

Stepping up the pace in Container Terminal efficiencies supported by integrated investment planning in supply chains

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- **Challenges faced by Global ports & shipping industry**
- **What do customers want ?**
- **Integrated Investment planning in South Africa**
- **Key Elements in improving efficiencies in Ports, Terminals & Supply Chains**

South Africa's Infrastructure: Rail and Ports

- High Density
- Light Density
- Low Density
- No Service Lines



Regional growth projections, 2003 - 2008



Average annual growth in
container port traffic

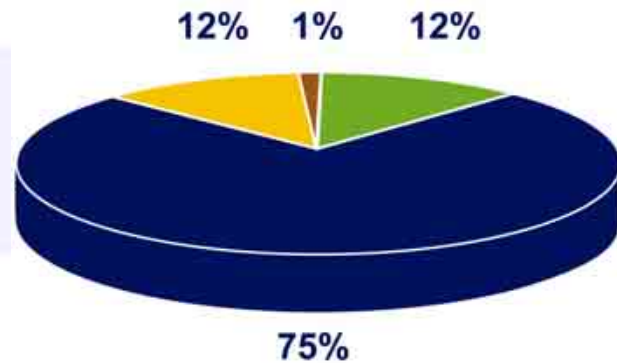
Source: Drewry Consultants Ltd – October 2005

Ship sizes growing in tandem with strong world trade

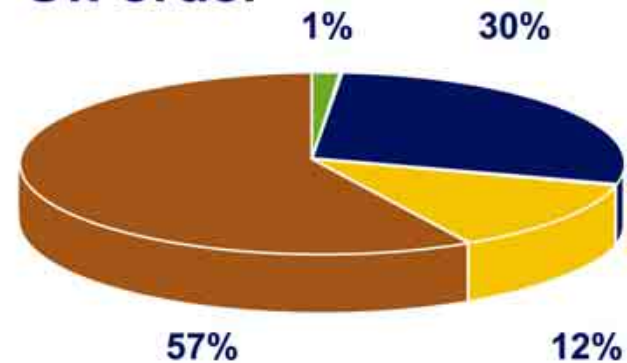


Development of the Post-Panamax Fleet 2004 - 2008

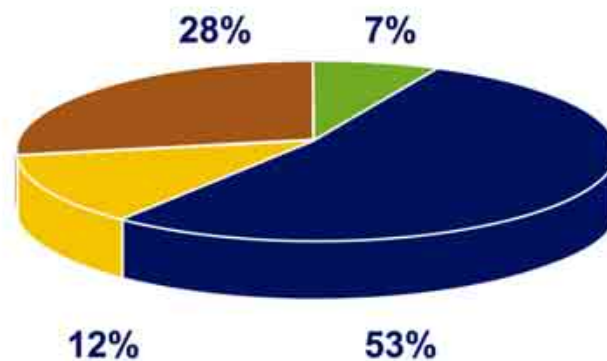
2004



On order



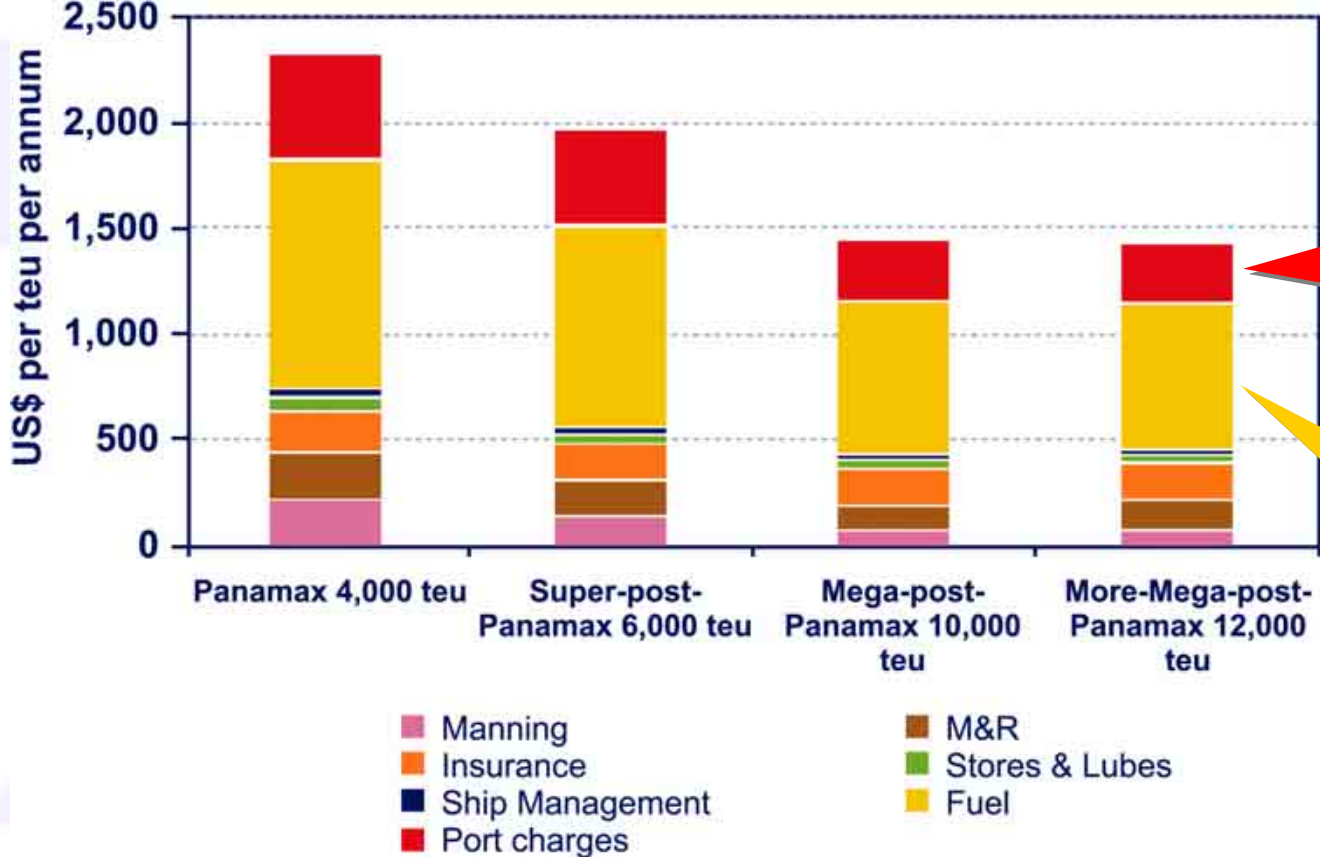
In service 2008



■ < 5,000 ■ 5,000 / 6,999 ■ 7,000 / 7,999 ■ 8,000 >

Source: Drewry Consultants Ltd – October 2005

Operating costs of container ships



Port & Terminal operators need to focus on this aspect

Shipping line operators need to focus on this aspect

Economies of scale level off with increasing size

Source: Drewry Consultants Ltd www.drewry.co.za

Global challenges of Port & Shipping Industry for Container Transport

- **Port & Terminals**
 - Port Development to meet the global trade demand
 - Port Facilities for Mega Container Ships
 - Efficiency Improvement of Container Handling
 - Transport to/from the Hinterland
- **Shipping Industry**
 - Price Surge of Bunker Oil, Container Ships & Boxes
 - Trade Imbalances & Empty Container Handling
 - Port Congestions in some regions
- **Landside & Hinterland operations**
 - Rail & Dry ports infrastructure
 - Competition & pricing
 - Transit times of traffic to hinterland
 - Border posts & checkpoints

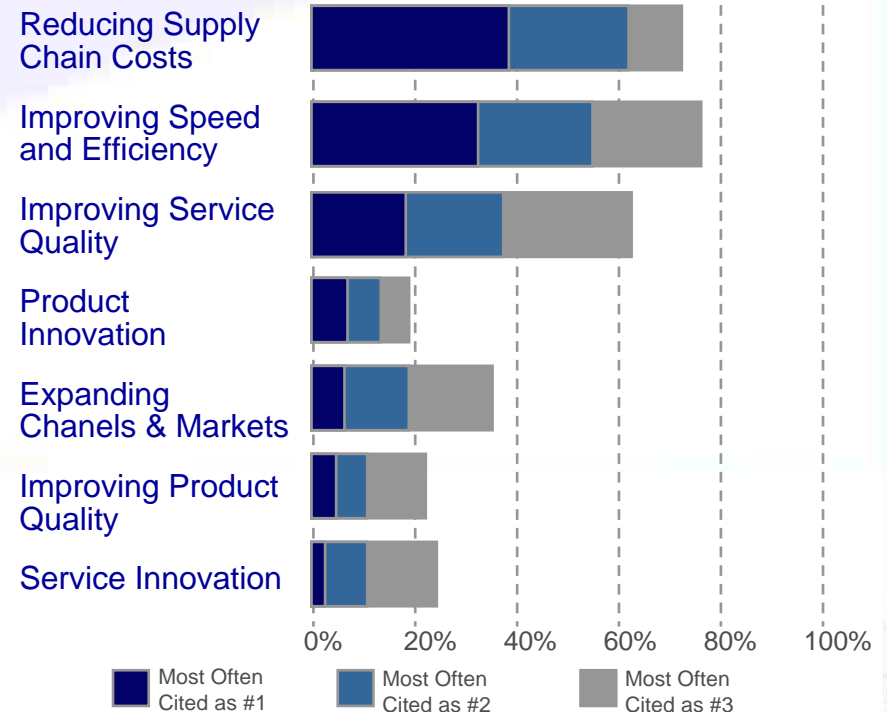
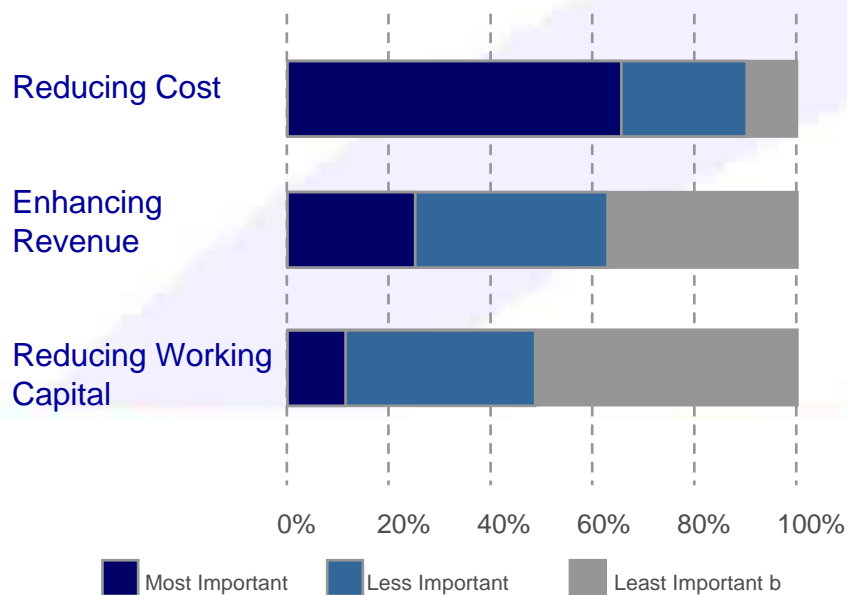
What do customers want ? – A cargo owners view

- Interesting perspectives on Supply Chain Management were obtained in a survey:

- 89% of the companies survey viewed Supply Chain Management as either Critical (44%) or Very Important (45%)
- 89% of the companies had increased their investment in Supply Chain Capabilities either Significantly (51%) or Somewhat (38%)

Operational Performance Drivers

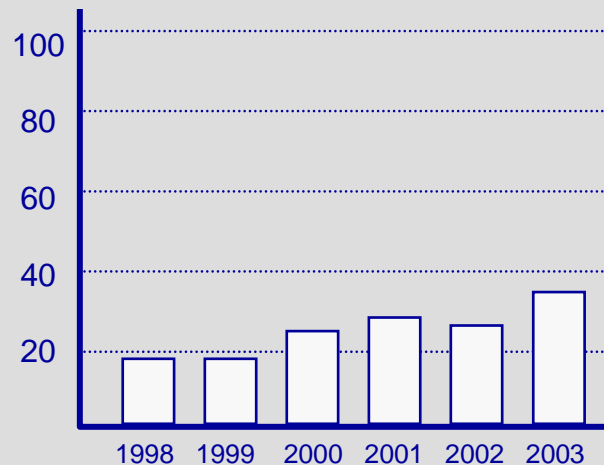
Financial Performance Drivers



What are Customers currently doing ?

- Cargo owners have are increasing their outsourced budget for efficiency & cost reasons

Outsourcing-Focused Percentage of Respondents Supply Chain Budget



INSEAD, Stanford and Accenture survey of 600 global companies. Report released 2004

Functions Outsourced

Outbound transportation and fulfillment

Inbound transportation and fulfillment

Manufacturing

Post-sale service mgt, warranty and returns

Linkages to channels and other partners

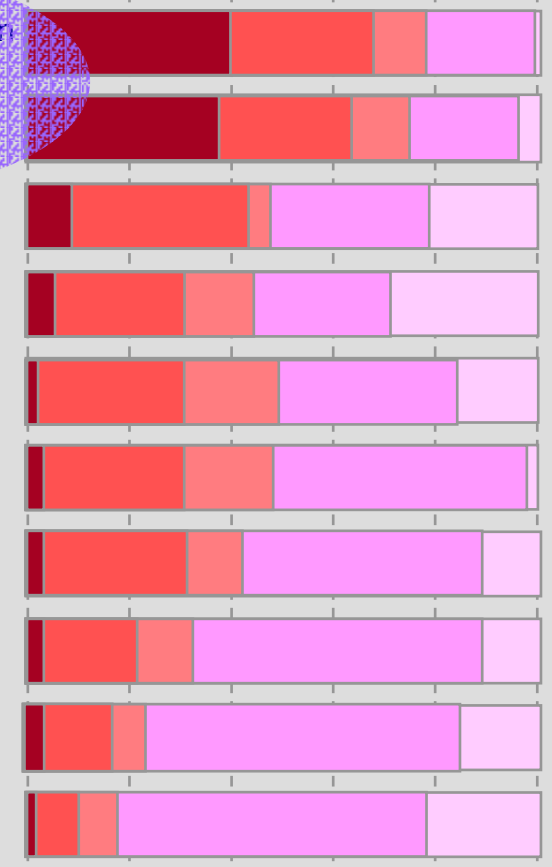
Linkages with suppliers

Procurement and sourcing

Linkages with customers

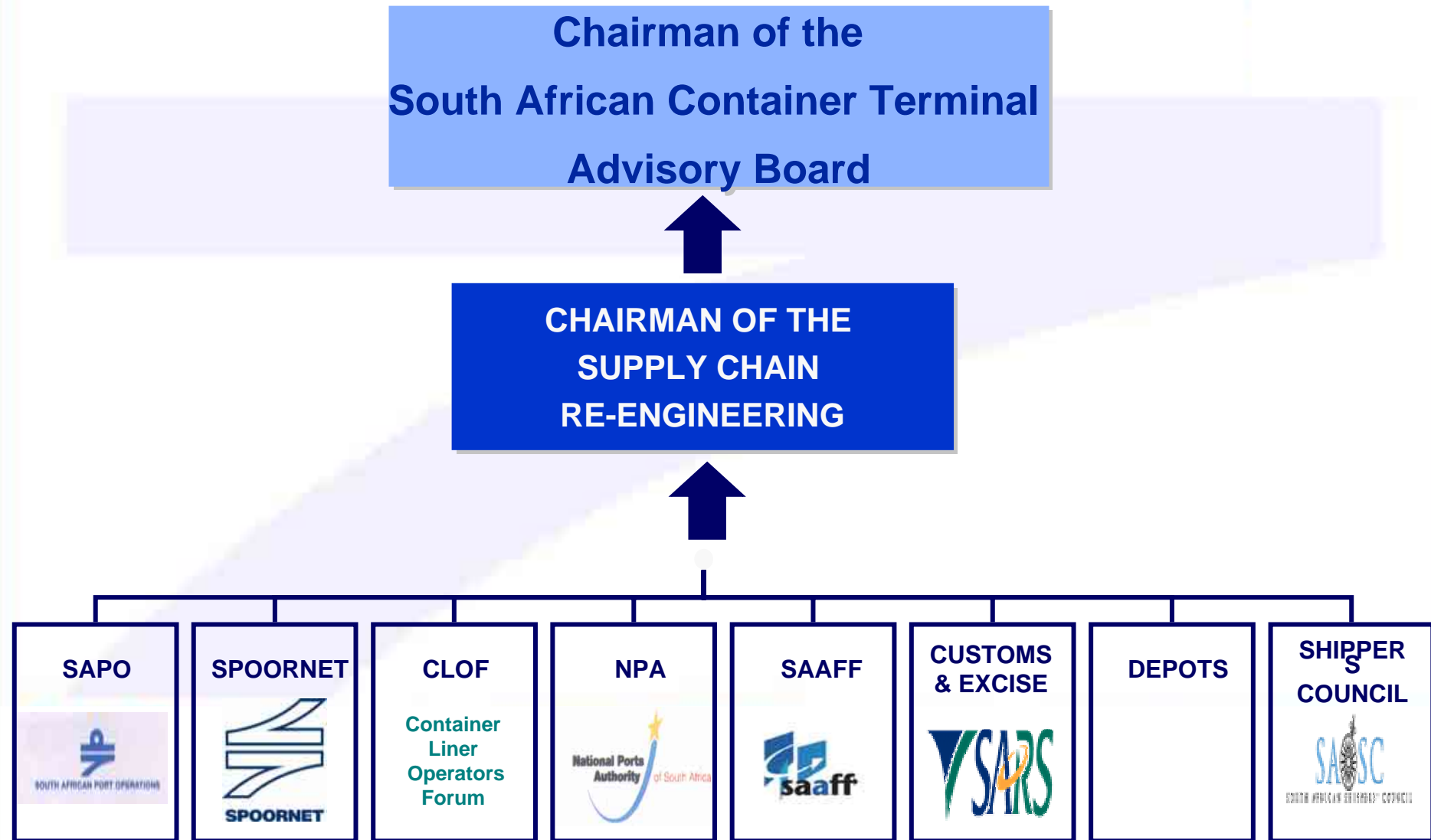
Supply chain planning

New product design



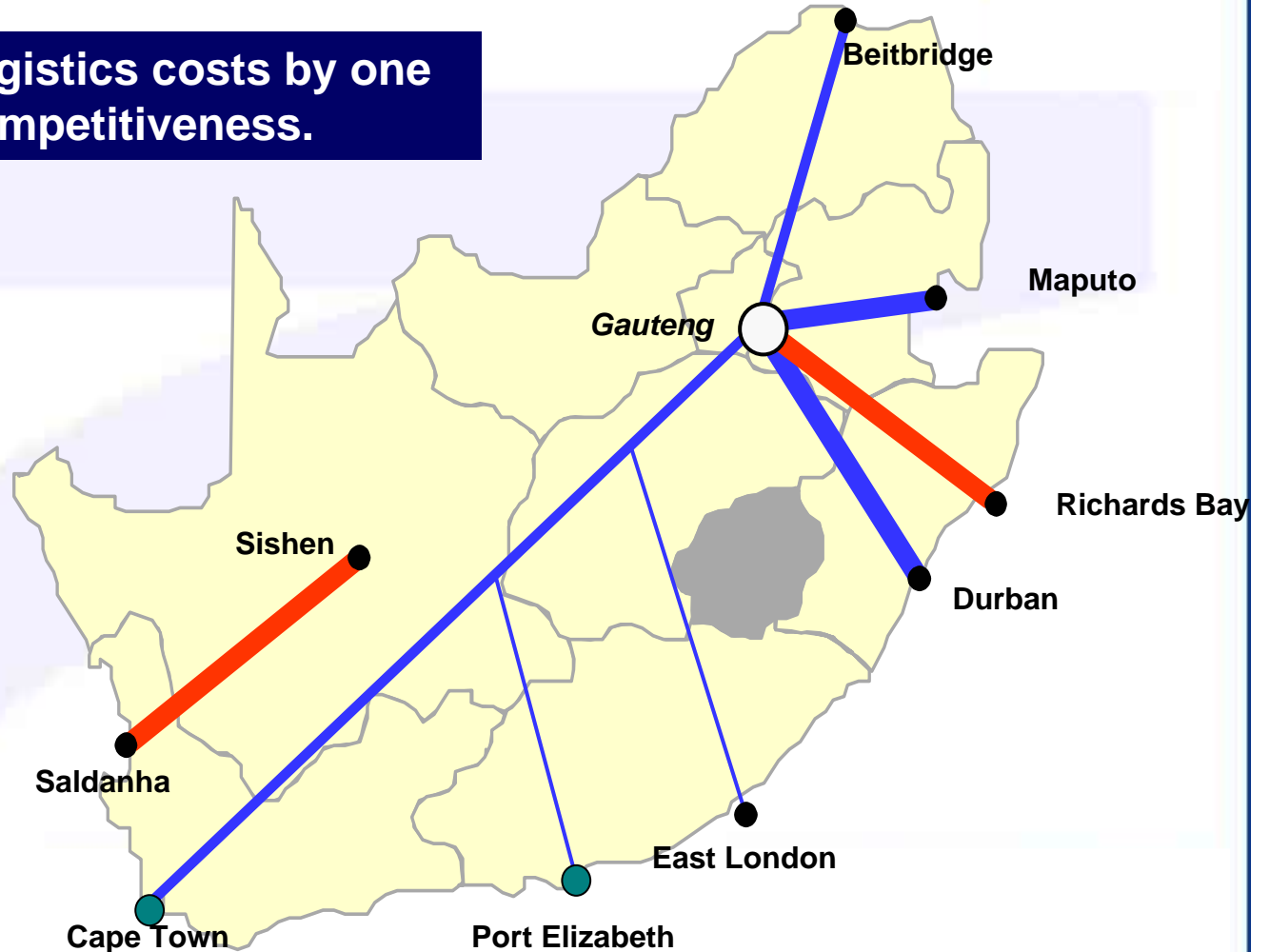
■ Outsource Most or All
 ■ Outsource Some
 ■ Will Outsource
■ Won't Outsource
 ■ N/A

Customers want to work in Collaboration within the Supply Chain



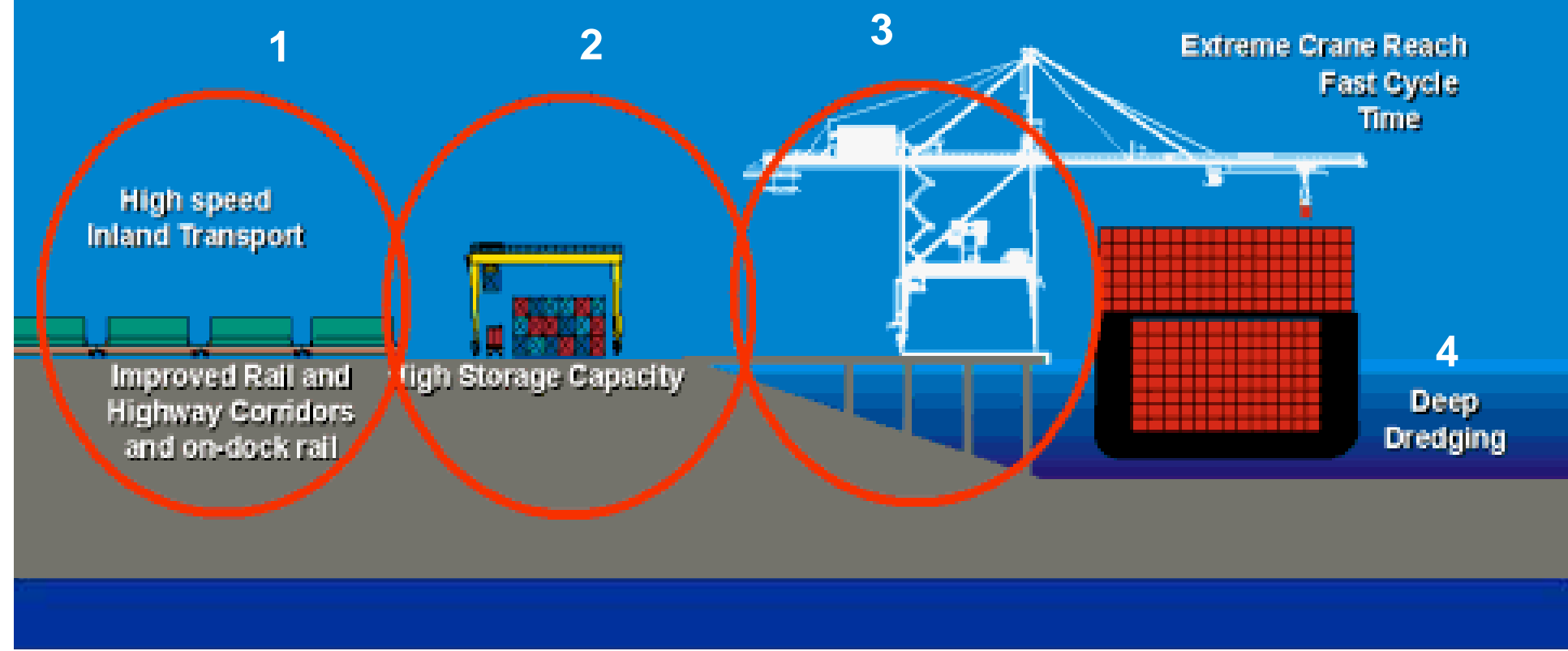
There are significant shifts in the SA economy that warrant a closer examination of the supply chains necessary to support the economy.

SA needs to reduce logistics costs by one third to sustain our competitiveness.

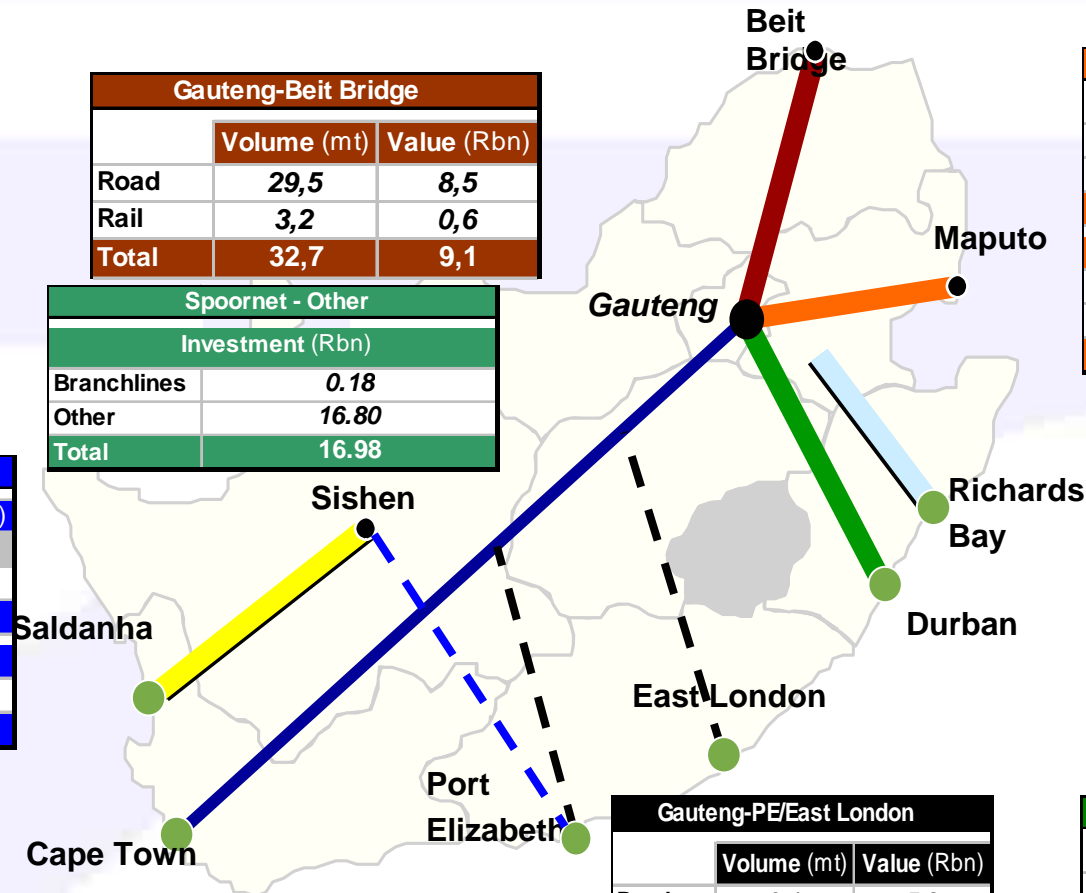


Integrated Planning & Execution

Container terminals Require Specialized Ports with High Infrastructure Investment



Integrated Investment Planning in South Africa



Sishen-Saldanha		
	Volume (mt)	Value (Rbn)
Road		
Rail	27,0	0,8
Total	27,0	0,8
Investment (Rbn)		
NPA	0.35	
SAPO	0.38	
Spoornet	1.10	
Total	1.83	

Gauteng-Beit Bridge		
	Volume (mt)	Value (Rbn)
Road	29,5	8,5
Rail	3,2	0,6
Total	32,7	9,1

Spoornet - Other	
Investment (Rbn)	
Branchlines	0.18
Other	16.80
Total	16.98

Gauteng-Maputo		
	Volume (mt)	Value (Rbn)
Road	23,1	4,6
Rail	14,1	0,9
Total	37,2	5,5
Investment (Rbn)		
Spoornet	0.27	
Petronet	0.92	
Total	1.19	

Sishen-PE		
	Volume (mt)	Value (Rbn)
Road		
Rail	2,4	0,3
Total		
Investment (Rbn)		
NPA	0.25	
Total	0.25	

Gauteng-Richardsbay		
	Volume (mt)	Value (Rbn)
Road		
Rail	74,0	3,8
Total	74,0	3,8
Investment (Rbn)		
NPA	0.92	
SAPO	1.17	
Spoornet	2.70	
Total	4.79	

Gauteng-Cape Town		
	Volume (mt)	Value (Rbn)
Road	16,6	13,3
Rail	2,7	0,7
Total	19,3	14,0
Investment (Rbn)		
NPA	1.26	
SAPO	0.79	
Spoornet	0.10	
Total	2.14	

Coega	
Investment (Rbn)	
NPA	2.17
Spoornet	1.02
Total	3.20

Gauteng-PE/East London		
	Volume (mt)	Value (Rbn)
Road	9,1	5,2
Rail	0,7	0,3
Total	9,8	5,5
Investment (Rbn)		
NPA	2.76	
SAPO	0.20	
Spoornet	1.02	
Total	3.98	

Gauteng-Durban		
	Volume (mt)	Value (Rbn)
Road	44,7	16,1
Rail	9,7	1,9
Total	53,4	18,0
Investment (Rbn)		
NPA	6.20	
SAPO	1.90	
Spoornet	0.60	
Petronet	2.51	
Total	11.21	

Key Elements in improving efficiencies in Ports, Terminals & Supply Chains

- Address **capacity shortfalls** caused by delayed investment, increased demand and larger vessels :
 - Coordinated long term capacity planning to develop capacity ahead of demand
 - Align development plans with markets, local authority, regional and national development initiatives
- Increase **efficiency** in key intermodal points :
 - Programmes to develop people, technology partnerships and investments in technology and information systems
 - Private sector participation to introduce innovative skills, capital and technology
- Create **seamless integration between modes**, especially between ports and rail
 - Integrated capital and operational planning, joint efficiency & collaboration projects
- Reduce the **cost of doing business** to improve your countries competitiveness
 - Remove bureaucratic custom processes
 - Establish national initiatives that contribute towards increased trade which will decrease poverty and unemployment

Efficiency in Supply Chains



- Some humans improve their “Market Value”, by applying cosmetic surgery :
 - Maybe for health reasons !
 - Enhancing their image to attract the right market forces
 - Striving to Improve their competitiveness !!

- Ports, terminals & SC's need to apply similar re-engineering techniques :

- Investment in Capacity ahead of demand
- Human Capital
- Collaboration
- ICT
- R & D

