



# TRANSNET FREIGHT RAIL



**REINVENT**

for GROWTH

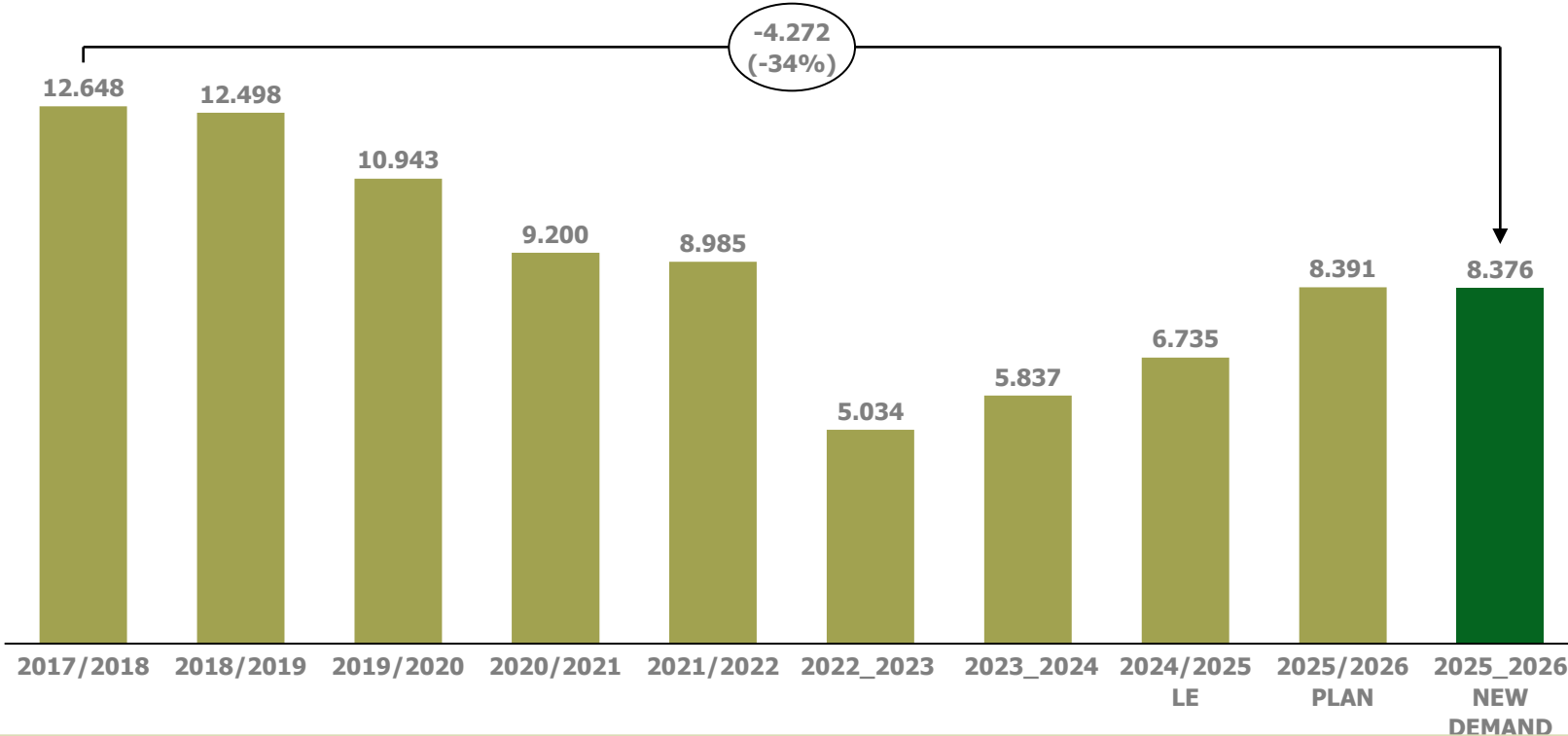
**Enhancing Export Competitiveness  
through Improved Logistics Infrastructure**

# Rail Status in KZN

1. The **rail service** on the corridor is an anomaly and **highly unreliable**
  1. Untenable theft, vandalism and sabotage
  2. Flood damage to be repaired
2. **Security** has been ineffective with average incidents per week exceeding 21 or 3 p.d. OBS to be introduced that has brought improvement in other areas.
3. The **flood damage in 2022** reduced the available slots to **15**. The **design slot capacity is 72** and **operational is 47 slots**.
4. The **double line network built in the 1950's** and the operations was designed for the high volumes Durban Hub Port, commodity mix predominantly dry bulk and liquid bulk, until change in Port strategy to be clean cargo.
5. There **are 58 tunnels, with no ventilation for emissions** thus a safety hazard. The Cedara and lowlands tunnels are between 4 and 6 km, which impacts the deisel performance.
6. The **relocation of the bulk has reduced the density** on the network thus increasing the unit cost per ton or container, therefore existing lossess for every R1

# Current Rail Reality Container Corridor Historical Trend

*Volumes impacted by theft/vandalism, Covid, Floods*



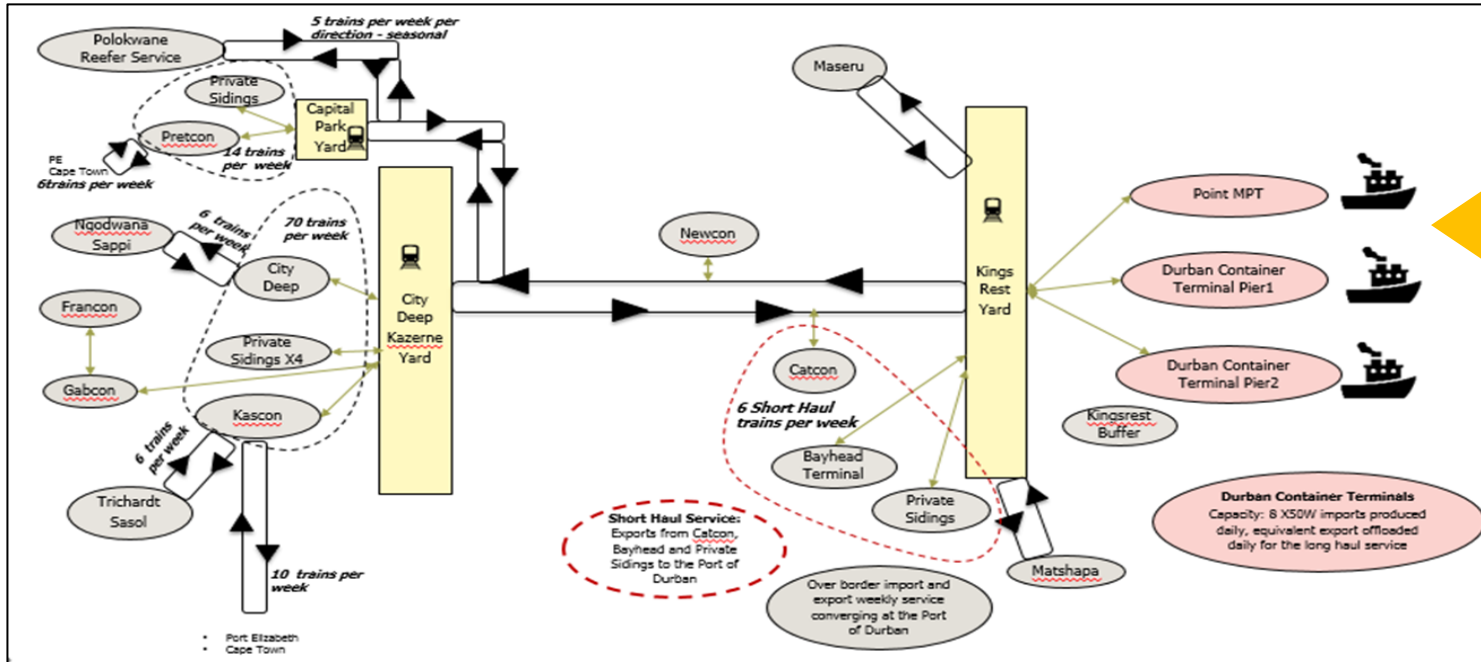
- The majority of the **4.2mt decline** is from the **Grain Sector**, followed by **Containers, Cement and Fuel**
- **TPT Equipment** Availability / Reliability,
- Diesel locomotives in the Free State particularly, and
- other **new opportunities** on the Corridor (open tops chrome, coal other),
- Export grain opportunity above budget, there remains potential for **further ramp in 20252026**

- With the deployment of **OBS, Bombvas** Embankment Repair and
- Repair of the Illovo Bridge is expected in November 2025 (estimated by PRASA)
- Opportunity to **pursue customer led investment** and revisited operating models
- Restoring **customer confidence** in light of the high level of unreliability

-4.216

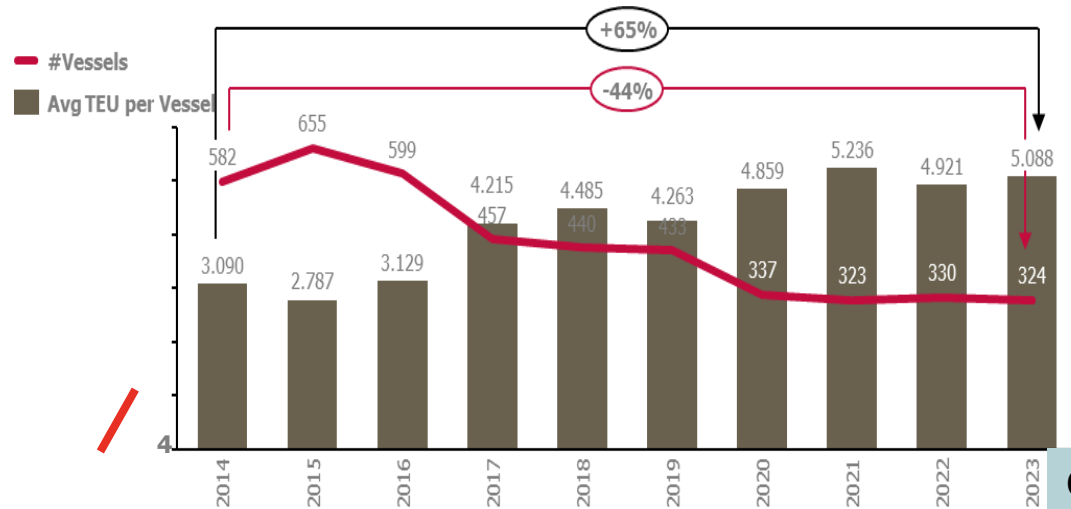
# Need for Change: The Rail Port Supply Chain

High Variability in Train service and Changing Shipping Trends



**Complexity of the Container intermodal system with high a degree of variability**

- 1. Multiple flows** (export loading facilities); varying wagon cycle times; all converging at the Port of Durban.
- 2. Unpredictable train** running times (mainline disruptions Theft, Vandalism and network conditions)
- 3. Increase in local warehouses** and distribution – demand for Short haul service
- 4. 3 day stack window**



**Industry Changes**

- Rail **Consignment sizes** per vessel increased.
- **Vessels sizes** increased by 65% and no. of port calls reduced by 44%.
- **Berth deepening**, even larger vessels.
- Inland and Port **Stack window** remains unchanged at 3 days
- **Road congestion** to the Port has increased, also customer complaints
- **Sulphur Cap** on Vessel : reliability delays will impact vessels

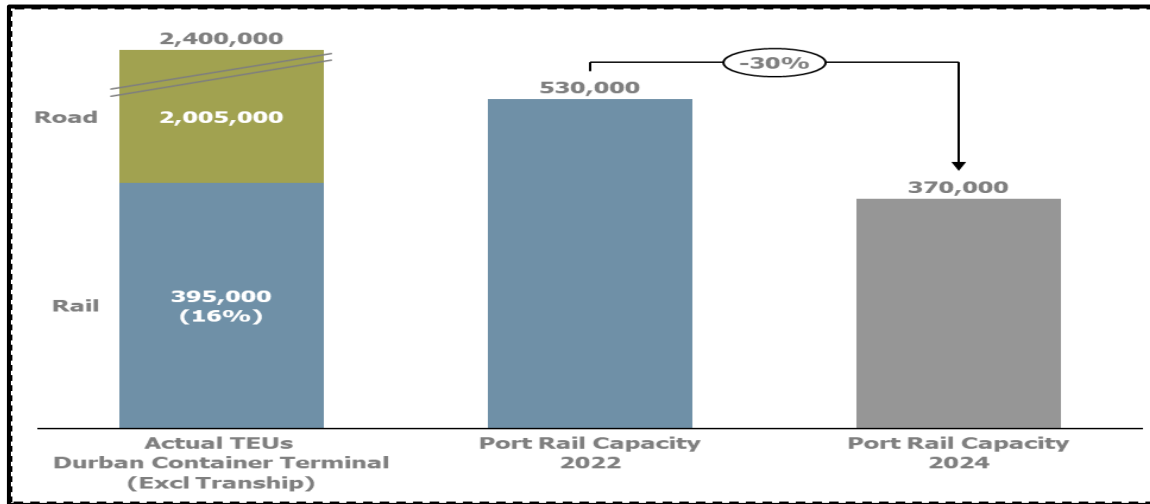
**Change in Operating model required - delink - early arrivals**

# Need for Change: Port Rail Handling Capacity Constraints

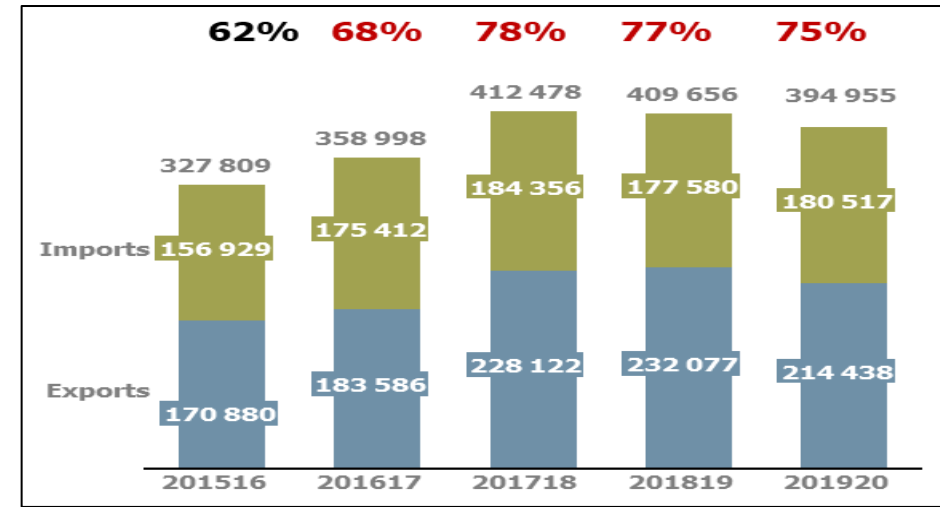
Rail demand higher than Port Rail Capacity



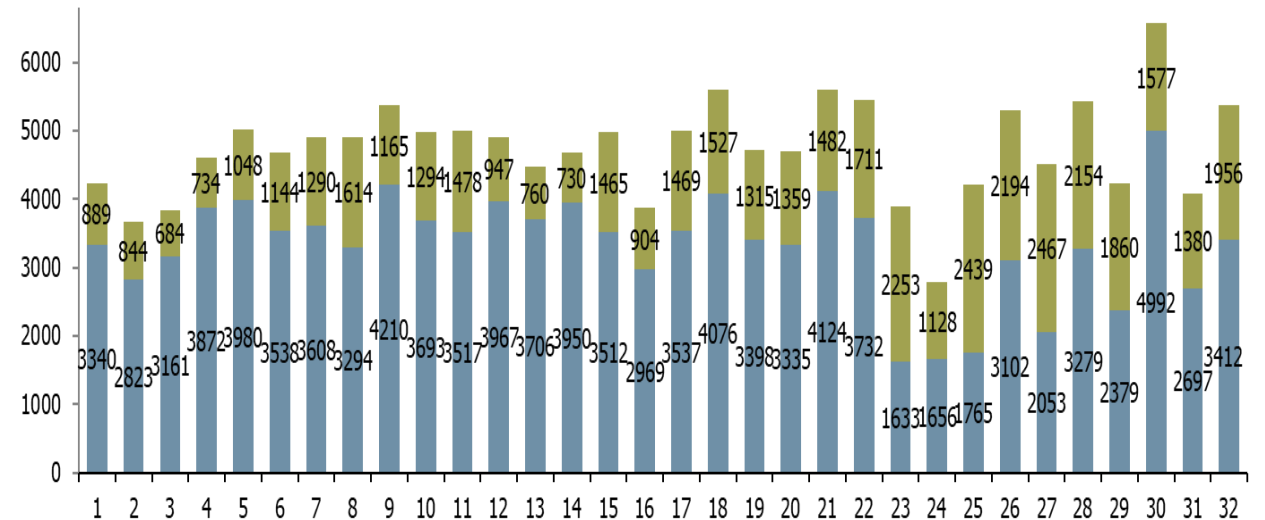
Port Rail Handling Capacity



Utilisation of Port capacity



- **Port capacity 8 trains p.d. Demand for rail 14 trains** = 8 longhaul and 6 shothaul, **prior to Open Access**
- The **port system is geared toward road on the landside**
- **Mass Evacuation through rail** must be incorporated into future port expansion investments and operating model
- Berth Deepening seeks to increase waterside capacity for larger vessels **without associated rail handling capacity** for mass evacuation.
- Alignment and **creation of capacity across the system to enable growth on rail is critical**
- **Wagon capacity waste** – export wagon dwell 48Hrs vs target of 8Hrs
- **Recent reduction in Port Rail handling capacity** - The major contributor is the critical shortage of terminal handling equipment





# Change in Operating Model and Increase Port Rail handling Capacity

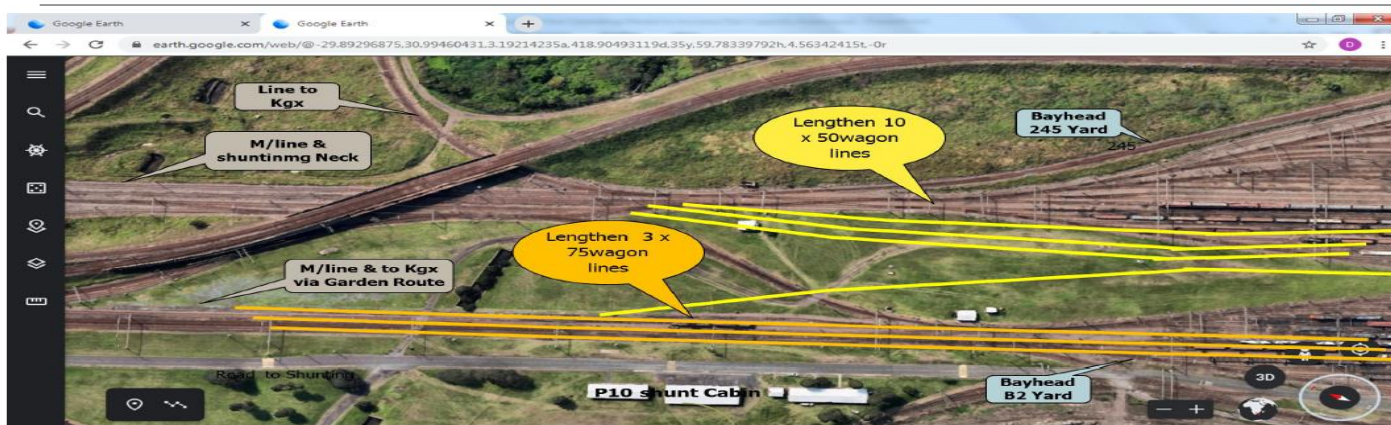


Proposed Delink Early Arrival and increase Rail Capacity Kgx Mega Terminal approx. 24 trains pd. through Near Dock Rail Terminals



1. **Delink Operating Model** – proportion of rail Early Arrivals, rail to Near dock capacity Kgx Mega terminal or Buffer
2. **Kgx Buffer** – pilot success of New Operating model, which created additional rail handling capacity and improved wagon TAT
3. **Reduce shunting** in the yard and wagons are discharged on arrival to the Port.
4. **Phased KGX Mega Terminal**
  1. - Additional Rail terminal within the Rail yard will increase bay additional 6 trains p.d.
  2. **Phase 4 and 5**– to be built and the road access to be determined and additional 12 trains, Greystone site to be incorporated as stacking capacity and to provide direct road access into Port.
5. **Train Operations** to be pushed back to Bayhead yard and longer rail lines to be created.
6. **Push Back DCT Gates** to entrance of Langeberg Road.

## Push Back Train Marshalling from Kgx to Bayhead Phase 2



1. **Push Back** – marshalling to Bayhead Yard
2. **Bayhead Underutilised** real estate
3. The rail yard are short lines based on historic operations
4. Rail yards to be restructured with **longer lines, 50 and 75 wagon lines**

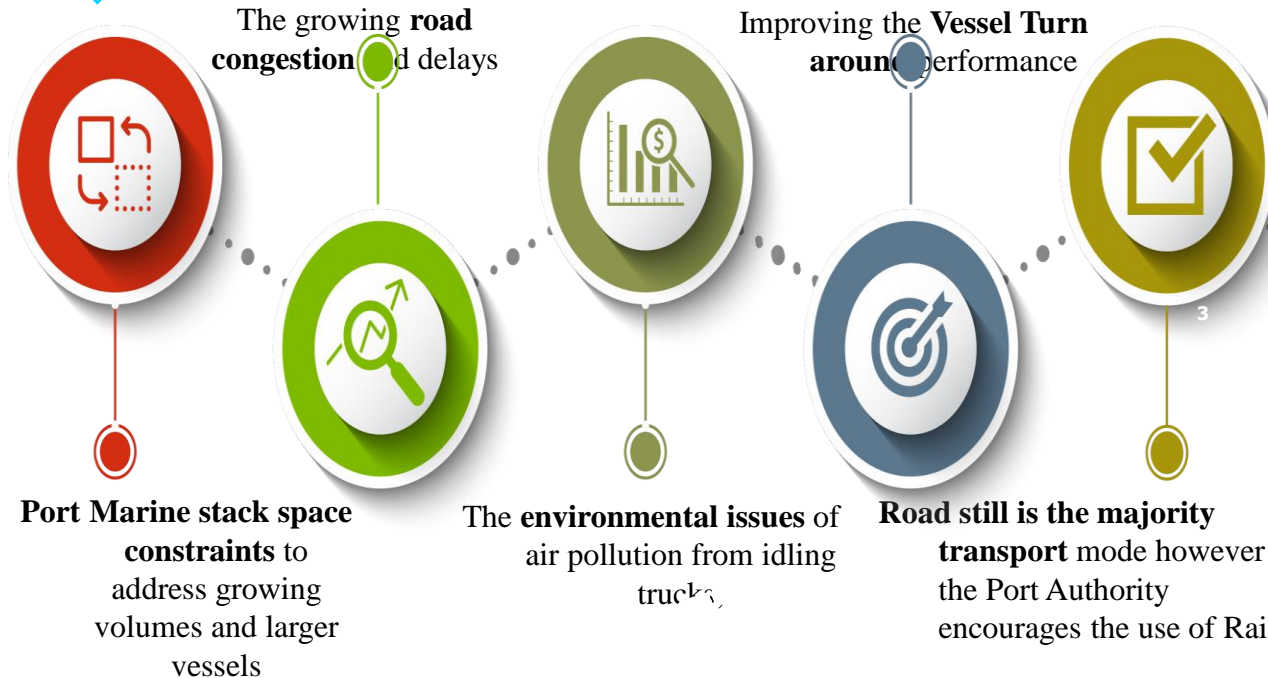


# Back of Port to Support Mass Evacuation of Imports - International Benchmarks to support

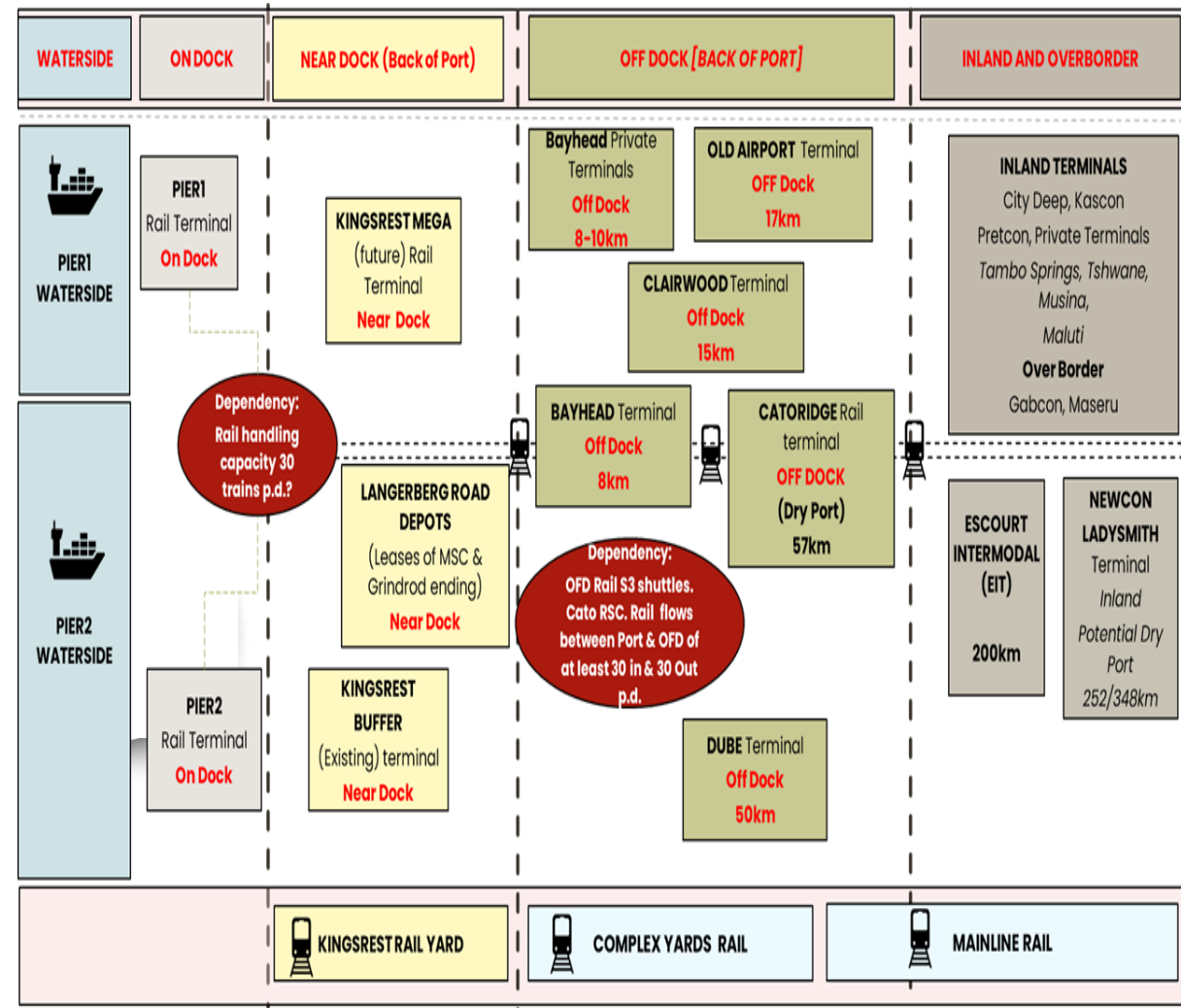
- The below are the benefits for use of Near Dock, Off Dock Terminals or Dry Ports based on use of rail capacity:



- Netherlands – Port of Rotterdam – 11% on rail (2016)
- USA – Port of Los Angeles – 35% on rail, Alameda



## Back of Port KZN fit into Port System -



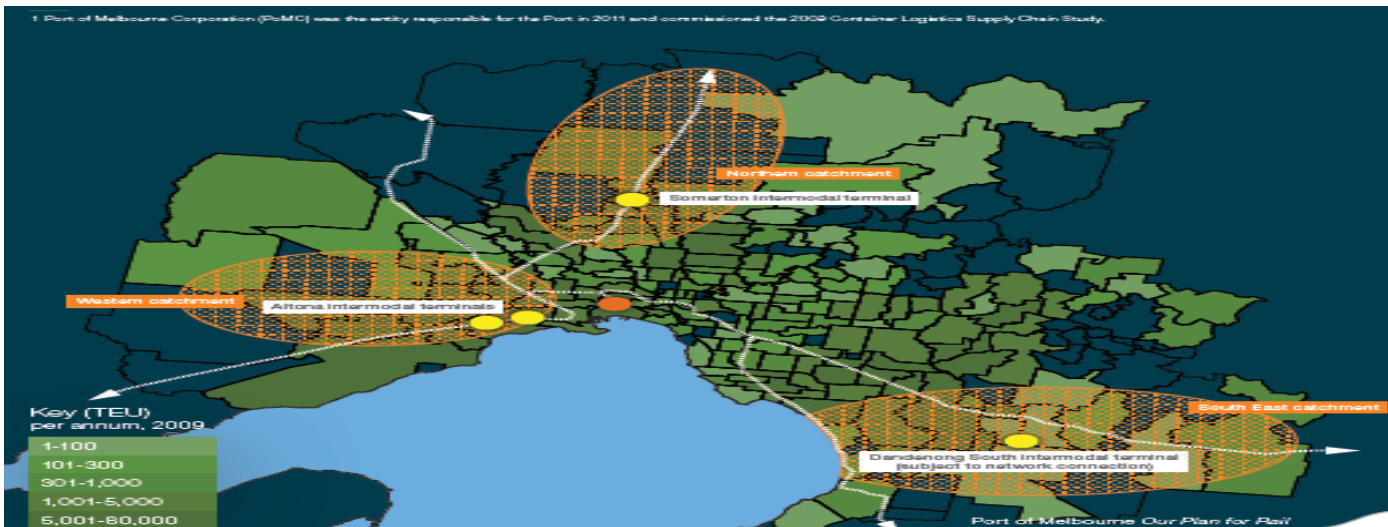
This is a practiced International approach, extending Port gateway or shifting Port Entry, but requires customization to the various Port and its space constraints vs the geographical positioning of terminals and borders.





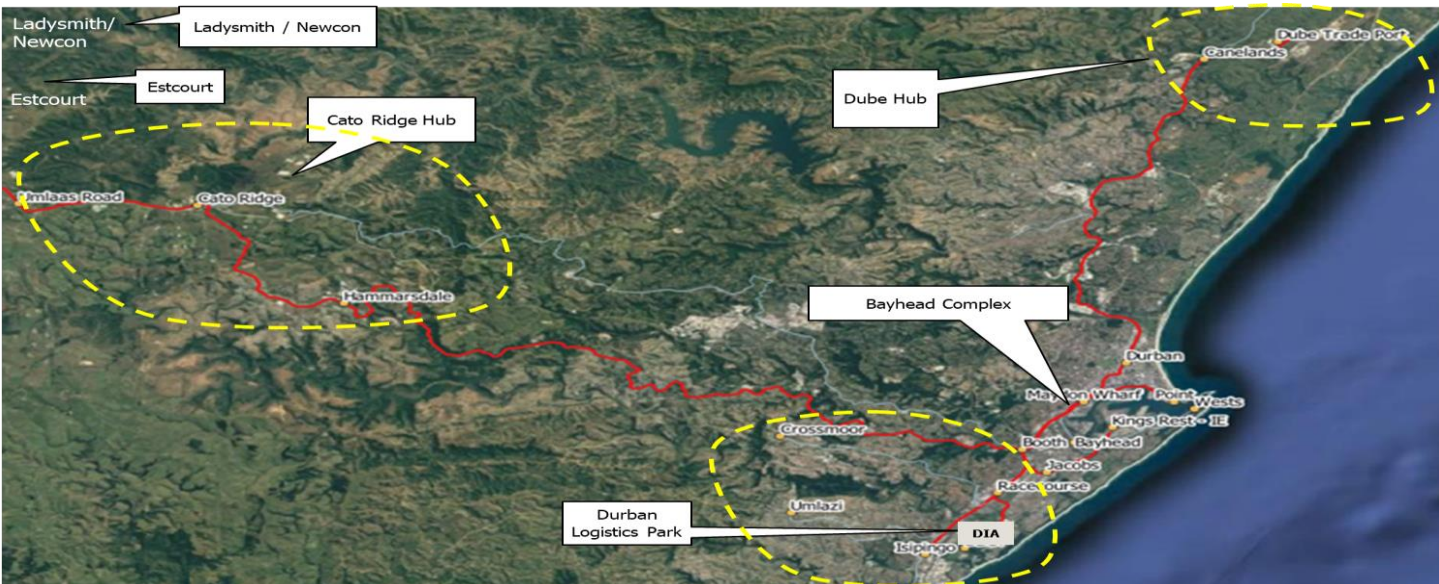
# Port of Durban Increase Capacity and Space Congestion for Growth – PoM similar Problem

## Port of Melbourne



- **Port of Melbourne (PoM)** - to grow economy the Port capacity had to be increased
- Majority of Port **volumes is on road** and congesting city
- To increase Port capacity PoM formulated the **Port Rail Transformation Project**
- PoM identified the **industrial catchment areas** around the Port
- Encouraged the use of **rail to Intermodal terminals per zone** Western, Northern and South East Catchment areas.
- **PoM subsidized the rail short haul** through imposing Port surcharge per container

## Port of Durban



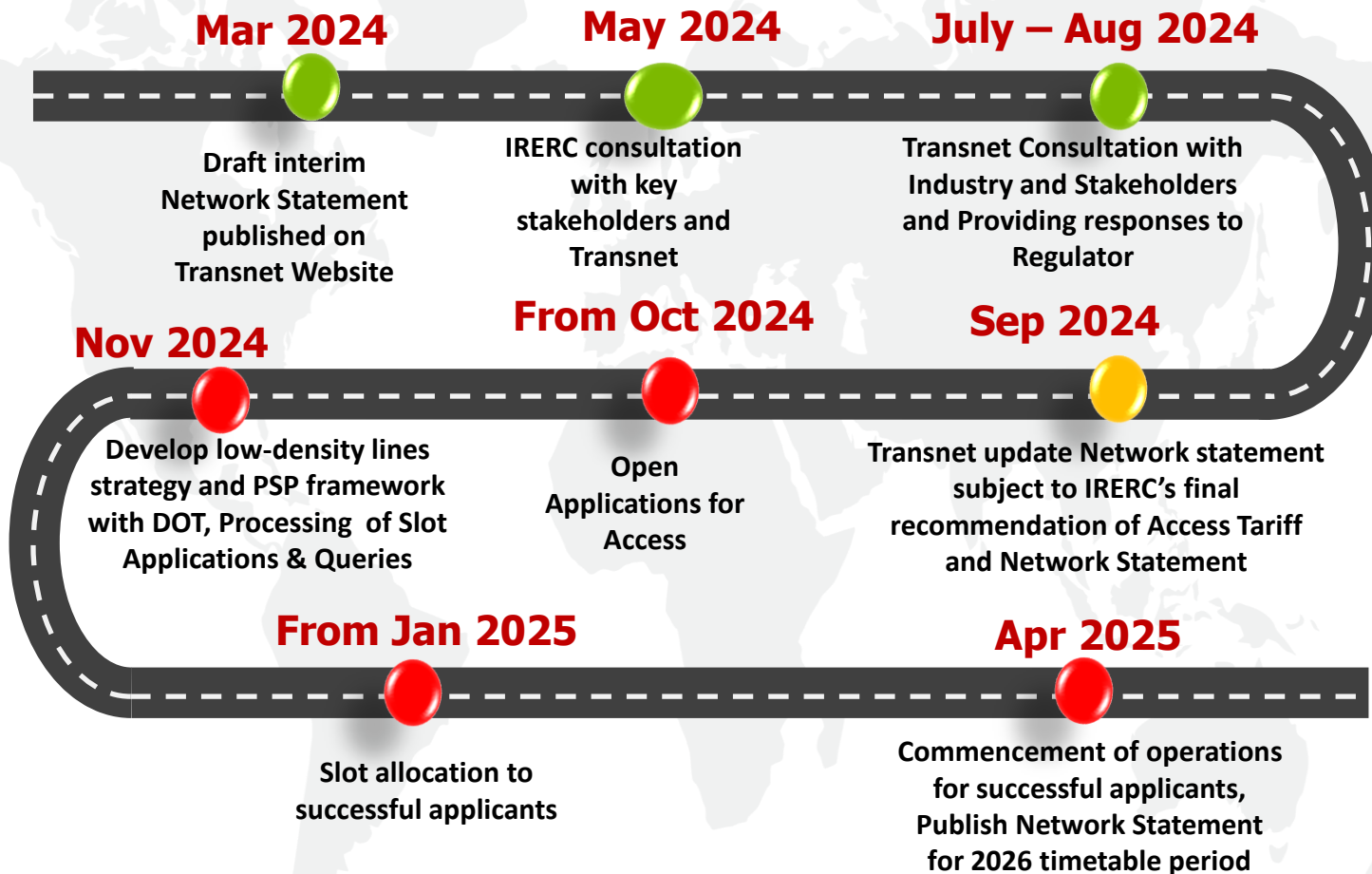
- Port Master Plan **To increase Port capacity and decrease congestion** through Back of Ports
- **Industrial zones** South, Central, West and North
- **Central bayhead complex** – most effective – exports approx. 3 trains p.d. from Private facilities
- **Zero imports customers** refused to pay. TPT subsidizing for next 6 months to improve stack and quay side efficiency
- **Catoridge** – TFR awarded to CRIP in 2021 – volumes have not materialised. Hampered by network issues.
- **DLP** – **install a rail link** for terminal going to market. Point increase in terminal capacity dependent on DLP.
- **North coast - Dube** still in investigatory phase



# Rail Reform – Open Access



- NRP objective to enable the private sector to invest in rail and increase rail volumes
- Neither Transnet nor Government has the funds to invest.
- The Freight Logistics Roadmap provides a detail road map to implementat including finalisation of tariffs, options for funding and may be updated from time to time



- **1 Oct** – vertical separation TRIM separate OD in Transnet
- Appointed a CEO
- **TRIM** is the Network Owner and Operator
- **TFR still has to fulfill key role** of supporting the economy with rail and TRIM in providing capacity to new TOC's.
- **Critical TFR recovery plan** is prioritized to enable it to fulfill this role.
- RAM is approximately 360mil tons therefore TOC's should not displace but convert road to rail.
- **Private sector to invest** to increase rail capacity and volumes.
- TFR will have to **compete with new private TOC's**
- TFR change in **Business Operating Model** to change to Business Units, greatest success

1. **No country has rail as the primary mode** of transport – it is necessary support to compliment road to reduce congestion – i.e. Rotterdam 11% and LA 35% (shorthaul mostly)
2. **Investment in rail will be wasted** and underutilized as has been the case thus far, therefore needs to be supported **by Port regulations**, i.e. Port Authority to prescribe % age rail road split per terminal operator in Port of Durban, which shipping lines must apply per consignment.
3. The **Carrier (20%) and Merchant (80%)** - decision of land side modal movement of containers is in the hand of Merchants. To numerous to influence.
4. **Increase in rail** must be preceded with **increase in Port rail handling capacity**
5. **Customer led investments** in capacity creation, wagon and locomotives are being encouraged by TFR.