

Bengaluru Commuter Rail Service

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Praja-RAAG



Praja-RAAG

The offline Research Analysis & Advocacy Group of Praja.in, an internet based networking platform that aims to be a bridge between the 'Praja' and those who serve them. RAAG takes up some of the issues from the portal to network with various stakeholders with a view to making the idea acceptable & mainstream.

Namma Bengaluru Today



The traffic in bangalore is effing outrageous. (@mantrisquare effing jam)
<http://4sq.com/eFFj4M>


Half hour and havent even moved 200mtrs . (@ mega jam)
<http://4sq.com/TRAFFK>

JAMALURU?



44.53 lakh and counting...

YEAR	1980	1990	2000	2010	2013
No. of Vehicles	1,75,325	6,01,059	14,38,057	36,86,257	4.4 million (approx)

Vehicle population as of October 2012			
Total (transport and non-transport)		44,14,050	
			Two-wheeler 
Cars	8,52,961	Scooters	6,19,872
Vans	7,334	Mopeds	3,77,925
Buses	42,441	Motorcycles	20,46,518

Those interested in carpooling may log on to the Facebook page
<http://www.facebook.com/#!/BangaloreTrafficPolice>

Photo: K. Murali Kumar, Graphics: S. Belmann

Major Transit Systems in World

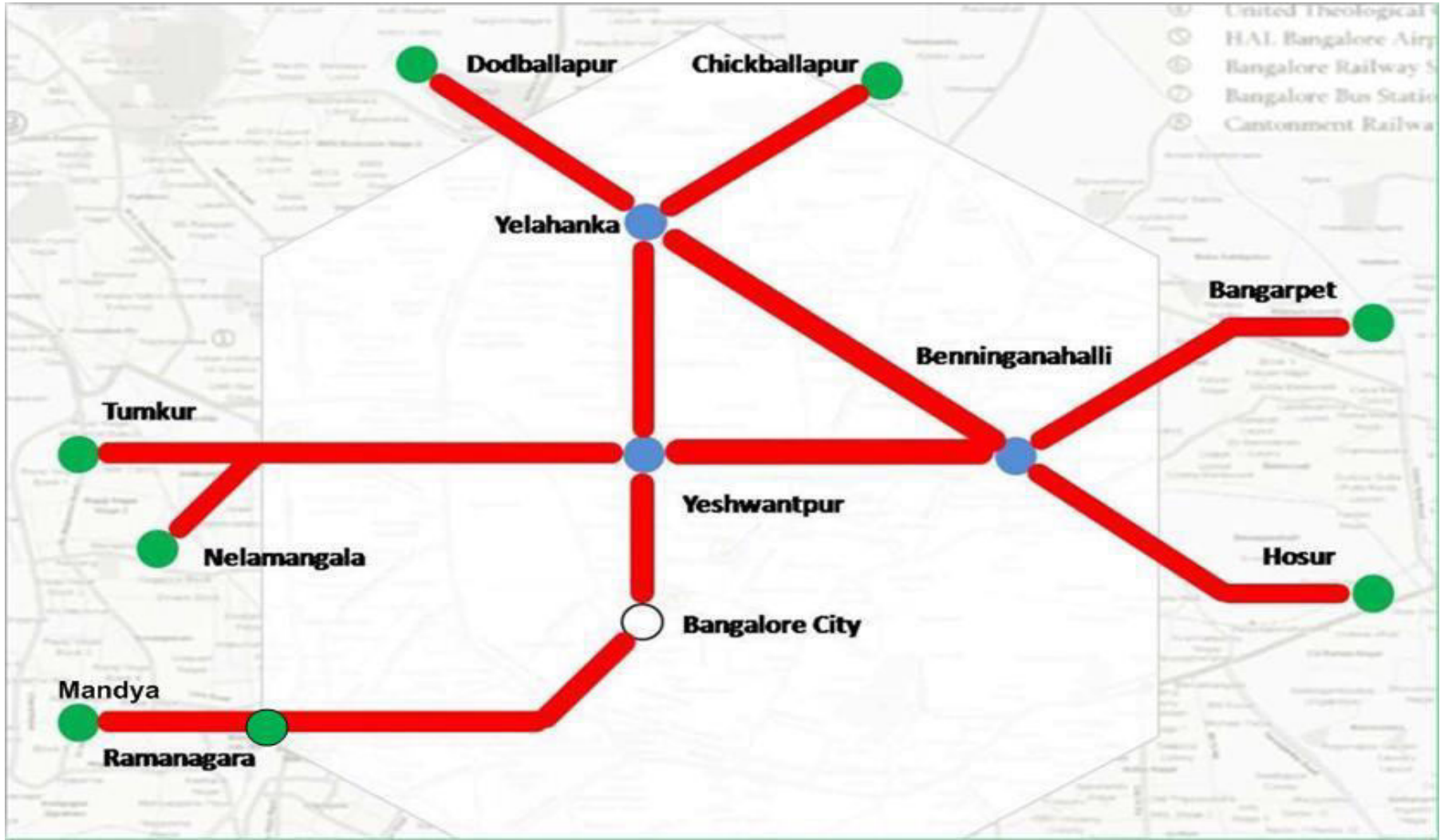
Transit System	Length	Stations	Daily Ridership
Hong Kong – MTR	218 Kms	152	50 Lakhs
New York – Subway	842 Kms	468	54 Lakhs
Paris – RER	587 Kms	257	33 Lakhs
London -Underground (TUBE)	402 Kms	270	1.02 Crs

Suburban Rail Services in India

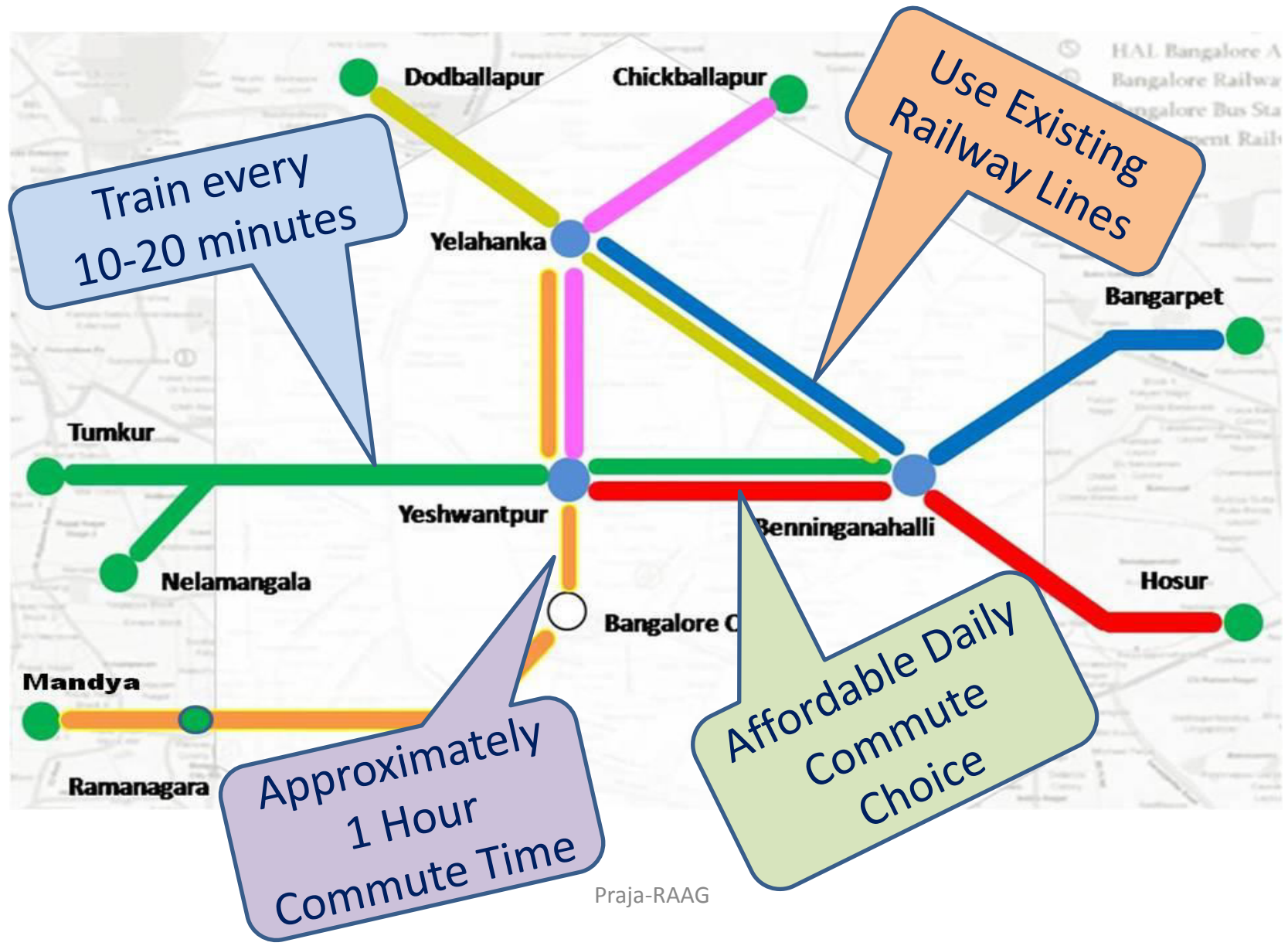
Transit System	Length	Stations	Daily Ridership
Mumbai - Local	465	136	80 Lakhs
Chennai - Suburban	300 Km	73	15 Lakhs
Hyderabad – MMTS	43 Kms	27	2.0 Lakhs

What is it?

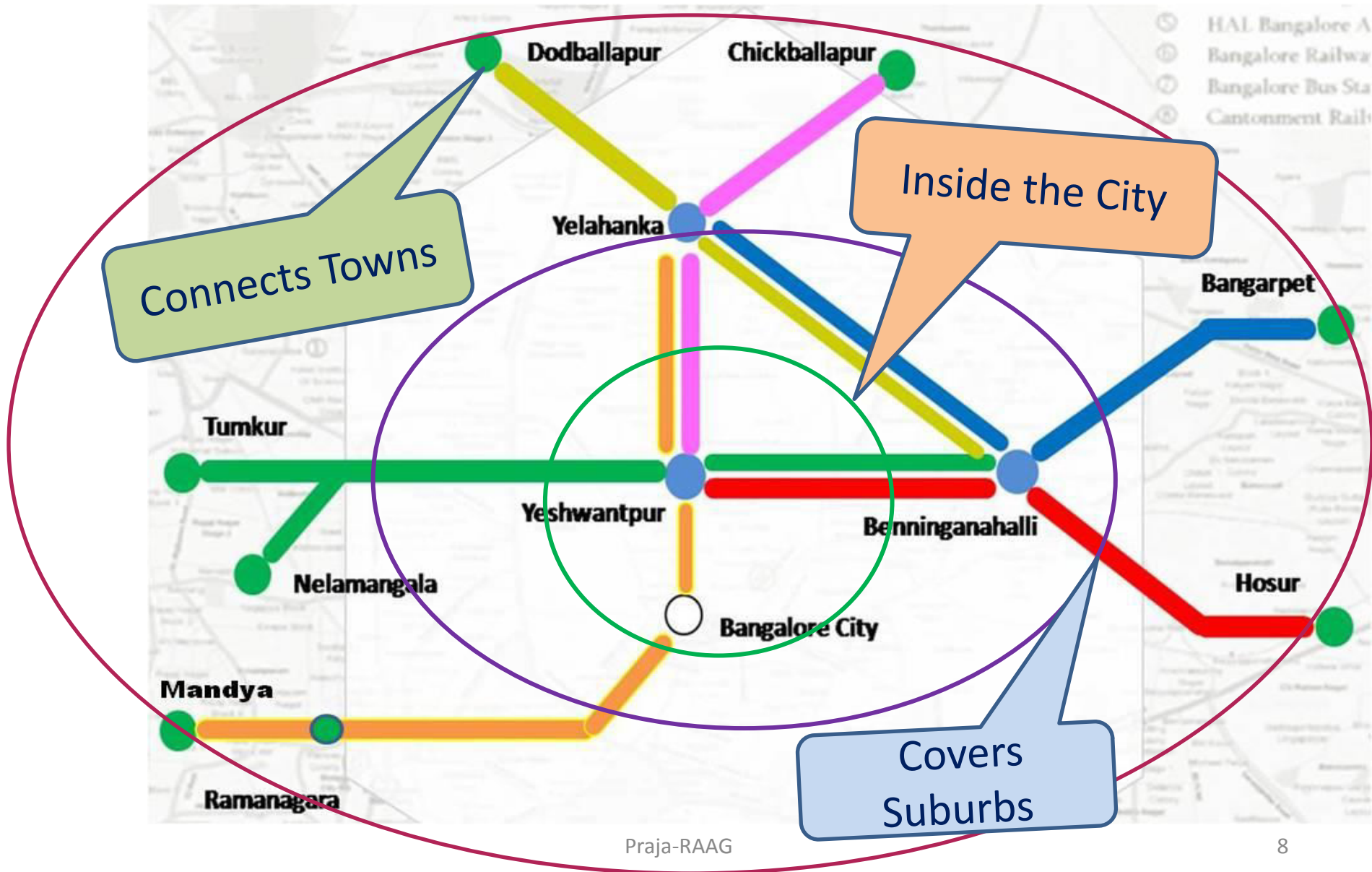
- Proposal for running 'Suburban Rail' service
- Connecting Bengaluru with surrounding Towns



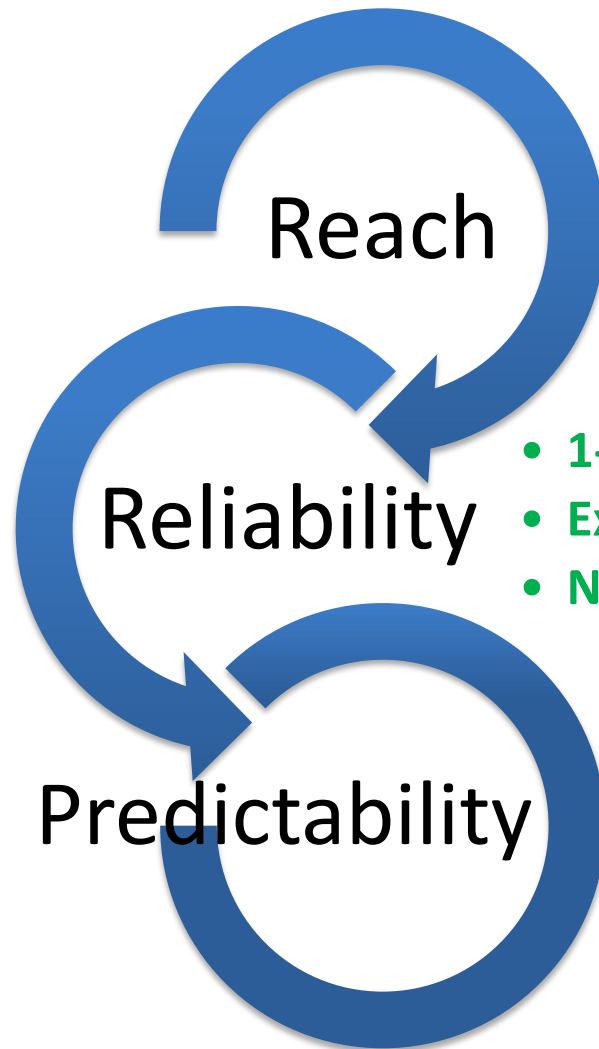
The Proposal?



Benefits of Suburban Rail



Namma Railu Features



- 440 Km in length, 7 Districts
- 70-100 Km in radius
- Connects Bengaluru City suburbs in all directions
- 40% of total urban Commute Capacity

- 1-11/2 Hr commute times
- Exclusive 'Right of way'
- No Road induced grid locks

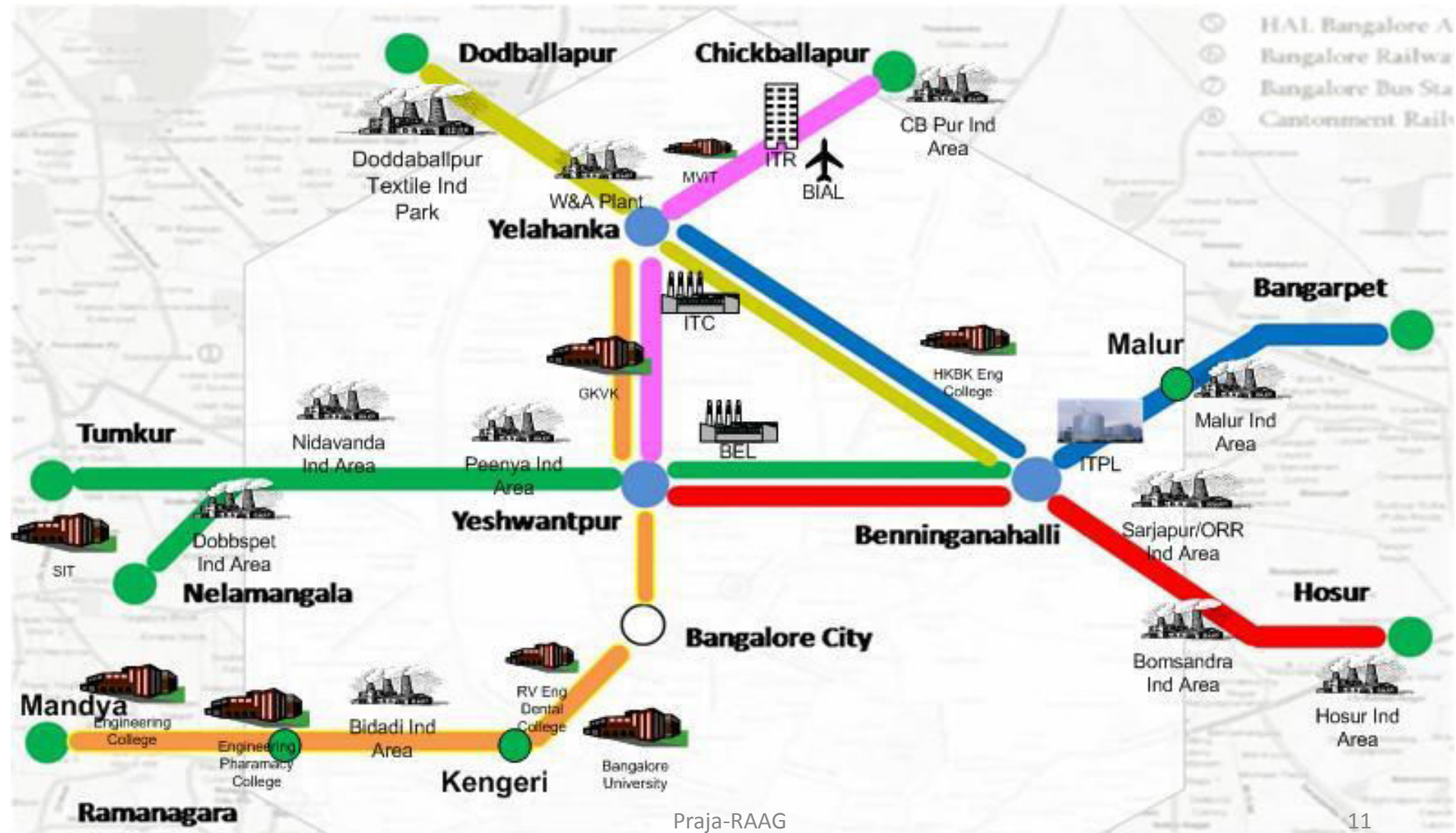
- 10-20 Minute Frequency
- 275 – 300 Services per day
- 25 Lakhs Commuter capacity
- On time Arrival & Departure
- Round the clock Schedule

Commuter Rail Service Using Existing Railway Lines



- Commuter Service using existing 'Railway Lines'
- Routes going in all directions connecting all major towns around Bengaluru
- Works as high density urban transit system
- Work as sub-urban commuter system
- One hour daily commute time service to city center from towns and suburbs
- Affordable daily commute choice for living in towns, working in city centers
- Predictable Travel Times, No Congestion Worries
- Potential to carry 25 Lakh commuters per day

Major Educational, Industrial, Business Hubs in Bengaluru Suburban Rail Catchment area







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HEBBAL

MIL-05-ES

PINCODE 560014

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NELAMANGALA

N.S. L-400/401

1000 1000/1000







But getting here, where we need to be, needs investments

...we get here

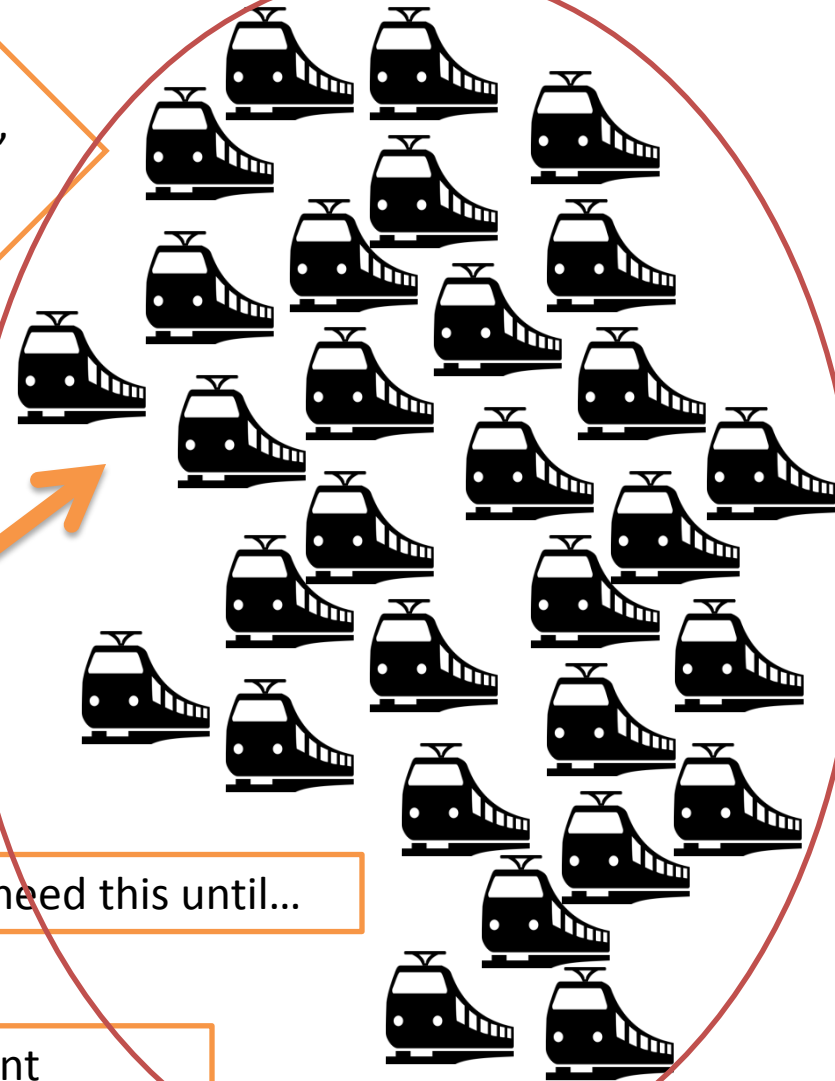
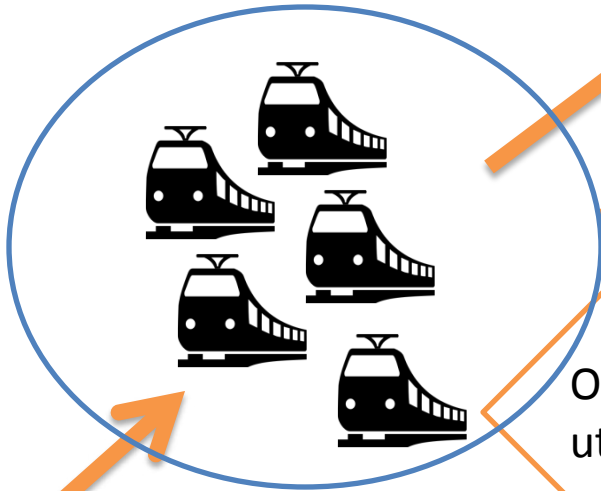
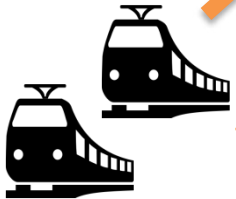
Blue circle = Track optimization & Signalling

But we still need this until...

Optimizing current utilization may get us here

This is our current Commuter Rail System

Red circle = Dedicated Infrastructure



We cant give you blue circle because our tracks are utilized

Because we dont intend running commuter rail & the current capacity is sufficient to run our trains for now

We wont get into the red circle because our fare structure will never allow it to be profitable.



**Indian
Railways**



But you never added any reasonable capacity on the 200kms of available tracks?

But this city will collapse without the red circle how can you not run it and also not allow anybody else to run it?

Then we need a model which will make red circle happen



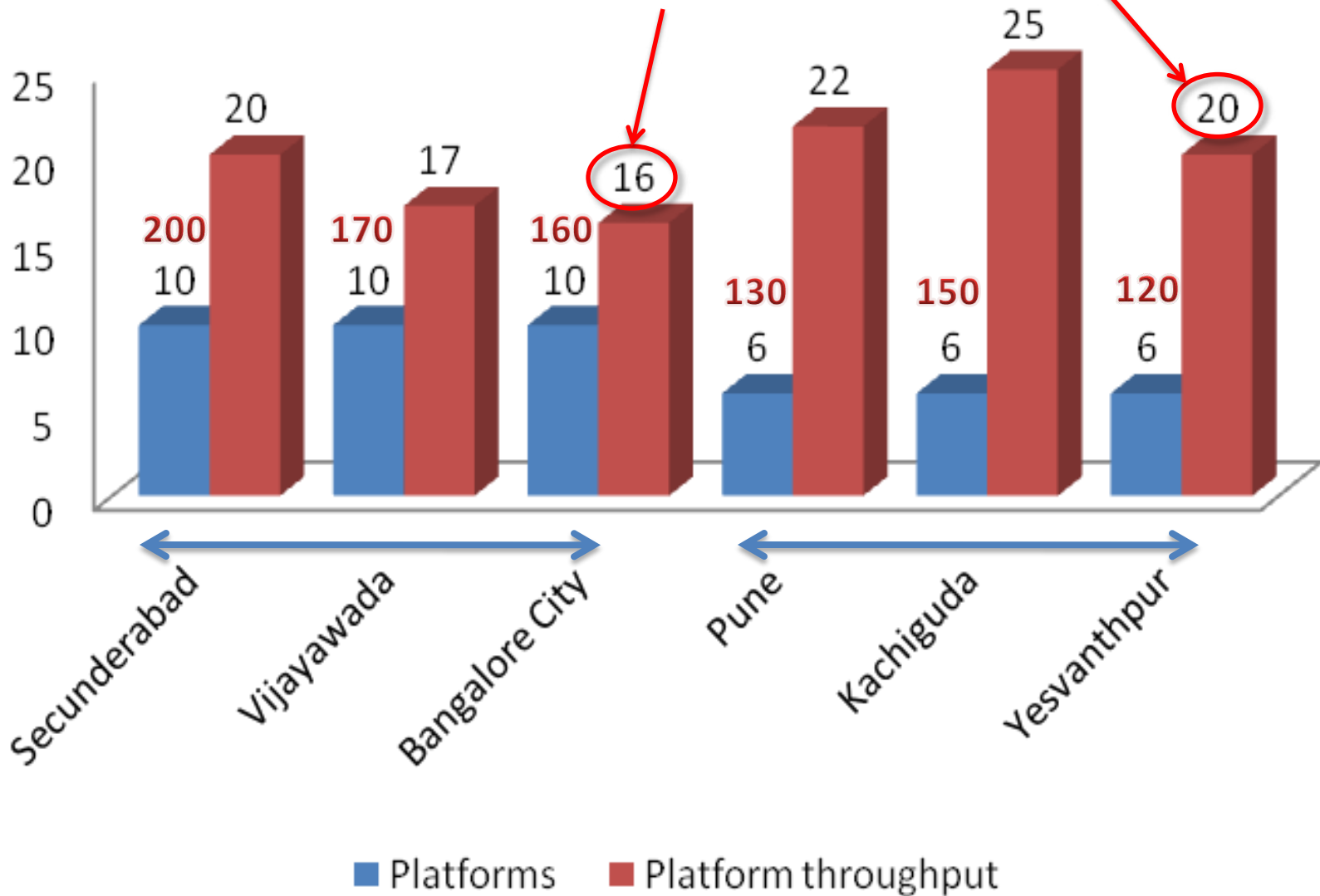
73% of the tracks proposed
in the commuter rail routes
need Electrification.

49% of the total proposed
length is single track. This
needs doubling on urgent
priority



Segment	Distance in Kms	Doubling Needed?	Electrification Needed?	Status / Remarks
Yelahanka to Yesavnthpur	12.45	Yes	Done	Railway Budget Sanctioned, DPR is ready, Tenders to be called for doubling.
Yelahanka to K R Puram	15.80	Yes	Done	Railway Budget Sanctioned, DPR is ready, Tenders to be called for doubling.
Yelahanka to Chikballapur	46.05	Yes	Yes	
Yelahanka to Dodballapur	20.72	Yes	Yes	
Yesavnthpur to Banaswadi	14.76	Yes	Done	
Banaswadi to Hosur	51.36	Yes	Yes	
Banswadi to Baiyyappanahalli	4.47	Yes	Done	
Yesvanthpur to Soldevanhalli	10.78	No	Yes	
Soladevanhalli to Nelamngala & upto NH-4	8.00 / 10.00	Yes	Yes	
Soladevanhalli to Tumkur	53.22	No	Yes	
Kengeri to Ramanagaram	32.43	No	Yes	As part of Bangalore to Mysore Doubling & Electrification, this stretch electrification will be taken up.
Kengeri to Yesvantpur	19.00	No	Done	
Baiyyappanahalli to Bangarpet	60.00	No	Done	

Lowest Throughput



*Public sources

rites Proposal approved by GOK

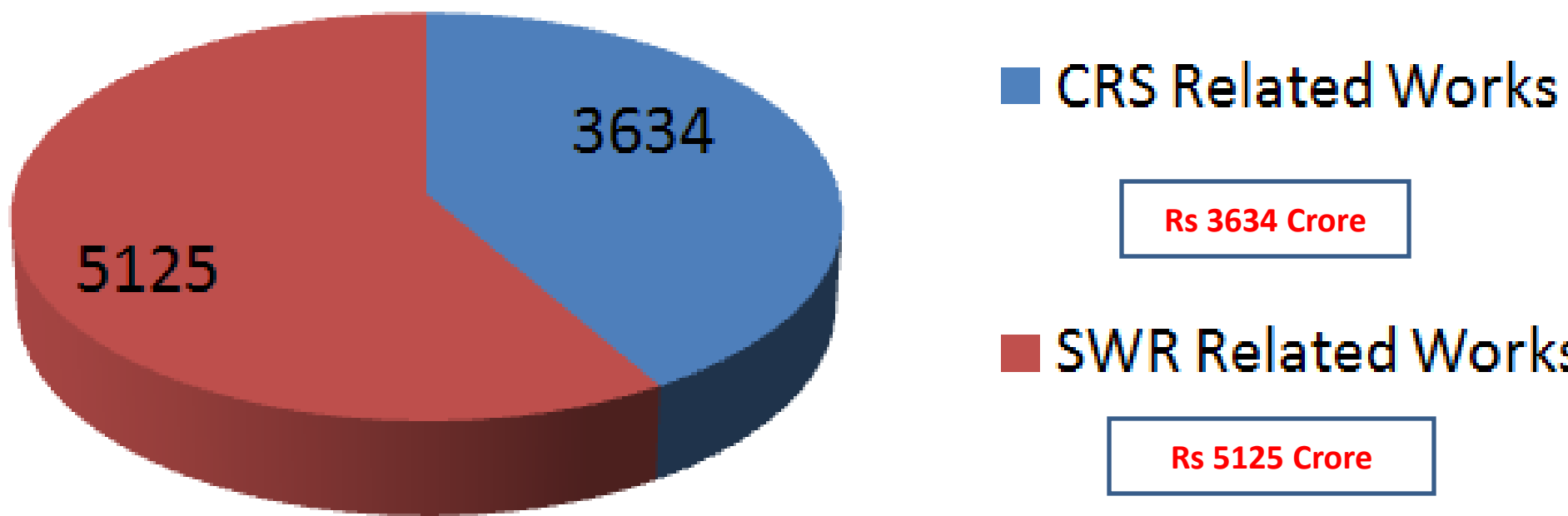
- Phase-1A – Need Rs. 950 Crores

– Tumkur, Mandya and Bangarpet Sections

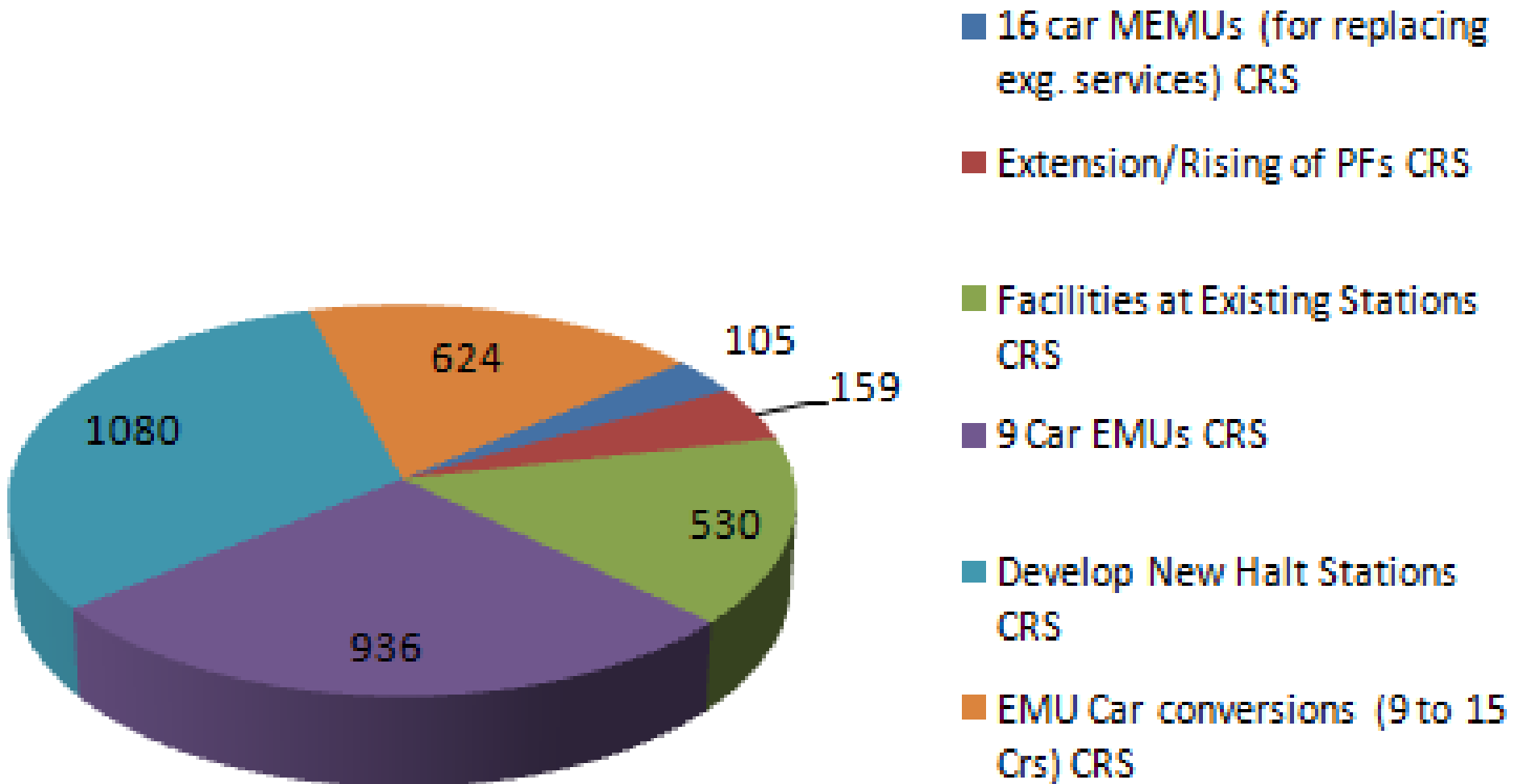
- Within 6-9 months, 24 Services, 4 Lakhs / Day

PHASE	Investment	Time Frame	Ridership / Day
Phase -1	3800 Crs	2- 3 Yrs	8 Lakhs
Phase -2	2300 Crs	2-3 Yrs	15 Lakhs
Phase -3	2500 Crs	1 -2 Yrs	25 Lakhs

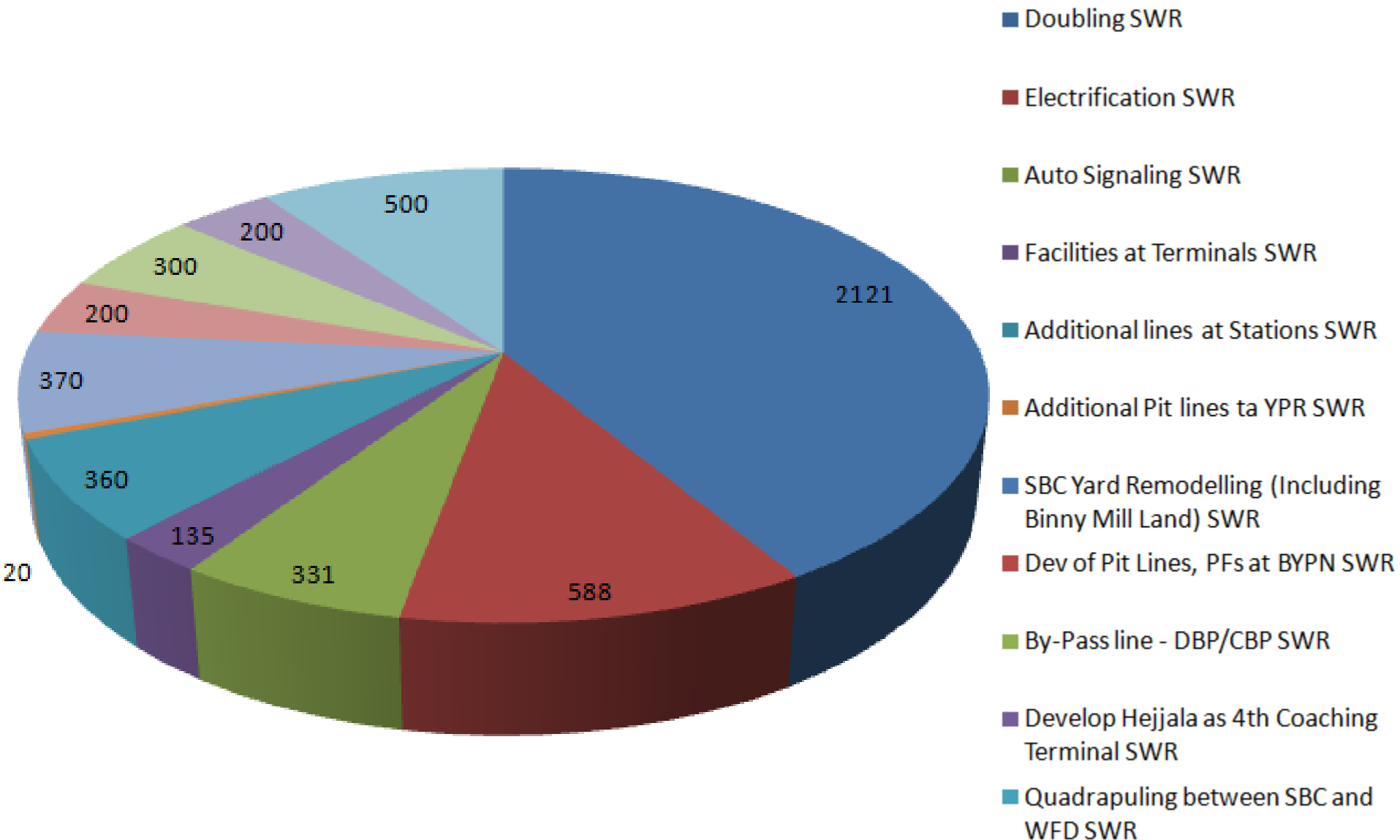
Total Cost breakup : Commuter Rail works and Indian Railway investment for the Project



Commuter Rail related works investment



Indian Railway related works investment



Suburban Rail coaches with Indian Railways

Coach Type	2010 - 11	2011 - 12	2012 - 13
DEMU	761	824	900
EMU	7292	7793	8500

Suburban Rail coaches year wise Acquired by Indian Railways

Coach Type	2009 - 10	2010 - 11	2011 - 12
DEMU	198	93	141
EMU	600	703	441
MEMU	214	40	112

Suburban Rail Coach Manufacturer in India

- ICF Chennai 500 EMU Coaches / year
- BEML Bangaluru 850 Coaches all types / Year
- RCF Kapurthala
- Jessops
- Kancharpura
- BHEL Bhilwara 400 MEMU Coaches / Year
- Haldi 200 DEMU Coaches / Year



Cost Comparisons

	Suburban Rail	Metro*	Monorail
Daily Ridership	20 Lakhs	10.5 Lakhs	1.5 Lakhs
Length	405 Kms	115 Kms	60 Kms
Total Cost	Rs. 8,500 Crs	Rs. 38,000 Crs	Rs. 8,400 Crs
Construction Cost (Per Kilometer)	Rs 15-20 Crs	Rs. 200-400 Crs	Rs. 150 Crs

Data Source

** - 2012 RITES Report on CRS*

[] - News Media

Key Requirements

- Approval from Railway Board
 - Approval to the Project
 - Acceptance for stake holding in SPV
 - Agreeing to share the equity and investment
- Formation of SPV
- Mandating SPV to
 - Implement Phase-1A
 - Plan and implement next phases

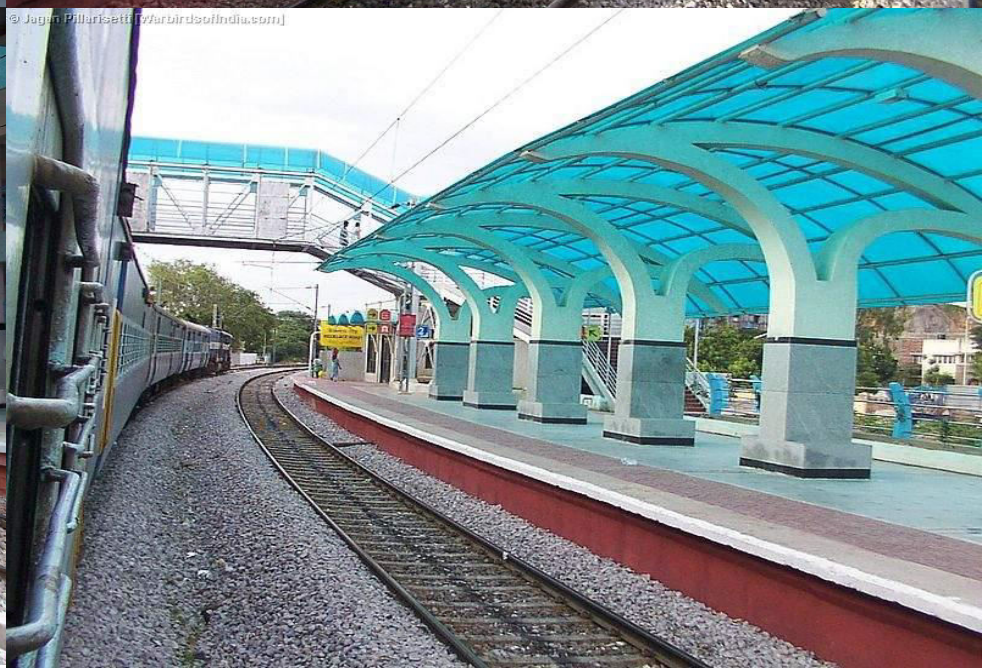
Key Issues

- Co-ordination between stake holders
- Procurement of Rakes : EMU / MEMU type
- Railway Stations up gradation with facilities
- Automatic Signaling
- Ticket Fare & Revenue model
- Time schedule management
- Co-ordination of Local Planning authorities :
Nelamanagala, Anekla, BIAPPA Devanhalli,,
BMRDA, Tumkur, Chikballaur, Ramangaram

Namma Railu In a Nutshell

Cheapest Mass Transit to Build
40% Share in Public Transport
70-100 Km in 70-90 Minutes
2 Million Commuters Per Day
400 Km of CRS Network
100+ Stops
Predictable Travel Times

DECONGESTING BENGALURU



Transportation is not a technical problem. It is not an infrastructure problem. It is not even a financial problem. Most often it is a political problem



Progress So Far!

- Nov'2009 – IDD / GOK discussion with SWR Bangalore
- Aug'2010 – Round table event by CiSTUP and Praja-RAAG
- Sept'2011 – DULT assigned RITES for feasibility report
- Aug'2012 – RITES submitted the report
- Feb'2013 – GOK forwarded request to Railway Board
- March'2013 – GOK gave In-Principle approval
- July'2013 – GOK issued a GO for Phase-1A and SPV formation
- Sept'2013 – DPR for Ph-1A assigned to RITES
- Sept'2013 – Process for SPV Formation is in progress
- Sept'2013 – Process initiated for Binny Mill Land Acquisition
- Oct'2013 – Formal proposal sent to Railway Board