



Presentation to the Portfolio Committee on Public Enterprises Transnet Infrastructure Spending Plan – R300bn over 7 years

8 May 2012

- **Overview of the Market Demand Strategy (MDS)**

- Context and summary
- Financial Position
- Funding
- Infrastructure Spend
- Capacity creation
- Job creation
- Skills and development
- Localisation

- MDS risks
- MDS Implementation strategy
- Capital Implementation Plans
- Detail on Mega Capital Projects
- Alignment with planning and policy processes in Government



Market Demand Strategy



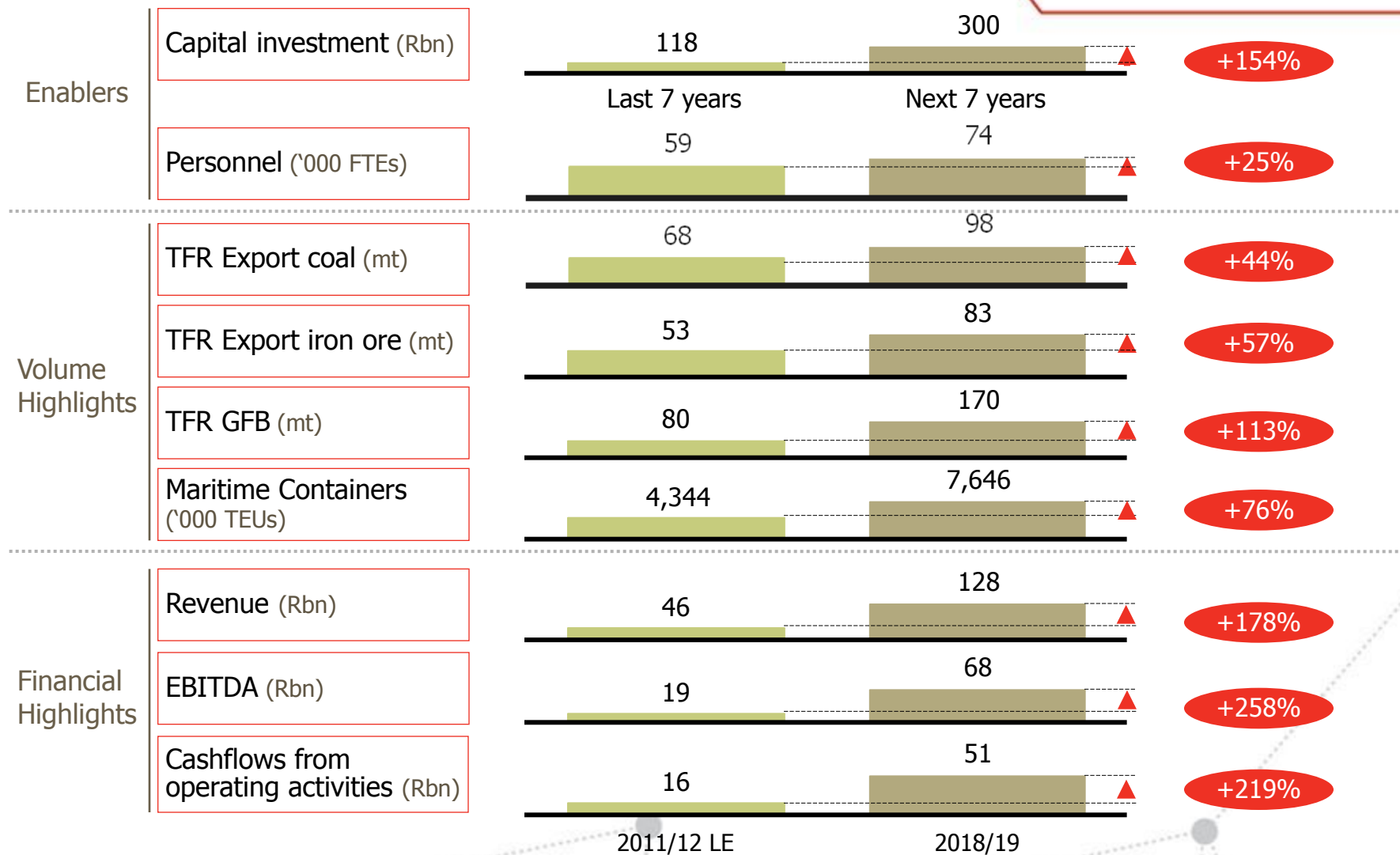
- **R300bn** capital investment programme
- Expanding **rail, port and pipeline infrastructure**
- **Increase** in capacity to meet market demand
- Continued **financial stability** and strength
- Significant **productivity and operational efficiency** improvements
- **Shift from road to rail** – reducing the cost of doing business and carbon emissions
- Enabling **economic growth**
- **Job creation**, skills development, **localisation**, empowerment and transformation opportunities

Based on Transnet's solid foundations, it aims to capture identified growth opportunities over the next 7 years

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X%

Total growth

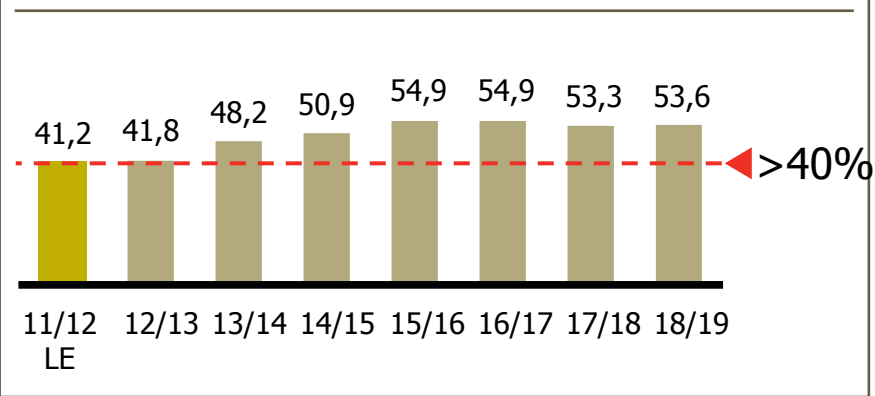


2011/12 Latest estimate

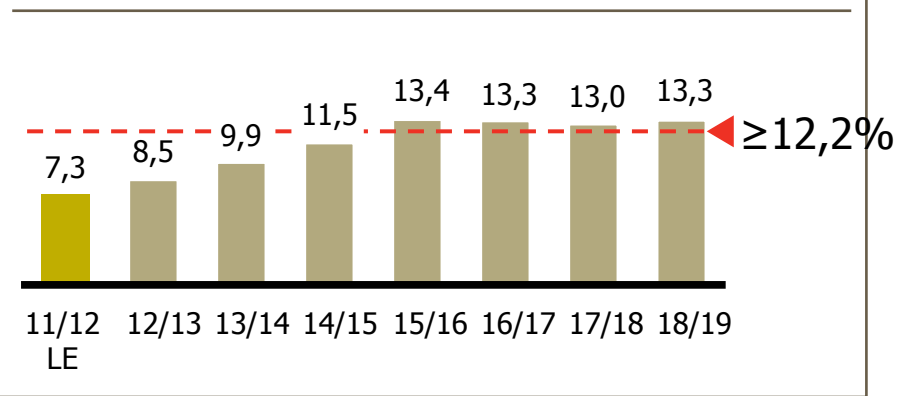
Transnet will maintain a solid financial position and credit rating



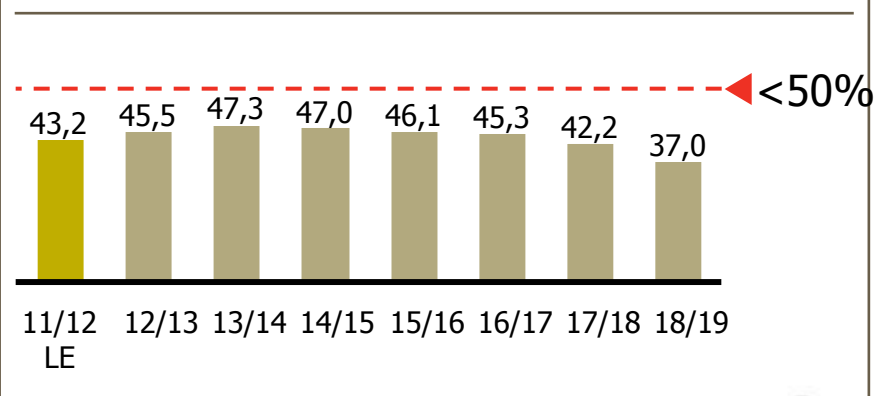
EBITDA margin (%)



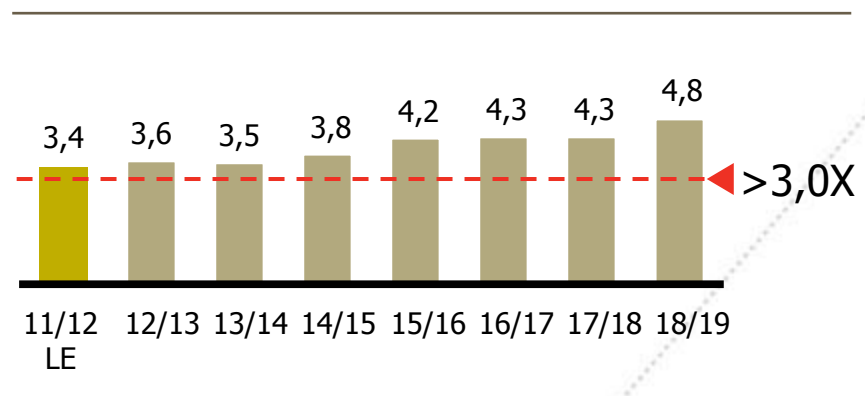
ROTA (%)*



Gearing (%)*



Cash interest cover (times)



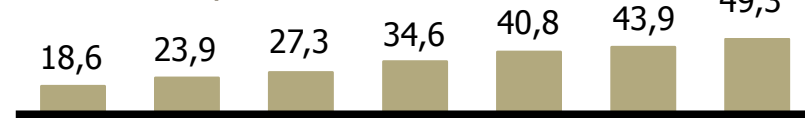
* Excludes Ports Regulator Clawback

~70% of capital investment will be funded from operating cashflows – Transnet is confident it can raise the balance externally

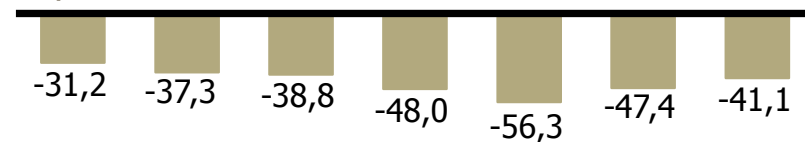


Funding cashflows (Rbn)

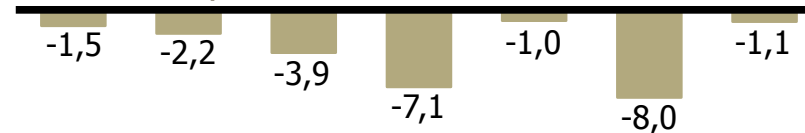
Cash from operations and other



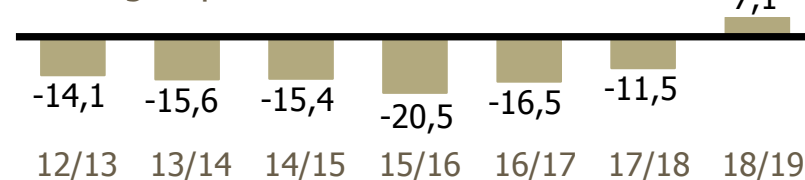
Capital investment



Loan redemption

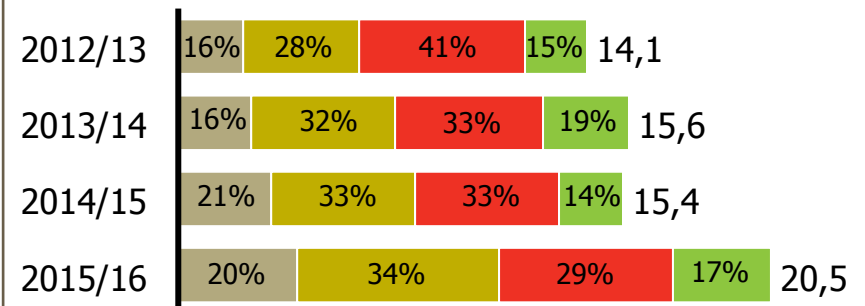


Funding requirement



Probable sources of funding (Rbn)

Commercial paper DFIs/ECAs/GMTN
Domestic bonds Bank loans/other



Potential further sources of funding

- Second issuance – GMTN
- Private placements
- Further funding with ECAs
- Syndicated loan market
- Asset-backed financing
- Bonds in other markets (e.g. Yen, USD, Sukuk)

Transnet's planned infrastructure spend of R300 billion will achieve various policy objectives

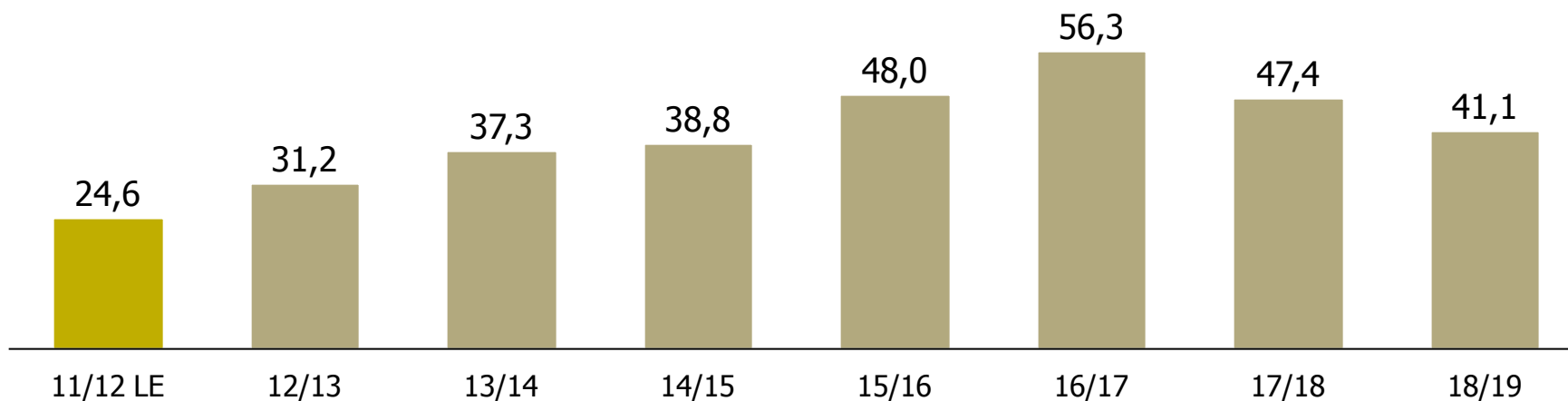
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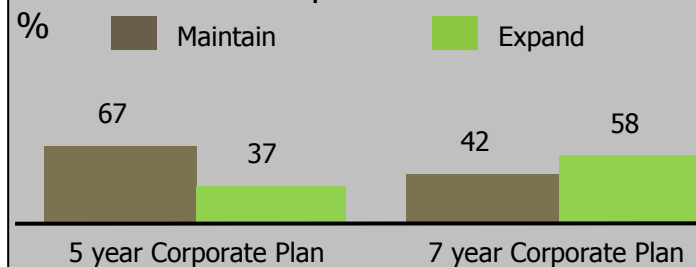
Capital investment

Rbn



**Total capital spend
of R300bn**

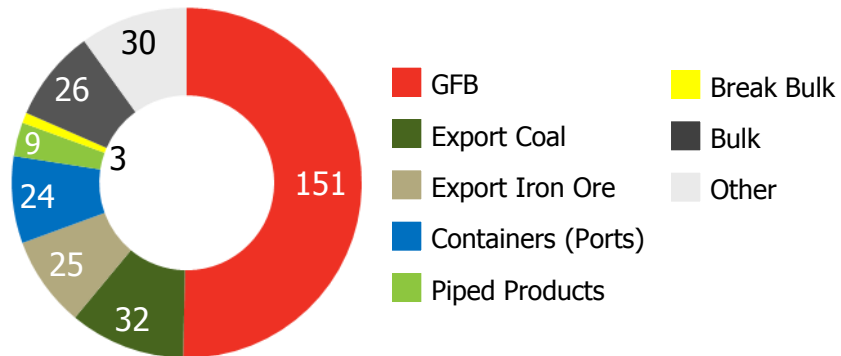
Maintenance vs. Expansion



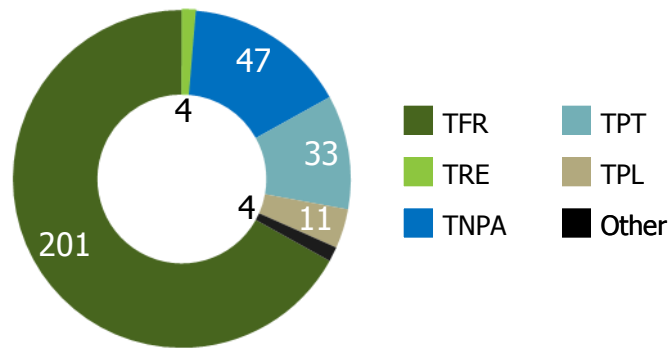


The majority of the investments will be in General Freight and Freight Rail

Commodity split (Rbn)



Divisional split (Rbn)



Major programmes



GFB rail capacity growth to meet market demand volumes from 79,7mt to 170,2mt – including Waterberg



Increase export coal to 97,5mt



Increase export iron ore to 82,5mt



Increase export manganese to 16mt



Completion of the New Multi-Product Pipeline (NMPP)

Increase in fleet and improvement to the infrastructure

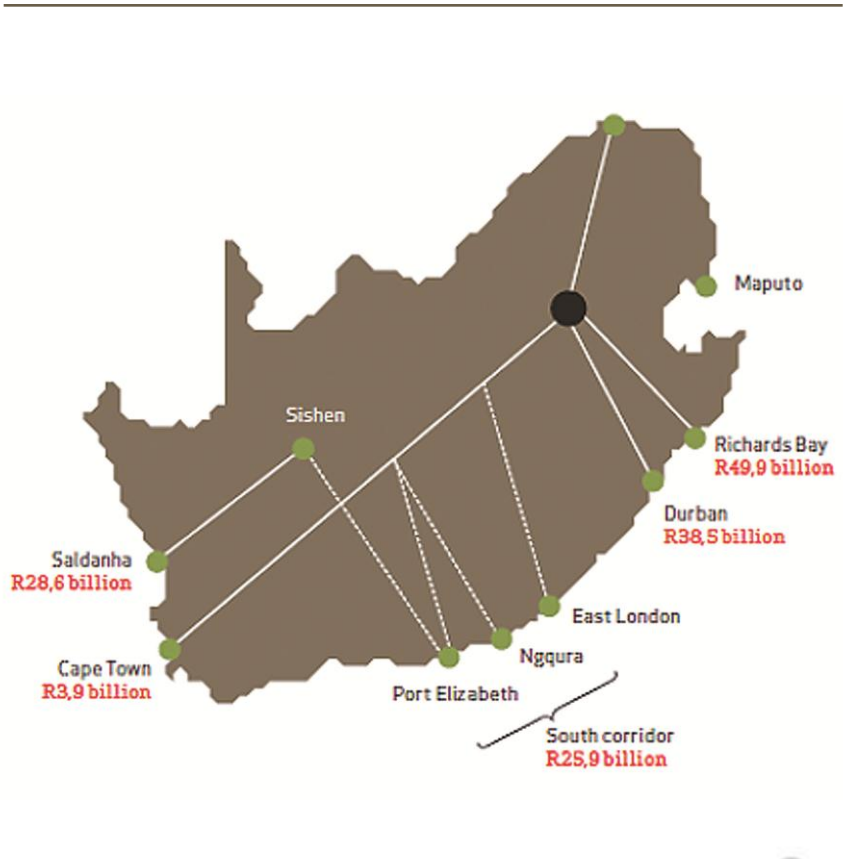
Major areas of capital investment and capacity creation

Area of investment	Existing Capacity	Capacity created over 7 years	Future Capacity	Utilisation 2019
TFR Coal Line R31.6bn	68.0 Mtpa	29.5 Mtpa	97.5 Mtpa	100%
TFR Ore Line R18.6bn	52.8 Mtpa	29.7 Mtpa	82.5 Mtpa	100%
TFR General Freight R150.8bn	79.7 Mtpa	90.5 Mtpa	170.2 Mtpa	100%
Maritime Containers* R24.1bn	Terminals: 5.0 MTEUs Ports: 5.5 MTEUs	Terminals: 4.3 MTEUs Ports: 4.0 MTEUs	Terminals: 9.3 MTEUs Ports: 9.4 MTEUs	Terminals: 79% Ports: 79%
Bulk R31.6bn	Terminals: 79.5 Mtpa Ports: 196.0 Mtpa	Terminals: 44.3 Mtpa Ports: 36.0 Mtpa	Terminals: 123.8 Mtpa Ports: 232.0 Mtpa	Terminals: 99% Ports: 95%
Breakbulk R4.0bn	Terminals: 15 Mtpa Ports: 29 Mtpa	Mainly sustaining	Terminals: 15 Mtpa Ports: 29 Mtpa	Terminals: 80% Ports: 52%
NMPP R 7.5bn	4.0 billion litres/a	4.4 billion litres/a	8.4 billion litres/a	92%

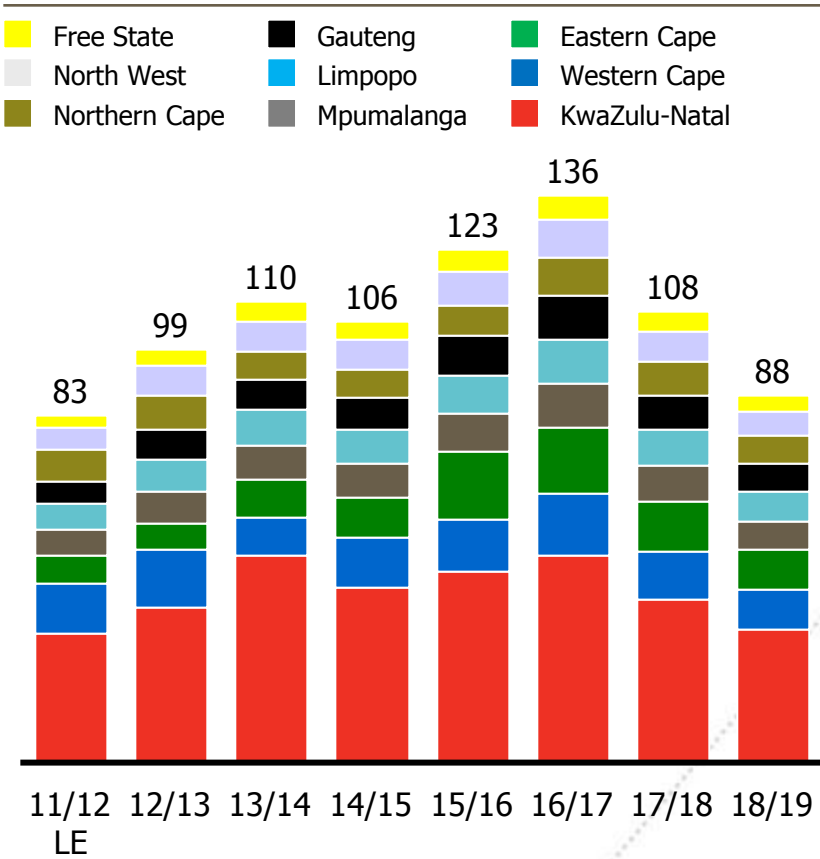
* TNPA's container capacity emanating from Multi-purpose Terminal and Maydon Wharf is shown under break-bulk

The impact of infrastructure development will be felt nation-wide

7 year capital investment by region¹



Provisional contribution to direct and indirect jobs ('000)



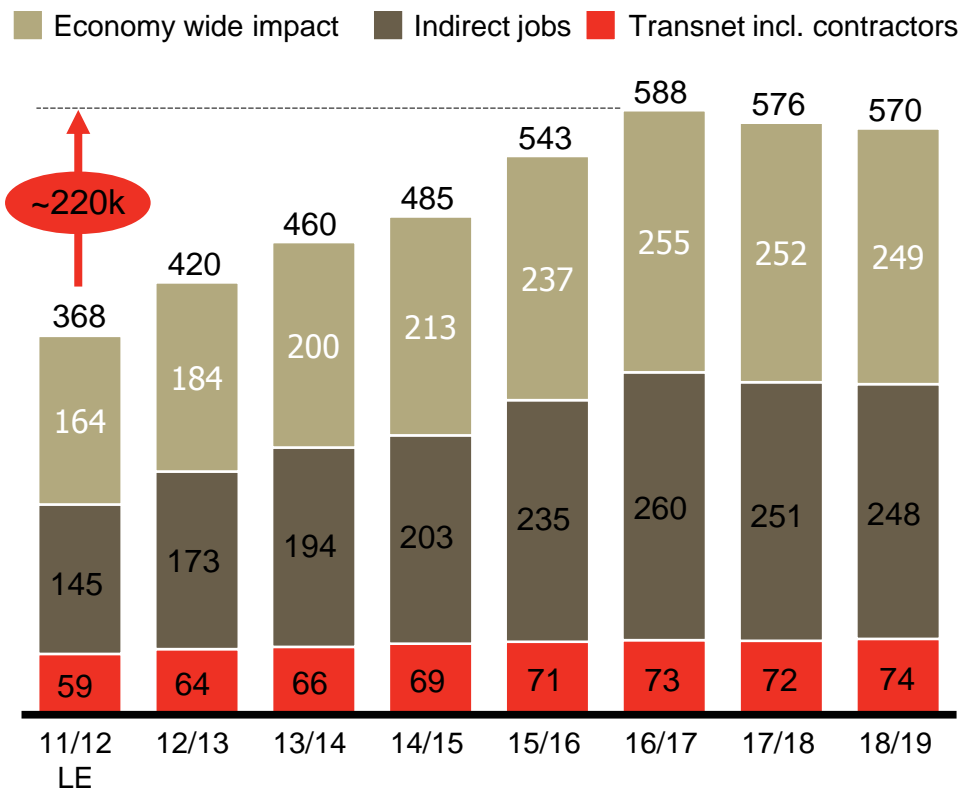
1 National – countrywide investments – R153,3bn
Freight Rail corporate centre and General Freight investments (wagons, infrastructure and locomotives have been classified as national investments (which cut across all corridors) except for R7,4 billion for Freight Rail manganese expansion to 16mt which is allocated to the South corridor

MDS will create jobs. Together with current operations Transnet is expected to create employment for 588,000 people at its peak with a large focus on skills and capacity building

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Job creation impact of MDS on South Africa '000 people



R7,6bn to be spent on training over the next 7 years

Additional **15,000 direct jobs**

Increased intake in **schools of excellence**

- **R4,6bn** spent on **bursaries** and **grants**

- **317 technicians** in training by 2018/19

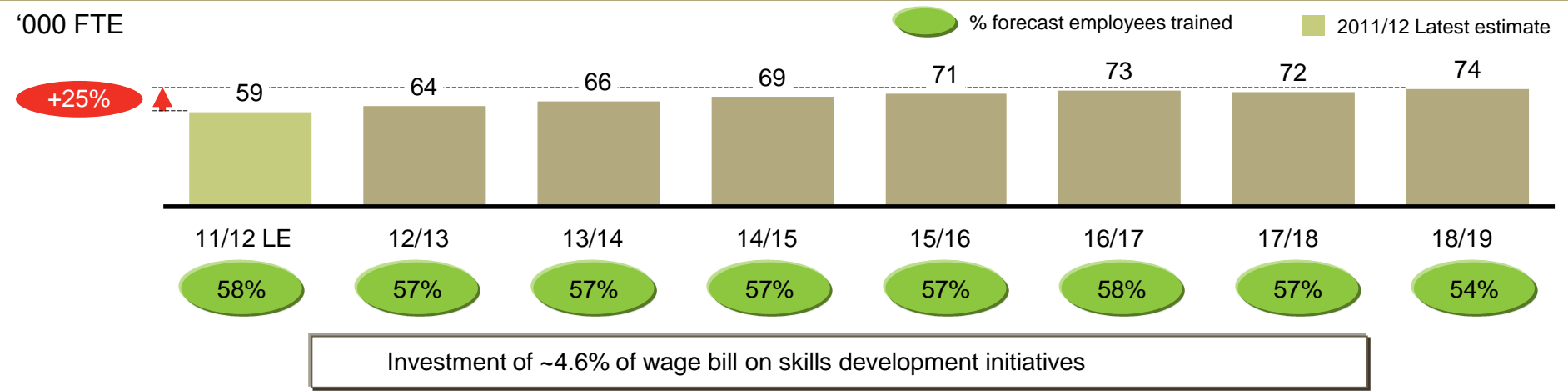
Step up **recruitment in critical skills** and expand annual intake

- **2,000** apprentices at all times

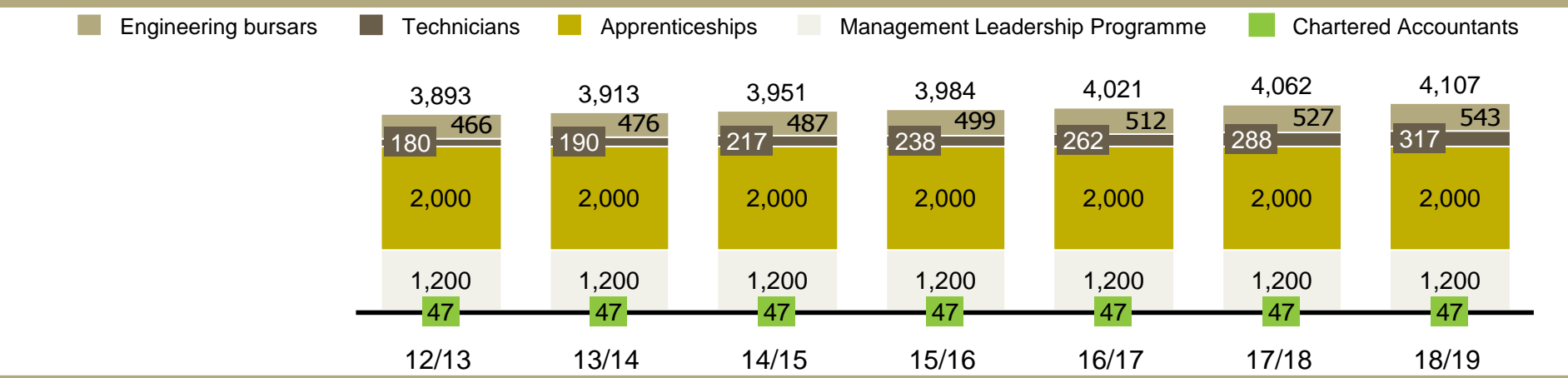
- Increase **engineering bursar** intake to **543** students in 2018/19

Direct jobs will ramp-up by 25% with a significant step up in skills and development

Group employees

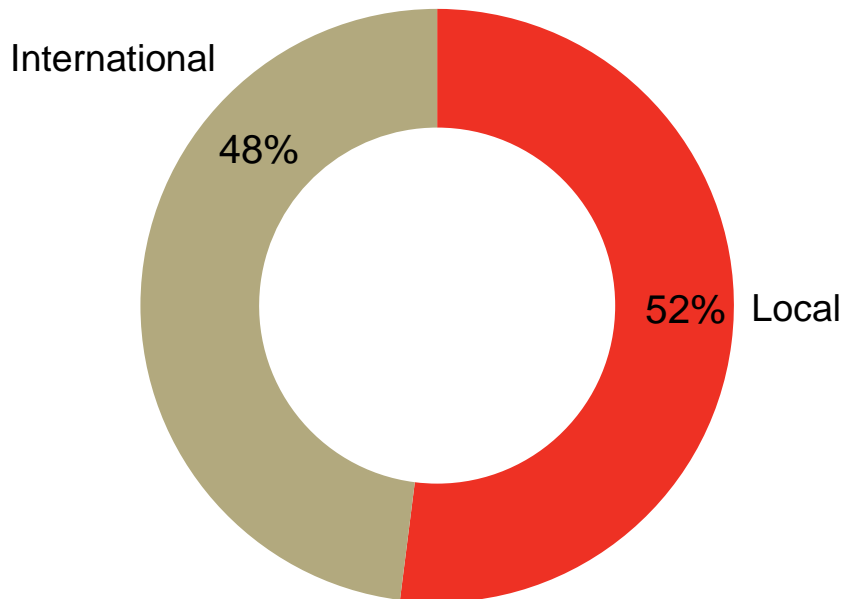


Number of trainees



MDS will promote localisation, transformation and empowerment

Potential local content commitment for locomotives (%)



Localisation initiatives:

- R2,9bn already spent on local content by international suppliers
- International suppliers to transfer knowledge and expertise to up-skill local suppliers
- On-the-job training and apprenticeships will be built into international supplier contracts
- Provision of jobs and procurement opportunities to rural areas where facilities are located
- Assistance will be provided to small business to foster innovation and create jobs
- ~R4,2bn expected to be spent over the next 7 years on small business promotion

Transformation initiatives:

- Collaboration with suppliers to meet Government's transformation and empowerment objectives



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A strong emphasis will be placed on Supplier Development to ensure growth and development objectives are being met

Policy link to Transnet commodity tiers (i.e. potential supplier type)

Key outcomes

Strategic enablers

SDP Growth and Development focus

- Transnet will affect suppliers it procures from either directly or indirectly (directly procure from supplier or indirectly support downstream suppliers of suppliers higher up in the tier)
- The level of SD opportunity available is dependent on the applicable tier of the commodity (i.e. Tiers higher up can be measured against more key outcomes, e.g. OEM's for all outcomes)
- Transnet will push for key outcomes and targets in evaluation of tenders in the respective tiers and measure winning bidders delivery to targets

Programmatic
(Fleet
procurement)

Programmatic
OEM
Sub Assembly

CSDP
(Strategic SD)

Strategic
Tier1, 2 and 3
Assemblies and
components

Supplier
Development
(Focused SD)

Focused
Tier 1,2 and 3
Components

Enterprise
Development
(BOE/ BWOE/
EME/ QSE)

Small Enterprise
Development
Other Services,
Maintenance and
Repair

High
Level of SD opportunity
Low

Industrialisation

Localisation

Technology
transfer/
sustainability

Job creation/
preservation

Skills
development

Small business
promotion

Further
recognition¹

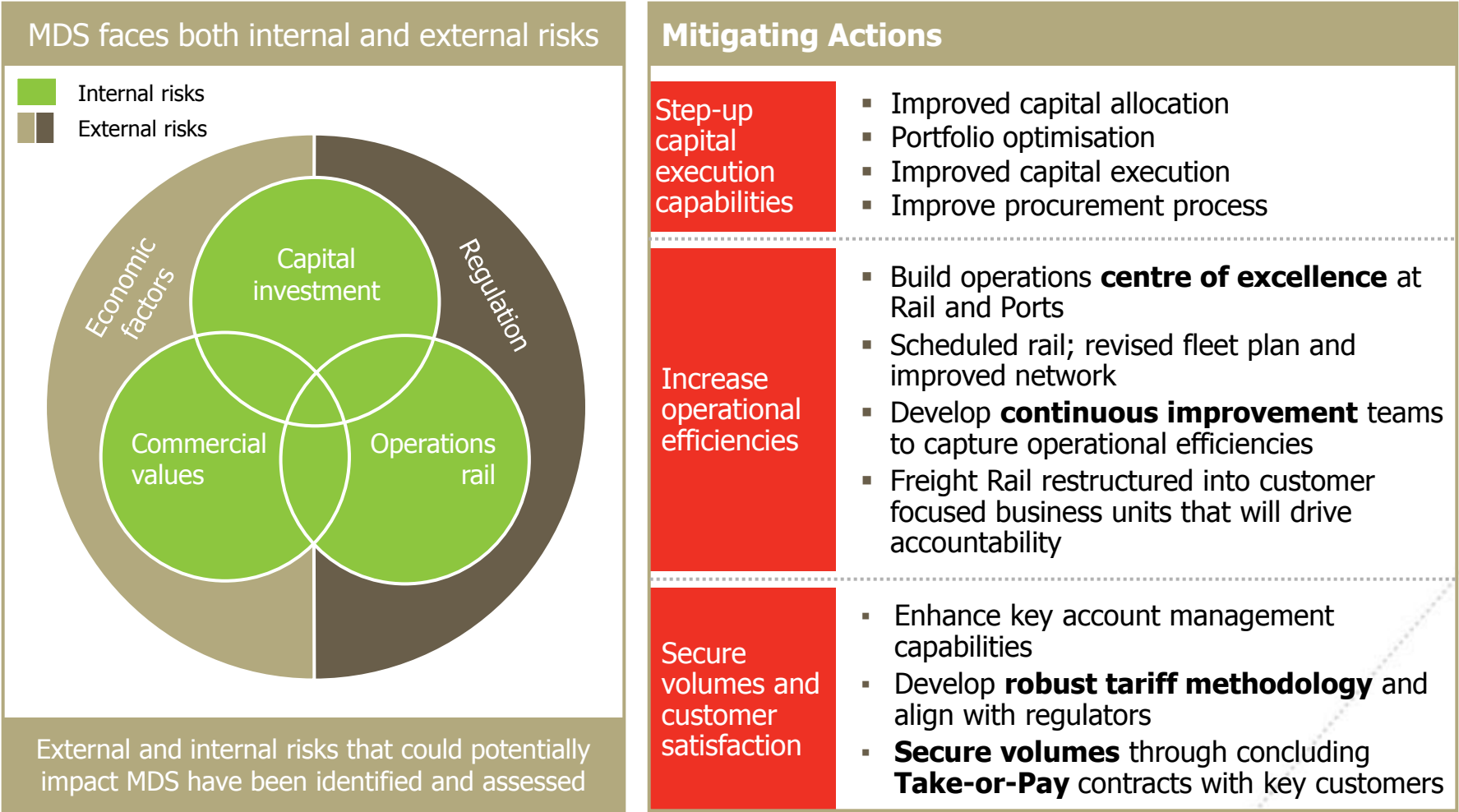
Rural development
and regional
integration

- SD, Sourcing and Governance, Risk and Compliance COEs
- SD Plan
- 4 Step SD Process (identify and classify)
- Sourcing Process (now updated with SD components)
- Evaluation Process and Criteria
- Further Recognition Criteria
- ED models and plans

¹ Points allocated in further recognition of certain components of B-BBEE in line with Transnet and government objectives (i.e., black ownership, management control, EE, ED and preferential procurement)

- Overview of the MDS
- **MDS risks**
- MDS Implementation strategy
- Capital Implementation Plans
- Detail on Mega Capital Projects
- Alignment with planning and policy processes in Government

MDS execution risks have been identified and mitigating actions have been developed



- Overview of the MDS
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- **MDS Implementation strategy**
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Market Demand Strategy will be executed through a series of initiatives



Significant financial, social, economic and environmental impact for South Africa and the region through:

1 Optimising capital investments <ul style="list-style-type: none"> • Optimise the capital portfolio • Achieve "gold standard" management and execution • Practice efficient, cost-effective procurement • Achieve localisation and empowerment objectives 	2 Growing volumes and market share <ul style="list-style-type: none"> • Expand integrated customer planning • Create long-term stable customer relationships • Enhance key account management capabilities • Align tariffs to recover full economic cost from customers 	3 Improving operational efficiencies <ul style="list-style-type: none"> • Become a "Gold standard" operator • Improve quality of infrastructure • Drive continuous improvement to enhance operational efficiency and productivity 	4 Finance and funding <ul style="list-style-type: none"> • Maintain financial sustainability throughout the capital investment programme • Pursue private sector participation opportunities • Enhance financial risk management 	5 Regulatory and key stakeholder engagement <ul style="list-style-type: none"> • Alignment on tariff methodology and regulatory policy • Engage with stakeholders to develop joint view on transport industry structure • Actively engage with internal and external stakeholders to support MDS 	6 Safety, health, sustainability, quality and risk <ul style="list-style-type: none"> • Embed a safety culture • Accelerate initiatives to address environmental challenges • Actively monitor and improve socio-economic impact
7 Human capital strategy <ul style="list-style-type: none"> • Fill critical vacancies whilst achieving employment equity targets • Implement enhanced talent management strategy • Increase contribution to skills development within South Africa • Embed core values of dignity and respect • Continued focus on employee wellness • Embed union engagement model 					
8 Building organisational readiness, a high performance culture and maintaining good governance <ul style="list-style-type: none"> • Enhance performance management approaches • Optimise the reward and incentives model • Establish high performance programmes • Safe guard corporate governance and ensure statutory compliance • Enhance identification, assessment and mitigation capacity of enterprise risk management to manage risks • Improve, standardise and integrate IMS to support delivery on business requirements • Ensure integrated, holistic approach to MDS tracking and reporting 					



As of today numerous achievements have been made with regards to MDS execution

MDS readiness assessment conducted

- Development of **detailed 7-year MDS implementation plans** kicked off with most of Transnet's functions and ODs
- First assessment of **capital 12/13 budget at risk** completed and **mitigation actions** co-developed with ODs
- **Procurement bottlenecks** for 12/13 identified and mitigating actions defined
- **Capital and procurement templates** and checklists to be utilised by CAPIC and BADC developed
- Development of **12/13 capital and procurement pipeline**
- **Governance structure** to institutionalise MDS defined
- BoD and sub-committee mandate, governance and reporting review ongoing; new **agenda for BoD meetings** suggested
- Comprehensive **stakeholder engagement strategy** created; initial events successfully executed, e.g., **DPE; MDS Launch**
- **SPO alignment** and definition including capability building included for Exco members
- Amendment of **long-term incentive (LTI) scheme** to align with MDS
- **HC priorities** defined



Transnet has utilised internal business divisions successfully to execute capital projects

Approval processes

- Projects require formal approval of a comprehensive business case before moving into the execution phase, and are subject to the well established PLP (project lifecycle process)
- The Transnet Group Limits of authority determines the hierarchy to be followed for final approval of planned projects, with a parallel process for PFMA / Business case development along with procurement to be undertaken and tested

Role of Capital Projects

- Capital projects was established in 2005 as a Specialist Unit of Transnet to enable the delivery of major infrastructure projects

Role of Rail Engineering

- The Transnet in-house manufacturing business provides Transnet with increased flexibility in terms of rapidly up scaling production and builds on expertise that has been in the Group for many years

Freight rail in-house perway maintenance

- Capitalised infrastructure maintenance work is currently managed in-house by Freight Rail with the assistance of private contractors

Divisional in-house project management departments

- Operating Divisions have in-house project management capabilities to facilitate capital roll-out
- Capacity and capability will need to be enhanced to meet MDS

External procurement

- In order to stimulate local job creation, Transnet will endeavour to involve local suppliers (including Rail Engineering) in the supply chain (localisation).
- Each Operating Division and Capital Projects has its own procurement department in addition to the Corporate Centre which gets involved in major asset acquisitions. The levels of authority for procurement authorisation are strictly controlled within 'The Transnet Group Limits of Authority
- Capacity and capability will need to be enhanced to meet MDS



Transnet Capital Projects (TCP) Current State

Role of TCP: Current State

- To roll-out centrally focused projects that cross multiple divisions, in addition to a number of mega projects from the initial feasibility phase to the eventual handover to the Operating Divisions.
- Service Level Agreements (SLAs) are in place between Capital Projects and the Operating Divisions to manage the working relationship and successful delivery of infrastructure projects.
- A Project Specific Agreement (PSA) is approved by the Operating Divisions for each project which authorises Capital Projects to initiate the project work.
- Capital Projects provides specialised engineering, procurement and construction management services (EPCM) of capital projects to the Operating Divisions,
- Capital Projects is staffed with 636 permanent employees dedicated to the roll-out of a major component of Transnet's seven-year capital investment plan.
- TCP has made the following achievements to date:
 - Widening and deepening of the Durban Harbour entrance channel
 - Increasing capacity of the Export Iron Ore Line to 60mt
 - Construction of the Port of Ngqura and Container Terminal
 - Sustaining of the Manganese plant at PE to 4,2mt
 - Expansion of Cape Town Container Terminal
 - Completion of the NMPP 24 inch trunk line from Durban to Jameson Park and 3 16 inch pipelines in the northern network

Capital Projects Organisation Framework

- Centres of Excellence and assurance support the various delivery teams through a matrix type structure.
- Contract staff are engaged to resource in-house managed projects and/or third-party providers required for additional or specialist resources as and when required based on the size and complexity of the project.
- Should the nature of the projects require major outsourcing, Capital Projects' flexible matrix structure accommodates this requirement.
- The PMO and the Project delivery structure is a flexible structure (with core competency) consisting of internal capability, supplemented with external/outsourced resources corresponding to the cyclical nature of the size of the capital programme.
- These services are directly involved with the delivery of the projects.



Changes to TCP in order to deliver MDS

Capital planning and execution

Capital Execution

1. Reorganise TCP based on Project Management Office (PMO) principles
2. Refine capital delivery model
3. Implement scalable, user friendly risk based PLP across Transnet
4. Enhance consistent Integrated Project Risk Management methodology aligned with Transnet Programme Risk Management Methodology
5. **Sufficiently skilled and resourced project delivery organisation (including owners teams)**

Governance and Control

1. Review and updated Project Critical Controls, Commercial Approval Framework
2. Improve and align Planning/Scheduling, Project Execution/Control and Financial systems to enhance project performance reporting
3. Implement the revised Social Responsibility and Benefits

Organisation strategy / readiness

TCP Exco reviewed readiness and identified specific internal areas of improvement in order to meet MDS readiness and is currently being actioned

HR Strategy

Develop, retain and acquire the right skills in order to delivery the capital workload timeously.

Skills Development

- 123 Graduates in Training, Engineers and Training and Technicians in training.
- 27 placed in TCP in 2011.
- 25 new intake for 2012.
- In-house assessment centres and training on NEC, CIDB, Safety and Project Management
- Increased spend on Part time Bursaries to up skill current staff.
- Increased spend on Leadership and Management Development programmes.

Focus on Improving Employment Equity

- Focus on recruiting people with disabilities
- Accelerated development of Black females implemented
- Mentorship programme in place

Trainees placed 2011	Race & Gender		TOTAL
	African Males	African Females	
Technicians – Signals	4		4
Technicians -Mechanical	1	1	2
Construction Managers	2	7	9
Technicians – Electrical	3	6	9
Technician – Civil	1		1
Estimators	1	1	2
TOTAL			27



Transnet Rail Engineering (TRE) Current State

TRE initiatives

- Upgrading and refurbishment of locomotives, refurbishment of wagons, and building new wagons and coaches
- Optimisation of productivity/efficiency (lean six sigma) optimisation of logistics/supply chain management, building new locomotives, and manufacturing of sub-components (underframes and bogies)
- Elimination of waste and variation in all aspects of the operation.
- Safety and environmental initiatives are being rolled out
- Participation in Competitive Supplier Development programme (CSDP)
- TRE has made the following achievements to date:
 - Assembly of 50 EMD 'like new' locomotives for use in GFB
 - Supply of all TFR wagons both of a generic and specialised (tanker) nature
 - Maintenance of TFR rolling stock fleet
 - Assembly of the 143 Class 43 diesel locomotives in partnership with GE (35 delivered thus far)
 - Fitment of control systems to protect the locomotive
 - Design of underframes for rolling stock

TRE will achieve the facilitation of growth by doing the following

- Capital investment aligned with business requirements
- Employing additional staff
- Optimising efficiencies
- Investment in:
 - Infrastructure and Equipment
 - Technology transfer
 - Skills and Training development
- Managing increased demand on suppliers
- Implementing development hubs in strategic geographic locations
- Learning and innovation
- Diversifying Operations into other markets e.g.:
 - Ports
 - African and South American market
 - PRASA
- Locomotive OEM partnerships to:
 - Improve locomotive maintenance processes and performance
 - Improve component reliability and become OEM approved supplier/repairer



Changes to TRE in order to deliver MDS

2012/13 Initiatives

- Collaborate with OEMs in technology transfer and transfer of skills
- Implement Customised Supervisory Development programme to improve functional competences
- Accelerate Women in Rail Engineering programme to address the representation of Women in Managerial positions
- Implement Semi Skilled programmes to create pool of competent technical workers to replace aging workforce
- Training all Employees on Lean Six Principles to improve efficiency initiatives
- Implement and increase multifunctional utilisation of employees through OBML to reduce labour costs and improve productivity
- Create pool of supervisors to take over from the aging workforce

After 2012/13 Initiatives

- Create pool of technical workers to replace aging workforce
- Sustain the Culture of Performance Excellence
- Embed the Lean Six Sigma competencies

From

- Head Count of 13 000 (FTE)
- 50 Engineers in pipeline
- 55 Technicians in pipeline
- 1200 Apprenticeships

EMPLOYMENT EQUITY

- Top Management – EXCO
 - Blacks – 70%
 - Females -10%

To

- Head Count of 13 800 (FTE)
- 100 Engineers in pipeline
- 100 Technicians in pipeline
- 2000 Apprenticeships

EMPLOYMENT EQUITY

- Top Management -EXCO
 - Blacks – 77%
 - Females - 23%

Achievements so far

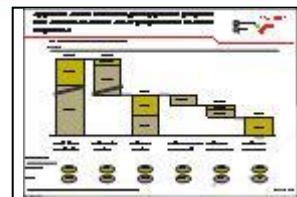
- Increase the intake of apprentices from 1200 to 2000
- Appointment of designated groups in Exco vacancies
- Automated the Recruitment and Selection process to streamline the turn around time of filling vacancies
- Automated the approval of overtime with the view to improve control
- Reduction in absenteeism rate from 3% to 2.47%



A four-step process has been followed to analyse 12/13 budget at risk

Identify current project pipeline

- Identify the number of projects and portion of 2012/13 spend currently in business case approval, procurement and execution



Identify and quantify drivers

- Identify issues and root causes driving underspend in business case approval, procurement and execution
- Conduct a top-down quantification of historic impact of these issues
- Estimate optimistic and pessimistic impact of issues on future spend
- Deep-dive on procurement issues
- Remaining budget was probed in workshops to ensure no changes in circumstances exist. Any additional risks identified were incorporated



Provide OD view of budget at risk

- Consolidate total OD budget at risk
- Synthesise key issues at each point in the pipeline
- Propose revised quarterly spend based on budget at risk



Define mitigating actions

- Identify key mitigating themes to address budget at risk
- Define mitigating actions for each theme including evidence of completion, next steps and specific action owners
- Define tracking tools for ODs and Group to monitor implementation of mitigating actions





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PRELIMINARY

Capital Planning and Execution – Progress and results differ per OD

	Quantification of budget at risk	Business cases	Procurement	Execution	Assessment of plan robustness	Likelihood of spend success (4=robust, 1=weak)
TFR Infra¹	<ul style="list-style-type: none"> Info received in prep for workshop, and budget at risk quantified 	<ul style="list-style-type: none"> Large number of business cases to be approved (as at Feb) 	<ul style="list-style-type: none"> Procurement event view to be syndicated Workshop held with project managers for completion of procurement template 	<ul style="list-style-type: none"> Capacity constraints, but strong team ownership of plan 	<ul style="list-style-type: none"> Plan sufficiently detailed, some refinement currently underway by Infra team 	<ul style="list-style-type: none"> Largest challenge, lack of capacity
TFR Fleet²	<ul style="list-style-type: none"> Info received in prep for workshop, and budget at risk quantified 	<ul style="list-style-type: none"> Small number of high value business cases to be approved 	<ul style="list-style-type: none"> Initial view on TRE production costs created Awaiting further data from TRE 	<ul style="list-style-type: none"> TRE has ability to absorb spend, however unclear if TFR will execute plan 	<ul style="list-style-type: none"> Plan includes actions, but requires next level of detail 	<ul style="list-style-type: none"> Will spend, but may not be according to quarterly plan
TPT¹	<ul style="list-style-type: none"> Info received in prep for workshop, and budget at risk quantified 	<ul style="list-style-type: none"> Large number of small business cases to be approved 	<ul style="list-style-type: none"> Full procurement view developed & syndicated with full ownership from OD Mitigating actions developed 	<ul style="list-style-type: none"> Team aligned behind plan 	<ul style="list-style-type: none"> Detailed plan in place 	<ul style="list-style-type: none"> Spend plan likely to be met with current focus/plan
TNPA¹	<ul style="list-style-type: none"> Info received in prep for workshop, and budget at risk quantified 	<ul style="list-style-type: none"> Majority of business cases approved 	<ul style="list-style-type: none"> Full procurement view developed & syndicated Mitigating actions under development 	<ul style="list-style-type: none"> Execution driven by TCP, which has plan in place 	<ul style="list-style-type: none"> Plan currently requires more detail 	<ul style="list-style-type: none"> Unclear if TNPA will reach target

1 Includes TCP managed capital spend 2 Includes TRE managed capital spend

SWAT teams to address 2012/13 capital and procurement business cases will be deployed



Procurement – We have identified bottlenecks and developed robust plans to overcome these

a

Development of a **procurement pipeline view**, focusing on:

- **Transparency** of key procurement events required for 2012/13 spend
- Analysis of project **status** relative to cash flow requirements to assess potential delays
- **Prioritisation** of projects requiring intervention
- Development of **mitigating actions** to address delayed projects

b

Procurement diagnostic to identify bottlenecks in the areas of:

- **Capacity** (key vacancies across OD's)
- **Procurement process** (process bottlenecks)
- **Planning and integration** (activity forecasting requirements)
- **Contractor and supplier management** (review of current process)
- **Supplier development** (benchmarking of Transnet's SD requirements, analysis of the SD plan in the context of MDS)
- **Procurement operating model** (review of existing model)

c

Development of **initiatives** and **implementation plans**:

- **SWAT team** concept to accelerate execution of priority transactions
- **Sourcing toolkit** to standardise templates, and ensure acquisition council requirements are met
- **Supplier Development** commodity strategies for high value commodities across 7 year period
- **Project tracking tool** for robust management and monitoring of procurement events
- Initiatives to address **capacity** constraints and reduce vacancies
- Procurement process (process bottlenecks)



Ultimately Transnet will aspire towards a capital execution strategy “gold standard”

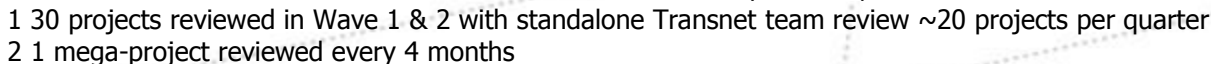
Targets to achieve gold standard

- **Achieve gold standard capital management and execution**
 - Establish project delivery factory
 - Design project management tools, systems and methodologies
 - Designing a contracting strategy
 - Implementing lean construction initiatives
 - Adequately resourcing the capital organisation
 - Implement a standardised project ranking method
- **Build a robust capital eco-system**
 - Enhance portfolio management capabilities
 - Tightly integrate planning, budgeting and capital allocation processes
- **Accelerate capital procurement**
 - Mitigate schedule delays and cost over runs
 - Improve contract administration
 - Roll out standardised toolkits and processes
- **Standardise supplier development requirements and templates**
 - Increase localisation of procurement
 - Training and development of SD employees
 - Institutionalise activity forecasting

Gold standard characteristics

- Role model for construction safety and environmental management
- Integrated programme and project risk management framework with early warning mechanism as decision support
- Structured oversight and regular project assurance activities further enhanced
- Refinement and integration of IT systems
- Delivery process fully aligned to South African socio-economic objectives
- Continued upskilling of engineering, procurement, construction and contract management professionals
- Engineering and construction partnerships

| PRELIMINARY





- Overview of the MDS
- MDS risks
- MDS Implementation strategy
- Capital Implementation Plans
- **Detail on Mega Capital Projects**
- Alignment with planning and policy processes in Government

Development of the former Durban International Airport site into a dig out port



The project entails the acquisition of the DIA site and associated land needed in order to develop a deep-water mega container port, with an annual capacity of 9,6 million TEUs to be provided in four phases.

Scope:

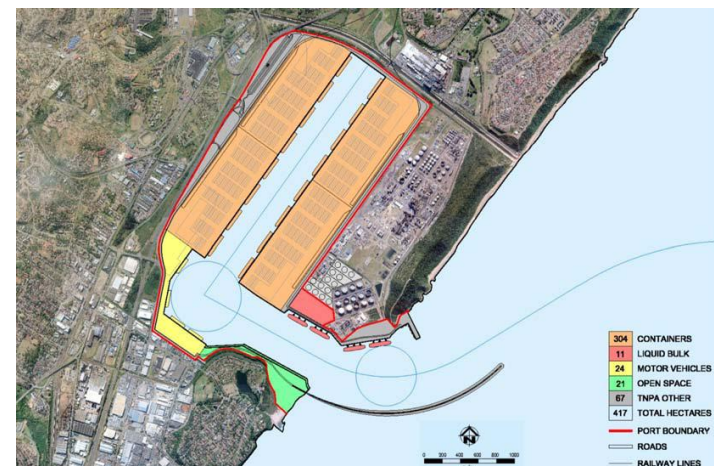
The Transnet Corporate Plan provides only for the acquisition of certain land.

The Port and Terminal operations will be funded through a PSP funding model.

The capacity is expected to come on stream in the following increments:

- 2019: Phase 1 – 2,4 million TEUs;
- 2026: Phase 2 – 2,4 million TEUs;
- 2031: Phase 3 – 2,4 million TEUs; and
- 2037: Phase 4 – 2,4 million TEUs

Planned Spending	Rand million
ETC	3 850
2012/13	650
2013/14	-
2014/15	-
2015/16	-
2016/17	1 000
2017/18	500
2018/19	500





Durban Container Developments

DCT berth deepening and Expansion of Pier 1 into Salisbury Island

Deepening of berths at DCT

In order for the Port of Durban to handle larger vessels the berths need to be deepened. A further feasibility study is in progress as part of the container strategy studies, to determine the optimum prioritisation for the deepening of the various container berths in Durban. An additional 400 000 TEUs of capacity is expected to be created.

Scope

- Port handling equipment investments involve the acquisition of five ship-to-shore cranes and 40 straddle carriers; and
- Dredging of the container berths to a depth of -16m chart datum.

Expansion of Pier1 into Salisbury Island

The project entails the expansion of the Pier 1 Container Terminal into Salisbury Island. Capacity of an additional 1,1 million TEUs per annum will be created.

Scope

- Acquisition of Salisbury Island 8,6 hectares
- Construction of a new quay wall on the eastern side of Pier 1 Container Terminal
- Acquisition of port handling equipment to be acquired includes nine ship-to-shore cranes and 36 rubber tyred gantry cranes.

Planned Spending

DCT Berth Deepening (Rand million)

ETC	5 649
2012/13	-
2013/14	467
2014/15	600
2015/16	1 419
2016/17	2 130
2017/18	1 033

Planned Spending

Expansion of Pier 1 (Rand million)

ETC	6 253
2012/13	30
2013/14	110
2014/15	60
2015/16	1 340
2016/17	2 856
2017/18	1 500



Cape Town Container Expansion

The aim of the expansion part of this project is to increase capacity from 700 000 TEUs to 900 000 TEUs and ultimately to 1 400 000 TEUs per annum, whilst also providing a platform for further expansionary programmes should future demand exceed planned capacity.

Scope

- Basin and berth deepening to -16m chart datum
- Quay refurbishment
- Conversion of terminal marshalling yard to stage area
- Conversion to a rubber tyred gantry (RTG) crane operation
- Electrical reticulation system
- Port Industrial Park access bridge
- 6 Ship to shore cranes
- 26 straddle carriers
- 32 RTG cranes
- 1850 reefer points to handle refrigerated containers

Progress

Port handling equipment has been delivered and in operation.

Reconfiguration Work

The first reconfigured terminal area for refrigerated containers has been completed. 840m of the 1 130m long quay wall has been deepened to -15,5m chart datum. The reconfigured stacking area has been completed.

Spending	Rand million
ETC	4 374
Actual 2011/12	653
Since inception	3 385
2012/13	308
2013/14	160
2014/15	-
2015/16	-
2016/17	-
2017/18	576
2018/19	





Ngqura Container Terminal

The Ngqura Container Terminal is a Greenfields project with the objective of providing a full service container terminal together with rail links to the Port of Ngqura.

The expansion will be in three phases:

- Phase 1 to have created capacity of 750 000 TEUs
- Phase 2A will result in capacity of the terminal increasing to 1,5 million TEUs
- Phase 2B will increase capacity of the terminal to 2 million TEUs

Scope for all phases:

- Four container berths
- 13 quay cranes
- 50 RTGs
- 79 haulers and trailers
- Two reach stackers
- Three rail cranes
- Two shunting locomotives
- Teklogix equipment
- Workshops, mess and ablution facilities

Progress

Phase 1 is complete and operating and 500 000 TEUs of mainly transshipment volumes have been handled. Transnet has commenced Phase 1A to expand capacity to 1 500 000 TEUs. Phase 2B will be undertaken two years before throughput volume reaches 1 500 000 TEUs

Spending

ETC

Rand million

2012/13

310

2013/14

1 416

2014/15

199

2015/16

77

2016/17

485

2017/18

258





Iron Ore Export Corridor

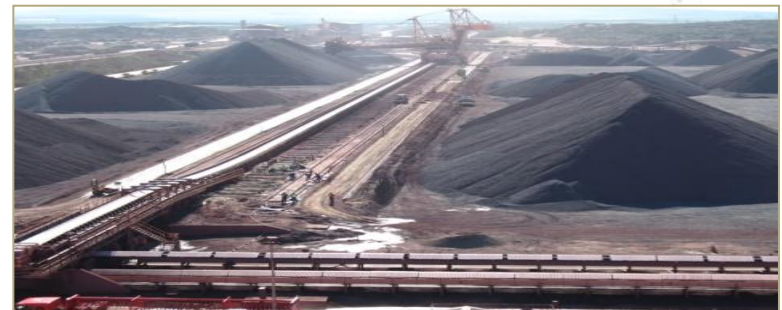
The iron ore export project comprises a rail line from Sishen to the Port of Saldanha and through the port terminal onto export carrier vessels. The increased demand in basic commodities world-wide has led to the mines (Kumba and Assmang) increasing their production capacities and has resulted in an increase in volumes to be transported to Saldanha for export.

The export iron ore line has been expanded to 60mt. Plans are now in place to further expand the channel to 82,5mt capacity which will be utilised as it becomes available.

Scope

- New loops and in port rail track
- Power upgrades
- Wagons
- Tiplers
- Port handling infrastructure
- Berthing capacity

Spending	Rand million
ETC	10 888
2012/13	135
2013/14	420
2014/15	1 842
2015/16	3 774
2016/17	2 682
2017/18	2 035





Export Coal Line

Expansion: Ramp up to 81mtpa

The programme incorporates a combination of operational optimisation and capital investment of an expansionary and sustaining nature.

The expansion initiatives are in two basic categories:

- Simplification and standardisation of the system including
 - Wagons fleet to jumbo wagons and installation of ECP braking systems
 - Equipping all locomotives to be lead capable and with ECP braking systems
 - Upgrading rail network lines to 26t/axle
- Debottlenecking the system including
 - Increasing the rolling stock fleet substantially
 - Expansion and upgrade of traction power supply system over the AC and DC sections of the network
 - Expansion of various yard and line facilities for additional traffic volumes
 - Installation of new condition monitoring system on the network
 - Installation of a new operations centre in Ogies

Progress

PFMA approval pending

Ramp up to 97mt

Plans are in place to increase capacity beyond 81mt. Transnet will engage with CEPs and junior miners to secure long term 'take or pay' contracts before any investment is committed.

Investment to expand the Export Coal Line to 97mt includes network and wagon components

Planned Spending	Rand million	
	81mt	97mt
ETC*	5 100	6 219
2012/13	1 183	30
2013/14	530	255
2014/15	725	939
2015/16	528	1 819
2016/17	600	1 396
2017/18	600	1 080
2018/19	-	700

Investment indicated above is not for the entire expansion to 97mt. These will be firmed up as the FEL studies progress and funding arrangements for the unfunded portions of the investment will be formulated.



Locomotive acquisition programme: Already contracted

Coal Line

Acquisition of 110 Class 19E dual voltage locomotives for the Coal Line:

Locomotives being acquired to improve efficiency and facilitate ramp up in coal export volumes.

- 98 locomotives have been delivered; 95 locomotives have been fully accepted into operations while the remaining 3 locomotives are at various stages of testing and commissioning.

Export Iron Ore Line

Acquisition of 32 Class 15E locomotives for the Iron Ore Line:

Acquisition to facilitate the ramp up in Iron Ore volumes to 60mpa

General Freight Business

Acquisition of 100 Class 43 Diesel locomotives: Locomotives for GFB for replacement of aging fleet.

- 39 locomotives have been delivered and 38 accepted into operations with 1 locomotive undergoing acceptance testing

Acquisition of 43 diesel and 95 electric locomotives for GFB: The acquisition of 138 locomotives is being undertaken to address the immediate demand requirements of GFB customers mainly for the haulage of mineral commodities and to support Eskom's rail migration programme.

Spending (R million)	Coal 110 Class 19E	Ore 32 Class 15E
Estimated total cost	3 405	2 000
2012/13	207	789
2013/14	1	212
2014/15	20	-

General Freight Business

Spending (R million)	100 Class 43D	43 Class 43D	95 Class 19E
Estimated total cost	2 314	989	2 659
2012/13	894	122	1 175
2013/14	69	1 48	1 260



Rolling Stock acquisition programme: To be contracted

Transnet Freight Rail plans on increasing capacity of its GFB from 80mt to 170mt over the next seven years. In order to facilitate growth of this magnitude significant investment is required in the three areas of providing a rail service: locomotives, wagons and infrastructure.

These projects deal specifically with locomotives and wagons.

Infrastructure investment is dealt with through the network plan. The rolling stock acquisitions are to be conducted in five initiatives:

- Acquisition of 1 317 locomotives. Diesel and electric derivatives for Coal, Ore and General Freight
- Building of 25 000 wagons
- Wagon fleet upgrade

The wagon build programme comprising 25 000 wagons of the following types:

- Automotive wagons
- Specific mineral mining
- General mineral mining
- Flatbed wagons for containers

Spending (R million)	Locomotives	Wagons
Estimated total cost	44 041	25 522
2012/13	445	3 016
2013/14	4 789	1 970
2014/15	7 895	3 115
2015/16	8 122	3 771
2016/17	8 544	5 160
2017/18	8 202	4 279
2018/19	6 044	4 211



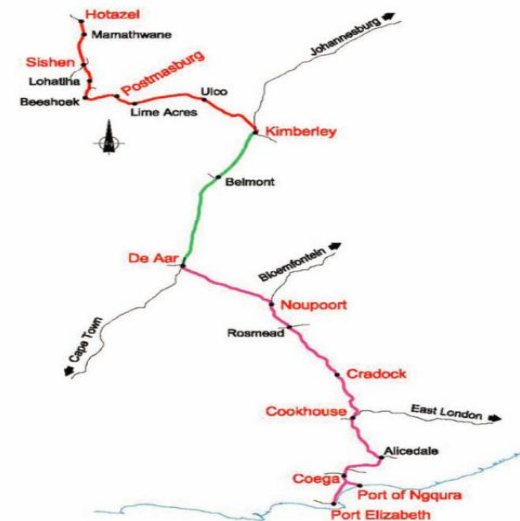
Manganese expansion to 16mt

South Africa contains 80% of the world's manganese reserves, however only 20% of the market share. Used in the manufacture of steel and other specialised applications demand for manganese is increasing which creates opportunities for SA miners to supply manganese. Investment in the expansion will result in a new manganese handling plant being constructed at the Port of Ngqura and the associated rail investment in rolling stock and infrastructure to facilitate the increase in capacity.

Scope (being developed):

- Upgrade of rail network to heavy haul standards so that 200 wagons trains may traverse the channel
- Doubling of a 232km section of the line between Kimberly and De Aar and the construction of new and expansion of existing loops to handle the longer 200 wagon trains
- Construction of new compilation yards at Mamatwane and Ngqura
- Consolidation of yard developments to accommodate smaller mining operators.
- Rolling stock
- Provision of operational support and maintenance facilities
- Construction of rail terminal and off-loading facilities
- Construction of material handling facilities within the CDC zone
- Construction of an expanded port terminal at the Port of Ngqura

Planned Spending	Rand million
ETC	11 345
2012/13	51
2013/14	912
2014/15	2 431
2015/16	3 165
2016/17	3 377
2017/18	650
2018/19	759





Swaziland Rail Link

A proposed Lothair link to a point on the Swaziland rail network presents an alternative route from Ermelo to the east coast deepwater Port of Richards Bay as well as Maputo. The new link line will both divert general freight traffic from the coal line and will provide additional capacity for general freight exports to Richards Bay and Maputo.

It is deemed a strategic, regional investment in support of Transnet and Government's SADC objectives.

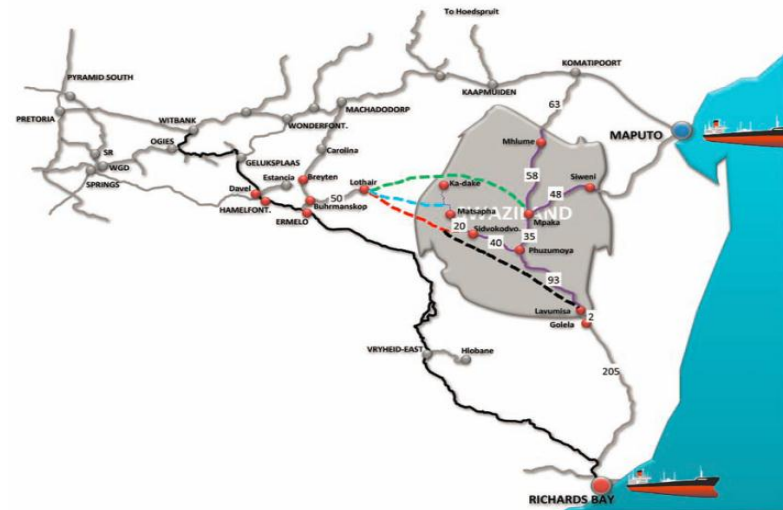
This project holds significant advantages in attracting traffic through the Maputo and Richards Bay corridors providing strategic alternative export corridors critical to the Southern African ports as well as encouraging economic and rail transport growth in Swaziland.

The investment will be made in conjunction with the Swaziland Government (contribution not included in the table alongside). The project includes only the infrastructure component of the investment.

Scope:

- Construction of a new 146km line from Lothair via Nerston to Sidvokodvo
- Provision of a new exchange yard at Davel and a new stabilisation yard at Golela
- Reconstruction of the line between Davel and Klipstapel
- Upgrade of the existing line between Klipstapel and Lothair
- Upgrade of the existing line between Sidvokodvo and Golela
- Upgrade of the existing line between Golela and Richards Bay.

Planned Spending	Rand million
ETC*	5 000
2012/13	25
2013/14	565
2014/15	1 166
2015/16	1 364
2016/17	1 880
*SA portion only	





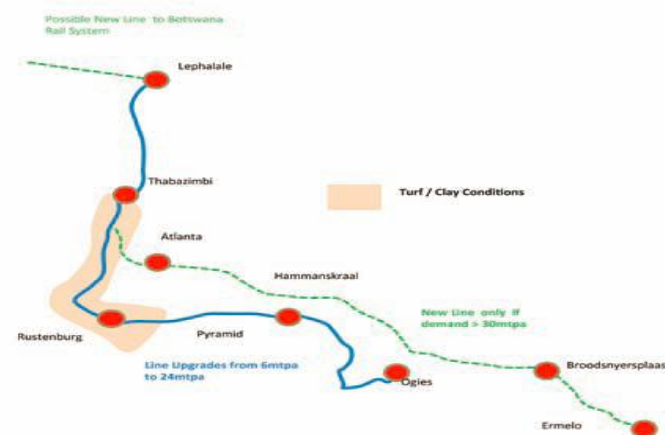
Waterberg Coal opportunity

The Waterberg region has 40% of South Africa's remaining coal reserves and is regarded as the next strategic growth node for the coal sector. The availability of infrastructure is critical to unlock the regions potential and is a pre-requisite for current and future mining developments. The investment will secure rail transport capacity from the Waterberg for export and domestic (Eskom) consumption. The initial capacity will be approximately 23mt.

Scope:

- Rail infrastructure expansion through incremental upgrades of the existing rail networks;
- Provision of additional passing loops en-route;
- Yard expansion and reconfiguration;
- Upgrade to the electrical backbone en-route;
- Electrification of the section between Thabazimbi and Lephalale;
- Upgrade of the network to 26 tons/axle; and
- Beyond this level, a feasibility study will be conducted to determine the engineering requirements and viability of a new heavy haul line from Lephalale to Ermelo – connecting with the coal line (Concept study already completed).

Planned Spending	Rand million
ETC	5 090
2012/13	70
2013/14	493
2014/15	657
2015/16	807
2016/17	907
2017/18	1 355
2018/19	801





Eskom Coal Transportation

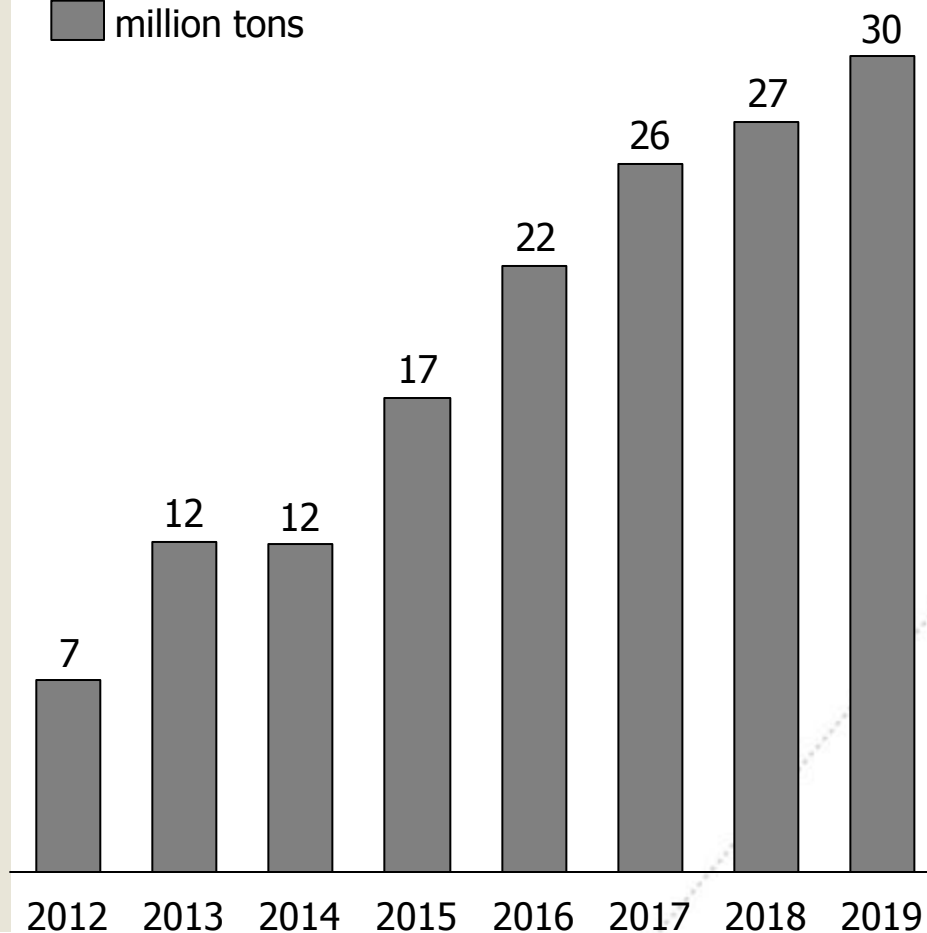
Freight Rail's Coal business has been consolidated into one unit that is responsible for coal exports on the heavy haul lines as well as much of the domestic market coal including coal for Eskom's consumption.

The above opportunity has arisen out of Eskom's consumption for their power stations as well as Eskom's strategy to migrate coal traffic from road to rail.

Indications are that the demand for the transportation of coal to Eskom's power stations will grow from 7mt currently to 30mt by 2019.

The rolling stock and infrastructure investment requirements are included in the Export Coal Investment at Freight Rail as the nature of the TFR operation is that the assets will be standardised and will then be used interchangeably to meet operational requirements to the extent that the assets will not be dedicated to any specific client.

■ million tons





Richards Bay: Port Expansion

Eastern Catchment Integrated Corridor Study

Richards Bay is projected to experience significant volume growth (magnetite, ferrochrome, coking coal, chrome, ferromanganese, export coal and general freight). In order to support this growth Port Terminals' and the National Ports Authority's needs to undertake a number of capital interventions.

Scope:

- Additional shiploaders and unloaders;
- Upgrades to existing belt systems;
- Expansion of current storage areas;
- Sustaining capital;
- Redesign of Bayvue yard; and
- Trucks, ship loaders and mobile cranes.

Planned port development for Richards Bay

Future development at the Port of Richards Bay includes the provision of additional berthing capacity for the multi-purpose and dry bulk terminals

Scope: To be determined

Planned Spending	Rand million	
	ECICS	DBT
ETC	8 435	2 444
2012/13	32	160
2013/14	108	647
2014/15	286	741
2015/16	1 220	304
2016/17	2 432	397
2017/18	2 147	199
2018/19	1 912	-

Planned Spending	Rand million
ETC	3 900
2016/17	100
2017/18	400
2018/19	1 000



Port Expansions: East London, Ngqura and Port Elizabeth and Saldanha

Major developments are planned for the ports of Port Elizabeth, East London and Ngqura and include:

- Provision of a car terminal at the southern part of Port Elizabeth harbour (PE Car)
- The extension of the main breakwater and deepening of the entrance channel of the Port of East London (BW EL)
- Expansion of the Ngqura Container Terminal with an additional four berths (NCT berths)
- Development of a liquefied natural gas terminal and breakwater at Ngqura (LNG Ngqura)
- Construction of quays and provision of services for expansion along the Coega River (Coega River berths)

These investments commence towards the latter years of the seven-year plan and the LNG and NCT berths will continue beyond the seven-year horizon.

Future developments at the Port of Saldanha include the construction of a liquefied petroleum gas (LPG) terminal and storage site and port infrastructure for extension of the Moss gas quay, dredging works to facilitate the quay extension and dry dock facilities.

Scope: To be determined

Planned Spending	Rand million						
	PE Car	BW EL	NCT berths	LNG Ngqura	Coega River berths	LPG	Moss gas
ETC	1 000	1 500	9 000	1 500	6 880	1 000	6 822
2012/13	-	-	-	-	-	-	-
2013/14	-	20	-	-	-	-	-
2014/15	-	200	-	-	-	10	-
2015/16	75	300	-	-	100	50	-
2016/17	275	480	-	-	450	40	-
2017/18	300	500	54	23	1 500	225	683
2018/19	350	-	484	10	2 000	450	1 023



Mega Projects: New Multi-Product Pipeline (NMPP)

Increasing demand for fuel in the Gauteng region coupled with the age of the existing Durban to Johannesburg Pipeline (DJP) necessitated the construction of a new pipeline. The idea of the NMPP was thus conceived and is currently the result of many years of design, engineering, environmental and construction work.

- The scope of the project is to build a new 555 kilometre 24 inch diameter trunk line from Durban to Gauteng that addresses the increased demand for fuel in the heartland of SA's economic region, Gauteng.
- This will increase capacity from the existing 4,4 billion litres to 8,4 billion litres.
- NMPP front-end engineering design phase has been completed, Transnet were granted the licence to construct the NMPP by Nersa.
- The project also entails the construction of 160km of 16-inch pipelines in the northern network to enhance capacity to meet demand in the inland market.

Progress:

•Pipelines:

- Trunk line: 24-inch Durban to Jameson Park pipeline was successfully commissioned in January 2012. 348 million litres of diesel has been transported since commissioning to March 2012.
- The three 16 inch pipelines in the northern network have been commissioned during the first quarter of 2011/12 and are performing well. More than 1,2 billion litres of product have been transported through the 16 inch pipelines since commissioning to March 2012.

•Pump Stations:

- Functional testing of pump stations 1 and 3 have been completed

•Terminals:

- Construction of DJP protection activities are complete for Terminal 1
- Diesel and Petrol components of Terminal 2 construction have been complete
- Terminal 1 has achieved a safety milestone of 660 000 LTI free hours.

Overall completion of the NMPP is on schedule for December 2013.

Spending	Rand million
ETC	23 407
2012/13	3 885
2013/14	3 655





Contents

- Overview of the MDS
- MDS risks
- MDS Implementation strategy
- Capital Implementation Plans
- Detail on Mega Capital Projects
- **Alignment with planning and policy processes in Government**

Alignment with other planning and policy processes in Government - National Planning Commission

Transnet has held a series of engagements from since August 2011 at the Union Buildings with the National Planning Commission and Presidency on its infrastructure development plans.

These engagements have been very productive and a good level of synergy and alignment established on the content and scope of Transnet's infrastructure plans.

This alignment is reflected in that all Transnet's strategic infrastructure developments have been adopted as part of the NPC's National Development Plan and the recently launched SIPs programme of the Presidential Infrastructure Co-ordination Committee.

These key national developments include:

1. Expansion of Iron Ore Export Corridor from 60 to 82 Mtpa
2. Development of the SA Coal Transport System for domestic (Eskom) and Export Coal - this includes the development of rail capacity into the Waterberg Basin
3. The 2050 Vision development of the Durban - Free State - Gauteng Corridor including expansion plans in the Port of Durban and the development of a new Dig-out port to the south of the Port of Durban
4. Expansion of Manganese export capacity to Port of Ngqura to 16Mtpa

Transnet is continuing its collaborative working with the NPC in exploring best funding models to implement its ambitious infrastructure development plans in the medium to long term.

Alignment with other planning processes in Government – Provincial engagement



NORTH WEST

- **Waterberg corridor** – additional passing loops and electrification upgrades: Lephalale and Thabazimbi; and new lines Thabazimbi to Ermelo,
- **Mahikeng–Wesrand** – plans to connect Waterberg to the Ore for mineral haulage
- **Klerksdorp Branchline cluster** – development and maintenance of grain, cement, minerals haulage

FREESTATE

- **Harrismith** logistics hub/ inter modal terminal

NORTHERN CAPE

- **Port Nolloth** – development and rehabilitation of the Port of Port Nolloth

WESTERN CAPE

- **Cape Town** – port precinct planning
- **N7 Corridor – Saldanha-Cape Town Corridor** various plans and projects
- **Provincial** – road-to-rail migration
- **Saldanha Bay** – oil and gas development opportunities
- **Saldanha Bay IDZ** – support and development for IDZ

LIMPOPO

- **Waterberg** – development of a rail link for bulk coal haulage
- **Musina Intermodal terminal** – development of an inland terminal

GAUTENG

- **Development of inland terminals** – Sentraraand, Tambo Springs, Pyramid South

MPUMALANGA

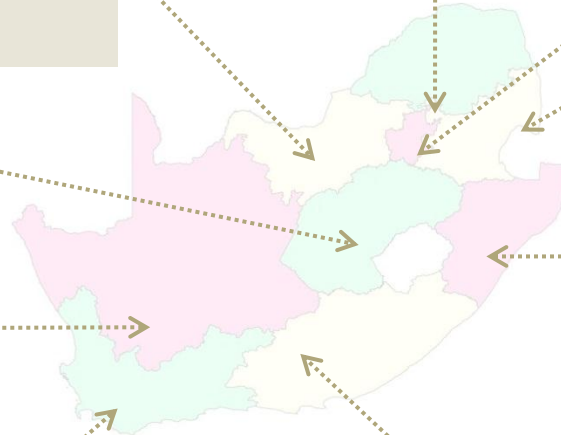
- Optimisation of Maputo corridor

KWAZULU-NATAL

- **Richards Bay** – IDZ development
- **Durban Refinery** – refinery expansion
- **Durban Airforce Base** – relocation of air force
- **Coal Line** – project to increase coal to Richards Bay
- **Automotive Supplier park** – suitable site for the development
- **Durban South (dig-out) port** – at the old Durban International Airport site

EASTERN CAPE

- **Coega** – development of Ngqura transshipment hub
- **Coega** – new Manganese Export Terminal Facility at Port of Ngqura
- **East London** – coal export terminal feasibility study
- **East London** – revitalization of old rail sleeper sites
- **Port Elizabeth** – optimal land use studies (from freight handling to commercial development)
- **Inter-provincial** – development of the Port Elizabeth to Durban coastal rail line



Transnet is proactively engaging in joint planning with provinces to integrate its long-term plans with economic development of the provinces



Alignment with other planning processes in Government

2050 Vision: Durban—Free State—Gauteng

System Overview

The integrated long term development of the Durban - Free State - Gauteng logistics corridor to provide capacity to meet growth in demand to 2050. This project is led by the national Department of Transport with Transnet as one of the key participants.

The integrated vision consists of the following key developmental components:

- ⇒ Three-phased capacity expansion of the Port of Durban including a new dig-out port at the old Durban airport site
- ⇒ Complementary rail corridor development on NATCOR
- ⇒ Complementary local, provincial and national roads development
- ⇒ Establishment of strategically located intermodal terminals
- ⇒ Complementary land-use development along the corridor
- ⇒ The completion of the New multi product pipeline (NMPP)

DMR beneficiation strategy:

Cabinet has approved the Energy Commodities and Iron and Steel value chain as contained in the DMR beneficiation strategy. Transnet has engaged DMR to synchronize the infrastructure requirements of these approved value chains.

Transnet-specific projects:

The following key development components are discussed in more detail on the following pages:

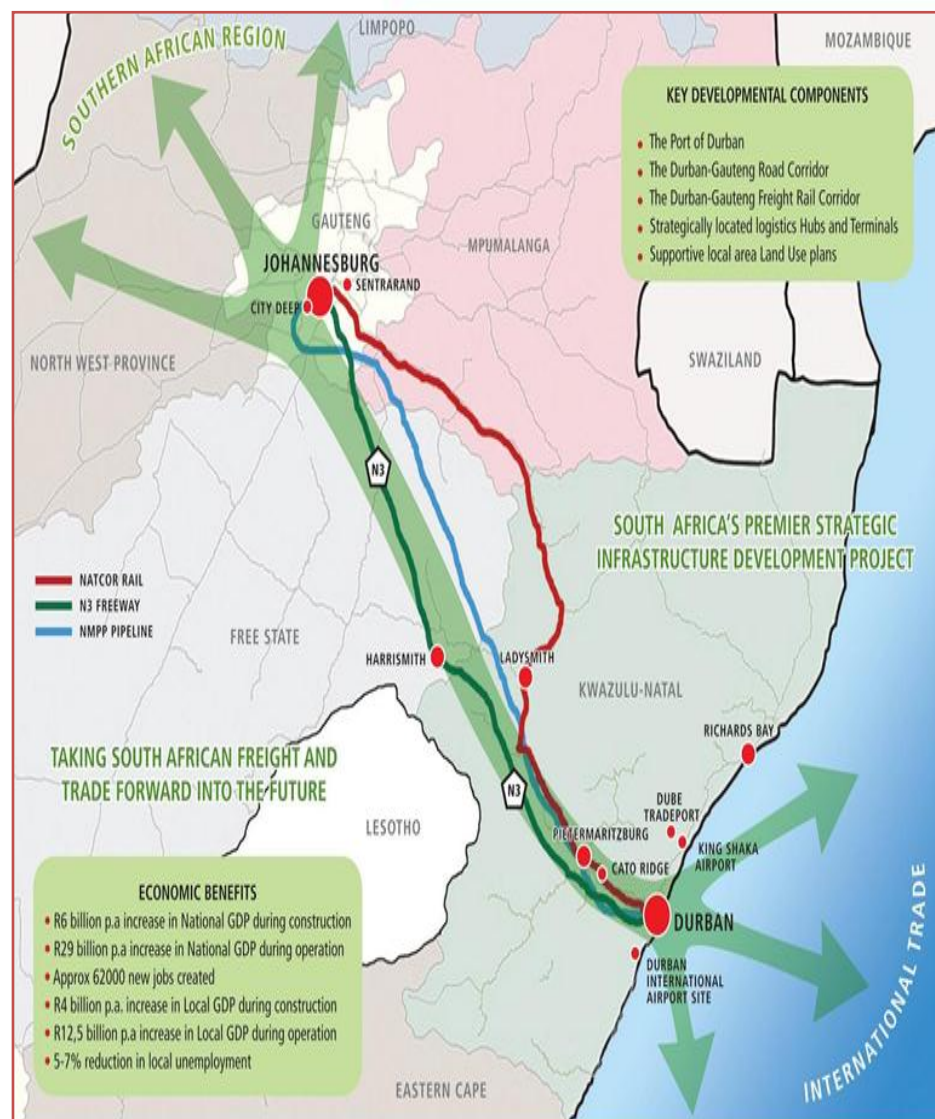
6a. Durban - Gauteng Rail Corridor

6b. Establishment of strategically located intermodal rail terminals in Gauteng

6c. Establishment of strategically located rail terminals and yards in Durban

6d. NMPP New pipeline

The development of the Durban port terminals as well as the new DIA port are covered under section 5.



Alignment with other planning processes in Government Hubs and Terminals

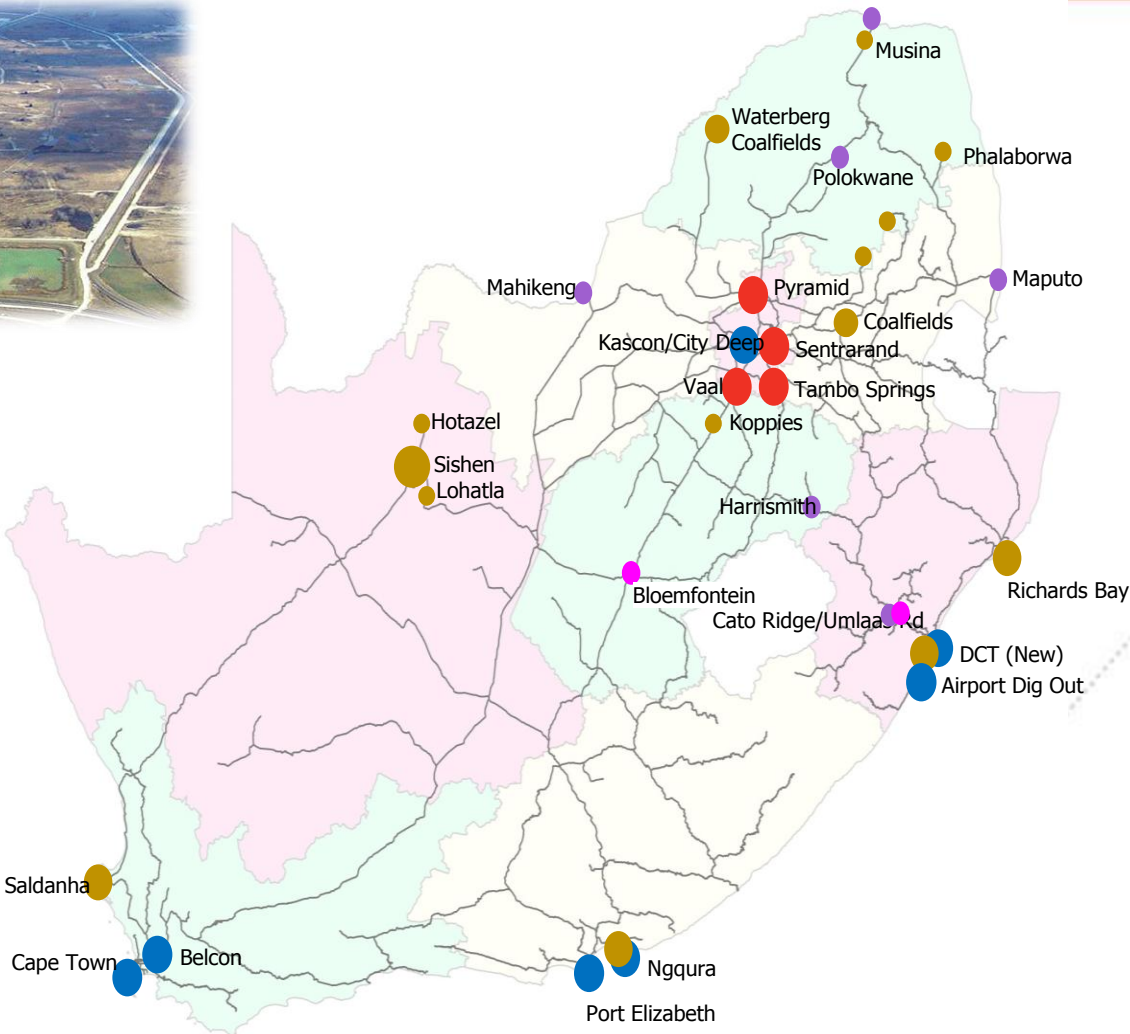


Project to support beneficiation:

Of particular importance will be the development of mega or super-terminals in the Gauteng and Durban areas to cope with the growth in container demand along this corridor.

The indicated freight nodes are not necessarily informed by the demand forecast but are proposed by public sector in support of the economic development and promotion of the "Free Trade Zones".

- Super terminal
- Intermodal terminal
- Freight nodes
- Mineral nodes
- General freight terminal



The indicated freight nodes are not necessarily informed by demand but are proposed by public sector in support of economic development