Cape Chamber
OF COMMERCE AND INDUSTRY

Establishment of a WC logistics cluster

A proposal to the stakeholders in the Western Cape Logistics value chain, which has the potential to unlock much greater economic growth and jobs.

Proceeds from a workshop held at Century City on 12 October 2023

Document version: 16 November 2023

Contents

Executive summary

Introduction and Background

Addressing common constraints experienced by a variety of stakeholders in an industry sector, could be addressed more effectively when otherwise competing entities cooperate to resolve such issues.

The crisis in the freight logistics environment in the Western Cape over the past few years led stakeholders from across the value chain, to collaborate more intensely in search of solutions. This resulted in a series of discussions and workshops, facilitated by the Cape Chamber of Commerce and Industry, to find sustainable solutions in the interest of the economy and the many thousands of jobs affected by the crisis.

A workshop among key stakeholders in the logistics chain in the Western Cape, who gathered in Cape Town on 12 October 2023, resolved to cooperate under the banner of a Western Cape Logistics Cluster. This report describes the process and content shared during the workshop to consolidate the background and provide context for reflection in future.

The Executive Summary allows the reader to focus on the urgent actions necessary to address immediate and acute problems that threaten jobs, businesses in several sectors and South African's ability to compete effectively in the global market. Statistics and data are used in the report to contextualise the scope of specific actions.

Key Challenges

The crisis in logistics is acknowledged and resulted in the formation of the National Logistics Crisis Committee. The impact of these constraints, with container handling at the Port of Cape Town alone, has a substantial impact on the Western Cape Economy, as shown in the box.

It is estimated that container terminals contributed towards R72.5 bn of the GVA in Western Cape in 2021 (8.6%) and to the creation/sustaining of 225,000 jobs. Taxes paid from these activities was almost R20 billion.

Difference between high and low growth scenarios for 2026 (at current prices) is as follows:

Indicator	High Growth	Low Growth	Difference
GVA R'bn	74.7	69.1	5.6
Jobs	240,000	220,500	19,500
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Taxes Paid R'bn	21.8	20.2	1.6

WCG interventions are aimed at facilitating the high-growth outcome in collaboration with all agencies in the port logistics chain.

While the benefits to improve efficiencies of the logistics cluster is substantial, the cost required to achieve these are a fraction of the tax revenue gained, alone.

Success factors

The following nine critical factors were identified in the second workshop to ensure success of a logistics cluster.

1. Participating firms and organisations needed to experience performance improvements in their areas of operation
2. Cluster level competitiveness requires common goals and shared wins
3. Institutional capability to build skills, be transparent and learn through monitoring and evaluation

4. Physical infrastructure is used optimally and systematically improved, and supported with appropriate digital infrastructure
5. Government and governance policies must be updated to serve the logistics chain, while protecting all stakeholders and the environment in a balanced manner
6. Cluster needs to be legitimised through broad buy-in from key stakeholders and by focussing on actions, not frameworks
7. A Participation Framework must make it clear who participates in which capacities
8. Intelligence is required to improve logistics/transport performance
9. Linkages should be forged to other national/regional initiatives

Priority interventions

Commitment received from stakeholders at the workshop new requires the coordination of the following actions.

1. Create an enabling structure for the logistics network to flourish
2. Create an index for measuring excellence
3. Adopt an Accountability index – including a culture charter
4. Establish a JOC (Joint Operations Centre) to improve efficiencies in the Port ecosystem to prioritise and action the following:
    a. Treat the 2023/24 Deciduous Fruit Export Season as an Event to manage proactively, especially weeks 1 – 9 of 2024
    b. Achieve 24/7 operations when required to unlock vast under-utilised Port capacity
    c. Addressing import and export constraints individually, and gaining an operational understanding of where and when these two sub-systems compete for space and resources
    d. Prioritise and then action the recommendation of Province's Transport Congestion Study
    e. Develop an SOP to resume Port operations as soon as wind speed drops below threshold
5. Engage shipping lines to ensure sea-side capacity exceed land-side capacity and demand
6. Facilitate increased container rail services by TFR to alleviate the impact of truck traffic within the Port and surrounding road network

Maturation of the Logistics Cluster

While the priority interventions aim to address acute constraints, these are focused on operational efficiencies within the constraints of prevailing infrastructure and equipment realities. The Logistics Cluster needs to systematically move towards achieving the medium to longer goals and vision by achieving all the success factors listed above. These include:

1. Create, monitor, and communicate transparent apex KPIs across the entire value chain
2. Attract capital investment
3. Expand the responsibility grid
4. Create a culture of excellence where people are acknowledged as the essence of a successful cluster
5. Create a customer stakeholder survey
6. Continuous improvement

Commencement

It is recommended that the Provincial Minister for Mobility formally engages key stakeholders to establish a high-level Terms of Reference to enable the Western Cape Logistics Cluster to commence operations. Initial stakeholders should include

- Provincial Department of Mobility
- Provincial Department of Economic Development and Tourism
- Transnet's National Ports Authority
- Cape Town Container Terminal
- SAAFF
- City of Cape Town
- Fresh Produce Exporter's Forum SA
- Truck industry bodies
- Shipping lines

The Minister would provide the budget required to establish a team of experienced professionals that would run the day-to-day activities of the Cluster for a period of at least 12 months. Thereafter the relevant stakeholders would have established a sustainable model to support the Cluster operations team. Apart from driving key KPI's over this period, the team would establish the structure and capabilities for the Cluster to operate over the following three to five years. It is foreseen that stakeholders would eventually nominate or second staff to participate in operations on a permanent, regular (non-fulltime) or ad hoc basis.

Timescale and budget

The Cluster Operations Team should be able to facilitate the movement of fruit containers for export from 1 December 2023, in order to streamline protocols for when the peak demand occurs in January 2024. The team should therefor be capacitated and a venue for the JOC should be committed and prepared during November 2023.

Introduction

South Africa's Freight Logistics environment is in crisis. This creates a substantial barrier to desperately needed economic growth and the jobs this could create. A National Logistics Cluster Committee (NLCC) was established in the Presidency to address matters in an urgent and coordinated manner.

The Western Cape experiences this crisis in many ways, but particularly also in how it limits fruit exports, which is a major contributor to the province's economy. Several stakeholders have worked at finding solutions to various problems in the logistics chain over the past years, often led by the Provincial Department of Economic Development and Tourism (DEDAT). The Cape Chamber of Commerce and Industry (CCCI) have taken played its role by coordinating efforts amongst its members to participate in finding lasting solutions through strategic interventions.

Several discussions during 2023 resulted in two workshops being held with industry stakeholders to establish a Western Cape Logistics Cluster. This report contains a summary of the proceeds from the workshop and provides recommendations to implement the Cluster in the shortest possible time. It identifies immediate next steps, the capabilities required to execute these and the process of moving from crisis management to a sustainable and structured system to optimise freight logistics in the interest of the South African economy.

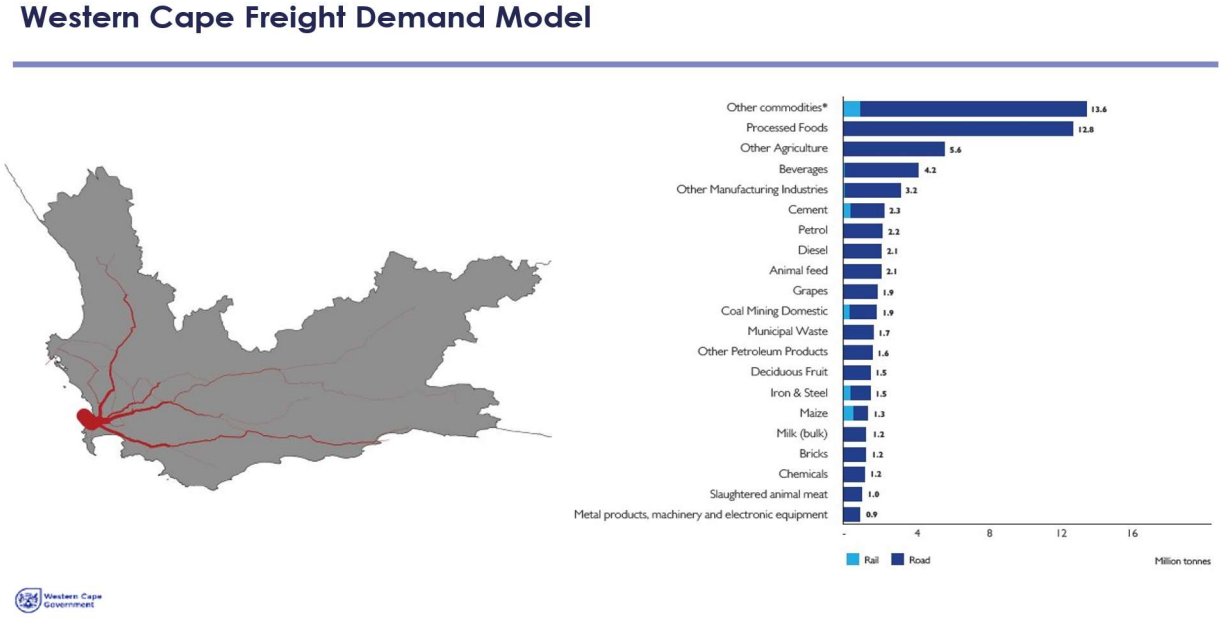
The mandate to proceed in this manner was obtained in the second workshop, held on 12 October 2023, at Century City, Cape Town. The attendees and record of commitment from all stakeholders is available. Given the urgency to intervene in the logistics chain, it was agreed that a bottom-up approach is required in parallel with a principles driven, top-down process. This allows stakeholders to address specific bottlenecks immediately, while and systematically building a robust management and control processes as the cluster matures.

This report serves to describe the content from the workshop which illustrates the context of the freight logistics crisis through available data and the prevailing initiatives to address these. It then proposes additional interventions to fill the gap left with current initiatives.

Need and situation context

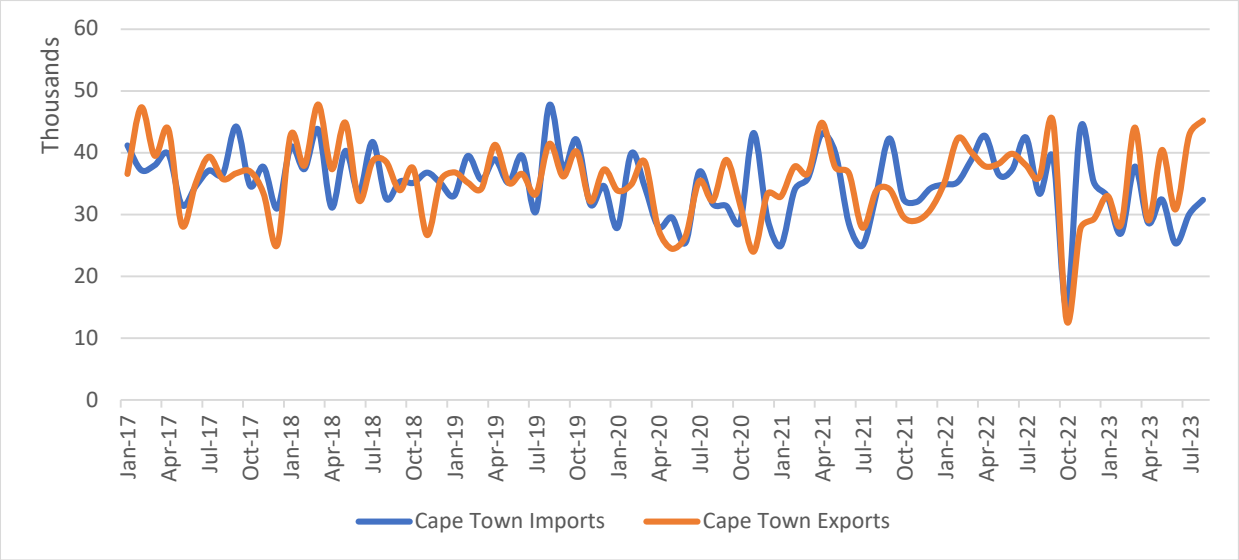
South Africa's land transport is significantly high – at some 500 billion tonne-kilometres – and logistics is the driver of trade and a prerequisite to socio-economic growth and development. The creation of a logistics cluster – almost akin to the creation of the National Logistics Crisis Committee (NLCC) – is complimented. The industry at large, therefore, welcomes the work of the WC logistics cluster.

The reduced throughput, efficiency, productivity, and accompanying failings of our logistics network in the last decade have been well-documented and need not grab any more attention. Therefore, positive change is required in and around several business units of Transnet. There is still significant room for improvement, which can aid in understanding the extended logistics network – a matter that is often confusing. Nevertheless, as mentioned often, logistics occurs on a shared infrastructure, requiring shared responsibility and maintenance by all role players. Indeed, satisfying South Africa's freight demand requires a multi-modal approach, with government, labour, and business working in unison.



The above graphic shows that food and other agricultural products are the main exports from the Port of Cape Town. The cyclical nature of container imports and exports to and from the CTCT is illustrated below.

Figure 1 – Cape Town Container Terminal (TEUs, Jan 2018 – Aug 2023)



Source: [Calculated from TNPA]

The WC Logistics impact on the economy (Glen Steyn, DEDAT)

Western Cape Department of Economic Development and Tourism has worked over the past 2,5 years to reduce logistical inefficiencies through the Cape Town Port, as an impediment to economic growth. The main bottleneck identified at the container terminal is the RTGs (Rubber Tyred Gantries and Haulers). Capacity is falling short of the demand for exports, not only reducing economic growth for the private sector, employees but also tax revenues.

The text box highlights the contribution the Container Terminals in the Port of Cape Town could have on the Western Cape Economy. It shows the substantial gains possible if the current Low Growth trajectory can be improved to a realistic High Growth path.

It is estimated that container terminals contributed towards R72.5 bn of the GVA in Western Cape in 2021 (8.6%) and to the creation/sustaining of 225,000 jobs. Taxes paid from these activities was almost R20 billion.

Difference between high and low growth scenarios for 2026 (at current prices) is as follows:

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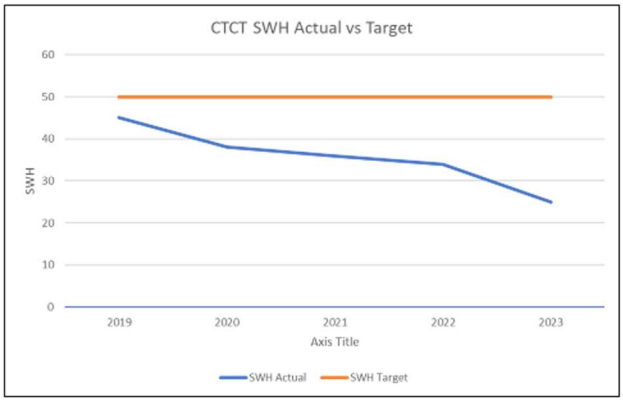
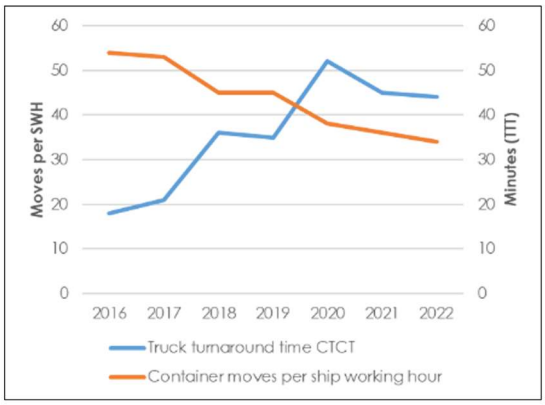
Container Terminal





Since 2017 SWH (Container moves per **s**hip **w**orking **h**our) efficiency deteriorated due to poor planning, under investment and maintenance. The performance of the economy has been compromised.

DEDAT has contributed to research, stakeholder dialogues, plarforms and plans for improvement. The need to expand these efforst are sumarised as follows:

- **Valid need:** WC Logistics Crisis: Cargo keeps growing but cargo handling capacity is falling.
- **Current bottleneck:** Critical Logistics Constraint is Rubber Tyred Gantries and Haulers
- **Need for collective efficacy:** Learnings – Cluster Approach
- **Need for an over-arching Steering structure:** WC Logistics Crisis Committee
- **Need capacity to improve efficacy of collective:** Professional Logistics Development Secretariat with Strategic and Operations Co-ordination Capacity

Fruit Exporter Current Situation (Werner van Rooyen, Fresh Produce Exporters Forum)

The Fresh Produce Exporters forum's Werner van Rooyen provided an update on the expected demand for fresh produce exports this 2023/4 season.

The previous season/s have been damaging to the industry. The damage to fresh produce transported has increased dramatically. This has affected the trust from buyers, our reputation as a region, in our ability to deliver quality, reliably.

Prospects are good for bumper crops in 2023/4, unless unexpected weather intervenes. Logistics pose the largest risk factor for the sustainability of agricultural export. For instance, the inability to deliver quality products in the correct locations and on time result in a loss of credibility, which harms long-term attractiveness in the market. The industry are looking at a number of risk mitigation options. These include moving exports away from the port of CT.

Quality

Year	No Claims	With Claims
2015	83%	17%
2016	81%	19%
2017	86%	14%
2018	87%	13%
2019	82%	18%
2020	85%	15%
2021	79%	21%
2022	63%	37%

Commercial Environment:

- Increase berthing at FPT.
- Divergent Strategy: Maputo, Walvis Bay, PE, Durban.
- SRV Loading
- Utilization of inland facilities
- Increased cold storage capacity
- Exploring - Cargo Consolidation

Peak demand for exports during weeks 1 -9, January and February 2024. Comparing 2023 actual and 2024 forecast - 16 extra vessels, for 3251 containers needed.

Operational Matters- Challenges

TERMINAL:

- Wind Delays Integrated with Operational Planning
- Equipment Breakdown Risk: What is the plan? How will we reduce delays? How will it impact appointments?
- Equipment & Engine Replacement programme – Behind Schedule
- Delays at port creates ripple effect downstream. (Hauliers)

INDUSTRY

- Depots: No line of sight
- Cold Storage Facilities: Pre-staging cargo without on-time arrivals; booking system available at some facilities but not all; Return trip for hauliers impacted by port delays.
- Availability of Gensets
- Monitoring of Cold Chain for SRV loading
- Loadshedding – impact on Irrigation and packing

Overview of Port of Cape Town strategy, functions and layout (TNPA: Rajesh Dana)

The TNPA strategic intent for the Port of Cape Town:

Port strategy enablement of growth in key commodities and will position the PoCT as;

a Global Premium Fruit and Agriculture Export Hub.

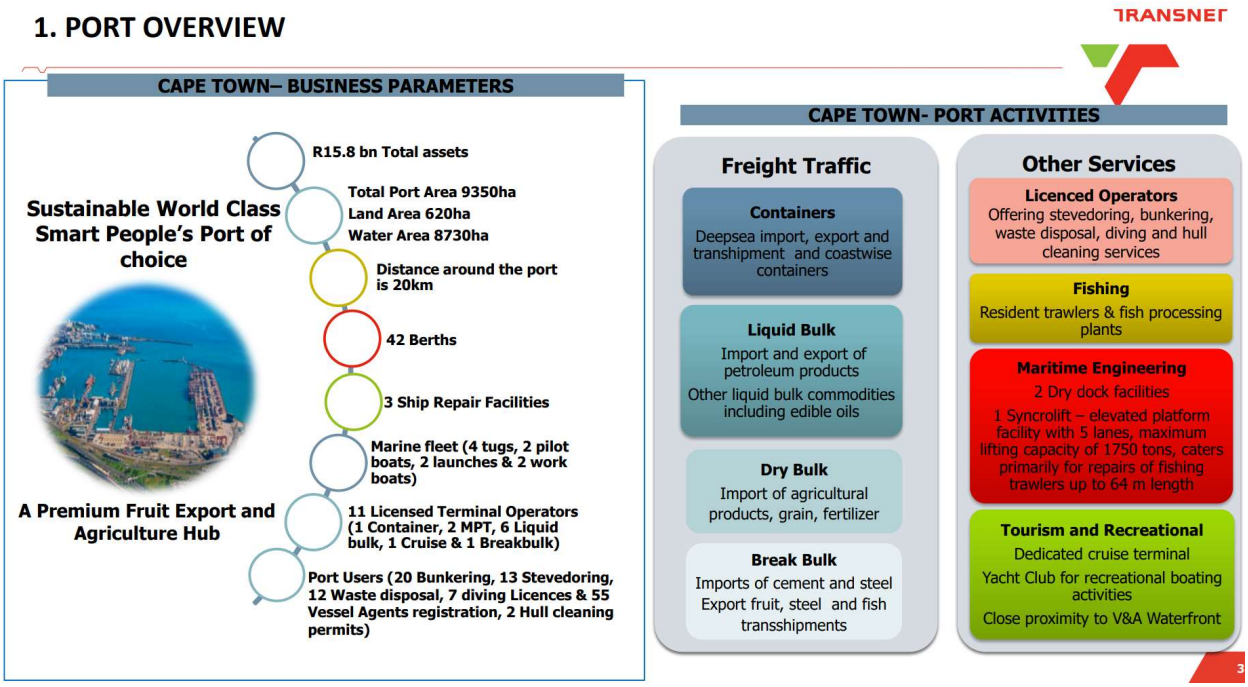
a diversified Energy hub for the Western Cape complementing the Port of Saldanha.

a Container Terminal for the Western Cape.
a multi commodity mix (MPT) port specializing in handling of dry bulk and break bulk.

a leading boat building and Ship Repair hub for Sub Saharan Africa.

a "SMART People's Port" focusing on cruise, real estate development, recreational and tourism

The port provides services to multiple industries.



The layout image illustrates that various terminals serve the various industries. Whilst there are four berths at the container terminal, only three modern, longer ships can be accommodated.

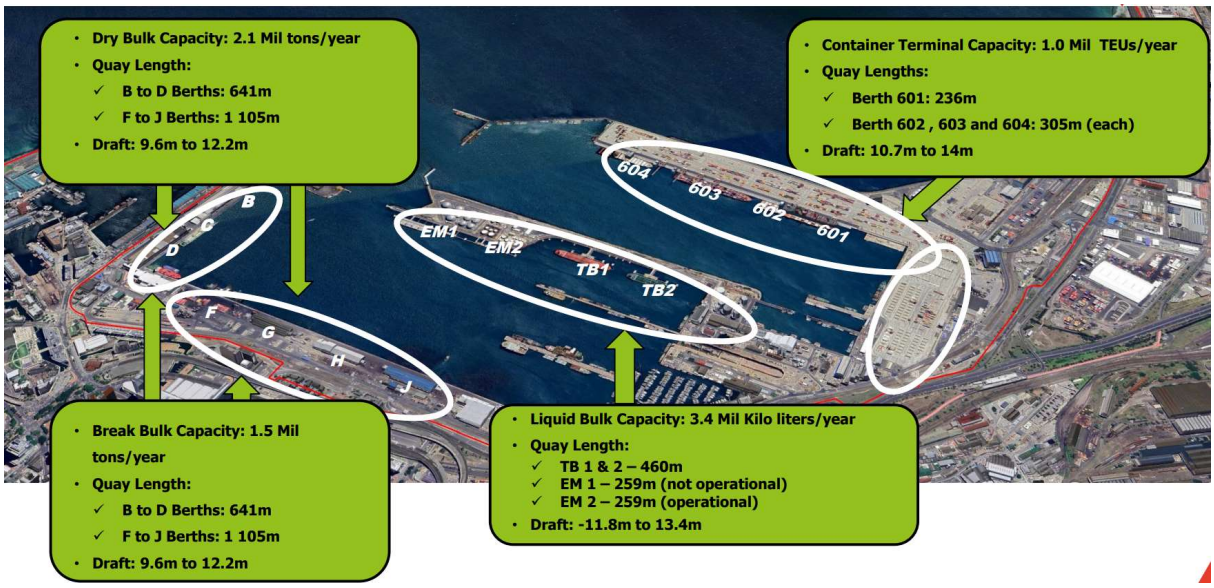


Figure 2: Pot of Cape Town Layout and Terminal Capacity

Update on the Port of Cape Town current plans (Rajesh Dana, TNPA)

The Port of Cape Town is implementing an 8-point plan, according to a substantial programme to improve efficiency, as shown in the slide below.

3. PORT OF CAPE TOWN 8-POINT PLAN

Focus Areas	Initiatives / Strategic Projects	Status
1 Optimize the Port as a Delivery Platform	1. Continued use of A Berth for Cargo Operations.	In-Progress
	2. Development of Back of Port facilities (PIP Site & Culemborg) to address port congestion.	In-progress
2 Combat Adverse Weather Conditions	1. Long Wave – Shore Tension (1 x set active). Secured 16 additional units for the port.	Complete/Ongoing
	2. High Swell – Helicopter for Pilot Deployment in 2023/24.	In-progress
	3. Wind – Investigate predictive model, potential infrastructure engineering solution/s, equipment which are more resilient to wind, and optimal recovery plan.	In-progress
	4. Fog – Investigate impact on Marine & Cargo Operations and explore possible mitigation.	In-progress

3. PORT OF CAPE TOWN 8-POINT PLAN

Focus Areas	Initiatives / Strategic Projects	Status
3 **Improve Truck Operations**	1. Interim Truck Staging Facility operational from June 2022.	Ongoing/Completed
	2. Reduce truck terminal inflow during peaks ahead of stack closure, through introduction of additional Interim Truck Staging Areas.	In-progress
	3. Increase Port utilisation on 24/7 basis ("night runs").	Ongoing/Completed
	4. Support the enhancement of the Truck Booking System (TPT - NAVIS) and integration thereof with TNPA perimeter access control.	Ongoing/Completed
	5. Implement Resolution from Truck industry workshop held in August 2023	In-Progress
	6. Smart Traffic Management through enhanced Infrastructure, Systems and Operations.	Ongoing/Completed
4 **Optimise Marine Services**	1. Implement a 3x Tugs and 3x Berthing Gang operation.	Ongoing/Completed
	2. Monitor Marine Operations Performance Standards (MOPS) to minimise vessel service delays.	Ongoing/Completed
	3. Marine Fleet Upgrade (2 x Workboats by Dec 2025 & 2 x Launches by Mar 2024).	In-progress

3. PORT OF CAPE TOWN 8-POINT PLAN

Focus Areas	Initiatives / Strategic Projects	Status
5 **Improve Information Sharing & Port Operations Visibility**	1. Weekly Stakeholder Engagement Meeting.	Ongoing
	2. Quarterly Stakeholder Workshop.	Ongoing
	3. SMS / Email Notifications regarding weather, berth planning & shipping.	Ongoing
	4. TNPA Dashboard Reports per shift.	Ongoing
	5. National "Daily OPS Meeting" with customers.	Ongoing
6 **Terminal Equipment & Port Infrastructure**	1. Create additional container capacity (CTCT Phase 2b – increase capacity from 1m to 1.4m TEUs): a) Increase Container Stack Capacity (TPT). b) Increase capacity of rail marshalling yard (from 40 to 50 wagon trains). c) Create a permanent Truck Staging Facility.	In-progress

3. PORT OF CAPE TOWN 8-POINT PLAN

Focus Areas	Initiatives / Strategic Projects	Status
6 **Terminal Equipment & Port Infrastructure**	2. Monitor the implementation of the Terminal Operators capital investment, maintenance, and refurbishment plans (Transnet Port Terminals (TPT) and Fruit Produce Terminal (FPT), and other terminals).	Ongoing
	3. F-Berth Refurbishment.	Completed
	4. J-berth Refurbishment	In-Progress
7 **People**	1. Develop a pipeline line for critical skills (Marine & Engineering services).	Ongoing
	2. Fill critical vacancies in port operations.	Ongoing
	3. Implement TNPA Incentive Scheme.	Completed
	4. Drive a culture of service excellence & customer centricity.	Ongoing

3. PORT OF CAPE TOWN 8-POINT PLAN

Focus Areas	Initiatives / Strategic Projects	Status
8 **Immediate Crisis Management**	1. Integrated Port Management System (IPMS) for Port control - to plan, book and monitor vessel movements, for usage by vessel agents and shipping lines.	Completed
	2. Detailed monitoring of vessels at anchorage.	Ongoing
	3. Detailed investigation into container vessels bypassing the port.	Ongoing
	4. Host TNPA Integrated Operations Alignment Meeting ahead of each shift.	Ongoing
	5. Monitor TPT Performance Improvement Plan (CTCT).	Ongoing

Update on CT Container Terminal (Andiswa Dwangla, TPT)

This overview of the status of, and plans for improvement of the CT Container terminals was provided by the Transnet Port Terminal (TPT) operator by Andiswa Dwangla.

The 38% capacity utilisation of the port is mainly due to factors such as variation / seasonal demand and 24/7 capacity not well utilised. Fruit exports happen when they are ready for the market and not at other times. The main challenge is dealing with seasonal peaks. More effective information exchange and smarter processes can better enable teams to optimise flows given constraints and chalenges.

A plan for the Container Terminal (CT) and the Mult-Purpose Terminal (MPT), to better deal with the seasonal peak is in place and being implemented.

New Season

CTCT: Peak Season Readiness Plan

TRANSNET

SYSTEMS & PROCESSES	READINESS PLAN	STATUS
No. of gangs	Permanent 7 x gangs for Waterside +1 gang to be deployed for housekeeping and rail	Done
Reefer Lanes	2 x lanes dedicated for reefers, separate entrance	Done
Truck Staging Area	○ Phase 1 @ CT MPT : Capacity to stage 28 trucks ○ Phase 2 @ CTCT : Capacity to stage 37 trucks	Done Done
Night Runs	○ Fully resourced to service trucks at night, currently limited uptake ○ Decongest peak daytime with pre-planned Import night runs (consolidated import blocks and dedicated equipment)	Ongoing
Gates	Three shifts operation including empty gates	Done
Yard Strategy	○ Utilize Belcon to decongest (weekly alignment with TFR), ○ Import evacuation (engagements ongoing), ○ Alignment of stacks and splitting of reefer stack dates in conjunction with a two-load plan system ○ Import block and tier release (proper truck assignment required to drive discipline) ○ Management of late arrivals and cut off times ○ Firming of stacks 24 hours prior stack opening ○ Housekeeping (yard consolidation)	Ongoing
Truck Booking System	○ Adjust stack closing and opening inline with downtime (Wind , Fog and System) ○ Joint operation between TPT and TNPA security controlling	Ongoing
Shore Tensioner Unit	○ Acquisition of 2 x new ShoreTension units ○ Third set : Letter of appointment issued	November 2023 March 2024

COMMUNICATION	READINESS PLAN	STATUS
Regular meetings with shipping lines	○ Implementing pre-plans and washups ○ Weekly dashboard ○ Reefer forecast and recon	Ongoing
Wind Mitigation	○ WhatsApp and stack dates communication to industry	Ongoing
Collaboration with stakeholders	○ Collaboration with fruit industry ○ Site visits across the logistics chain (depots, pack stores, cold stores, etc.)	Ongoing

New Season

CT MPT: Peak Season Readiness Plan

TRANSNET

INCREASED CAPACITY	READINESS PLAN	STATUS
Reefer plug points	○ Added x 220 plug points , powered by a generator, bringing the total available to 340	Done
Equipment	○ Critical spares agreement with OEMs in place ○ 1 x additional Reach stacker would be repaired and commissioned by end October 2023, therefore increasing number of units to x 2	Done In progress
Yard Capacity	○ Increased general stack capacity by 10%	Done
Gate Operations	○ Gates will operate fully on a 24 hour basis	Done
Increased Berth utilization	○ Had introduced a 2 x Berth Operation ○ Berthing windows are in place, with the introduction of weekly container calls	Done

CT port equipment list and resource capacity / complement required to perform (SAAFF)

The following tables include the ideal equipment and human resources complement needed to achieve operational efficiency.

Table 1 – Cape Town Container Terminal

Equipment	CTCT
Vessel berths	3
STS Cranes	9
RTGs	27
Gangs	7
Reach stackers	14
Straddle carriers	14
Empty handlers	8
Berthing gangs	3
Workboats	2
Tugboats	4
Pilot boat	1
Launch	1
Plug points	3 200

Source: SAAFF, consolidated from industry engagements in the daily Transnet port meetings

The Cape Town Container Terminal is heavily impacted by wind at certain times of the year. This knock-on effect causes vessels to arrive late for their slots at other port terminals. Although CT MPT (which is not as seriously impacted by the wind) has some capacity to alleviate some of the piled-up volumes, the terminal is also limited due to equipment availability.

Table 2 – Cape Town MPT and Auto

Equipment	MPT	Auto
Vessel berths	2	3
Gangs	3	3
Mobile Harbour Cranes	2	
Straddle carriers	10	
Reach stackers	3	
Hauliers	14	
Forklifts	2	
Plug points	300	

Source: SAAFF, consolidated from industry engagements in the daily Transnet port meetings

Table 3 – Cape Town TFR

Equipment	TFR
Lines available	3
Max wagons that can be accommodated	50 wagons
Reach stackers	3
Yard tugs/Haulers	2

Source: SAAFF, consolidated from industry engagements in the daily Transnet port meetings

Operations at the Port of Cape Town have been far from ideal in 2023, as average berthing delays exceeded the 13-day mark at its peak. In addition, during this time, as many as ten vessels were stuck at the outer anchor anchorage containing as many as 61 000 TEUs in March. However, these operational

inefficiencies were eventually alleviated during April as backlogs were cleared, enabling ships to berth upon arrival when weather conditions allowed. Severe wind delays have recently hampered operations, as 39 vessels were at berth on 17 October.

One of the main contributors to these operational inefficiencies is the extensive inclement weather conditions experienced at the port, accompanied by unreliable waterside and landside equipment. For example, during one week, the port was windbound for four-and-a-half days, which heavily impacted operations. These disruptions also subsequently led to several vessel omissions at the port.

The TPT plan to improve equipment readiness is sumarised below. Maintenance remains a critical factor – an area where industry may be able to support. Second hand RTGs have been purchased to alleviate pressure whilst new RTGs are being built.

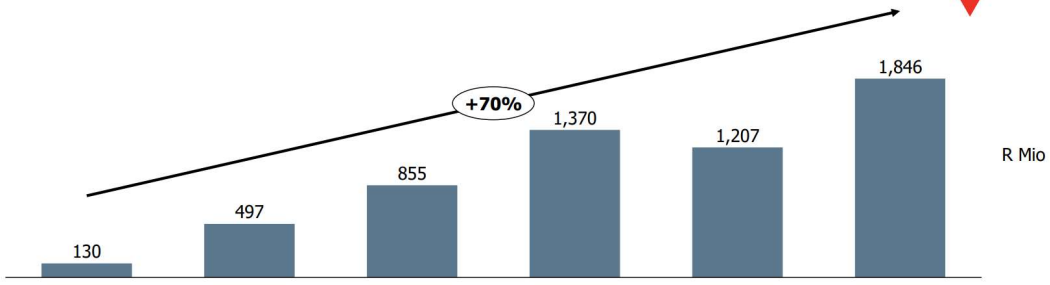
CTCT: Equipment Readiness Plan

Item	Action	Feedback	Status
Increase Technical capacity	• Recruitment of Technical Staff	• TE Resources support (3xMillwrights and 4 x Diesel Mechanics) • Recruitment of Artisans (4x Millwrights, 1x Diesel Mech)	• Done • 01 Nov
Reliable waterside equipment	• 9 x STS Availability	• OEM Technical support (Negotiation stage) • Spares contract in place	• 01 Nov • Done
Reliable landside equipment	• 15 to 23 x RTGs availability • Rebuilding 5 x Standing RTGs • Source second-hand RTGs internationally • Spares availability	• Refurbish 3 engines • Confinement to the OEM approved (DBAC – 05 Oct) • 7 x RTGs available (Preparation for loading) • Long-term spares contract in place	• 15 Dec • 01 Feb • 30 Nov • Done
	• 35 - 49 Haulers availability • Spares availability	• Utilize TE resources to get to 43 Haulers available • Rebuilding standing haulers to 49 • Consolidating required spare (Multiple SOW)	• 30 Oct • 30 Nov • 15 Nov
	• 5 ECH availability • 4 Straddles availability • 3200 Reefer plug points availability • 3 Reefer forklift availability	• Leasing 5 ECHs (Approved BSC 04 Oct) • Spares contract - RFI • 2 x straddles available at DCT (No longer operational) • 72 faulty plugs – Busy with installation • Renew forklift hire contract (Preparation to go to market)	• 01 Dec • 01 Nov • TBA • 30 Oct • 01 Nov

Investment Plan (Key Equipment)

Cape Town Terminals

TRANSNET



2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Acquisition of 7 second hand RTGs	Replace RTG's	STS Refurbishment	STS Refurbishment	Replace RTG's	Replace 6 Liebherr cranes
Acquisition of 47 Trailers – Delivered	Replacement of 47 Haulers	Acquisition of Empty Containers Handlers	Refurbishment of Mobile Cranes	Acquisition of replacement straddle	Acquisition of replacement Mobile
	STS Refurbishment	Acquisition of additional straddle carriers	Replacement of trailers	Acquisition of replacement reach stacker	Acquisition of replacement haulers
	Acquisition of 2x Reach, 2 x ECH and Straddle carriers	Replace RTG's	Acquisition of 4 additional straddle carriers		

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The investment plan articulates what equipment is on order or intends to be ordered. This looks promising for the long term, but the arrival of such equipment is not in time to deal with the short term challenges.

Trucking productivity

Trucking Productivity

TRANSNET

Q1. What can other key role players do to reduce queues, waiting times and delays and other unnecessary costs for truckers?

- Shipping Lines have less control, Current 80% Merchant 20% Carrier Haul (as opposed to the reverse 3yrs ago)'
- Cargo Owners should confirm order to Truckers 24hrs prior to stack opening,
- open depots and pack stores 24/7,
- use 22h00 to 06h00 "off-peak time" to bring exp and collect imp (Terminal Capacity is spread over 24hrs),
- stick to truck bookings protocol,
- don't use truck booking system to block other users from making bookings and not use them,
- use the full three days stack not just the last day (Import collections and Export delivery).

Q2. What can truckers do themselves to improve productivity and return on investment?

- Stick to the rules,
- don't change the trucking company name when working for different customers,
- spread the port arrival across 24hrs instead of during office hrs only (reduce alate arrivals as it impact terminal performance),
- arrive within the booked slots not hrs before / after.

Q3. How can road congestion and damage due to illegal parking near the port be reduced? Most trucks are waiting for docs near or in the port.

- The terminal control starts at Gate In and ends at Gate Out. This is a TNPA control function with Traffic Services

Cargo owners have an underutilised role to play to reduce queues, waiting times and unnecesary cost for truckers. Terminal capacity is spread over 24 hours, with only 11% utilisation during the night shift for both import and export containers. The majority of truck movements occur during the last day of three or four-day stacks, resulting in addttional bunching. By eliminating congestion, there is substantially less harmful emissions generation, less congestion on City roads and less demand for parking lots.

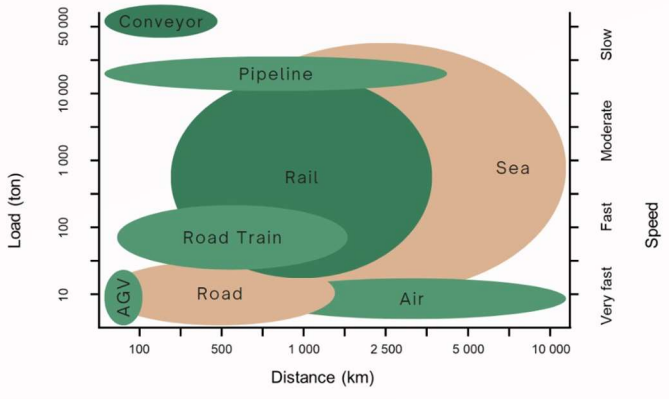
Approach & Methodology

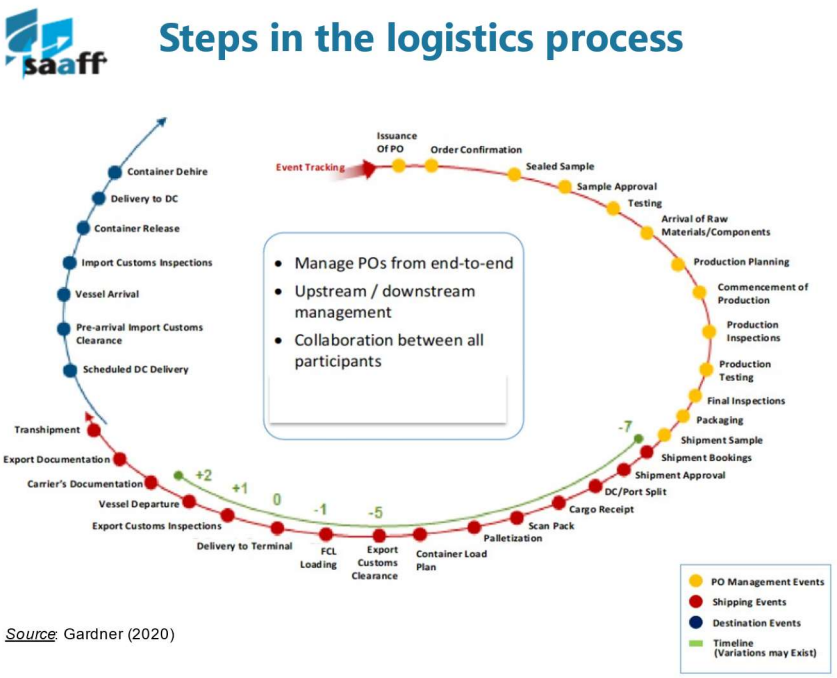
Approach to logistic eco-system efficacy - The ideal Logistics Network

(by Dr Juanita Maree, SAAFF & NLCC)

Different modalities of transport offer greater efficacy depending on load and on distance. Light loads can be transported faster than heavy loads.

The Different Modalities (Load, Distance, Speed)





Source: Gardner (2020)

The complexity of logistics processes:

- 10-40 role players involved in every shipment
- Various levels of activity, including:
  - ❑ Regulatory
  - ❑ Entity
  - ❑ Transactional
  - ❑ Physical movement
- 35 (+) basic steps
- Several touchpoints and physical handovers

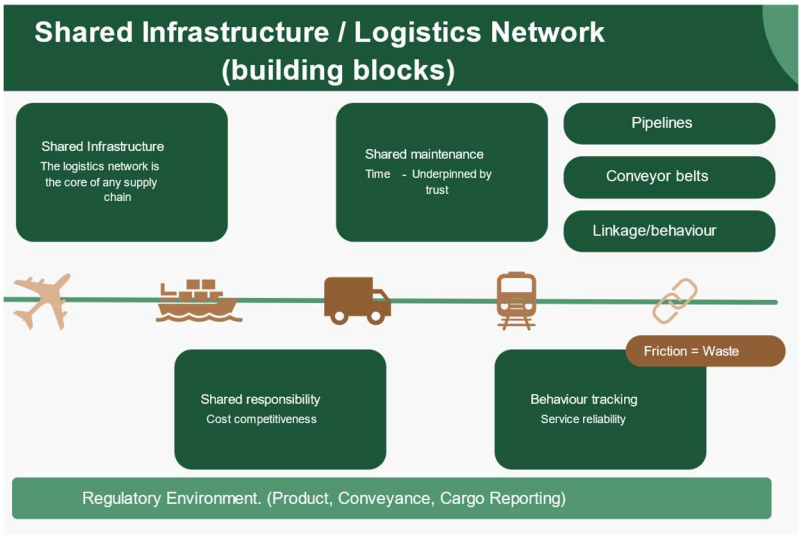
Many data generators but a low level of technological uptake.

>>> The underlying business remains simple: Moving goods from one place to another.

The success lies in the integration of several key factors, including:

1. People, processes, and platforms
2. quantitative and qualitative metrics

Exporters, importers, transport operators, profesional service providers operate in the regional logistical systems utilising shared infrastructure and services. Infrastructure like ports, and systems such as booking systems, where one version of the truth is absolutely essential to work with efficacy. Tax payers money is utilised to provide these costly shared services, that individual firms cannot afford, and/or should not establish a monopoly over.



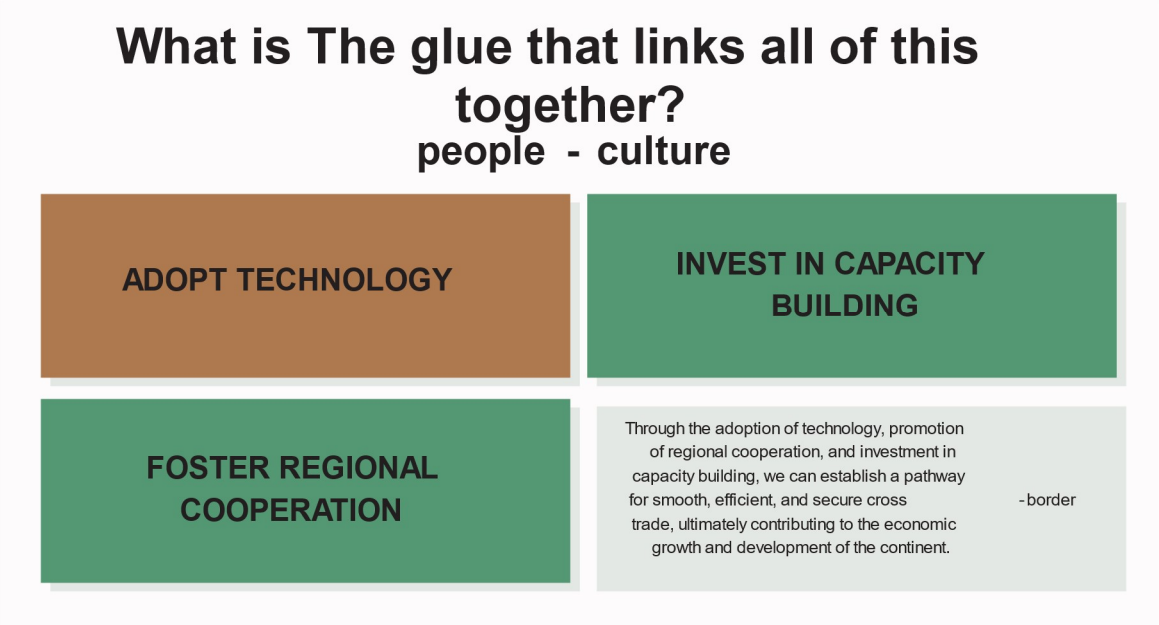
Overall competitiveness is essential for our country/region economy and jobs and tax base to grow. Sub-optimisation is counter productive. Optimisation requires insight to what works and does not work well. Behaviour tracking is therefore essential. Shared responsibility is required by all to cooperate to realise collective excellence.

Cooperation of multiple stakeholders requires stakeholder commitment, leadership, rules, clarity of strategy and roles, insight to what must improve, capacity, investment and effective implementation.

SAAFF (South African Association of Freight Forwarders) led by CEO Dr Juanita Maree, has led the drive towards greater efficacy of transport and logistics. Their overarching role leads towards systemic insight and the ability to function in a coordinting role for various component parts.

Certain comodities create the demand for transport logistics in various geographic locations such as the Western Cape. Ports play a key role, with the as well as transshipment points. Transparency, insight and accountability to optimise efficacy holistically for the region, is critical for overall growth.

Improvement of the efficacy of the WC transport logistics eco-system for optimal growth, requires the requisite capacity to succeed. Higher density of trade activity create economy of scale which offers the opportunity of collective efficiency. A level playing ground is required to allow for healthy rivalry and fair competition. Transparency and good governance are critical to maintain trust.



Through the adoption of technology, promotion of regional cooperation, and investment in capacity building, we can establish a pathway for smooth, efficient, and secure cross-border trade, ultimately contributing to the economic growth and development of the continent.

The concept of getting so many stakeholders to cooperate smarter may seem overwhelming. If done in a manner that is for the collective good, most of the stakeholders should support this.

Reducing Friction and waste in the system

Excess friction in a logistics network can have several detrimental effects, leading to inefficiencies, increased waste, and higher costs in trade operations. Some of the eventualities of excess friction in a logistics network include:

1. **Delays:** Excess friction can result in delays at various points in the supply chain, such as at ports, border crossings, or during transportation. Delays can disrupt the flow of goods, leading to missed deadlines, stockouts, and decreased customer satisfaction.
2. **Increased Costs:** Inefficiencies and delays caused by friction can lead to higher operational costs. These costs may include extra labour expenses, demurrage charges, storage costs, and expedited shipping fees to overcome delays.
3. **Inventory Holding Costs:** When goods are delayed due to friction in the supply chain, businesses may be required to maintain higher inventory levels to meet customer demand. This constraint ties up capital in inventory holding costs, including storage, insurance, and depreciation.
4. **Reduced Productivity:** Friction can reduce human resources and equipment productivity. For example, customs officers and brokers are less productive if customs processes are slow and complicated. Similarly, assets like trucks or containers may idle for extended periods, decreasing utilisation.
5. **Lower Competitiveness:** Businesses operating within regions with high-friction logistics networks may struggle to compete globally. Inefficiencies and higher costs can result in less competitive pricing for their products or services.

6. **Hindered Regional Integration:** Excessive friction within logistics networks can impede regional integration efforts, reducing trade between neighbouring countries or regions. This constraint can hinder economic development and collaboration.
7. **Customer Dissatisfaction:** Delays and inefficiencies caused by friction can lead to dissatisfied customers, potentially causing businesses to lose clients and damage their reputations.
8. **Loss of Opportunities:** Companies operating within high-friction logistics networks may miss out on valuable opportunities for growth and expansion, both within their region and internationally.

Reducing friction in logistics networks through improved infrastructure, streamlined processes, and effective trade facilitation measures is crucial to mitigating these adverse effects and enabling smoother and more cost-effective trade operations.

Businesses can take steps to reduce friction in their supply chain. For example, they can use data to identify inefficiencies and areas for improvement. They can also implement a pavement friction management program to minimise friction-related vehicle crashes. Additionally, they can redesign their reverse logistics network to be more sustainable and efficient. By taking these steps, businesses can reduce waste, decrease trade time and cost, and improve their overall supply chain efficiency.

Control Tower concept: Port equipment deployment and linking the logistics network with trade

Key message: Introduce seamless monitoring of waterside, landside, terminal evacuation of goods and linking the trade flows with the cargo movements.

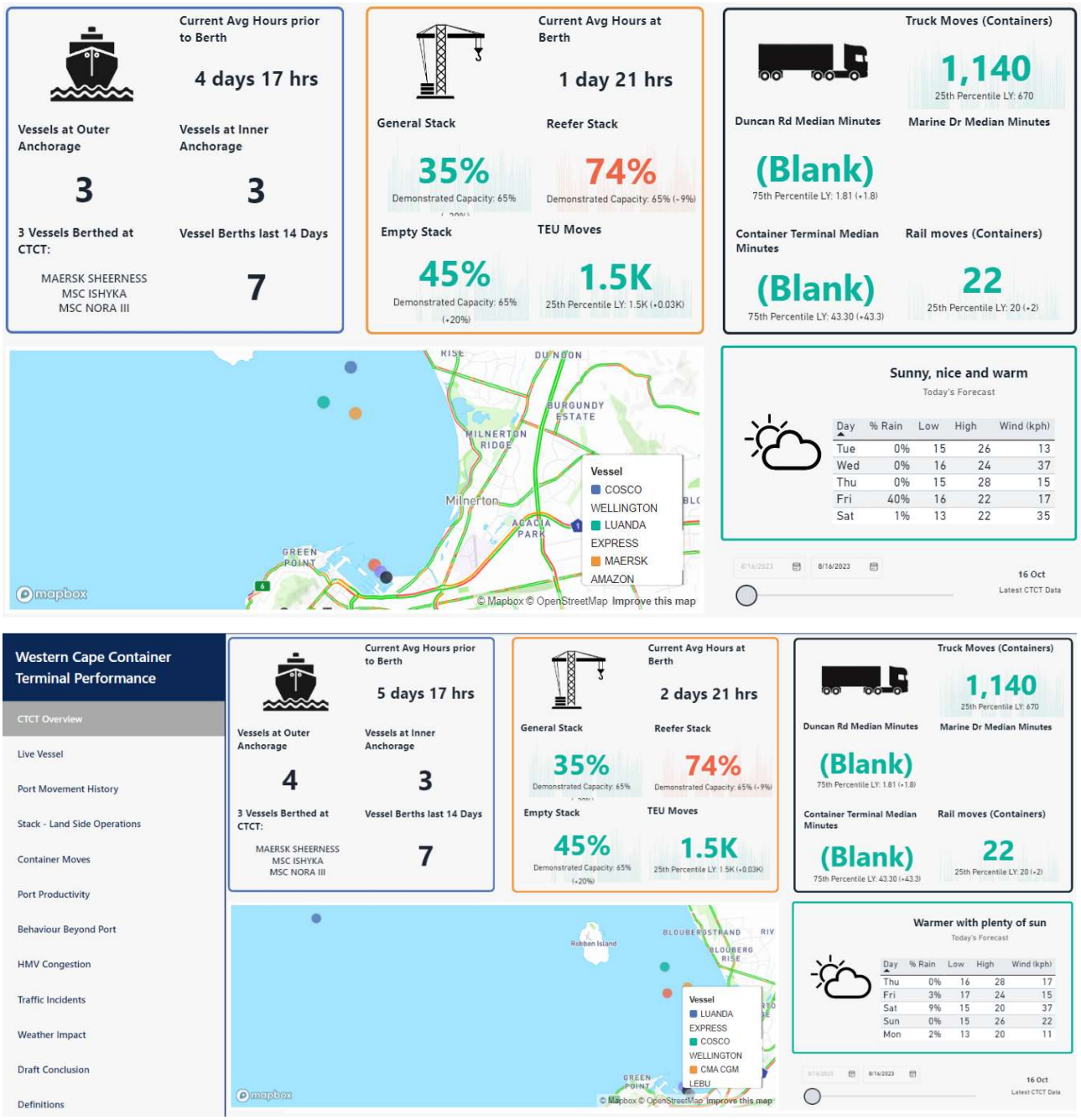
Port users and associated stakeholders have repeatedly noted and raised that the inefficiencies at the ports of Durban, Ngqura, and Cape Town are due to the lack of critical port equipment and supporting resources. The Ngqura container terminal operates on two berths only (against an available three-berth operation) due to a lack of gangs. In addition, the Cape Town Container Terminal is now operating a three-berth operation, as previously, a two-operation was the norm due to the lack of sufficient STS (ship-to-shore) cranes and associated resources. Cape Town has eight STS cranes (a ninth crane was due to become operational near the time of completing this report). However, the cranes are only operated with seven gangs, as two cranes should always be on standby for maintenance or quick replacement.

These constraints put our ports at a disadvantage as vessel ranging is most common during winter, causing excessive operational delays. In addition, at the Port of Durban, Pier 2, fewer control towers have been operational for a long time due to a lack of reliable straddle carriers and labour to support the visibly increased volumes. Furthermore, the terminal operates around 70 straddle carriers daily, against an operational requirement of 104. The Ship-To-Shore (STS) cranes are extremely outdated, so much so that Transnet struggles to procure parts no longer manufactured by the OEMs (Original Equipment Manufacturers).

The lack of a cohesive system results in miscommunication and non-alignment of various activities and procedures, causing severe delays and costs. In addition, capturing, sharing, and analysing big data can drastically improve decision-making and help stakeholders be better prepared regarding seasonal business cycles or unexpected supply chain disruptions. The industry realises the value of sharing accurate data for monitoring progress and effective escalation procedures. Several data providers collaborated with other private sector parties and Transnet to create a control tower. The control tower has been built to establish a palatable performance measurement tool, showcasing challenges faced by both Transnet and port users.

Unfortunately, it has been noted that private and public operators in the South African logistics industry are very reluctant to share data. Also, the data transmitted are granular and not always authentic, consistent, or reliable, causing severe challenges. To establish an integrated supply chain, operators within the logistics network should start realising the benefits of sharing mission-critical information and working on similar systems that enhance the sharing and coordination of data and information. The following example can be used to showcase the flow of goods:

Figure 3 – Western Cape port dashboard



Approach to development

1. To grow the Western Cape economy aggressively requires emphasis on the growth of industries and enterprises that either export and /or reduce imports.

2. The enterprises that export and /or reduce imports, therefore become the main "target group firms" to support. To grow faster, they need to compete better in markets contested by global competitors. Increasing competitiveness in globally contested markets is essential.

3. Logistics is currently the largest risk factor for the sustainability of agricultural export in the Western Cape. It is not merely a constraint to growth, but it is also threatening loss of key markets, due to inability to deliver reliably. The business case is clear, so public investment to remedy this challenge is irrefutable.

   Benefits of the interventions to improve the efficiencies of logistics is estimated to increase: GVA - R5,6 billion, Jobs - 19 500 , Remuneration – R2,1 billion Tax – R1,6 billion
   The cost of interventions is a fraction of the amount of tax revenue gain.

4. Public investment influences the nature and location of private investment. Poor investment choices and wasted resources erodes trust and hampers growth opportunities. Improving how well government manages public investment is therefore essential to achieve growth targets.

5. By mobilising consensus and broad-based support from key stakeholders involved, the decision to make the required investments into interventions that will remedy the situation is easier.

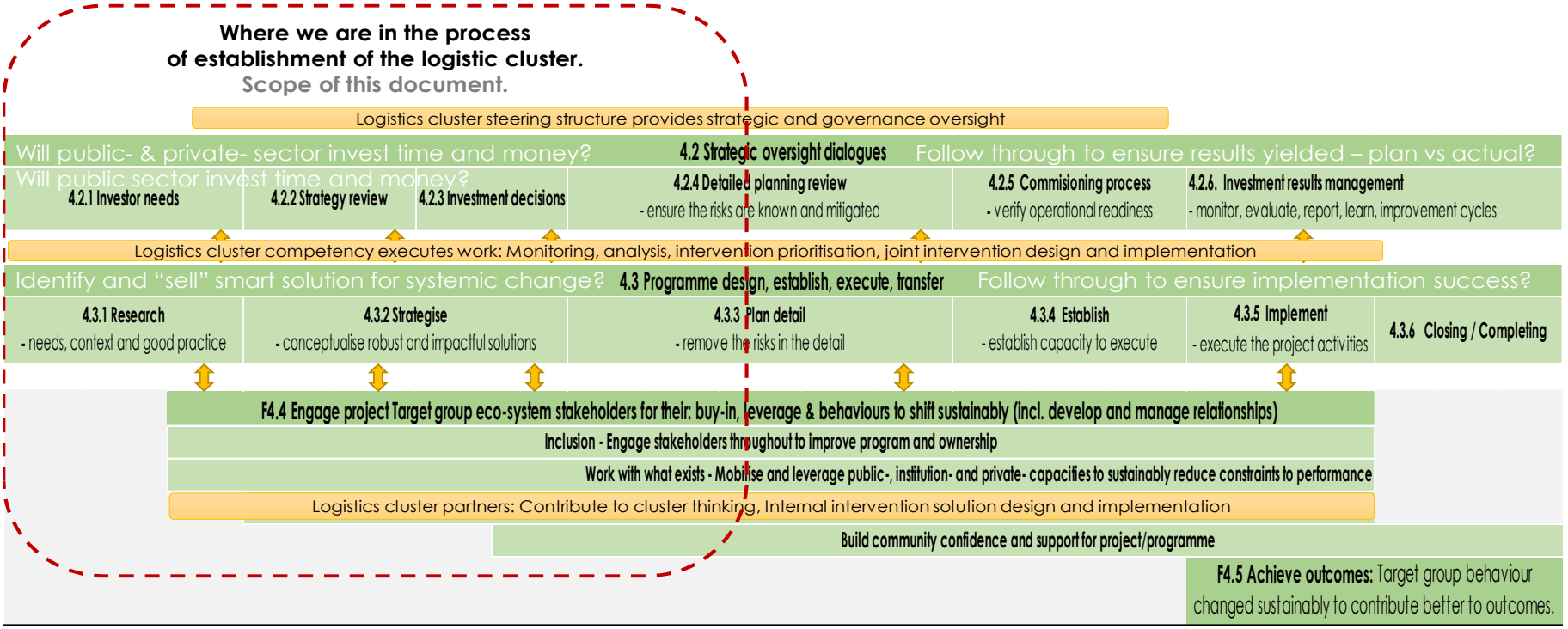
6. Establishing a competency to continuously improve the efficacy of the WC logistics eco-system to underpin competitiveness of exports (and imports) requires three layers of competency. A core execution layer is required to drive the collective improvement agenda. This will work with various stakeholders that will contribute improvement within their institutions. Shared infrastructure and service providers are most critical. The third layer is a steering structure for strategic oversight, transparency and good governance.

The contextual framework within which this document should be read is shown below.

Global good practice framework: Process of Development

Three layers of activities to keep in mind

Functions | Capacities required



Approach to mobilise stakeholder support and cooperation efficacy.

Team capability build-up framework

1. Know-why? (Reason to change, participant becomes self-motivated)				**2. Know-how ?** (mental models to understand)				**3. Skills?** (practice to perfect execution)		**4. Performance?** (execute mission/s with success)		
Shared vision	*Mission, kpis, targets*	*Belief in mission*	*Belief in team & values*	*Situation awareness*	*Team self-awareness*	*Team strategy know-how*	*Role Know-how*	*Role capability mastery*	*Team process excelence*	*Promote interest*	*Manage relations*	*Customer delight*
Know-why supporters & sponsors back us (or not)	Know-what - performance is expected	Know-why - it is a worthy cause	Know-why to trust the team	Know-what is needed, is possible	Know team, self, tools	Know team strategy, process & roles	Know-how to perform role in process	Individual skills / capability to perform	Team performance during practice	High levels of awareness, affinity & participation	Expectations are exceeded	Team performs in the field

What are the critical factors that will determine success? (Moderator – Prof. Barnes)

Nine critical factors were identified across the three brainstorming groups:

1. Firm/organisational competitiveness
    a. Recognition that participating firms/organisations needed to experience performance improvements in their areas of operation to see the Cluster as having a positive impact on the Western Cape logistics chain

2. Cluster level competitiveness
    a. Per 1, improvements in Quality, Cost, Speed, Delivery, Flexibility deemed key to Cluster success – as objectively measured for the value chain as whole
    b. Common goals and shared wins deemed critical to determining Cluster success

3. Institutional capability
    a. Cluster to support building skills – and to demonstrate serious skills in terms of its own capacity
    b. Process to access/benefit from Cluster skills to be clear
    c. Cluster to have transparent accountability framework: How money is spent, who is paid, what benefits and costs arise from activities
    d. Monitoring and Evaluation to ensure the Cluster's Competitiveness Improvement. Need to ensure that the Cluster learns and progresses over time – key to resolving deep rooted issues

4. Infrastructure
    a. Physical infrastructure needs to be better planned, and/or improved, especially where capacity bottlenecks exist
    b. Digital infrastructure is equally important to improve planning, physical infrastructure utilisation. Potential exists for the use of AI to optimise flows of materials into and out of Cape Town harbour

5. Government policies
    a. Several issues highlighted as impacting very negatively on performance of logistic chain in the Western Cape: Depots don't work at night, trucks cannot enter port in evenings (which is standard practice internationally); and weekend work incurs substantial cost pressures, discouraging investment in expensive equipment that needs to work 24/7 to operate competitively.
    b. Need to reduce impediments to successful international practices – remove government created red tape

6. Cluster buy-in
    a. Voices from across the value chain need to be included in the Cluster to secure success, but also recognise the differential value/scale of operations (equality of peers)
    b. Cluster needs to be legitimised – involvement of key firms and public/private organisations
    c. Cluster must focus on action – "Do" outputs – not another talk shop
    d. Based on Cluster learnings/progress – influence national processes

7. Clear Participation framework
    a. Needs to be very transparent as to who can/cannot participate in the Cluster
    b. Also need transparency as to how firms/organisations can participate

8. Intelligence to improve logistics/transport performance
    a. Need to focus on short-term opportunities, but also achieving international standards (e.g. securing balance between exports and imports on shipping lines)
    b. Need to identify which international regions are achieving global logistics benchmarks, and how they are they doing it – to infuse new standards into the Western Cape?

9. Linkages to other national/regional initiatives
    a. Developments to be shared with other regions and also incorporation of lessons from elsewhere – such as Coega, Maputo

Solution concept

Improvement of the efficacy of the WC transport logistics eco-system for optimal growth, requires a shared vision and strategy, the caability (ability and capacity) to execute this as well as stakeholder commitment and support.

Vision statement

A strengthened WC logistics eco-system enables faster regional economic growth and job creation.

The vision should be translated into SMART (Specific, Measurable, Attainable, Realistic, Timebound) goals and objectives that guide decisions and actions for various stakeholders. This may include:

Achieving the lowest generalised cost of logistics to enable Globally competitive exporters.

Purpose/Mission

The WC logistics cluster cooperates with efficacy to identify and reduce impediments to growth.

Generic Architecture: Provision of economic eco-system development services

The main role of the logistics cluster SPV is to strengthen the competitiveness of the WC logistics eco-system to improve competitiveness of industries that utilises the shared infrastructure and services.

The generic architecture of development functions / services required (over time) includes:

1. Strategy & Leadership – lead stakeholders towards a shared vision and commitment to execute

2. Capability development (Skills and levers) – Establish the required capacity to succeed

3. Corporate support – Provide the necessary technology, infrastructure and support services

4. Service provision (operations) - Development and execute improvement programmes

4.1 Manage project customer relationships – Cluster participants support the change agenda

4.2 Strategic oversight dialogues – A cluster steering structure provides strategic oversight and good governance

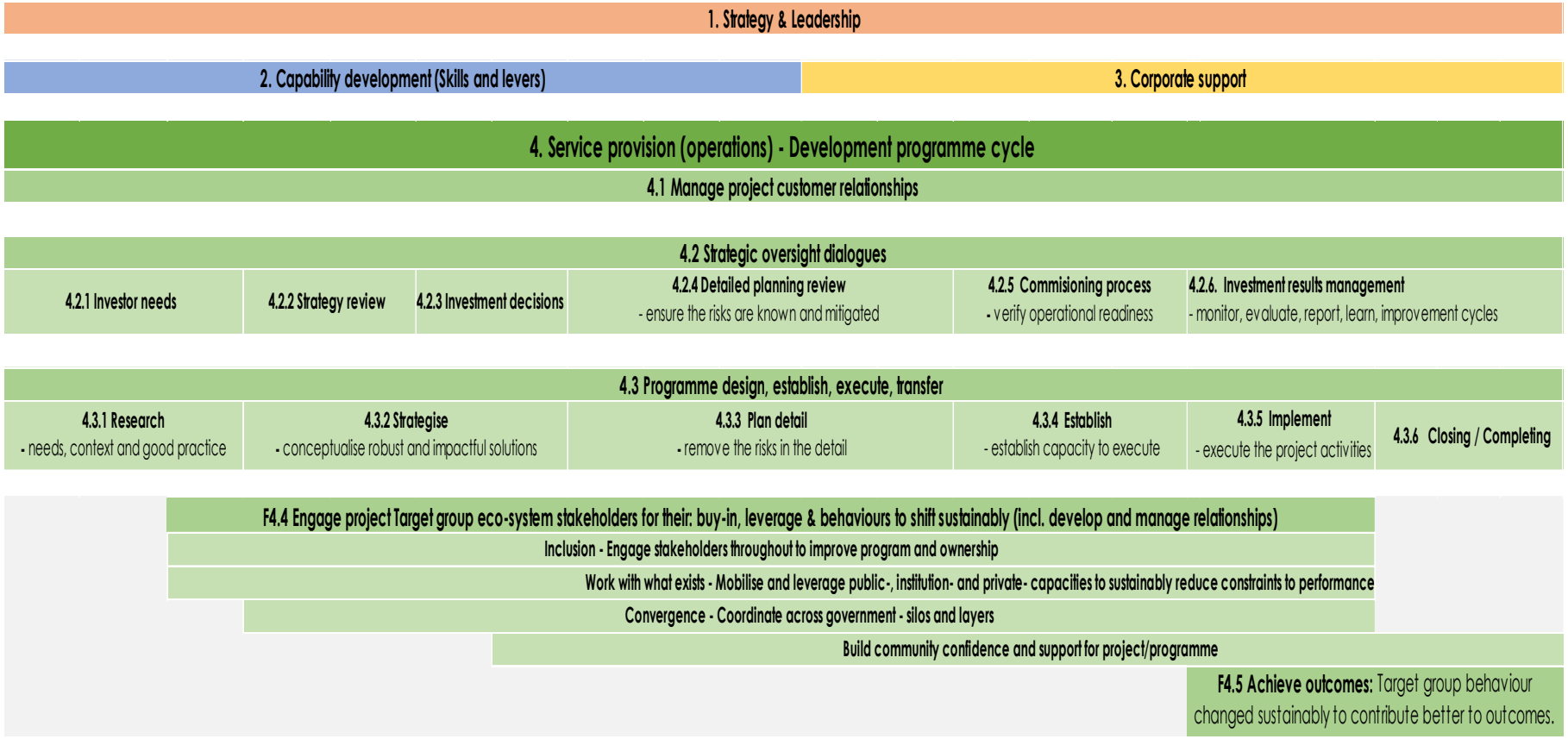
4.3 Programme design, establish, execute, transfer - Improvement projects are prioritised and executed

F4.4 Engage project Target group eco-system stakeholders for their: - Develop and manage stakeholder relations to ensure inclusivity, buy-in, and promote behaviours to shift sustainably

This is illustrated to a further level of detail in the figure on the following page. To build such capacity will take time, but steps in that direction must be taken earlier, rather than later. In the meantime, there exists a crises that requires immediate interventions and temporary capacity to get started without delay.

Development capability architecture model (High level)

Required functional performance requires matching capability



Priorities

Stakeholders wish to continue with a logistic cluster and the building blocks required to build a sustainable model. These building blocks will give legs to the shared dream towards an intact logistic network across all modalities. More importantly, **how can we remove friction in the value chain and support trade and trade growth with a greater level of sustainability and predictability?**

Initiate the enabling structure

1. **Create an enabling structure for the logistics network to flourish:**
    a. This structure must speak to the shared responsibility of all stakeholders operating on the shared logistics infrastructure.
    b. Collectively, we need to streamline procedures, ensure full visibility across the logistics network, and promote collaboration and integration.
    c. A *Terms of Reference* (TOR) needs to be drawn up and accepted by all the role players in the Logistics Cluster.
    d. Complement to the TOR is a Project Management activity required to manage the project deliverables and key activities and link it back to APEX results Key Performance Indicators (KPIs).

Develop a Performance framework: Key result areas, desired outcomes and KPIs

Cluster to have transparent accountability framework: How money is spent, who is paid, what benefits and costs arise from activities

1. **Create an index for measuring excellence:**
    a. Logistics performance is measured on time, cost, service reliability, and sustainability.
    b. We need to capture the essence of moving goods quicker, cheaper, and more efficiently so that logistics capacity and capability in the WC can increase, leading to job creation and socio-economic growth and development.
2. **Accountability index – including a culture charter:**
    a. Accountability Score is being developed under the auspices of a Memorandum of Agreement (MOA) with CSIR/SAAFF, with commitment from the World Bank to publish the score. Lessons learned can be drawn from this study; this will assist us in the Logistic cluster to keep the different role players accountable for is responsibility in this shared infrastructure, called the "logistics network across all modalities".
    b. Besides an accountability index, role players must agree to a culture charter. (We can adopt the lesson from the Transnet culture charter for the total value chain.)
        i. A culture charter is a set of co-created cultural and behavioural aspirations for leadership and the broader community that can guide and inform organisational interactions.
        ii. Some key features include clarity about each party's role and shared values, reduced conflict and increased accountability, inclusive discussions and agreement, and commitment and ownership to drive continuous improvement.

3. **Create, monitor, and communicate transparent apex KPIs across the entire value chain:**
    a. These can be grouped into key metrics, including:
        iii. Waterside (vessel turnaround time)
        iv. Landside (GCH/SWH)
        v. Terminal evacuation (TTT)
        vi. Modality split (road/rail)
        vii. Overall fluidity of the system
    b. The transparent KPI will cut across the total value chain, including Public and Private sector stakeholders. Transparency in the KPI will ensure we work holistically and monitor the cohesive approach to remove friction.
    c. The transparent KPI will assist us in closing the gap between the designed and demonstrated capacity.

4. **Attract capital investment:**
    a. Infrastructure, equipment, and other logistics-related investment is needed in our network.
    b. According to the constraints theory, these areas must be segmented into a grid across the entire value chain and focus on the most debilitating factor first.
    c. Each role player in the value chain needs to be transparent in the capital budget allocation, with spending and the achievement of the capital investment, with its impact on the APEX Results KPI from the combined logistic network.
    d. The Theory of Constraints is a methodology for identifying the most important limiting factor (i.e., constraint) that stands in the way of achieving a goal and then systematically improving that constraint until it is no longer the limiting factor.

5. **Responsibility grid:**
    a. A responsibility grid is a tool used in project management to identify and clarify the roles and responsibilities of different individuals or groups in completing tasks or deliverables for a project or business process.
    b. The matrix defines clear roles and responsibilities for individual team members across the various phases of the project, breaking each role down into four types of designations:
        viii. Responsible
        ix. Accountable
        x. Consulted, and
        xi. Informed

6. **Link numbers 1-5 listed above link to the most important concept, "people" in the logistics network:**
    a. We must foster a culture of excellence across our entire network and actively involve our people in the dream. If we don't have a culture of excellence and change in culture, we will not achieve our dreams.
    b. More work is needed to align all stakeholders with key individuals to change the narrative in which we currently work.
    c. Assess behaviour and determine how much one segment influences the preceding and following segments in the chain.

d. Create a local activity masterplan to determine how logistics behaviour can be improved in the system.

7. **Create a customer stakeholder survey:**
    a. Creating a positive feedback loop can significantly enhance the system.
    b. All stakeholders can follow an iterative process.

Improvement projects (immediate)

The workshop on 12 October produced proposed action in the three areas, two of which are discussed here. The vision and longer-term opportunities are shared elsewhere in the report.

A. Establish an integrated 24/7 transport logistics network with balanced capacity

1. The workshop focussed on exporters and how to resolve the problems experienced by inbound road traffic to the port. However, imports generate about twice the number of containers moving through the Port.
    - Import operations therefore has a substantial impact, including Stack occupation, RTG movements, Truck movements and its "bunching", emissions, etc.
    - There may be an opportunity to **improve total operations by addressing import and export constraints individually, and gaining an operational understanding of where and when these two sub-systems compete for space and resources.**
    - One contributing cause is that the industry does not operate 24/7, despite the Port's availability (see below).

2. **24/7 operations will ensure much greater utilisation and unlock vast capacity.**
    - Depots where import containers need to move to from the Stack do not operate at night.
    - Truckers that collect containers at night carry the cost with no additional compensation – this cost cannot be absorbed within current revenues.
    - A Benefit:Cost analysis should be done to understand where savings for one or more entities result in disproportionate costs to the system.
    - Doing this in terms of a set of KPIs would help ensure the correct trade-offs are made to balance costs and benefits and provide line of sight for all stakeholders to buy in to the individual changes that would improve the overall system.
    - Linked to this is the fact that majority of containers are delivered on day 4 of a four-day stack opening – develop an incentive scheme to change behaviour, understanding the upstream constraints that drive current behaviour (I have some thoughts on this).
    - A dedicated person or team must be allocated to drive the analysis and negotiations to effect the required changes.
    - This workstream must report to the JOC (see below).

3. **Establish a JOC (Joint Operations Centre) to improve efficiencies in the Port ecosystem.**
    - This requires the establishment of a VTOP, or Venue Transport Operations Plan – this includes operational influence over the origins and destination that affect the Port as venue.
    - This could initially be hosted in the TMC but should be migrated to the Port once the facility has been prepared, assuming a suitable facility does not yet exist.

- It is established with clear protocols for the members, who constitute all stakeholders that significantly impact operations.
- JOC members must have delegated authority to make significant decisions as they are required to improve operations.

4. **TFR can play a significant role to alleviate the impact of truck traffic within the Port, but also on the surrounding road network.**
   - Aim for once daily train, then increase by one every other week until equipment and line capacity is reached.
   - Gradual increase will highlight impact on all aspects of this component – e.g. shift in equipment used, operation of Stacks in Belcon, etc.

5. **Start with a Test Case for the above by designing it for the 2023/24 Deciduous Fruit Export Season, especially weeks 1 – 9 of 2024.**
   - Understand that there are vast differences between seasons and commodities being imported and the impact of Imports on these.
   - Use test case as a template from specific to general or build a separate test case for other commodities or a different season, and then establish new generic rules.

6. **Action the recommendation of Province's Transport Congestion Study.**
   - About 15 recommendations were included in the report.
   - Select 3 or 4 as MVP concept to drive change.
   - System dynamics ensure that most other components will be improved to achieve objectives with selected 3 or 4 items.
   - Focus on few items are more likely to solicit support from participating stakeholders, especially as they can see benefits for their industries.

7. **Develop an SOP to resume Port operations as soon as wind speed drops below threshold.**
   - Implement while wind speed drops, not once it reaches the threshold.

B. Increase the reliability of ships docking in CT as planned

Why does the shipping industry skip Cape Town's port?

1. Go to areas with more cargo
2. Congestion
3. Competition with other ports (space, cost, turn around times)
4. Unreliability
5. Safety
6. Void in Cargo planning side - planning disconnect between terminal, depot and shipping lines load and discharge
7. No plan between vessel and offloading - need discipline between various nodes. Need to understand the value chain and every single point of contact to map this out more effectively and see pain points
8. Issue with cruise ships and also 'ghost sailors'

Both the port and external chain decisions (e.g. from other parts of the journey/other ports) can have a knock-on effect.

Solutions:

1. Better equipment (including budget for this)

    - Optimization
    - Reliability/optimal weather conditions - equipment that can withstand CT winds

2. Improve turn around times - but how?
3. Back of port spaces/freight villages - need more
4. Hold shipping lines accountable for not berthing when they say they will
5. Better tech and automation (linked to points 6 and 7 in problems above)
6. Need to think around commercial focus of the shipping lines and how CT can compete with ports that offer quicker turn around times and where they can double their volume!
7. Seasonal tugs on the coast

Considerations
1. Need to be cognizant of commercial arrangements in logistics chain e.g. number of contractors involved and need to think about this and customer centricity if we fine shipping lines
2. Do we have total visibility of the shipping line/logistics chain?

Consider logistics chain and the impact on decisions in coming to CT
Consider that a split second call can be made to not come to CT minutes before the ship is about to enter. What effects this decision?

- Proximity?
- turnaround times?
- schedule reliability
- back of port support?

Back of port - staging, congestion
Basic disciplines limit interception and loading cargo etc

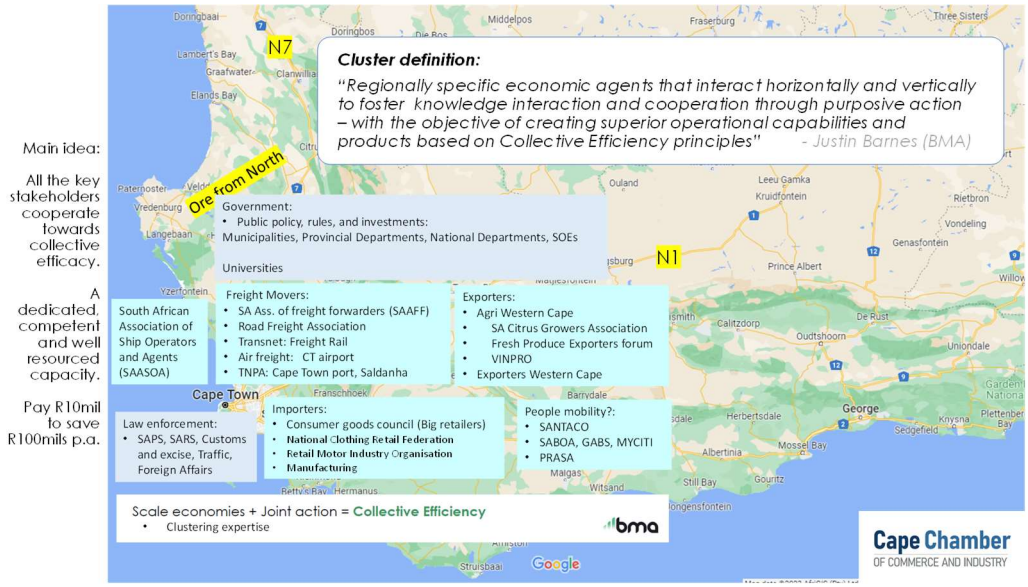
What can we learn from ACSA?
Accountability and non-adherence (TPNA) - control and influence in total chain

Timeline for Capital procurement equipment etc
Private sector asking for indication so can understand line of sight and transparency

Next steps:
1. Understand context challenge in chain
2. Dialogue - need shipping lines in the room to unpack why they cut and run in more detail
3. Focus on how to get in more RTGs and to enable the budget for this
4. Consider in dialogue how we align with the berthing window on the European side

Institutional Roles and functions

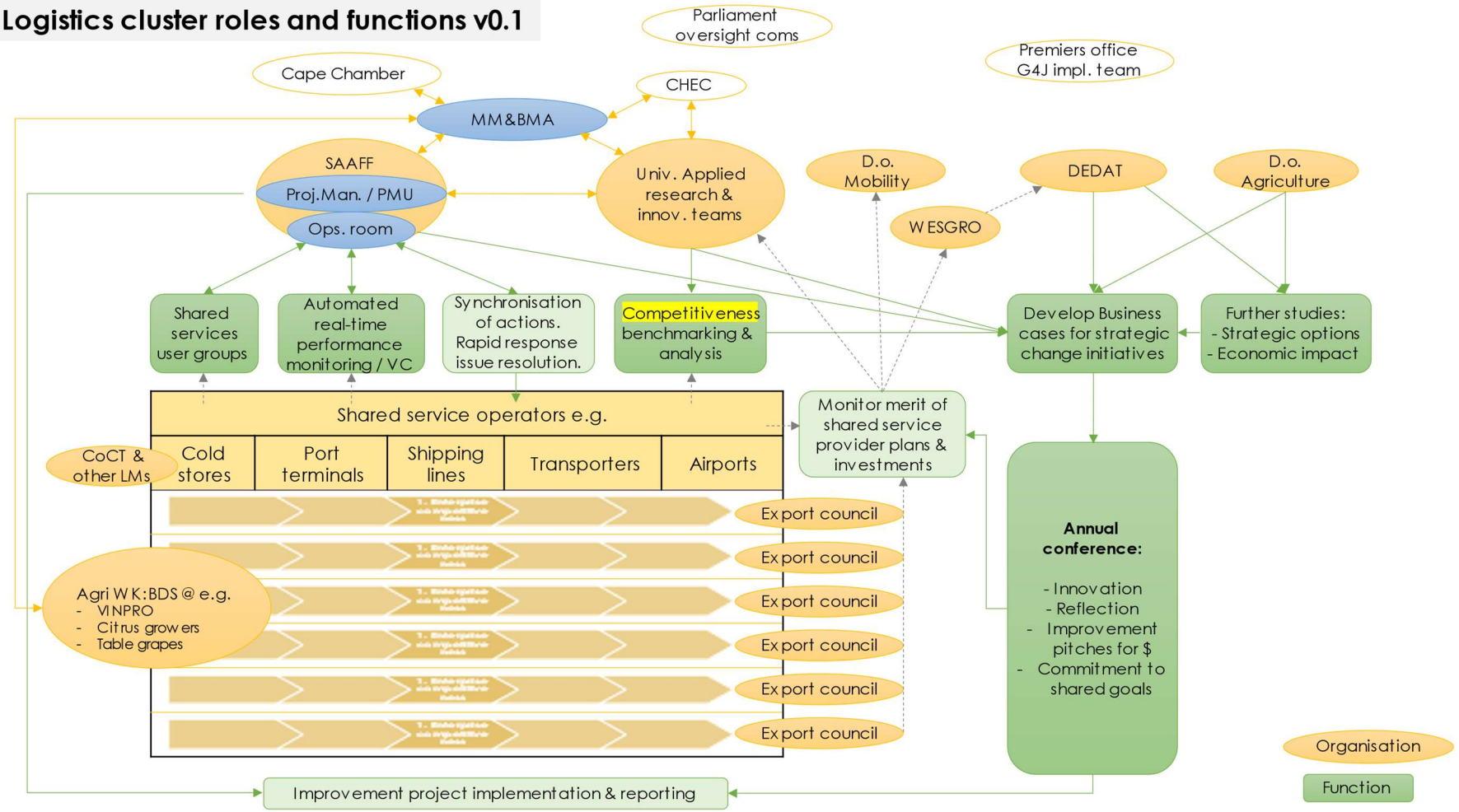
The WC logistics cluster includes many institutions, and their members, such as those illustrated below.



An overarching coordination capacity is required to improve efficacy across institutions, hence the proposal to establish the WC logistics cluster SPV. The cluster will build on and compliment the strengths of all the existing institutions in the WC eco-system. The figure below illustrates conceptually how such coordination capacity can be incubated without delay, by doing 3 things (blue ovals in the figure):

1. **Establish a JOC (Joint Operations Control)** to champion real time information flows for participants to be better informed to optimise their activities. (Placed at port with SAAF oversight)
2. **Appoint a dedicated project manager,** to drive key projects including establishment of the logistics SPV over the next two years. (Initially placed with SAAF for oversight)
3. **Appoint clustering experts,** to provide guidance to the project manager and participating stakeholders, on best practice in establishing effective clusters.

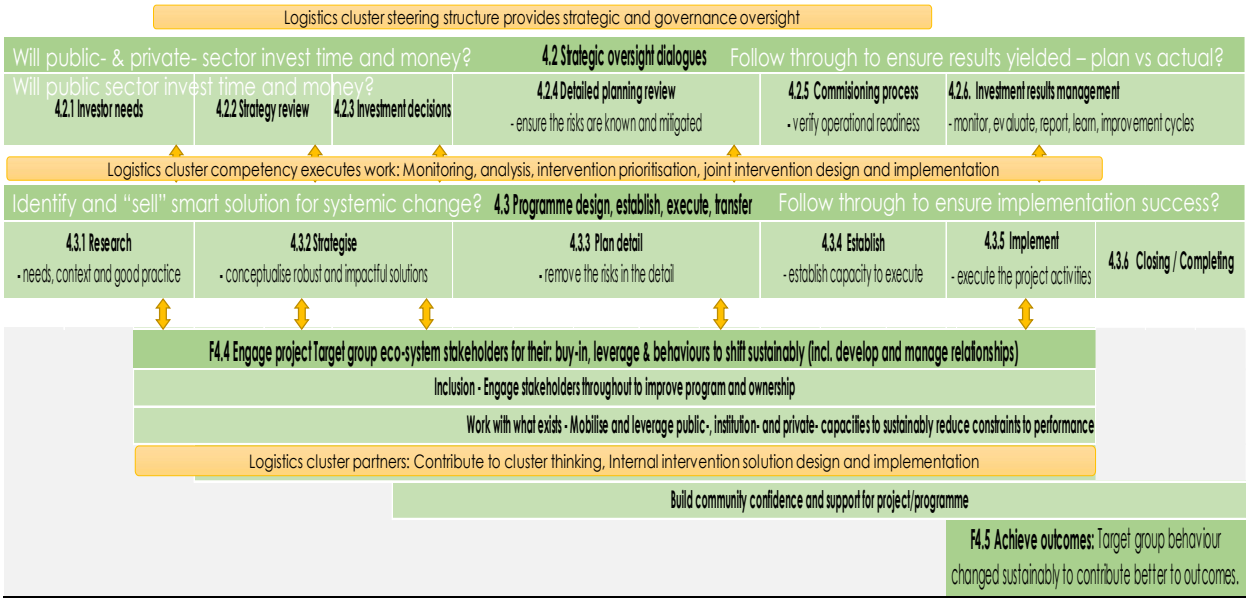
Logistics cluster roles and functions v0.1



Establishment of the capacity of the WC logistics cluster SPV entails organising capacity at three layers:

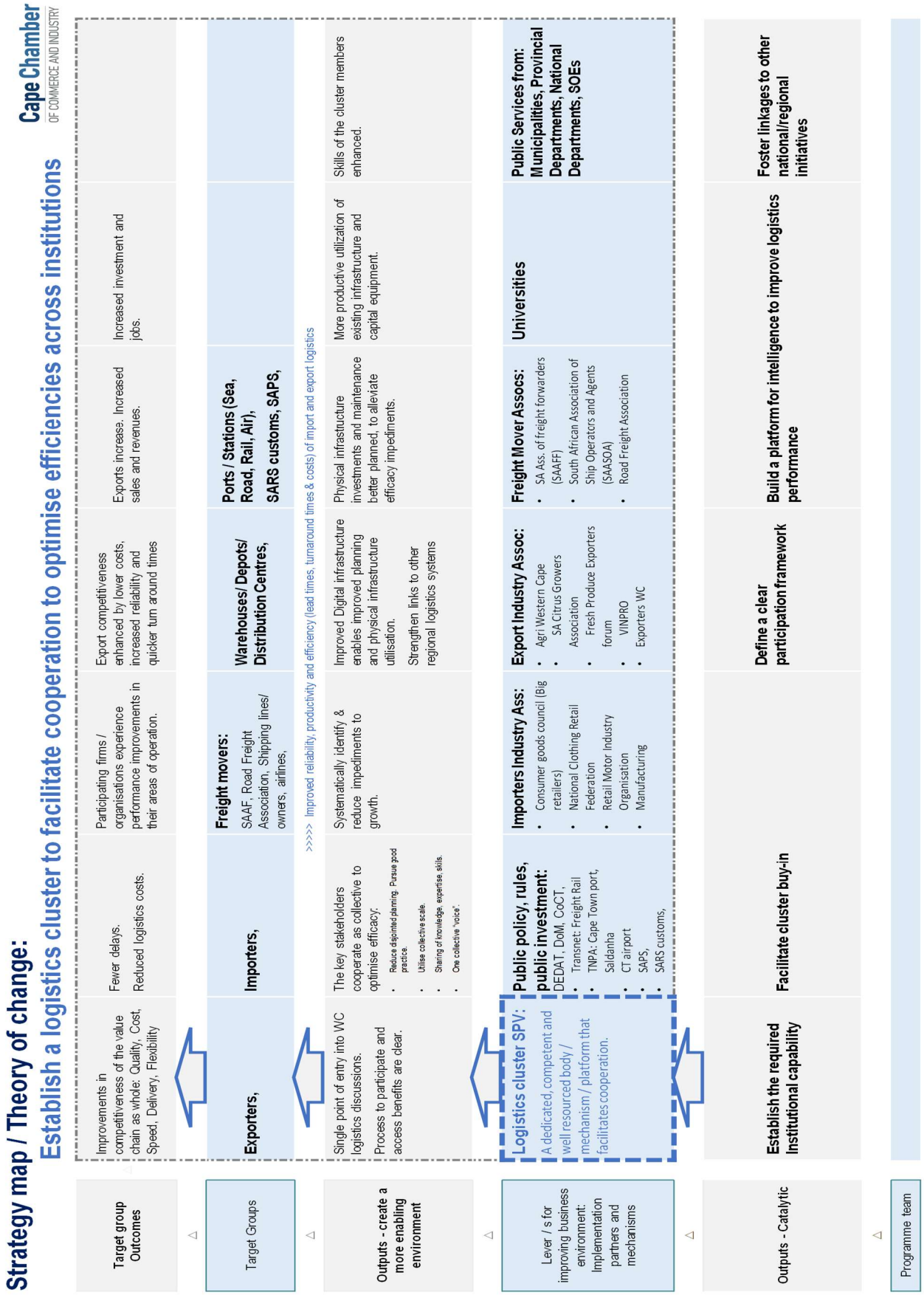
1. Steering structure for oversight and governance
2. Core Cluster facilitation / management
3. Participant stakeholders roles and relations management

These capacities are required to full fill the functional roles as illustrated in the figure below:



Establishing the full capabilities will take time. This should not delay paying attention to the immediate priorities through a less formal approach until the necessary building blocks are in place. The Theory of Change approach shown below highlights the strength of leveraging strategically selected target groups to maximise the effect and impact of limited resources.

Strategy map: The theory of change to realise the desired outcomes



Implementation plan

In preceding sections it was firstly confirmed that a Western Cape Logistics Cluster is not just necessary but it must produce its intended result urgently. The Concept Solution describes the need to focus on the short-term and acute constraints and opportunities in parallel with the longer term sustainable solutions to deliver and sustain the lowest cost supply system. This section descries the inputs and activities needed to start operating with urgency on both fronts; the deliverables, or outputs that would signify progress towards the required results; milestones

It is recommended that the Provincial Minister for Mobility formally engages key stakeholders to establish a high-level Terms of Reference to enable the Western Cape Logistics Cluster to commence operations. Initial stakeholders should include

- Provincial Department of Mobility
- Provincial Department of Economic Development and Tourism
- Transnet's National Ports Authority
- Cape Town Container Terminal
- SAAFF
- City of Cape Town
- Fresh Produce Exporter's Forum SA
- Truck industry bodies
- Shipping lines

The Minister would provide the budget required to establish a team of experienced professionals that would run the day-to-day activities of the Cluster for a period of at least 12 months. Thereafter the relevant stakeholders would have established a sustainable model to support the Cluster operations team. Apart from driving key KPI's over this period, the team would establish the structure and capabilities for the Cluster to operate over the following three to five years. It is foreseen that stakeholders would eventually nominate or second staff to participate in operations on a permanent, regular (non-fulltime) or ad hoc basis.

Work Plan

It is proposed that the following approach is taken in establishing the WC Logistics Cluster.

The first and urgent step is to sign a high-level agreement between key stakeholders to cooperate in the cluster. Such MoU could allow for the incorporation of more members over time, but should not be delayed until a comprehensive assessment of members are completed. This would allow 1) the formation of the team necessary to drive the short-term goal as a matter of urgency and, 2) the stakeholders to prepare the Terms of Reference for the cluster to resolve longer term and strategic goals.

As a minimum, the MoU should:

1. Create an enabling structure for the logistics network to flourish
2. Establish a Joint Operations Centre for control of the Fresh Fruit export supply chain
3. Create an index for measuring excellence
4. Adopt an Accountability index – including a culture charter

The Cluster should adopt an agile approach to working and avoid the temptation to produce comprehensive plans and strategies that promise ideal solutions in the medium to long term. Instead it should take the approach that small daily improvements will quickly cumulate into significant gains. Aim for 1% better every day towards milestone targets.

It should also allow for experimentation and revision of strategy, rather than to avoid risk. The current situation calls for the ability of the participants to "fail forward" by testing various avenues to address practical constraints.

The deployment of Theory of Constraints approach does not imply uncoordinated and random activities, but rather that interventions are tested within the framework of the process flows for various strands of the logistics chain. Not only would the action-based approach resolve acute problems in a shorter time, but it will allow the team to map the status quo of various process flows more accurately from the start.

Finally, it is deemed essential that success in participation is defined for all stakeholders, and then communicated broadly to ensure interdependencies are understood and accepted. The premise of the cluster is that all parties only benefit when all other parties also benefit from participation.

Short term focus

There are several reasons to appoint external experts to form the bulk of the short-term team. The exact necessary skill sets can be defined and acquired from the market. The management of the stakeholder organisations can provide guidance from their expert knowledge without it impacting on their daily duties. Staff from stakeholder organisations could be incorporated in the team to build capacity and detailed knowledge for the execution of interventions.

Immediate actions for this team include:

- Map the demand for Fruit Exports over the 2023/24 summer, with specific emphasis on understanding the peak demand in January and February 2024.
- Determine the ability to secure the necessary shipping line capacity to serve this demand, and make recommendations to increase, as required.
- Plan the ideal Container Terminal operations to facilitate this demand within the constraints of RTG capacity, anticipated windbound periods and a 24 hour operation.
- Build a robust contingency plan to accommodate variations in key factors that determine capacity. This would include, but not be limited to:
    - More and longer windbound periods
    - RTG breakdowns
    - Inability / resistance to operate 24 hours
    - Conflicting demand from imports
- Prioritise areas of intervention and design of plans and contingency plans to reduce the known risks and enable a responsive system for other risks.
- Implement the plan.

Medium to longer term focus

While the priority interventions aim to address acute constraints, these are focused on operational efficiencies within the constraints of prevailing infrastructure and equipment realities. The Logistics

Cluster needs to systematically move towards achieving the medium to longer goals and vision by achieving all the success factors listed above. These include:

1. Create, monitor, and communicate transparent apex KPIs across the entire value chain
2. Attract capital investment
3. Expand the responsibility grid
4. Create a culture of excellence where people are acknowledged as the essence of a successful cluster
5. Create a customer stakeholder survey
6. Continuous improvement

Deliverables and Timescales

The following deliverables would signify progress towards the short-term objective of the WC Logistics Cluster:

- Signed MoU between key stakeholders by mid-November 2023
- Establishment of a JOC by end-November 2023
- Appointment of Service Providers to serve as short-term activation team by end-November 2023
- Plan to accommodate the bulk of the 2023/24 Fruit Exports through the Port of Cape Town by mid December 2023
- Register of interventions from end-December 2023, ongoing.

The following deliverables would signify progress towards the longer-term objective of the WC Logistics Cluster:

- Terms of Reference for the WC Logistics Cluster by March 2024,
    - Including decision-making structure and oversight protocols
- Adoption of Apex KPIs by June 2024

Resources

The following skills are required for the short-term team:

- Experience for each functional area of the fruit logistics chain, including
    - Container movement in the port
    - SAAFF
    - Fruit Exporters
    - Trucking
- Process flow and SOP analytics
- Data collection and verification
- Change management to facilitate adoption of changes and new activities at all levels of the chain
- Business analyst to assess and proposes amendments to support systems

Budget

A team of at least eight persons are envisaged, of which about half would constitute external operational expert and half would represent core stakeholder organisations. The team should be able to operate for at least six months in which time a more permanent structure is developed for the Western Cape Logistics Cluster.

A briefing note has been prepared to motivate and describe how an *ad hoc* team of operational experts could be deployed at short notice to lay the foundation for the longer term structure and system.

Appendix A: Agenda for 12 October Workshop

Cape Chamber
OF COMMERCE AND INDUSTRY

Agenda

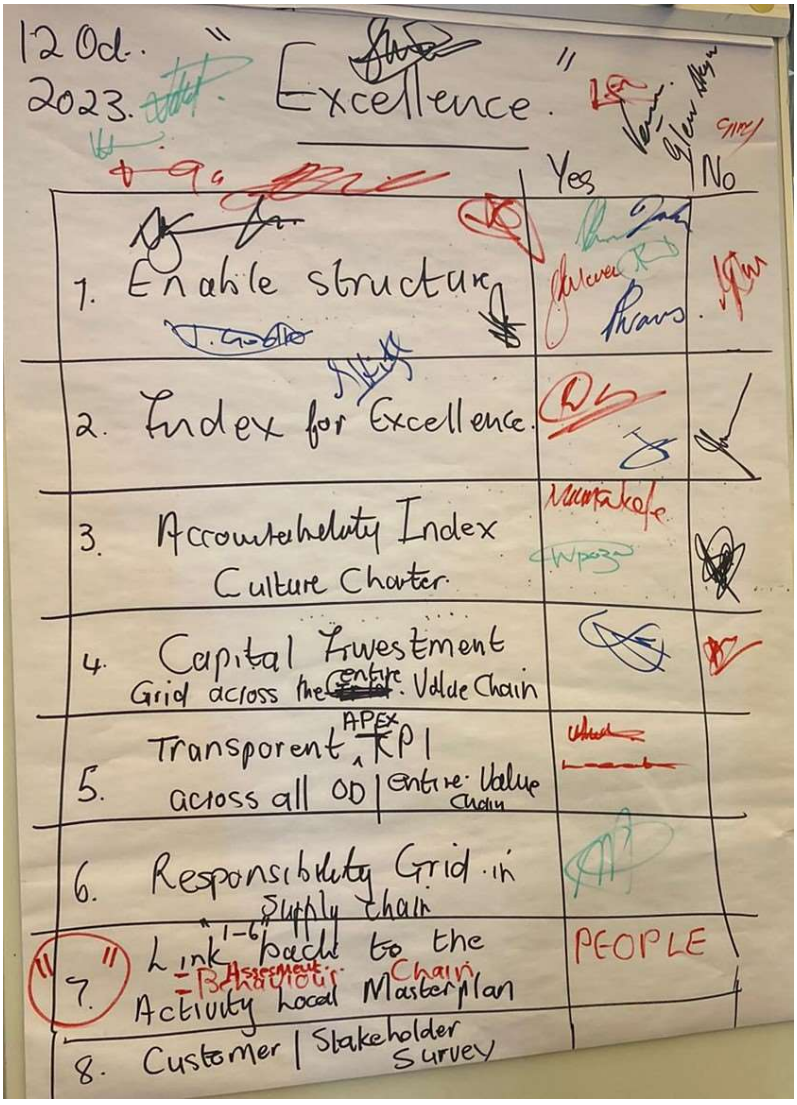
Western Cape Logistics Cluster Workshop

12th October 2023 (08h30 for 09h00)

Marriott Hotel Crystal Towers, Corner of Century Boulevard and Rialto Road, Century City
Crystal 4 room, Ground floor

	Time	ITEM
Joint session	**08h30**	**Registration**
	09h00	Welcome & introduction
	09h05	The importance of freight logistics and the role of WC Department of Mobility in improving the status quo.
	09h10	The economic case for fixing the logistics chain for both the WC and SA economies.
	09h20	Overview of the key elements in the supply chain dynamics and efficacy. Which constraints at both the importer and exporter side impact on the flow.
	09h30	Update on the current efficacy of the port and what is being done to improve.
	09h50	Update on the capacity of the container terminal and what is being done to improve. Specific plans for meeting demand from fruit exporters this summer.
	10h10	Bottleneck expected this year with fruit exports through port of CT. How queues are generated where the system can be improved for most impact.
Small group sessions	10h25	Consolidation of key points made. Explain three breakaway groups and tasks. Explain the fruit export case study focus.
	10h30	**Group A: Shared holistic vision** Q1. What needs to happen to achieve world class excellence in export and import logistics around the port of CT? To improve port ranking from 300s to below 60th? Q2. What milestones should be set? Q3. What additional institutional capacity is required? Q4. How can the required investment best be secured asap?
	10h30	**Group B: Integrated 24/7 transport/logistics network** Q1. What changes are required to establish an integrated 24/7 transport logistics network with balanced capacity? What will be main benefits vs costs. Q2. There is an expected shortfall this summer in the capacity of CT port for fresh fruit exports. If all stakeholders cooperate, what can be done in the short term, to increase throughput at CT and the improve productivity? Q3. Who must drive the change?
	10h30	**Group C: Understanding shipping lines requirements to dock more often** Q1. What can be done to increase the ships docking in CT as planned? Rather than docking elsewhere. What is our current understanding of their rationale to skip CT? Q2. Can an agreement be reached with main shipping lines to increase reliability? Q3. What changes and what dialogue/s are required to make this happen?
	11h40	**Tea break**
Joint session	12h00	Consolidation summary of group work.
	12h40	Check commitment to proceed with pilot project.
	12h55	Next steps and Closure
	13h00	**Group photo and interviews.**

Appendix B: Commitment from workshop participants to support the WC Logistics Cluster



LOGISTCS CLUSTER WORKSHOP ATTENDANCE REGISTER - 12 OCTOBER 2023

First Name	Surname	Company
Simon	Beckett	Ceres Rail
Wolfe	Braude	Agbiz Fruit
Rebecca	Campbell	WCG - Mobility Department
Tariro	Chivige	Cape Chamber of Commerce and Industry
Helen	Chorlton	PWC
Joubert	Cilliers	Truckers for Unity SA
Nico	Coetzee	Truckers for Unity SA
Johnny	da Silva	Velddrif Chamber of Commerce
Rajesh	Dana	Transnet National Ports Authority
Malvern	De Bruyn	Cosatu
Jennifer	Dearham	Cape Chamber of Commerce and Industry
Andiswa	Dlanga	Transnet
Lian	du Plessis	Cape Chamber of Commerce and Industry
Ntombizanele	Dywibiba	Transnet
Tony	Ehrenreich	Cosatu
Daleen	Endley	Ceres Rail
Munifa	English	Transnet

Clifford	Evans	Berry and Donaldson
Jacques	Ferreira	South African Table Grape Industry
Noxolo	Fipaza	Transnet
Corrine	Gallant	WCG - Mobility Department
Viwe	Godlo	Western Cape Government
Lance	Greyling	City of Cape Town
Nontokozo	Hadebe	Transnet
Achmad	Hanief	The Perishable Products Export Control Board (PPECB)
Basil	Hanival	SA Assoc. of Freight Forwarders
Peter	Haylett	Peter Haylett Consulting
MandlA	Hermanus	SANTACO
Gerhard	Hitge	
Thys	Human	Thycolaton
Kobie	Hyman	SA Assoc. of Freight Forwarders
Benedict	Isaacs	Transnet
Darryl	Jacobs	Western Cape Government
Jo-Ann	Johnston	Western Cape Government
Vernal	Jones	TNPA

Erica	Joubert	Wesgro
Ilse	Kent	Tigerbrands
Motlhabane	Koloi	Wesgro
John	Lawson	Cape Chamber of Commerce and Industry
Con	Louw	Ceres Fruit Growers
Ricardo	Mackenzie	Minister of Mobility of the Western Cape
Boom	Malherbe	
Lunga	Maloyi	BUSA
Siyabonga	Maqabangqa	Transnet Port Terminals
Juanita	Maree	SA Assoc. of Freight Forwarders
Mafemani	Maringa	South African Maritime Safety Authority
Bongani	Matana	SATAWU
Sibuthe	Mdala	Transnet Port Terminals
Andiswa	Mesatywa	Transnet Port Terminals
Richard	Mkoteli	SATAWU
Yolisa	Mlawuti	Airports Company South Africa
Ntuthuko	Mngoma	SATAWU
Kagisho	Mokoena	Hapag-Lloyd Africa (Pty) Ltd

Johan	Moolman	Bergrivier Municipality
Maria	Mzimela	Airports Company South Africa
Leyya	Nihal	Cape Chamber of Commerce and Industry
Toto	Ntsobi	Table Bay Rapid Transit: TBRT
Derick	Ongansie	Truckers for Transformation
Michael	Pardenwachter	WCG - Mobility Department
Lisa	Parkes	Western Cape Government
Johan	Rademeyer	Drakenstein Chamber of Commerce
Vernon	Rawstorne	Cape Town Harbour Carriers Association
Deon	Rossouw	iX Engineers
Shifaan	Rykief	Cape Chamber of Commerce and Industry
Nicky	Sasmann	CCT - Integrated Transport Planning
Tim	Scholtz	Cape Chamber of Commerce and Industry
Selma	Schwartz	South African Maritime Safety Authority
Nicola	Scott	SaferStops Association
Ophelia	Shabane	TNPA
Thembinkosi	Siganda	City of Cape Town
Narieman	Solomon	Cape Chamber of Commerce and Industry

Willem	Steenkamp	Hexkoel
Glen	Steyn	Western Cape Government
Robin	Theodore	Hapag-Lloyd Africa (Pty) Ltd
Rashid	Toefy	Western Cape Government
Jillian	Tredoux	Velddrif Chamber of Commerce
Brandon	Tucker	Coetzee Transport
Joubert	van Eeden	Stellenbosch University
Antoinette	van Heerden	Fresh Produce Exporters Forum
Jacob	van Rensburg	SA Assoc. of Freight Forwarders
Werner	van Rooyen	Fresh Produce Exporters Forum
Ilse	van Schalkwyk	Western Cape Government
Richard	van Tonder	Maersk
Gerschwin	Williams	City of Cape Town
Quinita	Williams	City of Cape Town
Kyle	Williamson	City of Cape Town