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Road Safety - The Safe System Approach Applied BY N3TC

N3 Toll Concession(RF)Proprietary Limited(N3TC)

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South Africa: Toll Roads

- South Africa's road network equals approximately 750 000 kms
- 158 000kms paved and 592 000 kms gravel roads
 - Toll roads introduced in 1984
 - 35 years of "Work in Progress"
 - Grown from 27 kilometres to 3 089 kilometres
 - 1 819 kms managed by SANRAL(State Roads Agency)
 - 1 270 kms managed by three Concessionaires(Private)
 - Toll roads constitute 14.1% of the National Road Network of 21 946kms



- A single purpose company Design, Construct, Finance, Operate and Maintain 415 kms of Highway
- A 30 year Concession Commenced November 1999
- N3 links the industrial heartland in Gauteng to the country's biggest and busiest port in Durban
- 60 000 toll transactions daily

Setting the Scene



- 415 km of Highway
- 50% Dual Divided Carriageway 50% Four Lane Undivided
- Terrain Flat, Rolling and Mountainous Rural
- Seasonal Rain and Fog Problematic
- AADT varies between 11,000 and 38,000
- 35 % Heavy Vehicles
- Overloading 10% on average

The Problem



Crash Statistics January to December 2018

Crashes/100million vehicle kilometres = 54.1
34 Crashes every 10 days

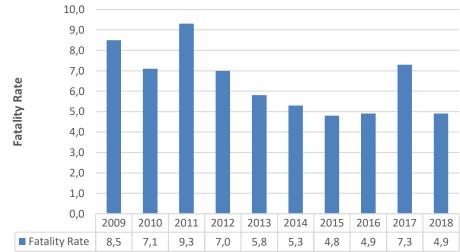
2. Fatal Crashes/100million vehicle kilometres = 3.8
2.4 Fatal Crashes every 10 days

Fatalities/100million vehicle kilometres = 4.9
Fatalities every 10 days

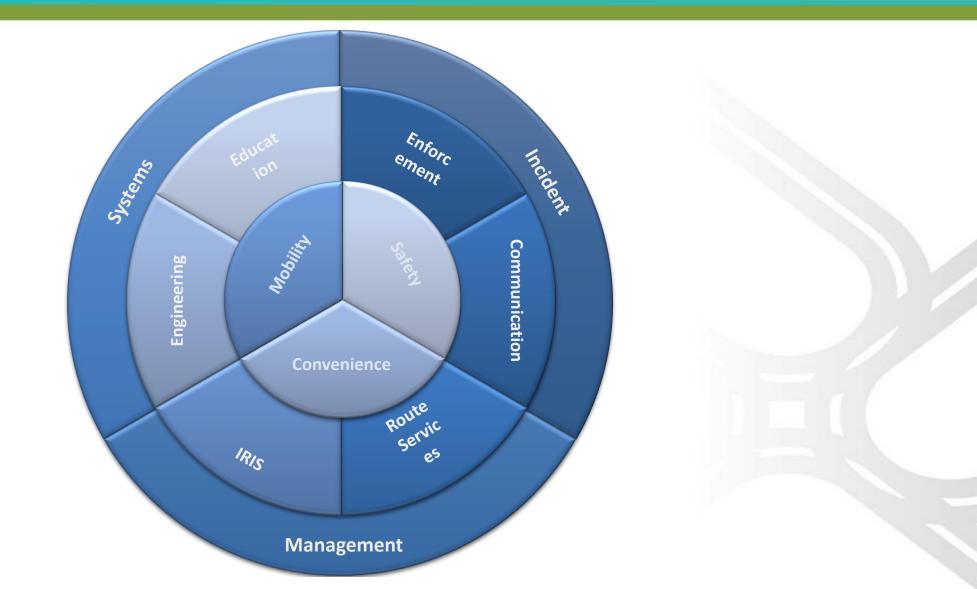




Fatality Rate per 100 M.V.K.M: 2009-2018









Solving the problem!

Our Incident Management System Tool Box

- 1. Incident Reporting Information System Data Capturing and Analytics
- 2. Engineering Compliance of design standards
- 3. Education Target Market Children, pedestrians, drivers
- 4. Enforcement PPPs, Training, Debriefings, Driver Wellness Days, Vehicle Roadworthiness, Alcohol and Drug Screening, Average Speed over Distance
- 5. Route Services Crash Scene Safety, Assist Stranded Clients
- 6. Communications Route Control Centre, CCTV, Variable Message Signs, Social Media

Economic Consequences

Estimated cost of Traffic Crashes: 3% of GDP (Source: WHO)

- Global GDP
 - Therefore, cost of traffic crashes :
- \$75 trillion \$2.3-trillion
- South Africa's GDP : \$66-
 - Therefore, cost of traffic crashes
- \$66-billion \$2.0billion



Conclusion



So how do we Save Lives on our Roads?

- 1. Safety Convenience Mobility
- 2. Know the facts
- 3. Educate decision makers
- 4. Communicate with stakeholders
- 5. Work tirelessly