



Improving the quality of freight logistics - Challenges for South Africa

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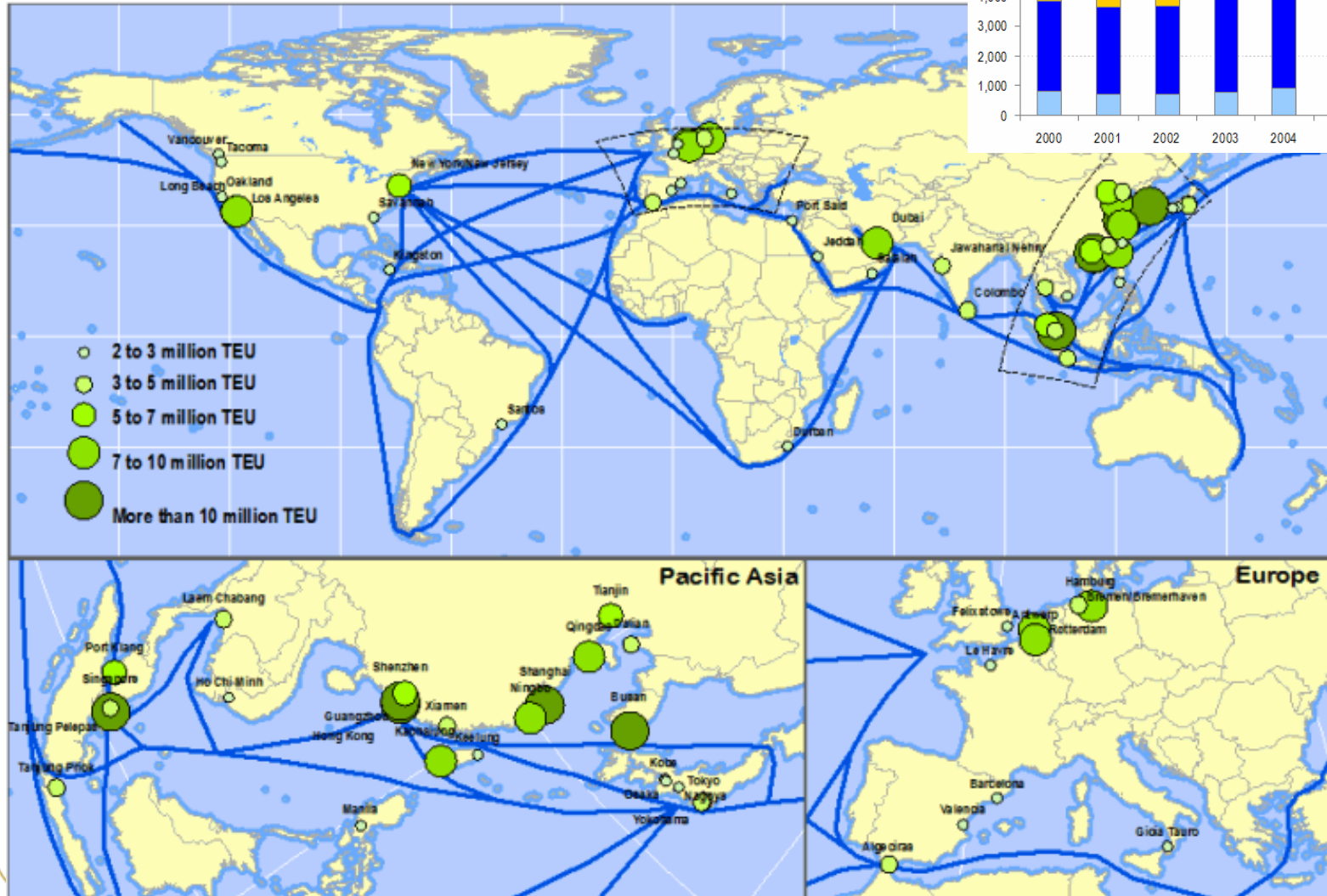
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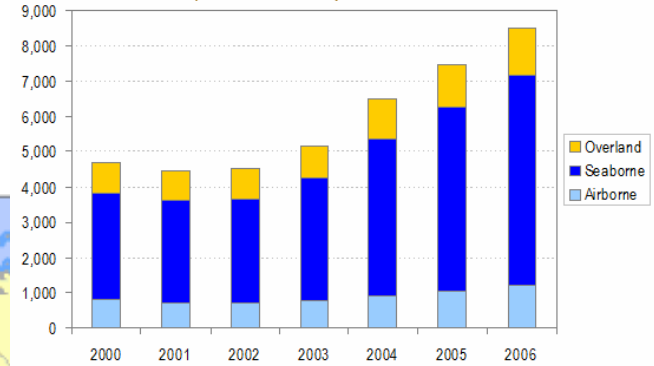


Globalisation of logistics








World's major container ports, 2005



Modal Split of International Trade in Goods (\$ billion) 2000-2006



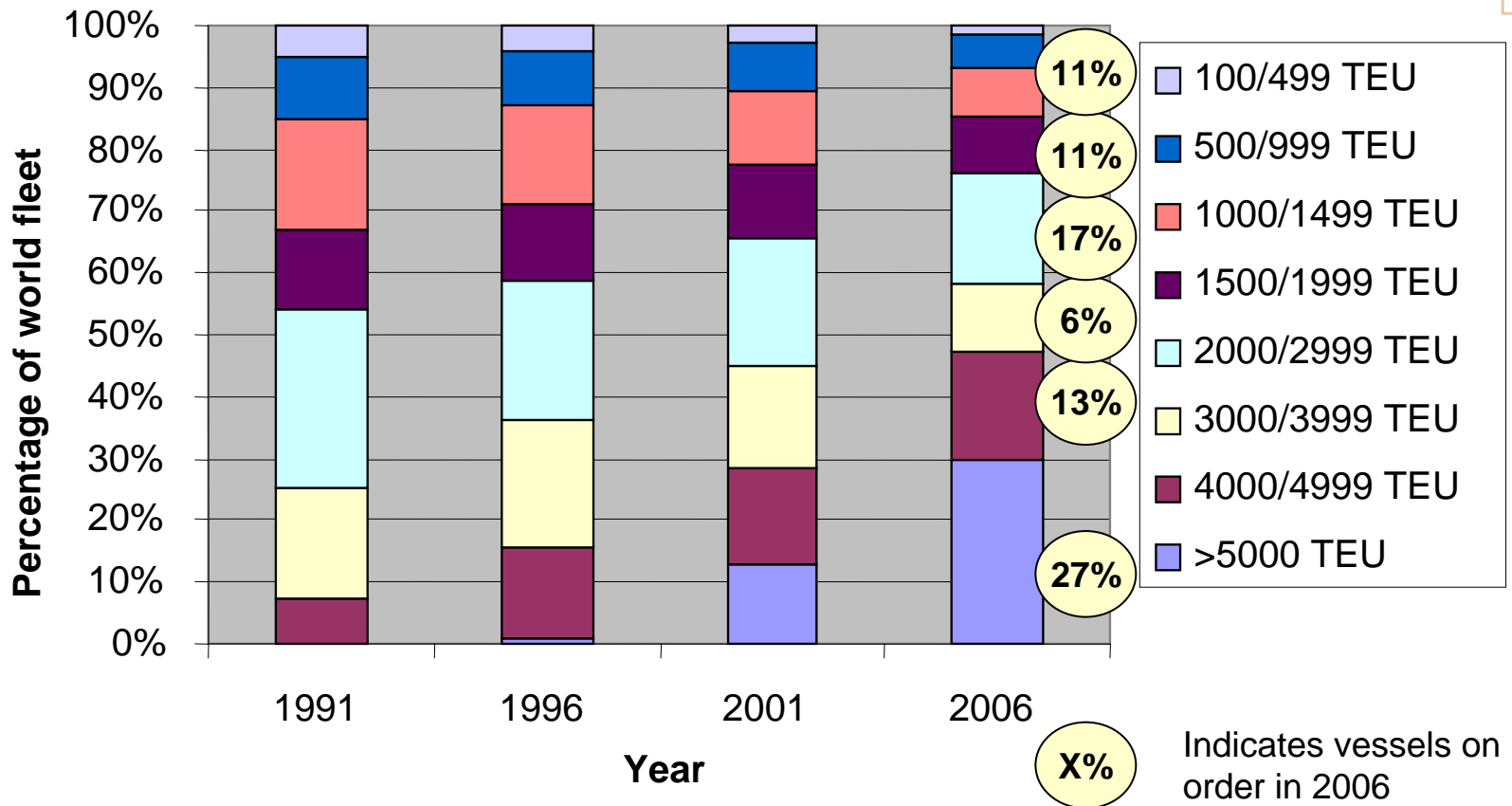
Five Generations of Containerships

Generation (Period)	Length	Draft	TEU	Ports
First Generation (1956-1970)  Converted Cargo Vessel  Converted Tanker	135 m 200 m	< 9 m	500 800	Maximum draught limit of selected larger ports*
Second Generation (1970-1980)  Cellular Containership	215 m	10 m	1,000 – 2,500	
Third Generation (1980-1988)  Panamax Class 	250 m 290 m	11-12 m	3,000 4,000	Doula, Tema, Dakar
Fourth Generation (1988-2000)  Post Panamax	275 – 305 m	11-13 m	4,000 – 5,000	Durban, Walvis Bay, Port Elizabeth, Mombassa, Victoria, Port Noire
Fifth Generation (2000-?)  Post Panamax Plus	335 m	13-14 m	5,000 – 8,000	Port Louis, Lome, Cape Town

Source: Rodrigue, J Dept. of Economics & Geography, Hofstra University, Presentation entitled “Maritime Transportation and Inland Freight Distribution” and DBSA statistics of port draught limitations

*Note – Only African ports used by scheduled container vessels of greater than 1500 TEU in size have been included

Scale Increases in Container Vessel Size - World Fleet



Based on Notteboom, T (2004) "Container shipping and ports: An overview and Duetshe Bank Research, 2006



Road Freight - The emerging value proposition - An example



Part of Value Logistics Group

Integrated logistics service provider in the industrial chemical distribution sector

Single source services, based on Just In Time principle

“Intercity Express Road Freight -

Daily inter-city express road freight services to and from all main city centres

National Transport Logistics -

Full truck load and part load consolidated road freight services to and from all main centres

Specialized liquid bulk and semi bulk distribution

National Warehousing and Distribution -

Fully palletized, high rise warehousing and storage facilities

Computerized stock management

Order processing and assembly

Local, regional and national distribution

Dangerous goods and general freight

Air Freight -

National and international air freight services

Supply Chain / 3PL and 4PL Services -

Fully resourced consultancy division

Experienced analysts audit supply chain pipeline from procurement

Customer Integrated Logistic Systems (ILS) provides efficiency and cost saving opportunities

Supply chain managers control and manage the supply chain as a 4PL service provider”

Rail Freight - A core component in integrated logistic supply

- Block train concept with capacity allocation to serve the supply chain needs of customers
- Track and trace with proactive customer information
- Quota booking meeting customer needs for punctuality, security
- Integrated rail sector solutions well aligned to:
 - Automotive Chemicals
 - Industrial Container
- Technology Innovations
 - Track and trace,
 - Road semi-trailers on rail,
 - Make rail more attractive for palletised products, and
 - Technology development in wagons, double stacking, chemical storage, rapid loading and unloading.



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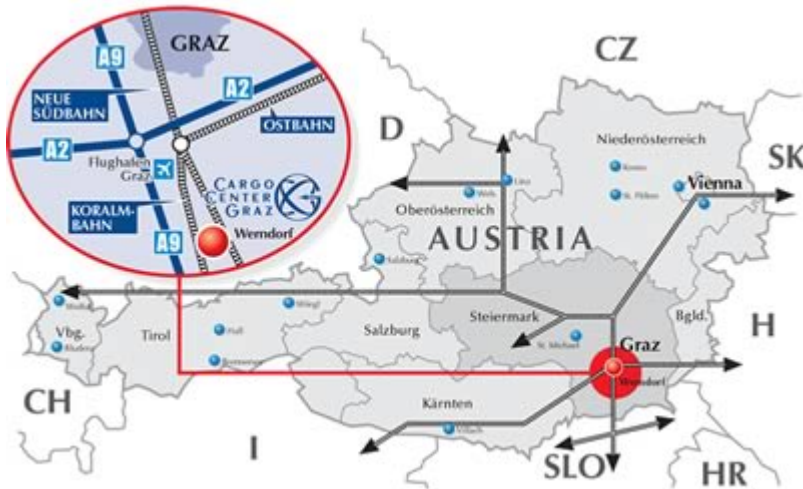
Intermodal port connections

- Enhanced terminal productivity with new equipment, stacking design and scheduling management
- Closer linkage between global shipping companies & ports, with specific transshipment terminal hubs around the globe
- Integrated intermodal terminals and distribution centres now finding a home in port
- Railport - Alternative to traditional rail sidings, provides focus for integration between rail and road network. In operation in Germany, Switzerland, Netherland, France, Denmark,
- Integrated planned intermodal terminals “gateways” close to main production centres, including:
 - Customs facilities
 - Weigh bridges
 - 3rd party logistics providers
 - Freight forwarders
 - Distribution centre services
 - Warehousing and consolidated services

In-port ASDA/Walmart distribution centre - Teeside UK



Intermodal connections - Example Graz Austria



Success factors

- Large intermodal road rail transfer hub integrating existing 3PI and 4PL companies, e.g. Panalpina, DHL, Schenker DB
- Work closely with Rail Cargo Austria but set up as separate company
- Strong link into European and East European rail network
- Integrated into major motorway network and close to major centers of production

Lowering the Cost of Transport Logistics in South Africa



- SA's cost of logistics amongst the highest in the world (between 15% and 16%) and reduces competitiveness in both the domestic and international market.
- Reducing the cost of logistics remains a core component of Transnet's mandate. It should be seen from two dimensions:
 - Improving the quality and reliability of transport services (generalised transport costs), and
 - Reducing the real monetary cost of transport.
- Weighted tariffs have increased by 12% in rail and 8.7% in Transnet Port Terminals (2007/08). Some rail tariffs increased by 20-38% in 2007/08
- Actual tariff increases are well above the budgeted Corporate Plan and Shareholder Compact target.
- Rail volumes have remained static even during the period of high economic growth experienced from 2005 to 2008. This indicates a shift of traffic to road.
- The global economic downturn has placed considerable pressure on locally based companies and many have responded by reducing output. Transnet could contribute to the sustainability of trade by reducing transport related tariffs

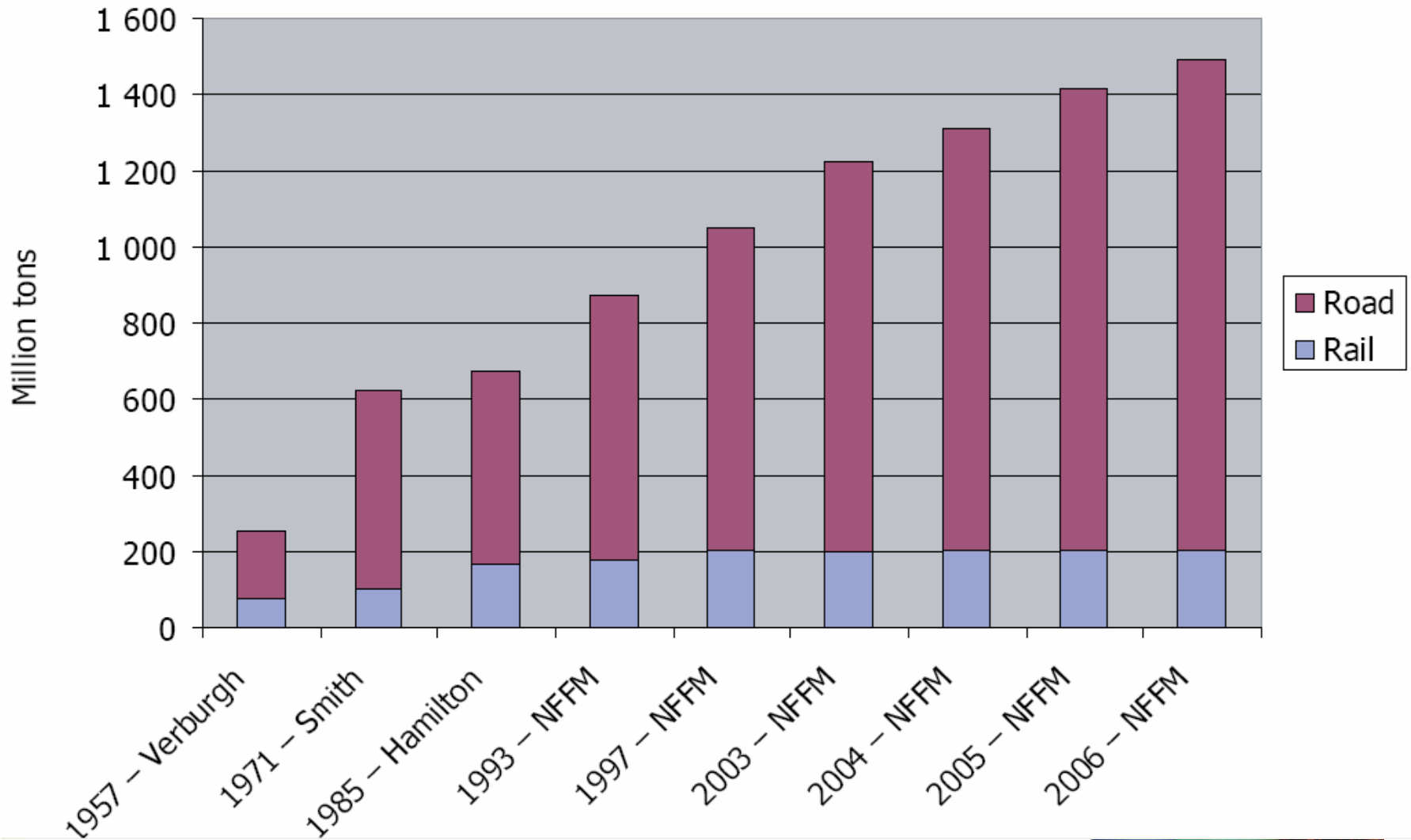


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Growth in road and rail freight in South Africa

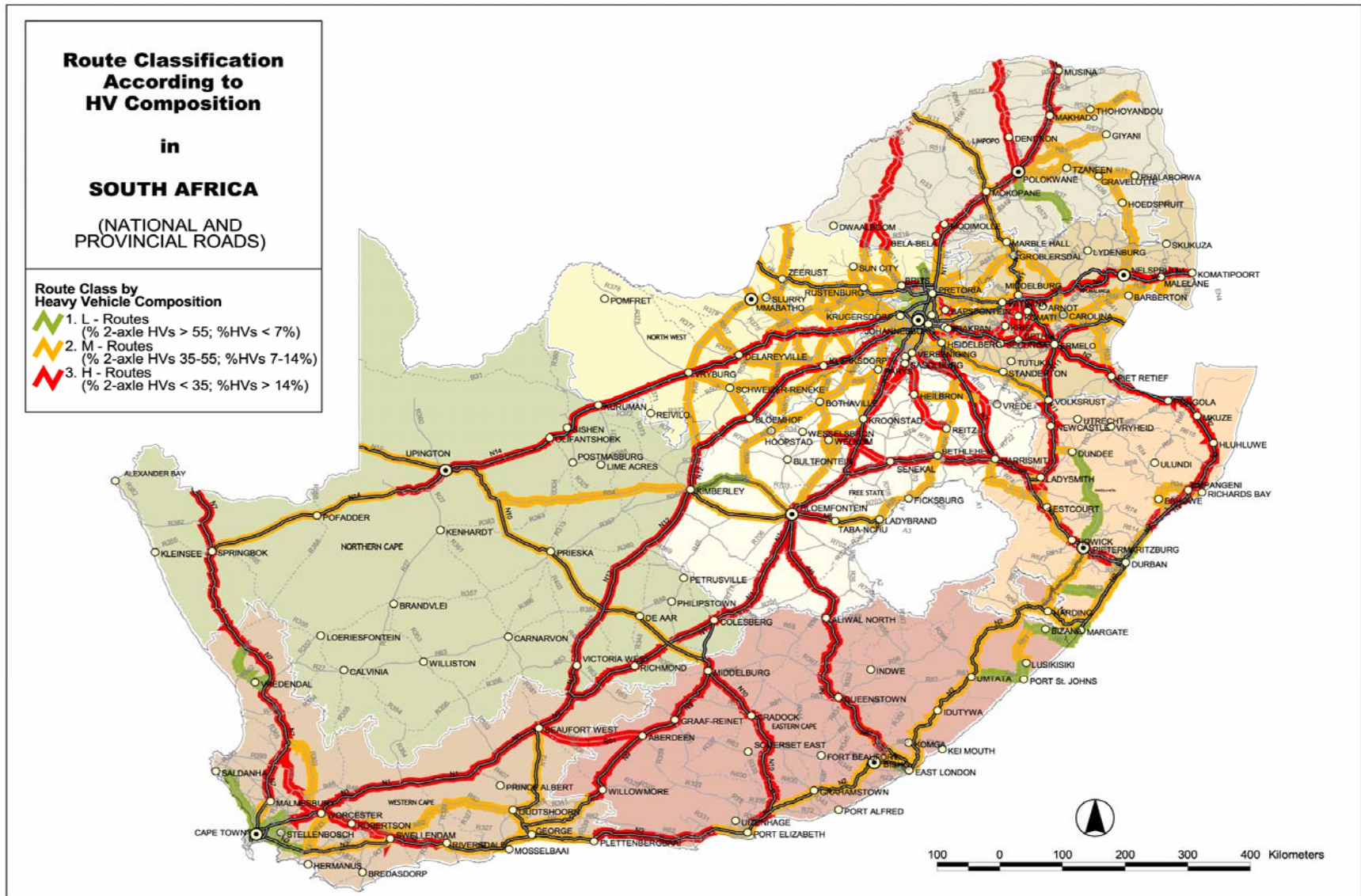


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Source: The Fourth State of Logistics Survey 2007, CSIR

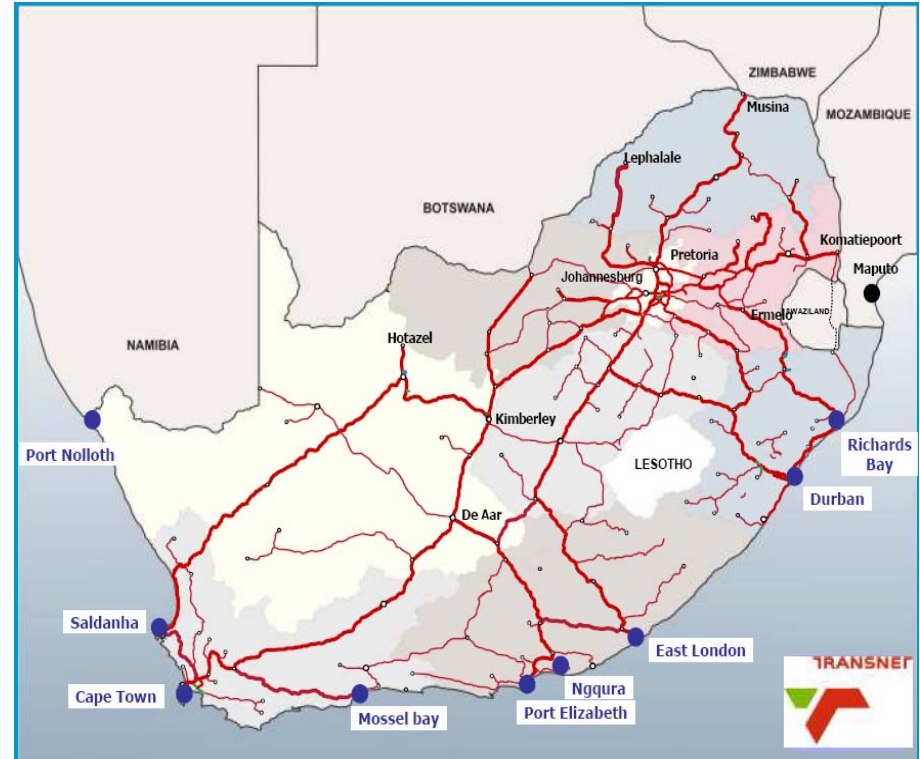


Road freight remains the backbone of the freight network



Transnet infrastructure development to enhance logistics competitiveness

- Based on national forecasts per cargo category : containers, automotive, major break bulk and dry bulk export commodities
- Provide port and rail infrastructure ahead of demand
- Provide capacity through operational efficiencies before infrastructure provision
- Focus on point to point services to increase efficiency
- Alignment with national road and electricity supply planning



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Rail Planning Principles

- Align port developments and rail corridor developments
- Separate metro trains from freight lines (dedicated freight lines)
- Promote a hub to hub operating philosophy and enhanced operational efficiency
- Provide improved inter-modal infrastructure
- Maximize on advantages of network standardization
- Separation of core and branchline network

Port Planning Principles

- Improved operational efficiencies leading to optimised infrastructure investments
- Enhanced Port specialisation:
 - High-value, cleaner commodities at Cape Town, Port Elizabeth & Durban,
 - High volume commodities at Richards Bay, Ngqura & Saldanha. Link with dedicated heavy haul rail
- Improve sustainability & environmental responsibility
- Complement new port expansion with commercial development of obsolete port property



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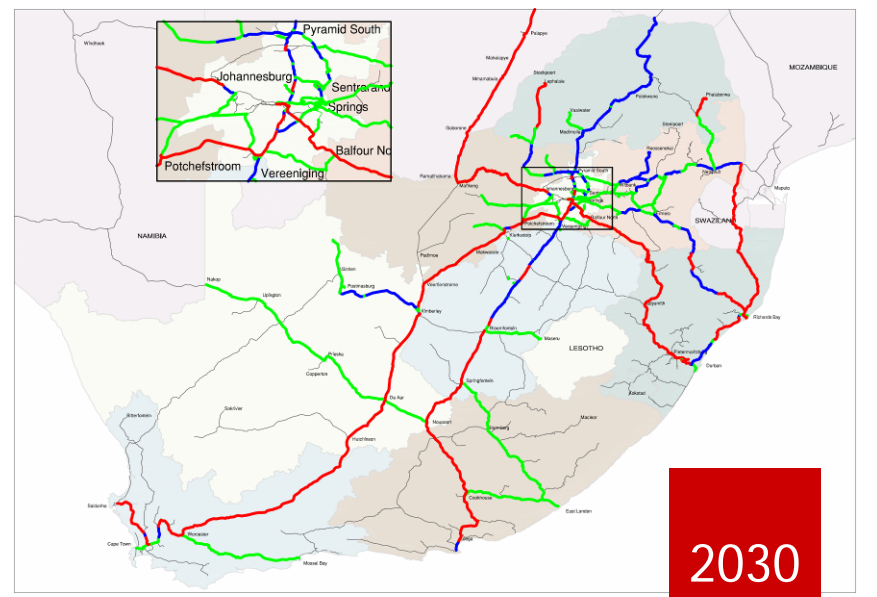
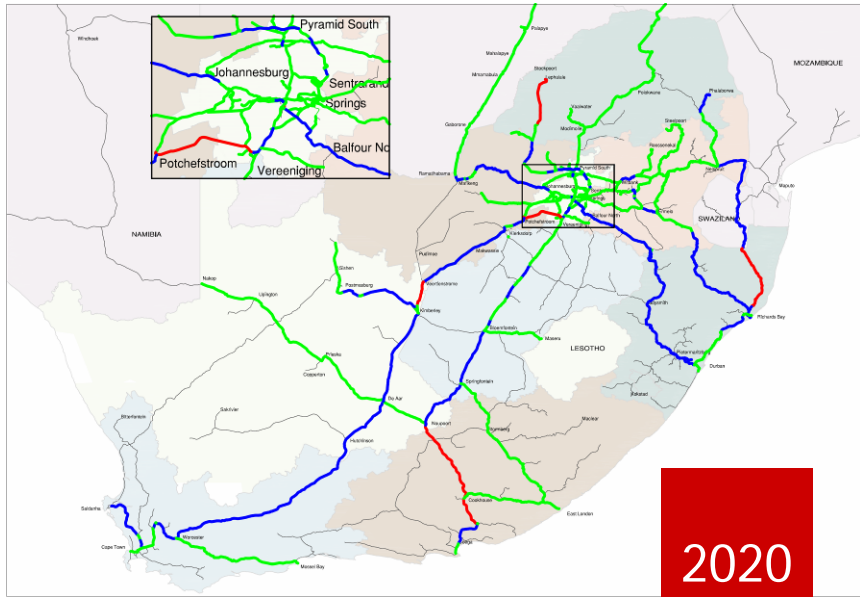
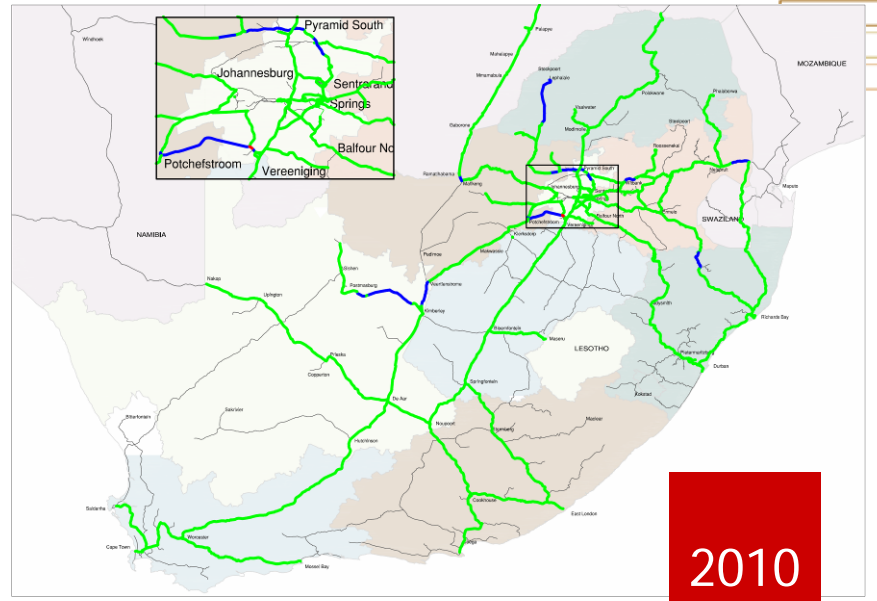
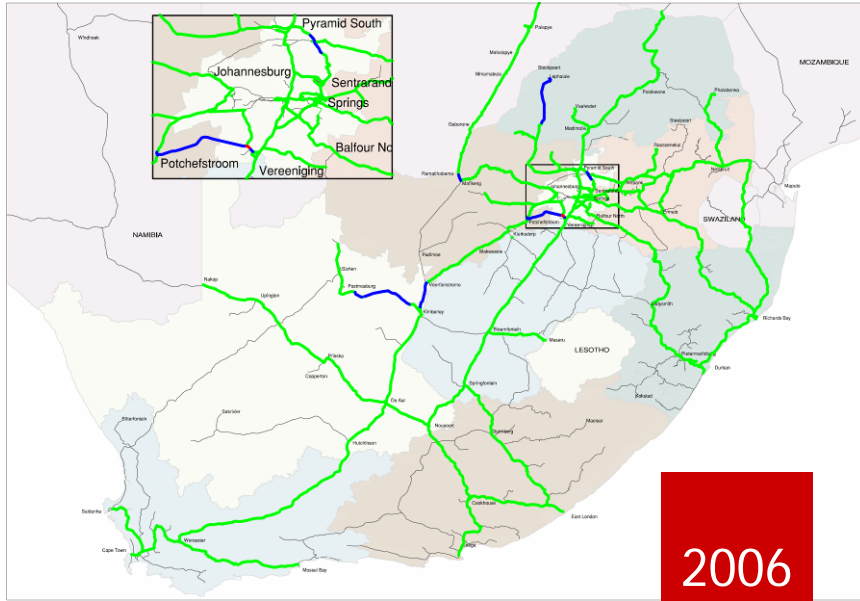
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Transnet hub and terminals concept and proposed shift from road to rail

Assumed Modal Shift (Road / Rail market share)		
Package Type	Current share	Target 2026
Containers	26%	80%
Vehicles	6%	80%
Dry Bulk	60%	60%
Break Bulk	24%	24%
Liquid Bulk	11%	19%



Rail Network Investment proposal



Transnet Freight Rail - Partnerships for investment and business simplicity

- Transnet Freight Rail (TFR) contributes 44% of Transnet's revenues but contributes only 28.1% of operating profit and yields the lowest return on net assets of all divisions,
- TFR's realistic market position needs reconsideration, highlighting the need for improvements in operational performance and Transnet's ability to implement a demand responsive investment plan for rail.
- The level of investment in TFR will not be sustainable into the future unless real volume growth is achieved, and sustained.
- Although the decline in GFB volumes was arrested in 2007/08 and 2008/09, the economic downturn has further reduced volumes.
- DPE supports Transnet's strategy to operate the Core Rail Network as a 'Vertically Integrated Railway'.
- An appropriate balance between the health of the Transnet balance sheet, customer demand, and TFR's operational capability needs to be found.
- TFR needs to simplify its business to focus on providing efficient traction services and access to reliable core infrastructure and, in this way, improve margins through efficiency and growth, rather than tariff increases.
- Innovative ways in which new rail operators, customers and 3rd party Logistics Service Providers may be encouraged to invest in supporting infrastructure, rolling stock and the development of multi-modal supply chain based service offerings, need to be explored and implemented.
- Investment by customers and service providers results in greater commitment to using rail and relieves the strain on the balance sheet to access cash for the capacity expansion programs.

Conclusion

- There is a need to focus on stronger integration between South Africa and global supply chains
- Infrastructure and service levels should to be world-class in order to provide cost effective and efficient logistics solutions. SA needs to link into global trends in freight logistics
- The role of rail needs to be enhanced and developed as a credible alternative to road
- Transnet has a strong focus on infrastructure development and is focusing on improving service level efficiencies. The next step may be to enhance its logistics practice and consider innovative practices beginning to emerge worldwide
- The role of the hub in linking modes and production centers to the market is becoming an integral part of global logistics practice and should be integrated into the planning of South African road, rail and port infrastructure



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Thank You



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