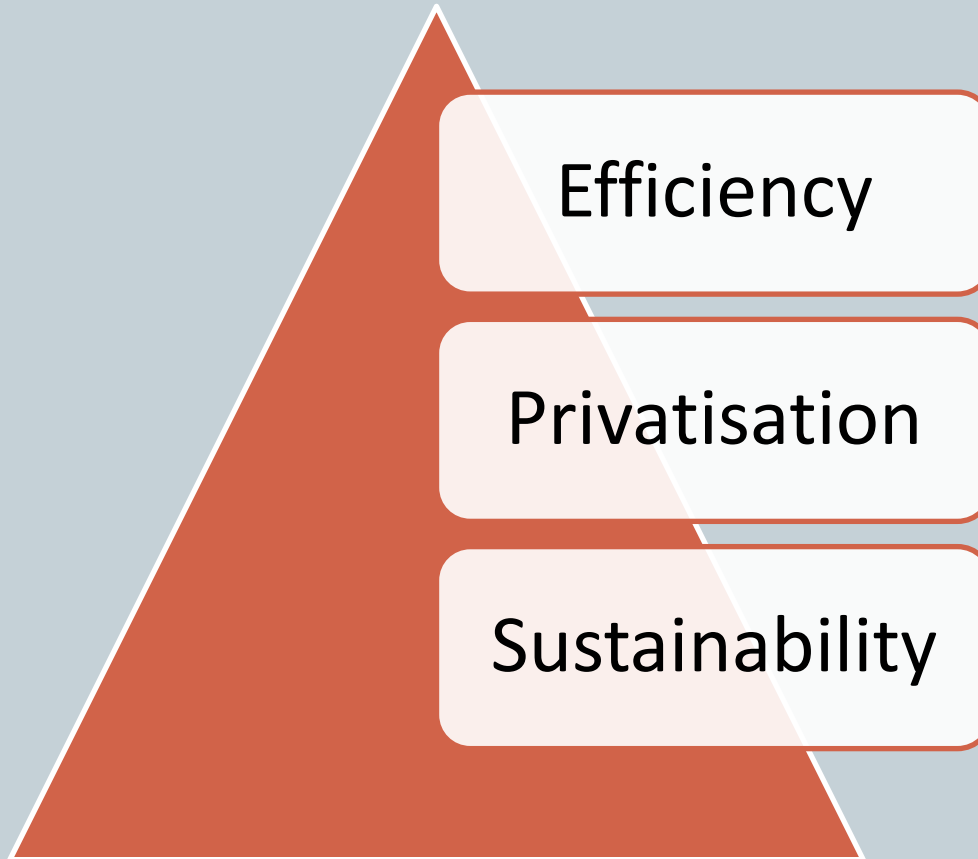


DELIVERING EFFICIENT BUS OPERATIONS THROUGH PROVEN TECHNOLOGY

Bill Delaney
Managing Director
Trapeze Group Asia Pacific

Global Themes



Rapid growth & urbanization of India

Urbanization:

30 People leaving Rural India every minute for Urban India.

Cities:

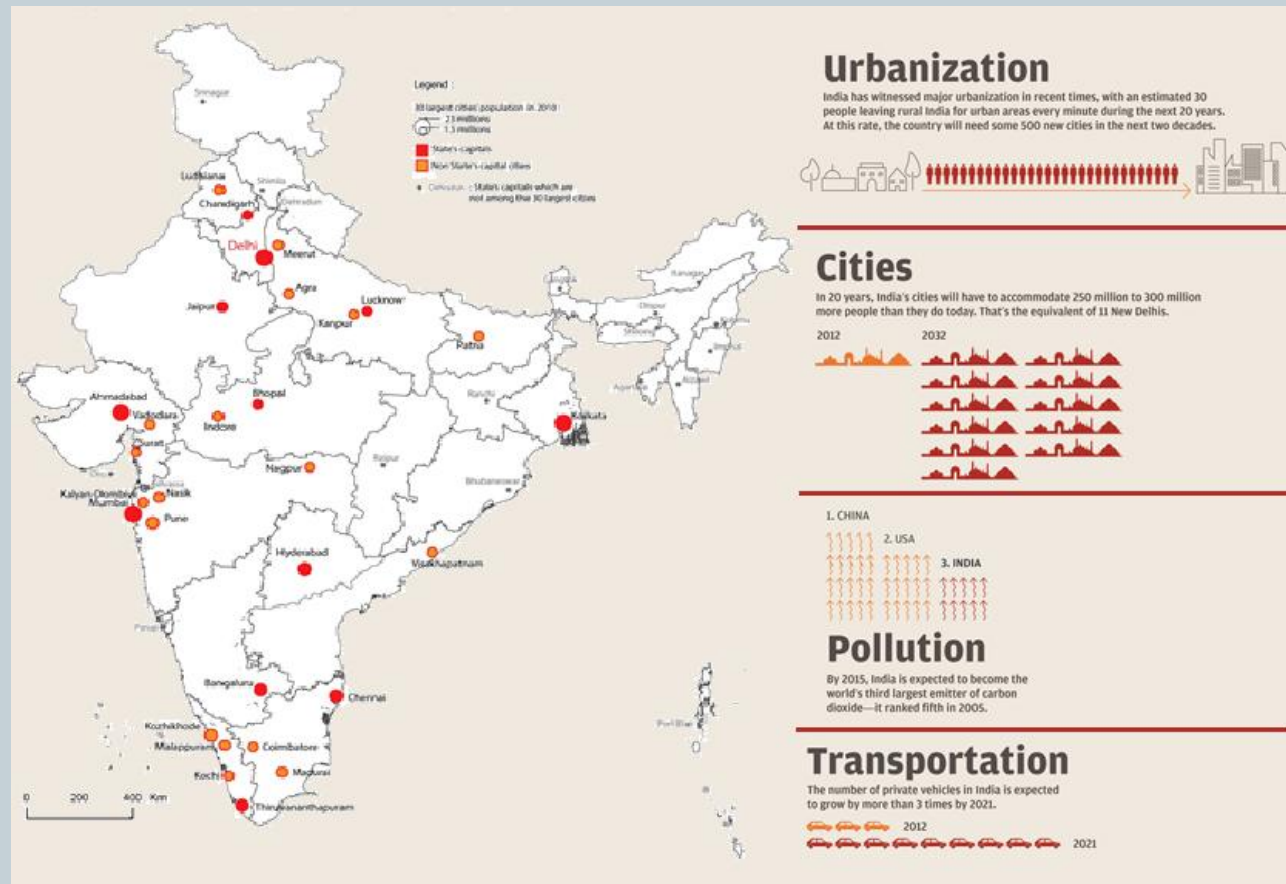
In next 20 Years India Needs 11 New Delhi

Pollution:

India is already a third largest emitter

Private Vehicle:

Will grow 3 times of 2012 by 2021



Drivers for Efficient Operations

Population - Efficient mass transit

- On time predictive service
- Commuter friendly
- Informed choices

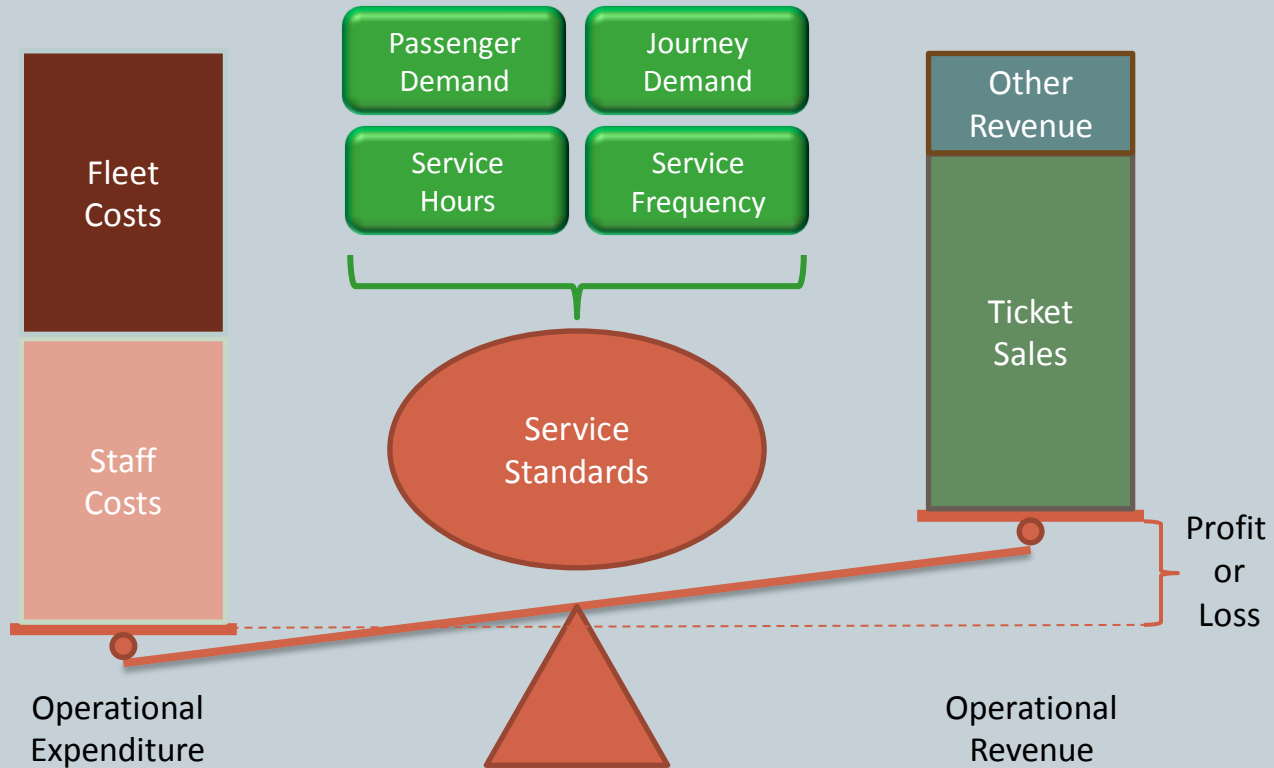
Pollution: Environment friendly

- Periodic and predictive corrections for Well maintained bus
- More coverage using same fleet
- Ease burden on existing resources

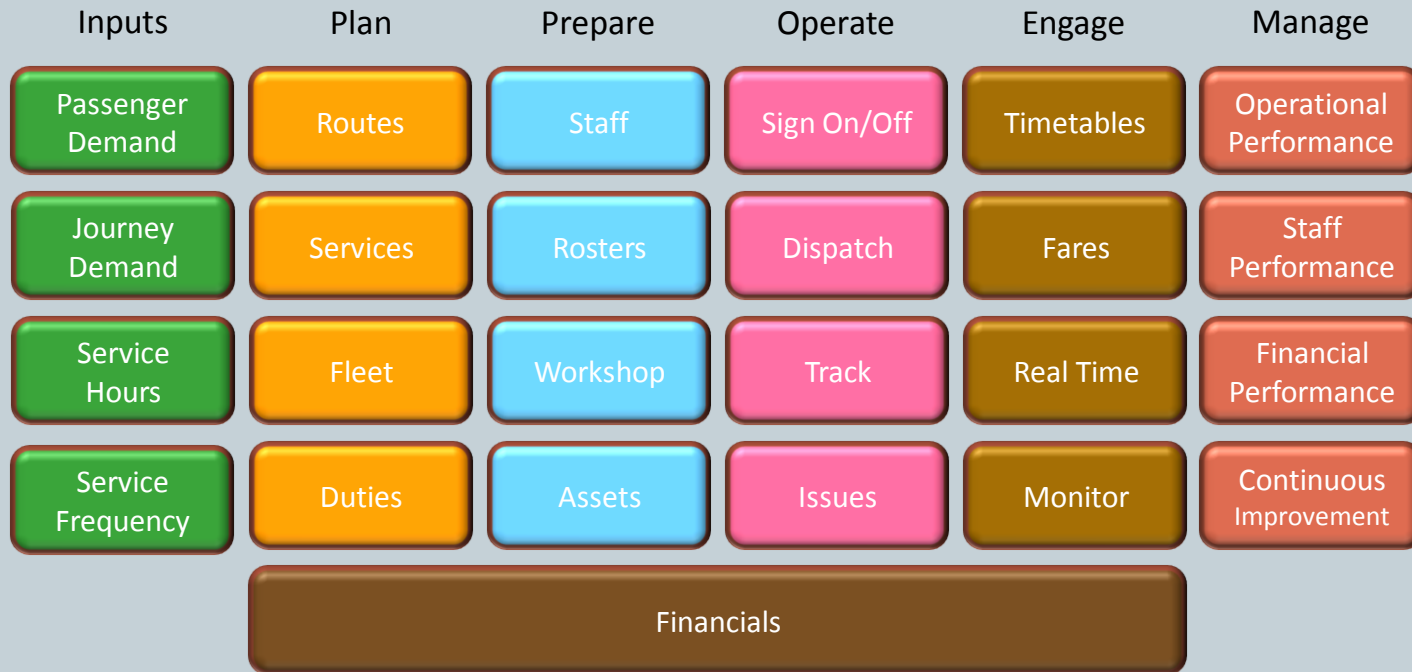
Profitability: Self sustaining operations

- All of above +
- Optimized use of crew and fleet
- Manage overall cost (workshop, Tyre & Fuel)
- Increased life of fleet
- Achieve targets with existing resources

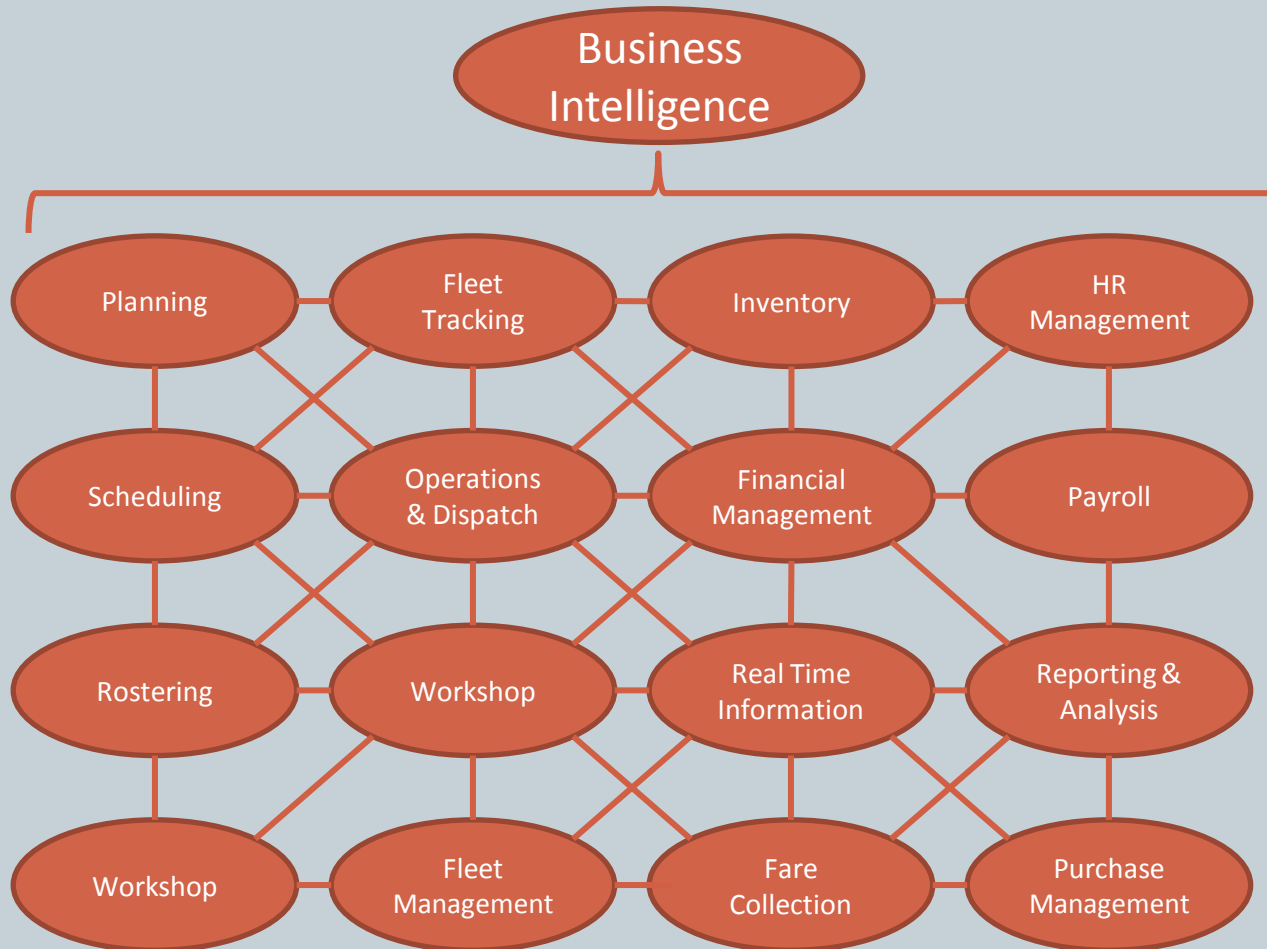
Driving Efficiency



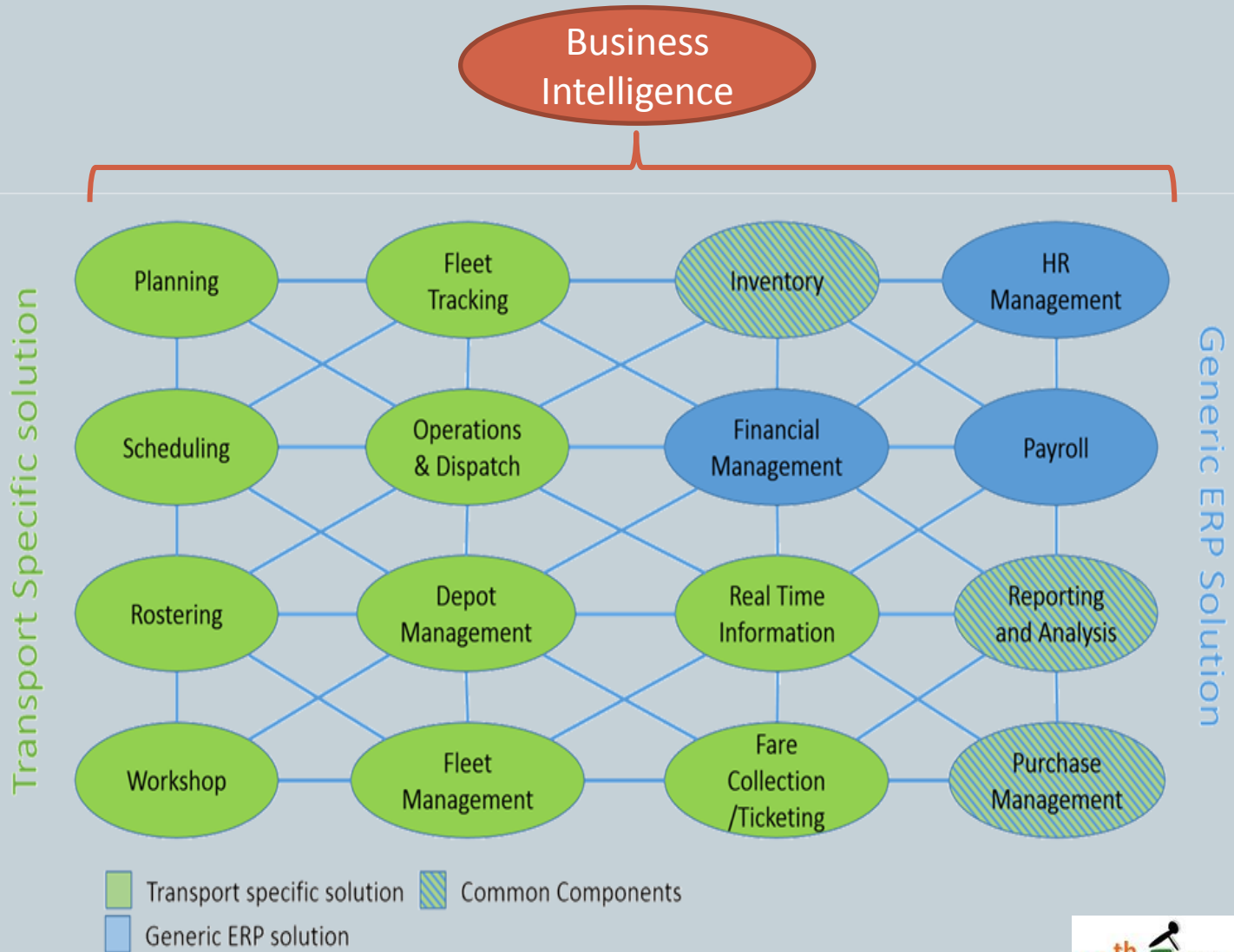
Business & Functional Landscape



Solutions Landscape



Integrated Solution



Business Intelligence



The screenshot displays the Trapeze Business Intelligence dashboard. On the left is a navigation sidebar with categories: Work, Streams, ADMIN, Employee, **Everyone** (selected), Executive, Manager, and Monitoring apps. The main content area is titled 'Everyone' and contains a grid of dashboard tiles. The tiles are arranged in two rows. The top row includes: 'DEMO - Dubai Taxis' (taxi icon), 'DEMO - Executive Dashboard' (charts icon), 'DEMO - NYC YellowCabs' (taxi icon with Statue of Liberty), 'DEMO - PerformanceMor...' (person and chart icon), 'Fleet - Basic' (buses icon), and 'HR' (network diagram icon). The bottom row includes: 'Payroll' (calculator and money icon), 'PerformanceMonitor - Basic' (person and chart icon), 'Roster - Basic' (calendar icon), and 'Ticket Sales' (ticket icon). At the top right of the dashboard area, there are controls for sorting (Alphabetically) and a view toggle (grid/list).

Interactive Live Dashboards



Business Intelligence

Exec Summary



Accidents/100K-km \uparrow
2.16
vs 2.10

Accidents/ 100K-km TY \uparrow
2.26
vs 2.10

Accidents/100K-Hrs \uparrow
72.50
vs 75.4

Accidents/100K-Hrs TY \uparrow
60.68
vs 8.754

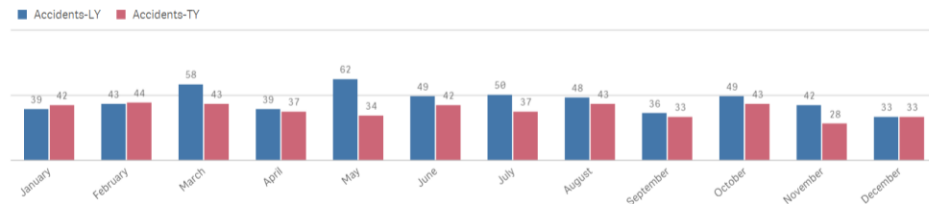
Complaints /100K-km \uparrow
7.70
vs 7.40

Complaints/100K-Km TY \uparrow
10.36
vs 7.40

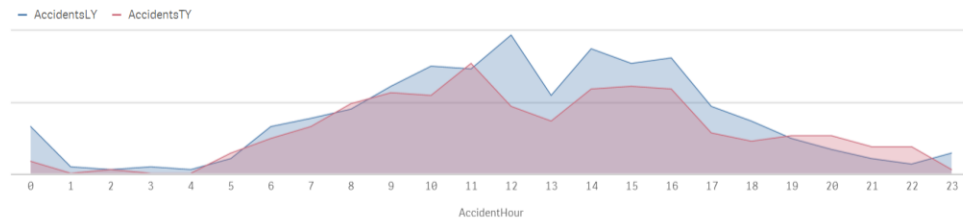
>>Definitions

>>Accidents

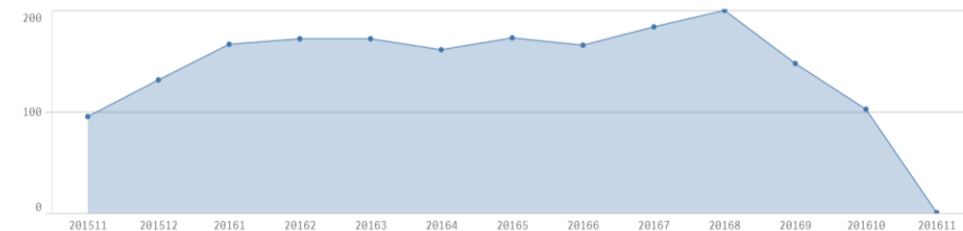
Accidents by Month of Year



Accidents by Hour - LY/TY



Complaints Trend - 12mth



Interactive Live Dashboards

Lessons Learnt

- Capture data once – use many times
- Enforce consistent naming and definitions of data
- Break down monitoring to lowest business unit
- Monitor and publish key metrics daily/weekly
- Put “live” information in the hands of management
- Model “What-If” scenarios and test
- Keep adjusting – continuous improvement

India Success: BEST

CASE STUDY >>

BRIHAN MUMBAI ELECTRIC SUPPLY & TRANSPORT (BEST)

SNAPSHOT

Type of Service: Fixed Route
 Number of vehicles: 4200
 Trapeze products used: Trapeze Austrics
 Location: Mumbai, India

THE BACKGROUND

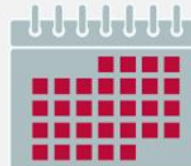
BEST Undertaking provides public transportation service throughout Mumbai. It is owned by the Municipal Corporation of Mumbai and was first established in 1873. BEST's transport wing is considered one of the best in the world.



BEST is one of the **largest** public transportation companies in India

- 5 million passengers
- 64,000 trips
- 500+ bus routes
- 4,200 buses

THE CHALLENGES



It took **4-5 weeks** for BEST employees to put together duty schedules and to present it to drivers/conductors. Employees had to manually re-draw schedules if requests or changes were made.

THIS PROCESS WAS...



Time-Consuming







Costly



Inefficient

THE CONCLUSION & RESULTS

BEFORE	AFTER	RESULTS
 <p>4-5 WEEKS</p>	 <p>2-3 DAYS</p>	<ul style="list-style-type: none"> ✓ Reduced administrative hours ✓ Reduced the # of duties by 4% without affecting the actual service levels <p>BEST BENEFITS FROM...</p> <ul style="list-style-type: none"> ...efficiently utilizing relief points ...mixing routes and tightening schedules
 <p>MANUAL SCHEDULING</p>	 <p>AUSTRICS COMPUTERIZED SCHEDULING</p>	

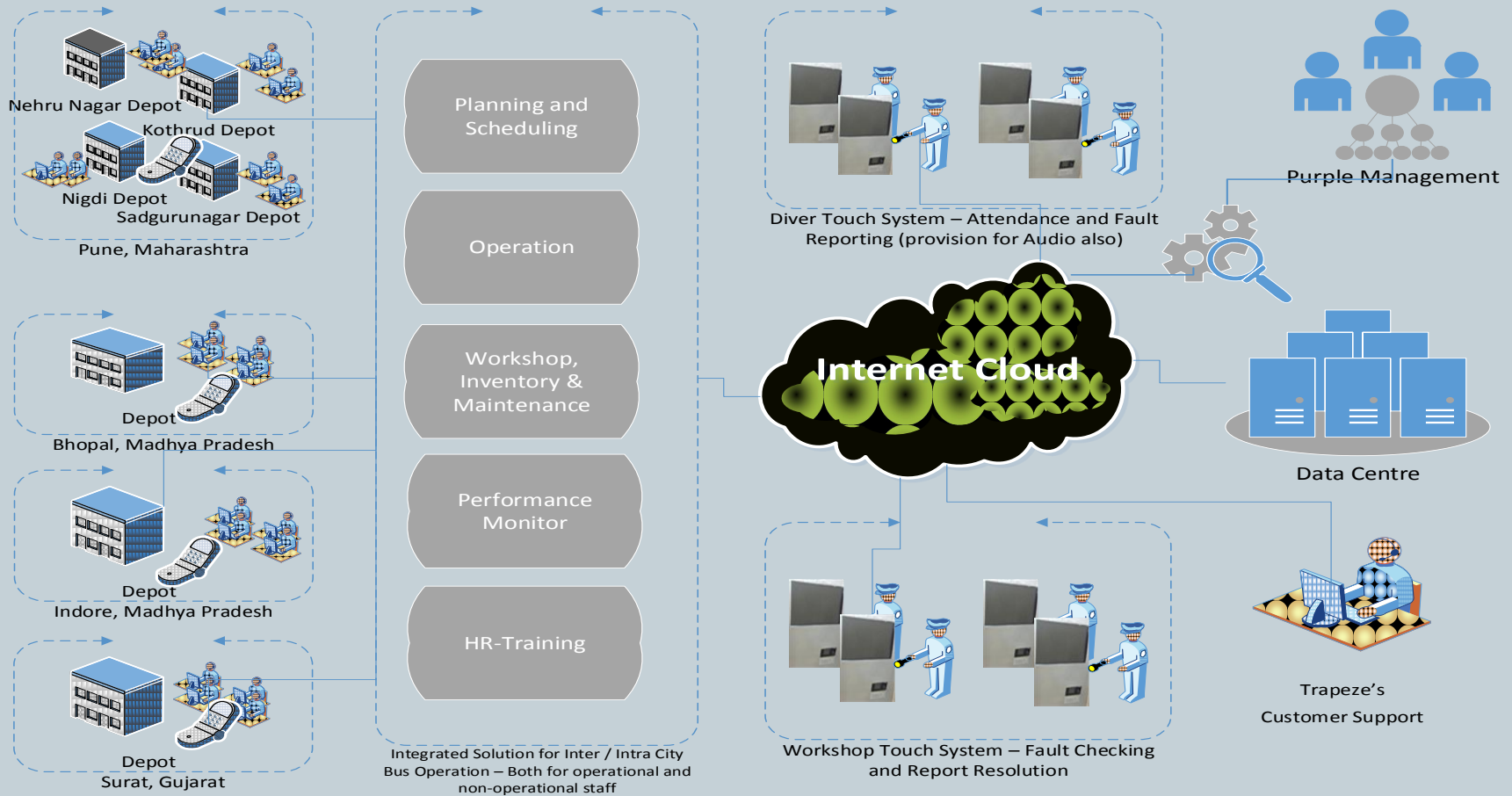
“

By using Trapeze software we expect to bring down the manpower cost by almost 4%.”

- *BEST Undertaking General Manager, OP Gupta*



India Success: Purple



“Trapeze understands the needs of the Indian transportation market and brings global capabilities and best practices that can help us enhance our operational efficiency and provide a better experience to our passengers.”

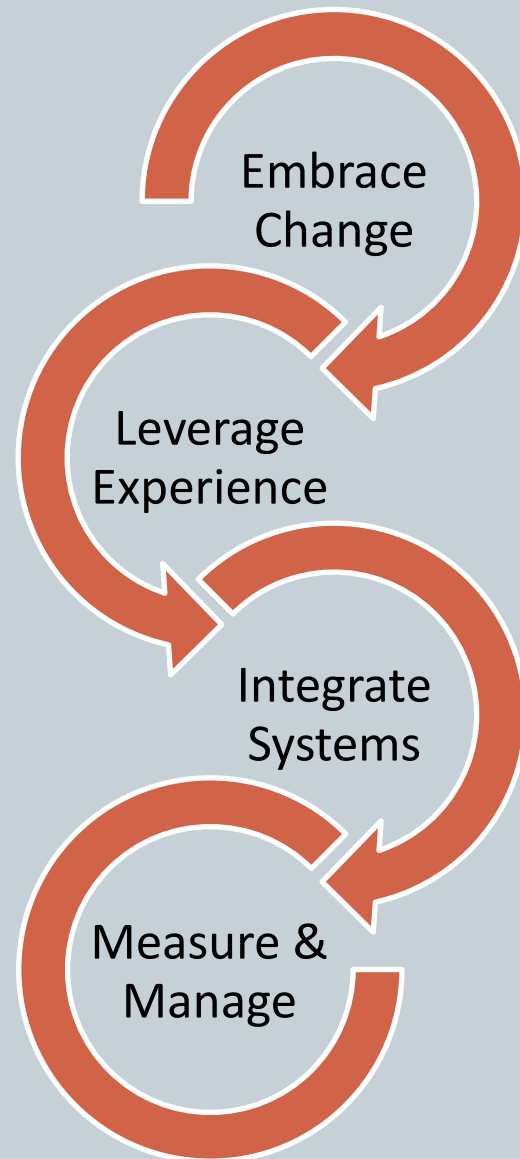
*- Pasanna Purple Chairman & MD,
Mr. Prasanna Patwardhan*



Many More Worldwide



Thank You



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Trapeze Group Asia Pacific

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