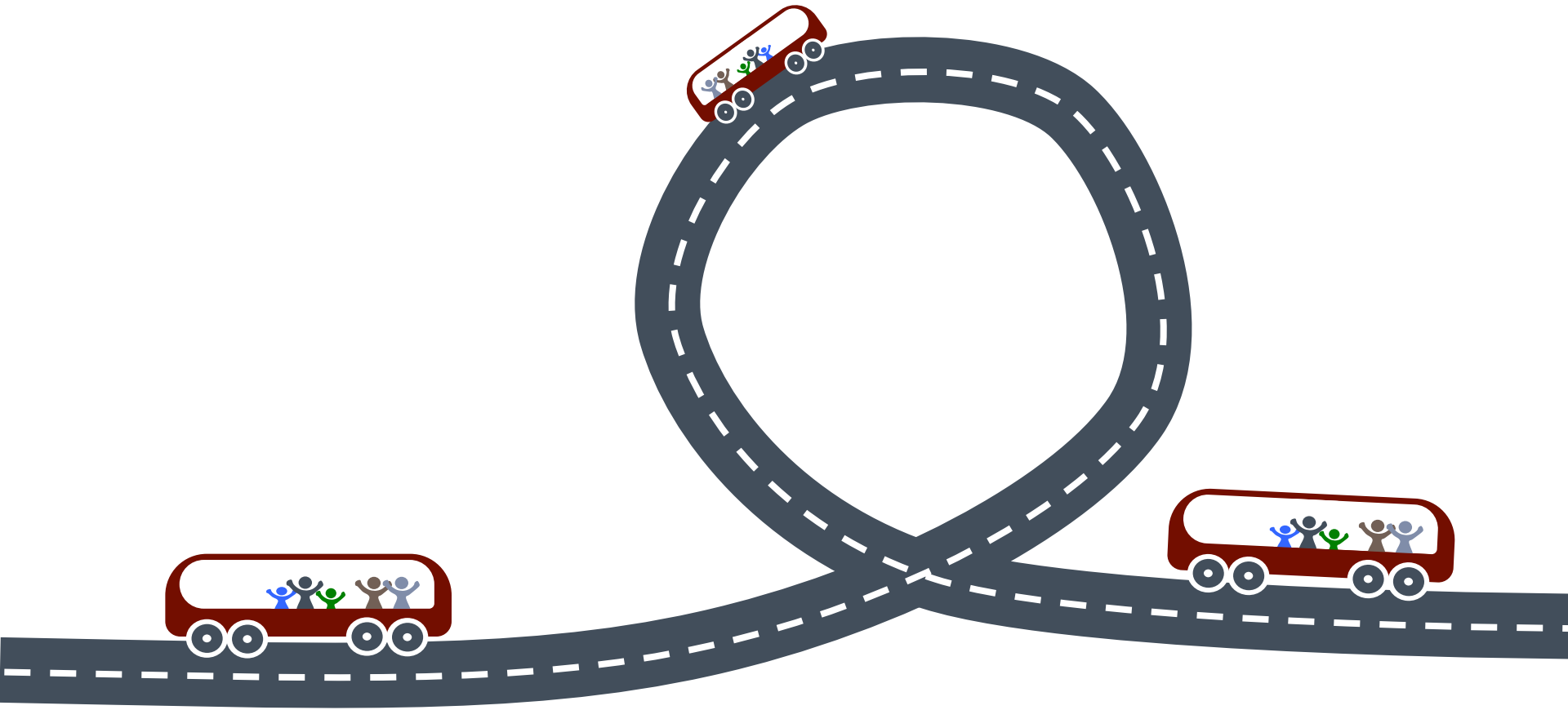


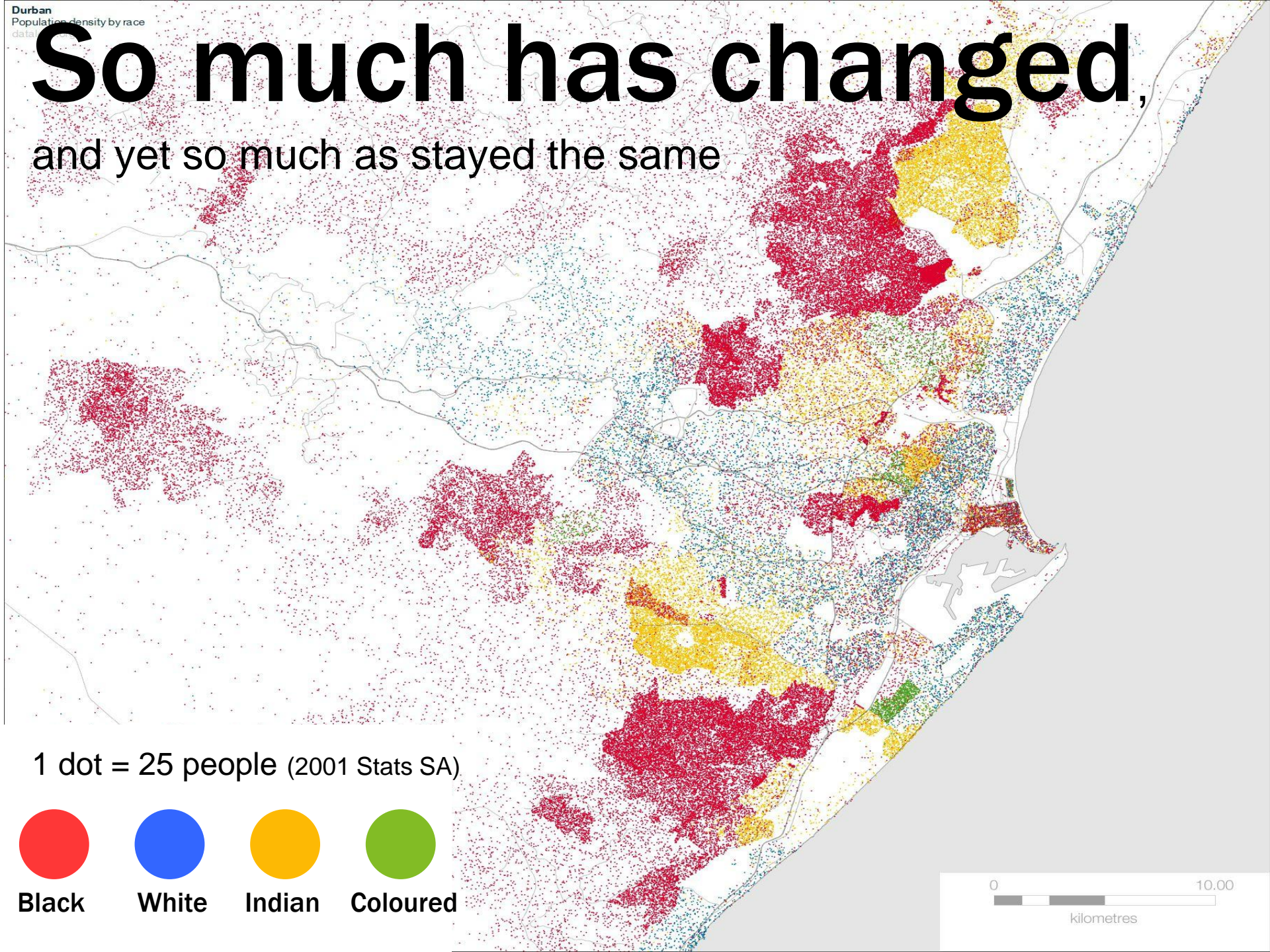
Carlos Esteves and  
Sue Bannister







Implementing **BRT** in eThekweni

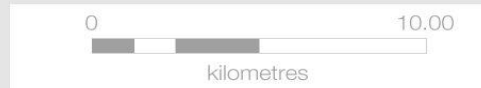
# So much has changed,

and yet so much as stayed the same



1 dot = 25 people (2001 Stats SA)

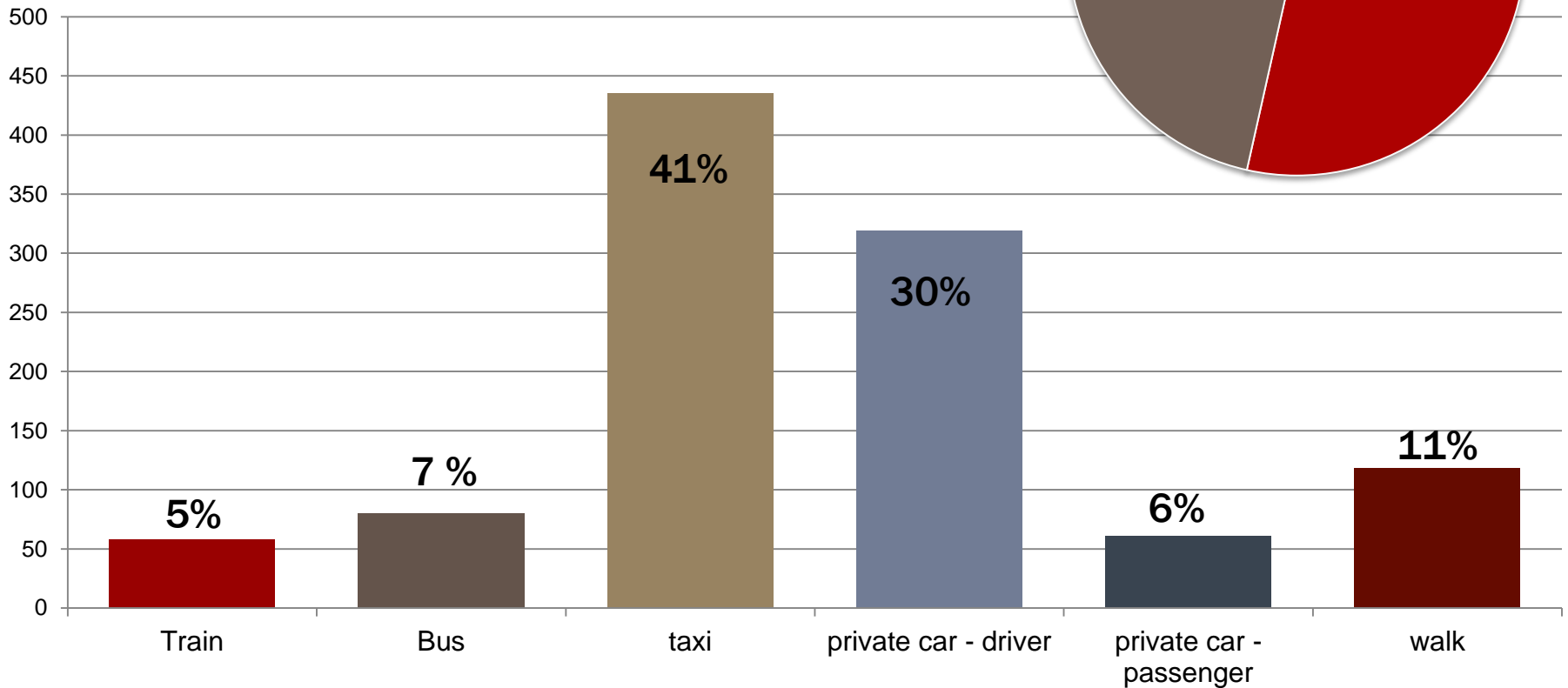
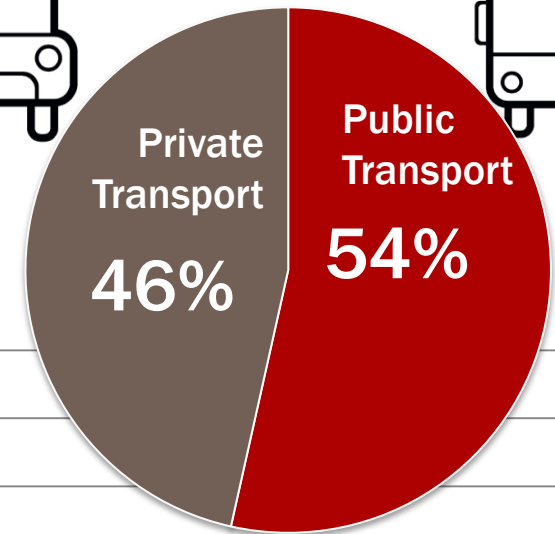
-  Black
-  White
-  Indian
-  Coloured



# eThekwini's commuter context

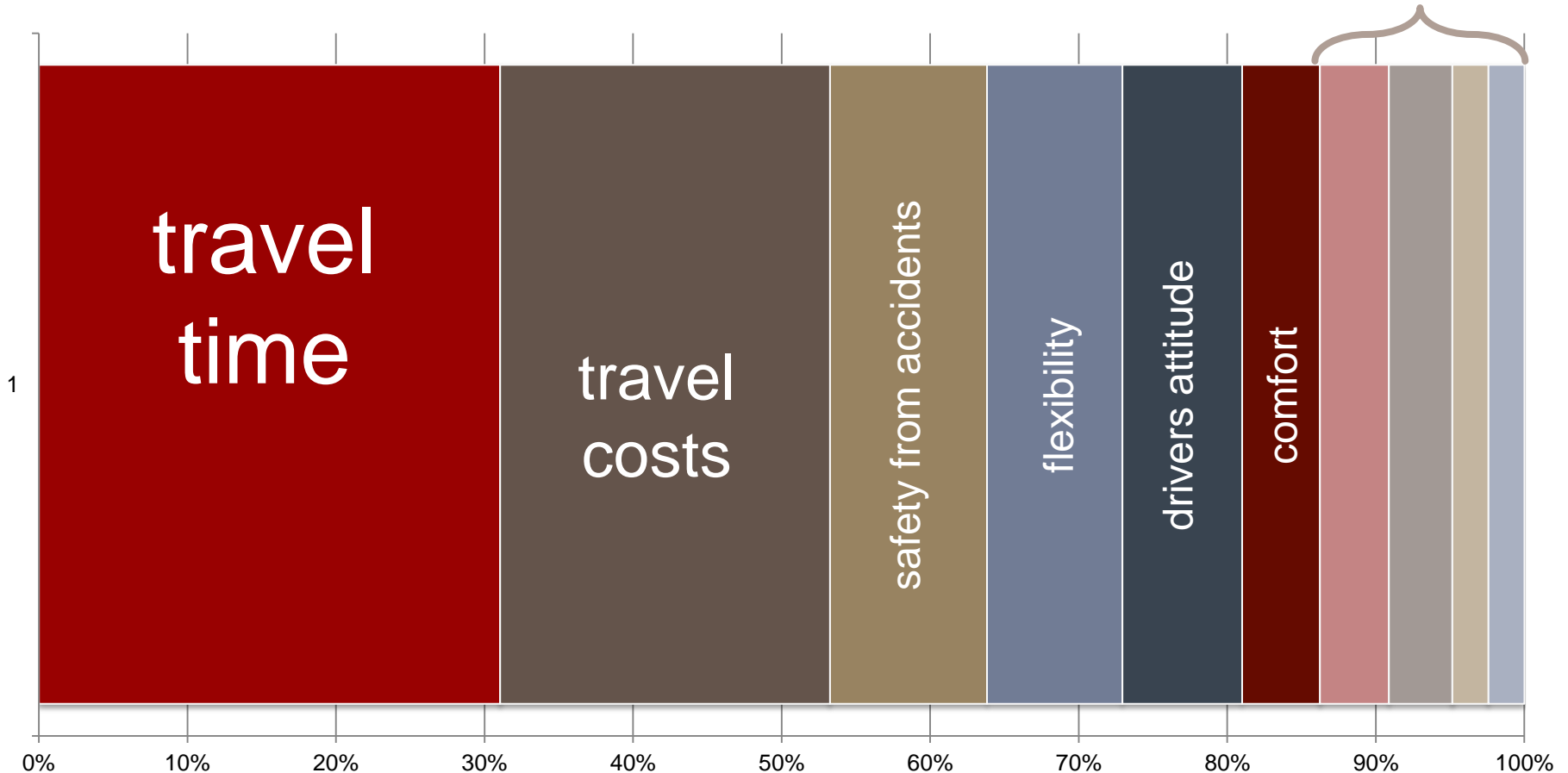


# Modes of travel in eThekweni - 2013



# What matters to commuters? (factors influencing travel choices)

reliability, distance from home to the transport, reliability and security from crime and other



# Three aspects to dealing with transport issues in eThekweni:

Provision of transport from outlying township areas to places of employment

Creation/ reinforcement of decentralised nodes with good access to transport and employment opportunities

Development of affordable living opportunities in central well located areas

# Fundamental Public Transport Restructuring (FPTR)

An integrated transport system allowing for a seamless, multi-modal, single ticketing system of public transport across eThekweni

FPTR used the extensive rail network in the city



Augmented with bus and taxi services largely as scheduled feeder services transferring to rail at key points.



**no BRT no**  
**funding?**



# BRT ?



# All Roads Led to BRT

300 000 tons  
less carbon  
emissions a year

up to  
**32%**

decrease in travel  
times

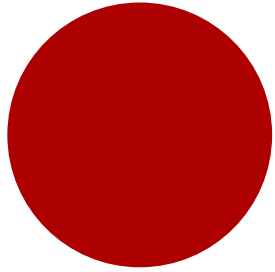
up to  
**17%**

increase in the value of  
residential properties on  
the system footprint

**89%**

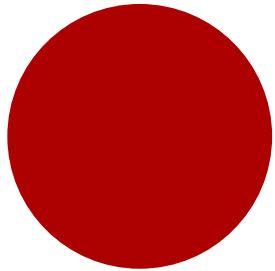
decrease in traffic  
fatalities

# BRT AS A DRIVER OF ECONOMIC DEVELOPMENT



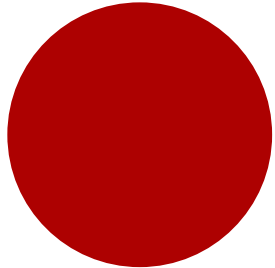
## for commuters

- ★ increased mobility and accessibility
- ★ less time spent on commuting
- ★ less cost.
- ★ increased safety and quality of travel



## for the municipality

- ★ increased land value = increased rates



## for business

- ★ increased land values in properties near the BRT system
- ★ reliable transport for staff

## for the city as a whole:

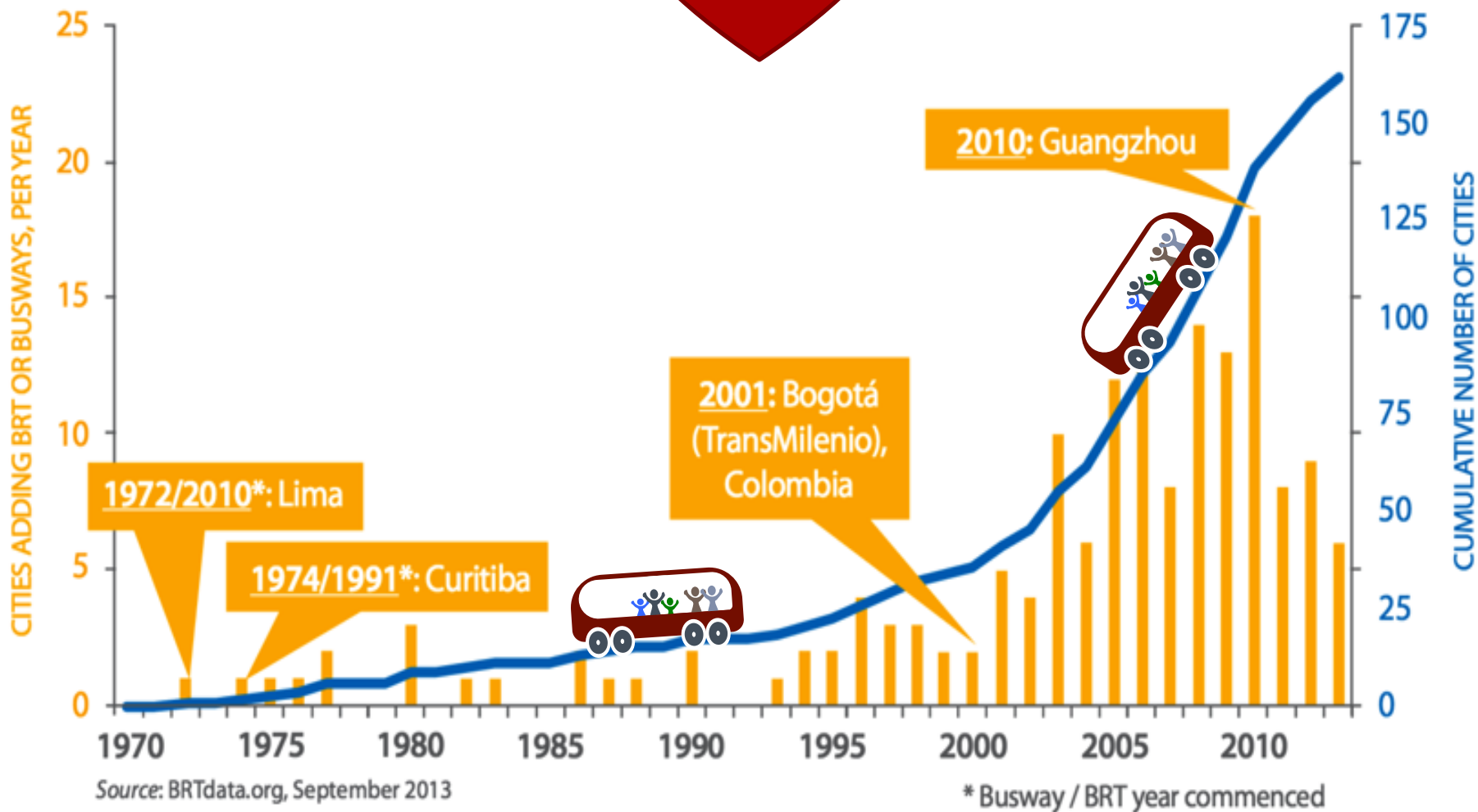
- ★ restructuring the city
- ★ equity
- ★ greater efficiency
- ★ nodal development
- ★ less congestion
- ★ safer roads



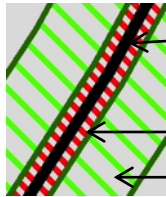
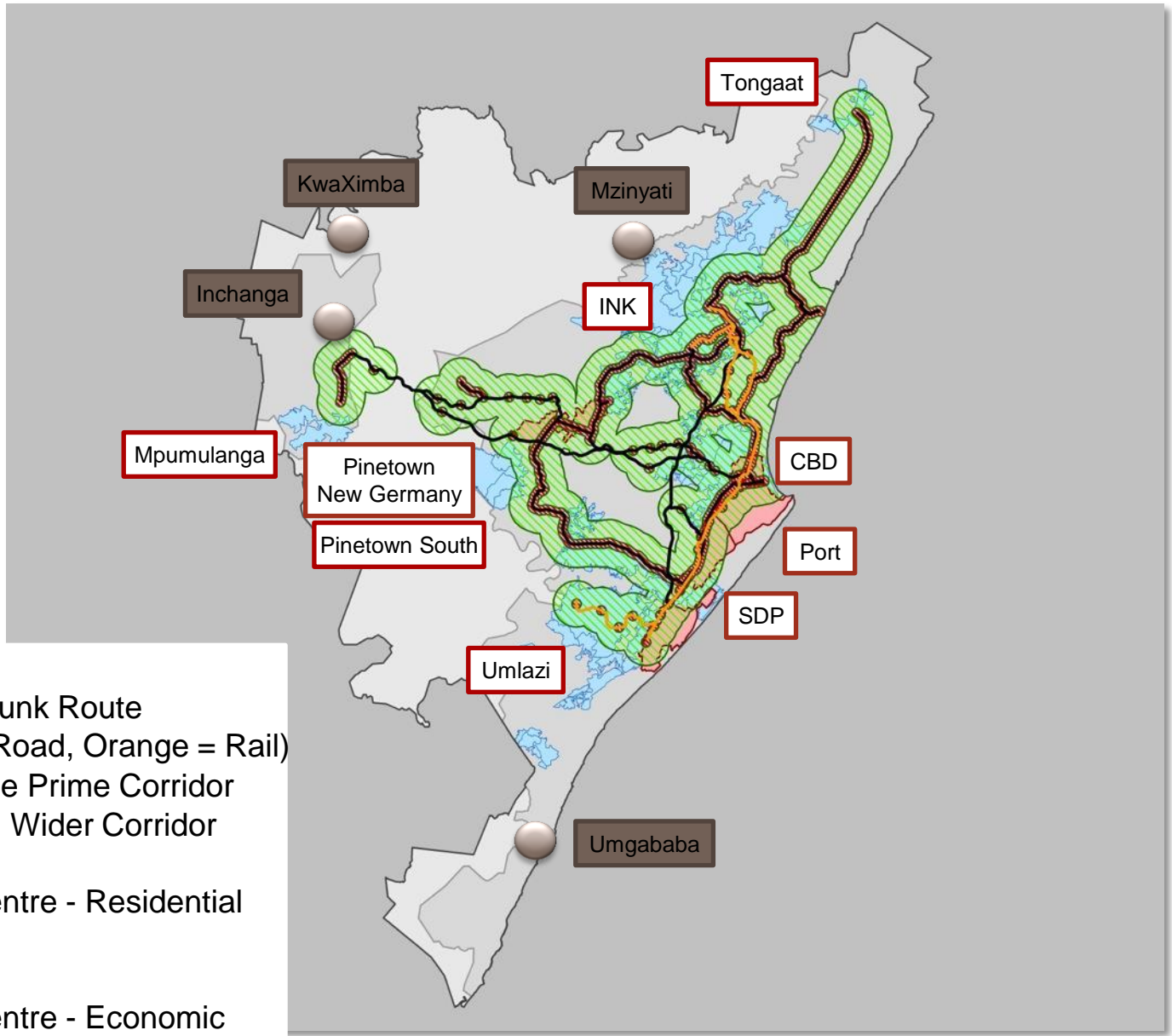
we



BRT







IRPTN Trunk Route  
(Black = Road, Orange = Rail)  
400m wide Prime Corridor  
2km wide Wider Corridor



Urban Centre - Residential

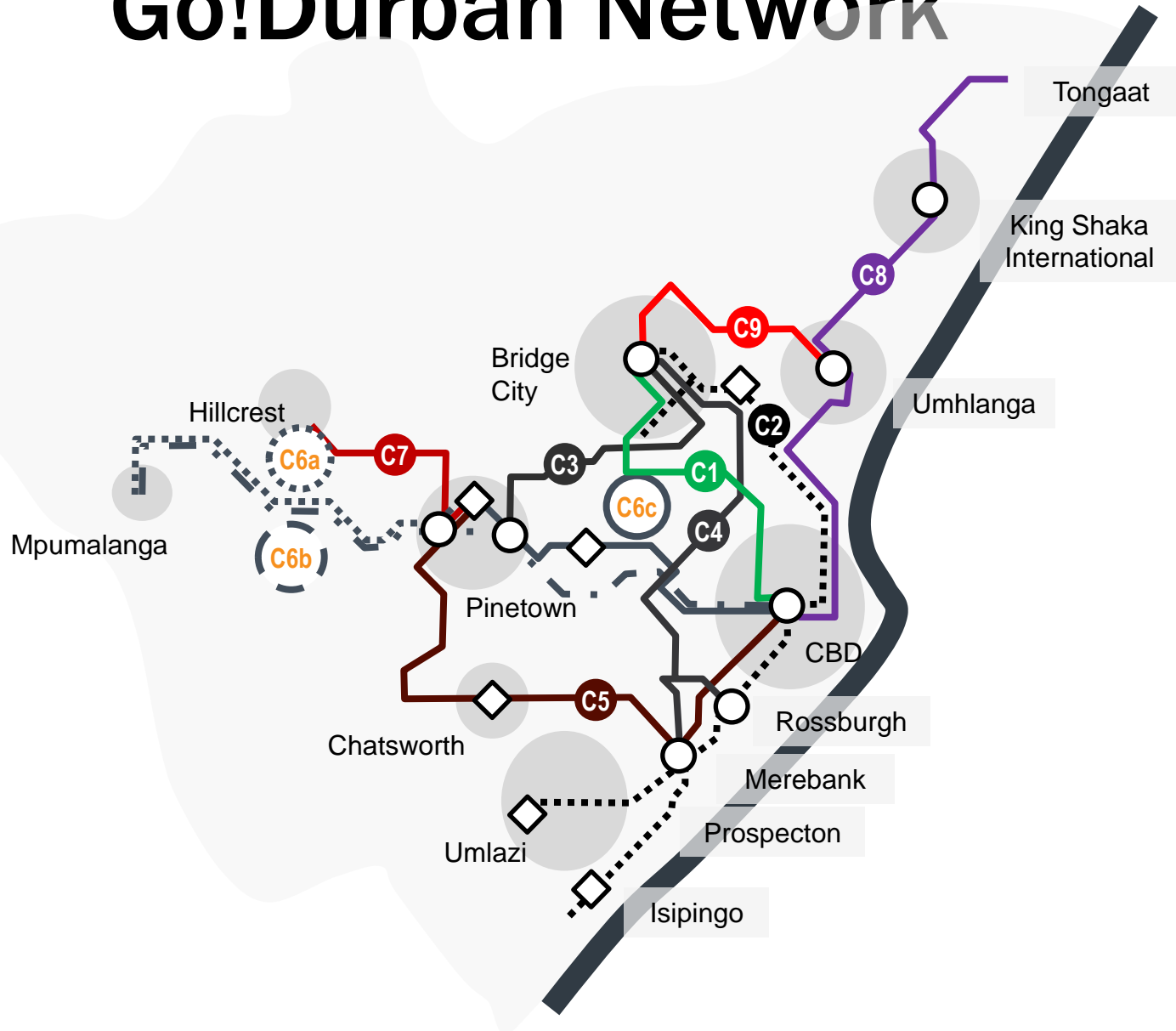


Urban Centre - Economic

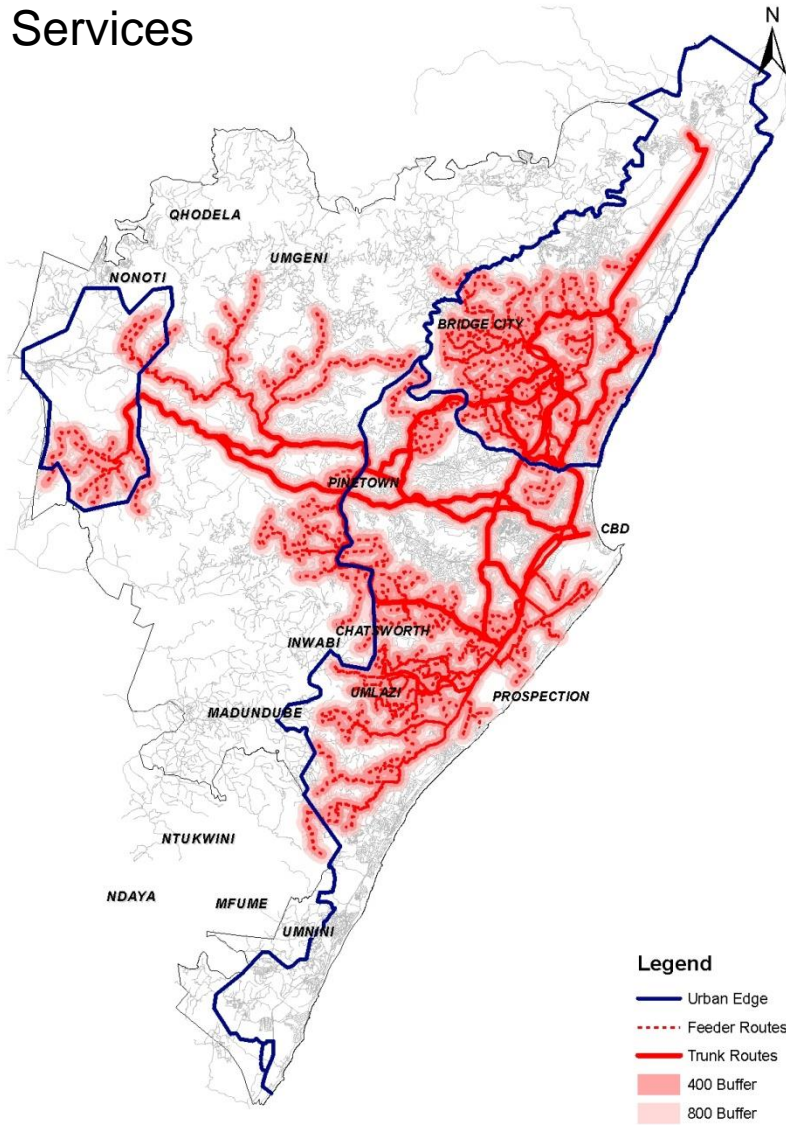


Rural Nodes

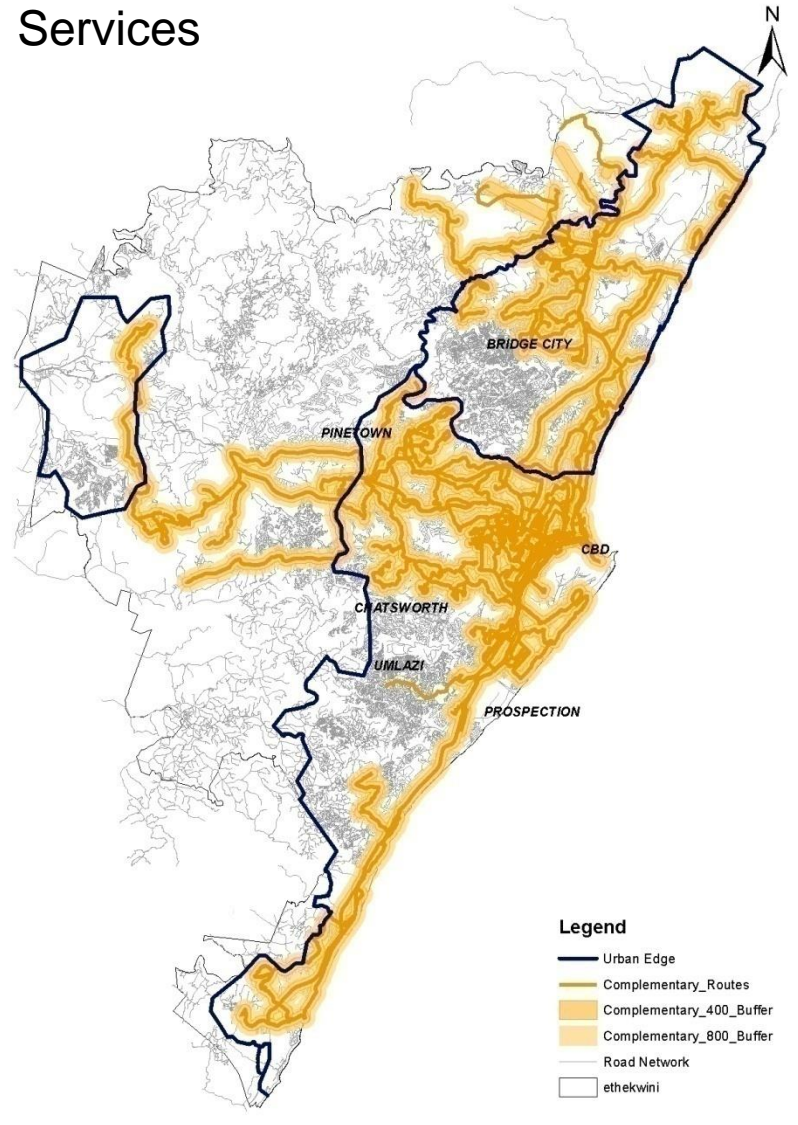
# Go!Durban Network



# Trunk and Feeder Services



# Complementary Services



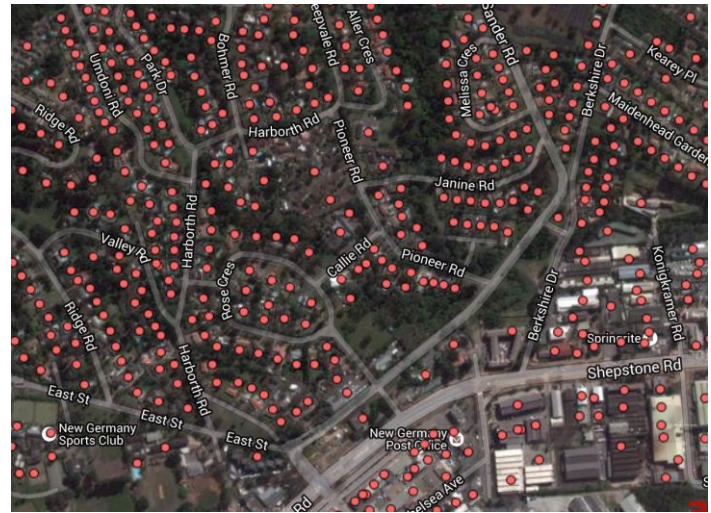


# Quantum Leap to BRT system

1. 85% of all residents within 1km of a Rapid PT Network by 2020
  - Y
  - N
2. Upgraded modal fleet, facilities, stops and stations
  - N
3. Extended hours of operation (16-24hrs)
  - N
4. Peak frequencies (5-10min) – Off peak frequencies (10-30min)
  - N
5. Full special needs and wheel chair access – universally accessible
  - N
  - N
6. Safe and secure operations monitored by Control Centre
  - N
  - N
7. Electronic fare integration when making transfers
  - N
8. Integrated feeder services including walking / cycling and taxi networks
  - N
9. Integration with metered taxi services and long distance intercity services

# BUT... there are challenges

Low residential densities  
= long distances  
= high costs  
= low financial feasibility  
+



Passenger trade off's

time vs costs  
comfort vs speed  
safety vs costs



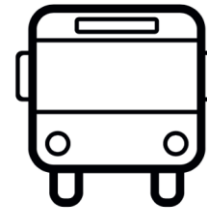
or



or



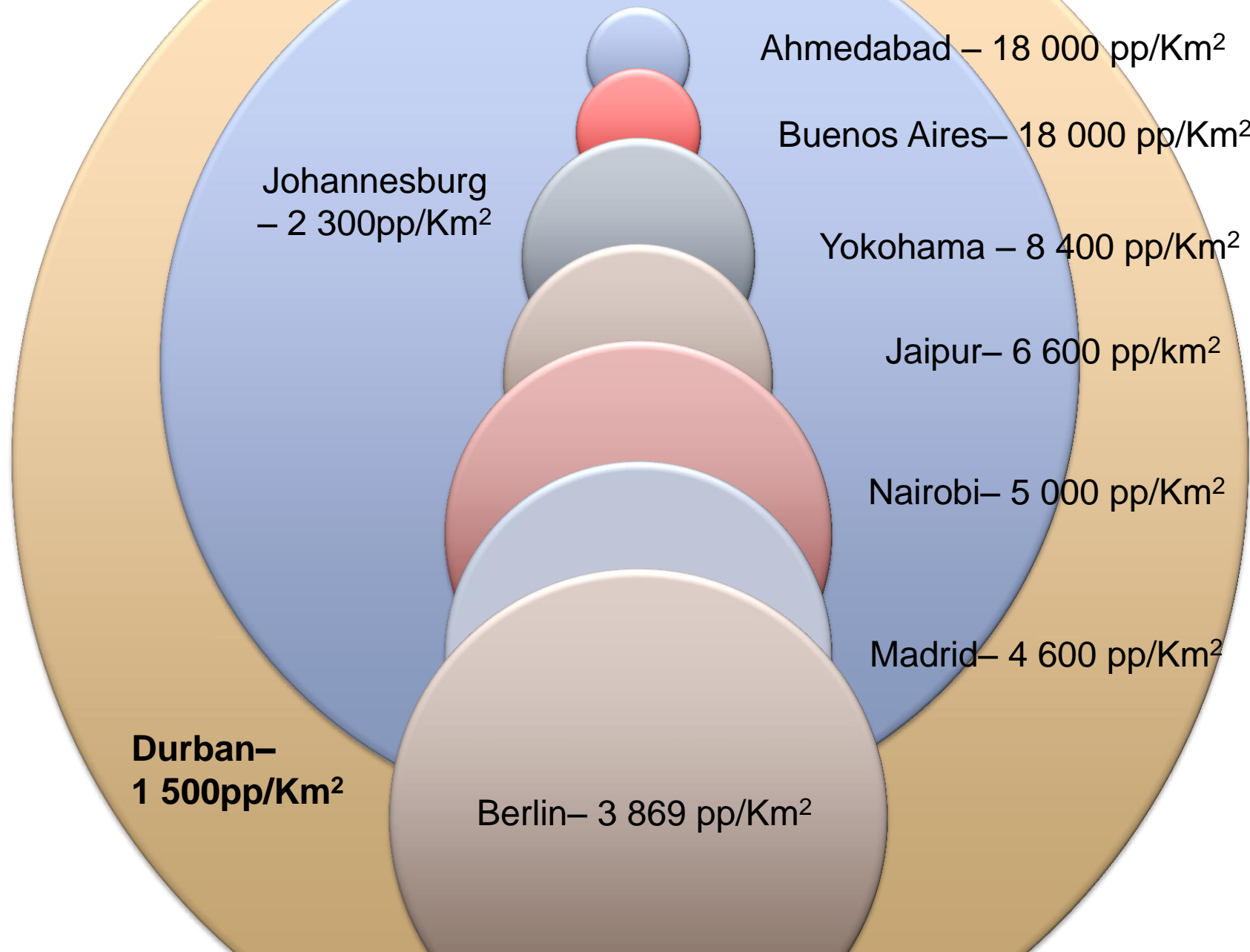
or



or



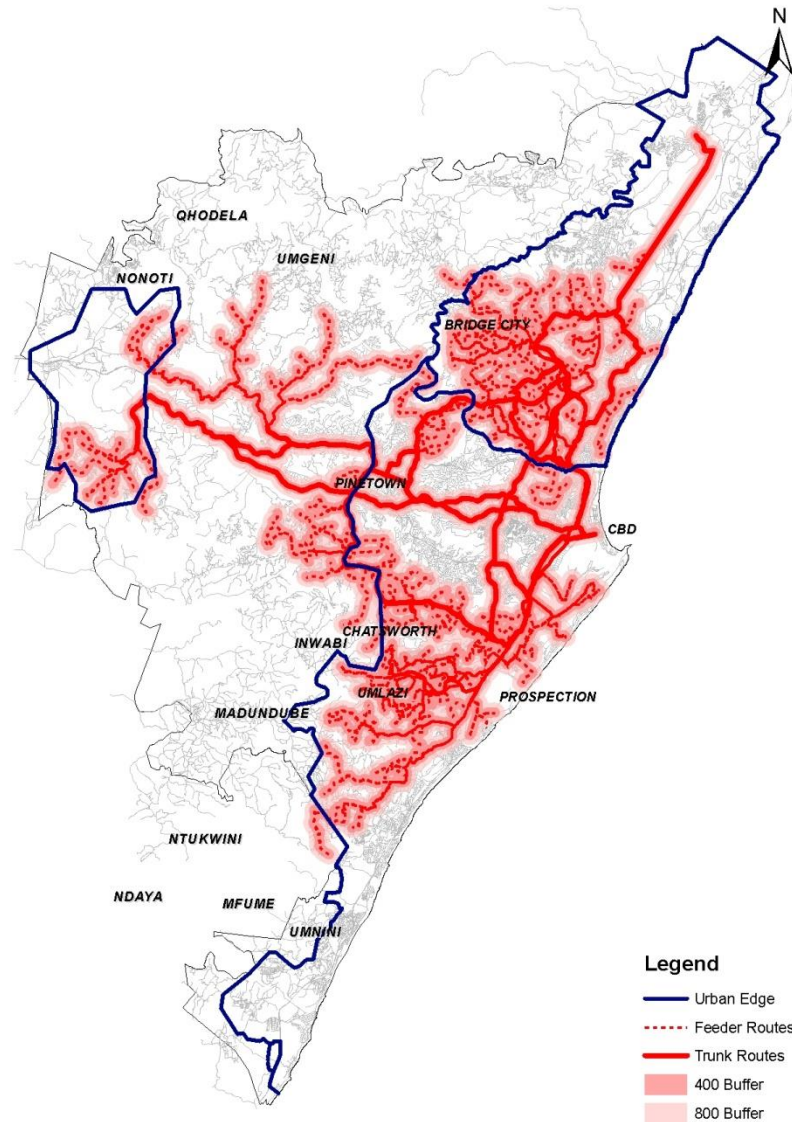
# Densities – how does Durban compare?







# Costs of feeder services



**= Are we moving to an expensive solution with low ridership and high costs?**

# LESSONS







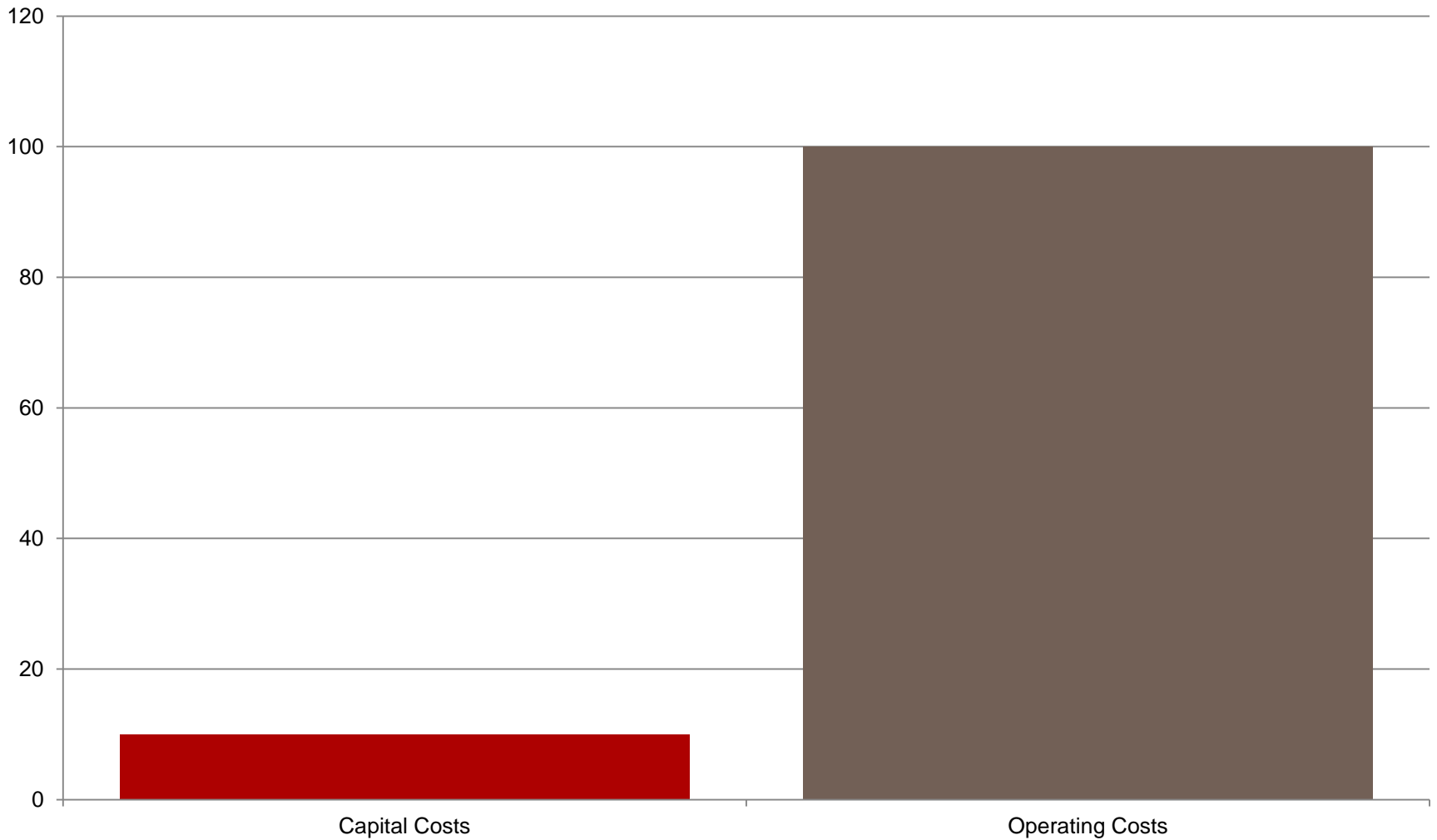
# Caveat emptor

## "Let the buyer beware"

- ★ Beware cheap imported goods
- ★ Need to understand full lifecycle costs
- ★ Beware of optimistic assumptions



# Operating vs Capital Costs



# Anticipating the trade off's commuters make



# Enforcement limitations



# Policy coherence and mechanisms to deal with contradictions

What do we fund?  
and where do we  
fund it

Who bears the  
long term  
costs?

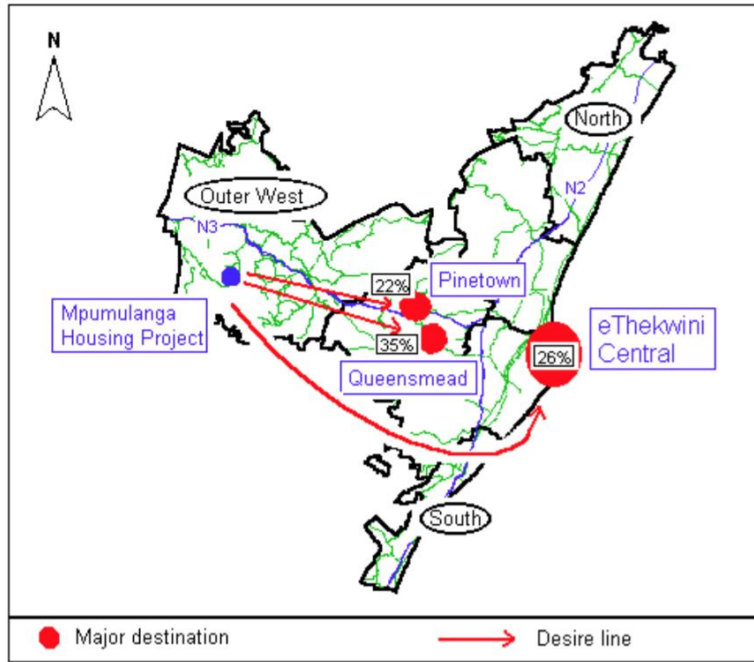
Who deals with the  
externalities?



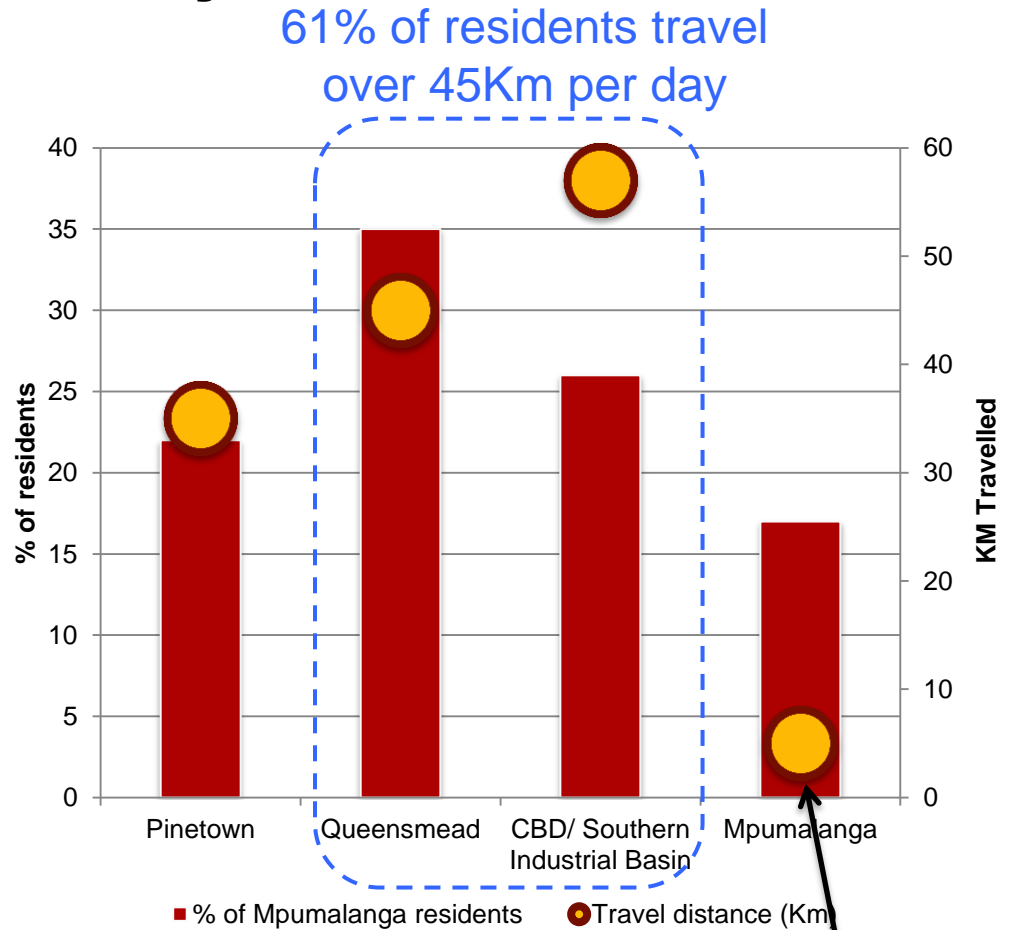


**The importance of  
making long term  
plans – and actioning  
them  
not simply accepting  
national level  
initiatives**

# Well located vs cheaper land trade-off's and life cycle costs



Destination Area from Mpumalanga	Cost of service (R)	Income from fares (R)	Required Annual Subsidy (R)
Pinetown	R 4,2 m	R 2,6 m	R 1,6 m
Northdene / Queensmead	R 7,6 m	R 4,3 m	R 3,3 m
CBD / Southern Industrial Basin	R 6,8 m	R 3,4 m	R 3,4 m



eg: Mpumalanga Housing Development in eThekweni (Aucamp and Moodley)



**ENOUGH CRYING OVER SPILT MILK —**

**WHERE DO WE GO FROM HERE?**

# Increasing sustainability for BRT

## TRANSPORT SYSTEM

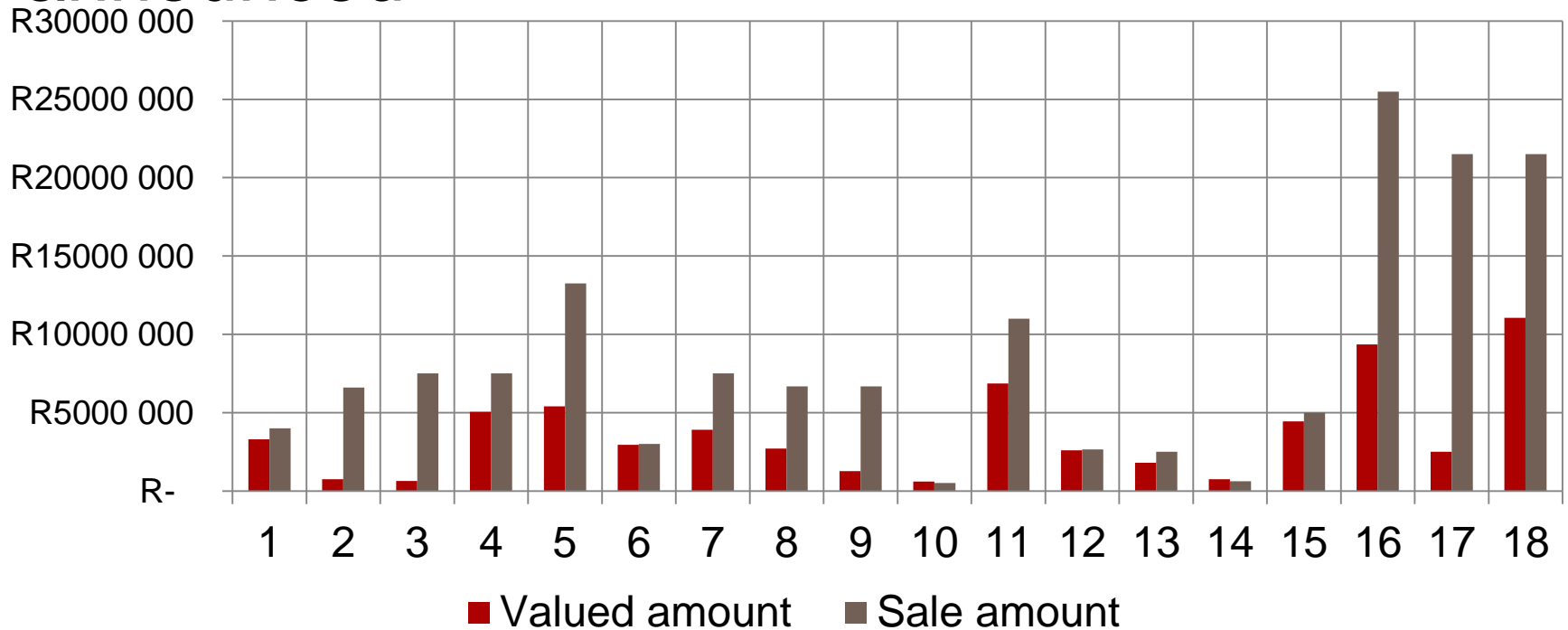
- Reducing costs – moderate the system but don't mutilate it
- Increasing ridership
  - Close the gaps
- Increasing income
  - Advertising
  - Selling ITS services
- Energy and synergy capture
  - Managing the MBT sector

# ECONOMIC

- Land value capture via PPP
- Commercial development opportunities
  - Infiltrate
  - Innovate
- Facilitating Mixed use brownfield developments
  - Deregulate
- New business opportunities for communities
  - Cooperate and empower

# Increasing land values

21 properties sold adjacent to the BRT route in Pinetown in the period since BRT announced



# HUMAN SETTLEMENTS

- Target greater densities
  - Risk new ownership models
- Encouraging private sector into mixed use including housing
- In the correct locations – corridor & nodes
  - Create and prepare the space
- Brownfield densification

We may have  
why power  
what power  
want power

But we are going to need to have the

**WILL POWER**

TO

**PERSEVERE AND PERSIST**

Thank  
you

