BOUNCE

Shared Electric Two-Wheeler Mobility
THE ISSUE – Mobility is not seen as a “Fundamental Right”
Currently only 18% of India’s population has access to personal mobility, rest struggle everyday to commute to their destination.
Public transport hasn’t scaled and only few big cities have MRTs. Adoption has been an issue due to friction in first mile and last mile.

OUR VISION
At Bounce, we believe that mobility is a fundamental right. The vision of Bounce is to enable every Indian to have access to affordable mobility. We believe that access to mobility can change the way people live and change the economic situation of the country.

OUR SOLUTION
Bounce offers seamless, dock-less, scooter sharing solution which allows users to pick up a scooter anywhere and drop it off in any legal parking and walk away.

Key Differentiator
- Accessibility
- Affordability
- Agility
Problem Statement

1. Rapid growth of Vehicles
   - (In million)
   - 2001: 55
   - 2011: 142 (58% growth)
   - 2019: 225

2. Increase in Traffic Congestion
   - Average vehicular Speed (KMPH)
   - Greater Mumbai: 21.6 in 2016, 20.7 in 2017
   - Kolkata: 20.2 in 2016, 19.2 in 2017
   - Hyderabad: 27.1 in 2016, 18.5 in 2017 (8.6% decrease)
   - Bengaluru: 20.4 in 2016, 17.2 in 2017 (3.2% decrease)
   - Delhi: 26.5 in 2016, 25 in 2017
   - Chennai: 19.6 in 2016, 18.9 in 2017

- 2-wheelers constitute for 73% of all the non-transport modes of transportation and the total number is around 7 times higher than the total registered cars.
How Urban India Travels?

- It is estimated that, in major cities of India, **80%** of the trips are less than **10 km** and **70%** of the trips are less than **5 km**.

- **Example:** Pune 97% of the trips are less than 10 km and 80% of the trips are shorter than 5 km.

- The share of public transport is just **18.1%** of work trips.

- PNT (People Near Transit) analysis reveals that even if 96% of residents living within 500 m walkable distance of the Public Transport network, only **12%** of trips are made by bus.
Integrated Multi-Modal Transportation

Ensuring efficient first and last mile connectivity is the key for efficient Public transport

Integration of sustainable modes at every level of commutation is necessary

Micro-Mobility

First mile and Last mile connectivity

Public Transport point (Bus stop/Metro)

Household Areas

Personal Car

Personal Bike

Shared Mobility

EV based Shared Mobility

Walking

Work place

Micro-Mobility

First mile and Last mile connectivity

Public Transport point (Bus stop/Metro)
### Transforming the Urban Mobility

Alternatives to usage of personal car/bike

<table>
<thead>
<tr>
<th>Micro Mobility 0-5 kms</th>
<th>Medium Distance 5-8 kms</th>
<th>Long Distance 8-15 kms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scooter sharing (Dockless &amp; Docked)</td>
<td>Ride Hailing services</td>
<td>Bus Rapid Transit</td>
</tr>
<tr>
<td>Bike Taxis</td>
<td>Cab Pooling</td>
<td>Metro</td>
</tr>
</tbody>
</table>

Individual rider preferences can vary, and the above figure represents the average users' preference.
Shared Micro-Mobility

**Definition:**
Shared Micro-mobility is defined as the shared use of a scooter, bicycle or other low-speed mode for transportation strategy that enables users to take short rides either to destination or reaching a public transportation point to move to further distance.

**How it all Evolved?**

<table>
<thead>
<tr>
<th>1960’s</th>
<th>Early 2000’s</th>
<th>Post 2010</th>
<th>Post 2015-present</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Bike sharing mostly for health aspects but not for congestion and Micro-Mobility</td>
<td>▪ Low technology ▪ Manual booking</td>
<td>▪ Docked ▪ Majorly Cycle sharing</td>
<td>▪ Keyless ▪ Dockless ▪ High end Technology ▪ Digital payments</td>
</tr>
</tbody>
</table>
Operating models of Shared Mobility

a) Hub to Hub Model:
- Total area of operations is divided into ‘n’ number of hubs.
- Shorter distance makes it efficient. Many times, service providers tend to identify hubs such that it is nearer to the most potential users (like colleges, offices, Hostels etc.)
- Increasing number of hubs will increase the accessibility but increases the operations ultimately compromising on the basic premise of providing easy last mile connectivity.

b) Dockless Model
- Start of the day bikes will be kept available for booking in all the potential locations
- Bikes can be pick up from anywhere and can be dropped anywhere within a set boundaries
- Basis the fleet size average distance to reach a bike will vary
Is 2-wheeler efficient for Micro-mobility

Comparison among modes of transportation in terms of Space occupancy and fuel consumption

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Area Occupied on road (Sq.m)</th>
<th>Occupancy</th>
<th>Space occupied per person</th>
<th>Fuel consumed (Lit/Pax.km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>25.4</td>
<td>1</td>
<td>25.4</td>
<td>0.067</td>
</tr>
<tr>
<td>Car</td>
<td>25.4</td>
<td>2</td>
<td>12.7</td>
<td>0.033</td>
</tr>
<tr>
<td>Car</td>
<td>25.4</td>
<td>3</td>
<td>8.5</td>
<td>0.022</td>
</tr>
<tr>
<td>Car</td>
<td>25.4</td>
<td>4</td>
<td>6.4</td>
<td>0.017</td>
</tr>
<tr>
<td>Scooter</td>
<td>7.5</td>
<td>1</td>
<td>7.5</td>
<td>0.025</td>
</tr>
<tr>
<td>Scooter</td>
<td>7.5</td>
<td>2</td>
<td>3.8</td>
<td>0.013</td>
</tr>
<tr>
<td>Bus</td>
<td>31.2</td>
<td>20</td>
<td>1.6</td>
<td>0.011</td>
</tr>
<tr>
<td>Bus</td>
<td>31.2</td>
<td>30</td>
<td>1.0</td>
<td>0.007</td>
</tr>
<tr>
<td>Bus</td>
<td>31.2</td>
<td>50</td>
<td>0.6</td>
<td>0.004</td>
</tr>
</tbody>
</table>

- 2 wheelers occupy same space and fuel efficient similar to bus with 20 occupancy
- 4-wheeler efficient enough only at 4 occupancy
Benefits of Shared Two-Wheeler Mobility

1. Reduced congestion
2. Reduced carbon footprint per person travelling
3. Time saved
4. Encourage usage of public transport
5. Save money to get to destination
Key Highlights

- **~7 Million trips** Till present
- **~40 Million kms** Till present
- **~2000 Electric Scooters** Goal - Fully electric fleet
- **300* Battery Public Swapping Stations**

Impact

- **~45%** of trips Start or End at Metro
- **~25-30%** of trips are done women
- **~4800 Jobs Created**
- **1.46 mn Kgs** Reduction in Emissions
Collaboration with Bangalore Metro Stations

• Across all local metro stations as the last-mile mobility provider
• Parking areas provided by Bangalore Metro to have ease of access to customer
• Currently 45% of the rides end or start from a Metro Station, showcasing Bounce enabling use of public transport.
• About 80% of our Bounce users weren’t using Metro Rail before Bounce was made available, but are using it now
How EV Operations will work (VIDEO)
First and Last Mile Commute Partnerships

EXISTING PARTNERS

- Namma Metro
- L&T Metro Rail Hyderabad
- Bangalore Metropolitan Transport Corporation
- Jaipur Metro
- Mumbai Metro
- Chennai Metro Rail Ltd
Areas of Collaboration

• Required shared mobility parking at all public transport hubs:
  Assuring there is parking available for shared mobility vehicles at all public transport hubs, inter and intra city at bus stops, metro stations and railway stations.

• Mandatory integration across all public transportation ecosystems:
  Ensuring last-mile mobility is part of every public transport ecosystem across the nation, promising every commuter ease of access to their nearest public transportation hub.

• Public data sharing platforms to optimize time of multi-modal commutes:
  Creating a secure, possibly blockchain based open data sharing platform for innovative transportation mobility providers to optimize the daily multi-modal commute of millions of people.

• Integrated payment platforms:
  Allow a seamless payment gateway for a commuter to pay for his/her multi-modal journey.
THANK YOU