



### 12<sup>th</sup> Intermodal Africa – 2014

Sustainable freight railway systems in reaching out to consumer needs







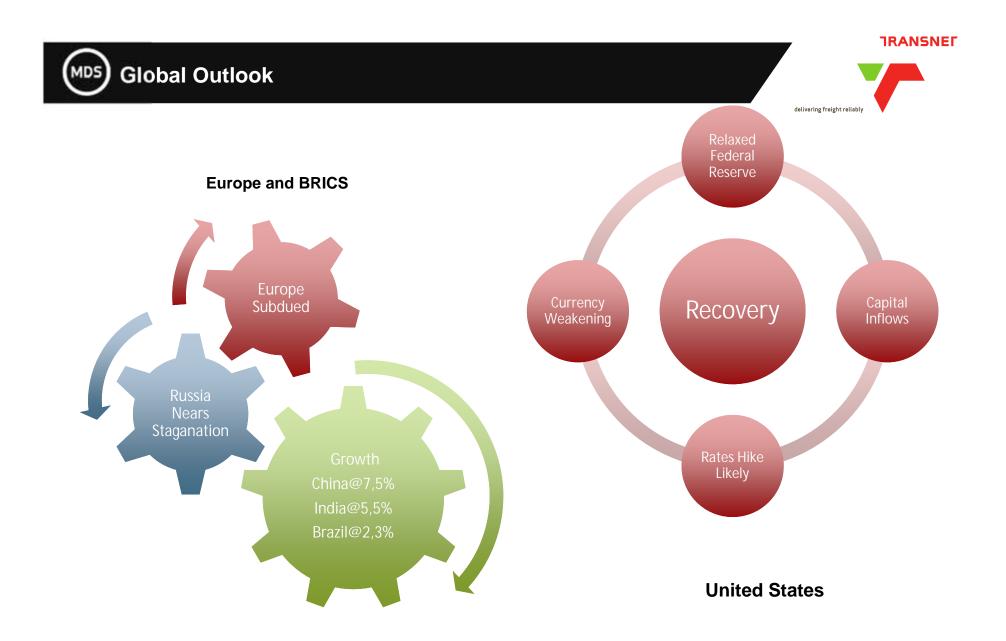
- 1. Economic Outlook
- 2. SA Volumes/Capacity
- 3. SADC Regional Logistics Integrat
- 4. Conclusion



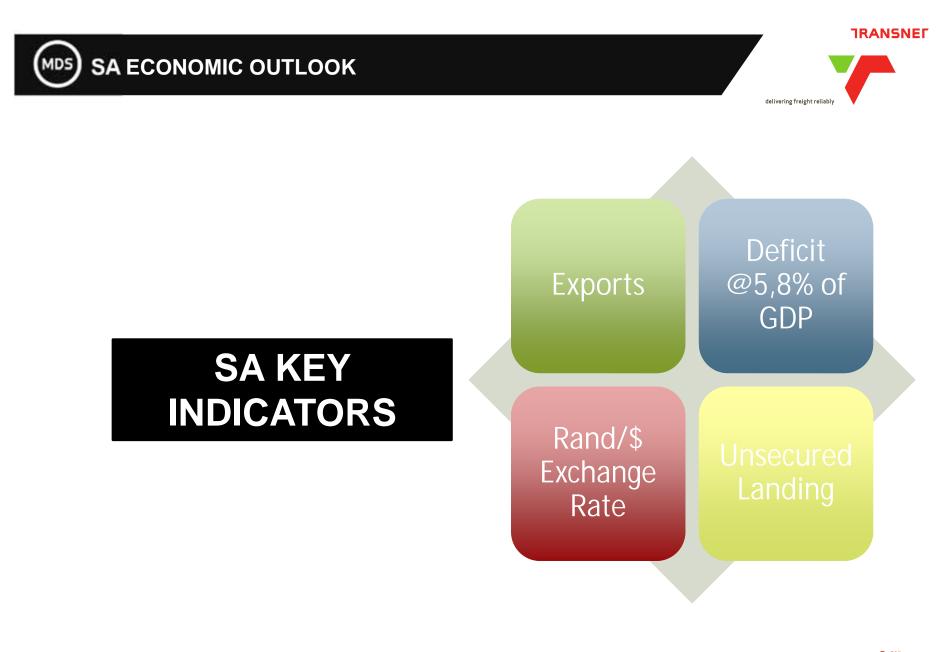


BAL HUNDRED LUDY

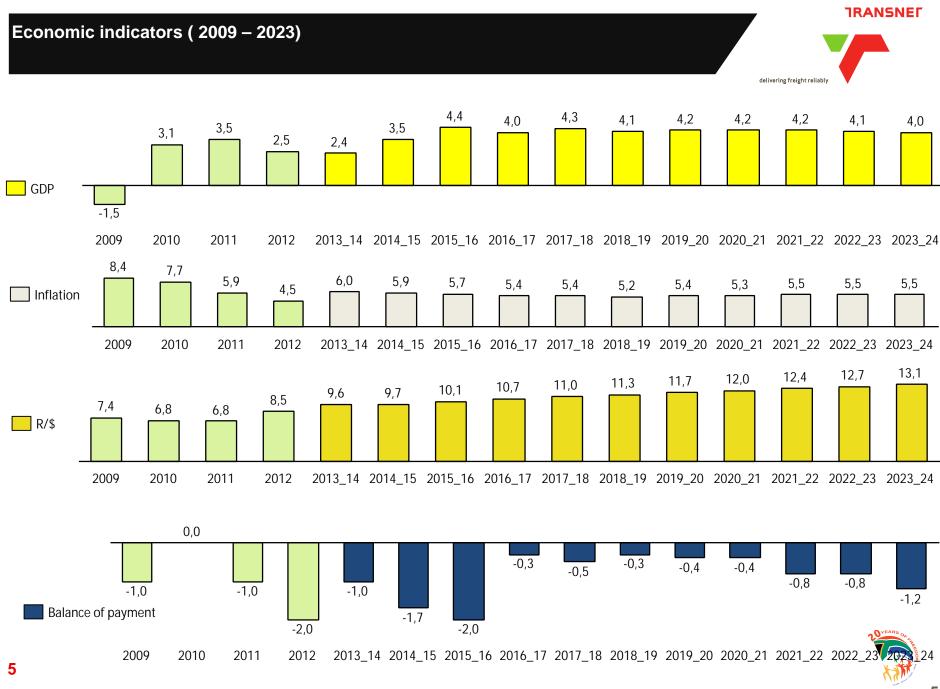








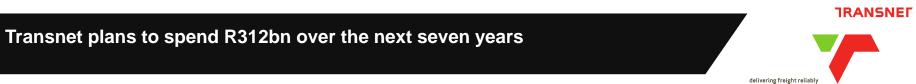




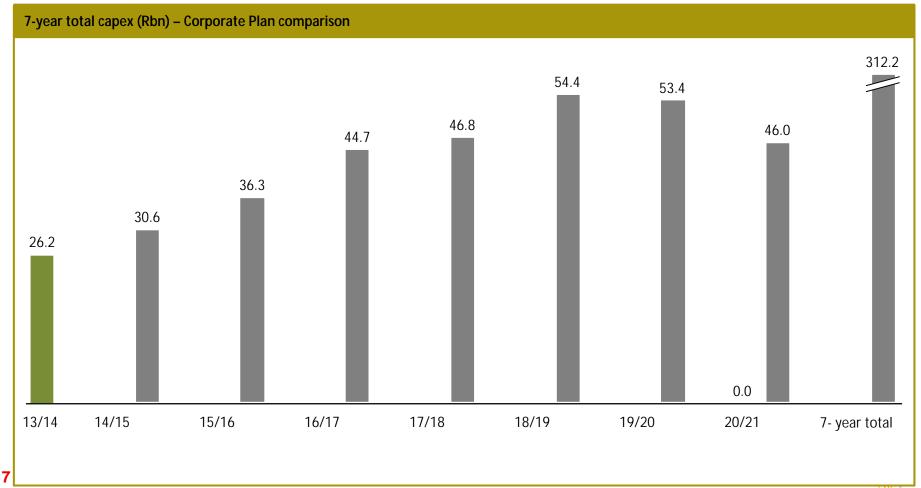


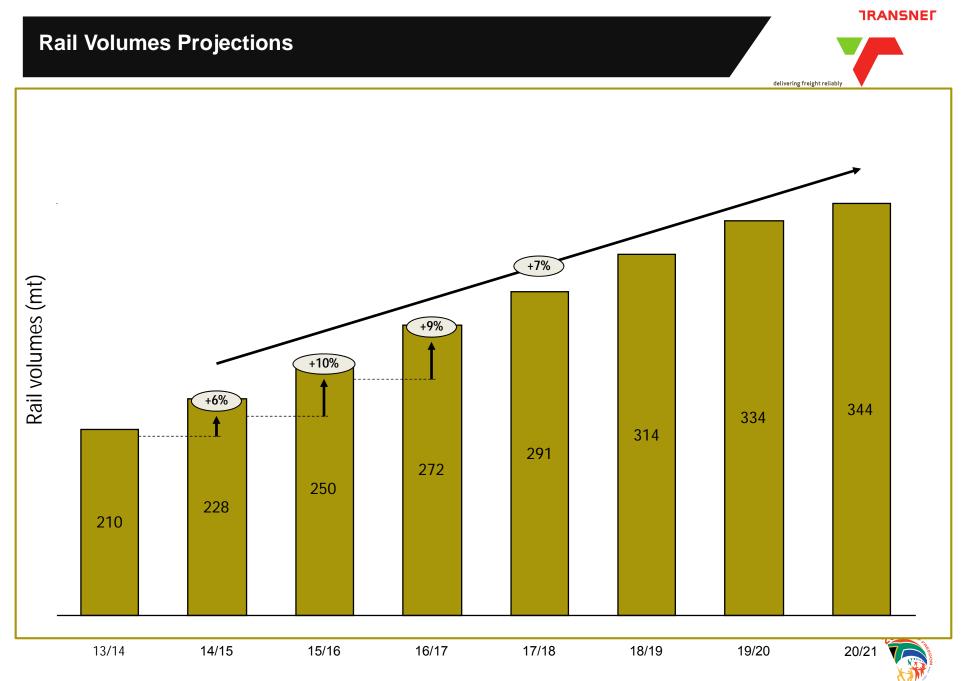
- R1trillion over the past 5yrs. @R200b per yr.
- R847b over the next 3yrs. @R282b per yr.
- R45b private spend on energy.



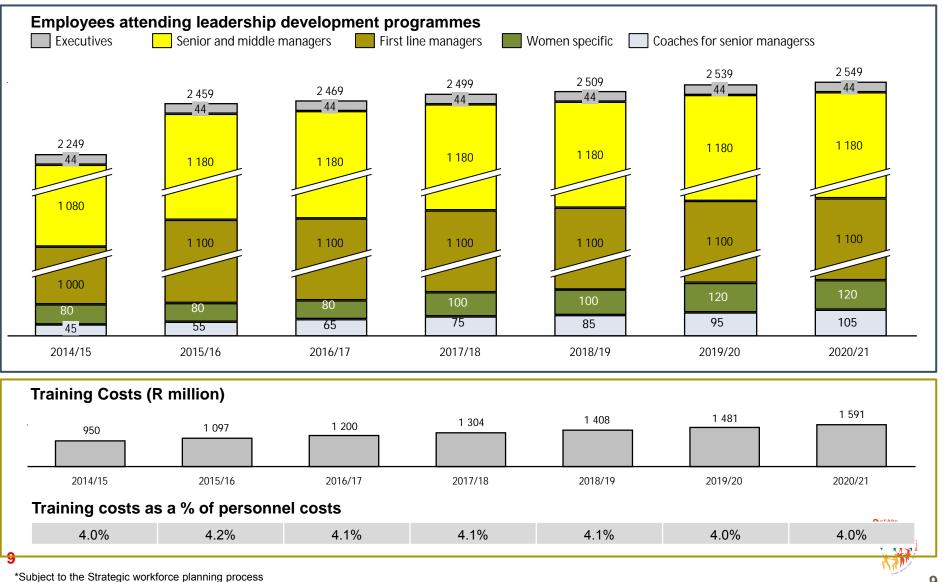


### Capex, Rbn









## Lessons Adopted from the Benchmark Class 1 Railways.



# Most common measurements for Class I Railway:

#### **Revenue & EBITDA**

- Average Revenue ton km (RTK) Gross ton km (GTK)
- Revenue/Wagon
- The vertue / wayo
- Tons /wagon
- Train utilisation

#### **Employee Productivity**

- RTK / employee
- GTK / employee

### **Enhanced Asset Utilisation**

- Average train speed (km per hour on mainline)
- Average terminal / yard dwell time (hours) Locomotive dwell times
- Train Productivity (GTK per train km) Locomotive Utilization (Trailing GTK per total horsepower)
- % Ton Hauling full trains Wagon Velocity (Wagon km per day) Train Velocity (Kmph)
- Transit time on mainline (T2-T3 hours) GTK / freight train hours

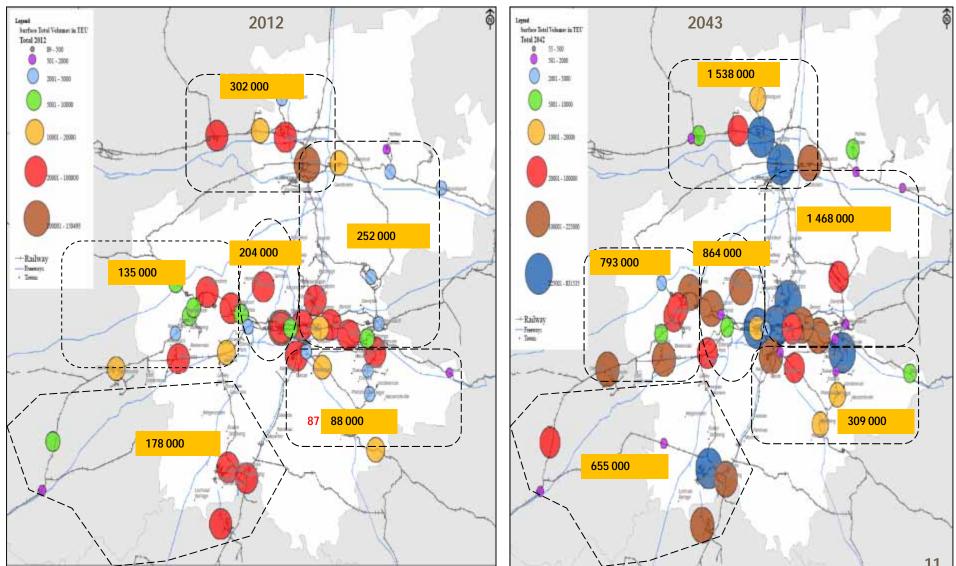
- Operational Measures in annual reports are mostly Lead indicators
- Volumes always measured relative to another measure to gauge productivity
- Employee productivity will be a new measure
- Biggest drivers of Volume for all Class I is ensuring full wagons and enhanced Wagon performance
- Asset utilisation is driven by measuring time and minimising dwell. Time is measured in terms of speed (Train Velocity and Wagon Velocity) and this measure features across all Class I reports.
- Measures on the left have been adopted in the new proposed scorecard and will be cascaded to Operations, SOC and NCC
- Driving these lead measures will guarantee lag measures such as:
  - Tons,
  - Revenue and
  - Customer Service



### Volume Growth - Geographic Location of Surface Allocated Container Traffic in Gauteng Industrial Basin (In TEU)

**TRANSNEF** 

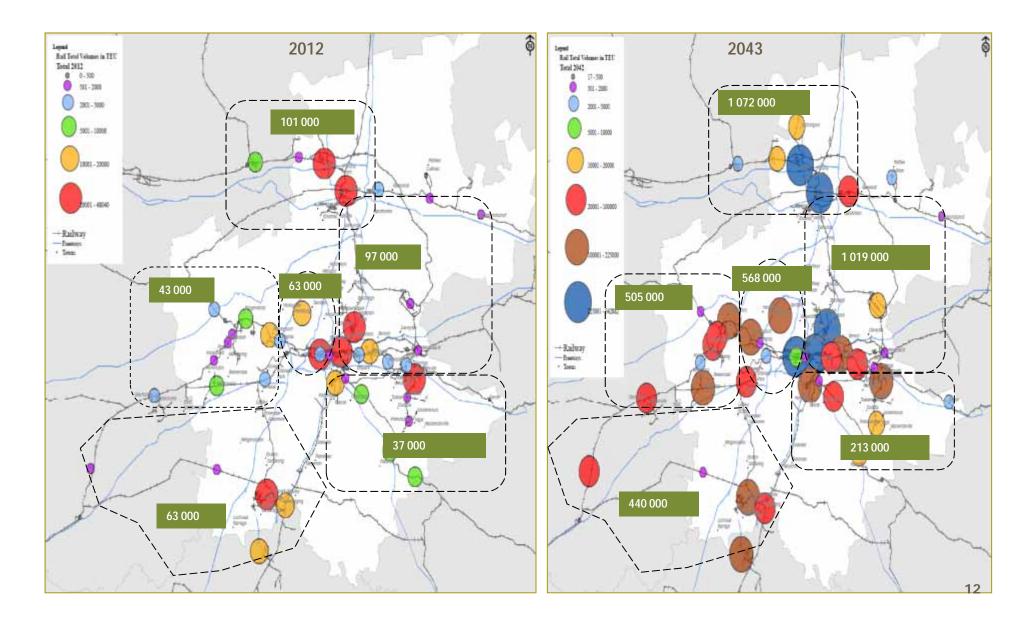
delivering freight reliably



### Volume Growth - Geographic Location of Rail Allocated Container Traffic in Gauteng Industrial Basin (In TEU)

TRANSNE

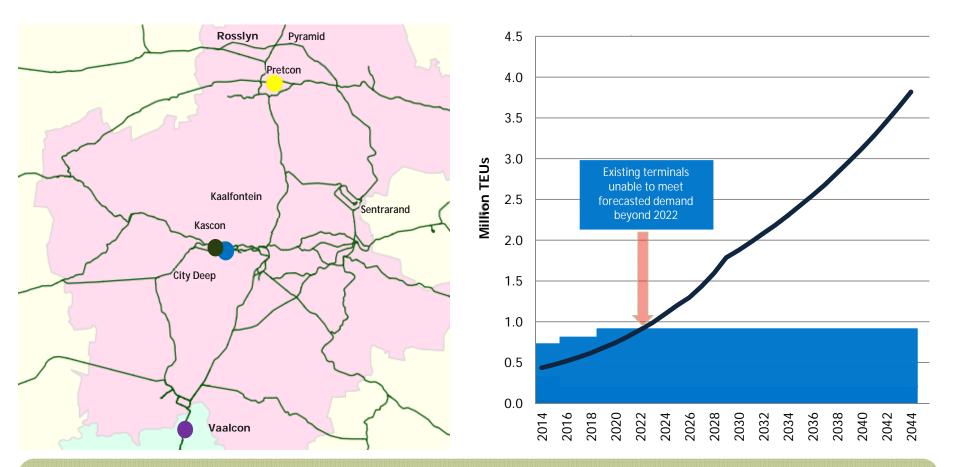






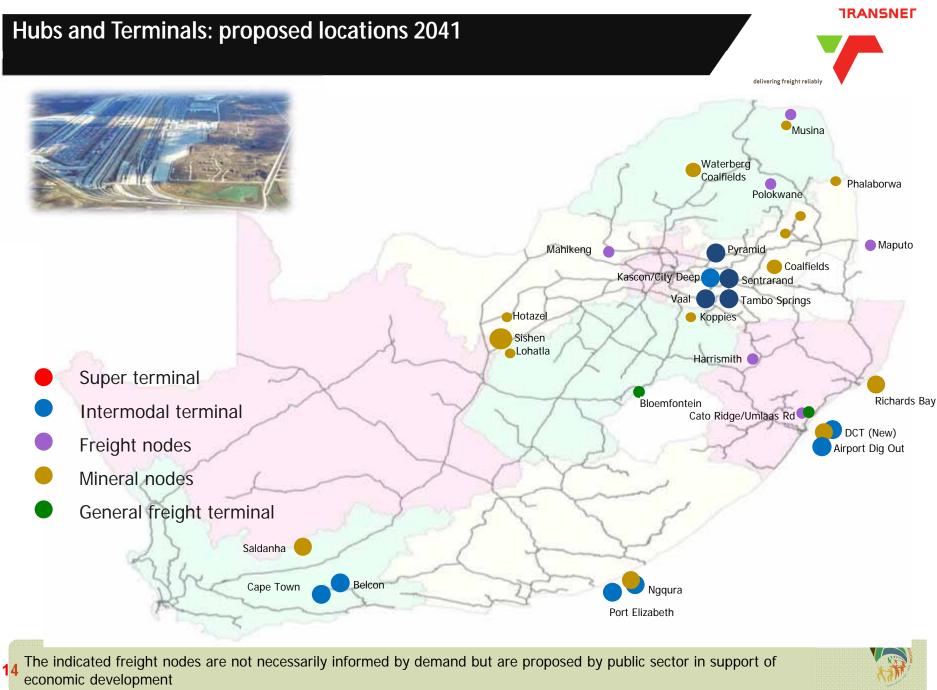
## Inland Container Terminal: Capacity vs. Demand





The demand for container transportation increases rapidly over the next 30 years and TFR aims to significantly increase market share.

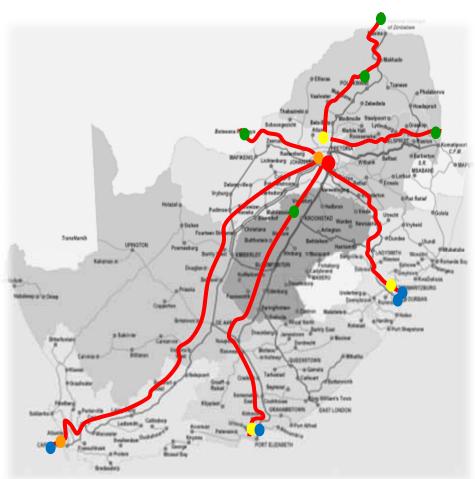
The graph indicates rail's planned increase in container TEU volumes over the 30 year period.



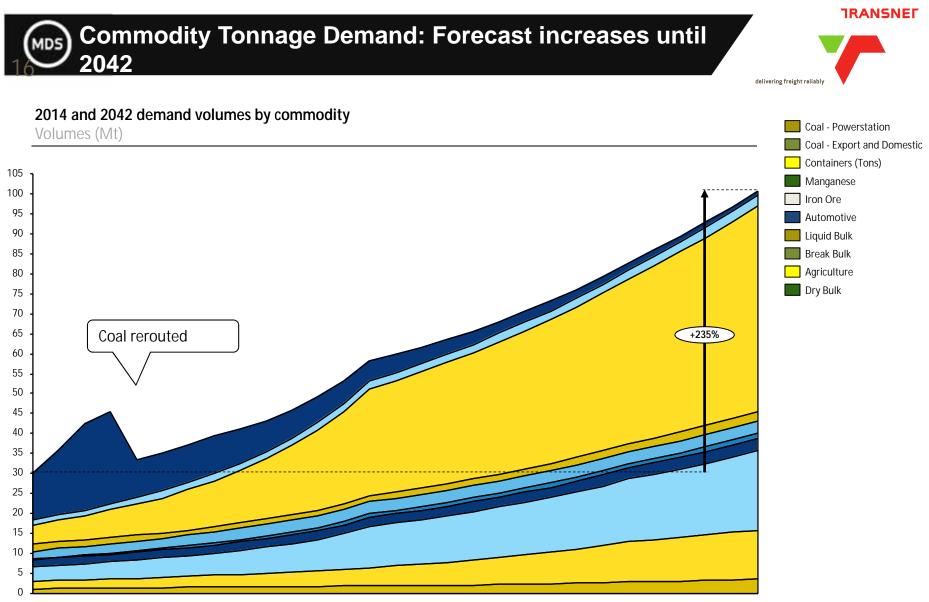
### **City Deep Regional Impact**

delivering freight reliably

- City Deep is the largest inland trade port in South Africa
- 80% of the container volumes from the marine ports are consolidated in Gauteng Province
- City Deep remains central in handling the cargo from the 3 major container ports namely: Durban, Ngqura, Cape Town;
  - acting as an interchange for traffic destined to inland provinces and SADC region
- There need to be expansion in the current capacity to meet the forecasted growth in market demand
- Strategic projects have therefore been identified to cater for this growth in economic activities



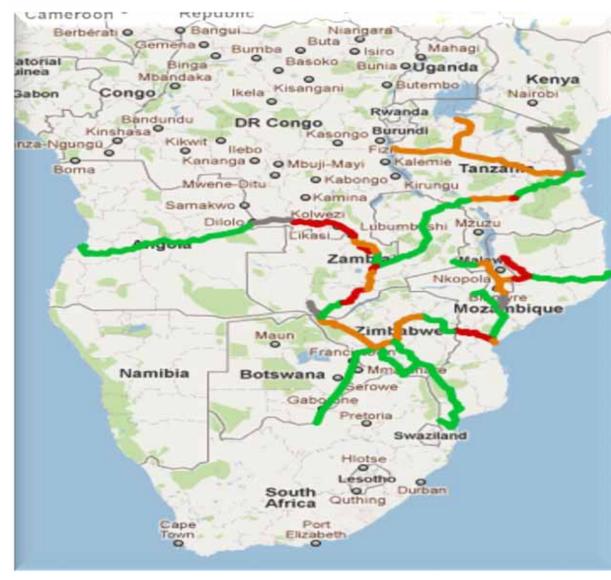


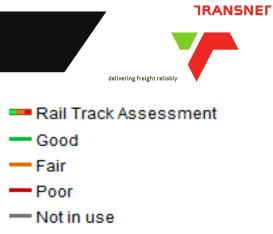


<sup>2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042</sup> 



## The Regional Network Condition





#### Note

The condition of the operational track on the South African TFR is good, relative to the other regional systems – safety, speed restrictions and permissible Train lengths are the main criteria. On regional systems outside TFR and the new Sena coal line, the train lengths are limited to between 20 and 40 wagons.





- The Trans-Kalahari railway line which provides a direct route between South Africa and Walvis Bay in Namibia, and possibly serving as a coal export route for Botswana;
- A 300 km rail link between Lion's Den in Zimbabwe and Kafue in Zambia, providing a shorter rail link to Beira;
- A north-west rail link between Zambia and Angola which connects with the port of Lobito;
- A link between the Namibian system and southern Angola; and
- Various Standard Gauge upgrading proposals for East Africa.





# Condition:

 $\checkmark\,$  Lack of maintenance and investment

**Regional Projects (SADC)** 

- ✓ Damage as result of conflict
- $\checkmark\,$  Theft of operating equipment

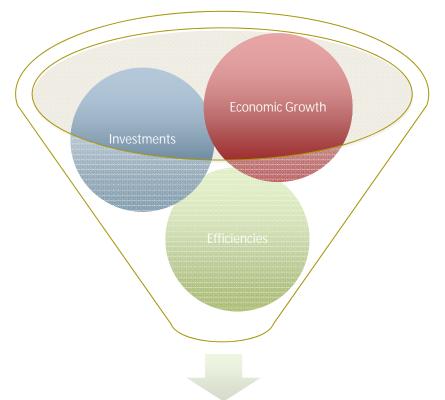
# Capacity:

- Poor track condition (Kigoma, Nacala, Harare, National Railways of Zimbabwe, Beitbridge-Bulawayo Railway, Zambia, DRC)
- Poor locomotive and wagon availability (Kigoma, Harare, Maputo, National Railways of Zimbabwe, Beitbridge-Bulawayo Railway, DRC, Trans-Namib, Botswana)
- ✓ Collapsed marine services on Lake Victoria
- $\checkmark\,$  Discontinuity as a result of railway condition









Sustainable Freight Railway System



- Ocean and land logistics.
  - Port, Rail and Road Collaboration
- Regional Integration
- Enabling Legislative Framework





Thank you

