



KZN Trade and Investment Conference

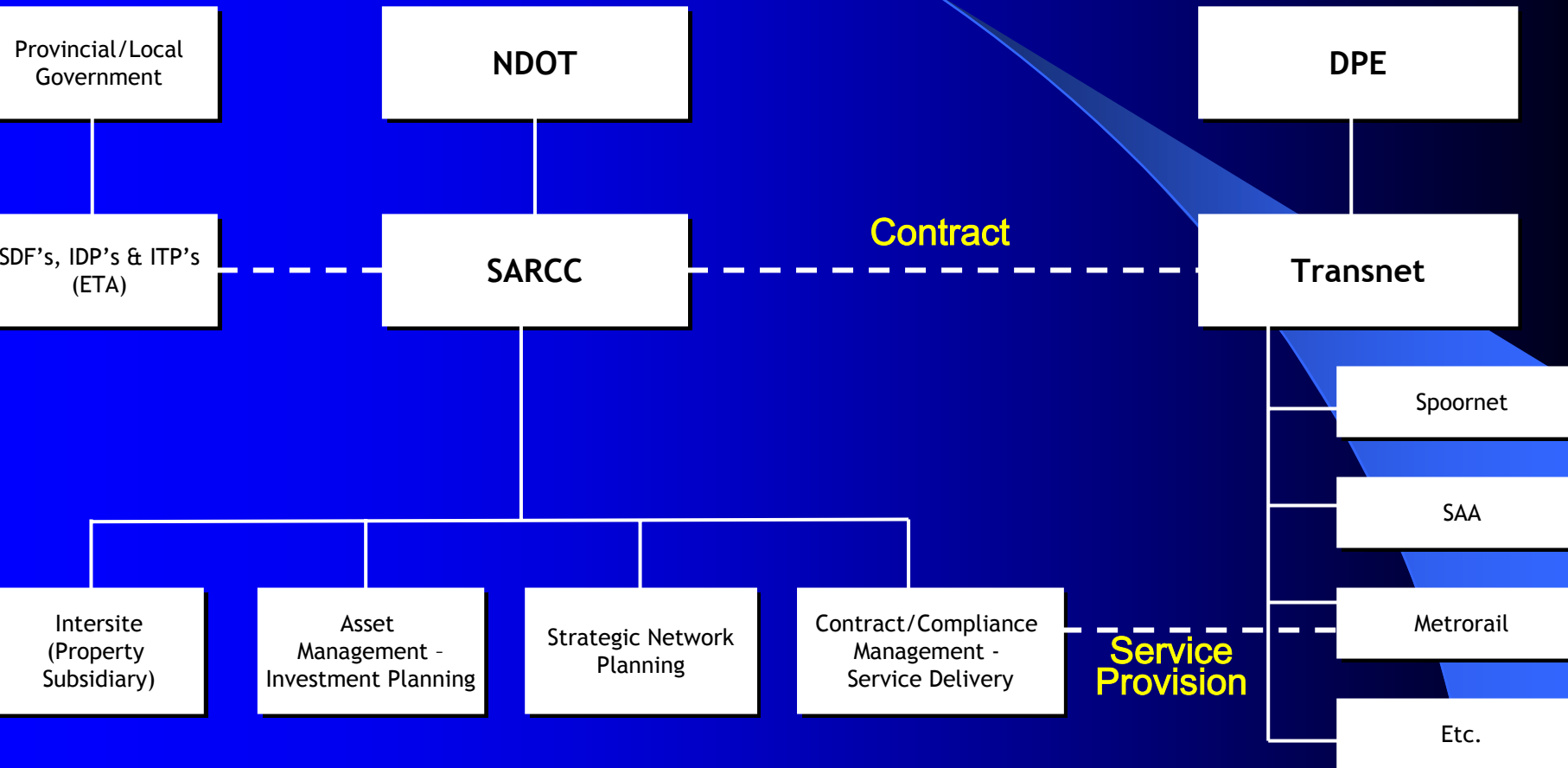
Rail Investments in KwaZulu Natal

SA Rail Commuter Corporation

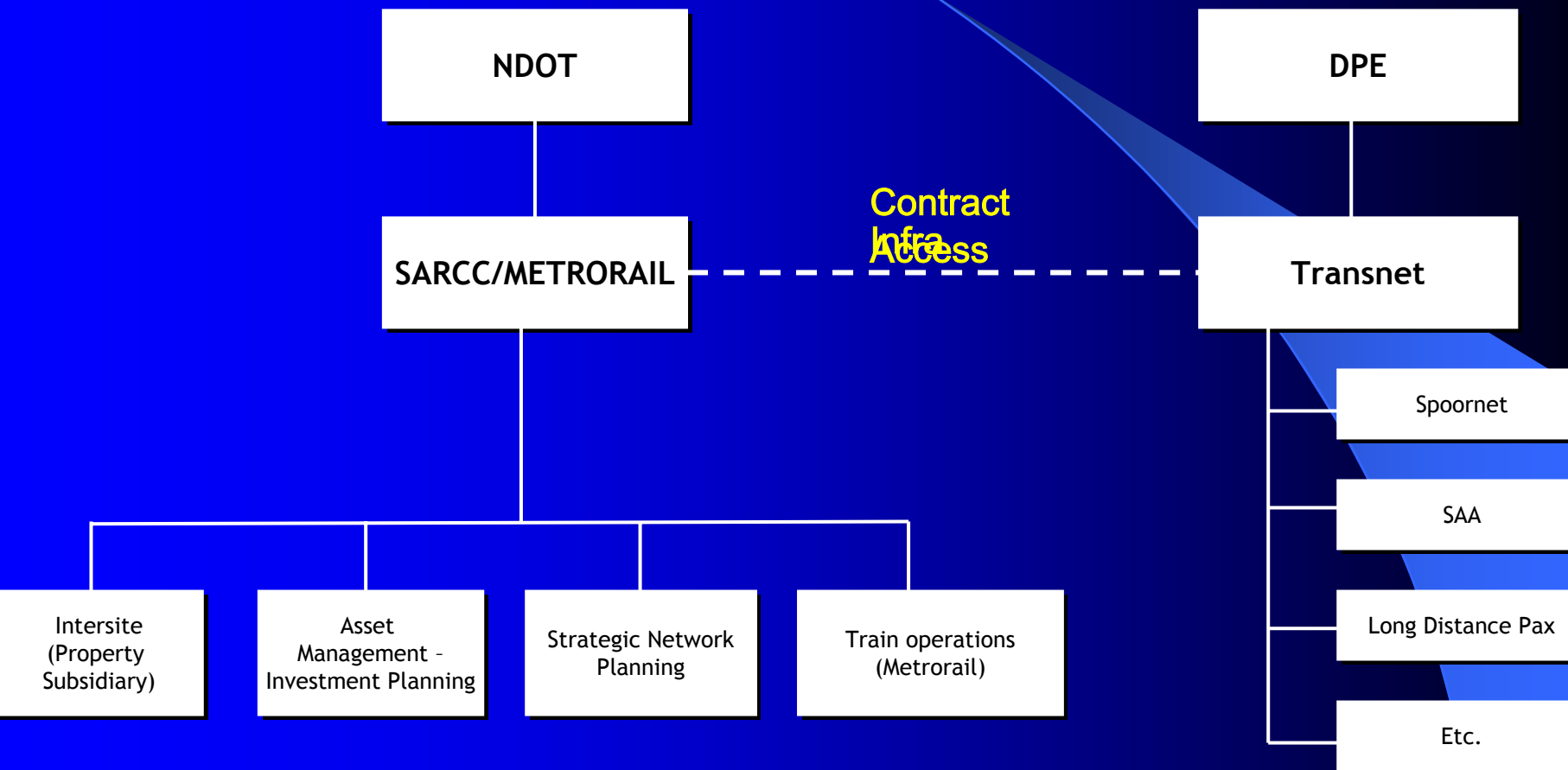
Dries van der Walt

29 March 2006

Institutional Arrangements



Institutional Arrangements



Investments in Rail

- **Performance of the Rail Commuter System**

- Investment Backlog
- The policy/planning environment

- **Strategy for the Rail Commuter system in South Africa**

- National Rail Plan
- Role of rail in urban public transport environment.

Performance of the Rail Commuter System

Investment Backlog

Investment Backlog (R12bn – R15bn)

•Rolling Stock

- 1950's technology
- Average age of fleet = 30 years (40 year threshold)
- 45% contribution to poor train performance
- 1 300 coaches out of service (30% of fleet)
- MTBF = 35 days. International= 600 - 700 days

•Infrastructure (Signalling, track and overhead power)

- Obsolete systems
- 25% contribution to poor train performance
- Creates abnormal operating conditions
- Limits capacity

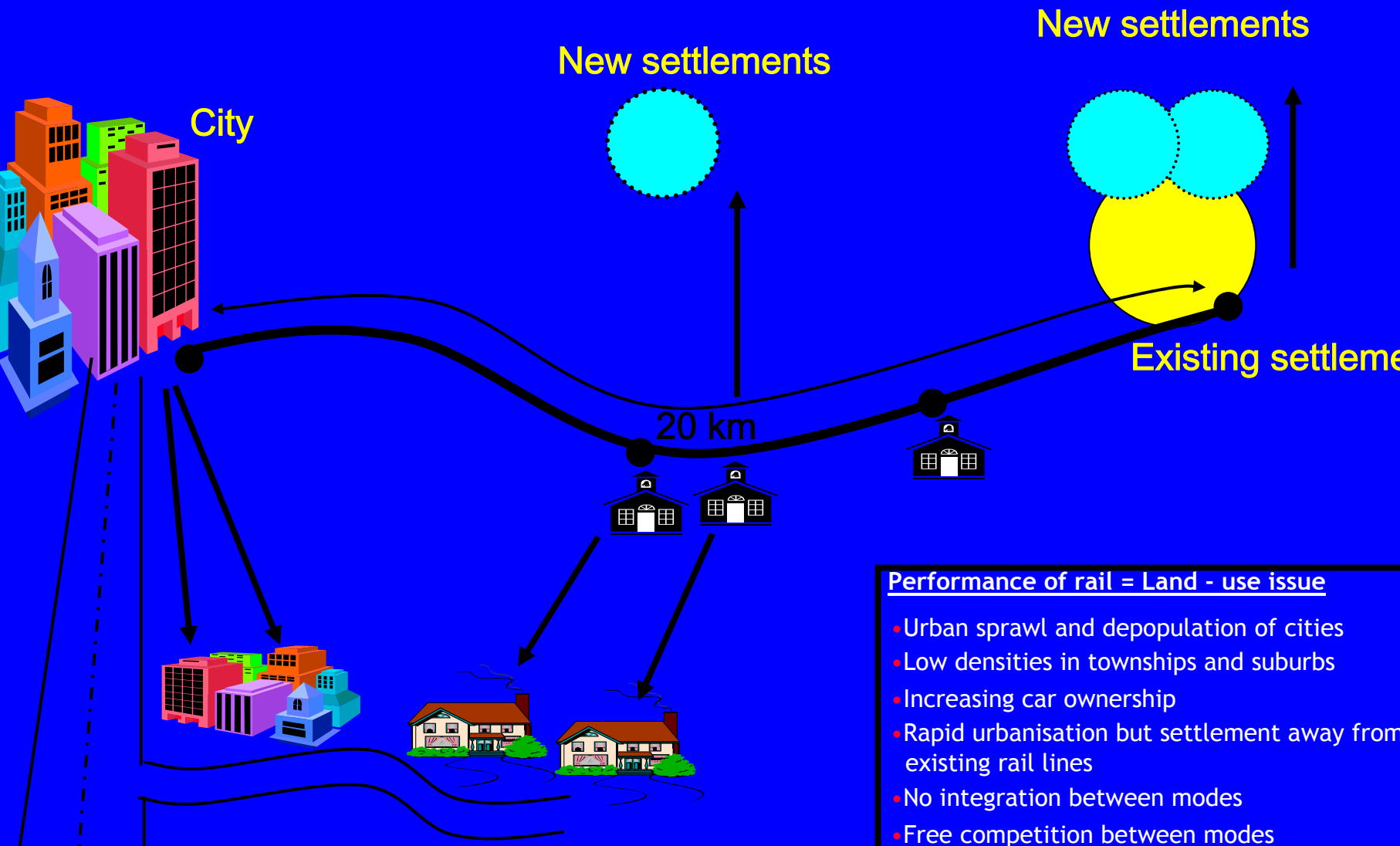
•Station Functionality and Appearance

- Passenger facilities
- Security
- Passenger communication systems
- Intermodal facilities

Performance of the Rail Commuter System

Policy and Planning Environment

The policy/planning environment in South Africa



Performance of rail = Land - use issue

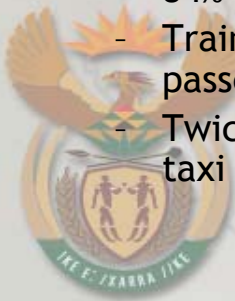
- Urban sprawl and depopulation of cities
- Low densities in townships and suburbs
- Increasing car ownership
- Rapid urbanisation but settlement away from existing rail lines
- No integration between modes
- Free competition between modes

Strategy for the Rail Commuter System in SA

National Rail Plan

Main Findings – National Rail Plan

- **Passenger rail infrastructure and service levels have deteriorated to a point where the future existence of the business is threatened.**
- **Policy Issues:**
 - Effective incorporation of rail into the ITP's hasn't occurred
 - Lack of land use and transport integration continues to negatively impact on PT mode efficiency and effectiveness
 - Urgent need to address these issues at local level
- **Current Rail Usage, user Profiles & Attitudes:**
 - Wits, Tshwane & Cape Town responsible for 2m of 2.2m daily rail passenger trips
 - 84% of passenger are Black African, working age, mainly male
 - Train safety, personal security and level of service are the main concerns for passengers
 - Twice the no.of passengers actually using rail say they prefer the mode over taxi and bus



Main Findings of Phase 1...continued

- **Rail's Position in Public Transport:**

- Land use & socio-economic changes and flexible road based modes have put rail under pressure to remain relevant
- Despite this, some ITPs say that that rail has an important role to play
- Rail has ability to contain urban sprawl, promote densification and provide shape to the urban environment
- Some rail corridors are still relevant in connecting major areas of activity

- **Funding Issues:**

- Government spending in excess of R2.7bn per annum on rail operating and capital subsidies; this is increasing annually in real terms
- Despite this, infrastructure and levels of service are deteriorating
- Patronage stable but subsidy per passenger still increasing in real terms
- Situation is fast becoming financially unsustainable



The Role of Rail was analysed by considering these key questions:

- Where does rail perform best in the overall urban public transport system?
- What rail recovery strategy is most feasible from a financial and socio-economic point of view?
- What are the key business requirements for rail passenger services?



The Rail Recovery Strategies Considered

Full recovery: fix and extend the whole network (high cost)

- Rapid recovery of the rolling stock maintenance backlog
- Enhanced programme of infrastructure upgrade across the whole network
- Accelerated programme of new lines using SARCC plan priorities

Limited System: wind down to a few viable lines (low cost)

- Retain only those lines where close to commercial operation is possible
- Other modes would need to accommodate the transfer away from rail
- Prospect of lower central government contribution to rail

Priority Rail Corridors: focus investment on key corridors

- High service specs' on high density corridors and lower priority on others
- Spread success to additional routes as and when rail proves itself
- Cost will be more than now but focused investment will give value for money



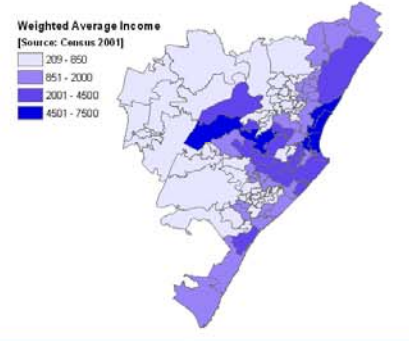
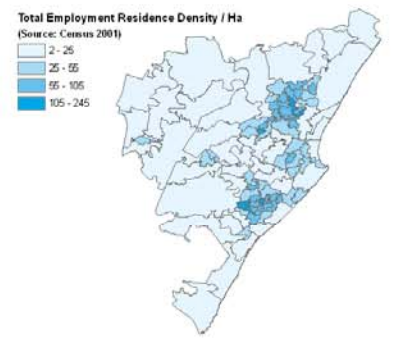
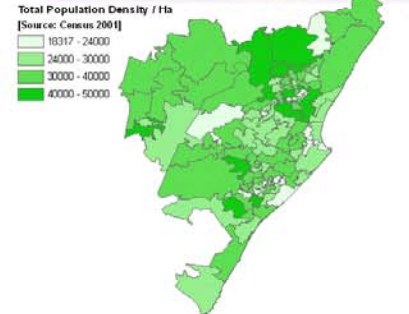
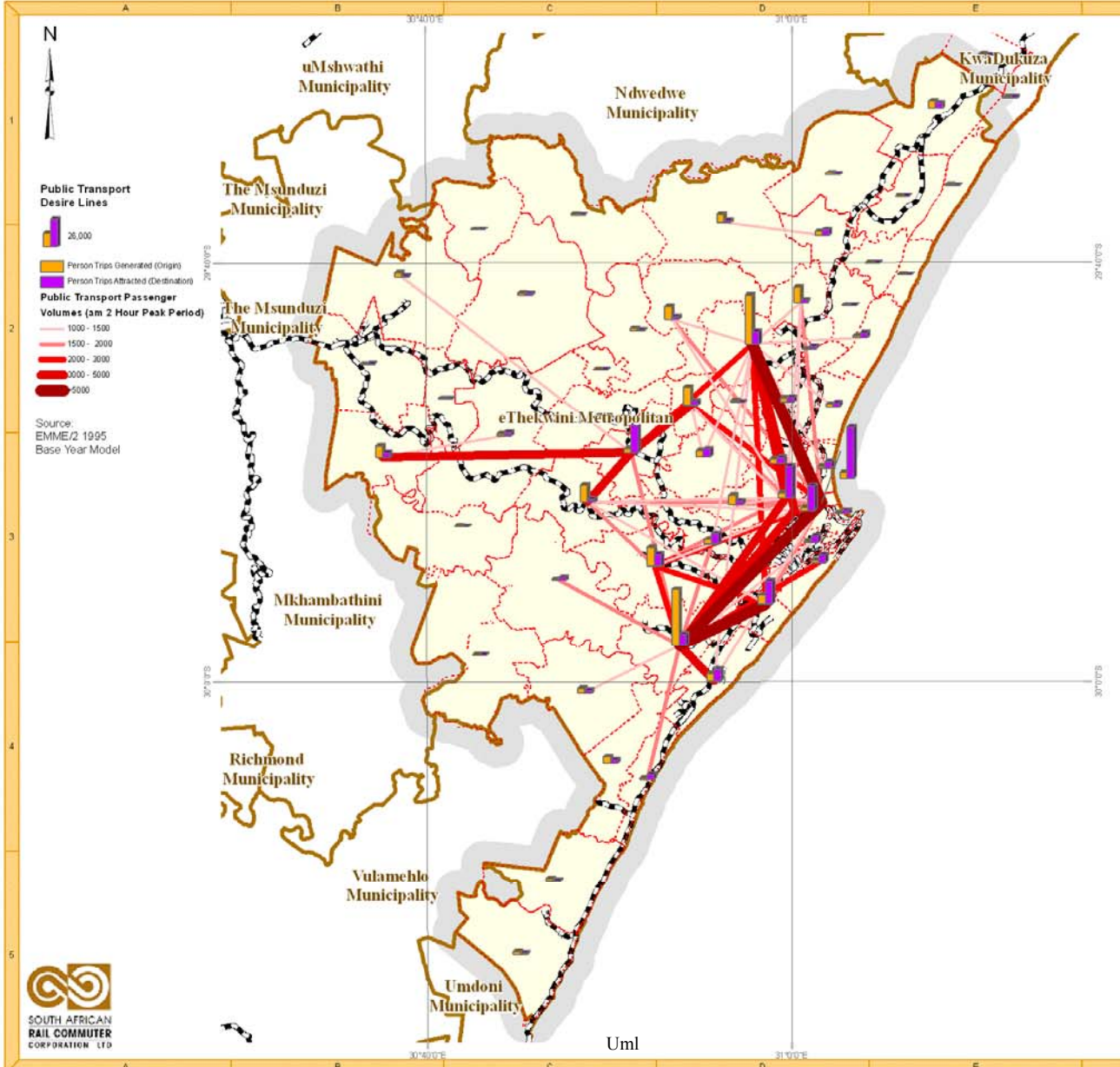
Development of a Rail Strategy

- **Priority Rail Corridor strategy chosen because:**
 - In an integrated PT environment, each mode must perform to its strength
 - Strength of rail is most evident on high density corridors/routes
 - Effective, high density corridors can be identified in each region
 - On these corridors, rail has the potential to play a much larger role

- **As part of the strategy, there is an urgent need to:**
 - To accelerate rolling stock refurbishment program
 - Improve levels of service on Priority Corridors
 - Reduce fare evasion
 - Improve safety and security

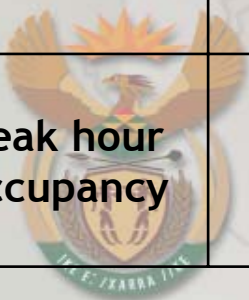


Metro Council Perspective



Typical Carrying Capacities of Urban Transport Technologies (Role of Rail)

	Underground metro	Surface rail	Prioritised bus/LRT	Urban bus/35 seater	Minibus-taxi's
Optimal hourly volume	20-40,000	10-30,000	5-10,000	1-2,000	700-1,000
Units per hour/route	30	15	30-40	20-30	45-60
Peak hour occupancy	750-1,500	700-2,000	150-250	30-70	15



Implications of Priority Corridor Strategy

- Strategy requires that operating and capital subsidies need to be increased from R2.7bn to R5 - R6 bn in the short-term.
- Situation still likely to deteriorate before improving.
- But it will provide better public finance value for money.
- Importance of effective integration with other PT modes through ITP's and with land use planning/densification policies




The Role of Rail in KZN (Ethekekwini)

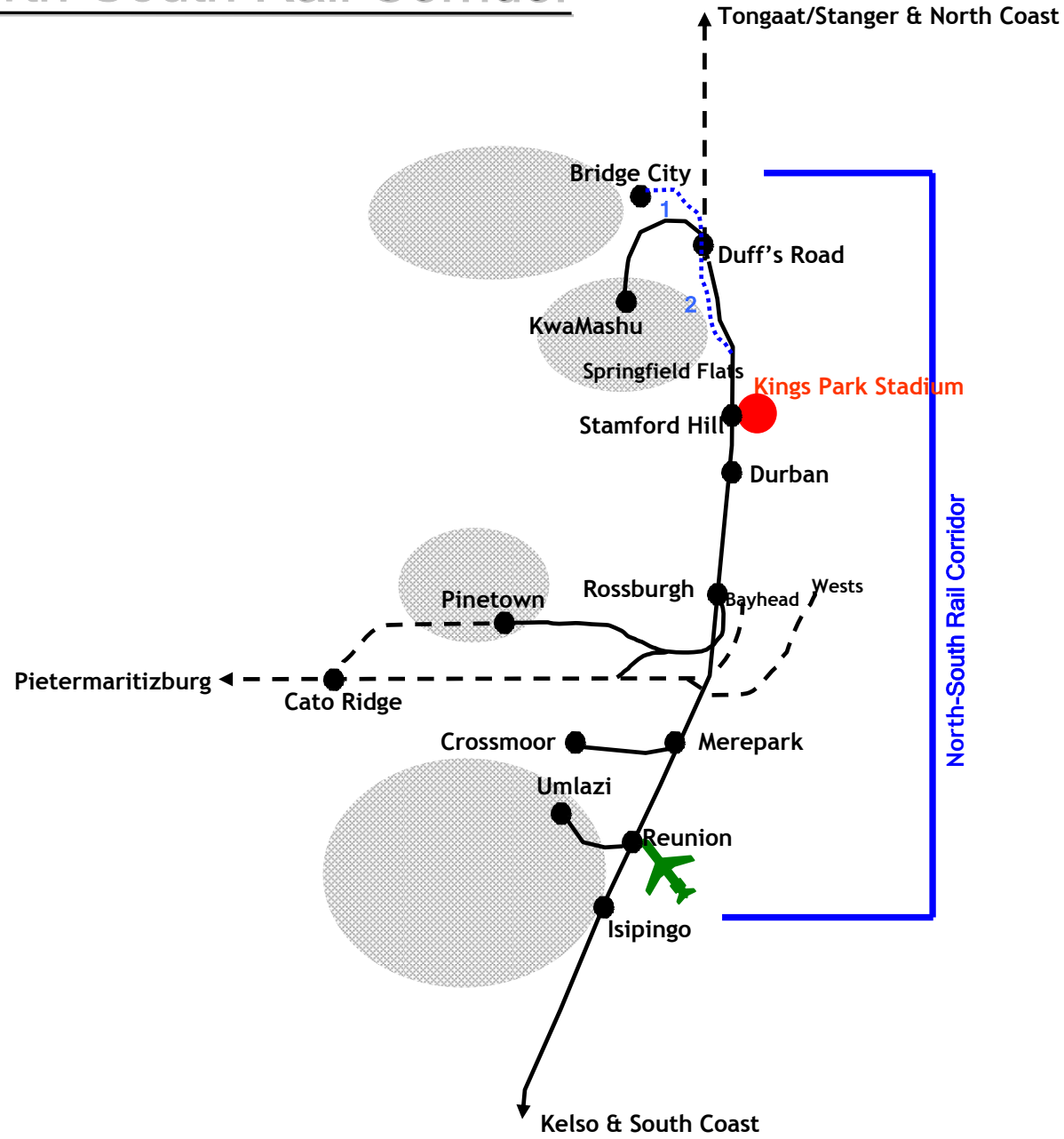
Rail Passenger Volumes







Legend

 Rail Passenger Volumes

ETA North-South Rail Corridor



Legend:

- Commuter rail network 
- Spoornet lines 
- Proposed commuter extensions 
- Residential/Dev Concentration 

North-South Rail Corridor



SARCC Investments:

- Rolling Stock Improvements - By 2010 - 380 coaches upgraded = R1,3bn

- Infrastructure (R130m)

- Capacity improvements Duff's Road
- 3km Extension Duff's Road - Bridge City

- Stations (R100m)

- Upgrade of Reunion, Durban, Kwa Myandu and Kwa Mashu stations (New station Stamford Hill - Kings Park)
- Intermodal facilities: Isipingo, Bridge City, Berea station

- Service Improvements

- Security (Reaction points)
- Smart ticketing system
- Improved passenger communication systems



2020 Total Passenger Volumes: Shortest Paths

