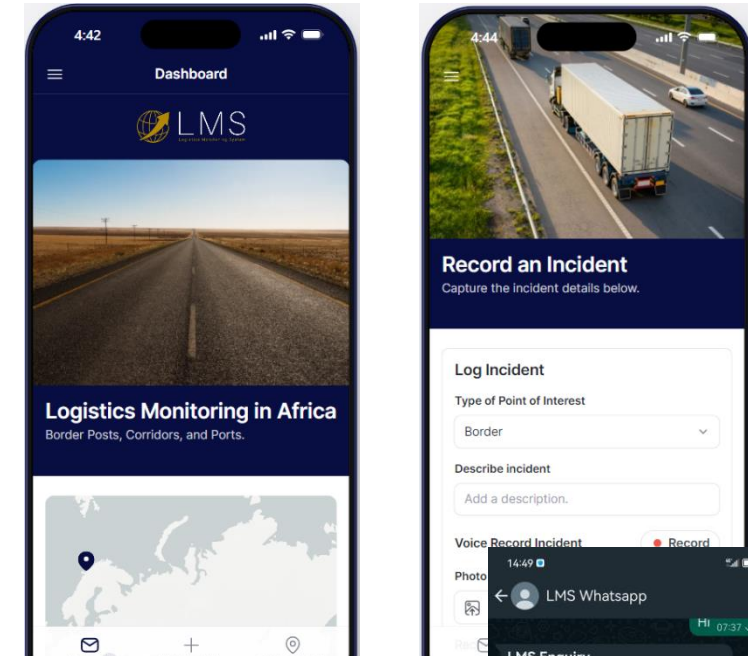




# Purpose

To provide trusted, unbiased information on how best to organize the transport of goods and services across all modes of transport

- Is a web-based platform which uniquely brings vehicle monitoring, port performance, vessel tracking together and corridor incident information together.
- Brings best of breed technologies together to perform big data analytics.
- Allows for the monitoring of logistics flow through country exit and entry points in near real time with historic analysis.
- Promotes “one version of the truth”, through information sharing via Web, Email, PDF, Mobile App, WhatsApp and SMS.
- Independent view.



#### Key Facts about LMS:

- 100,000 vehicles tracked every day.
- 100,000 vessels records received per week.
- 18 million recorded Geo zone visits \*
- 1500+ Geo zones monitored daily.

2013

2018

2022

2023 - 2024

Key Facts

Truck Monitoring system

- Monitored border crossing times
- 
- Trademark  
Southern Africa

Transport Monitoring System

- Monitoring of regional routes added
- 
- 

Logistics Monitoring System

- Vessel monitoring at Ports in Southern Africa
- Detailed route monitoring within corridors



Logistics Monitoring System V2

- Additional data sources
  - Geo-political risk data
  - Corridor incidents
  - Vehicle cost information
  - Rail network
  - Customs & Excise data (RSA)
  - Mobile Application
  - WhatsApp communication channel
  - Customisable



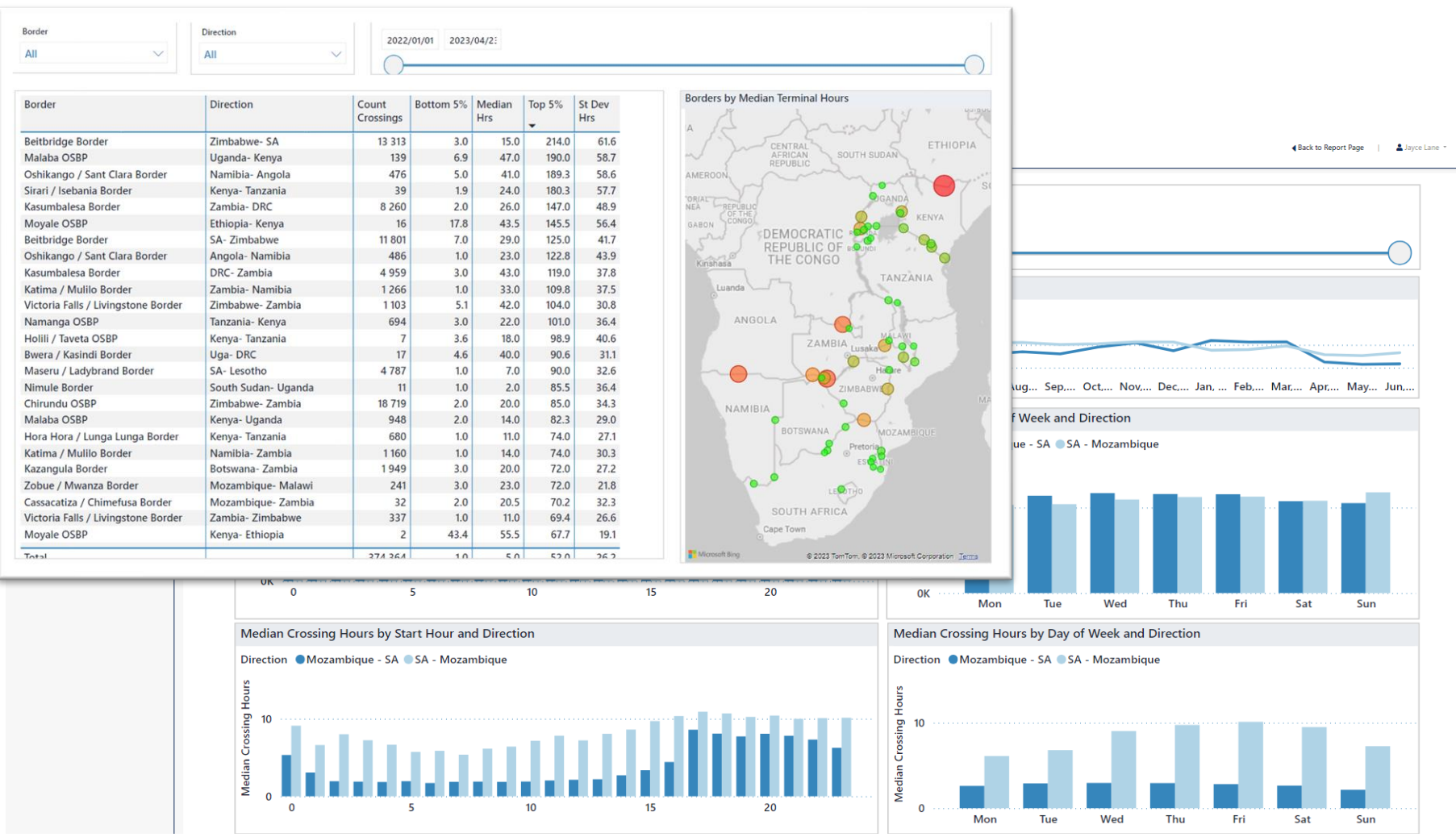
- 80 million heavy motor vehicle (HMV) records per day.
- 100,000 vessels records received per week.
- 24 million recorded Geo zone visits per annum.
- 1500 Geo zones monitored daily.
- 10 regional ports monitored reported live.
- 10 inter-regional corridors and 181 corridor segments monitored daily.
- 51 Borders monitored daily.
- Includes real-time traffic and weather data.



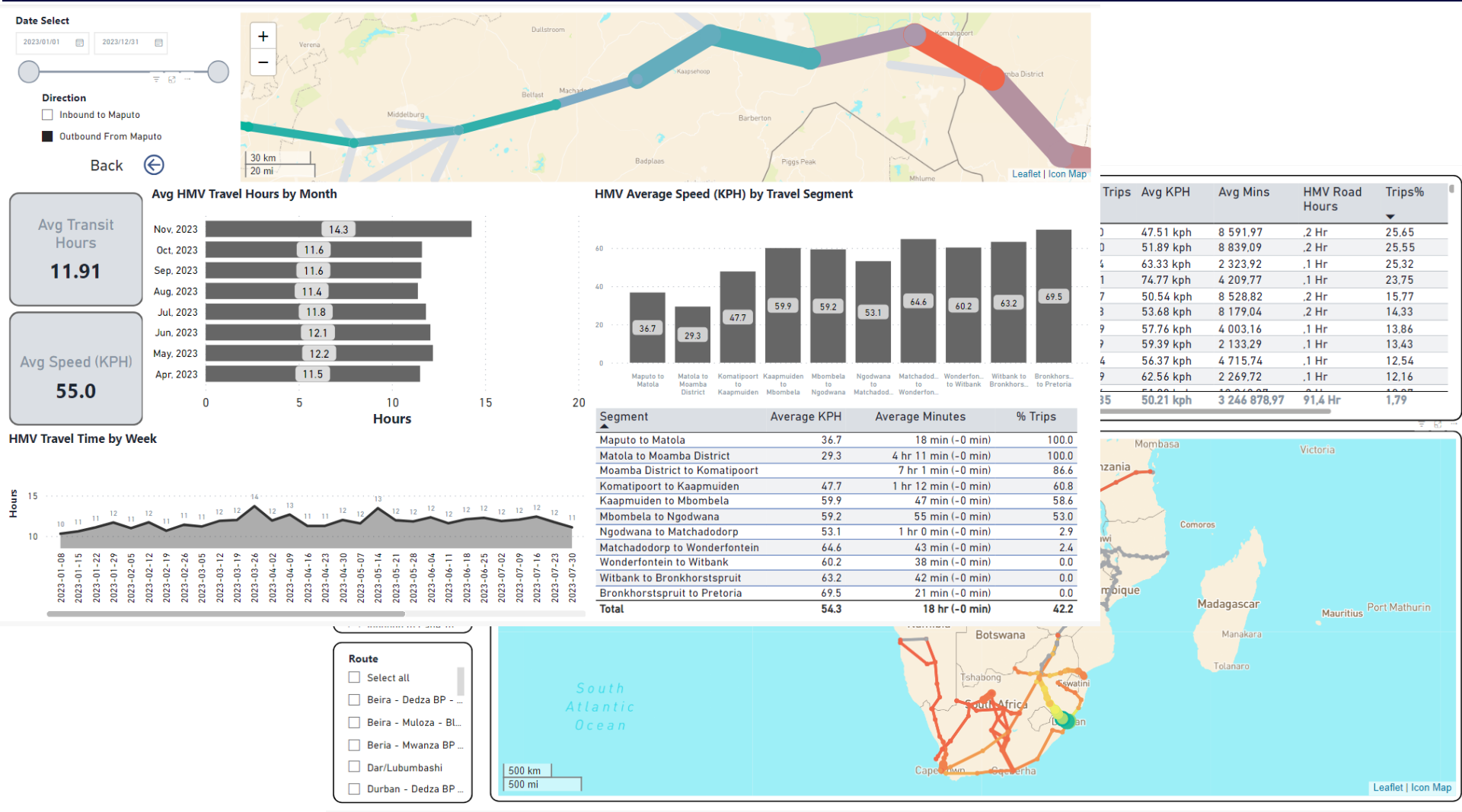
- Each pillar answers a question
- Collectively are powerful
- Ultimately LMS will become predictive

- Track border crossing times and historical analysis
- Identify and confirm main corridors of use
- Indication of transit time, volume and risk
- Used for modelling where significant logistics infrastructure spend is likely to take place.
- Used also for regional route optimization
- Tracking and performance monitoring
- Regional logistics performance monitoring
  - Ports
  - Corridors

- Regional border crossing performance
- Historic data
- Identify trends
- Identify bottlenecks
- Measure border queue length



- Identify corridor usage
- Determine speed and volume
- Total transit time
- Corridor performance at regional level



## Heavy Motor Vehicle (HMV) Congestion in South Africa Supply Chains

Congestion in the supply chain network can have significant implications, including increased costs, delays in delivery times, reduced customer satisfaction, and disruptions to the overall flow of goods and services.

Congestion can be indicative of several issues, including:

- Inefficiencies
- Capacity constraints
- Poor Planning
- Infrastructure limitations
- Force majeure

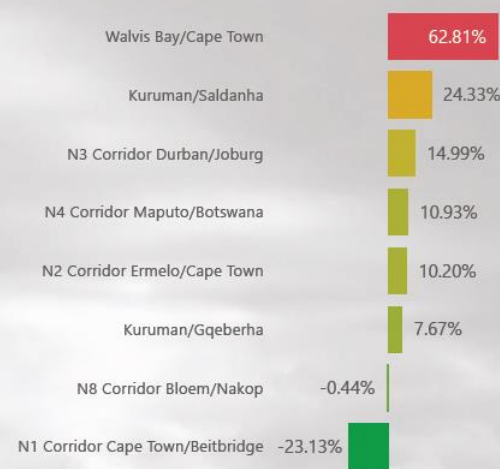
When measuring congestion in the context of corridor movements, border posts times, queueing, some key measurements include:

- Queue Length (*Measured distance from border using GPS data*)
- Queue Duration (*Expected processing time for Border queue*)
- Border Crossing Time (*Border crossing time*)
- Corridor Transit Time (*Total corridor time on corridor for HMV's*)

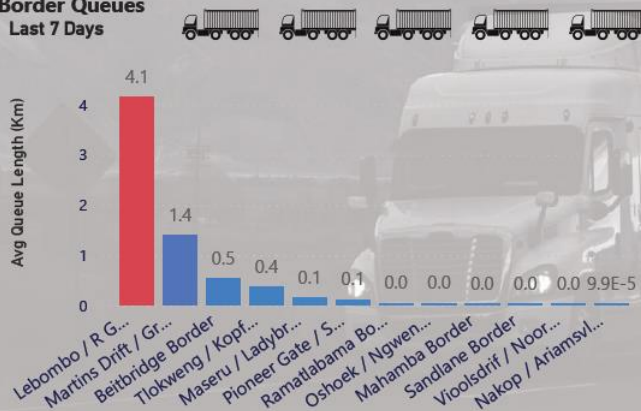
### Major Transport Corridor Transit Times



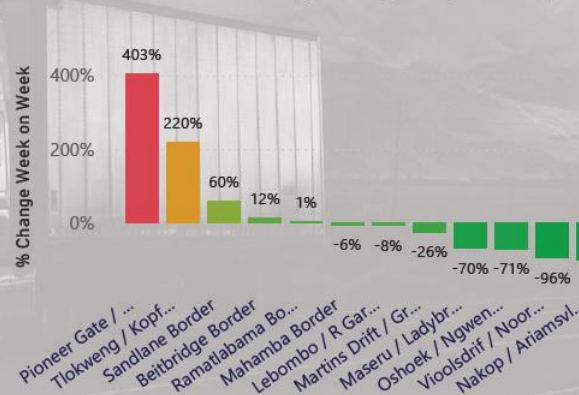
### Week on Week Percentage Change in Corridor Time



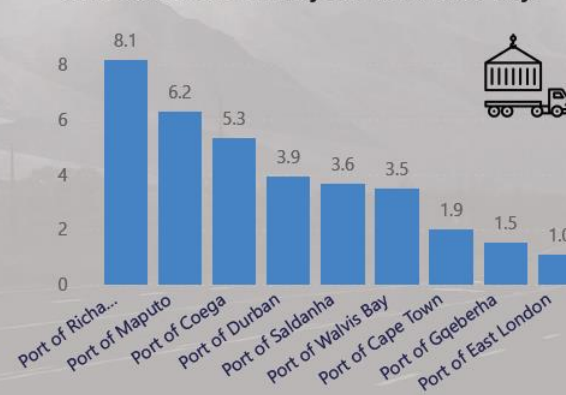
### Border Queues Last 7 Days



### Week on Week Percentage Change in Queue Length



### HMV Turnaround Time by Port (Hrs) Last 7 Days



- High level health status
- Key performance indicators
- Historical analysis
- One version of truth
- Currently being rolled out in South Africa



Enhancing trade and logistics efficiency throughout the supply chain

8

Corridors Monitored

13923

Corridor Incidents Recorded YTD

1033981

Sampled Individual Trips YTD

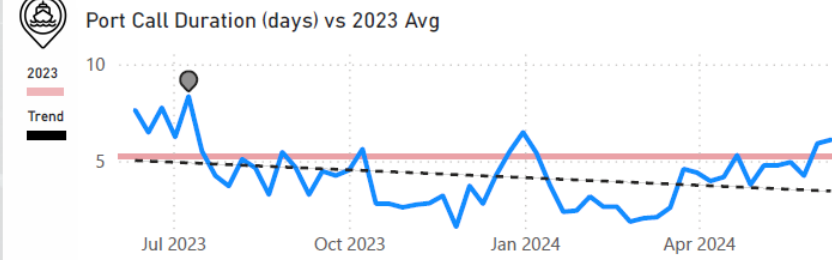
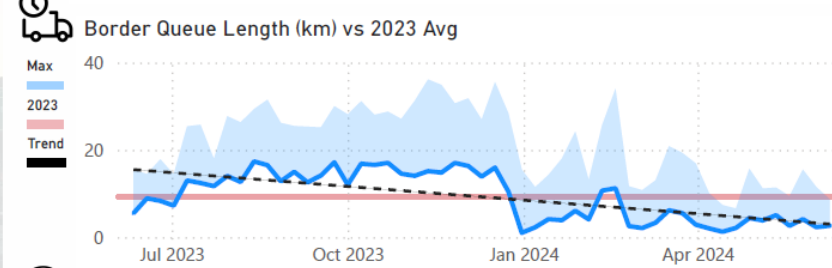
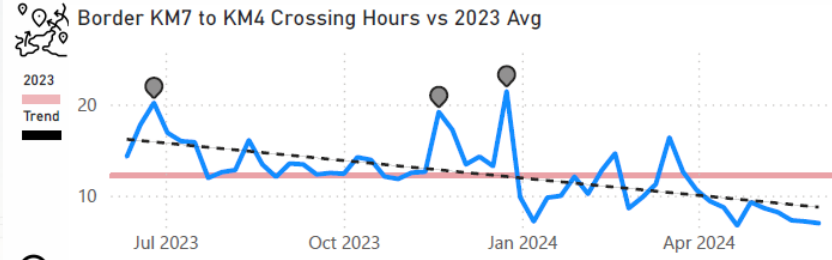
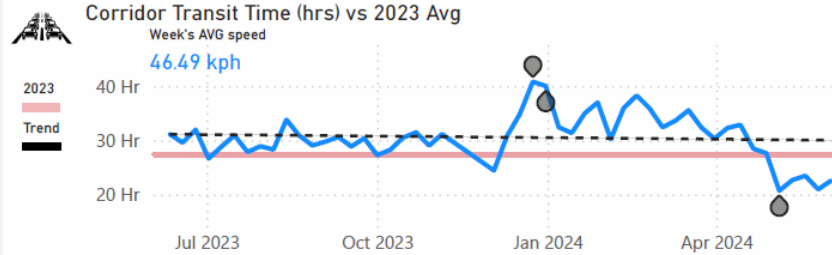
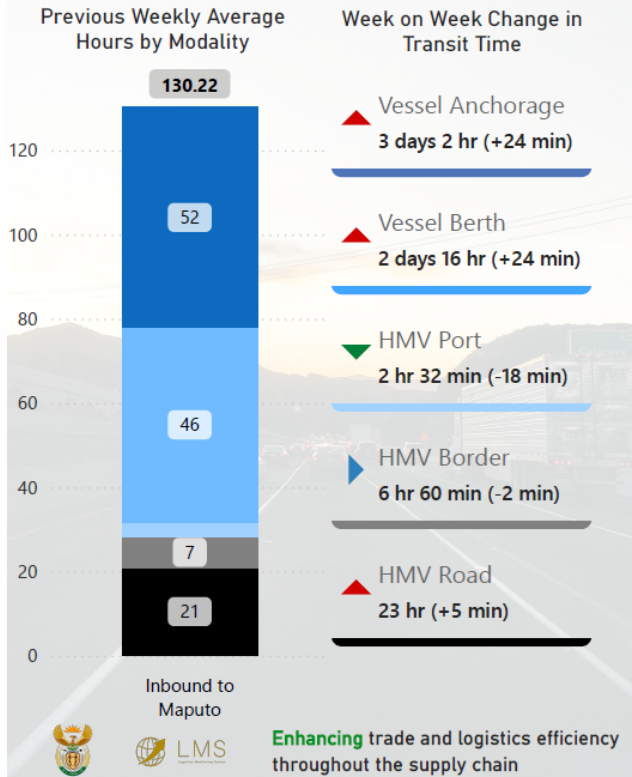


## N4 Benchmark Performance - Pretoria to Maputo

Understanding the dynamics of transport corridors is crucial for optimizing supply chain operations and fostering seamless trade flows, driving economic growth and prosperity regionally and globally.

This is explored by unpacking key elements such as:

- Corridor Travel Time by Heavy Motor Vehicle (HMV)
- Modality Performance: eg. Port Call = Time Vessel Spend at Port
- Key Infrastructure or logistics hubs: e.g. HMV time through Border Post

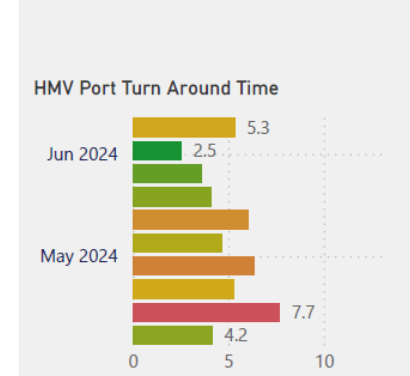


The tables below reflect the penalty cost incurred in terms of HMV fixed costs using the RFA Vehicle Cost Index when comparing the average to the median achieved.

Date	HMV Round Trip Penalty Cost
Jun, 2024	R9,057.64 ↓
May, 2024	R9,133.07 ↓
Apr, 2024	R9,355.40 ↑
Mar, 2024	R9,305.23 ↑

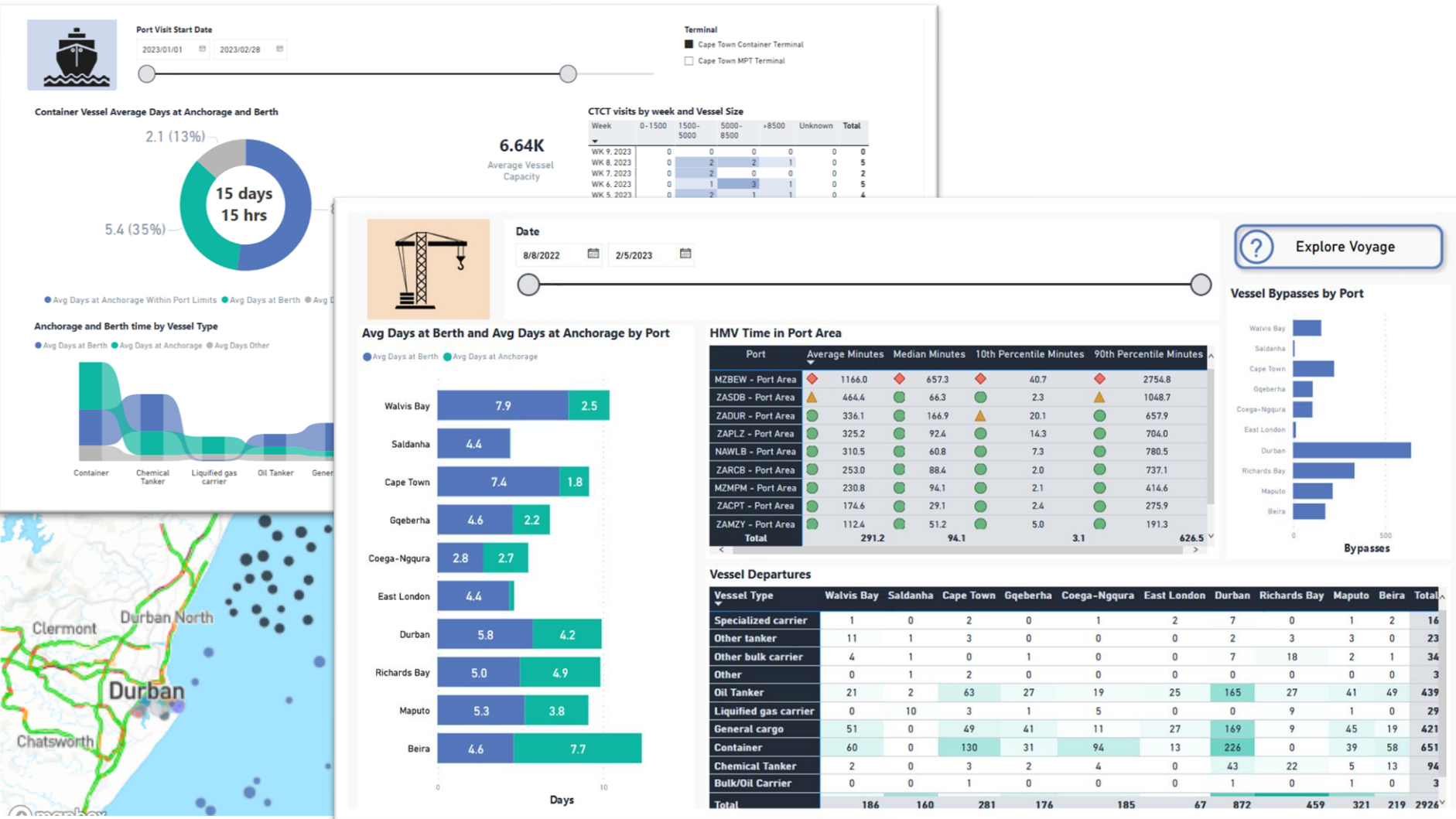
Date	HMV Border Penalty Cost
Jun, 2024	R1,102.50 ↓
May, 2024	R1,107.31 ↓
Apr, 2024	R1,132.17 ↑

Date	HMV Port Penalty Cost
Jun, 2024	R673.06 ↓
May, 2024	R787.55 ↓
Apr, 2024	R1,025.64 ↑



- Corridor specific health status
- Identified opportunity cost due to performance
- Linking Borders, Corridors and Ports

- All vessels around Southern Africa and can be expanded easily
- Comparison across ports
- Live Vessel data





◀ Back to Report Page | 👤 Jayce Lane

## Western Cape Port Planning Dashboard

- Project Background
- 2 Week Performance View
- KPI
- CPT Vessel & Traffic Map View
- Waterside - Vessel Insights
- Waterside - Vessel Diagnostics
- Landside - Stack Insights
- Terminal Evacuation
- Landside - Container History
- Port Productivity
- FPT Insights
- Heavy Motor Vehicle Insights
- Traffic Incidents
- Weather Insights
- Planning App
- Port Detail
- Definitions



WESTERN CAPE PORT PERFORMANCE






033 343 1007  
enquiries@crickmay.co.za


## Port of Cape Town

- Performance monitoring
- Trend analysis
- Anomaly detection
- Joint planning capability

- Western Cape Port Planning Dashboard
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## Western Cape




Western Cape  
Government

### 2 Week view of Port Performance - Containers

Weekly Forecast

#### Port Productivity



**Container Moves p/hr Excl Weather Delays**

**67,7**

**Container Moves p/hr p/Crane Excl Weather Delays**


**13,0**

**EST Weather Delays (hrs)**

**9**

Weekly Forecast

#### Waterside Insights



**Vessel Berthed**

**4**

**New Vessel Arrivals**

**3**

**Avg Days at Anchorage**


**1 day 17 hrs**

**Avg Days at Berth**

**24 hrs**

Weekly Forecast

#### Landside - Stack Insights



**General stack**

**26%**

**Empty stack**

**39%**

**Reefer stack**


**43%**

**TEU Moves Avg**

**1 503**

Weekly Forecast

#### Terminal Evacuation



**Truck Moves Avg**

**806**

**Truck Moves per Hour**

**34**

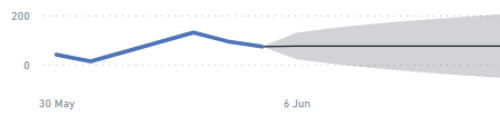
**Rail Moves Avg**

**23**


**Rail Moves per Hour**

**1,0**

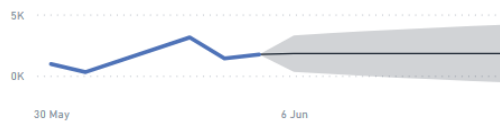
#### Container Moves p/hr Excl Weather Delays



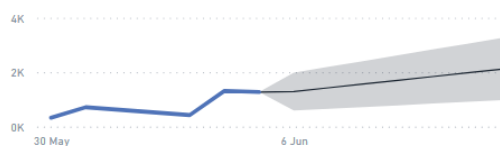
#### Vessel Arrivals



#### TEU Moves Avg



#### Truck Moves Avg



30 May 6 Jun

2 Jun 9 Jun 16 Jun


30 May 6 Jun

30 May 6 Jun

## Port of Cape Town

- Current performance
- Forecasted performance
- Segmented performance areas

- Western Cape Port Planning Dashboard
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## Waterside - Vessel Insights

Understanding vessel metrics is essential for assessing terminal performance. By optimizing time at anchorage and time at berth, terminal operators can enhance productivity, reduce dwell times, and improve overall efficiency.

Key elements explored are:

- Anchorage Time:** Evaluating the wait time before berthing to identify potential congestion and delays.
- Vessels at Anchorage:** Visualize congestion levels and demand trends.
- Berth Time:** Time at berth are indicative of efficiency in loading/unloading operations.

### Filters

**Port Visit Start Date**

2023/01/01  2024/12/31

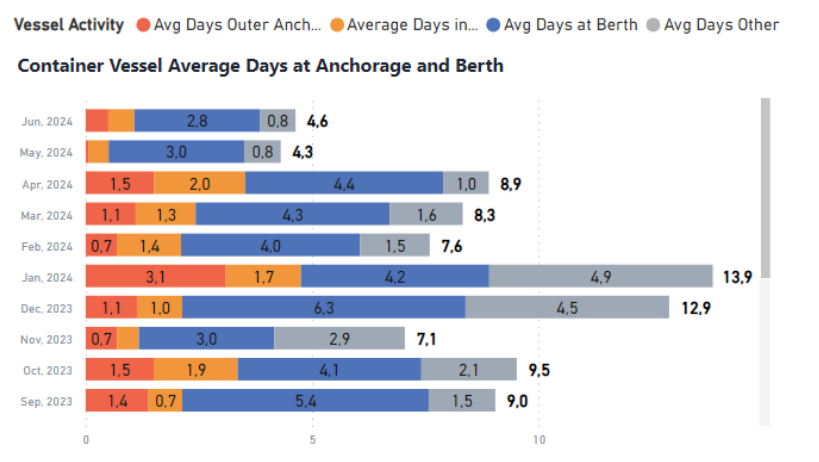
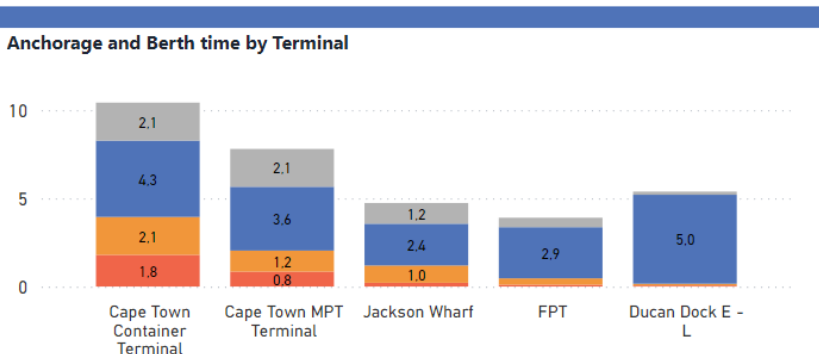
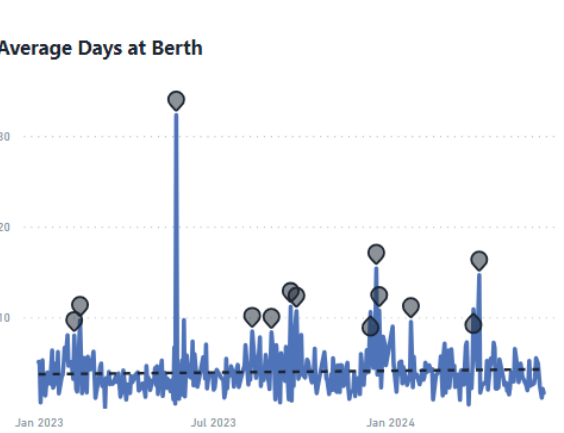
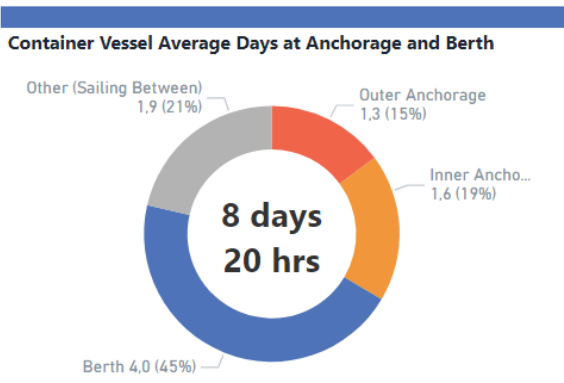
**Terminal**

All

**Vessel Name**

All

Vessels at Outer Anchorage <b>2</b>	Vessels at Inner Anchorage <b>0</b>	1 Vessels Berthed at CTCT: SEASPAN TOKYO	Current Avg Hours prior to Berth <b>1 day 9 hrs</b>	Current Avg Hours at Berth <b>1 day 18 hrs</b>
--	--	---	--	---



## Port of Cape Town

- Vessel movement insights

## Port of Cape Town

- Vehicle movement insights at port

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### Heavy Motor Vehicle Insights

Heavy motor vehicle (HMV) movements in and out of the port are crucial for connecting the port environment to the broader supply chain ecosystem.

HMVs play a vital role in transporting containers and goods to and from the port, impacting vessel turnaround times, terminal congestion, and cargo flow. Efficient HMV operations ensure timely delivery of goods, minimizing delays and optimizing the overall logistics network's efficiency.

Recognizing the importance of HMV movements enables stakeholders to enhance infrastructure, streamline processes, and improve coordination.

#### Filters

2023/12/20  2024/06/12

Truck Moves Avg

**772**

Truck Moves per Hour

**32**

Port Precinct Avg Terminal Time (mins)

**130,47**

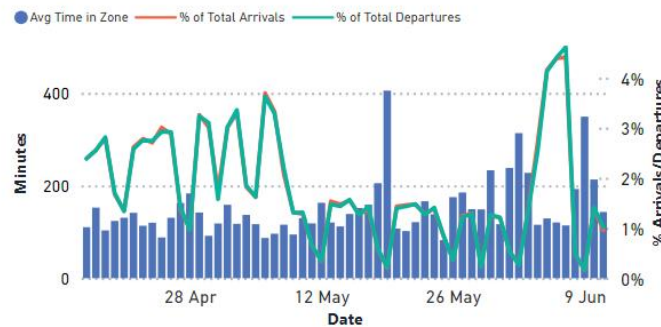
Container Terminal Avg Terminal Time (mins)

**104,19**

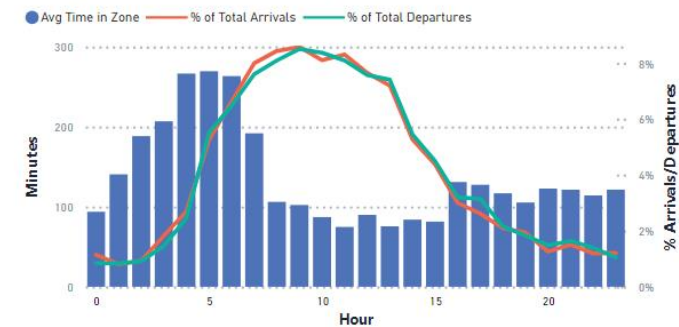
FPT Terminal Avg Terminal Time (mins)

**70,94**

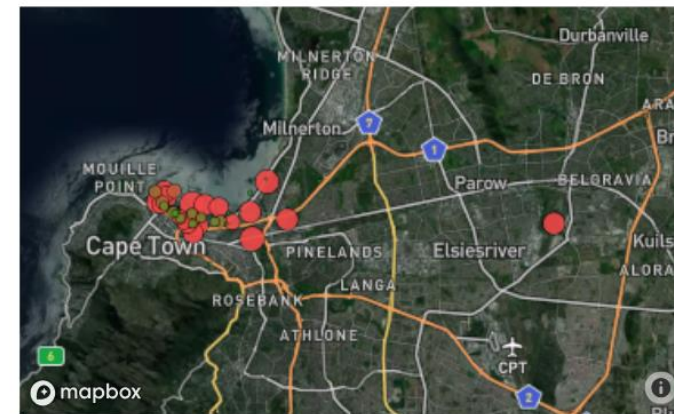
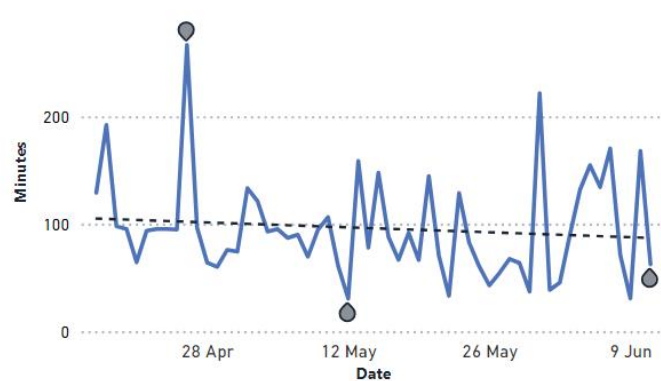
#### Average Minutes in Port Precinct by Departure Day



#### Average Minutes in Port Precinct by Departure Hour



#### Average Minutes in Container Terminal by Day





- Delivers key insights to target audiences
- Can be set up to speak to burning issues
- Ensure alignment across the organisation



[Logistics Monitoring \(logistics-monitoring.com\)](https://logistics-monitoring.com)





LMS  
Logistics Monitoring System

Thank you!