

Bakwena

N1N4 toll



SOUTH AFRICA'S EXPERIENCE ON ROAD PPP'S

Presented by Liam Clarke

Keeping you **informed...**

Keeping you safe**e...**

Keeping you **moving...**

2nd December 2019

Abuja, Nigeria

- **A brief history**
- **Description of Project**
- **Definition**
- **Role Players**
- **Requirements of the Project**
- **Financial Information**
- **Tariffs**
- **Milestones**
- **Overall Facts and Figures**



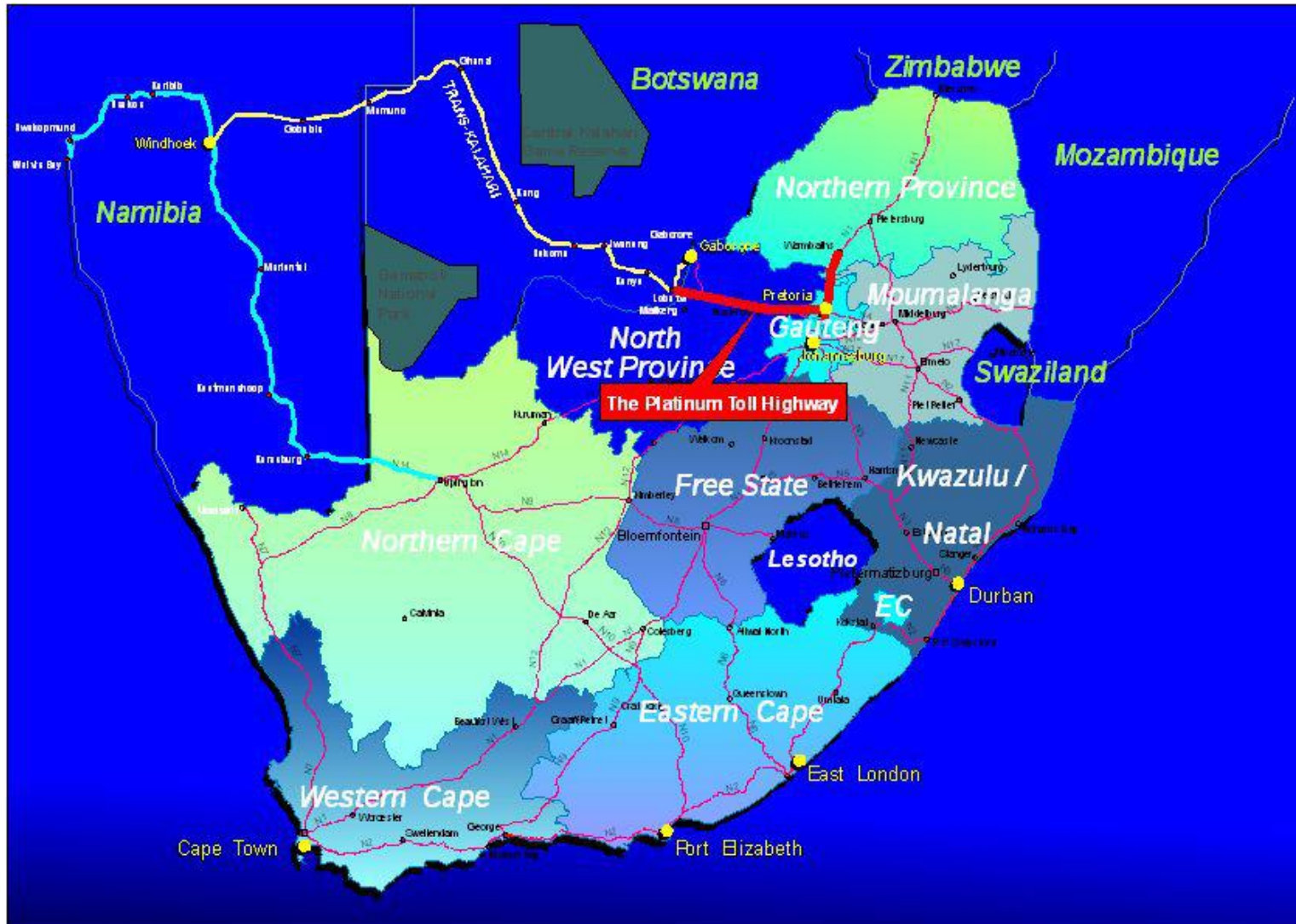
BRIEF HISTORY

- Bakwena N1N4 holds a 30 year concession contract awarded in August 2001 with The South African National Roads Agency SOC Limited to manage a 385km route.
- The route covers the N1 from Pretoria to Bela Bela in Limpopo & N4 from Pretoria through Rustenburg to the Botswana border.
- Bakwena has 17 toll plazas
- Some 210 000 vehicles pass daily through the N1N4 toll plazas



DESCRIPTION OF THE PROJECT

- The Bakwena Platinum Highway extends north from Pretoria (N1) to Bela Bela (Limpopo Province) and west along the N4 through Rustenburg in the North West Province to Skilpadhek on the Botswana border.
- The Bakwena N4 route forms part of the Trans-Kalahari Corridor running through Botswana and terminating at Walvis Bay, Namibia. Coupled with the Maputo Development Corridor (N4 between Pretoria and Maputo), the route is a key trade corridor within the SADC region.





DEFINITION

The Project is basically the

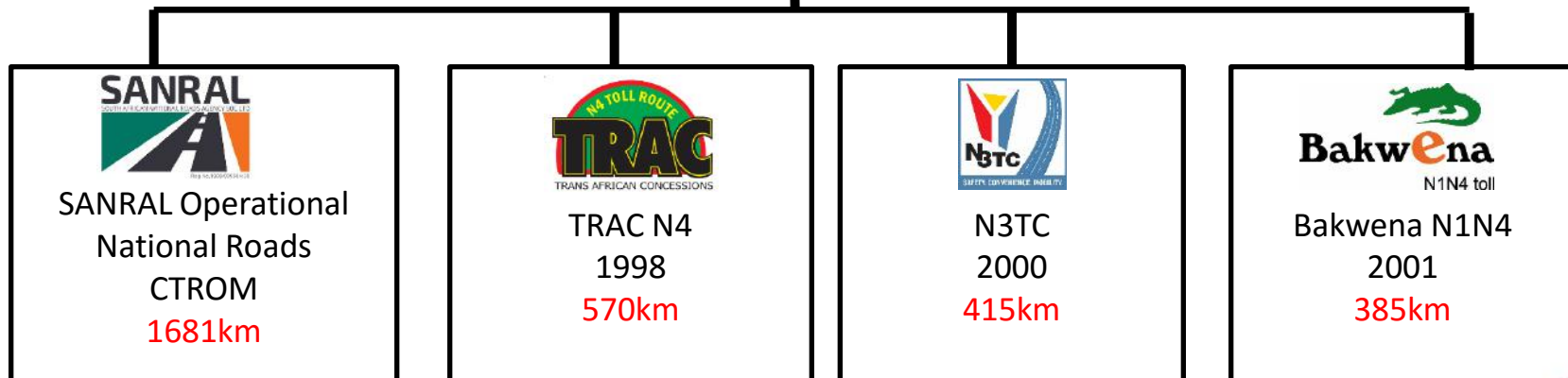
- Financing
- Construction
- Maintenance
- Upgrade and
- Operations of

a portion of the N1 and N4 on behalf of SANRAL for 30 years.

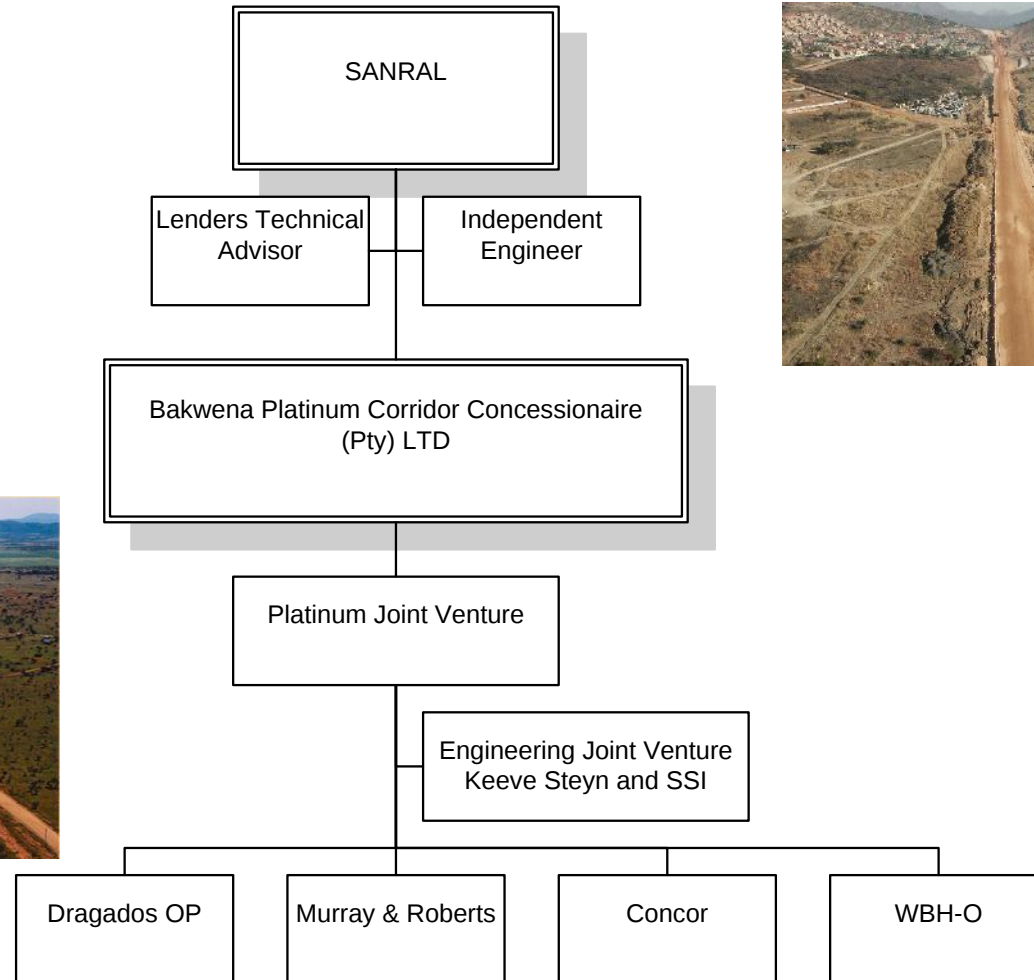




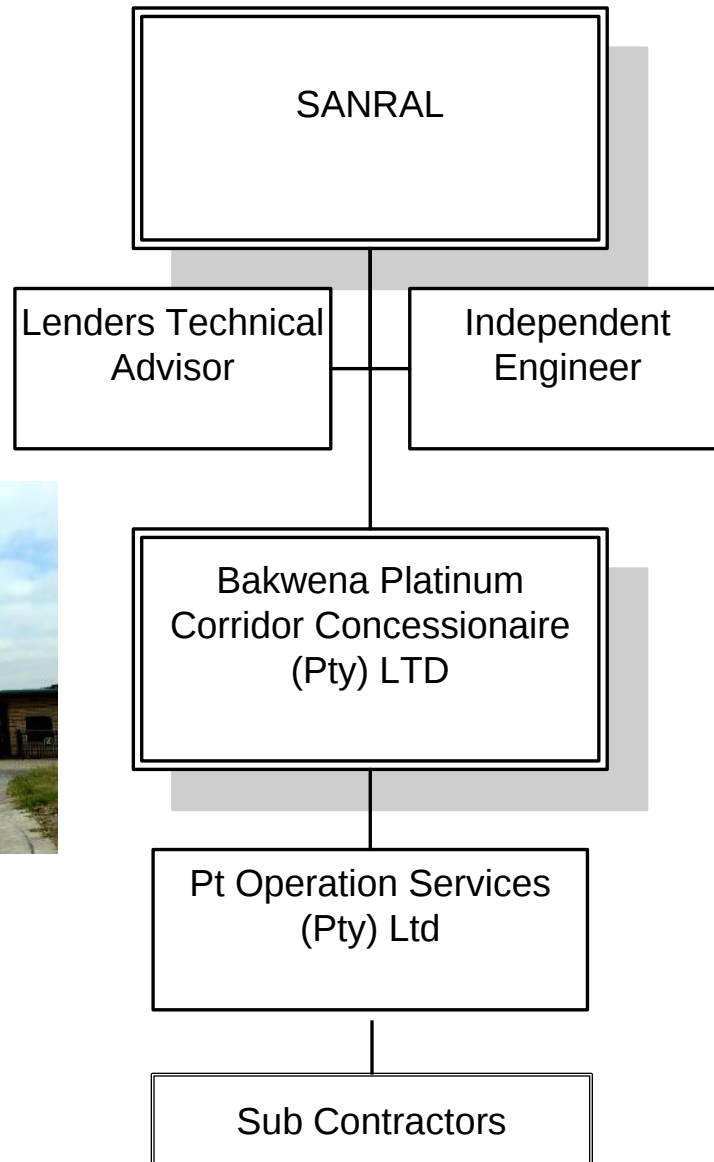
ROLE PLAYERS



INITIAL CONSTRUCTION WORKS



MAINTENANCE & OPERATIONS





CONCESSION CONTRACT

- Bakwena is a special purpose entity for the project
- Consists of:
 - Concession Contract
 - 41 Agreements
 - 27 Annexures
 - Various other supporting documents
- Requirements
 - Operational
 - Technical
 - Corridor Management
 - Environmental Requirements
 - Socio-economic Obligations



REQUIREMENTS

- Operational
 - Level of service requirements to ensure reasonable free flow across full spectrum of vehicles (LOS D)
 - Queue lengths at Plazas
- Technical
 - Minimum measured criteria during Maintenance cycle
 - Minimum specifications for remaining pavement life and condition at end of contract when road is returned to the state.
 - Measurements
 - Roughness Index (IRI) Indication of the Riding Quality
 - Rutting indication of structural integrity of pavement
 - Texture indication of the skid resistance
 - Deflection Measurements with the FWD use to determine the remaining life of the pavement.

REQUIREMENTS CONT.

- Corridor Management
 - Involvement in Road Incident Management System
 - Load control services
 - TCC: Mantsole (N1), Bapong (N4)
- Environmental Requirements
 - EIA for ICW including extensive specialist studies and public participation
 - Water use licences and permits for borrow pits
 - EMP for the ICW and maintenance period
 - Basic environmental assessment with all major upgrades

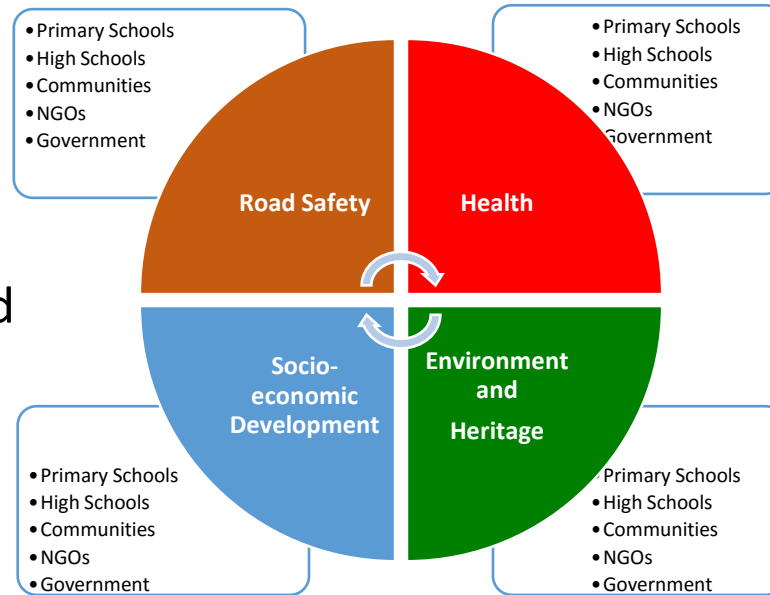


REQUIREMENTS CONT.

- Socio-economic obligations (R36m in March 2000 prices)
 - Creation of PDI employment opportunities
 - Allocation of opportunities to local SMMEs throughout the concession contract. Subcontracting opportunities relating to construction and operations.
 - Training obligations back-to-back on contractors. Obligations include induction, safety training and basic on site environmental training of all staff.

Encourage mentoring and development of PDI staff and SMMEs.

- Implementation of a broad range of socio-economic development projects in communities





FINANCIAL INFORMATION

INITIAL SHAREHOLDING

- R 2.9 billion ICW project
- R 2.3 billion funded from external loans
- Private Sector Risk Funding R 600 million
- Initial shareholders included:
 - Grupo Dragados SA
 - Concor Holdings (Pty) Ltd
 - WBHO Construction (Pty) Ltd
 - Murray & Roberts
 - Old Mutual Life Assurance South Africa Ltd
 - Public Investment Commissioners
 - The Royal Bafokeng Nation
 - South Africa Infrastructure Fund
 - Stewart Scott Investments (Pty) Ltd & KEEVE STEYN (Bakwena) (Pty) Ltd
- Loan period 20 Years
- R 1.6 billion for rehabilitation work during maintenance period
- R 1.5 billion for upgrade work before end of concession.
- Profit Limited by State – Highway Usage Fee



FINANCIAL INFORMATION REFINANCED SHAREHOLDING

- ReFinance in 2009 – R3,6 billion
 - Nedbank
- New Shareholders include:
 - ICSA
 - Old Mutual
 - Public Investment Corporation
 - Royal Bafokeng Nation



TOLL TARIFFS

- Must cover loan repayments and all future costs.
- Fee exclusive for this road
- Annual toll fee adjustment linked to CPI
- Fees must be approved by SANRAL & gazetted by Department of Transport
- Determined with the following in mind
 - Value of fuel savings
 - Value of time savings
 - Capital expenditure on sector
 - Maintenance on sector
 - Project viability over 30 years = affordable tariffs
- Discounts
 - Separation of work/home created by old Group Areas Act – Social Discounts
 - Public Transport rebates in Metro Areas
 - Disproportionate use of the Toll Road – Local Area Discounts

MILESTONE ACHIEVEMENTS

- 1997: National Roads Board calls for interest in the N1 / N4 highway project and pre-qualification.
- Oct. 2000: The concession contract signed, subject to conditions being fulfilled.
- Aug. 2001: Effective date (27 August)
All conditions met and Financial closure achieved.
The concession becomes effective and construction of the Bakwena Platinum Highway commences
- Mar. 2002: The first electronic toll collection plaza opens at the Carousel Toll Plaza, on the N1 near Hammanskraal.
- Dec 2004: Final Hand Over Certificate for Construction

MILESTONE ACHIEVEMENTS CONT.

- 2009: Refinancing was achieved. At 3,7 billion it was the largest refinancing of an infrastructure project in South African history
- 2012: Integration with SANRAL Transaction Clearing House (TCH) for electronic toll collection (ETC)

TECHNICAL MILESTONE ACHIEVEMENTS

- 2009/12: Additional carriageway added 31km between the R512 West and the Buffelspoort Interchange
- 2011/13: Addition of an additional lane N1 north and southbound carriageways between Proefplaas Interchange (N4) to Zambesi Drive, from 3 lanes to 4 lanes
- 2011/18: Upgrading of the N4 between Rustenburg and Zeerust covering 120km of road – 4 contracts
- 2012: Rehabilitation of national route, N1 between Hammanskraal and Pienaarsrivier

TECHNICAL MILESTONE ACHIEVEMENTS

- 2015: Zambesi interchange upgraded into an innovative diverging diamond interchange (DDI)
- 2017: Rehabilitation of N4 westbound carriageway between R512 up to Buffelspoort interchange
- 2018: Upgrade R512 interchange including provision of west facing ramps
- 2018/21: Construction of a second carriageway on the N4 between M17 and R512 (Brits interchange) 28km

PLANNED UPGRADES

- 2022-24: 2nd carriageway between Buffelspoort and Rustenburg
- 2026-28: 2nd carriageway Rustenburg Bypass
- 2025-29: Rehabilitation of N1
- 2025-29: Rehabilitation of the N4

FACTS AND FIGURES

- 17 toll plazas
 - First time electronic tolling Urban Commuters in South Africa
 - Up to **220 000** transits per day
 - > **1,9m** e-tag transits per month, 27% of total transits
 - Ave 38 000 transits per day at Zambezi
 - > **5000 vph** at Doornpoort in peak hour
 - 200 – 300 cars processed per hour in manual lanes
 - E-tag lanes process 850 – 1000 per hour



FACTS AND FIGURES CONT.

- 9% or 2400 Heavy vehicles on N1 per day
- 15% or 1000 Heavy vehicles on N4 per day
- 2 traffic control centres (Mantsole (N1) and Bapong (N4))
 - 96 000 (100%) HV screened pm on N1
 - 23 000 (25%) HV weighed pm with max of 23 000
 - Ave 370 overloaded prosecutions pm (750 – 2008)
 - Ave 130 road worthy fines pm (250 – 2008)
 - Dangerous Goods Survey
- Over R6 billion (2018 Rand value) will be invested in rehabilitation and upgrading during rest of concession period

Bakwena



N1N4 toll

Thank you

Keeping you **informed...**

Keeping you safe**e...**

Keeping you **moving...**