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DURBAN HUB PORT, ROAD-TO-RAIL AND PORT OF NGQURA DEVELOPMENTS

PRESENTATION TO: SELECT COMMITTEE ON PUBLIC ENTERPRISES AND COMMUNICATION

PREPARED BY: TRANSNET SOC LTD

DATE: 2 JUNE 2021

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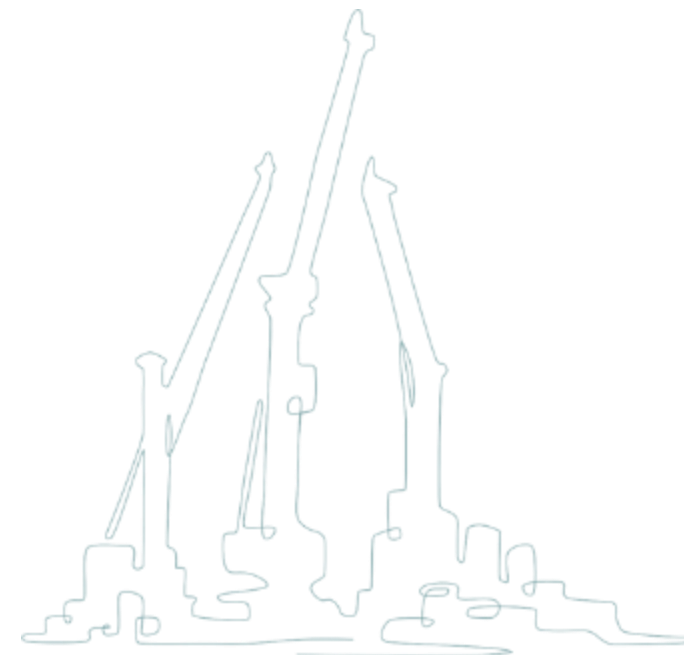
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A. DURBAN HUB PORT DEVELOPMENT

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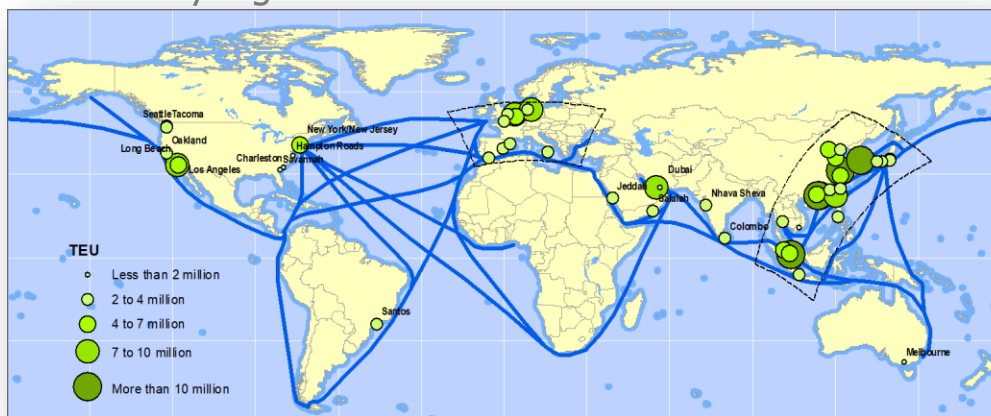
A. TRANSNET'S HUB PORT STRATEGY

Segment Strategy Key Focus Area: Transnet Hub Port Strategy

Global shipping alliances have in recent times consolidated power and control over maritime container trade, with economies of scale leading to larger vessels and shipping route control leading to fewer direct port to port connections.

Transnet's Hub Port strategy aims to reduce the cost of intercontinental shipping by 20-30% through partnerships with industry players to further integrate South African ports into their vessel calling patterns, in addition to creating an integrated hub-port system that increases attractiveness and capacity (vessel size and a TEU handling), starting with NCT as a transshipment hub at supporting South Africa – China trade. NCT will work in unison with the significant expansion to take place at the Port of Durban, and will augment expansion plans at the Port of Cape Town.

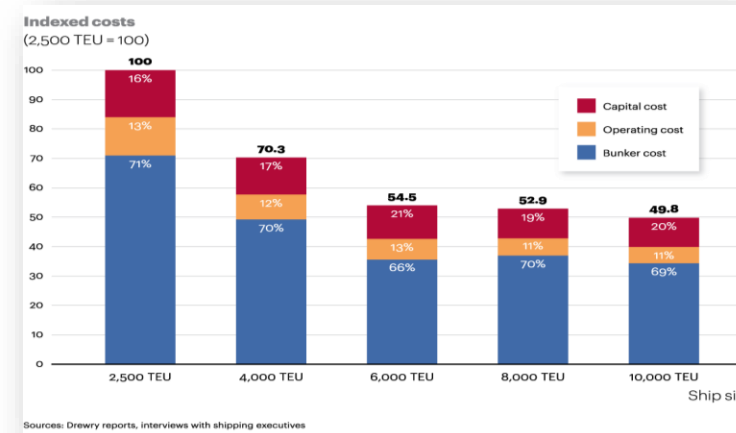
This is a key driver for unlocking the potential of the African Continental Free Trade Area, and to boost trade volumes for the broader Southern African Development Community region.



Source: Jean Paul Rodrigue (Hofstra University)

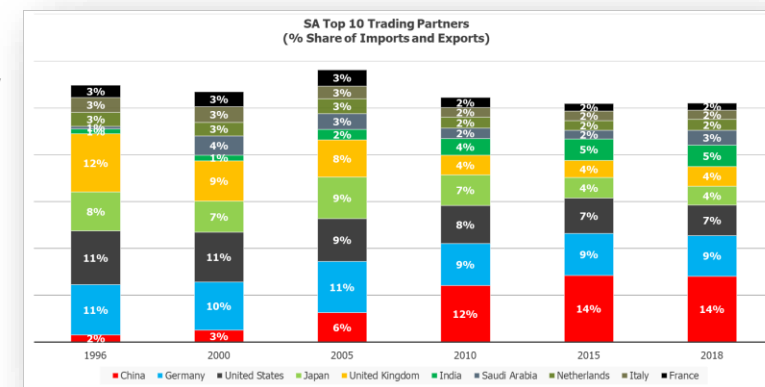
Left: World container maritime trade is dominated by a just a few hub ports, predominantly in east-west trade routes.

This is changing as volumes develop in the south.



Above: Global hub-ports attract larger volumes of trade as the unit cost of moving a container decreases.

Below: Analysis of South Africa's top 10 trading partners has shown China moving to top position since 2010



Source: World Bank

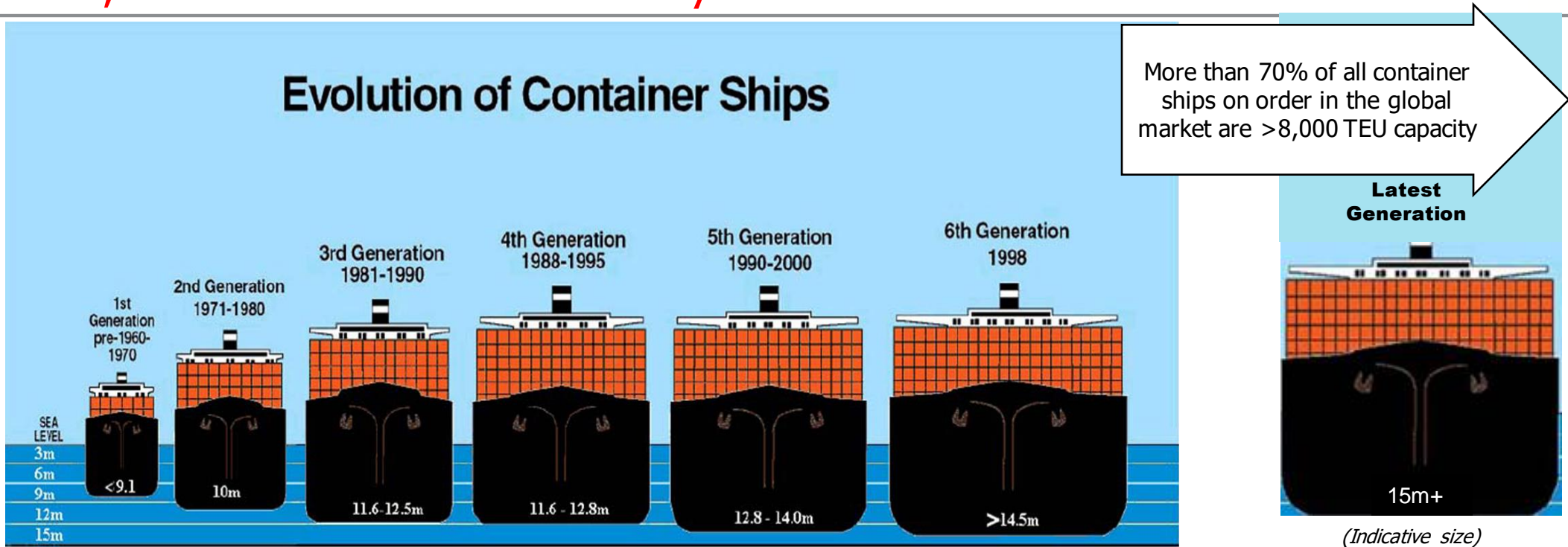
Sources: Transnet Strategy and Planning, 2021



A. EVOLUTION OF CONTAINER VESSELS

18,000 TEU vessels are already on the water

Evolution of Container Ships



Port of Durban - currently
 • Handles these vessels routinely

Port of Durban - currently
 • Special handling conditions

- Modern, deep water facilities are required to routinely handle these vessels

Port of Durban – with deepened berths

- Accommodating larger vessels will change shipping patterns to make Durban and South Africa (SA) more attractive as a trade destination and will reduce the unit cost of exporting SA containers by an estimated 30%.

A. TRANSNET'S 2020'S RENEWAL PROGRAMME: PoD

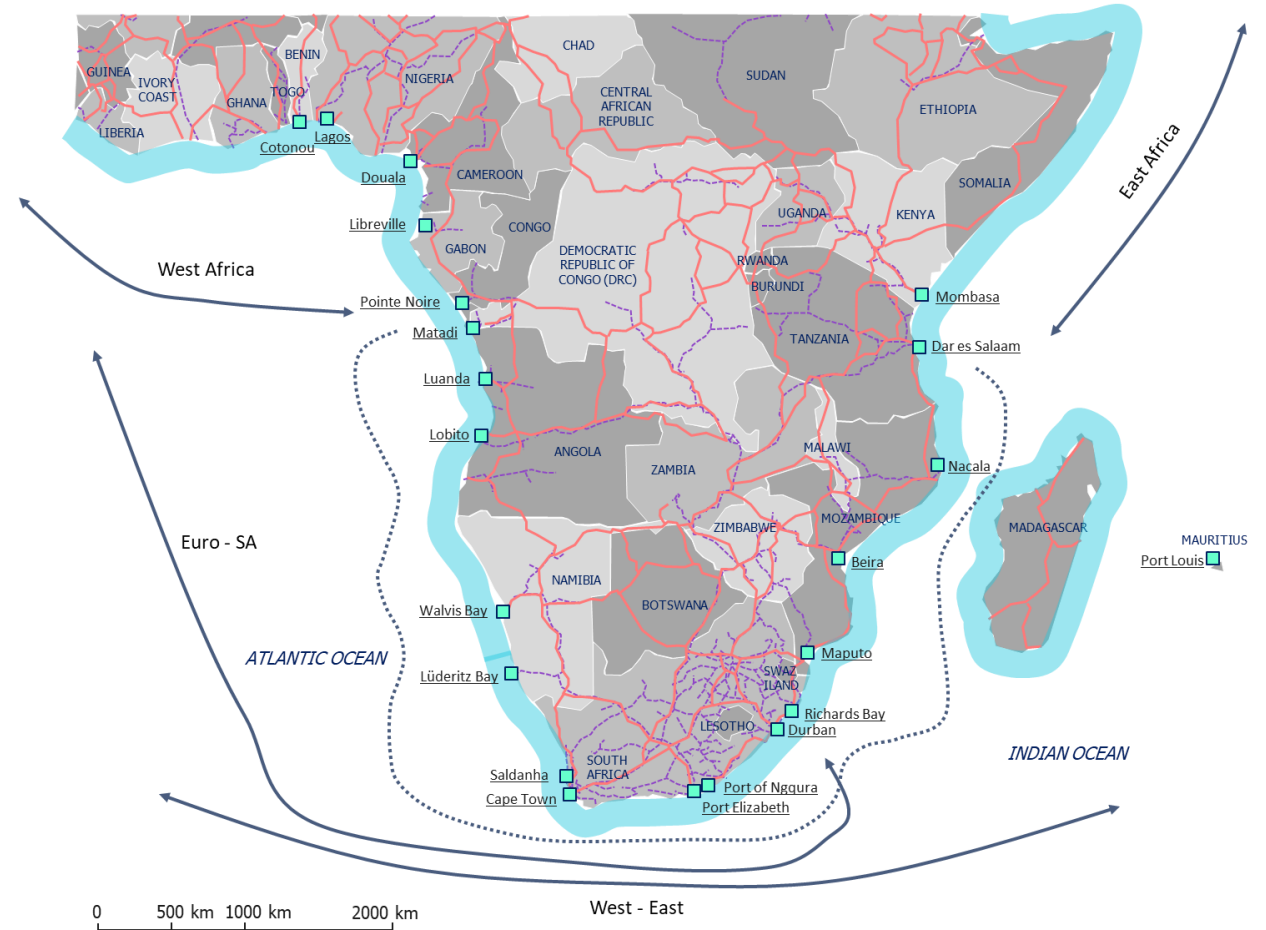
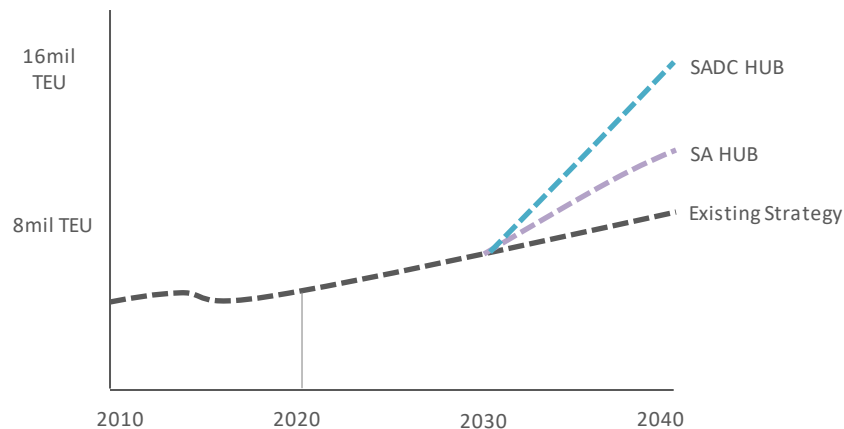


Positioning the PoD – A Regional Context

Creating a hub-status port has the opportunity to substantially increase the handling of transshipment volumes destined for ports in the broader SADC region

- **What are Transnet's aspirations for a hub port?**
- **What scale** is under consideration?
- Eastern Region, SA or **SADC?**

Potential demand scenarios for existing strategy, South African and SADC hubs.



Source: Transnet Strategy and Planning, 2021

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A. KEY INITIATIVES AS PART OF THE REGIONAL STRATEGIC HUB



Positioning of the PoD

Strategic Narrative

Containers:

The Port of Durban **already handles 60% of trade** to and from South Africa and through positioning it to handle larger ships (15,000 TEU sized vessels) at substantially better performance than at present, it can be re-positioned to serve the dominant southern-hemisphere shipping lanes. The **real benefit to South Africa** is that the **unit cost of inter-continental shipping will reduce over time (by as much as 20% to 30%)**.

Improving the rail logistics solution on the Durban to Gauteng corridor (NatCor) is critical to supporting the major developments planned for the Port of Durban. Creating a competitive alternative to the dominant road supply chain is imperative.

Transnet will implement structural changes to create a mixed-equity model of ownership and operation of the elements of the rail-based container supply chain.

Strategic Narrative

Automotive:

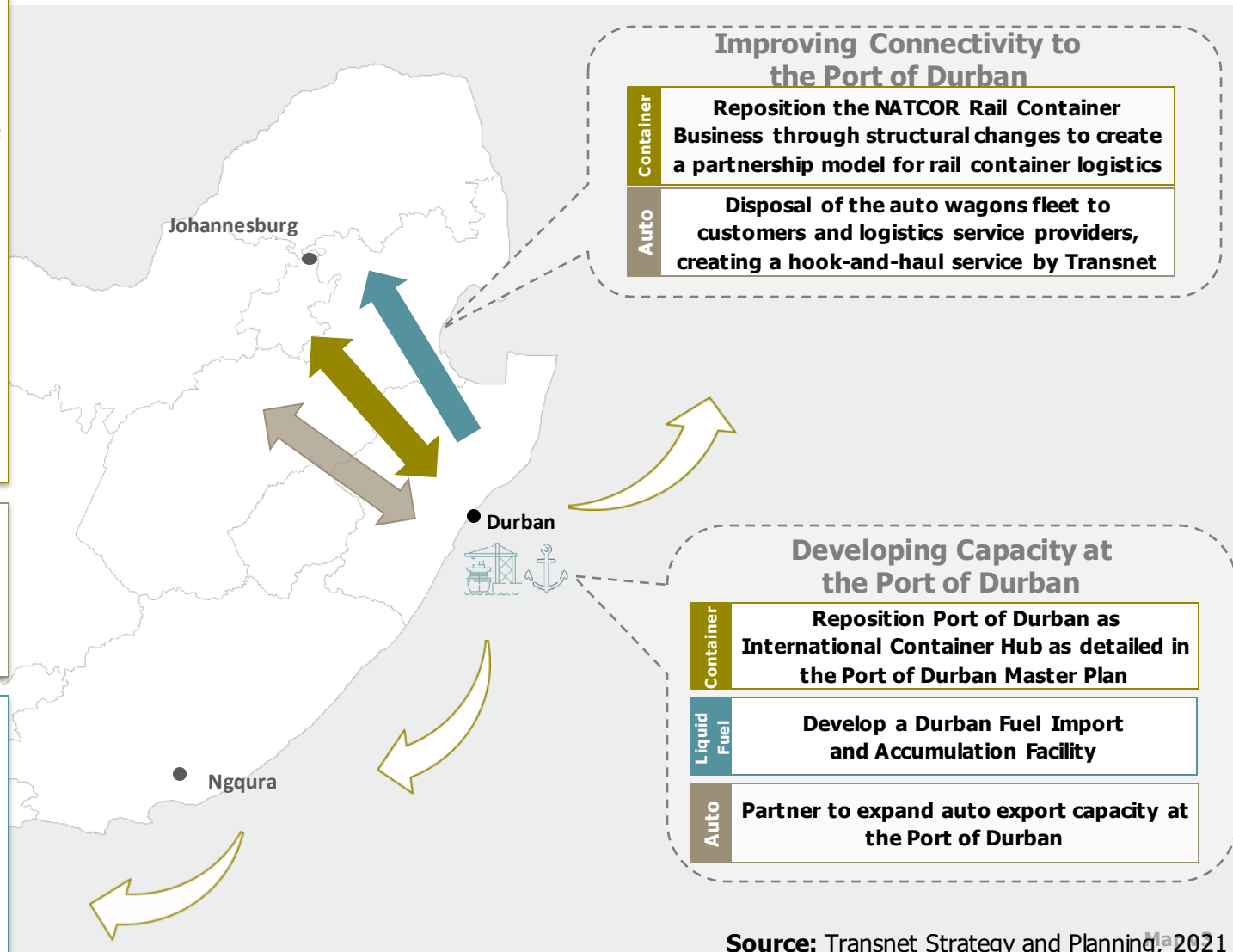
Transnet intends to leverage **private sector capital** and capabilities to revitalise port and rail logistics solutions for the sector through strategic investment in back-of-port (BOP) capacity at various locations, including almost doubling the auto capacity at the Port of Durban.

Strategic Narrative

Liquid Fuel:

Transnet will focus on asset utilisation while leveraging private partnerships to grow import capacity for refined fuels and increase market access for new entrants.

Key to this is the revitalisation of underutilised assets to create the Transnet Fuel Import Terminal in the Port of Durban, feeding into the New Multi Product Pipeline to transport refined fuel products inland.



Source: Transnet Strategy and Planning, 2021

A. TRANSNET'S 2020'S RENEWAL PROGRAMME: PoD

PoD Desired End State (2032)



A. TRANSNET'S 2020'S RENEWAL PROGRAMME: PoD



Point Precinct: Increased Capacity from 0.2m TEUs to 1.7m TEUs



Point & Recreational Precinct Current Layout



Point & Recreational Precinct Future Layout

Key Insights

No.	Activity
1	▪ Conversion of car and multi-purpose terminal to container terminal capacity
2	▪ Conversion of Office space, break bulk and cruise terminal to auto capacity ▪ Automotive Capacity to be increased from 520k Units to 880k Units
3	▪ Cruise Terminal Development integrating with the Waterfront Development
4	▪ Waterfront Development by the Municipality
5	▪ Yacht Basin Development by the Municipality

A. TRANSNET'S 2020'S RENEWAL PROGRAMME: PoD



MW Precinct: Development of 2m TEUs Capacity



Maydon Wharf Precinct Current Layout



Maydon Wharf Precinct Future Layout

Key Insights

No.	Activity
1	▪ Conversion of general cargo to container terminal capacity
2	▪ Deproclamation of MW roads for improved traffic management, efficiencies and security systems
3	▪ Maydon Wharf Channel Widening and Deepening

A. TRANSNET'S 2020'S RENEWAL PROGRAMME: PoD



Container Precinct: Increased Capacity from 2.7m TEUs to 7.6m TEUs



Durban Container Terminal Current Layout



Durban Container Terminal Future Layout

Key Insights

No.	Activity
1	<ul style="list-style-type: none">Berth Deepening to increase container capacity by 900,000 TEUsNew deep-water berths with chart datum depth ranging from 16.5 m to 18m
2	<ul style="list-style-type: none">Conversion of Container Depot to terminal operations to augment water side capacity
3	<ul style="list-style-type: none">Infill of Pier 2 and Pier 1 to increase container capacity by 4 million TEUsNew deep-water berths with chart datum depth ranging from 16.5 m to 18m

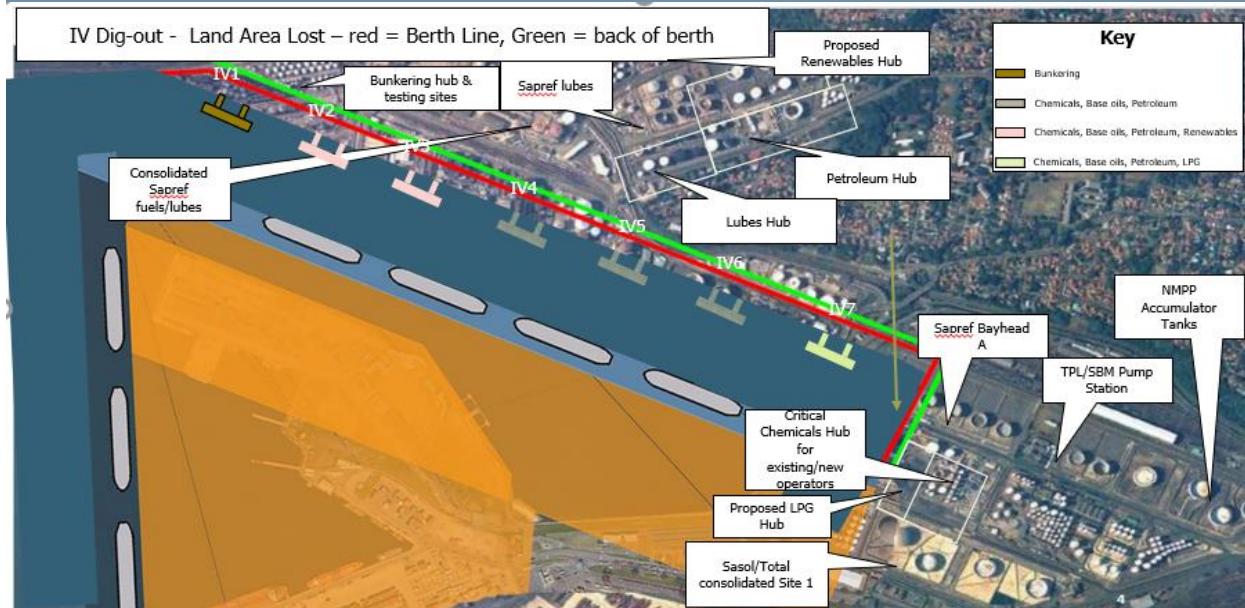
11 **NOTE:** Chart datum, refers to the water level that depths displayed on a nautical chart and measured from.

A. TRANSNET'S 2020'S RENEWAL PROGRAMME: PoD

Island View Precinct: Dig-Out



Island View Precinct Current Layout



Island View Precinct Future Layout

Proposed Phasing

No.	Activity
1	Dry Bulk Terminal relocated to Richards Bay
2	Navy relocated to Bluff Area
3	Portion of Liquid Bulk Chemicals relocated to Richards Bay

Future Use

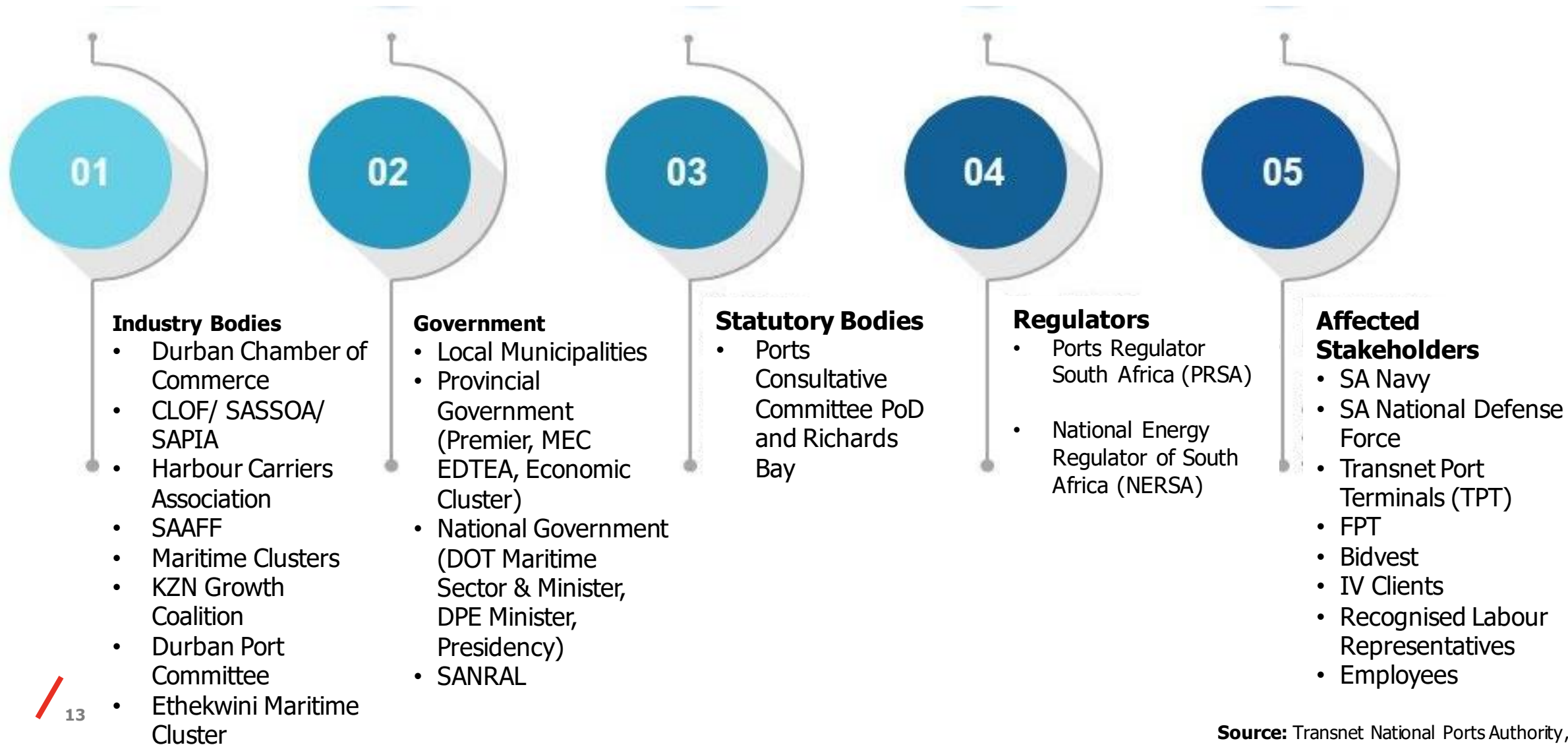
- Petroleum Multiple Line Access (MLA) and flexible hoses on all berths
- Proposed LPG MLA on Island View (IV) 7
- Proposed Renewables/Bio-fuels MLA on IV2 and IV3
- 6 mixed-use berths for greater flexibility
- 1 dedicated bunkering berth

Source: Transnet National Ports Authority, 2021

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A. DURBAN HUB PORT DEVELOPMENT

Consulted Stakeholders





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B. TRANSNET FREIGHT RAIL INITIATIVES



B. OVERVIEW OF NATAL CORRIDOR

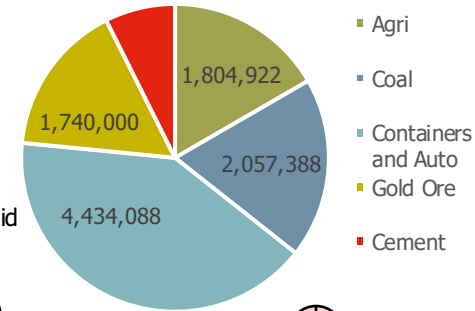
DURBAN, NEWCASTLE, JOHANNESBURG (CITY DEEP / KASERNE), KROONSTAD AND BETHLEHEM



Natcor Rail System connects to the Port of Durban Complex

800,018

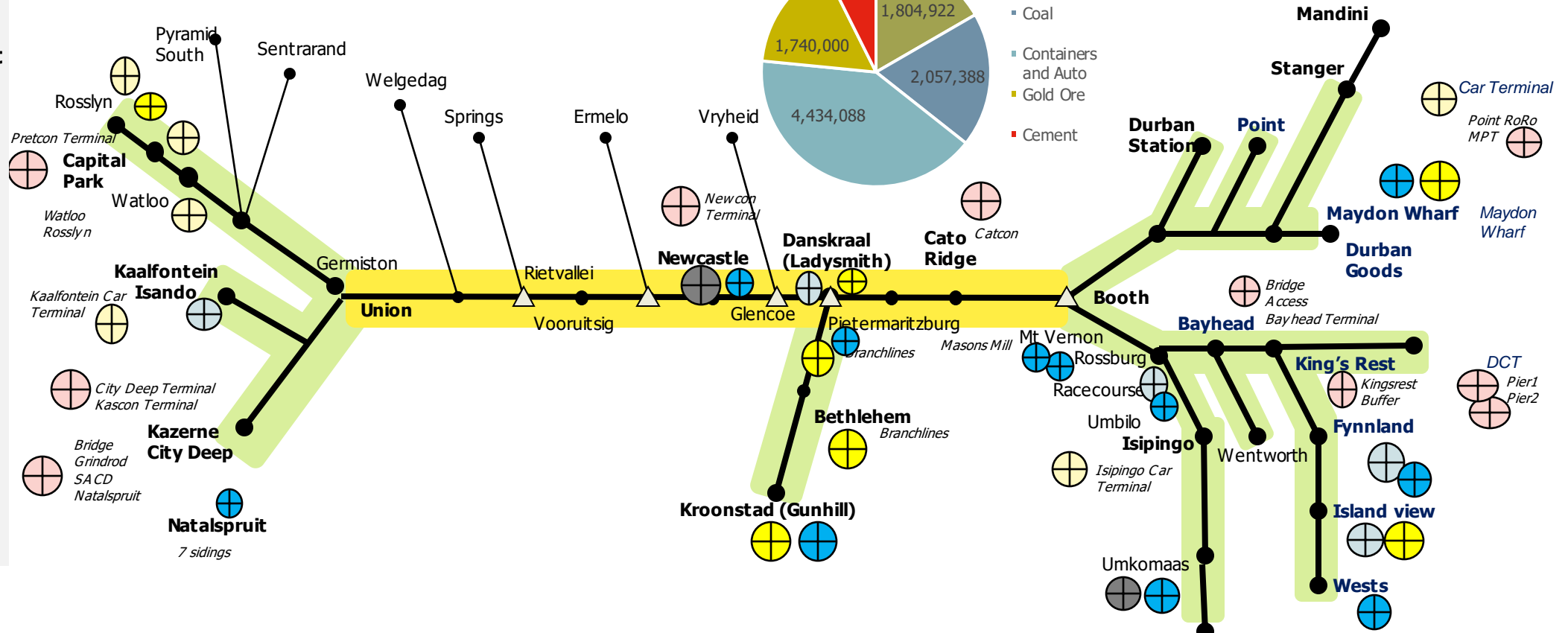
Budget: 10.8mt



- Agri
- Coal
- Containers and Auto
- Gold Ore
- Cement

Natcor Quick Fact Sheet

- ❖ Tonnage Budget: **10.8mt**
- ❖ Revenue Budget: **R2.3bn**
- ❖ Total Employees: **4 363**
- ✓ Operations: 2 751
- ✓ Rail Network: 1 411
- ✓ Security: 210
- ❖ Customers: ~70
- ❖ Crew Depots: 8
- ❖ CTC and SMC: ~15
- ❖ Rail Network Depots: 4



Reef feeder lines

NatCor mainline (~670 km)

Port Shepstone
Durban Complex

Port of Durban

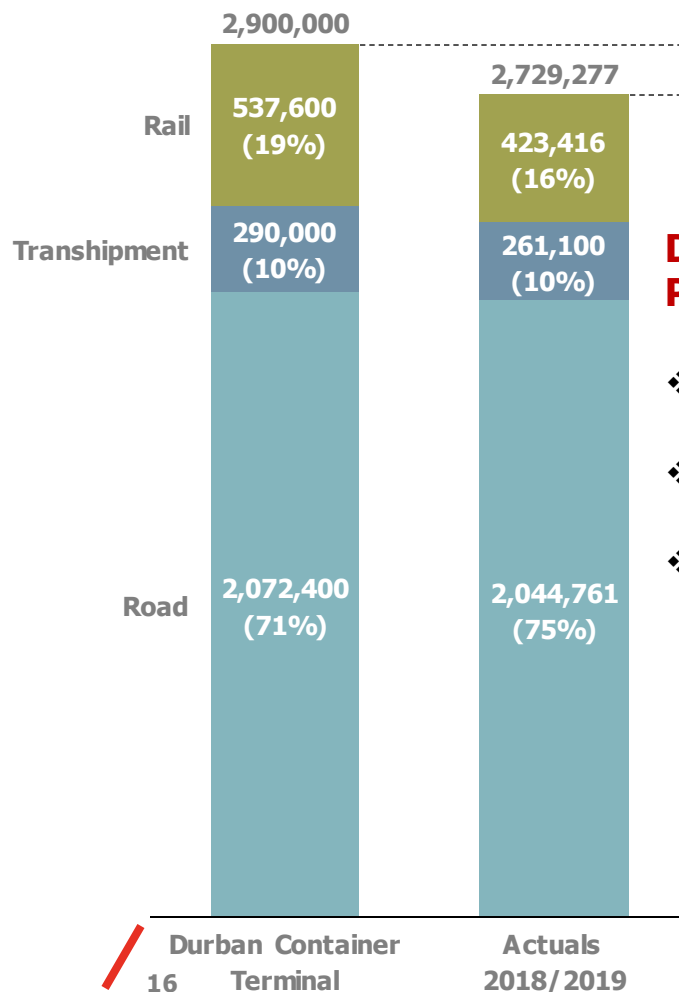
- Legend:**
- Container Loading and Offloading Facility
 - Auto Loading and Offloading Facility
 - Grain Loading / Offloading Facility
 - Fuel Loading / Offloading Facility
 - Other GF Loading and Offloading Facility
 - Coal Loading / Offloading Facility



B. NATCOR CONTAINER SYSTEM: CURRENT CAPACITY STATEMENT

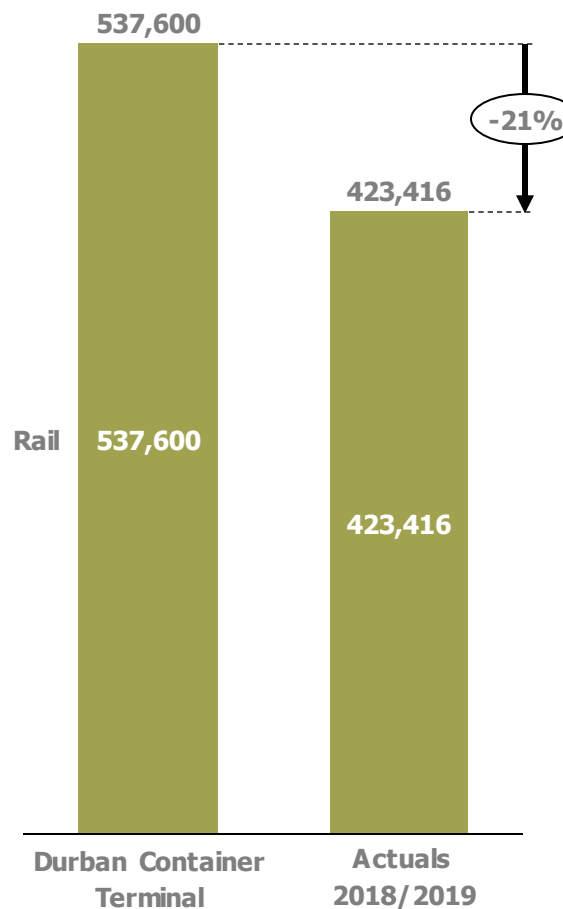
EXCEEDING OPERATING CAPACITY THRESHOLD

This level of capacity utilisation (>70%) introduces inefficiencies into the system and expansion of capacity is therefore critical.



Durban Container Terminal Port Capacity Utilisation

- ❖ 2018/ 2019: ~**94%** Capacity Utilisation
- ❖ Fluidity in the terminal is compromised
- ❖ Increase in vessel sizes places further strain on the terminal operation as containers physically dwell for longer period in the terminal as the vessel is discharged and loaded



Rail Handling Capacity Utilisation

- ❖ 2018/2019: ~**80%** Capacity Utilisation
- ❖ Expansion of capacity beyond 530K is required
- ❖ **Natcor Rail System Capacity primary elements are:**
 - ❖ Port Terminal Handling
 - ❖ Yard Capacity
 - ❖ Mainline Slot Capacity
 - ❖ Inland Handling Capacity
 - ❖ Resources (Locomotives, Wagons, Crew)

Source: Transnet Freight Rail, 2021

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B. TFR RESPONSE PLAN TO DURBAN HUB PORT PLAN OF 11,3M TEUs

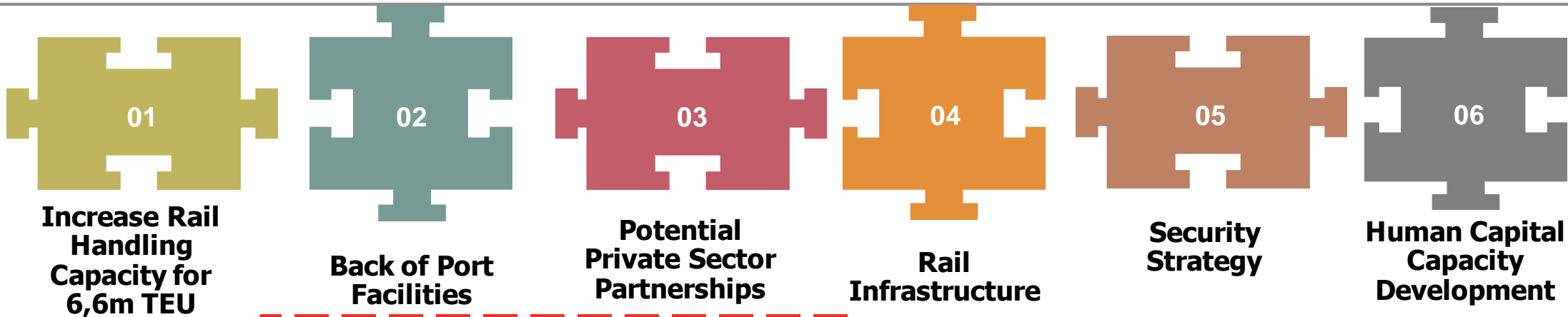


- ❖ Transnet has developed commodity segment strategies for containers and automotive
 - ❖ **Strategic intent:** *Establish an internationally competitive hub port system, and leverage private sector partnerships to re-position the container rail and port terminal businesses*
- ❖ Transnet National Port Authority has subsequently crafted a proposed master plan for the development of the Port of Durban Hub ramping up berth capacity from **2.9m TEUs to 11.3m TEUs** in 2032. Transshipment 40% 4.52m and gateway / landside 60% 6.78m TEUs.
- ❖ **Transnet Freight Rail is in the process of assessing rail capacity aligned to the ramp up per port terminal over the next 12 years.**
 - ❖ The rail calculations are currently based on assumptions as Transnet has not concluded the quantification of volume split based on transshipment (current 10% vs TNPA growth assumption 40%), long haul and short haul (Back-of-Port), road limitations per facility
 - ❖ Scenario applied rail % as advised by TNPA in line with decongestion of roads in and around the Port and City.
 - ❖ The rail plan is based only on gateway/landside volumes 6.78m (60%) and is dependant on:
 - ❖ Rail infrastructure / connectivity / rail handling capacity in the new port terminals and Back of Port facilities
 - ❖ Marshalling Yards in the Durban complex – TNPA to upgrade Kingsrest, Point and Maydon Wharf Yards. Bayhead Yard reconfiguration and lengthening of lines.
 - ❖ Kingsrest Mega Terminal and Durban Logistics Park
 - ❖ Mainline slot capacity and resources.
 - ❖ Change of integrated Port terminal and Rail operating model (delink, mass evacuation from port terminal)
 - ❖ TNPA prescribing the road / rail split of containers handled at the port terminals, terminal infrastructure and equipment investment.
 - ❖ Unique characteristics of Point and Maydon Wharf terminals – Point and Maydon Wharf 90% rail; DCT Pier1 and Pier 2, 80%.





B. OVERARCHING NATCOR GROWTH STRATEGY



01
Increase Rail Handling Capacity for 6,6m TEU

02
Back of Port Facilities

03
Potential Private Sector Partnerships

04
Rail Infrastructure

05
Security Strategy

06
Human Capital Capacity Development

Current container rail handling capacity is 21%

De-linked Ops model from vessel stack, mass evacuation from the port. Awaiting SARS approval to be bonded facility.

Rail system waterside capacity for approximately 6.6m TEUs by 2032

- Yard reconfiguration
- Hub & Spoke Ops model
- Book-off readjusted via Hotel-on-Wheels

Hubs linked to logistics activity zones with rail connectivity to the Port of Durban and hinterland

- Old Durban Airport
- Clairwood Logistics Park
- Cato Ridge siding
- Bayhead
- Dube Trade Port
- Newcon, Ladysmith
- Kroonstad Grain Hub

Potential terminal PSPs

- Automotive – Kaalfontein Car terminal
- Container – City Deep Container Terminal
- Cato Ridge; Clairwood; NewCon; Ladysmith

Potential Wagons PSPs

- automotive wagons
- Fuel wagons
- Chemicals wagons

Branch Lines Concessions

- Pietermaritzburg Clusters
- Enkweleni Branch Line

Mitigate against flooding and mudslides

Community encroachment impact on reserve

Capability to run 100 wagon trains on distributed power

Technology enabled solutions for sustainable improvements

Rail Infrastructure protection

Freight Cargo protection

Intelligence driven operation Integration of all SSP and law enforcement efforts

Capacity and skills development

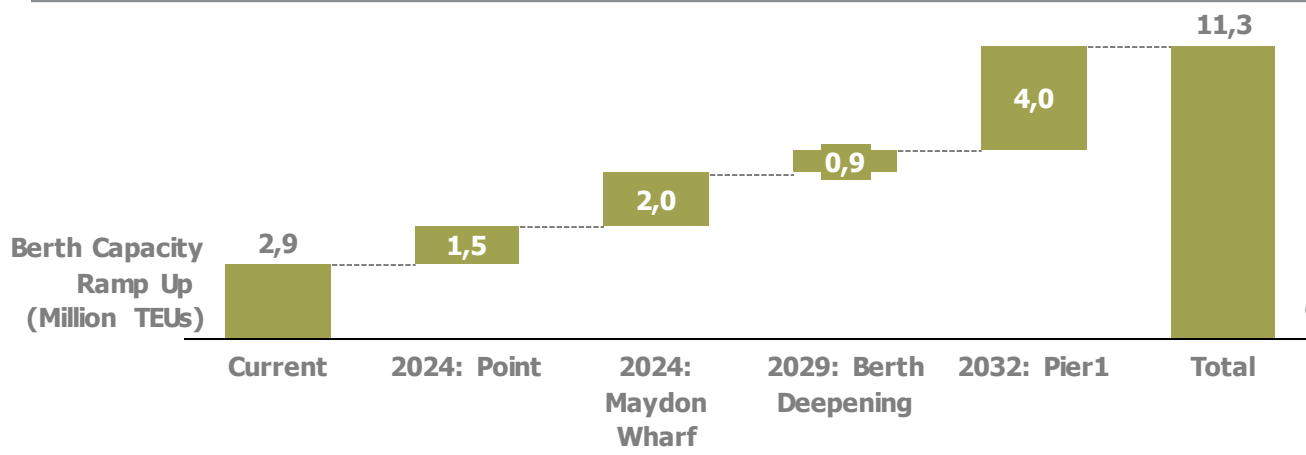
Develop a motivated, informed and engaged work force

B. CAPACITY RAMP UP: RAIL HANDLING PER PORT TERMINAL

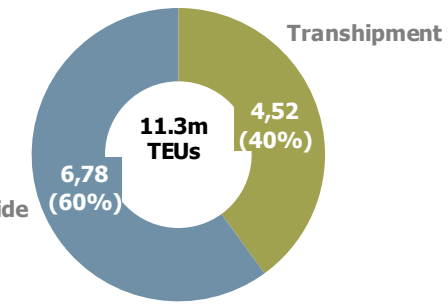
TEUs & TRAINS
2021-2032



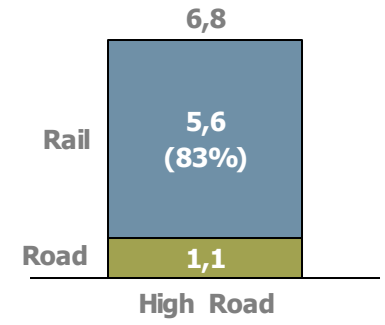
Berth Capacity



Transhipments expected to increase from 10% of 2.9m to 40% of 11.3m.

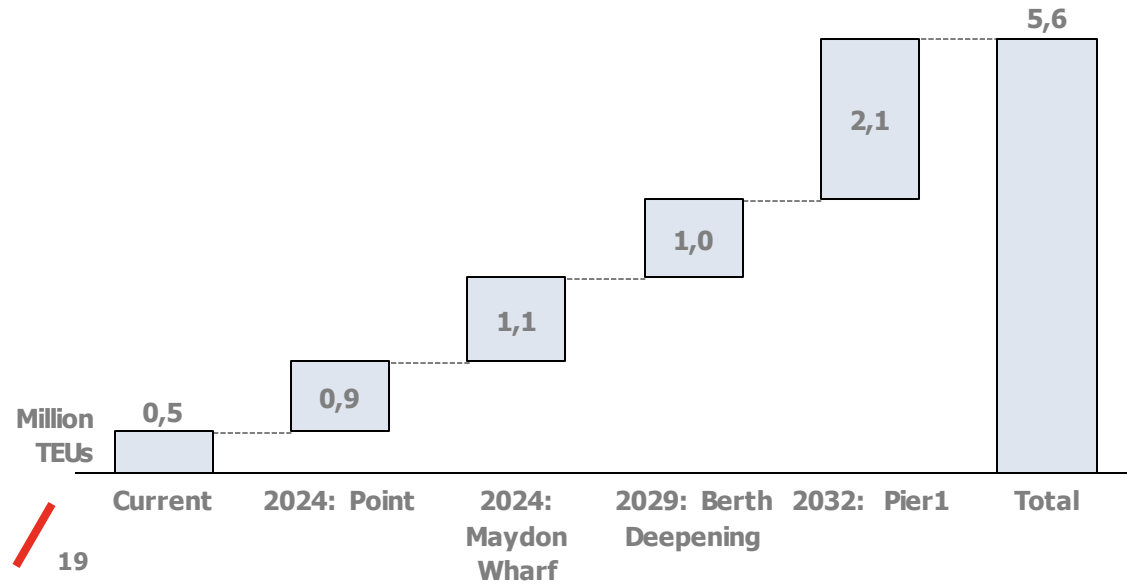


Gateway Road Rail Split



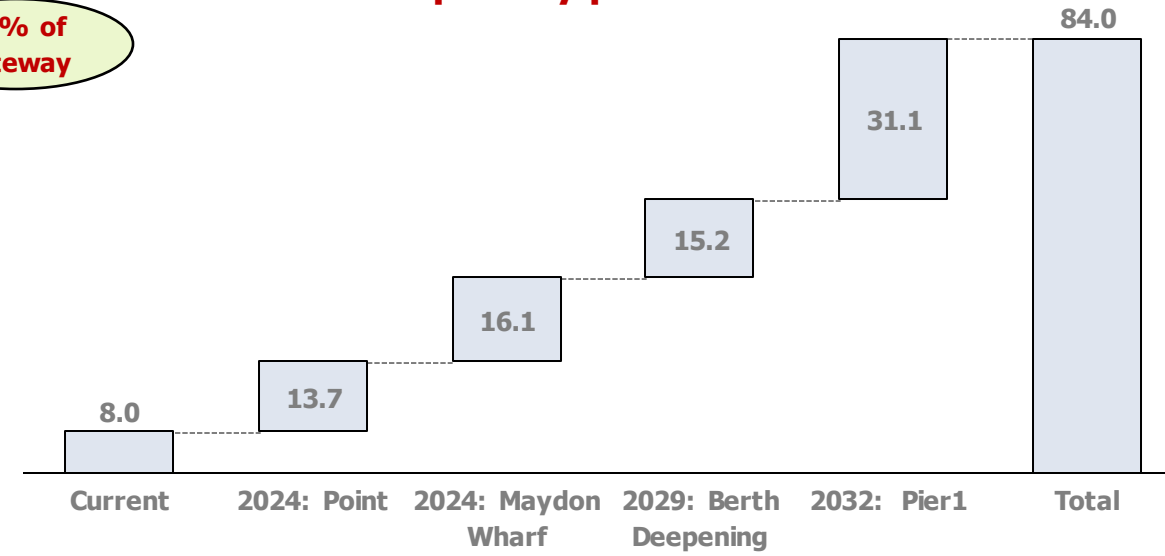
Rail Equivalent Capacity Ramp Up

TEUs



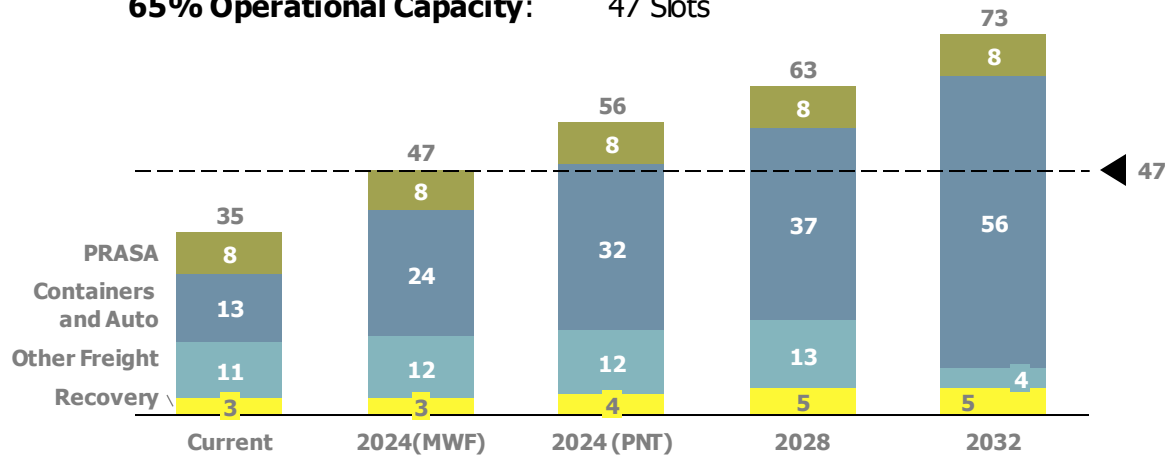
83% of Gateway

Trains per Day per Direction



B. MAINLINE SLOTS CAPACITY RAMP UP INTERVENTIONS

Theoretical Capacity: 72 Slots
65% Operational Capacity: 47 Slots



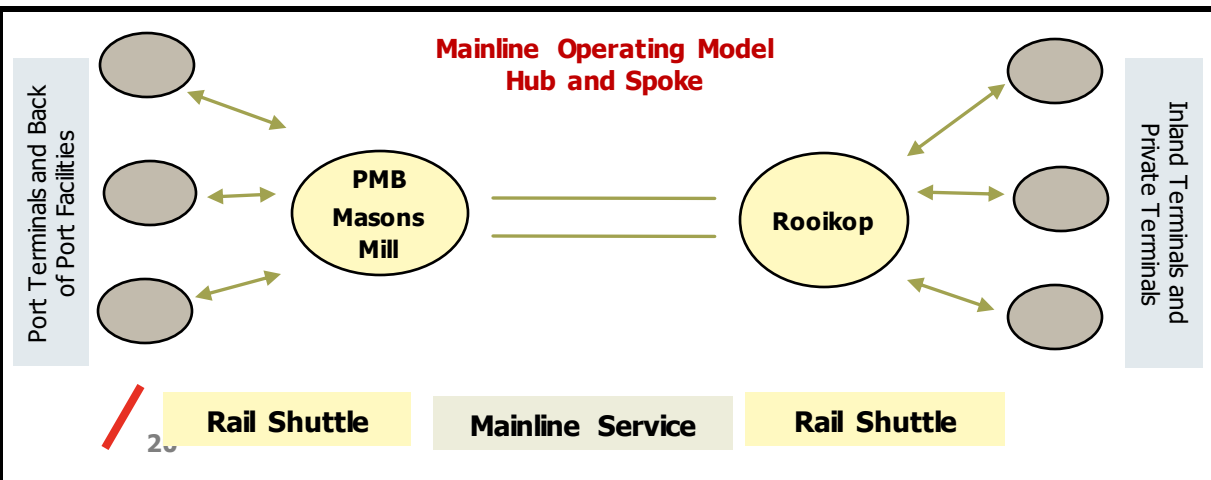
Slot Capacity Impact from 50 to 75 wagon trains:

- 2025 reduced from 56 to 40;
- 2028 from 63 to 45 (Capex interventions)
- 2032 from 73 to 52

Capacity Interventions for Main Line

Time

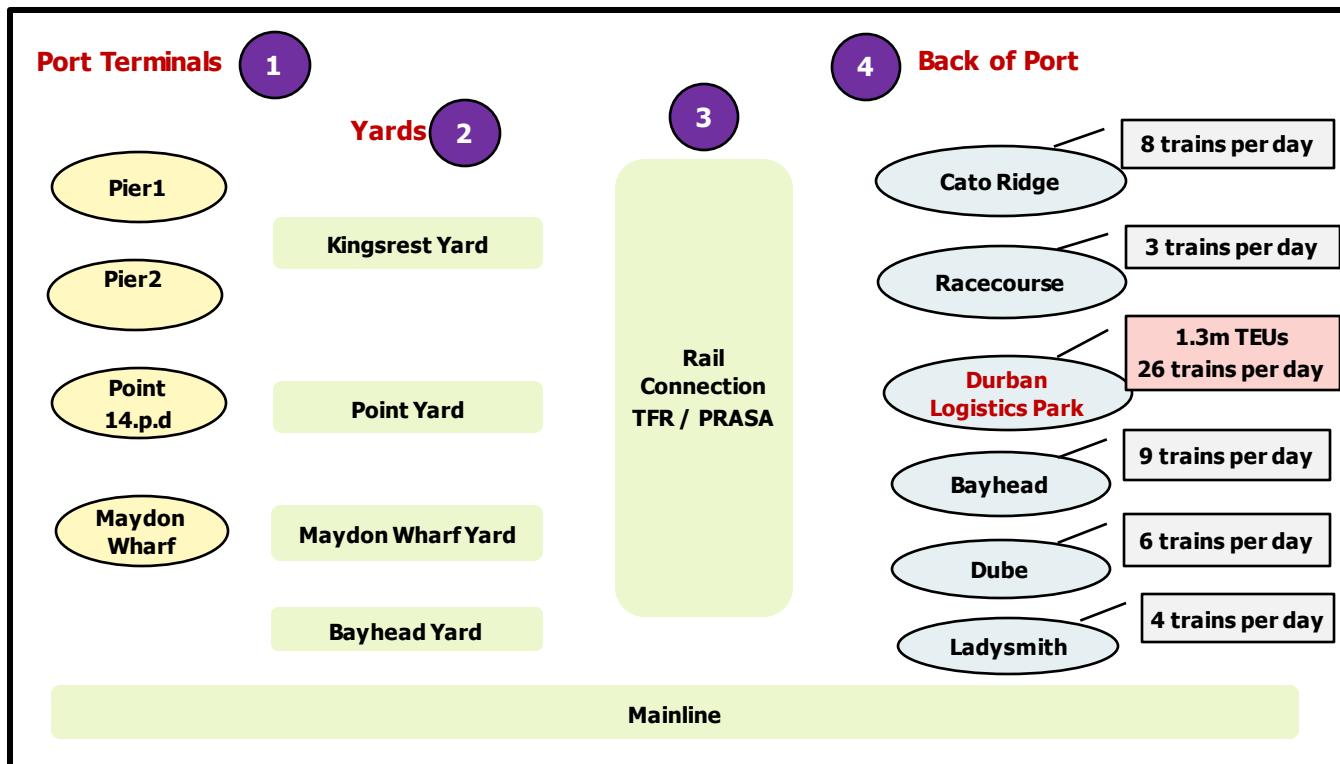
1. Security Technology deployment to reduce disruptions resulting in capacity depletion	ongoing
2. Delink Operating model implemented	2021
3. Change crewing Model – Book of from Masons Mill, to be Cat C depot. Umbilo crew roundtrip to Mam.	2023
4. Lengthen Container trains from 50 to 75, Chrome 40 to 65, grain 32 to 64 wagons	2023
5. Crewing Model Review - Hotel on Wheels	2023
6. Extend Rail Lines in Bayhead yard for 75wagon trains and reconfigure to consolidate marshalling	2024
7. 20E Locomotive Deployment to address current unreliable 18E fleet	2023
8. Reinstate Crossovers – allowing for 75 wagon trains and increase slots	2024
9. Natcor to restricted to air - brake wagons only to allow for longer trains.	2023
10. Hub and spoke between Rooikop to Mam. Rooikop Yard to be Hub yard – review security for marshalling of 75 wagon trains to reef.	2023
11. Update signaling to combat train authorization to also support future changes in headway.	2028
12. Power Supply upgrades – substation for longer trains vs Diesel alternative	2030
13. Change of Headway between trains	2031
14. 25 kv AC conversion	2038
15. Cato Ridge Bypass or alternate systems i.e. Monorail	2045





B. DURBAN PRECINCT RAIL CAPACITY TO HANDLE 5.6M TEUS, 83% OF GATEWAY CONTAINERS DAILY TRAIN RAMP UP FROM 8 TO 84

Critical Path Capacity Enablers / Constraints



- **Kingsrest Yard:** change in **shunting operating model**, push back marshalling from Kingsrest to Bayhead Yard
- **Bayhead Yard Reconfiguration:**
 - **Prime real estate** that can be used for the Port logistics customers to generate additional rail business for TFR. ~30hectares of land.
 - **Reconfigure the yard** with longer lines to be the main Marshalling Yard for PoD.
 - This enhances the PoD plan of new road access to the Port, which opens access to this land.
- TNPA: Point and Maydon Wharf Yard **infrastructure and layout** redesign for increase in activity
- Rail Infrastructure connectivity between Durban Logistics Park (Back of Port) and Yards
- Engage eThekweni to address Point precinct crossings
- Safety and Security threat: vagrant presence at Point and MWF threat for cargo and infrastructure equipment

- Increase rail handling capacity required
- Each terminal requires reviewed operations
- Reconfigure rail terminals

- PRASA mainline and BoP shared rail access
- Infrastructure redesign required
- Build rail bypass lines to debottleneck and separate flows

Interventions BoP TFR Target Timelines for public advertisement

1. PSP Cato Ridge	03/2021
2. PSP Racecourse	05/2021
3. PSP Ladysmith	07/2021
4. PSP Newcon	07/2021
5. PSP Dube	TBC

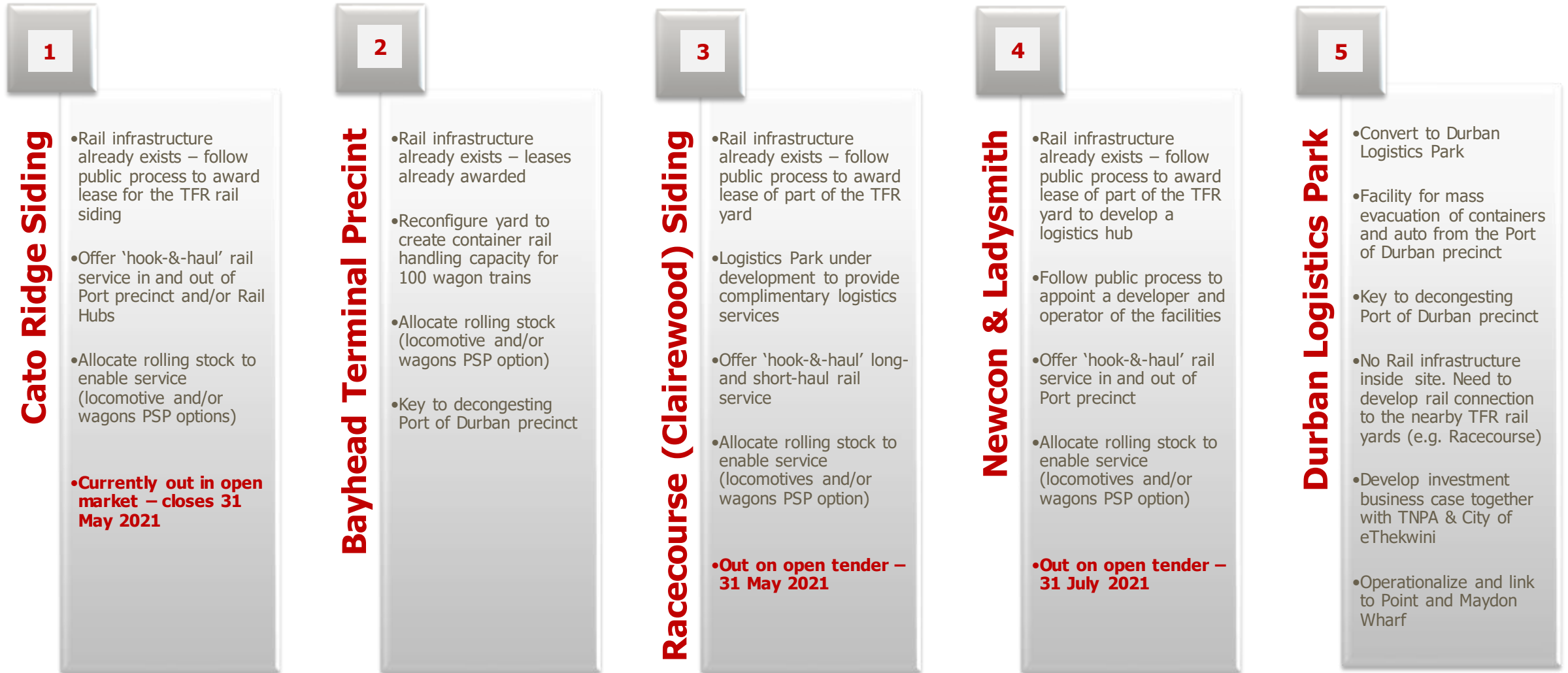
Other:
Repair Bayhead Yard Signals 2023

- Back of Port capacity required 56 trains per day, 67% of total activity
- Current is 1 train per day
- Durban Logistics Park (DLP) capacity required at 26 trains per day, 46% of total
- Part of the validation to be conducted by external **International Expert** as part of the TNPA master plan
- **DLP Critical BOP Site for the port growth plan. Requirements:**
 - TEU capacity for 1.3m
 - Rail connectivity
 - Exchange Rail Yard - existing Racecourse Yard inadequate
 - Double Line access due to high activity
 - 2X Rail Terminal with 75W lines



B. BACK OF PORT FACILITIES

Logistics Hubs with rail connectivity to the Port of Durban and hinterland



1

Cato Ridge Siding

- Rail infrastructure already exists – follow public process to award lease for the TFR rail siding
- Offer 'hook-&-haul' rail service in and out of Port precinct and/or Rail Hubs
- Allocate rolling stock to enable service (locomotive and/or wagons PSP options)
- Currently out in open market – closes 31 May 2021

2

Bayhead Terminal Precinct

- Rail infrastructure already exists – leases already awarded
- Reconfigure yard to create container rail handling capacity for 100 wagon trains
- Allocate rolling stock (locomotive and/or wagons PSP option)
- Key to decongesting Port of Durban precinct

3

Racecourse (Clairewood) Siding

- Rail infrastructure already exists – follow public process to award lease of part of the TFR yard
- Logistics Park under development to provide complimentary logistics services
- Offer 'hook-&-haul' long- and short-haul rail service
- Allocate rolling stock to enable service (locomotives and/or wagons PSP option)
- Out on open tender – 31 May 2021

4

Newcon & Ladysmith

- Rail infrastructure already exists – follow public process to award lease of part of the TFR yard to develop a logistics hub
- Follow public process to appoint a developer and operator of the facilities
- Offer 'hook-&-haul' rail service in and out of Port precinct
- Allocate rolling stock to enable service (locomotives and/or wagons PSP option)
- Out on open tender – 31 July 2021

5

Durban Logistics Park

- Convert to Durban Logistics Park
- Facility for mass evacuation of containers and auto from the Port of Durban precinct
- Key to decongesting Port of Durban precinct
- No Rail infrastructure inside site. Need to develop rail connection to the nearby TFR rail yards (e.g. Racecourse)
- Develop investment business case together with TNPA & City of eThekweni
- Operationalize and link to Point and Maydon Wharf

Phase 1: Advertisement and Award 6-12 Months

24 Months

Further engagement with TP and TNPA required

B. CONTAINER EXPANSION FOR DURBAN – RAMP UP FROM 8 TO 84 TRAINS PER DAY (5.6m TEU by 2032)



Yard Reconfiguration and Terminals Rail Handling

Pietermaritzburg and Masons Mill

- Previously had a TE and wagon maintenance depot which was relocated.
- This must be reviewed to **rejuvenate the economy of Pietermaritzburg and release prime land in Durban**
- Book Off Crewing depot to be relocated Masons Mill to book off at Newcastle. Requires resourcing

Maydon Wharf Yard

- To be **reconfigured to support port capacity of 2m TEUs** at MWF terminal
- Operate Maydon Wharf yard as a consolidation yard for traffic from Point and Maydon Wharf port terminals
- **Mass Evacuation through rail to Durban Logistics Park**

Bayhead Yard

- Is **prime real estate** that can be used for the Port logistics customers to generate additional rail business for TFR. ~30hectares of land.
- Non-critical rail activities should be **relocated to Masons Mill**, e.g. Review the activities of TE in this area of wagons and Locos.
- **Reconfigure the yard** with longer lines to be the main Marshalling Yard for PoD.
- Kingsrest marshalling activities and train departures, holding area for train overflows at Bayhead Yard
- This enhances the PoD plan of new road access to the Port, which opens access to this land.

Mass evacuation routing to Durban Logistics Park - default evacuation facility for decongestion PoD

Maydon Wharf Yard

- To be **reconfigured to support port capacity of 2m TEUs** at MWF terminal
- Operate Maydon Wharf yard as a consolidation yard for traffic from Point and Maydon Wharf port terminals
- **Mass Evacuation through rail to Durban Logistics Park**

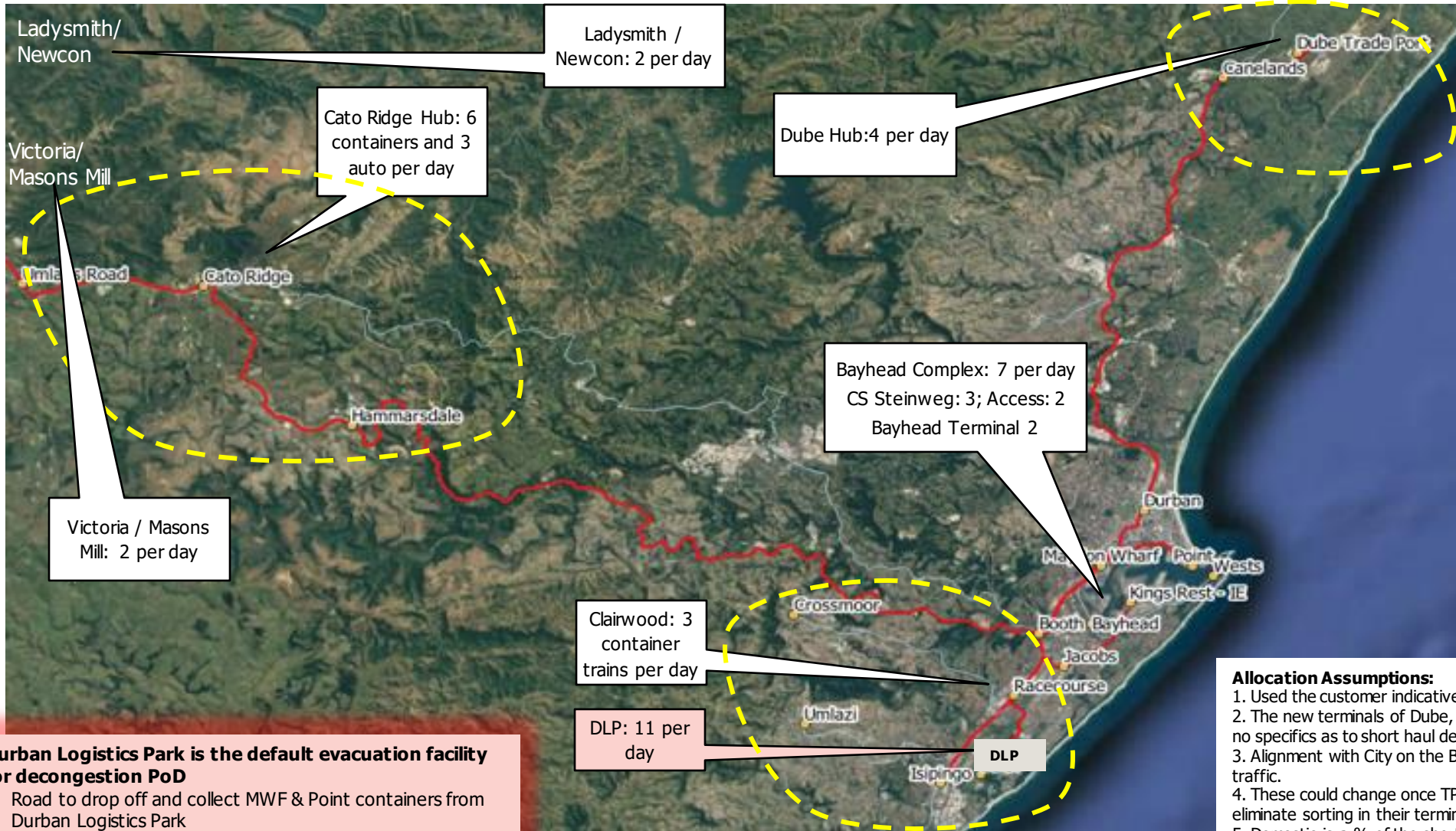
Point Yard

Kingsrest Yard

- Rail Handling capacity at Pier1 and Pier2 ramp up from 8 to ~40 trains per day (20 load and 20 offload)
- Expansion of Near Dock facilities in the Kingsrest Yard Buffer 1, 2

B. DESIRED END STATE:

TOTAL HANDLING CAPACITY OF ~38 TRAINS PER DAY REQUIRED FROM BACK OF PORT FACILITIES CONNECTED TO VARIOUS PORT TERMINALS IN THE POD HUB



Delink from Vessel Stack for conveyor type rail system is a fundamental

- The larger vessels and consignment sizes will require change of operating model
- Arrive containers from long haul ~8 days earlier
- This overcomes network disruptions, large consignments and short shipments; reduce vessel delays waiting for rail containers

Geographically zoned **Back of Port** Hubs operationalized through rail and logistics integration with the Port Terminal

BoP facilities must be developed

- Critical to create a fluid system between the Port and the BoP facilities to decongest the Port.
- These are the Off Dock facilities
 - Catoridge
 - Bayhead
 - Newlands Development
 - Clairwood
 - Dube Port
 - Ladysmith
 - Durban Logistics Park

Durban Logistics Park is the default evacuation facility for decongestion PoD

- Road to drop off and collect MWF & Point containers from Durban Logistics Park
- This must be completed by 2024 with rail link from Engen line and stacking space.

Allocation Assumptions:

1. Used the customer indicative demand
2. The new terminals of Dube, Ladysmith, DLP, conservative estimate as there is no specifics as to short haul destinations.
3. Alignment with City on the Bayhead complex volumes and impact on road traffic.
4. These could change once TPT uses the BoP for mass import evacuation and eliminate sorting in their terminals.
5. Domestic is a % of the shorthaul trains that is expected to be converted to longhaul through technology solutions to compete with tautliners and commercial.
6. The Durban Logistics Park is the default decongestion BoP for MWF and Point
7. Only block loads to BoP private terminals if not TNPA prescribes use of DLP



B. POINT YARD LINES REQUIRE EXTENSION FROM 47 TO AT LEAST 50 WAGONS



B. BAYHEAD YARD - ADEQUATE SPACE FOR LONGER LINES. DEFINITELY 75, ENGINEERS TO DETERMINE 100 WAGON CAPACITY.



Source: Transnet Freight Rail, 2021

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B. SAFETY AND SECURITY POINT AND MAYDON WHARF PRECINCT



Point Entrance

- Intervention with security required
- Vandalism of Rail Infrastructure - Points and signals - is continuous.



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C. PORT OF NGQURA DEVELOPMENT

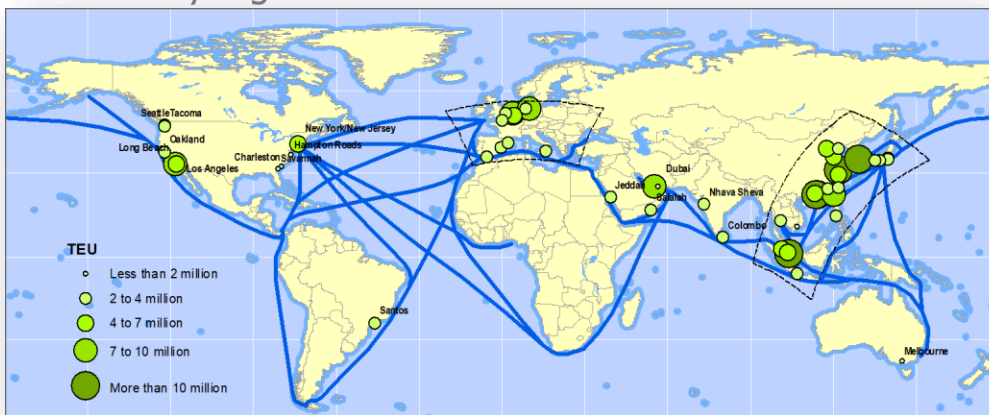
C. POSITIONING NGQURA CONTAINER TERMINAL AS A TRANSSHIPMENT HUB

Segment Strategy Key Focus Area:
The Port of Ngqura, a Transshipment Hub

Global shipping alliances have in recent times consolidated power and control over maritime container trade, with economies of scale leading to larger vessels and shipping route control leading to fewer direct port to port connections.

Transnet's Hub Port strategy aims to reduce the cost of intercontinental shipping by 20-30% through partnerships with industry players to further integrate South African ports into their vessel calling patterns, in addition to creating an integrated hub-port system that increases attractiveness and capacity (vessel size and a TEU handling), starting with NCT as a transshipment hub at supporting South Africa – China trade. NCT will work in unison with the significant expansion to take place at the Port of Durban, and will augment expansion plans at the Port of Cape Town.

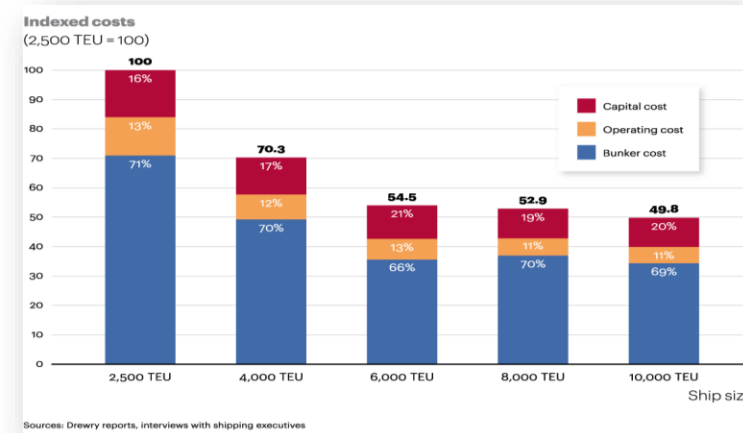
This is a key driver for unlocking the potential of the African Continental Free Trade Area, and to boost trade volumes for the broader Southern African Development Community region.



Source: Jean Paul Rodrigue (Hofstra University)

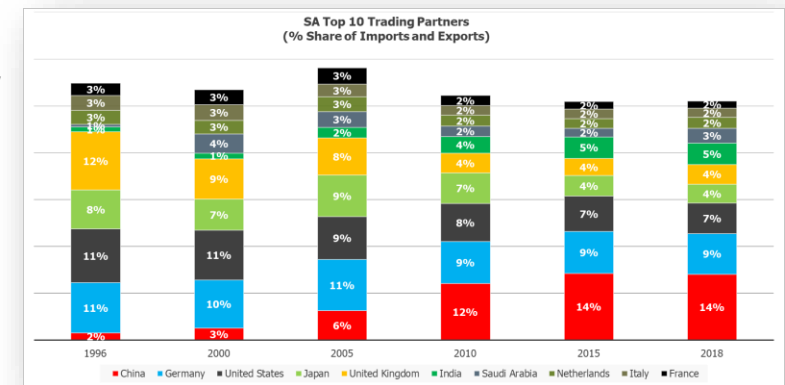
Left: World container maritime trade is dominated by a just a few hub ports, predominantly in east-west trade routes.

This is changing as volumes develop in the south.



Above: Global hub-ports attract larger volumes of trade as the unit cost of moving a container decreases.

Below: Analysis of South Africa's top 10 trading partners has shown China moving to top position since 2010



Source: World Bank

Sources: Transnet Strategy and Planning, 2021

C. TRANSNET SEGMENT STRATEGIES - FOCUS ON EASTERN CAPE



PSPS WILL BE UTILISED AS A KEY LEVER FOR CAPACITY AND PRODUCTIVITY

Transnet plans to introduce an **International Terminal Operator in the Ngqura Container Terminal** to expand the **Port of Ngqura** into a **regional transshipment hub** with direct links to key trading partners such as **China**.

We will **consolidate Manganese** exports through the **Port of Ngqura** as the primary Manganese export channel in the country.

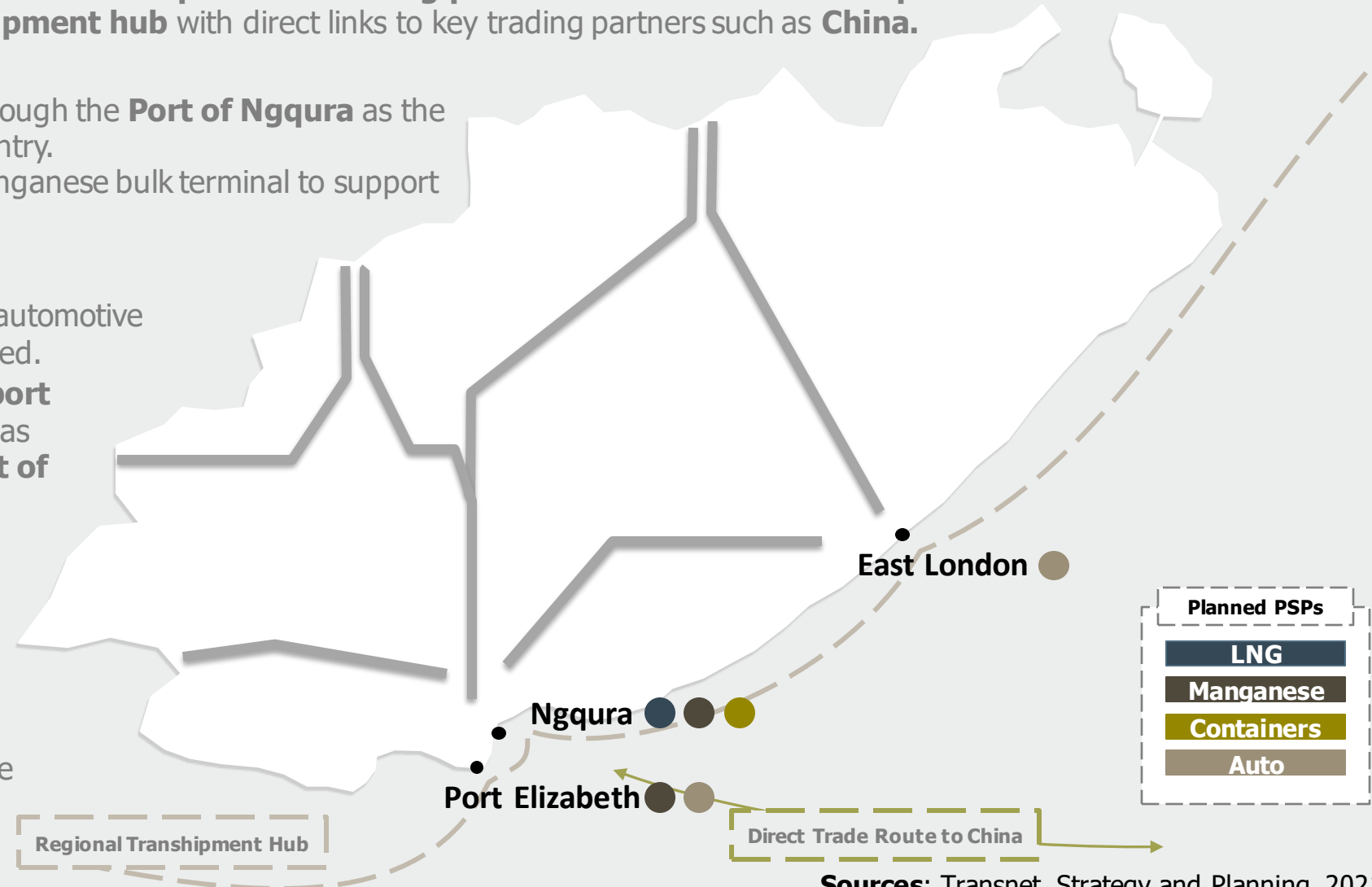
Closure of the Port of Port Elizabeth (PE) Manganese bulk terminal to support the planned waterfront development.

Feasibility studies to support the migration of automotive exports to the **Port of PE** are being fast tracked.

Partnerships are planned to improve export capacity for fully built automotive units such as additional **parking facilities** at both the **Port of East London** and at the **Port of PE**.

We will also explore partnerships for the provision of **automotive wagons** that are more customer centric and tailored to various models.

Liquefied Natural Gas import facilities will be established at the **Port of Ngqura**.



Sources: Transnet Strategy and Planning, 2021

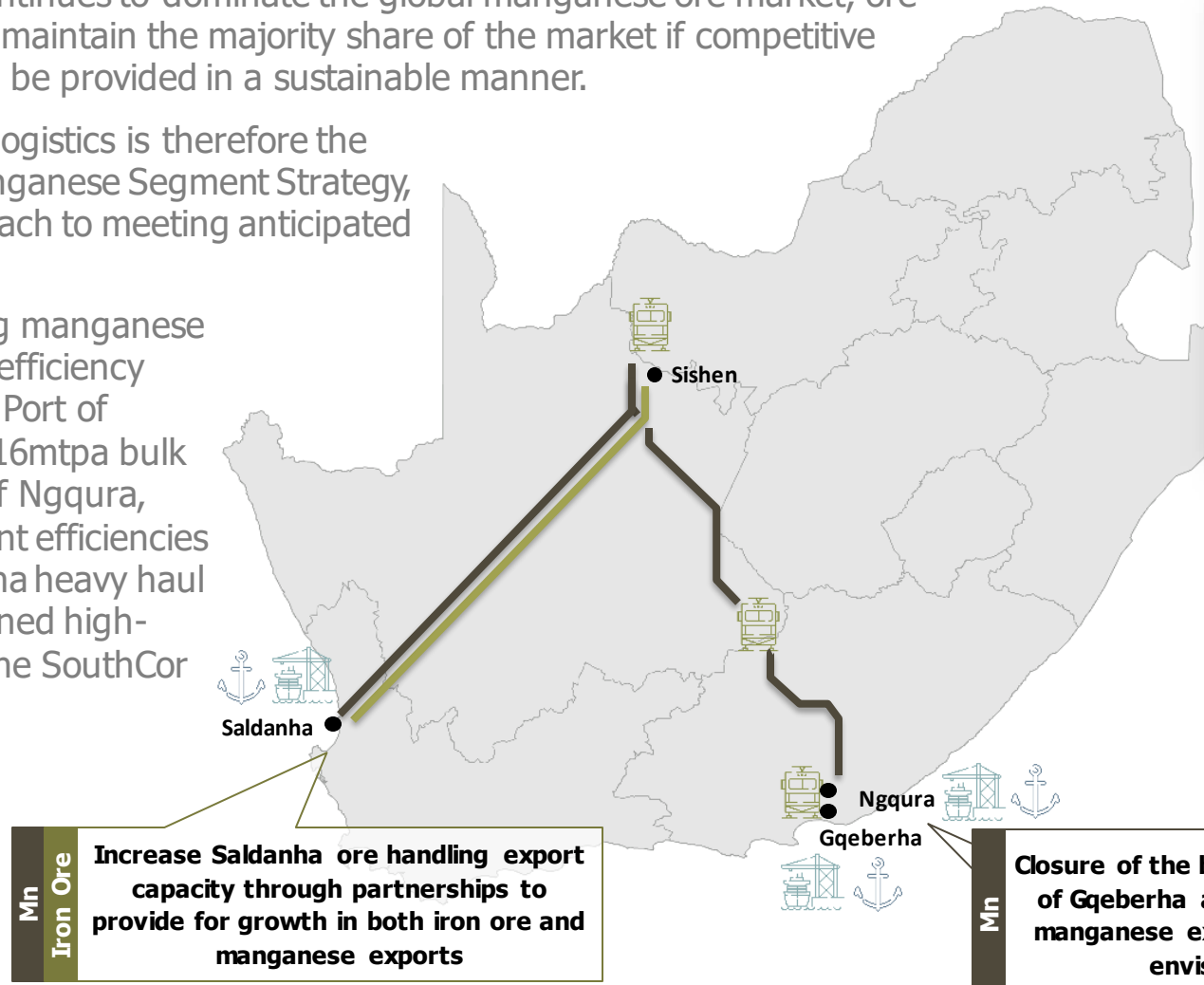
C. MANGANESE EXPORT CONSOLIDATION THROUGH THE PORT OF NGQURA

Segment Strategy Key Focus Area:
Manganese Dual Channel Export Strategy

While South Africa continues to dominate the global manganese ore market, ore miners can profitably maintain the majority share of the market if competitive logistics solutions can be provided in a sustainable manner.

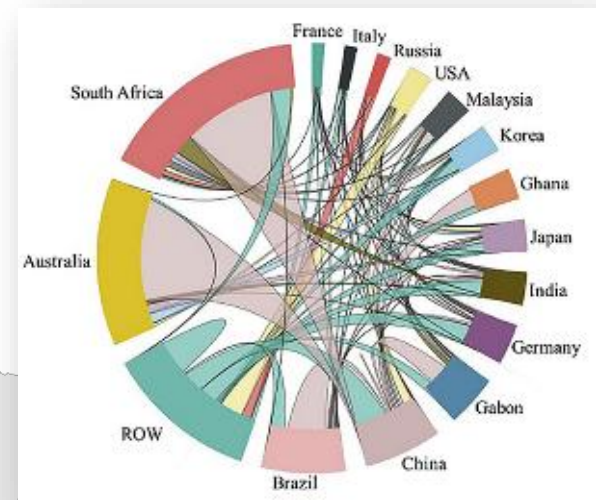
Reducing the cost of logistics is therefore the focal point of the Manganese Segment Strategy, and guides the approach to meeting anticipated demand of 22Mtpa.

This entails optimising manganese exports via two high-efficiency channels through the Port of Saldanha and a new 16mtpa bulk terminal at the Port of Ngqura, leveraging the inherent efficiencies of the Sishen-Saldanha heavy haul rail line, and the planned high-capacity upgrade of the SouthCor rail corridor.



Increase Saldanha ore handling export capacity through partnerships to provide for growth in both iron ore and manganese exports

Closure of the bulk manganese terminal at the Port of Gqeberha and the development of a new bulk manganese export terminal at Ngqura, currently envisaged as a 16mtpa facility



Source: Sciencedirect.com

Above: South Africa has 75% of mid - high grade global reserves and > 30% share of seaborne volumes

C.PORT OF NGQURA (PoN) STATUS QUO:



PoN at a Glance

<p>Port Ranking</p> <p>Fastest growing port and rated 3rd African operational performing Port benchmarked against Rotterdam Port by PWC report</p>	<p>Market Share (Per 2019/20)</p> <p>6.9% of SA Cargo 2.2% of Dry Bulk 1.1% of Break Bulk 1.3% of Liquid Bulk 17.9% of Container</p>	<p>Annual Throughput (2019/20)</p> <p>Containers: 720 640 TEU's Dry Bulk: 2 624 165 Tons Liquid Bulk: 1 323 211 Kilolitres Break Bulk: 48 415 Tons</p>	<p>EBITDA (2019/20)</p> <p>R 80.3 m (19%)</p>
<p>Contribution to GDP (Per 2019/20)</p> <p>0.62 % to Nelson Mandela Bay GDP 0.24 % to Eastern Cape GDP 0.02 % to SA GDP</p>	<p>Asset Base (2019/20)</p> <p>R 12,446bn</p> <p>Total Land Area hectares</p>	<p>Capital Investment</p> <p>R 3 734,8bn</p> <p>Over 7 years</p>	<p>Employment (2019/20)</p> <p>241 Employees (TNPA)</p>
<p>7 Berths and 2 Terminal Operators</p> <p>4 Container Berths 2 Dry Bulk Berths 1 Liquid Bulk Berth</p>	<p>Fleet</p> <p>2 x Tugs 1 x Pilot boat</p>	<p>BBBEE Spend (2019/20)</p> <p>97%</p>	<p>Total Vessel Arrivals (2019/20)</p> <p>Container Vessels - 457 Bunkering Vessels - 108 Dry Bulk Vessels - 36 Break Bulk Vessels -11</p>



CONTAINER TERMINAL

SPECIAL ECONOMIC ZONE

MANGANESE TERMINAL

Sources: Transnet National Ports Authority, 2021

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C. PoN STATUS QUO:

PoN Precincts



Western Precincts	Central Precinct	Eastern Precinct
<p>Container Terminal</p> <p>Theoretical Capacity : 2 000 000</p> <p>Operational Capacity: 1 200 000</p> <p>Terminal Operator: Transnet Port Terminals.</p> <p>Annual Throughput: 2019/20</p> <p>Containers: 720 640 TEU's</p>	<p>Multipurpose and Break-bulk</p> <p>Manganese</p> <p>Theoretical Capacity: 22 000 000mt</p> <p>Operational Capacity : 16 000 000mt</p> <p>Annual Throughput: 2019/20</p> <p>Dry Bulk: 2 624 165mt</p> <p>Break Bulk: 48 415mt</p>	<p>Liquid Bulk/ Energy</p> <p>Theoretical Capacity: 3 000 000 kl</p> <p>Operational Capacity: 800 000 kl</p> <p>Annual Throughput: 2019/20</p> <p>Liquid Bulk: 1 323 211 Kl</p> <p>Sources: Transnet National Ports Authority, 2021</p>

C. CURRENT PE MANGANESE & LIQUID BULK FOOTPRINT



C. MIGRATION OF PORT ELIZABETH BULK ORE TERMINAL

Volumes to PoN



C. PORT OF NGQURA

Liquid Bulk Terminal



Sources: Transnet National Ports Authority, 2021



C. BULK EARTHWORK COMPLETED IN DECEMBER 2019

No	Activity	Progress
1	Search & Rescue	Complete
2	Archaeology	Complete
3	Paleontology	On-going
4	Site clearing	Complete
5	Top soil stripping	Complete
6	Perimeter fencing	Complete
7	Rapid Impact Compaction	Complete
8	Cut to Fill	Complete

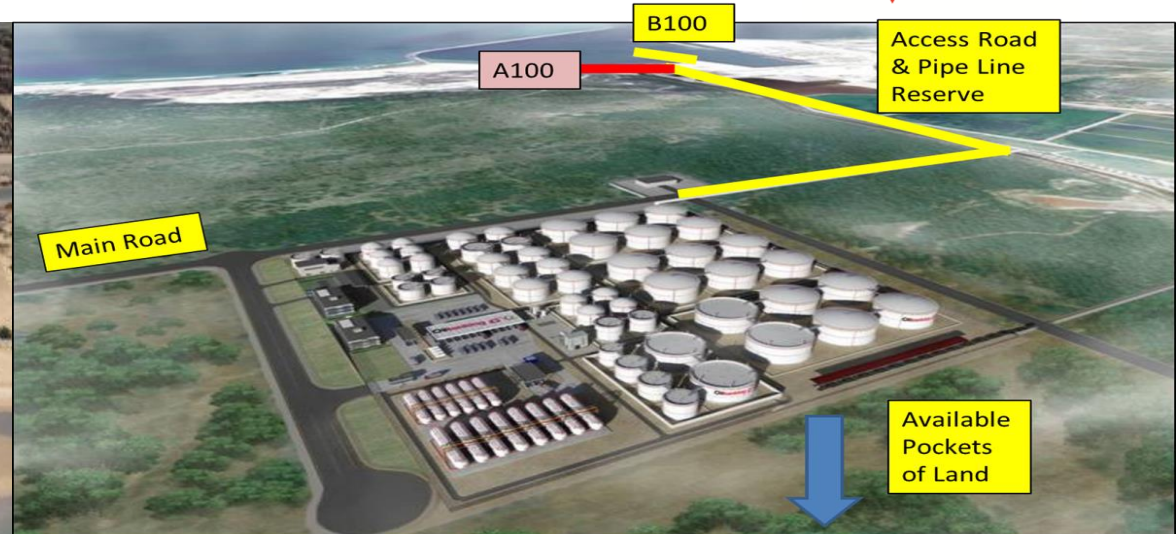


Tank Farm site - Bulk Earthworks

Sources: Transnet National Ports Authority, 2021



C. COMPLETED ROAD ACCESS AND BERTH INFRASTRUCTURE



Sources: Transnet National Ports Authority, 2021



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D. CAPECOR CAPACITY DEVELOPMENT AND ROAD TO RAIL INITIATIVES



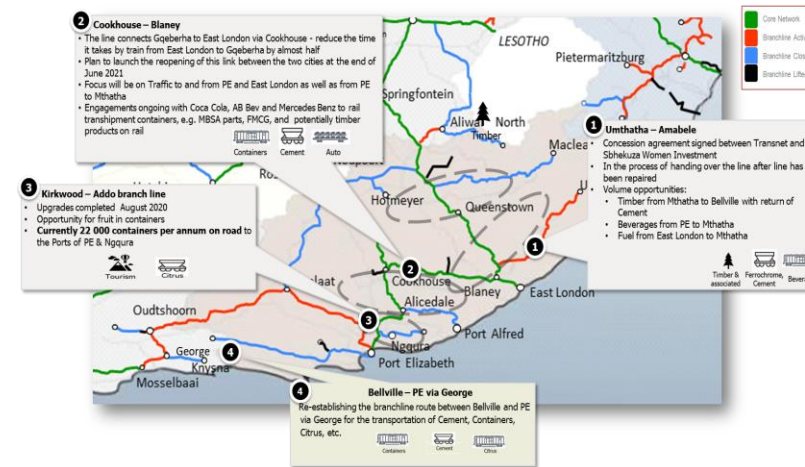
D. TFR FOCUS AREAS TO SUPPORT ECONOMIC GROWTH AND DEVELOPMENT OF THE EASTERN CAPE PORTS



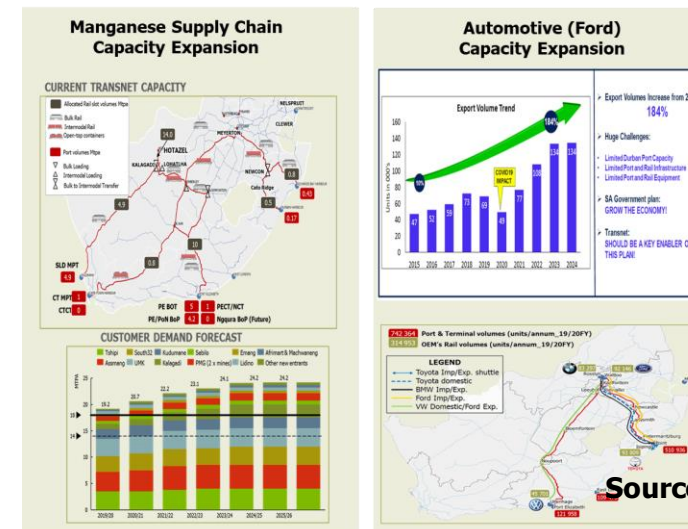
Focus Areas

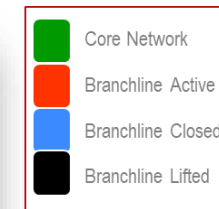
- Increase automotive traffic between the Reef and the Ports of PE and Ngqura
- Grow agriculture (Citrus) volumes from the Kirkwood area for export
- Invest in branchline rehabilitation to provide rail access for export to farmers in the Eastern Cape
- Increase rail's share of the anticipated growth in container volumes to the Ngqura Container Terminal
- Develop rail capacity to accommodate the shift of volumes from road to rail to decongest the road transport network in the PE area
- Develop infrastructure facilities and improve operations to capitalise on the rail connectivity linking EC ports to NatCor and CentraCor
- Integrate and optimize rail and port infrastructure to establish the Ports of PE and Ngqura as alternative points of export for congested ports e.g. Durban

Short – Medium Term Initiatives



Long Term Projects





2 Cookhouse – Blaney

- The line connects Gqeberha to East London via Cookhouse - reduce the time it takes by train from East London to Gqeberha by almost half
- Plan to launch the reopening of this link between the two cities at the end of June 2021
- Focus will be on Traffic to and from PE and East London as well as from PE to Mthatha
- Engagements ongoing with Coca Cola, AB Bev and Mercedes Benz to rail transshipment containers, e.g. MBSA parts, FMCG, and potentially timber products on rail

Containers Cement Auto

3 Kirkwood – Addo branch line

- Upgrades completed August 2020
- Opportunity for fruit in containers
- **Currently 22 000 containers per annum on road** to the Ports of PE & Ngqura

Tourism Citrus

1 Umthatha – Amabele

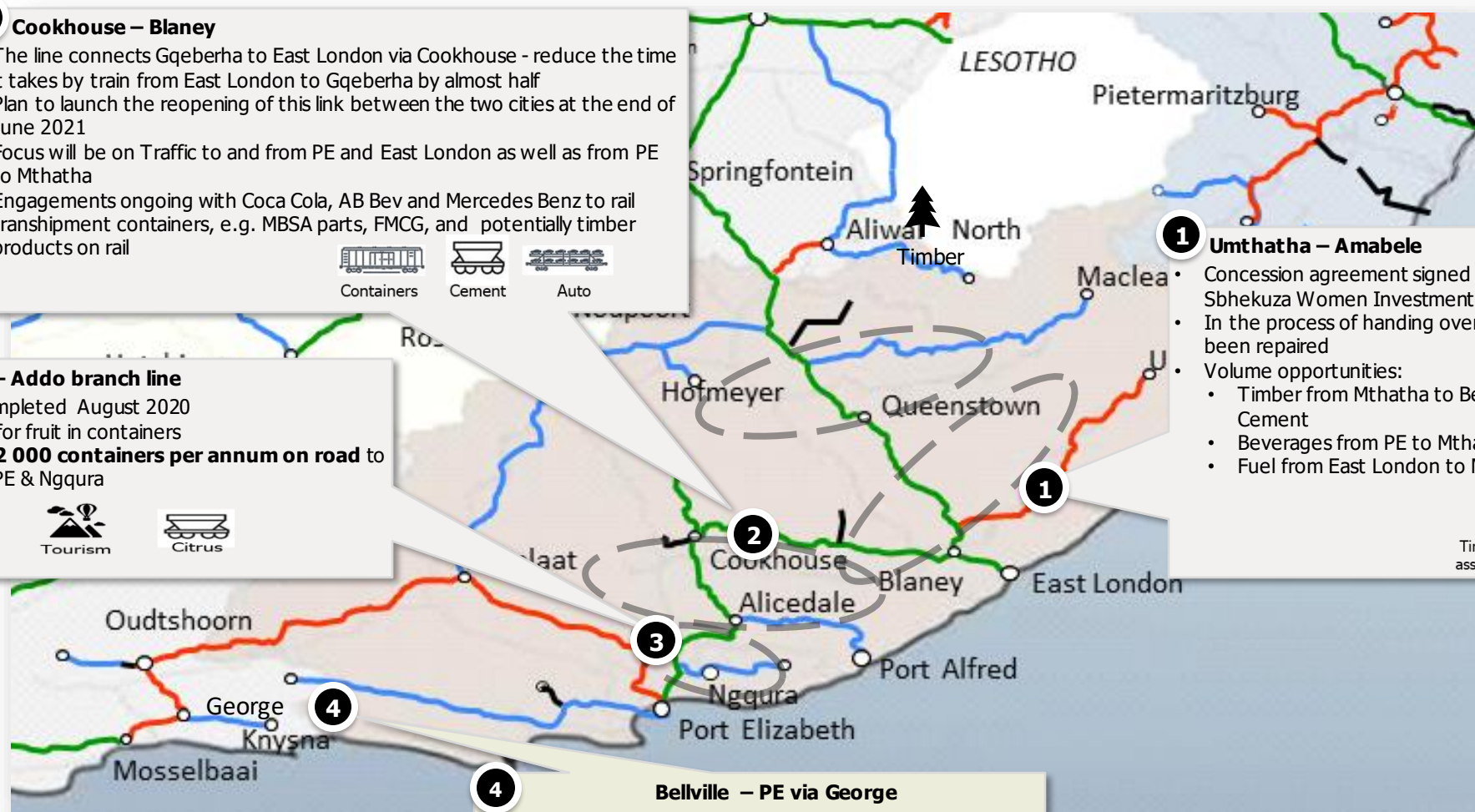
- Concession agreement signed between Transnet and Sbhekuzwa Women Investment
- In the process of handing over the line after line has been repaired
- Volume opportunities:
 - Timber from Mthatha to Bellville with return of Cement
 - Beverages from PE to Mthatha
 - Fuel from East London to Mthatha

Timber & associated Ferrochrome, Cement Beverages

4 Bellville – PE via George

Re-establishing the branchline route between Bellville and PE via George for the transportation of Cement, Containers, Citrus, etc.

Containers Cement Citrus



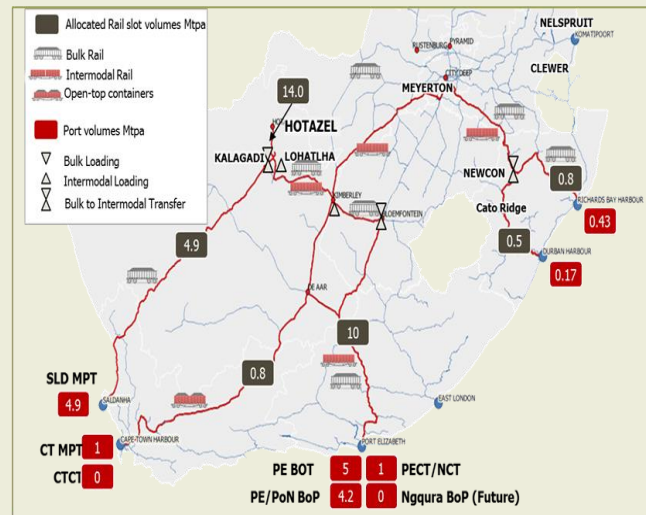
D. LONG TERM CAPACITY DEVELOPMENT PROJECTS



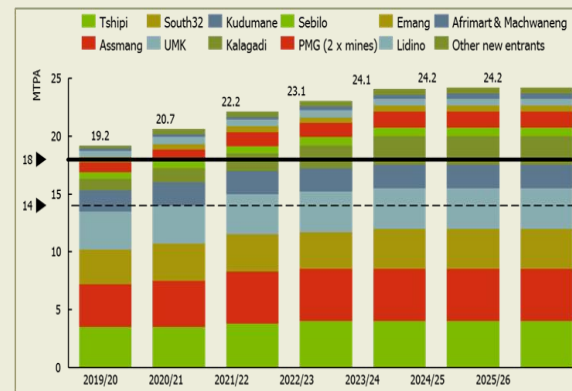
- Integrated solution being developed to:**
- Grow automotive volumes
 - Increase Manganese rail capacity on the PE line to 16Mtpa
 - Increase general freight volumes

Manganese Supply Chain Capacity Expansion

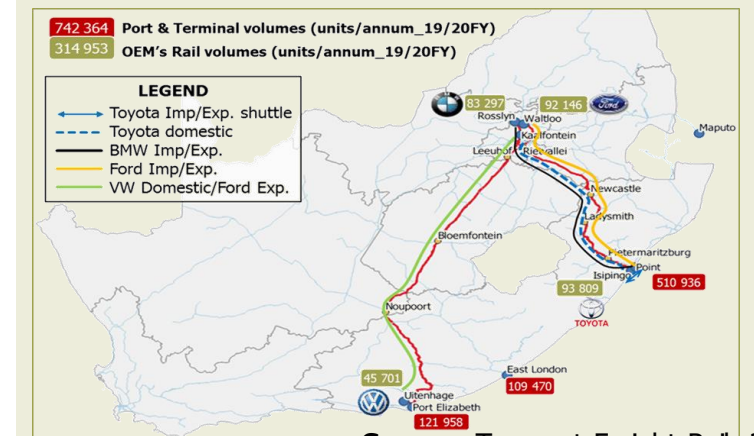
CURRENT TRANSNET CAPACITY



CUSTOMER DEMAND FORECAST



Automotive (Ford) Capacity Expansion



F. CONCLUSIONS AND RECOMMENDATIONS

PORT OF DURBAN

- Effective stakeholder engagement to manage the container hub strategy effectively.
 - Phased approach to development of each project.
- Infrastructure initiatives to support the hub strategy to be adopted as part of the Port Master Plan
- Private Sector Partnerships (PSPs) to be considered for the implementation of various projects.
- Holistic environmental management approvals to be sought and expedited
- Maximisation of Socio-Economic Opportunities by September 2021 (the objective is to optimise the benefit for South Africa and KZN before engaging with the market).

PORT OF NQGURA

- Increase Saldanha ore handling export capacity through partnerships to provide for growth in both iron ore and manganese exports
- Develop rail capacity to accommodate the shift of volumes from road-to-rail to decongest the road transport network.
- Partnerships are planned to improve export capacity for fully built automotive units such as additional parking facilities at both the Port of East London and at the Port of Port Elizabeth (PE).

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THANK YOU, SIYABONGA





TRANSNET SOC LTD: ORGANOGRAM

