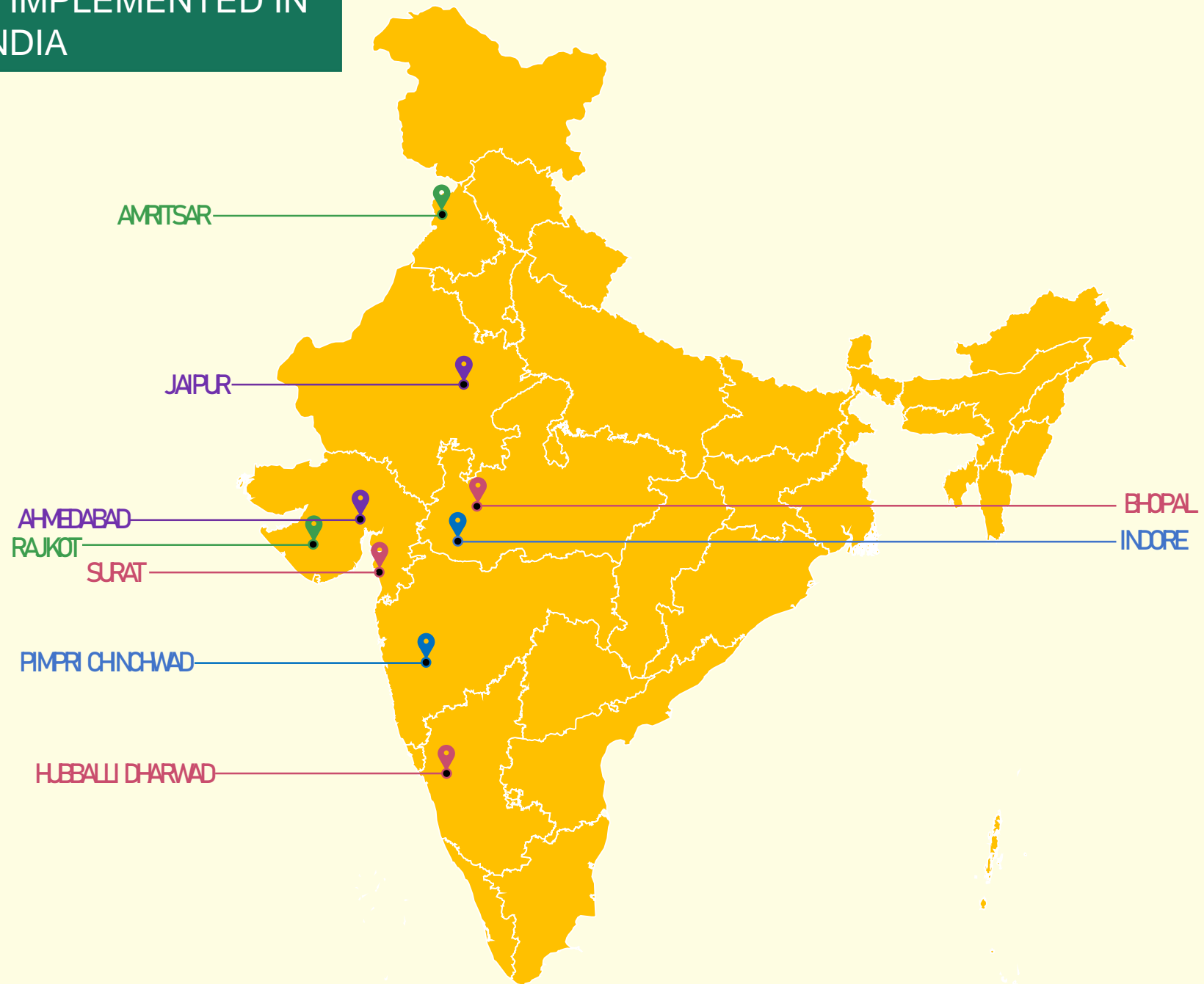




HUBBALLI DHARWAD BUS RAPID TRANSIT SYSTEM



BRTS PROJECT IMPLEMENTED IN INDIA



BRIEF OF HUBBALLI DHARWAD TWIN CITIES

DHARWAD CITY

Dharwad is an educational hub comprising of several state level educational universities (Law, Engineering & Agricultural) and Indian Institute of Technology.



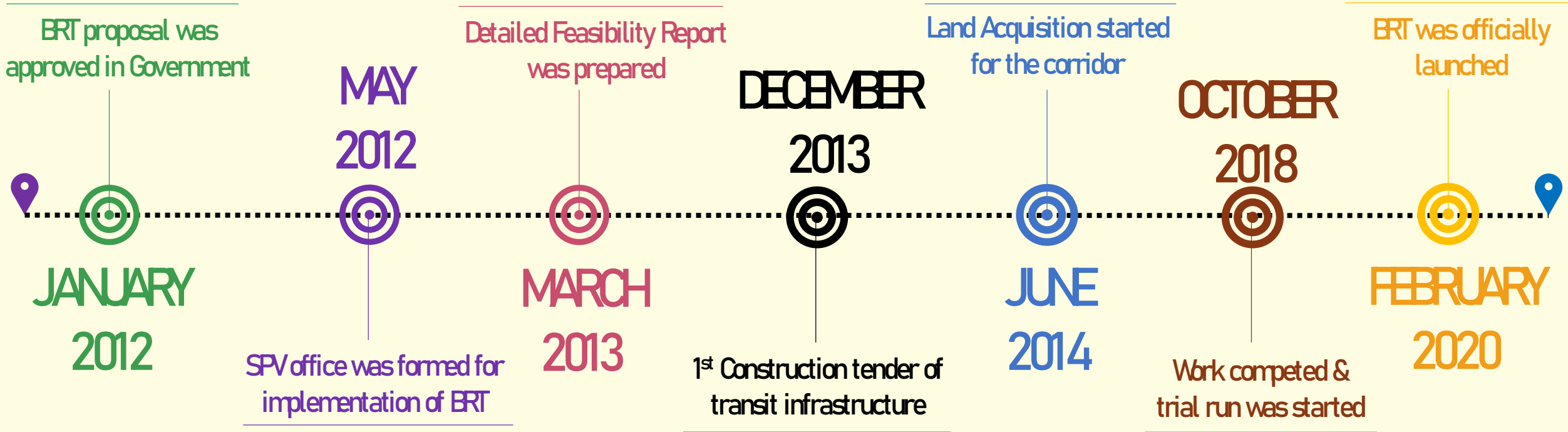
TWIN CITIES

In 1962 Hubballi & Dharwad cities were amalgamated and were recognized as twin cities. The twin cities are spread over an area of 203.3 Sqkm and have a population of 940 thousand as per 2011 censuses.

HUBBALLI CITY

Hubballi is a business and industrial hub comprising of more than 1000 small and medium scale industries and several large industries.

TIMELINE OF THE HDBRTS PROJECT



HUBBALLI DHARWAD BRTS

- The BRT system in Hubballi Dharwad is branded as “CHIGARI”
- Corridor is 22.5 kilometres connecting the CBT of Hubballi and Dharwad.
- 18.85 km dedicated BRT lanes and 3.65 km partially dedicated BRT lanes
- 32 median bus stations and 32 signalised traffic junctions.
- 6 Foot Over Bridges, 3 Bus only flyovers, 2 BRT depots, 2 BRT Terminals and 2 Interchange Terminal

DHARWAD CITY



Partially dedicated BRT lanes

Dedicated 3 lane BRT

Dedicated & divided 4 lane BRT

Dedicated 3 lane BRT

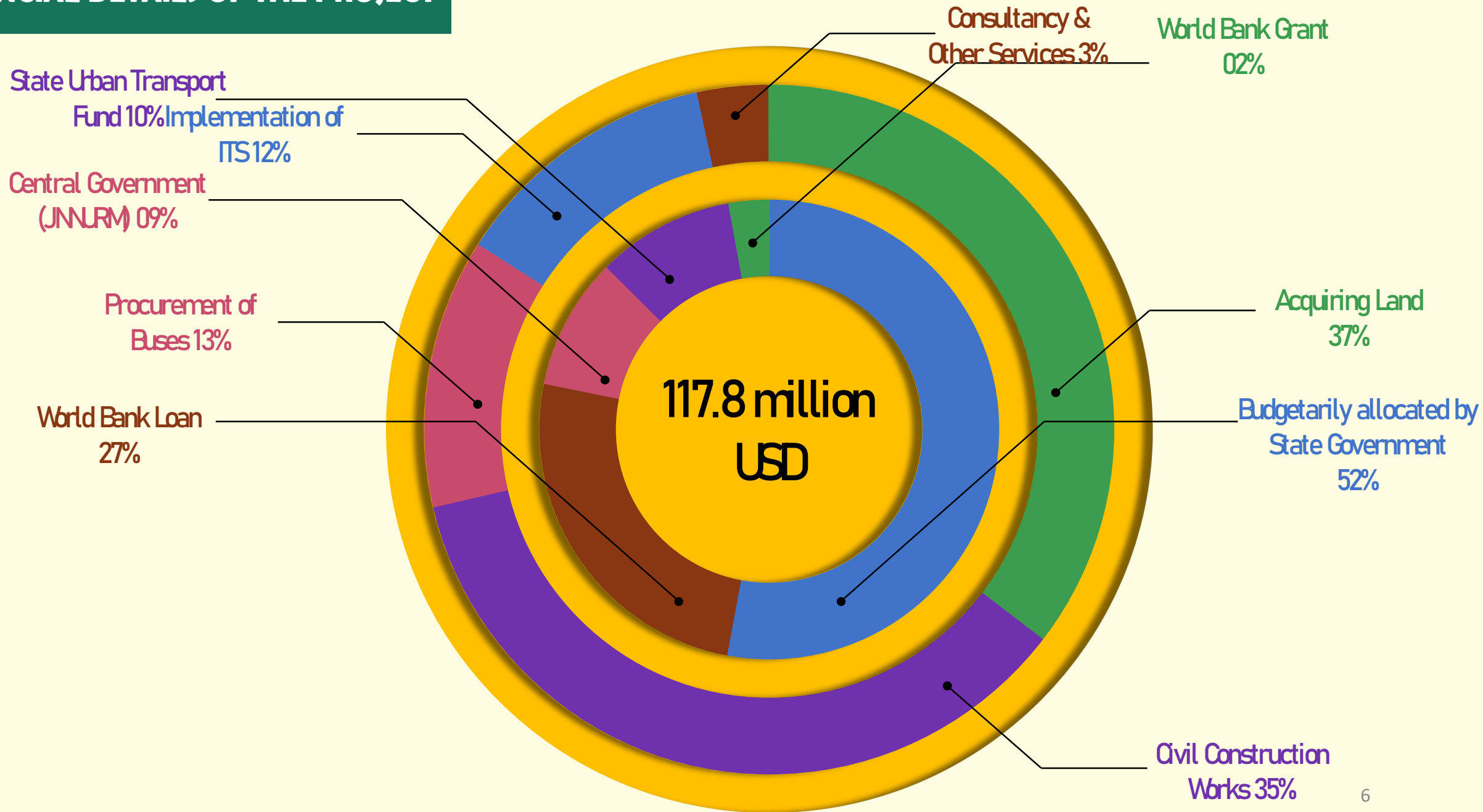
Partially dedicated BRT lanes



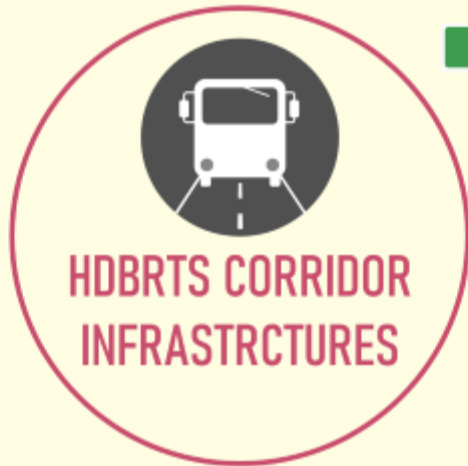
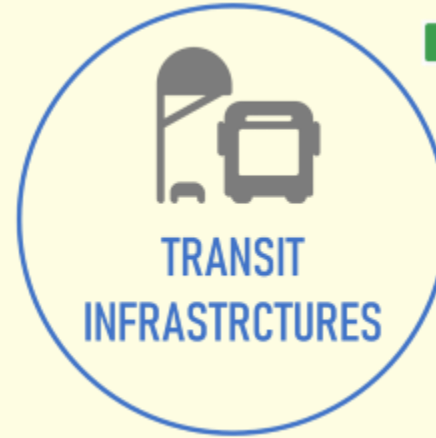
HUBBALLI CITY



FINANCIAL DETAILS OF THE PROJECT



COMPONENTS OF HDBRTS PROJECT





HDBRTS CORRIDOR INFRASTRUCTURES



HDBRTS CORRIDOR INFRASTRUCTURES



BRT GRADE SEPARATORS (FLYOVERS):

- ⑩ 3 flyovers for buses only.
- ⑩ Longest of them is 824 meters.



FOOT OVER BRIDGES:

- ⑩ 3 full FOB and 3 half FOB
- ⑩ Ramps and elevators.

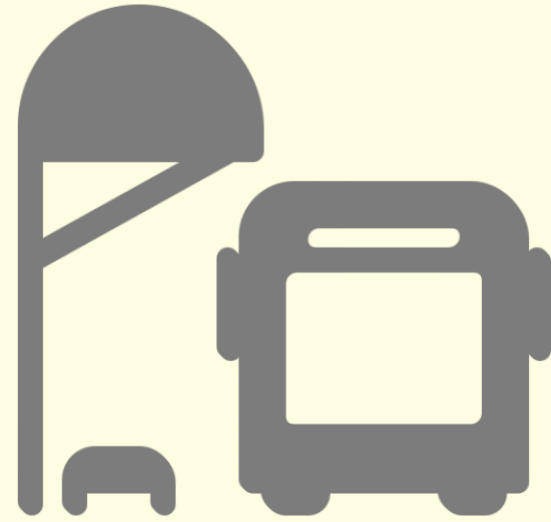


HDBRTS CORRIDOR INFRASTRUCTURES



TRAFFIC JUNCTIONS:

- ⑩ 32 signalised traffic junctions
- ⑩ Adaptive Traffic Controlling system



**TRANSIT
INFRASTRUCTURES**



MEDIAN BUS STATIONS:

- ⑩ 32 median bus stations.
- ⑩ 25 two bay stations and 7 three bay stations.
- ⑩ docking standard and articulated buses.



BRT TERMINALS:

- ⑩ Dedicated BRT terminal at Dharwad manages 60 departures.
- ⑩ Combined terminal in Hubballi with city services manages 90 departures.

TRANSIT INFRASTRUCTURES



REGIONAL INTERCHANGE

- ⑩ 8 bus bays for feeder buses and 23 bays for regional buses
- ⑩ Connected to BRT median bus station by FOB



SUBURBAN INTERCHANGE

- ⑩ Two rows of sub urban bus bays
- ⑩ Connected to BRT terminal by FOB



BRT DEPOTS:

- ⑩ Dharwad depot has capacity of 40 buses
- ⑩ Hubballi depot has capacity of 113 buses.



INTELLIGENT TRANSPORT SYSTEM

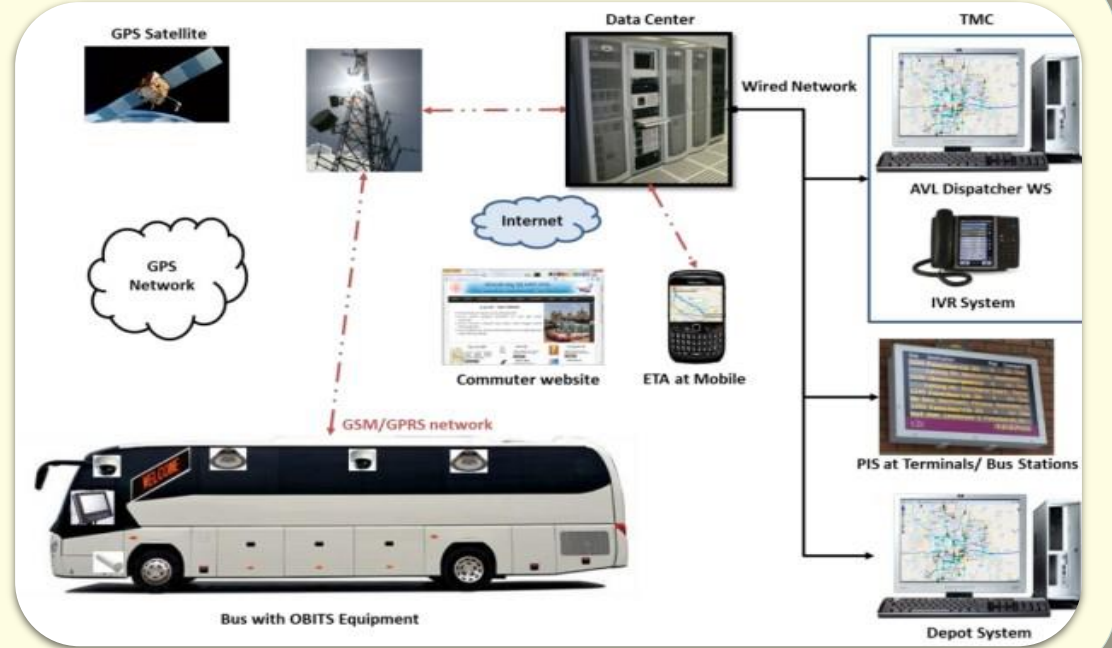


INTELLIGENT TRANSPORT SYSTEM



AUTOMATED FARE COLLECTION SYSTEM (AFCS):

- ⑩ Off board ticketing for BRT
- ⑩ QR code and Smart cards



AUTOMATED VEHICLE LOCATION SYSTEM (AVLS):

- ⑩ Real time tracking of the bus location
- ⑩ Tracking of driver behaviors



INTELLIGENT TRANSPORT SYSTEM

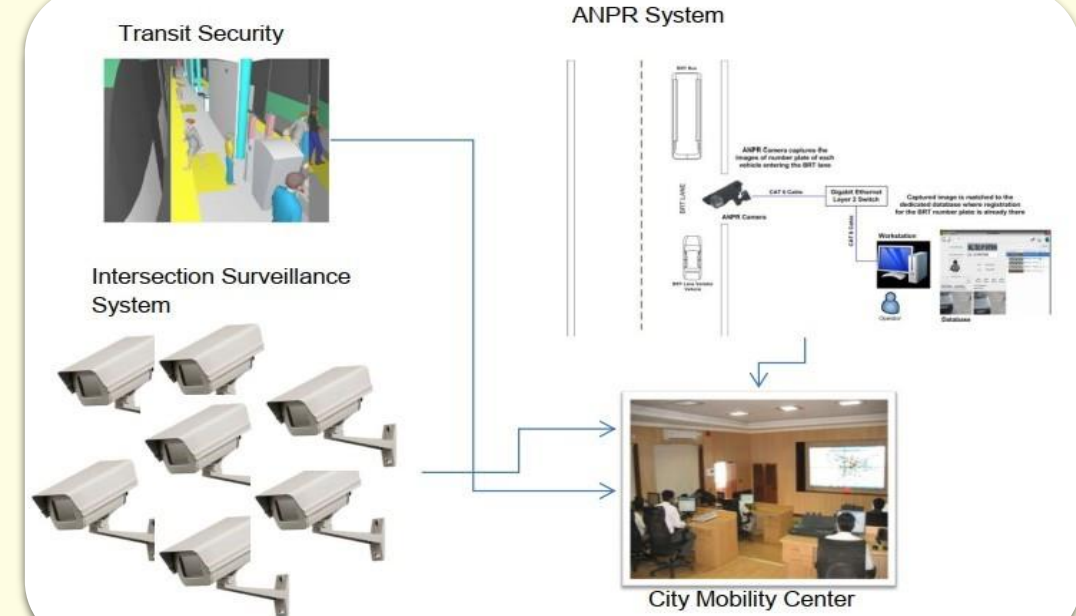
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6F3045	217BA	D903		೨:೩೯ PM
F1740	182BA	ಸಿದ್ದರಾಮಪ್ಪ ಕೆ ಒಂಟಿ		೨:೪೫ PM

ಇ-ಪರ್ಸನ್ ಸ್ಮಾರ್ಟ್ ಕಾರ್ಡ್ ಬಳಸಿ

PASSENGER INFORMATION SYSTEM (PIS):

- ⑩ ALS and AFCS are integrated with PIS
- ⑩ Information through Display Boards, IVRS, SMS, Mobile App and Web Portal.

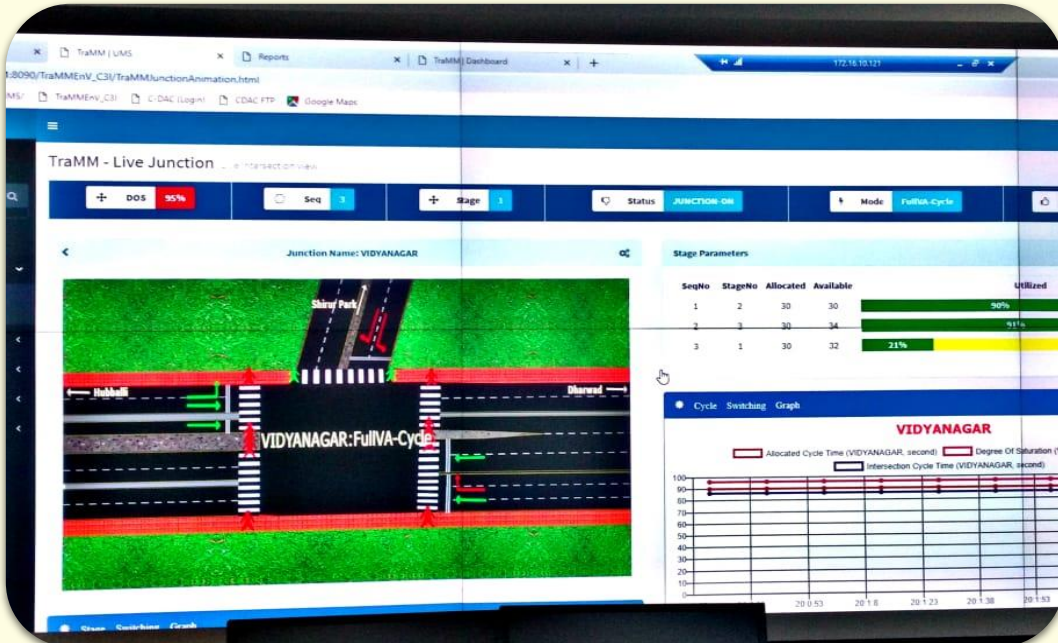


INCIDENT MANAGEMENT SYSTEM (IMS):

- ⑩ Reduces response time
- ⑩ 4 layers of surveillance system has been implemented



INTELLIGENT TRANSPORT SYSTEM



ADAPTIVE TRAFFIC CONTROLLING SYSTEM (ATCS):

- ⑩ The system works on the real time vehicle demand
- ⑩ Synchronises the signals and provides priority to the BRT buses

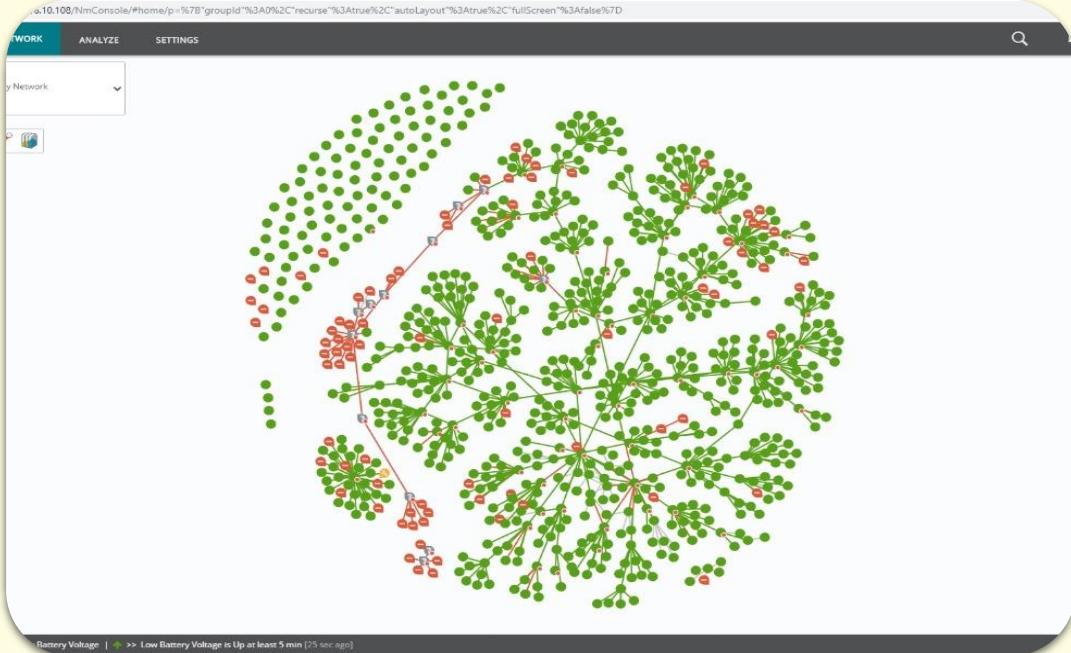


BRTS CORRIDOR MANAGEMENT SYSTEM (BCMS):

- ⑩ System works on the RFID technology
- ⑩ Blocks the entry of unauthorised vehicles

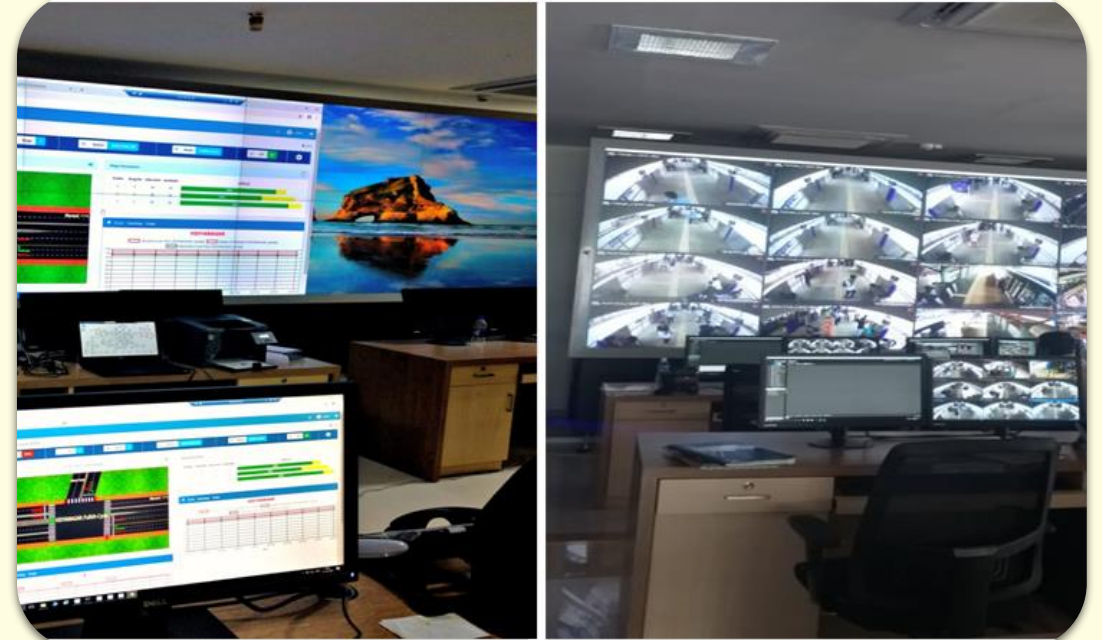


INTELLIGENT TRANSPORT SYSTEM



NETWORK MANAGEMENT SYSTEM (NMS):

- ⑩ Tracks the real-time working of all ITS hardware
- ⑩ Connected through 24 core fiber optics



CITY MOBILITY CENTER (CMC):

- ⑩ ITS systems are connected to server in CMC
- ⑩ Real time monitoring of safety and security
- ⑩ Help desk for information and grievances





BUSES



- ⑩ AC Volvo fleet was introduced in BRT system
- ⑩ Passenger Information System and Public Announcement System
- ⑩ CCTV Surveillance for commuters' safety.

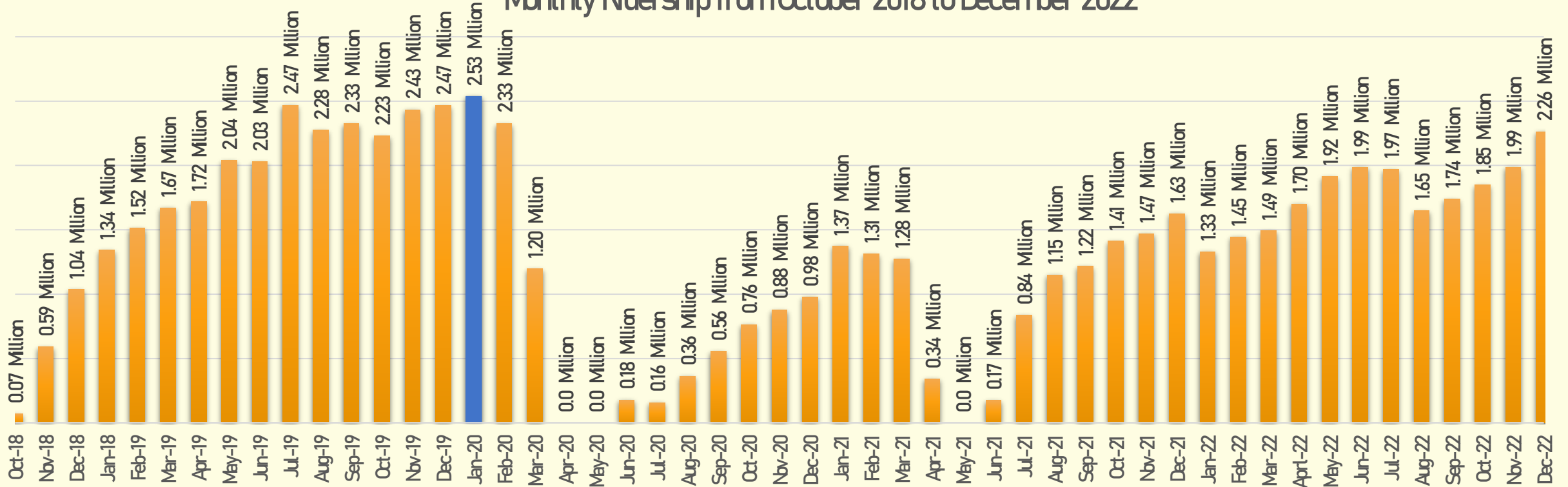




- ⑩ 4000 trees were cut down
- ⑩ 30,000 saplings were planted in government building, schools, colleges, echo parks and BRT Corridor.
- ⑩ Saplings are Geo tagged. Current survival rate is 72%

BRT OPERATION DETAILS

Monthly Ridership from October 2018 to December 2022



Parameters	Details for year 2022
Daily Schedules	96
Average trips per day	1100
Effective travel kilometres	9.4 million
Total BRT rides	21.33 million
Revenue	4.5 million USD

UNIQUE FEATURES HDBRTS



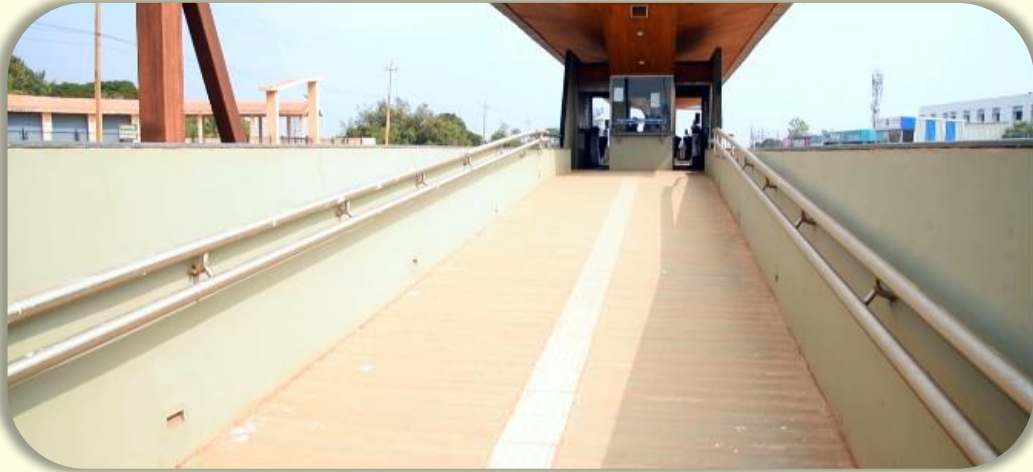


**UNIVERSAL
ACCESSIBILITY**



UNIVERSAL ACCESSIBILITY

RAMPS FOR EASY MOVEMENT



PRIORITY SEATING



WHEEL CHAIR AND PRAM FRIENDLY



TACTILES





COMFORT & SAFETY

PIS AND PA SYSTEM IN BUSES



SURVEILLANCE



PELICAN SIGNALS



BRT MARSHALLS





TIMESAVING

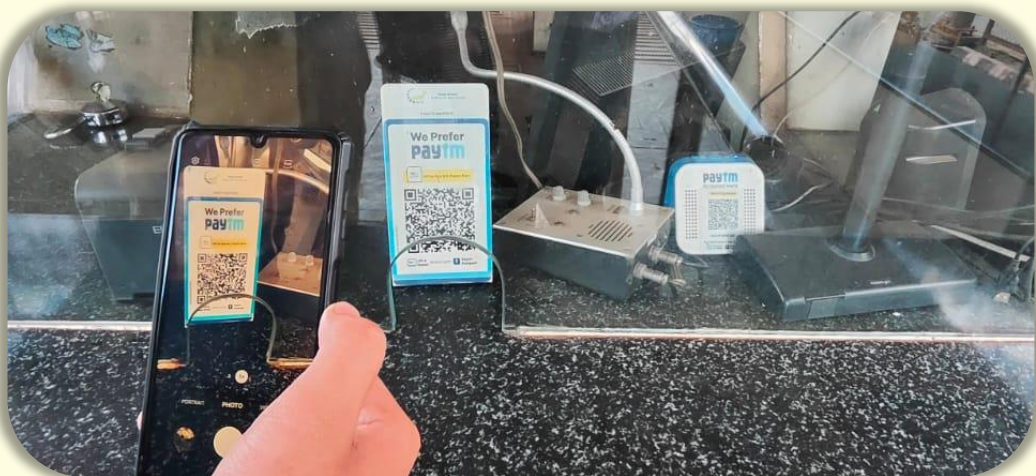
DEDICATED BRT WITH ITS



SMART CARDS



DIGITAL PAYMENT



BRT CONNECT

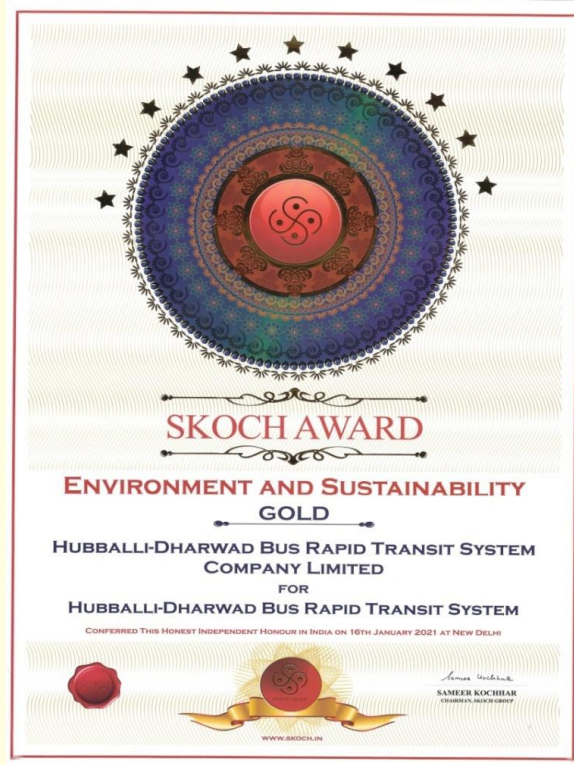


NATIONAL LEVEL RECOGNITIONS

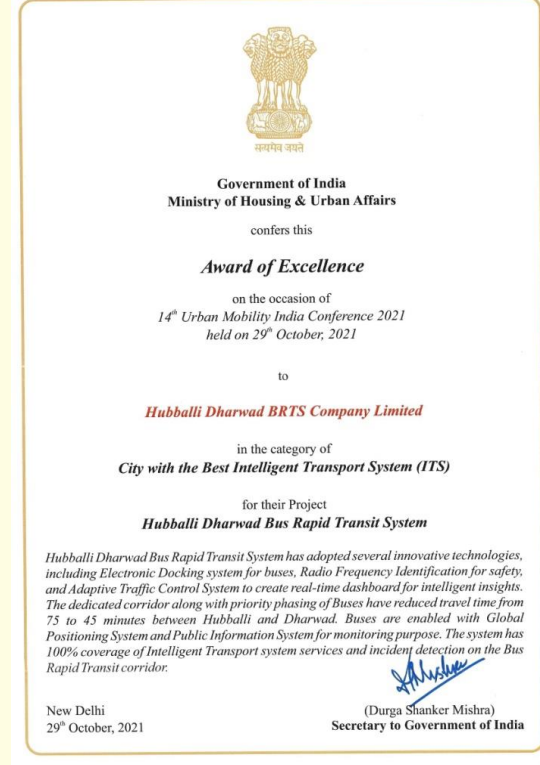
Award of Excellence – 2019
“BEST URBAN MASS TRANSIT PROJECT”
 Awarded by – MoHUA Govt. of India



Gold Award – 2020
“ENVIRONMENT & SUSTAINABILITY”
 Awarded by – SKOCH



Award of Excellence – 2021
“CITY WITH BEST ITS”
 Awarded by – MoHUA Govt. of India



“MOST PREFERRED BRTS”
 Urban Infra Business Leadership Awards
 2022



THANK YOU.



HUBBALLI DHARWAD BRTS COMPANY LIMITED

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Toll free no: 1800 599 1010, website: www.hdbrts.com

Chigari app:     



shaping the way cities move

Directorate of Urban Land Transport,
Urban Development Department, Govt. of Karnataka



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