

9-12 JUNE 2019

SAPICS CONFERENCE

Century City Conference

Centre, Cape Town,

South Africa

SAPICS

PROFESSIONAL BODY FOR
SUPPLY CHAIN
MANAGEMENT

Leveraging collaborative supply chains to
maximise rail market share for economic growth
of the country

Mike Fanucchi

Transnet, Chief Customer Officer



www.sapics.org

The Leading Event in Africa for Supply Chain Professionals

Transnet Overview

Vision

Fuelling Africa's growth and development as the leading provider of innovative supply chain solutions

Mission

Linking economies; connecting people; growing Africa!

Snapshot

- ✓ Transnet is the custodian of rail, ports and pipelines
- ✓ Total assets of R362.4bn
- ✓ 52,294 Employees (Sep '17)



Transnet SOC Ltd

Operating Divisions

Transnet
Freight Rail
53% of
Revenues*

Transnet
Engineering
11% of
Revenues*

Transnet
National Ports
Authority
16% of
Revenues*

Transnet Port
Terminals
15% of
Revenues*

Transnet
Pipelines
5% of
Revenues*

Transnet
International
Holdings

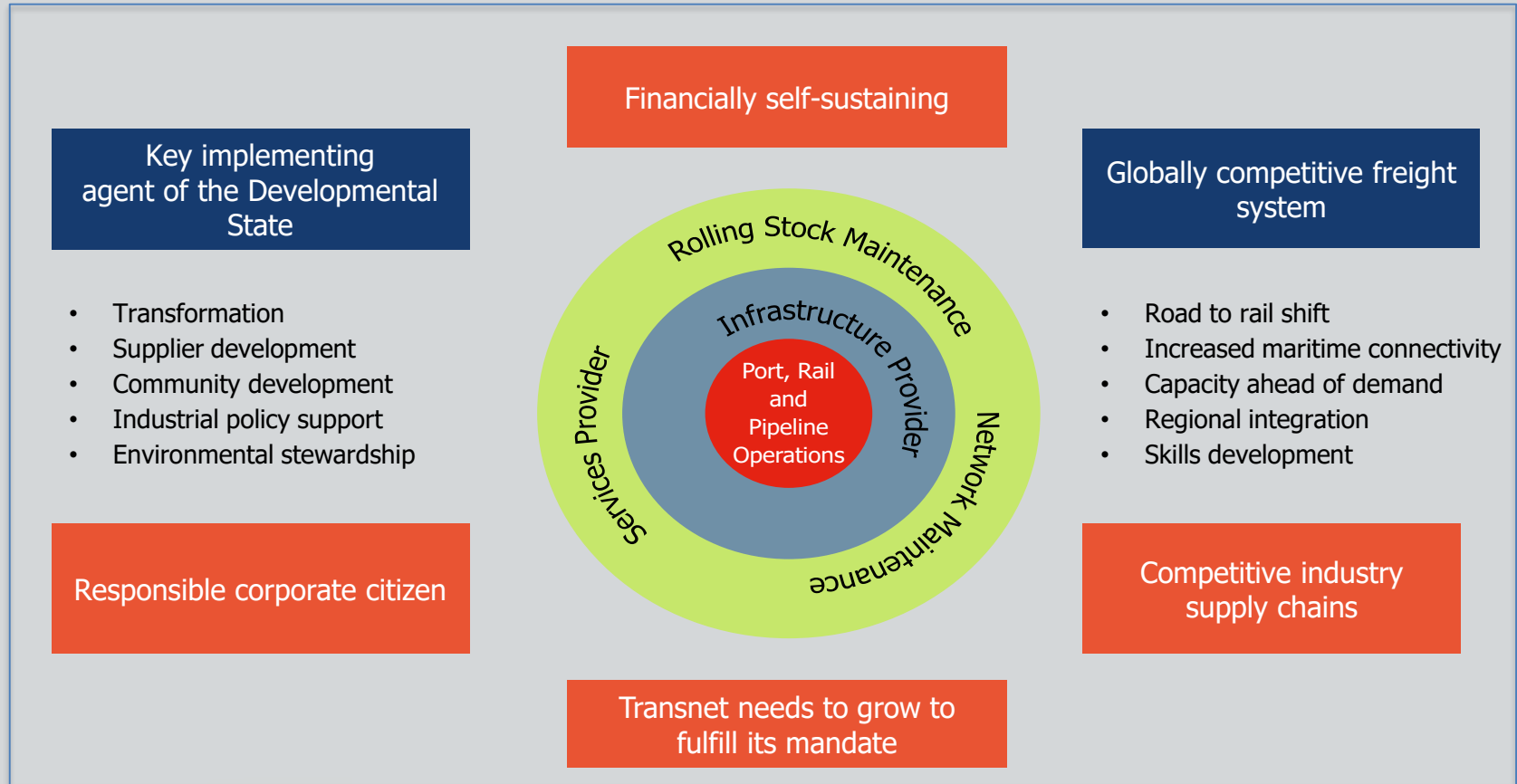
Specialist Units

Transnet Property

Transnet Group Capital

Transnet Foundation

Transnet has to respond to a complex mandate



The Changing Business Landscape

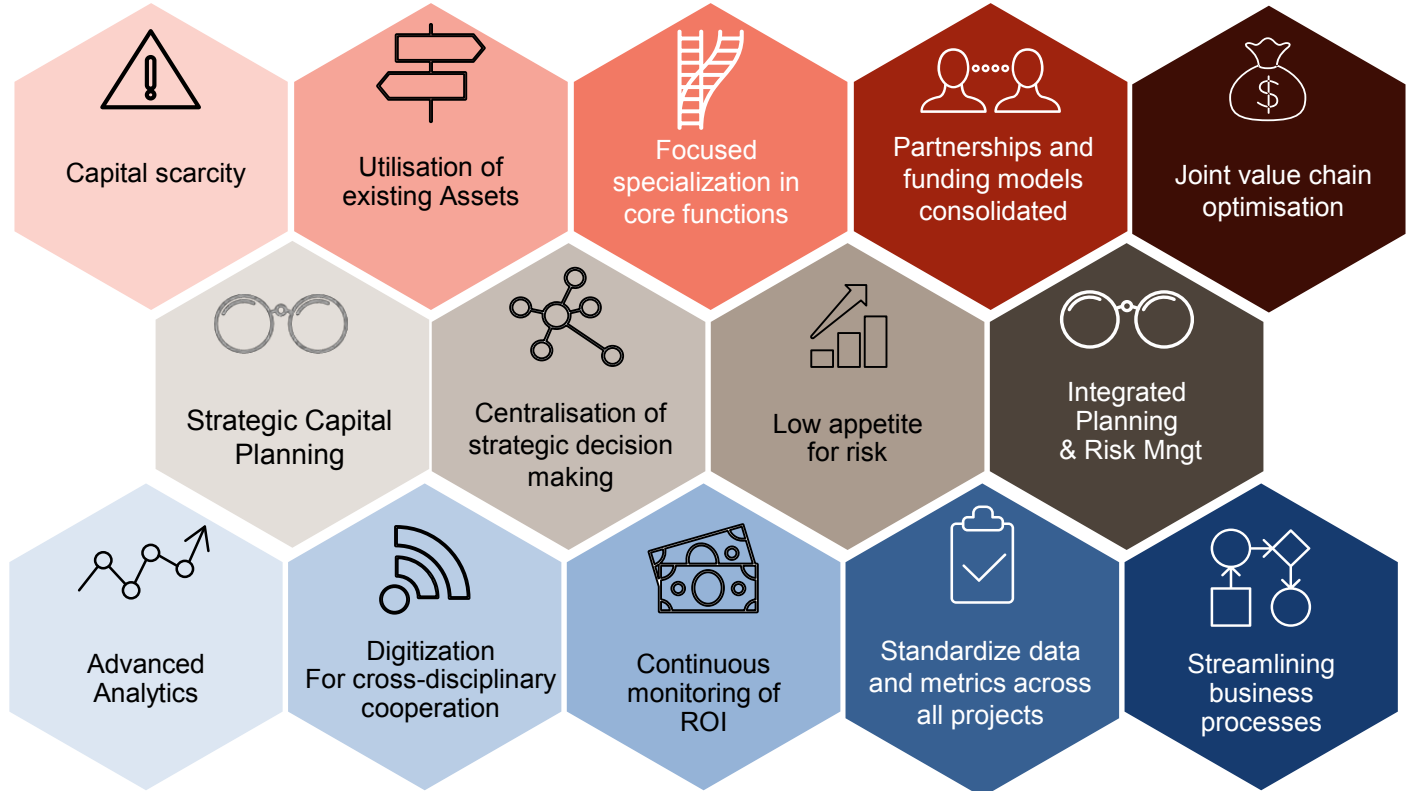
Major Drivers

*Economical,
political, social,
sustainability,
technology*

*Greater
Governance
Integration
VUCA*

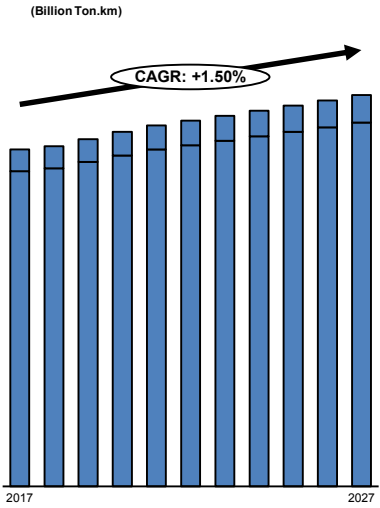
*Industry 4.0
Efficiency
Complexity*

Resulting Themes



The South African Logistics Landscape

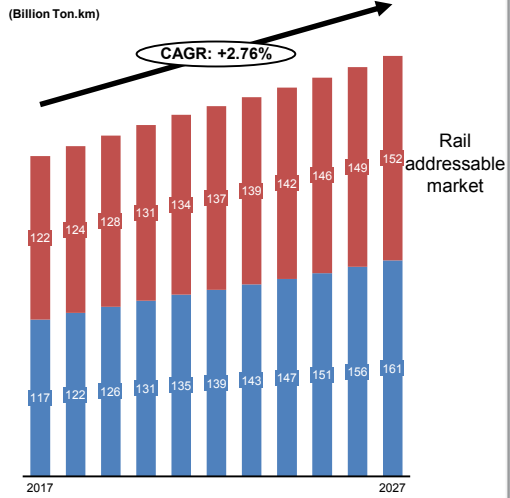
Mining Growth Projections



Source: www.sun.ac.za/logisticsbarometer

Declining growing mining sector

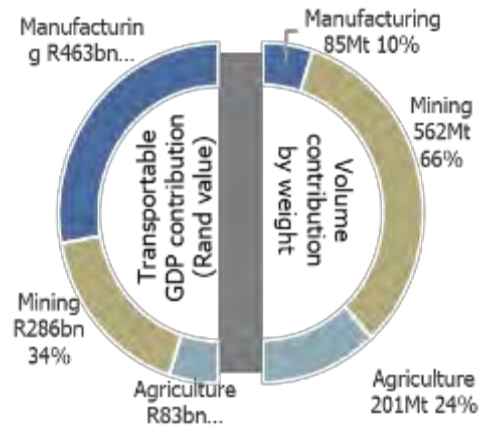
Consumer and Manufactured Goods Growth Projections



Source: www.sun.ac.za/logisticsbarometer

Faster paced growth in manufactured goods and agriculture sectors

Volume vs. Potential Revenue



Source: www.sun.ac.za/logisticsbarometer

Despite weight based volumes being almost 50% lower, manufactured goods and agriculture sectors contribute 1.9 times more to the total GDP than the mining sector

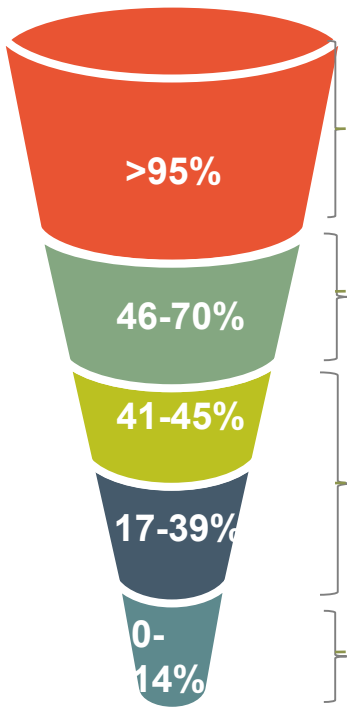
Influence over the Logistics Value Chain

Rail Market Share

FREIGHT TYPE

- Export Coal
- Export Iron Ore
- Export Manganese
- Magnetite
- Ferrochrome
- Chrome
- Iron Ore
- Domestic/Power Coal
- Cement
- Motor Vehicles
- Iron & Steel
- Chemicals
- Pulp
- Containers
- Maize
- Petrol
- Fertilizer
- Other Man
- Diesel
- Limestone
- FMCG Foods
- Other Agri

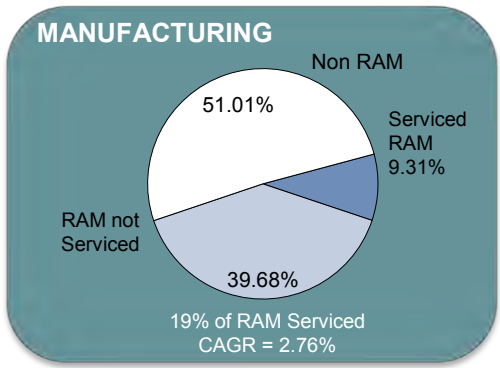
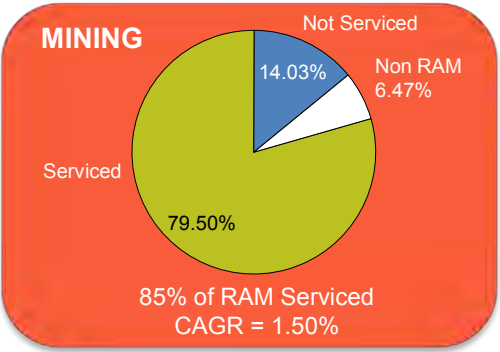
RAM SHARE



PRODUCT FOCUS

- 1 Bulk Export
- 2 Break Bulk
- 3 Specialised Freight
- 4 General Freight

Potential



Fit-for-purpose Emerging Supply Chain Models

Flow types

Cavitation

Project

Surge

Semi-wave

Base



Types of supply chains

- ❖ **'Fully flexible'**
Unplanned and unplannable demand due to unknown customers with exceptional, sometimes emergency requests.
- ❖ **'Campaign'**
Irregular, but planned, sometimes months ahead. The task is to ensure all components are accumulated and delivered together to site at a predetermined date/time.
- ❖ **'Agile'**
Usually planned, at least until the last possible moment. May result from promotions; new product launches; fashion marketing; unplanned stock-outs; or unforeseen opportunities.
- ❖ **'Lean'**
Regular pattern of demand, quite predictable and forecastable, although may be seasonal. Tend to be mature low-risk product/services.
- ❖ **'Collaborative'**
Very predictable demand from known customers; easily managed through tight collaboration with these collaborative customers.

Customer segments

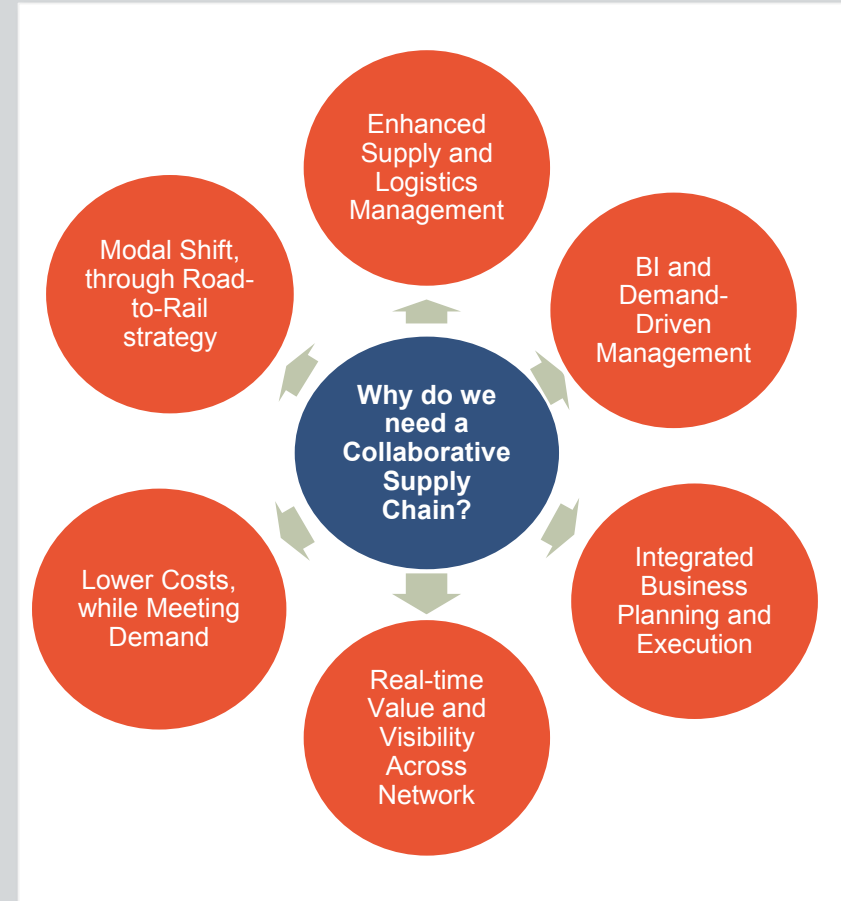


Source: John Gattorna, gattornaalignment.com

The need for Collaborative Supply Chains

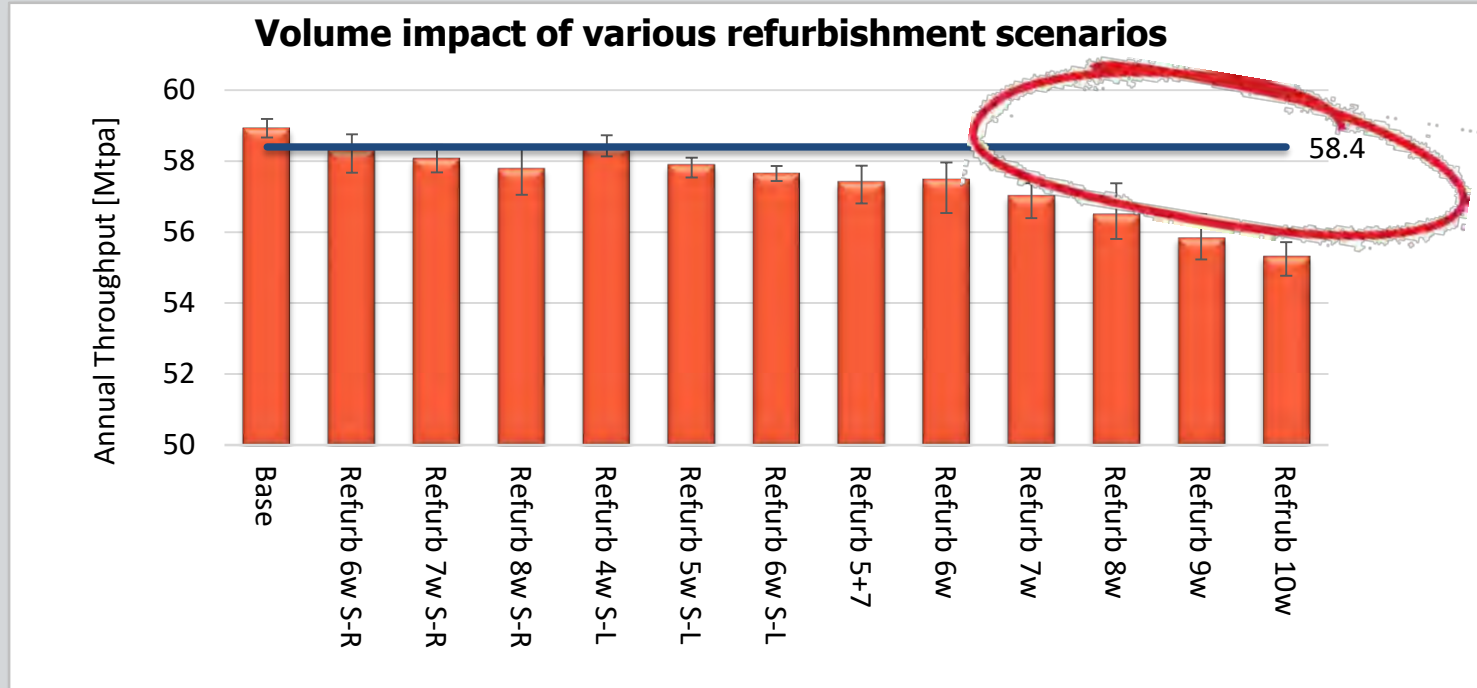
A collaborative supply chain is when all parties, including third party providers work as one to lower costs, meet demand and continuously improve delivery times and service.

Is a collaboration between two or more autonomous firms working jointly to plan and execute supply chain operations to satisfy demand in the most cost-effective way



Collaborative Supply Chains: The Iron Ore Export Channel Case Study

Mitigating the Volume Impact of the Saldanha BTS Mid-life Refurbishment



- Use of data analytics and 'digital twin' simulations to test scenarios
- Optimisation of scope and duration of refurbishment
- Transnet/ Industry Steerco to jointly explore alternatives to mitigate volume losses

Collaborative Supply Chains: The Iron Ore Export Channel Case Study

Modularised Bridge Repair: Protecting the industry

Rail over road bridge accident
Wednesday 28 Nov. 2018

Temporary bridge opened
Friday 7 Dec. 2018

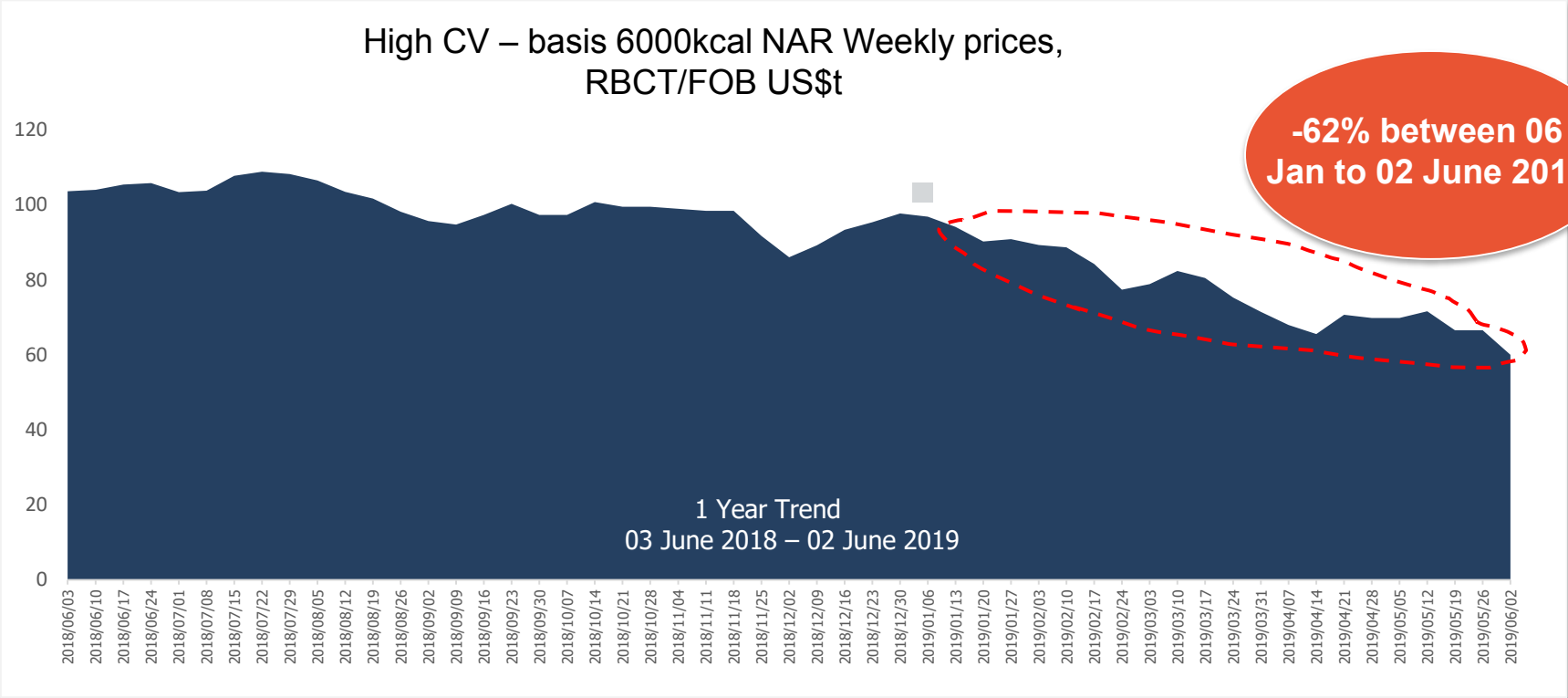


- The bridge took 9 days to repair (vs a project plan of 11 days)
- The 2 day schedule gain has resulted in a Transnet revenue opportunity of R56m, and a benefit to the South African economy of R474m

4,5km Iron Ore Train...using technology to create industry competitiveness

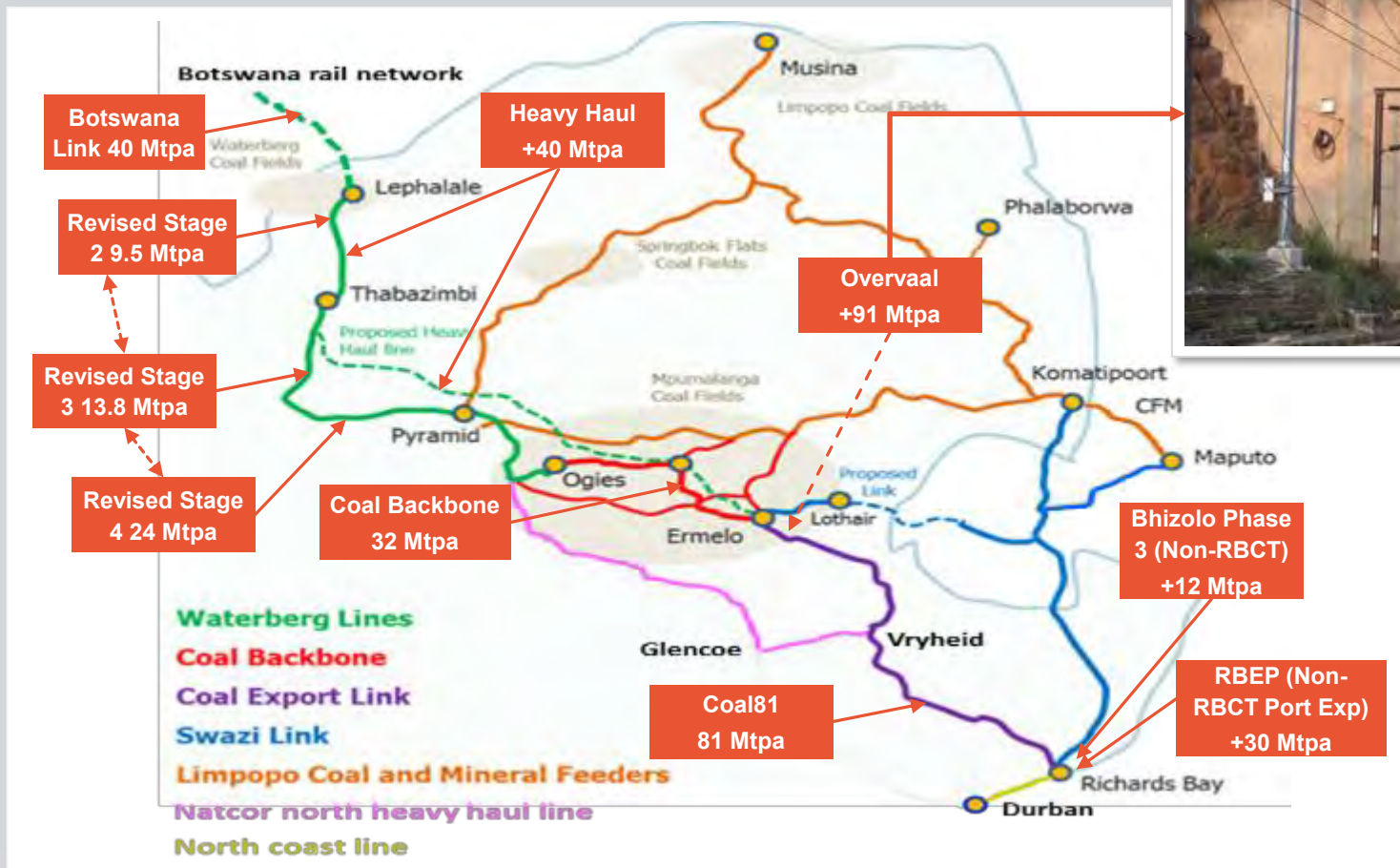


Volatility of the Coal price...not an Investor's Dream



* CV = Calorific Value, * NAR = Net As Received, * kcal= Kilocalories; * FOB = Free on Board; * RBCT = Richards Bay Coal Terminal

Coal capacity creation...Economic stewardship required



Enabling competitiveness of SA as a Manufacturing Hub

Automotive example – vehicles manufactured in SA









TOYOTA



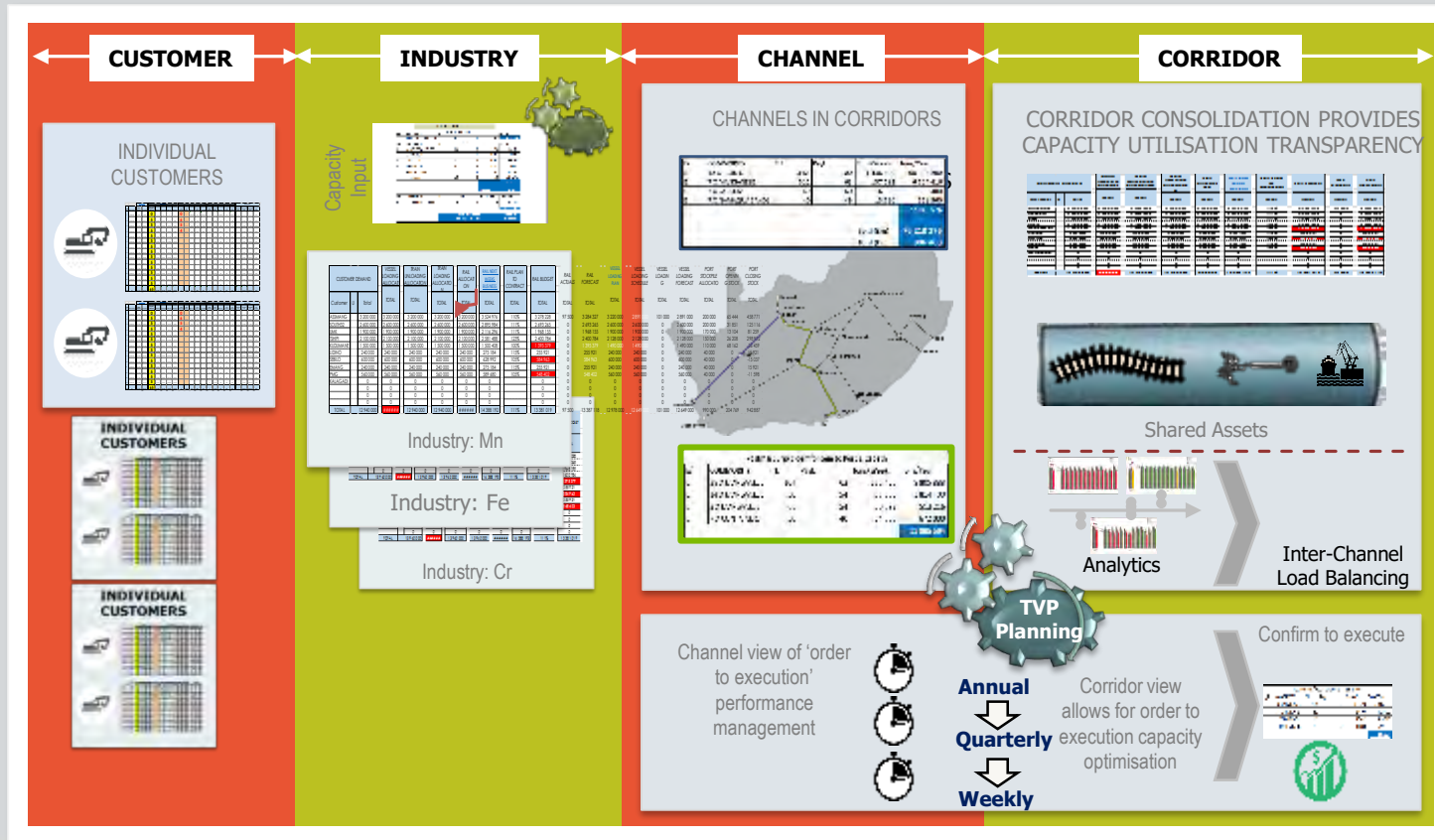
Institutionalising Collaboration: Transnet Value Chain Coordination (TVCC)

- Moving Transnet from silo operations to integrated value chain operations
- Focus: Align and optimise value chain capacity and improve operational efficiencies

					
Capacity created and aligned	Operational efficiencies improved	Costs optimised	TVCC standardisation achieved	Interface processes optimised	Capability built (training and enablement)
<ul style="list-style-type: none"> • Berth capacity aligned to demand • Storage capacity aligned to demand (at loading) • General Freight business loading siding capacity verified • Loading and off loading capacity aligned to demand 	<ul style="list-style-type: none"> • Streams cycle times improved • Berth efficiencies improved • Turnaround time reduced • Dwell time reduced • Planning efficiencies improved 	<ul style="list-style-type: none"> • Resources optimised • Planning optimisation scenario model developed • Wagon fleet for commodities standardised • Profitability optimised 	<ul style="list-style-type: none"> • TVCC key performance indicators standardised • TVCC governance operationalised 	<ul style="list-style-type: none"> • Integrated planning improved • Integrated operational processes and interfaces implemented • Integrated operating systems and dashboards implemented 	<ul style="list-style-type: none"> • Value chain operations training delivered • TVCC change management entrenched • Performance management scorecards aligned • Lean Six Sigma training deployed

Institutionalising Collaboration: Tactical Volume Planning

Creates value is created through dynamic visibility of capacity in industry channels and between channels in shared corridors
 Improves customer order quality aligned to execution capability



‘When you have skin in the game you behave differently...’

THANK YOU



think

supply chain

think SAPIGS