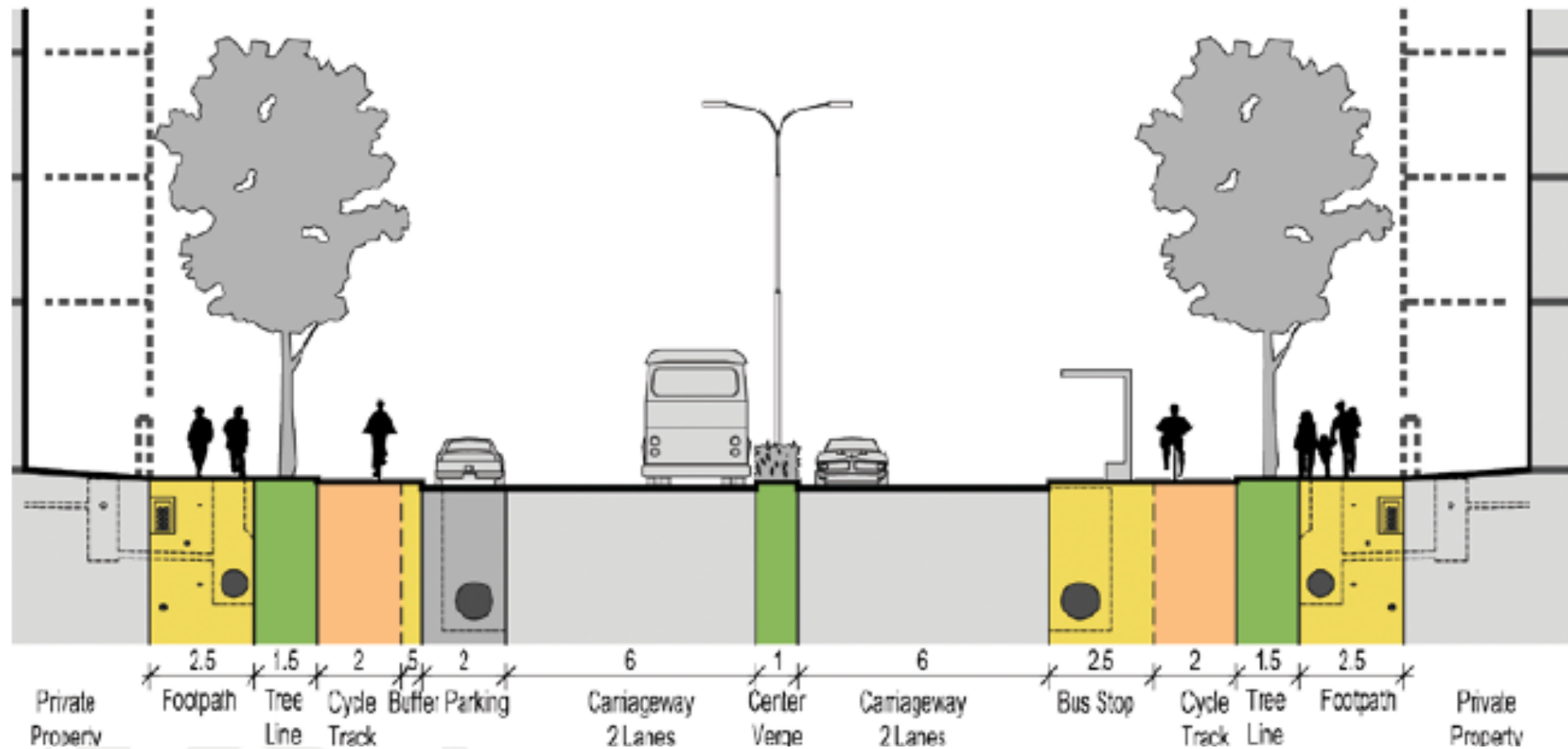


# This is not a complete street!





# Complete street



# Hire 'street design expert'!

- Vision to transform the street into 'complete street'
- Appointment of qualified urban designers to design the streets is must!
- Implementation in phases
- In-house Urban design cell for neighbourhood streets





# Projects need policies to support!

- Pedestrian safety policy
- 'Urban street design guidelines' to design the streets
- Bicycle plan for bicycle infrastructure

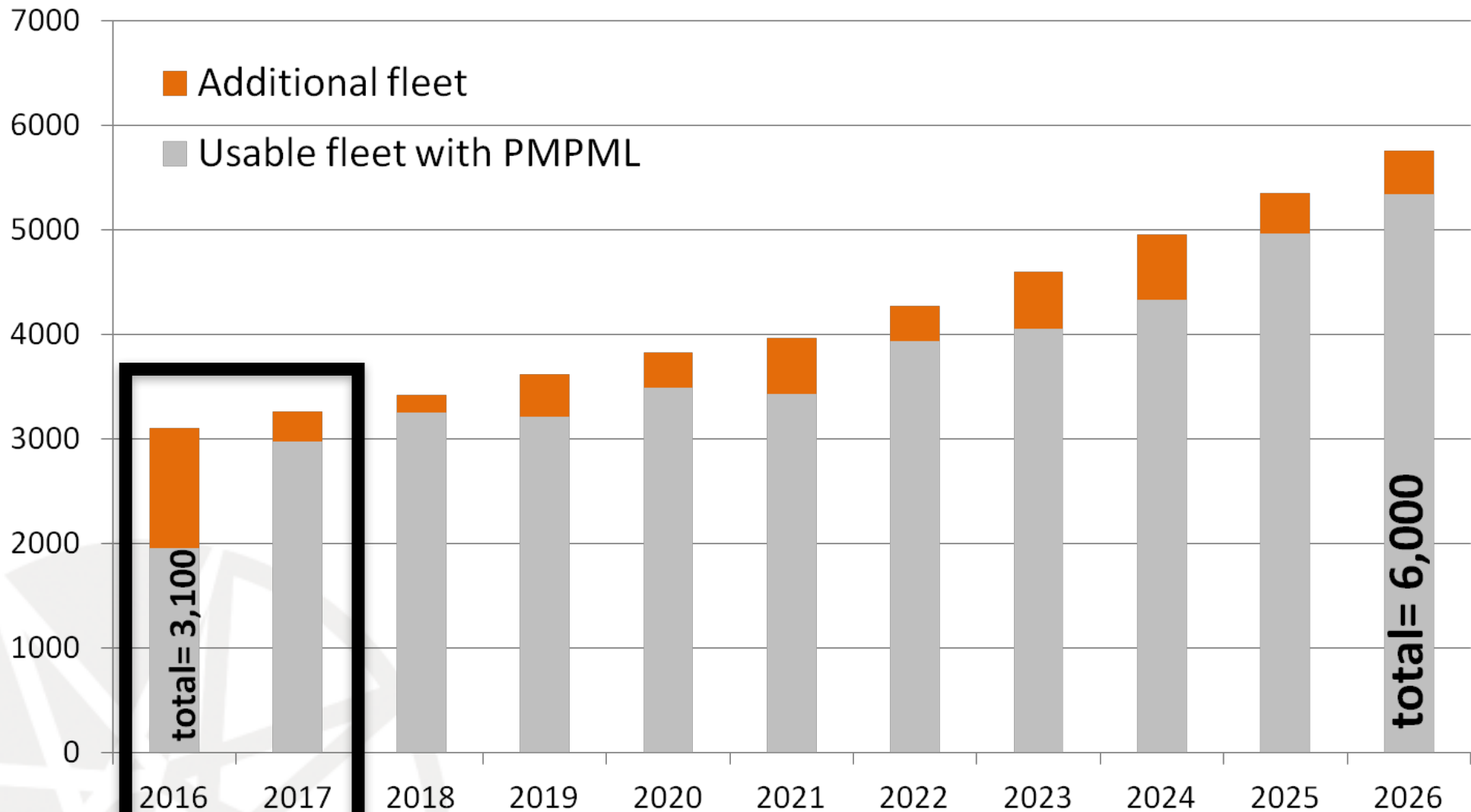


# Strengthening of public transport



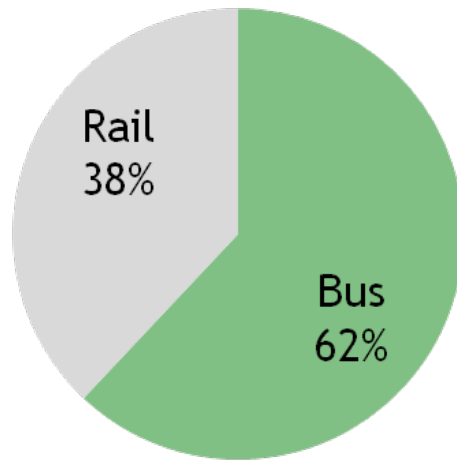


# Fleet deployment with vision in mind

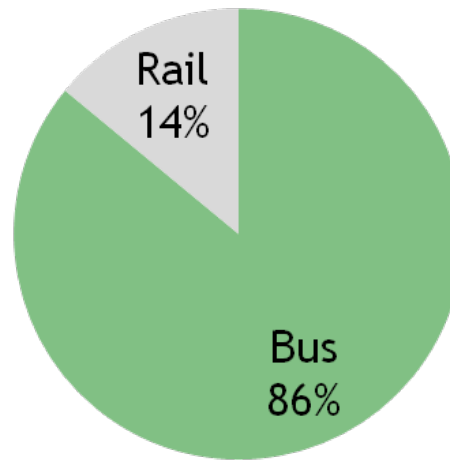


# Buses are more popular across the world

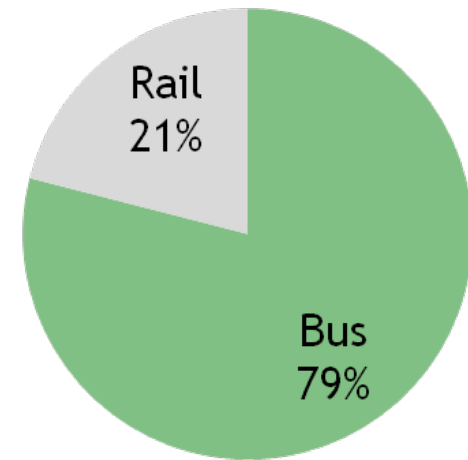
**London**



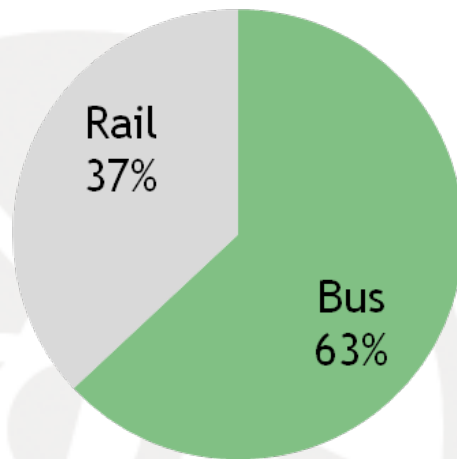
**Mexico City**



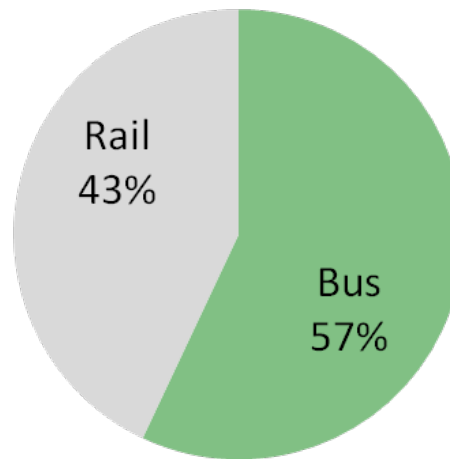
**Chennai**



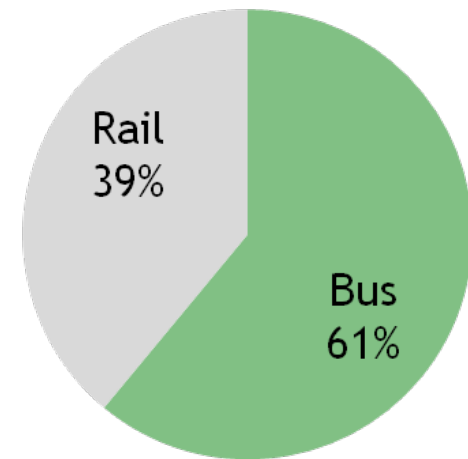
**Sao Paulo**



**Hong Kong**

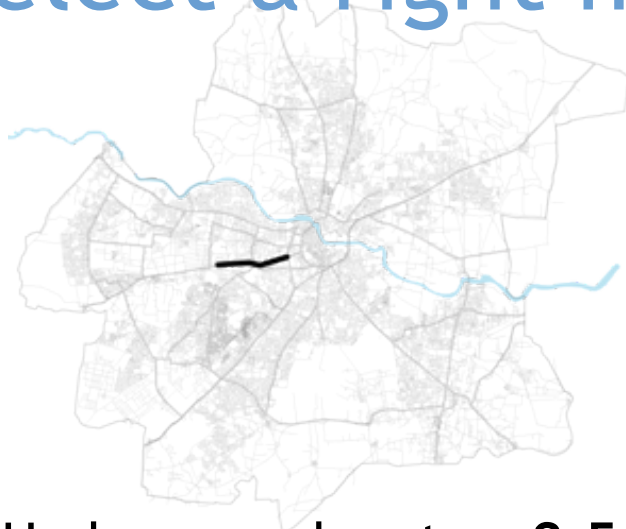


**Singapore**

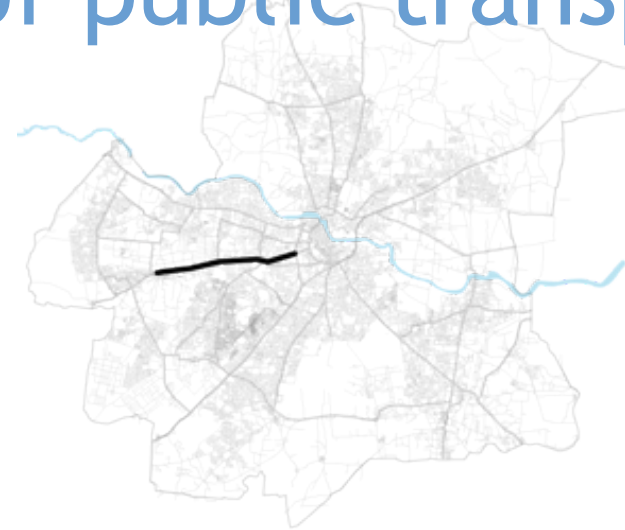




# Select a right mode of public transport



Underground metro: **2.5 km**



Elevated metro: **5.0 km**



Monorail: **6.7 km**

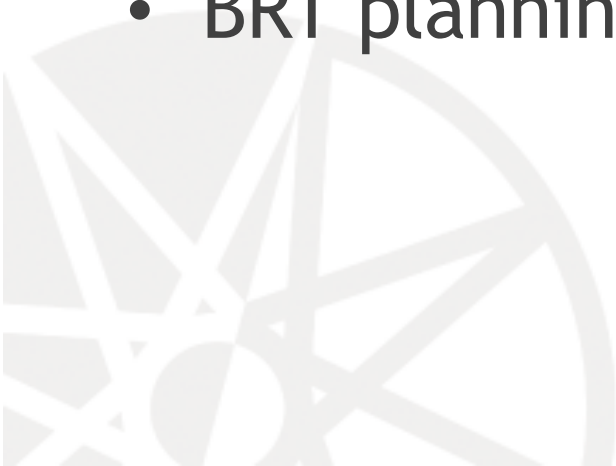


BRT: **65 km**

*What will ₹1,000 crore accomplish?*

# Bus strategy

- Bus procurement committee
- Urban Bus Specification-II compliant buses
- Market research
- Use of technology
- Citizen engagement
- BRT planning





# Citizen engagement- vote for the best bus graphic!

## प्रवास नवा, पर्याय नवा!



आपणच निवडा आपल्या पीएमपीएमएल बसची रंगसंगती

Vote for the best bus graphic of your choice for PMPML bus

### Option

1

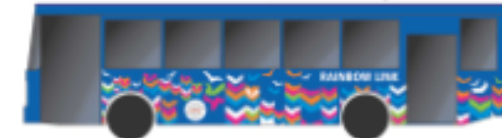
हा पर्याय आवडल्यास  
७८८७८ १०००१  
व्हा टोल फ्री क्रमांकावर  
मिस्ड कॉल द्यावा

To like this option,  
give a "missed call"  
on toll free number  
78878 10001

RAINBOW INDRADHANUSHYA BUS रेंबो इंद्रधनुष बस



RAINBOW INDRADHANUSHYA LINK BUS रेंबो इंद्रधनुष लिंक बस



### Option

2

हा पर्याय आवडल्यास  
७८८७८ १०००२  
व्हा टोल फ्री क्रमांकावर  
मिस्ड कॉल द्यावा

To like this option,  
give a "missed call"  
on toll free number  
78878 10002

RAINBOW INDRADHANUSHYA BUS रेंबो इंद्रधनुष बस



RAINBOW INDRADHANUSHYA LINK BUS रेंबो इंद्रधनुष लिंक बस



### Option

3

हा पर्याय आवडल्यास  
७८८७८ १०००३  
व्हा टोल फ्री क्रमांकावर  
मिस्ड कॉल द्यावा

To like this option,  
give a "missed call"  
on toll free number  
78878 10003

RAINBOW INDRADHANUSHYA BUS रेंबो इंद्रधनुष बस



RAINBOW INDRADHANUSHYA LINK BUS रेंबो इंद्रधनुष लिंक बस



मतदानाचा काळावधी  
५ ऑक्टोबर ते १२ ऑक्टोबर २०१६

Voting Open from  
5<sup>th</sup> October to 12<sup>th</sup> October 2016

# Citizen engagement for the BRT

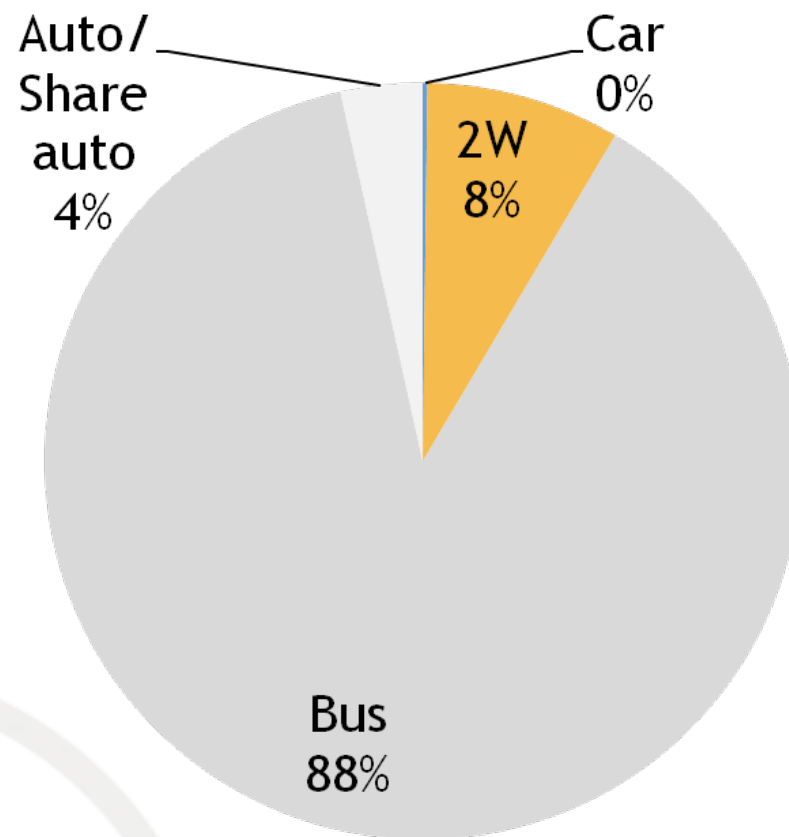




# 'Rainbow' BRT first 8km long corridor



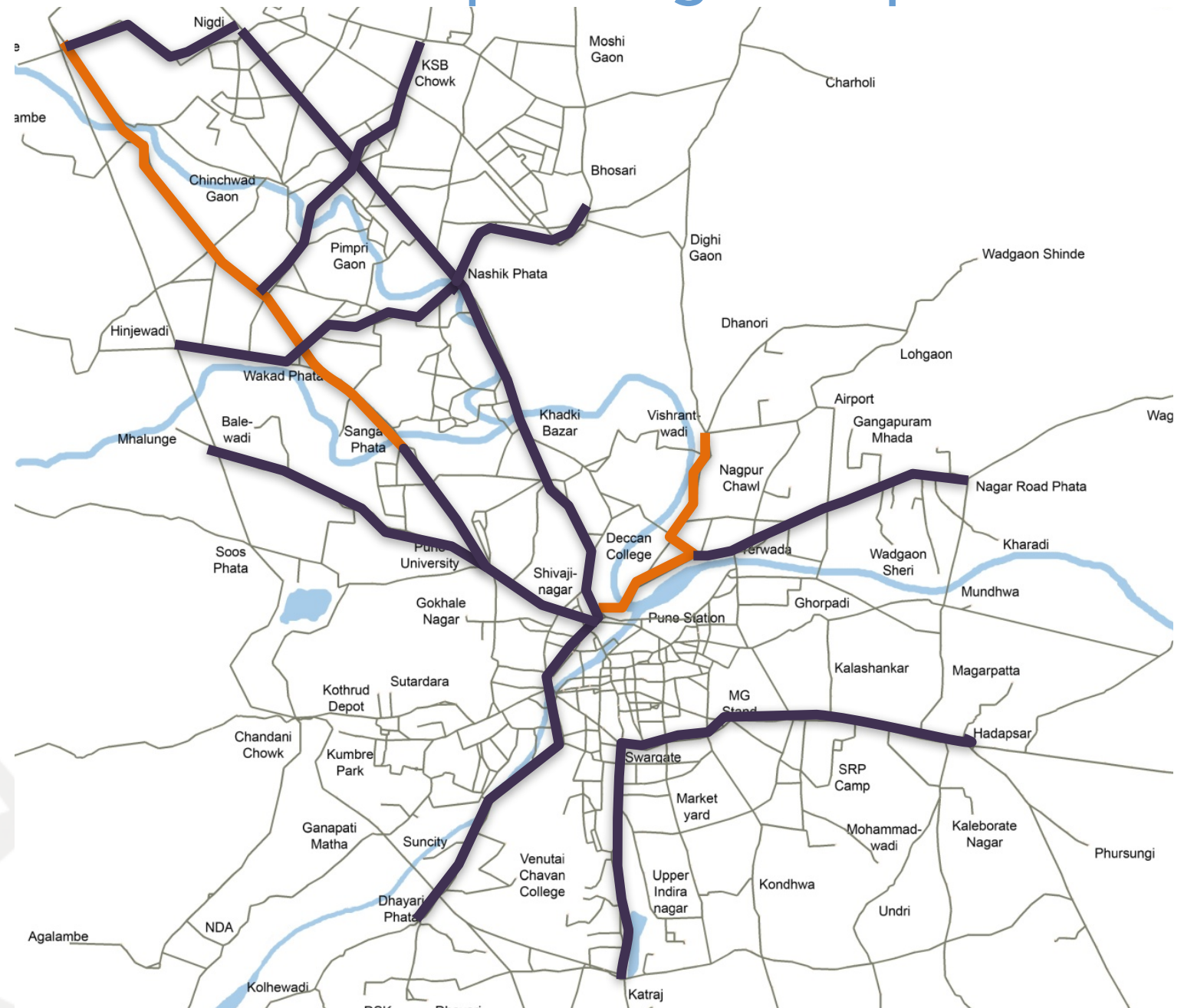
# Mode shift! Response to BRT



Source: ITDP surveys, month 02



# BRT expansion based on passenger response



# Use of technology

- Common mobility card known as “MI” card
- Around 2,000 GPS enabled buses
- Business plan for public transport
- Central command and control centre





Working on the demand side of  
transport



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‘P’ for Parking!





More Parking  
Demand

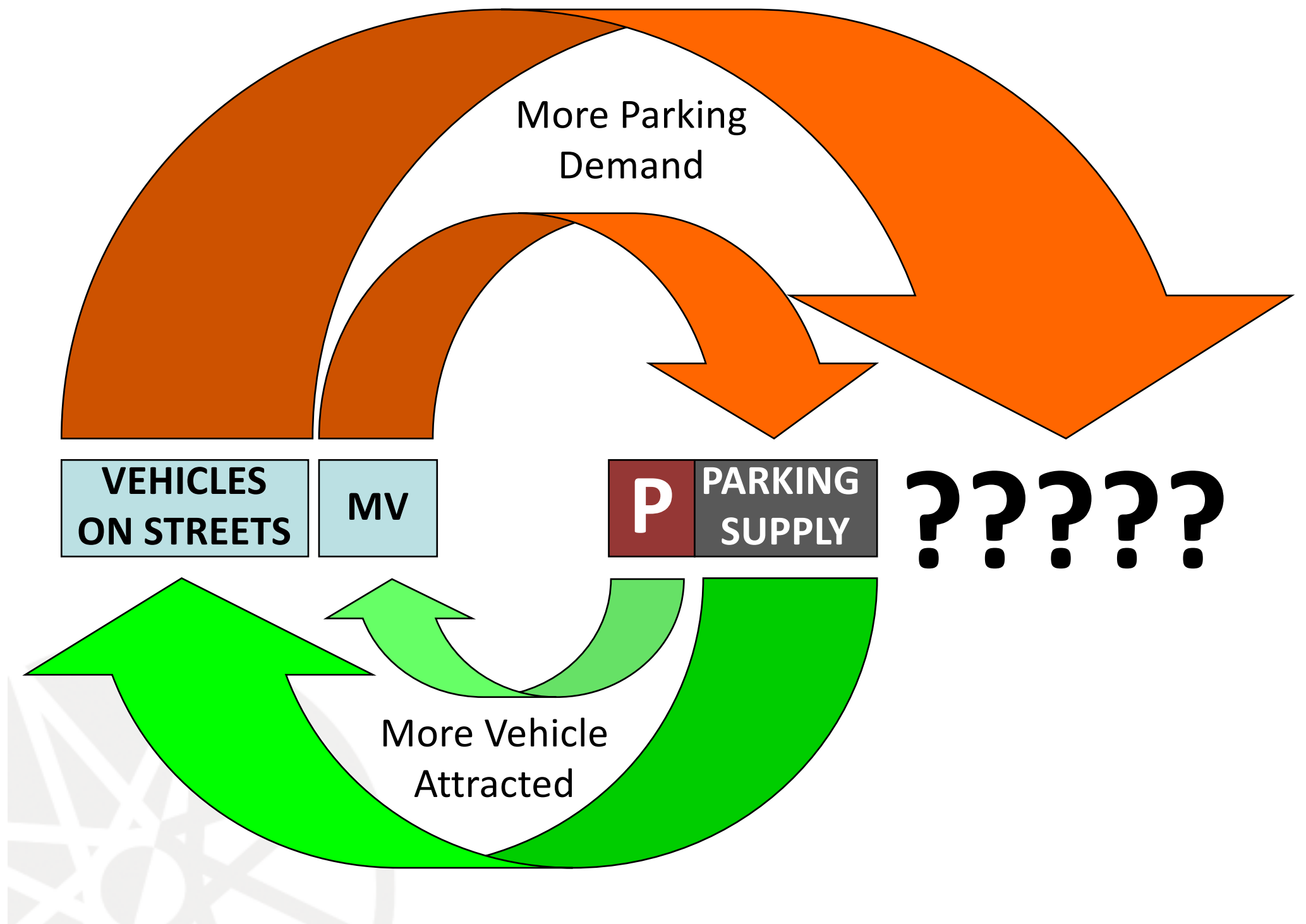
VEHICLES  
ON STREETS

MV

**P** PARKING  
SUPPLY

??????

More Vehicle  
Attracted



# City needs a progressive parking policy

## Principles:

- Parking is not a right but a commodity
- Telescopic parking charges

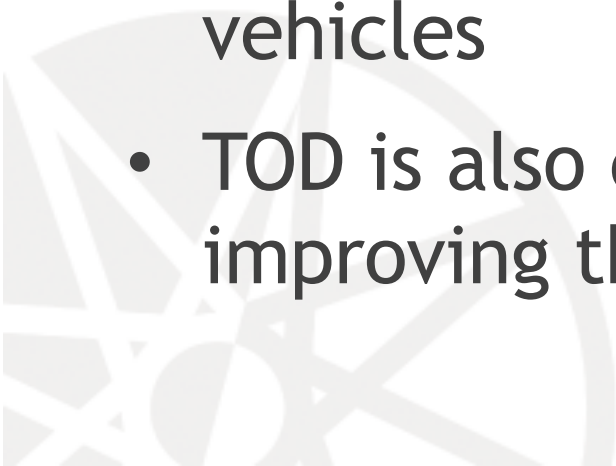
## Goals:

- 40% trips by public transportation
- Reducing the vehicle-kilometers travelled.
- Transforming 10% on street parking spaces to public open spaces by year 2031



# Transit oriented development (TOD)

- TOD is not just ‘increasing FSI along the transit corridors’
- TOD is ensuring better access to public transport
- TOD is putting ‘parking caps’!
- TOD is discouraging the use of private motor vehicles
- TOD is also designing public spaces and improving the urban design character!



# Summary: Pune's plans to achieve the CMP goal

125+ km of complete streets (PMC)

100+ km of BRT (region)

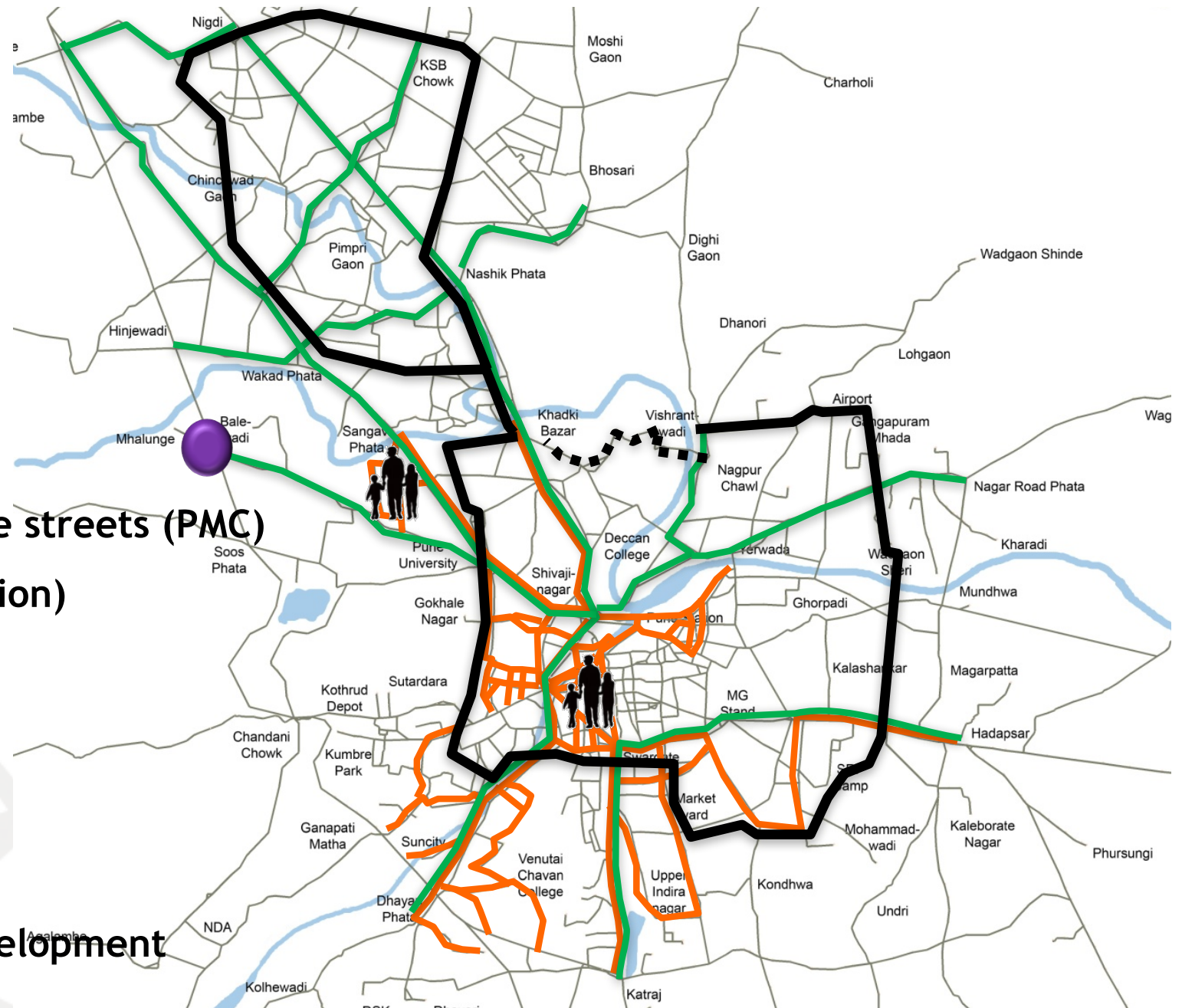
31km HCMTR (PMC)

Transit hub (SCM)

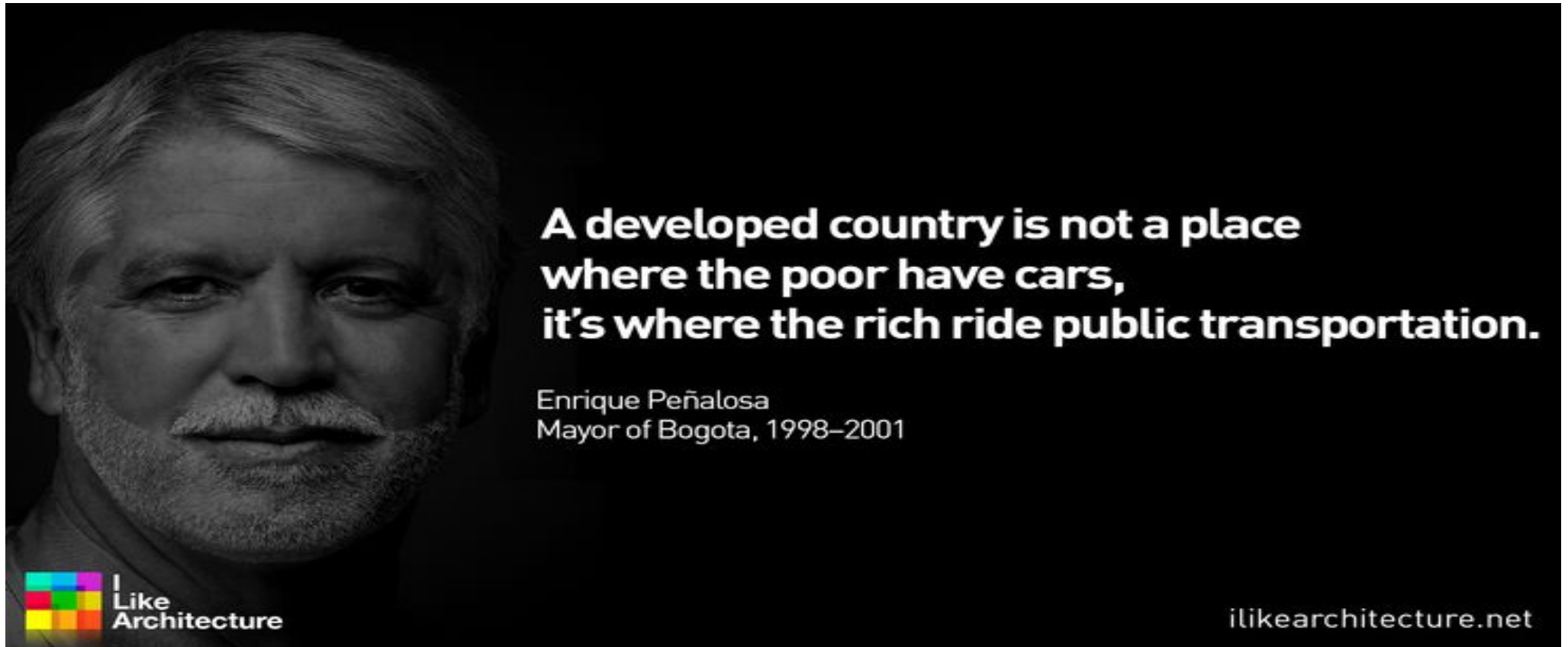
Pedestrianisation

Parking policy

Transit oriented development







Thanks!