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आज़ादी का  
अमृत महोत्सव



सत्यमेव जयते

GOVERNMENT OF INDIA  
MINISTRY OF HOUSING AND URBAN AFFAIRS

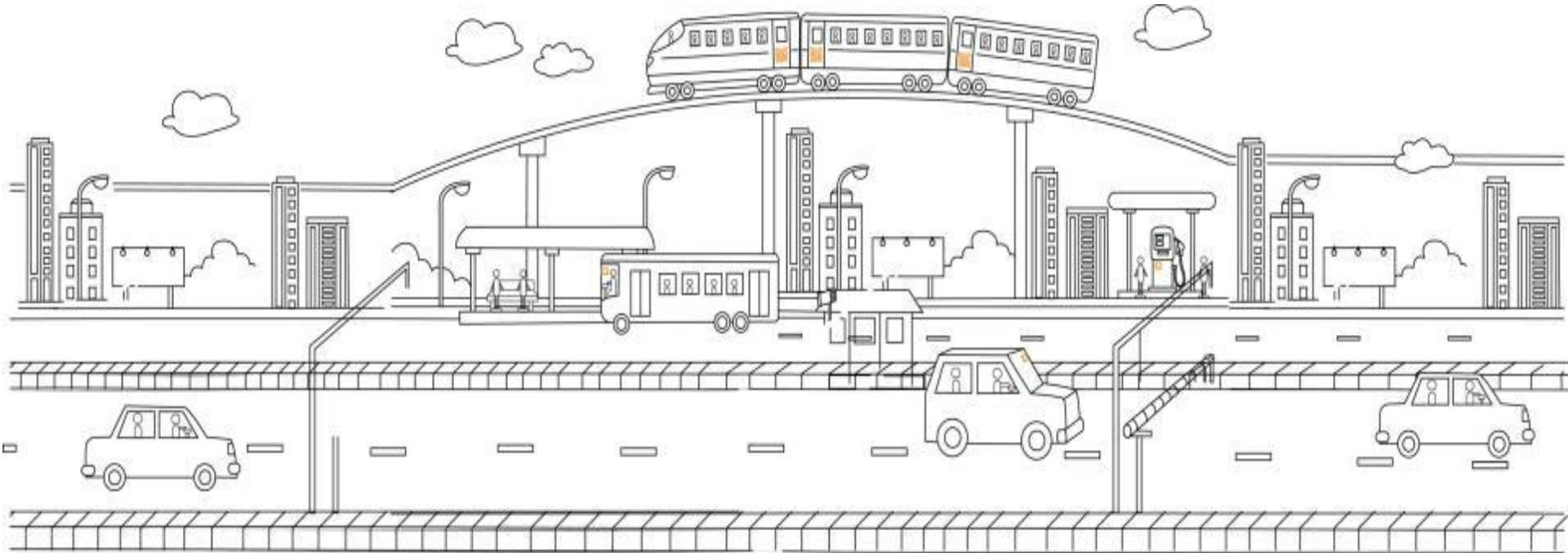


# MULTIMODAL INTEGRATION – A PERSPECTIVE ON TICKETING AND PAYMENTS

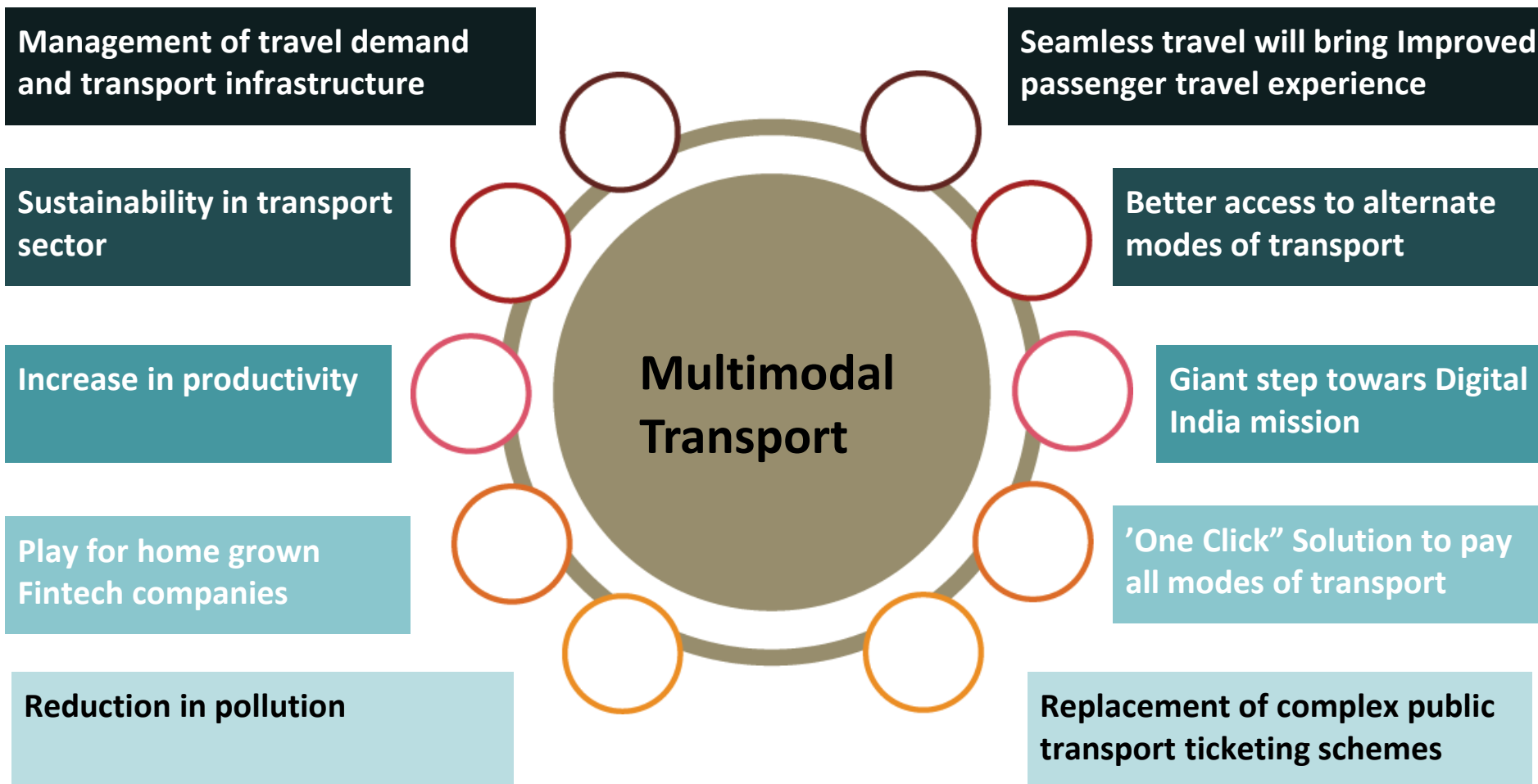
6TH NOVEMBER 2022

# The Plan, Book & Ride Journey

Multimodal Transport: Seamless integration of multiple modal transports such as Metro, Tram, BRTS, Buses, water metro and private transport operators on single platform to allow a traveler select the most suitable mode of transport.



# Multimodal Transport – India Perspective



# Challenges in Implementing Multimodal Solution in India

Currently all the efforts are to cater the commuter within the city and not the visitors/tourist

Readiness to share real time transport data.

City mobile app has only limited transit option

Obstacles in supply demand travel forecast due to deficiency of real time data

Journey planning feature is missing in most of the city app

Difficult to adopt single user identity in local transport

Integration is difficult due to varied ticketing business rules between the public transports in India.

Government/Policy push towards adopting framework/ C-DAC

# Way forward for Multimodal Integration in India 1/2

Single Platform for integration of multiple operators

Policy changes are required to standardizes data formats

Openness of operators toward data sharing to ripe the benefits of AI/ML

'One Click" solution such as single app connecting multiple operators

Simple business rules which will allow revenue sharing among operators

# Way forward - Multimodal Transport in India 2/2

## **Integration of different transportation modes on single platform**

- Public Transportation such as Metro, City Bus etc and Private transportation Ola, Uber etc. should be onboarded on to a single platform

## **Onboarding of PTO**

- Multimodal solution providers should be non-operators who have the ease of onboarding multiple government agencies (operators) and private transport operator.
- PTOs should be open towards selling their ticketing product inventory to the solution provider.

## **Common ticket across multiple modes : Service/pay as you need**

- Business rules should be defined with respect to revenue sharing, dispute resolution and settlement timelines between different PTOs.

# MaaS a One Stop Solution

## *“One Click Solution”*

- Single app can connect with multiple operators ,issue and validate QR codes on a single mobile app
- Specifications should cater to all modes of transport like bike sharing, car aggregators, metro, buses, etc.

- Primary condition is to have a pre – defined data formats and quality check mechanism.
- Data quality is more essential for MaaS, since it will have direct impact on customer’s experiences.
- Probably C-DAC/BECKN specifications should be used by all operators on issuance and validation side of ticketing.

## *Single Platform*

# MaaS pilots around the world

## Whim app - Helsinki



- Whim, offers access to a variety of transportation options, from taxis to rental cars, public transport, and bikeshare.
- The app learns users' preferences and syncs with their calendars to intelligently suggest ways to get to an event.

## UbiGo (The city of Gothenburg)



- This fully integrated mobility service combines public transportation, carsharing, rental car service, taxi service, and a bicycle system—all in one app, all on one invoice, with 24/7 support and bonuses for sustainable choices.

## Qixxit (Germany)



- The Qixxit app plans routes according to user needs with more than 21 service providers.
- It offers carsharing, ridesharing, and bike sharing options; Identifies ideal train connections; and shows all travel possibilities for users to compare and choose from.

## Moovel ( Germany; also testing in Boston, Portland, and Helsinki)



- It enables users to search, book, and pay for rides with a single app—book and pay for car2go, mytaxi, and Deutsche Bahn in a single experience.
- Public transportation mobile payments are available in Stuttgart and Hamburg.



# MaaS pilots around the world

## Beeline (Commuters in Singapore)



- It helps users to book a seat on buses listed by private bus operators and track their location.
- It can also suggest new routes.

## SMILE app (Vienna)



- It was built for options with the following functions: city information, booking, payment, usage, and billing.
- It enables all mobility partners to link their technical systems via specific adaptors to provide all their data, including the ticketing

## Bridj (Commuters in Boston, Kansas City, and Washington, DC)



- It allows passengers to ride a shuttle between home and work during commuting hours. Using a fleet of flexible vehicles.
- It optimizes pick-ups, drop-offs, and routing based on demand.

## Communauto / Bixi (Cities in Quebec, Canada)



- Some municipal transport authorities have offered mobility packages that include bike sharing by BIXI and carsharing provided by Communauto.
- A user can save on the regular price of a public transport pass and bike sharing by subscribing to the BIXI-AUTO-BUS package.

**THANK YOU**

# Annexure

ILLUSTRATIVE

