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# COT IRPTN PRESENTATION FOR SUSTAINABLE AND SMART CITIES COLLABORATION

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**AREYENG**  
CONNECTING THE CAPITAL

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## INTRODUCTION – The Vision

*“To position the City of Tshwane as one of the lead capitals worldwide, by improving the economic growth and development through the means of expanding the transport network as an inclusive and accessible system for all its citizens.”*

### A RE YENG VISION, STRATEGY AND OVER-ARCHING OBJECTIVES:

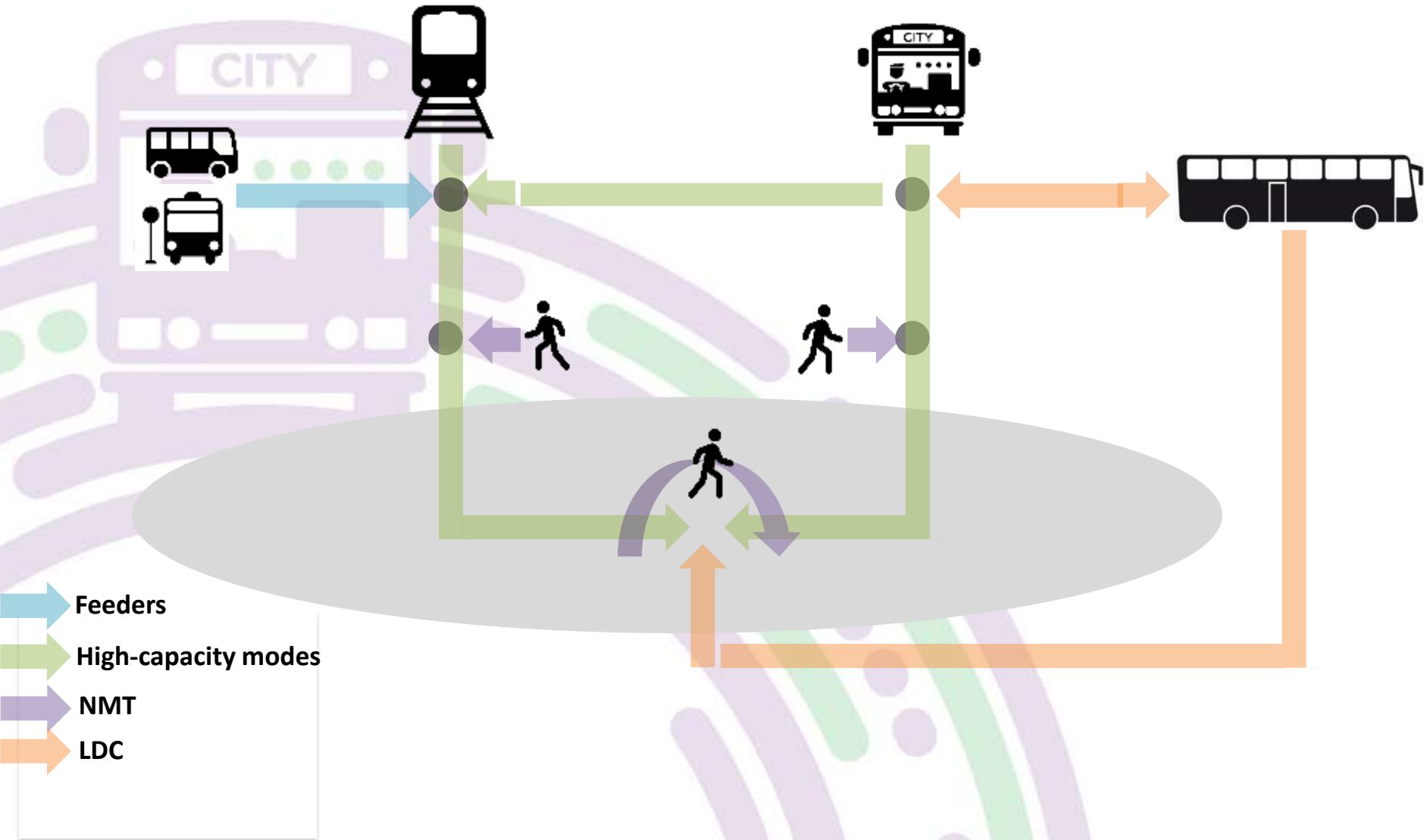
- SAFE
- AFFORDABLE
- CONVENIENT
- RELIABLE
- INCLUSIVE
- SUSTAINABLE
- INTEGRATED

# STRATEGIC DEFINITION FOR SYSTEMS PLANNING

## A Re Yeng is a key tool for the development of the city

- A Re Yeng, as a mass transit system, plays a key role in the public transport network and will complement the backbone of the network especially integrated with rail services.
- A Re Yeng, together with other services, is a tool to:
  - **Rejuvenate, Develop and Shape** the city into a more sustainable form,
  - **Support economic development** and the **fight against poverty**,
  - **Contribute** to the reduction of the **high costs** of transport,
  - **Showcase** the image of the City

# ULTIMATE PUBLIC TRANSPORT SYSTEM



- Feeder
- High-capacity modes
- NMT
- LDC

# TAKING STOCK – KEY ISSUES

The system has been facing issues that have slowed its implementation and consequently its structuring role

- A Re Yeng is in the developmental stage of meeting the expectations of a BRT system.
- Critical gaps at this developmental in the system prevent it from operating as an attractive service (type of services, headways, and average speed)
- Another major challenge are the costs associated with A Re Yeng:
  - low utilisation of the system,
  - high implementation costs,
  - high operating costs.
- The reduction in the grants received from DoT also supports the vital necessity to focus the effort where it is the most relevant and efficient (best value for money).

# TAKING STOCK – KEY ISSUES

Based on the above problem statement, an Optimisation Strategy was formulated, whose goals were identified as:

- Implement an efficient system to the benefit of the commuter, the operator(s), and the City.
- Implement a cost-effective system in terms of future roll-out options.
- Implement a system that generates sufficient income over the medium term to comply with the NDoT cost recovery Key Performance Indicator's.
- Optimise implementation of the next phases of the IRPTN, in accordance with the above principles.



# OPTIMISATION STRATEGY: KEY STRATEGIC INTENTS

- The 4 key strategic intents can be broadly categorised as:



## System Optimisation

- Integrate services across the different modes; Rail and BRT to become the mass transit movers in Tshwane
- Improve accuracy of demand forecasts; design and launch the system incrementally
- Centralise the planning of routes, modes and services (investigate formation of a Transport Authority)



## Operational Optimisation

- Optimise trunk route speeds, station operations, feeder and complementary route operations
- Develop KPI's to monitor the performance of the system
- Optimise the use of the APTMS, UTC and AFC technology



# OPTIMISATION STRATEGY: KEY STRATEGIC INTENTS

- The 4 key strategic intents can be broadly categorised as:



## Financial/Business Perspective

- Improve BOCA, SOCA and ITS contracts, review interim compensation
- Expand revenue opportunities – higher ridership, remove competing modes, market the system
- Reduce infrastructure costs, implement more with less

## Learning and Growth Perspective

- Human capital – Build functional competencies through training and knowledge transfer
- Information capital – Develop systems, databases and networks to ensure continuity in system implementation
- Organisational capital – Retain skilled personnel, build on knowledge, teamwork

# OPTIMISATION STRATEGY & OBJECTIVES

- Eight specific strategies have been identified, supported by key objectives:
  - ✓ **Strategy 1: Adopt a City-wide, integrated approach to Public Transport**
  - ✓ **Strategy 2: Optimise the System Design to enable Incremental Implementation**
  - ✓ **Strategy 3: Reduce the Operating Costs of the System**
  - ✓ **Strategy 4: Do more with less - Implement more infrastructure at a reduced cost**
  - ✓ **Strategy 5: Increase Ridership**
  - ✓ **Strategy 6: Build Internal Capacity**
  - ✓ **Strategy 7: Maintain a Central Knowledge Base**
  - ✓ **Strategy 8: Develop Internal Governance Structure**

# SYSTEMS PLANNING : GUIDING PRINCIPLES

## Optimisation of the implementation:

### 1. Maximizing revenue

- Integrated services (Rationalisation of other bus services, Minibus taxis truncation at outer nodes and transfer to A Re Yeng)
- Logical completeness (Maximizing existing infrastructures utilisation)
- Introduction of attractive service offering (“direct services”)

### 2. Reducing CAPEX Review of stations (Modular implementation concept, Re-interrogate/rationalise the scales/materials (glass, aluminium)

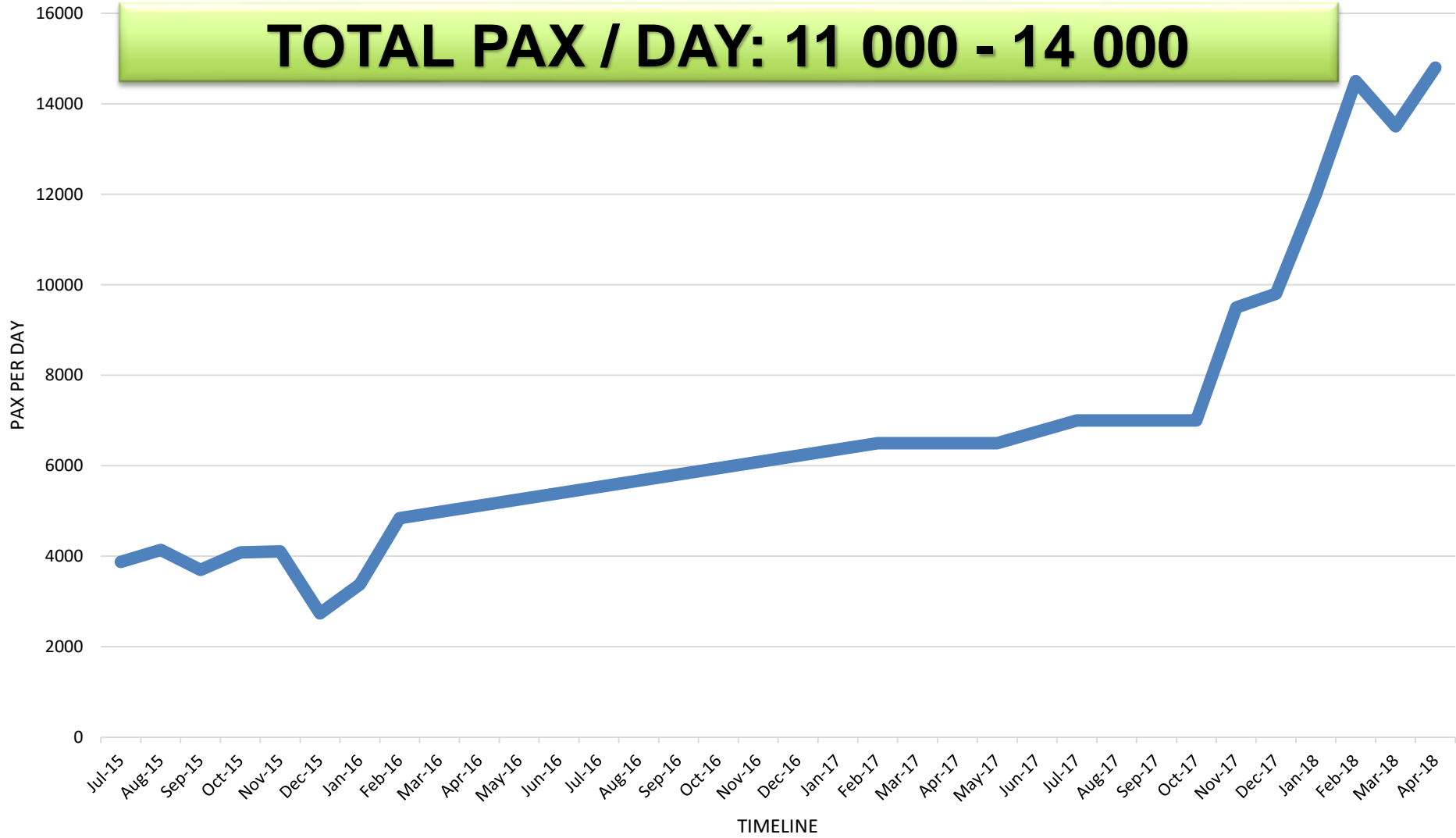
- Review of depot

### 3. Optimising OPEX

- Reducing CAPEX without increasing of OPEX.

# OPERATIONS : CURRENT ACHIEVEMENTS

**TOTAL PAX / DAY: 11 000 - 14 000**



# OPERATIONS - BUS FLEET DEPLOYMENT

Description	Number of buses
Diesel powered standard buses	67
CNG powered standard buses	40
Diesel powered articulated buses	7
<b>Total bus fleet</b>	<b>114</b>
Line 1A and 2A deployment (current)	64 7 articulated; 40 CNG; 17 Diesel
Mamelodi Operations	40 Diesel (12m)



- First City to operate CNG buses
- Need full support of depot, staff etc

# INFRASTRUCTURE – Current Projects





**Completed Projects**



# Thank You.



*'Don't know why I ne  
considered them b*  
**Their words, not ours.**

**THANK YOU**  
FOR YOUR PATIENCE DURING  
CONSTRUCTION.  
A BI YING CONSTRUCTION

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