

MULTIMODAL INTEGRATION IN INDIAN CITIES – CHALLENGES AND OPPORTUNITIES

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CONTEXT

- Multimodal Integration combines public transport with other modes – NMT, IPT, private vehicles, other PT modes to provide seamless and door-to-door travel alternatives for commuters
- Often used interchangeably with ‘integrated public transport’ or ‘integrated transport’ (Janic & Reggiani, 2001)
- Means to reduce private car use and facilitate shift to sustainable modes of travel



Improve delivery of PT services



Improve passenger comfort and convenience



Improve access to major facilities and activity centers



Bring efficiency & increased revenue for PT operators



Facilitate shift to sustainable modes

ATTRACTING COMMUTERS TO PUBLIC TRANSPORT IS CHALLENGING

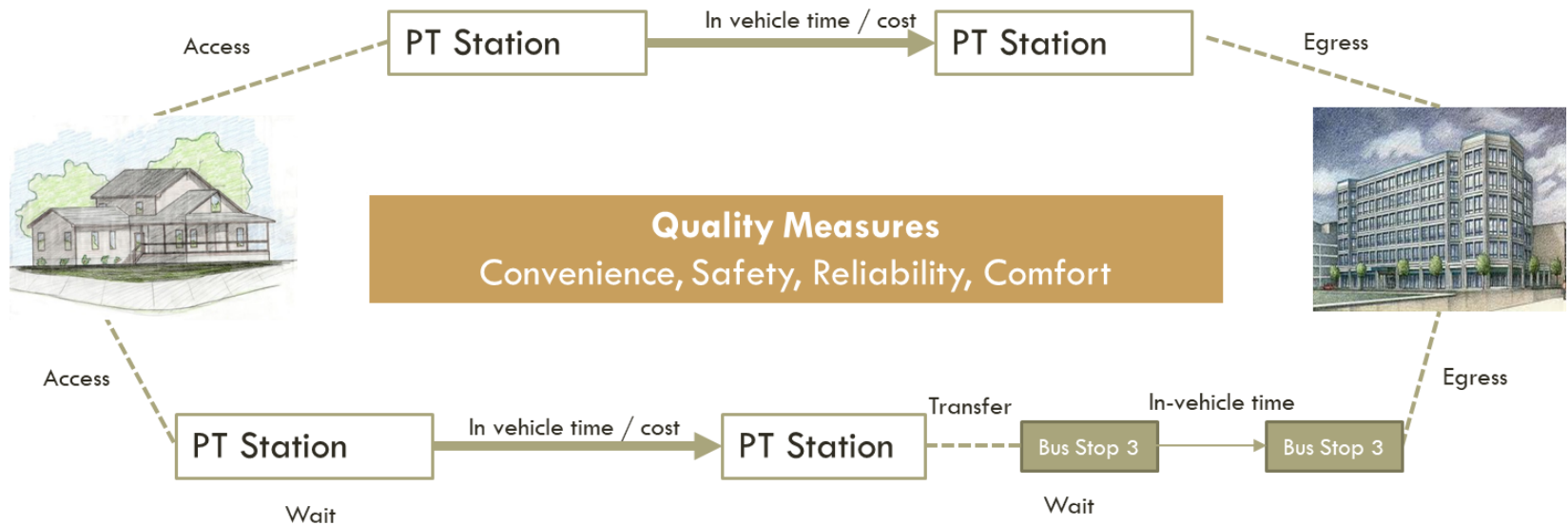
Competition from private modes

- Improved income levels, easy access to vehicles
- Comfort and convenience of travel by personal modes

Aspirations of commuters – personalized mode as ‘status’ symbol

Quality integrated public transport systems not available

UNDERSTANDING COMMUTER PERSPECTIVES IS IMPORTANT



Passengers perceive public transport as a bundle of service attributes – entire journey
Should cater to different user groups – gender, differently-abled, elderly, school children

Public transport therefore needs to offer an inclusive, seamless and convenient travel alternative

USER NEEDS VERSUS FOCUS AREAS

Heavy investments in rapid transit modes in Indian cities, push towards electric buses, common mobility cards

Transit modes function independently; Commuters faced with:

- Onerous transfers,
- Increased wait times
- Higher travel costs
- Poor service quality of public transport system

Unattractive public transport - unable to facilitate mode shift, rapid transit modes ridership much lower than expected impacting revenues

Need to adopt a comprehensive approach towards integration rather than adopting standalone measures

CHALLENGES

Mode focused
approach

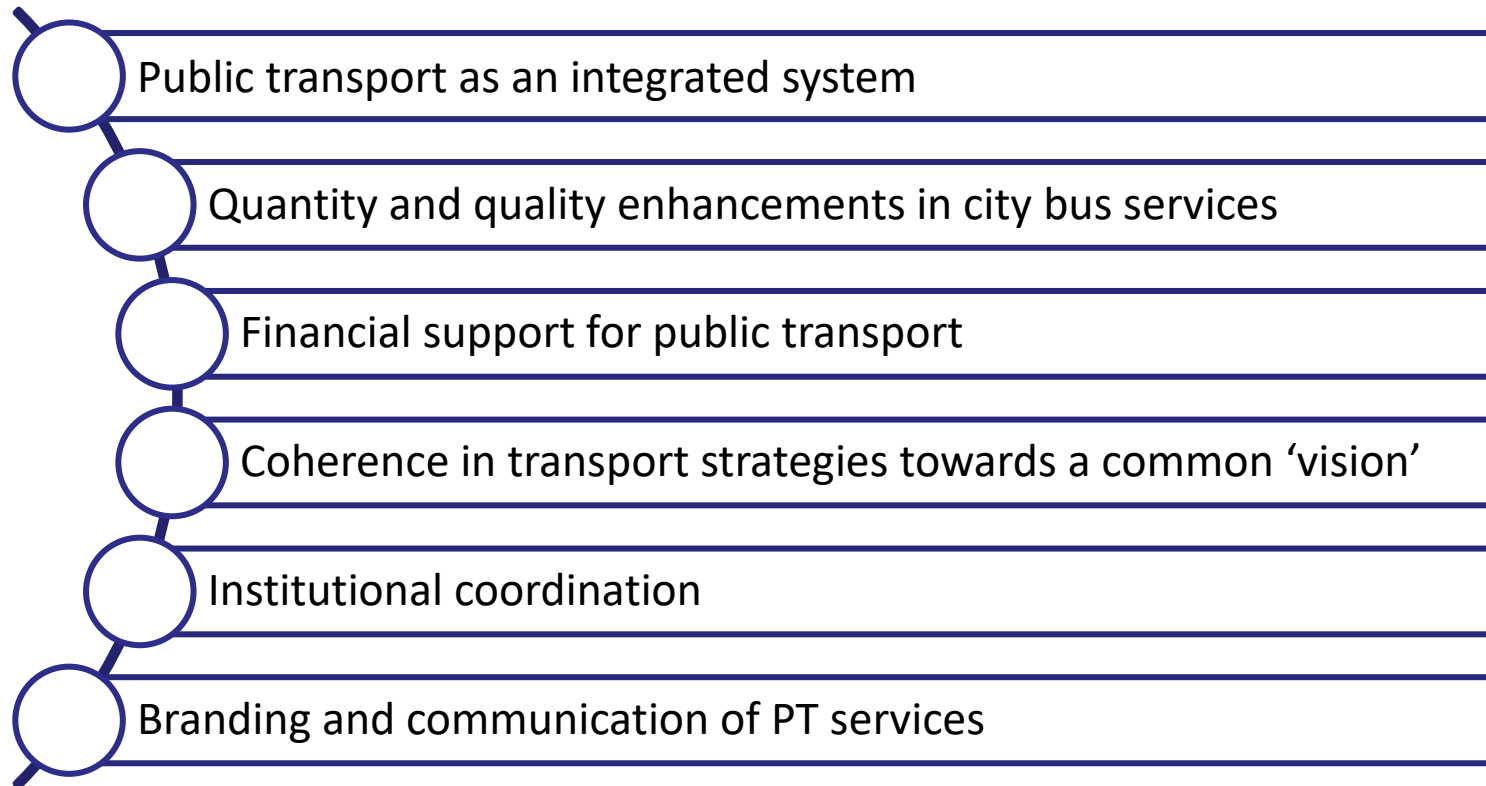
No buy-in towards
an overall transport
vision

Multiplicity of
institutions with
no/limited
coordination

Financial
constraints

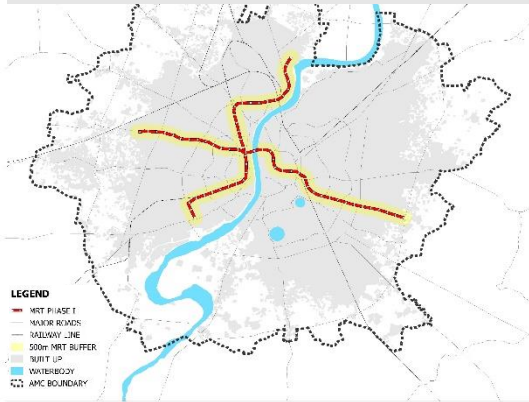
Lack of user
awareness towards
public transport
services

NEED TO REORIENT OUR APPROACH TOWARDS MMI

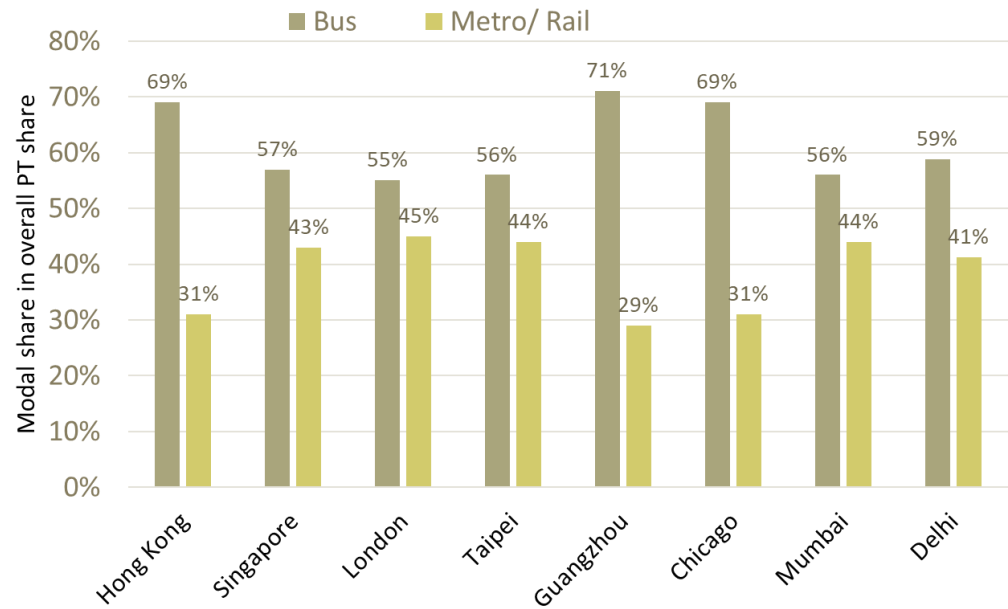
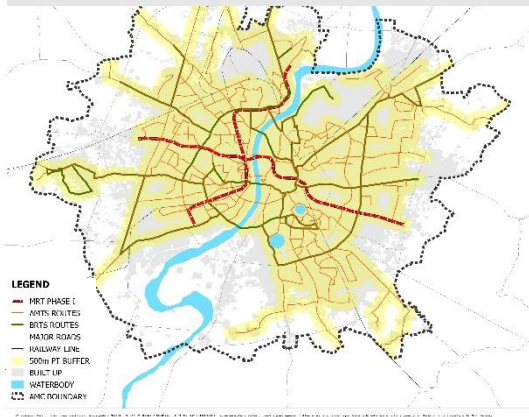


PUBLIC TRANSPORT AS AN INTEGRATED SYSTEM

Coverage: **13%** of built-up area



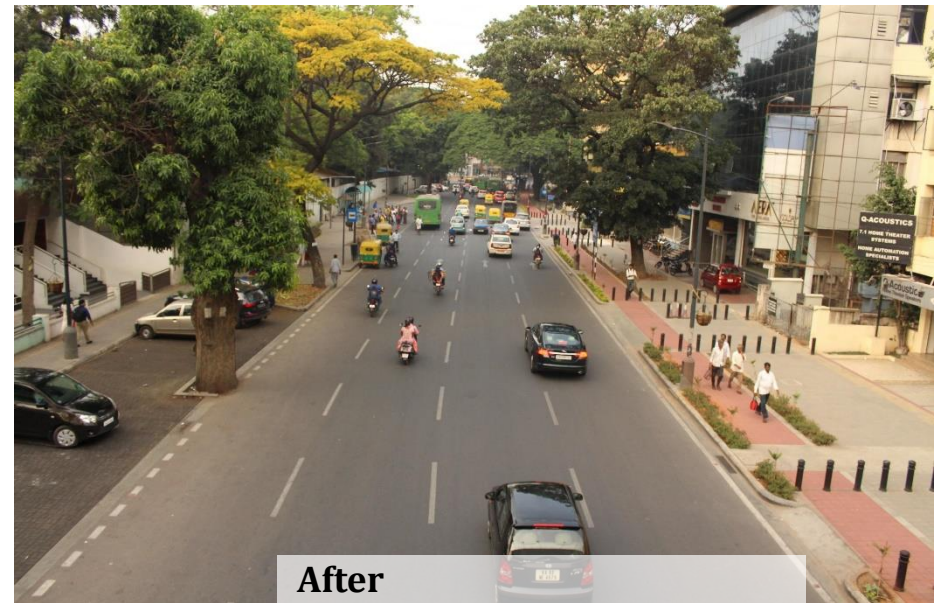
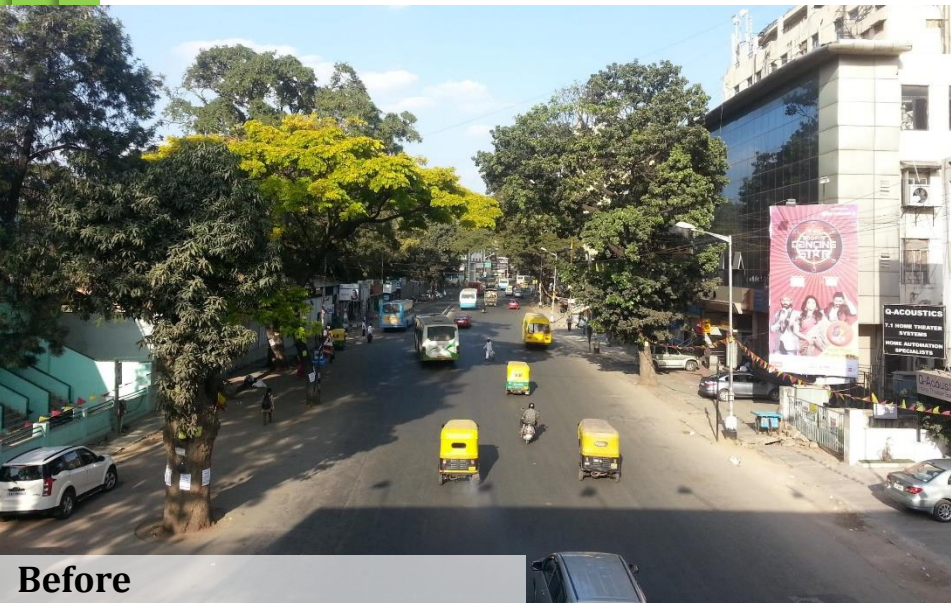
Coverage: **97%** of built-up area



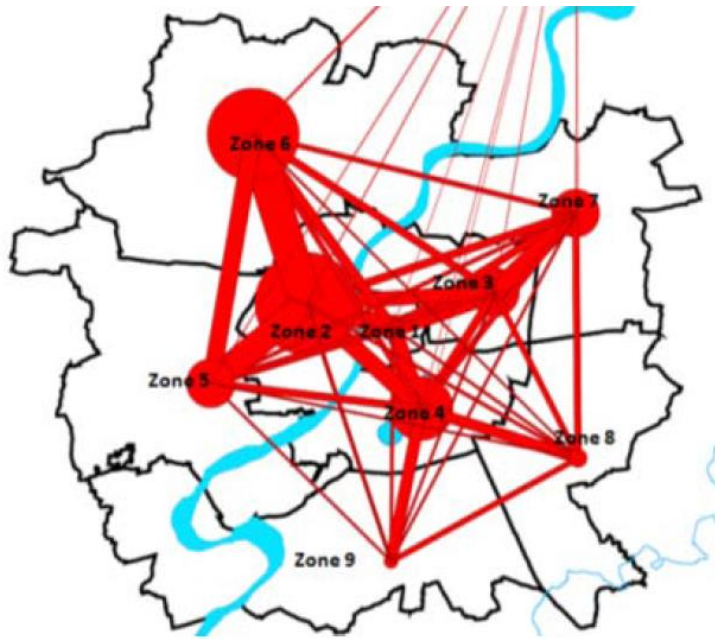
Source: Compiled from various sources, ranging from 2011 to 2013 data base.
LTA, 2011, "Passenger Mode Share in World Cities"

- Rapid transit modes cannot connect all parts of the city - need to integrate with bus services to enhance the catchment area
- Bus services integral to quality multi-modal PT system
- Last mile connectivity through quality pedestrian facilities

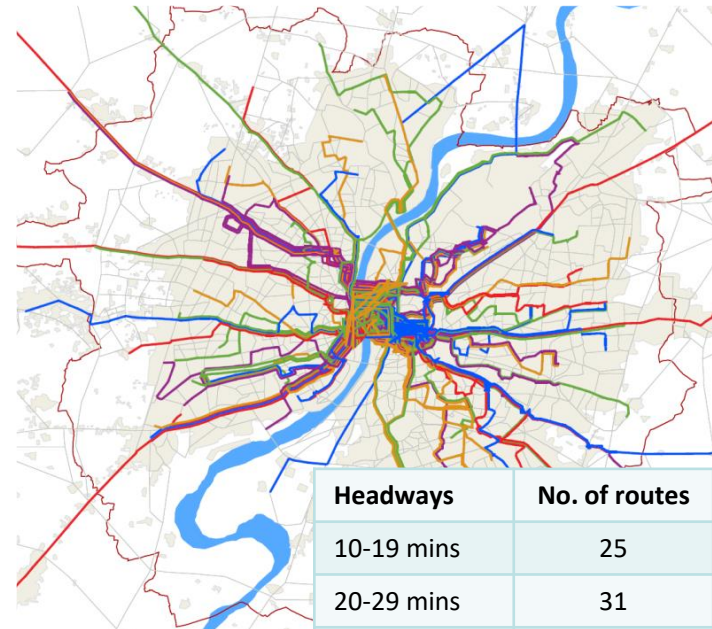
STREET IMPROVEMENT – LAST MILE CONNECTIVITY



BUS SERVICES REQUIRE QUANTITY & QUALITY ENHANCEMENTS



Routes added incrementally over years, do not respond to the travel pattern of the city.

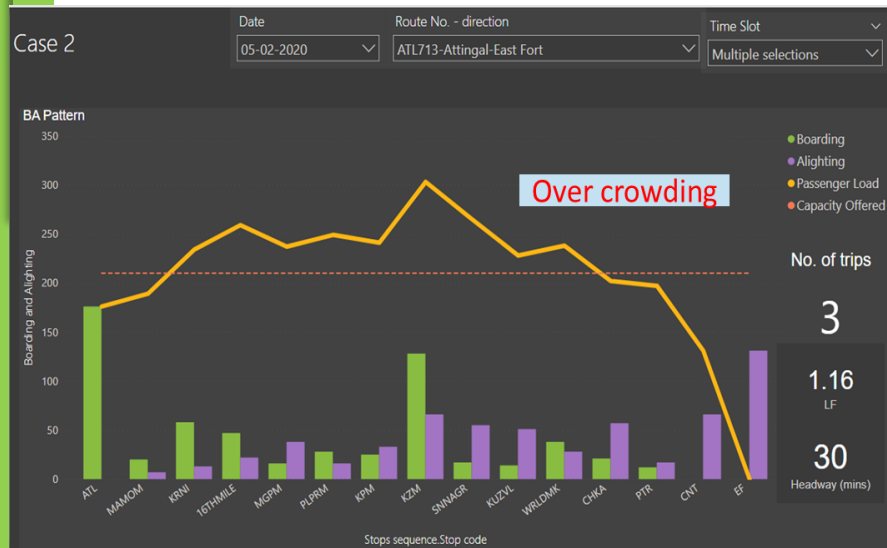


Headways	No. of routes
10-19 mins	25
20-29 mins	31
>30 mins	140

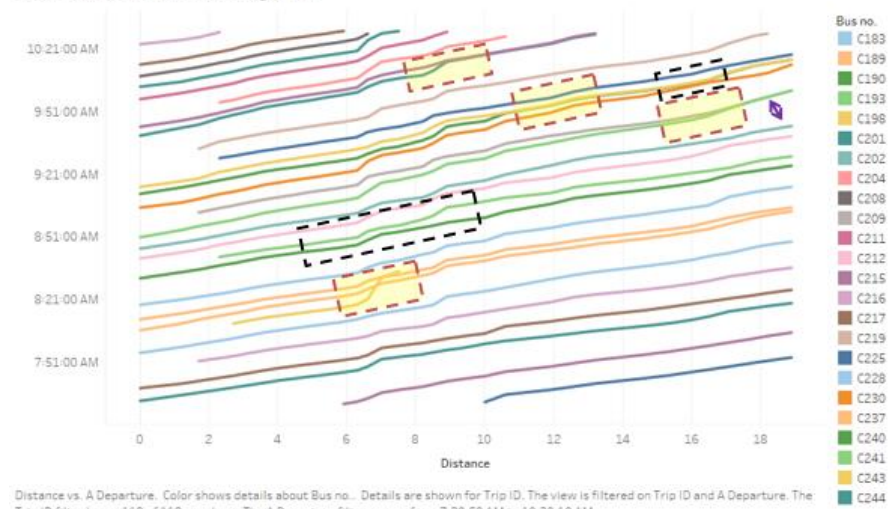
Centralised Routes Structure


Rapid mode introduction – an opportunity for bus service improvement and integration with rapid modes


BUS SERVICES REQUIRE QUANTITY & QUALITY ENHANCEMENTS



Actual departure_morning peak



 bus bunching due to delays, congestion

 bus bunching due to early and late departures

- Continual performance monitoring crucial
- User focused indicators besides traditional operator focused measures for performance monitoring

PUBLIC TRANSPORT REQUIRES FUNDING SUPPORT FOR OPERATIONS

- Diminishing revenue sources for local authorities
- Non-fare box revenue alternatives need to be explored



Developments in and around the Transit System

Property Development (PD)
In-Station Commercial & Retail Spaces
Advertisements
Filming rights, birthday parties etc.



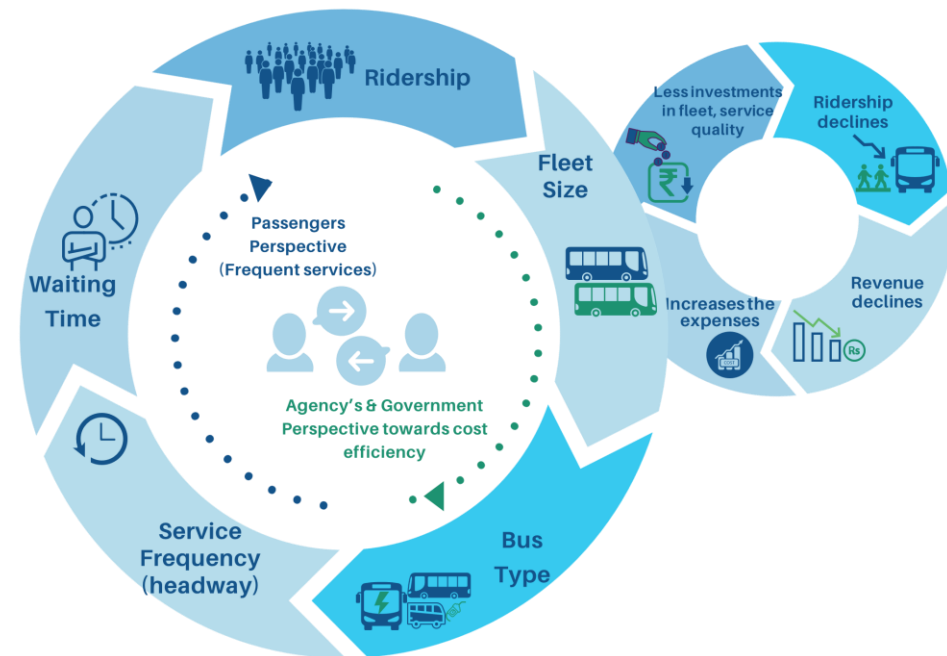
Land Value Capture and Transit Oriented Development

Land Based Fiscal Tools
Development Based Revenue



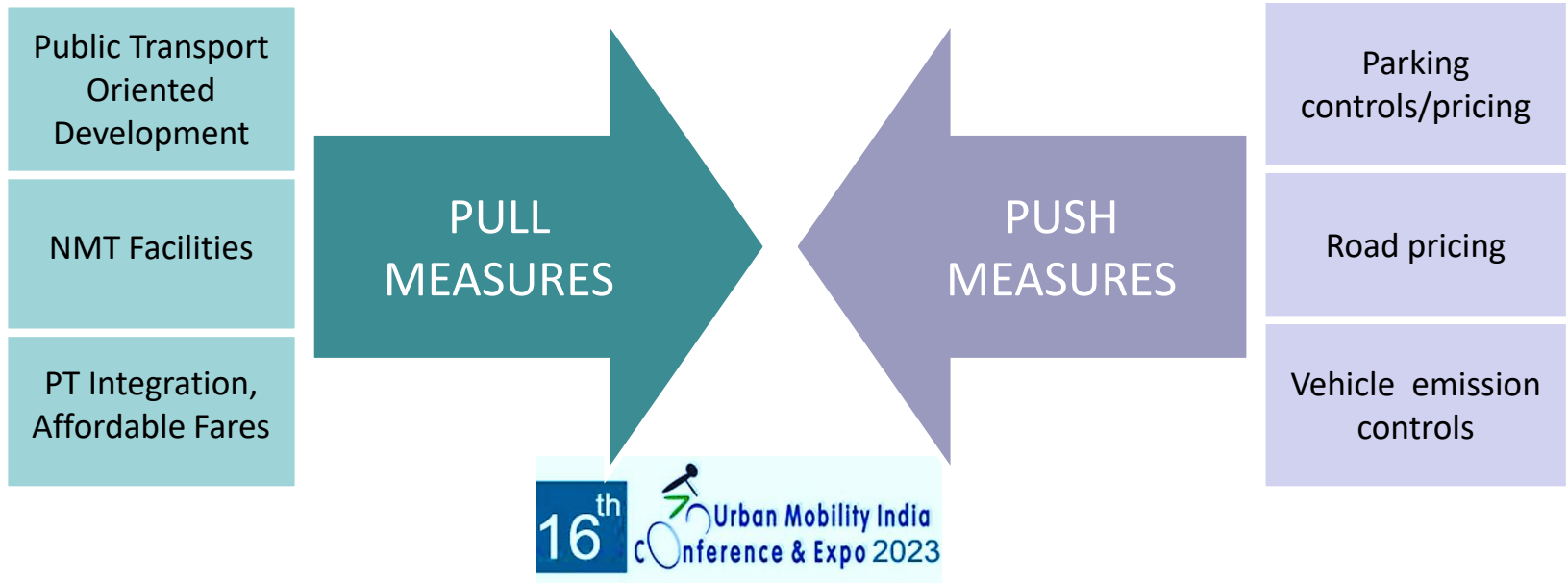
Other Beneficiaries

Beneficiary Based Revenue
Consulting Services and Technology Sales
Merchandising



COHERENCE IN TRANSPORT STRATEGIES TOWARDS A COMMON VISION

Independent set of transport interventions					
Addition of new flyovers, underpasses	Road widening and speed improvement measures	Rapid transit modes being introduced in the city	Lack of investment in existing bus services	IPT modes offering shared operations	Free parking being provided for private vehicles



INSTITUTIONAL INTEGRATION

DIFFERENT MODELS

Single Authority for integrated land use and transport development
Singapore Land Transport Authority

Urban Local Body for higher-order functions
Surat Municipal Corporation

Single Authority as Regulator and Organiser of Urban Transport with existing institutions
Bengaluru Metropolitan Land Transport Authority

Single Agency for Coordination
Transit Alliances, Germany

An appropriate institutional model depending on

Historical
Context

Size of the city
Modes &
Operators

Existing
governance
structure

Political values

Administrative
cultures

In Indian cities, Unified Metropolitan Transit Authority (UMTA) has been recommended.

BRANDING AND COMMUNICATION OF PT SERVICES

Commercials casting negative light on public transportation

Tata Tiago EV- [Link](#)

Ad showing EV is cool and more affordable than PT



Rapido Taxi- [Link](#)

Ad showing that PT are overcrowded, while bike taxis are comfortable



Hero HF Dawn TVC: [Link](#)

Ad showing experience of freedom with bikes, and saying goodbye to bus service



BRANDING AND COMMUNICATION OF PT SERVICES

Awareness Creation

Sensitisation towards mode shift behaviour



Free Trial Runs of new system/ mode



Prior Information to passengers



Engage through Digital Market

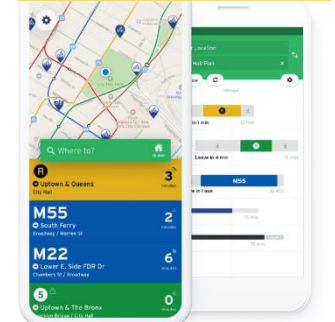
Social Marketing of Janmarg, BRTS in Ahmedabad



Positive Coverage in Media



Image Building – Branding



SUMMING UP

- User focused planning of public transport system - need for a long-term comprehensive strategy rather than mode focused approach
- Integrating modes & services – network, physical, fare, information, institutional
- Buses are the ubiquitous form of PT mode and need strengthening
- Alternative funding sources for financial sustainability of PT
- Communication and marketing of public transport crucial to create awareness, drive behaviour change and facilitate shift to public transport

THANK YOU

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