

Infrastructure Engineering SAICE (Railway and Harbours) Symposium



29 September 2005



Presentation Content

- **Strategic Intent**
- **Spoornet Strategy**
- **Volume Growth**
- **Network Challenges**
- **Maintenance Challenges**
- **Spoornet Infrastructure Investment Program**
- **Resource Challenges**
- **Conclusion**

Strategic Intent

Reduce Transport Logistics Costs to Facilitate
Reducing Cost of Doing Business in and with South Africa

Strategic Intent

Transnet: GCE: M. Ramos

Four Point Turnaround Strategy

Redirecting the Business

Restructuring the Balance Sheet

Ensuring Vigilance

Improving Corporate Governance

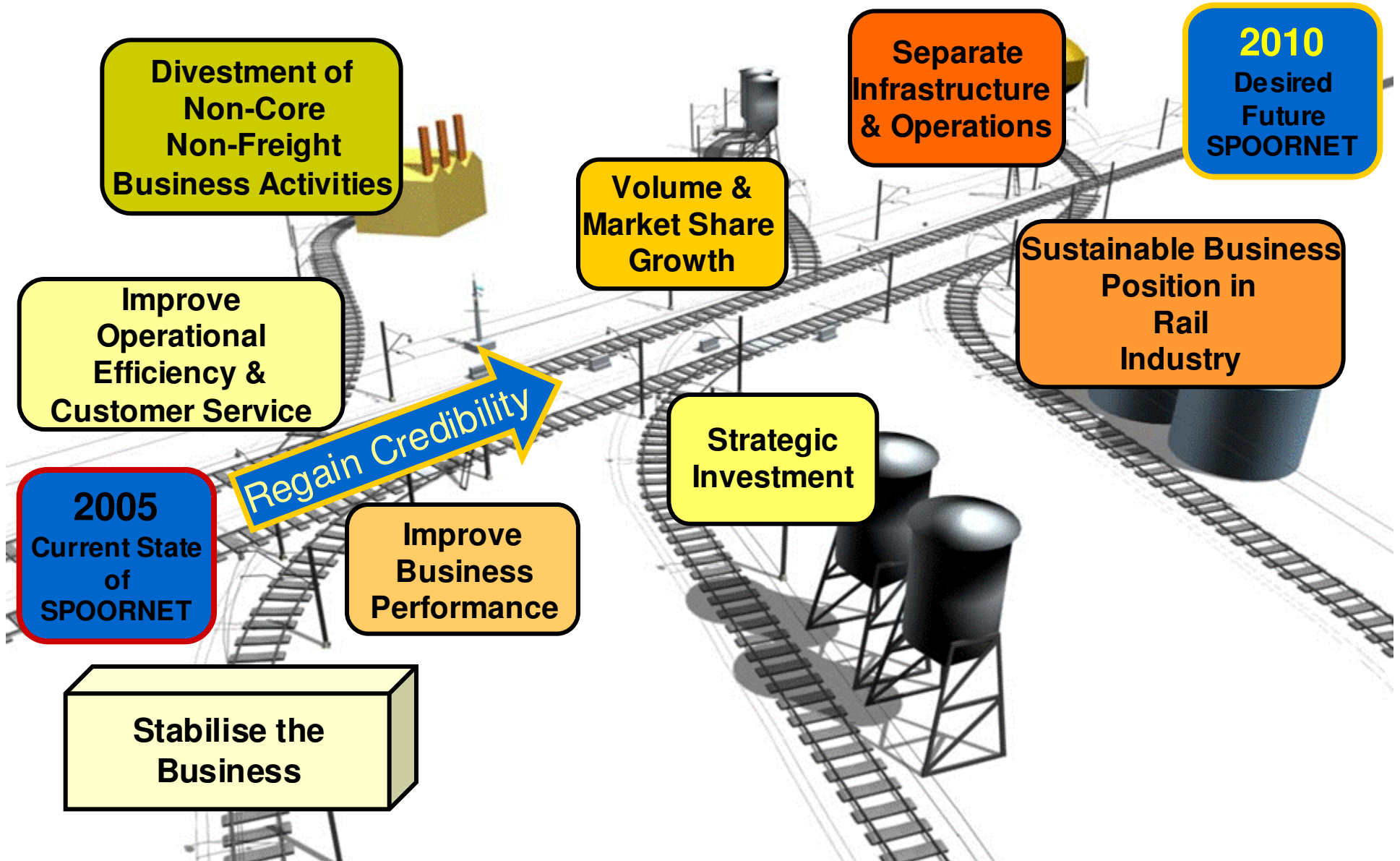
Strategic Intent

Spoornet: CE: S. Gama





A Freight Railway that satisfies the needs of our Customers

- Enabler of Economic Growth
- Facilitates Trade Growth by increasing South Africa's competitiveness
- Reduces logistics costs by transferring traffic from road to rail
- Develop Skills

Spornet Strategic Rail Track Map

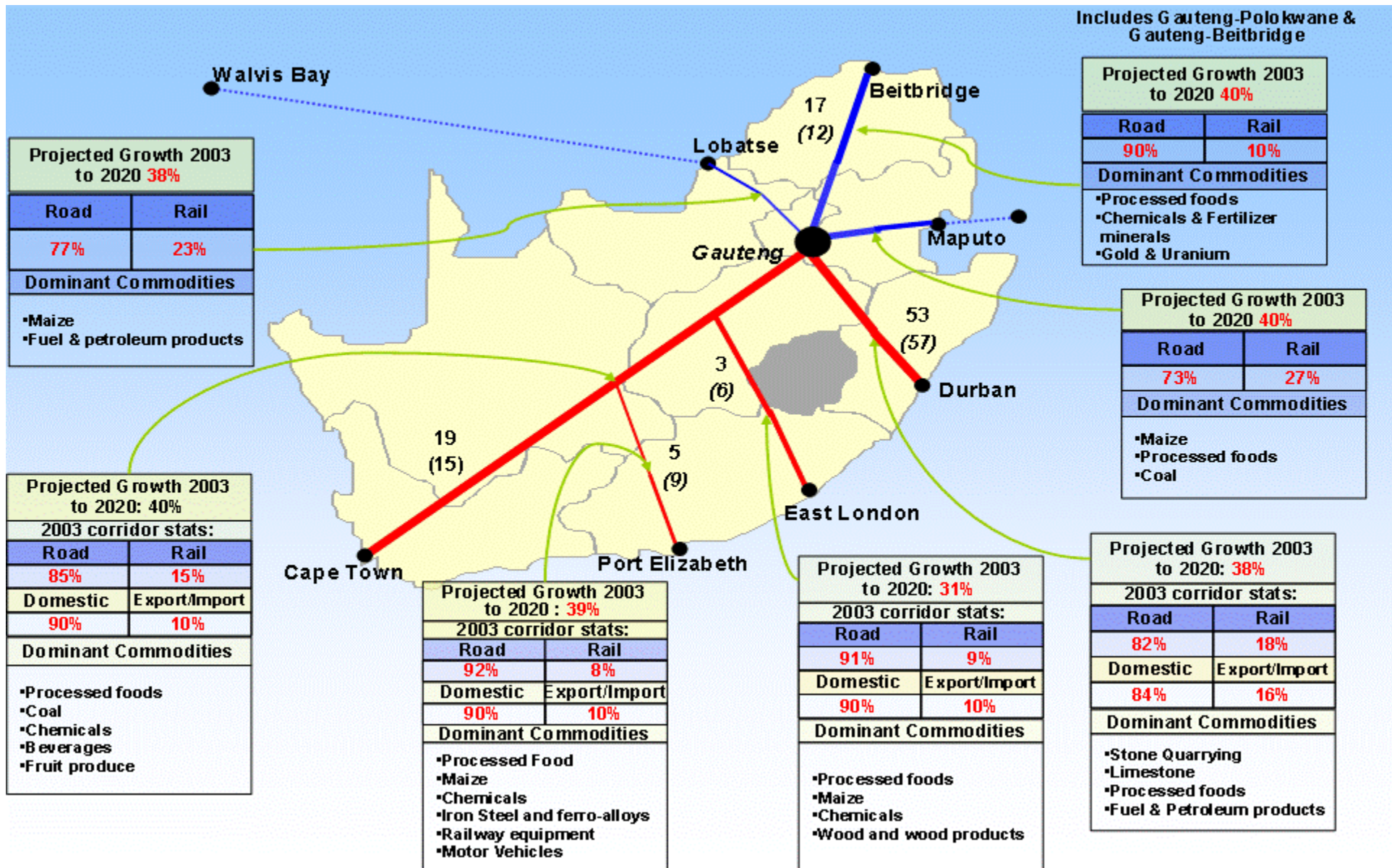


Growth in the Rail Industry

Sector	2003/04 Actual	2004/05 Forecast	2005/06	2009/10
Export Coal : Richards Bay	66mv	68mv	75 mv 	86 mv
Export Iron Ore : Sishen - Saldanha	27mv	28mv	32 mv 	41 mv
General Freight	83mv	82mv	88 mv 	160 mv
Total Spoornet	176mv	178mv	195mv 	287 mv

- Migrate from 10% to 30% Rail Market Share in a growing Transport & Logistics Industry

Commodity Flows and Modal share per Freight Corridor (Road/Rail)



SpoorNet (Infrastructure): Network Challenges

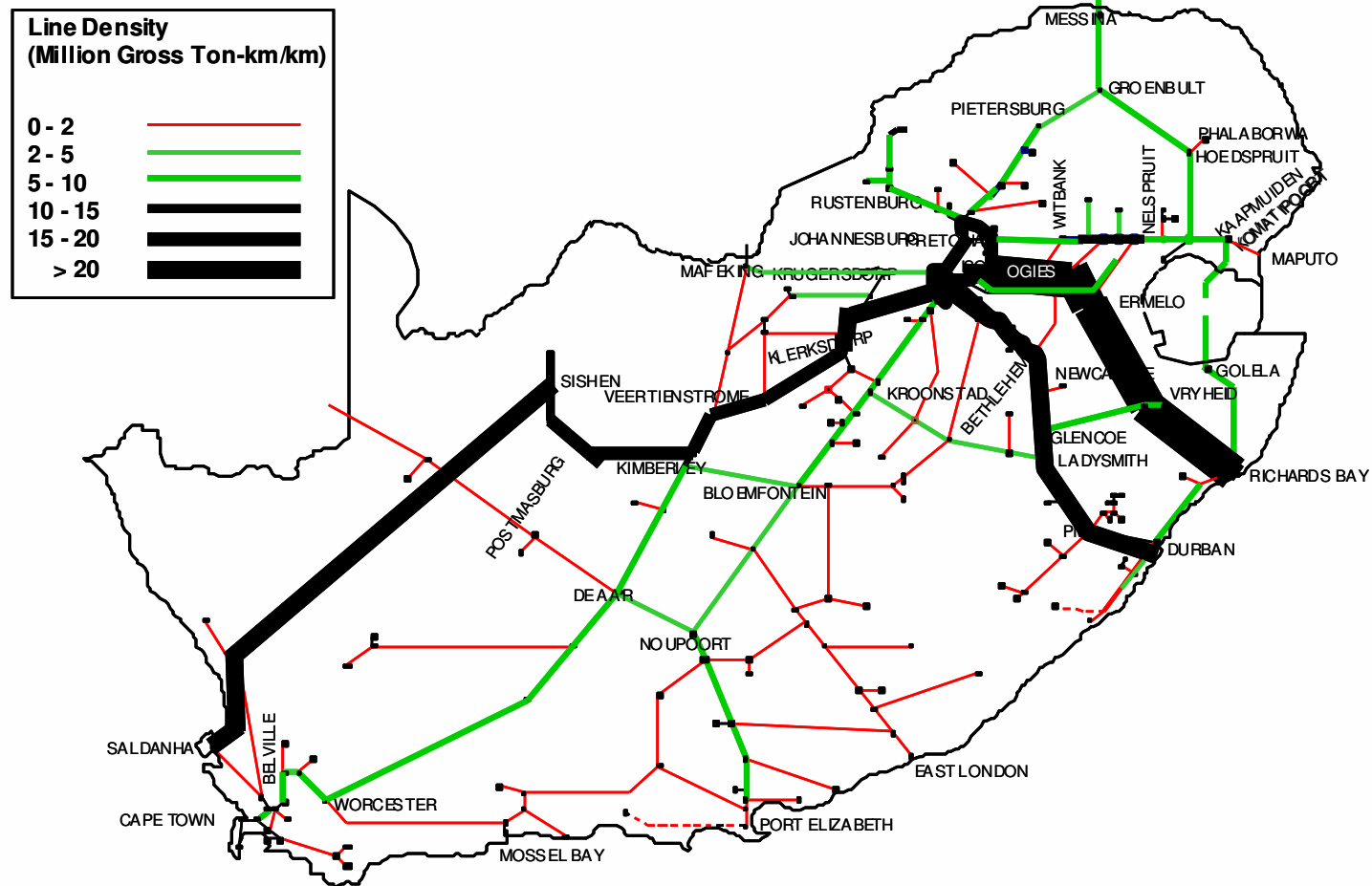
Line Density Challenges

Electrical System Complexities

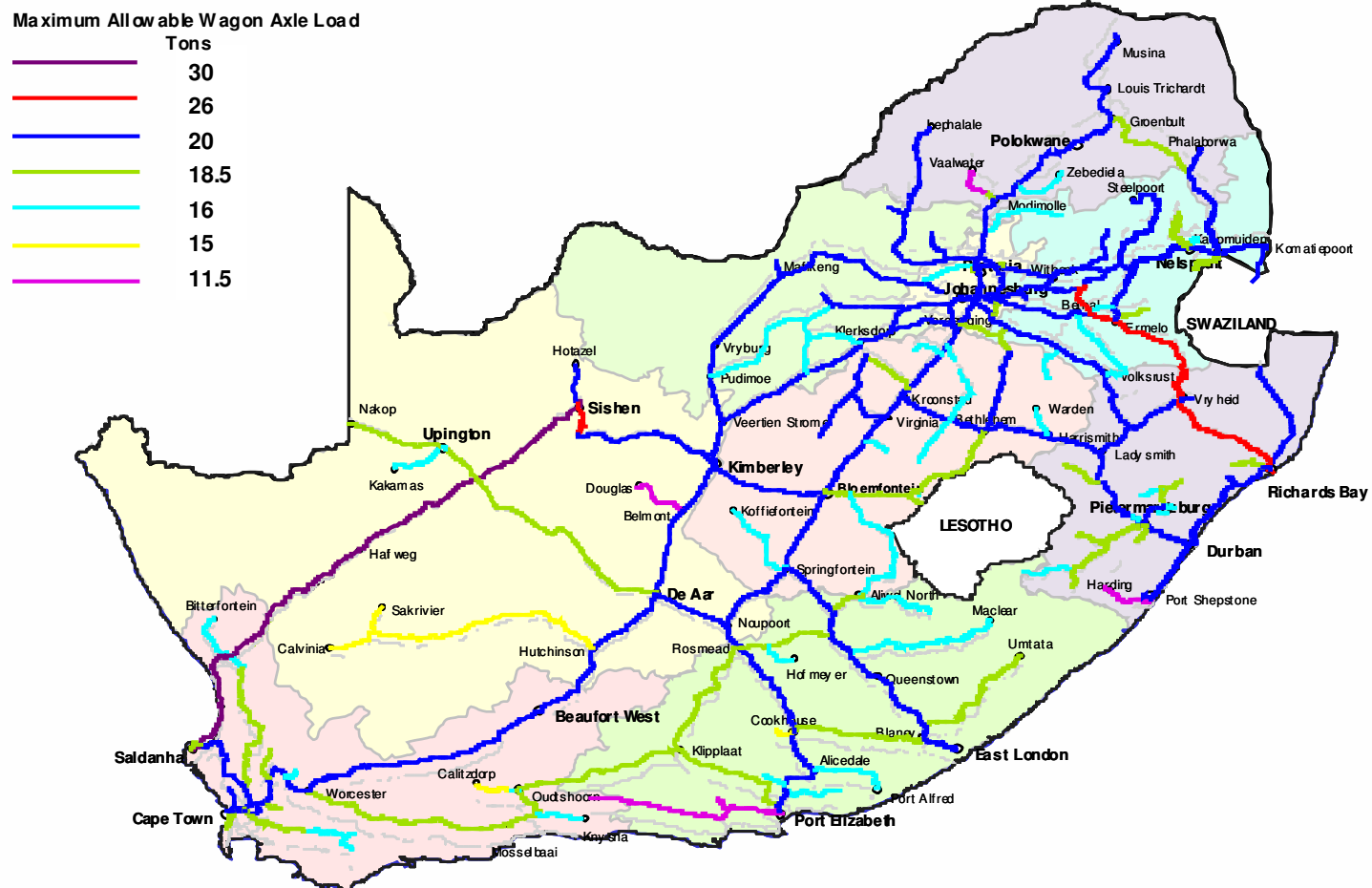
Axle Loading Challenges

Train Authorization System Complexities

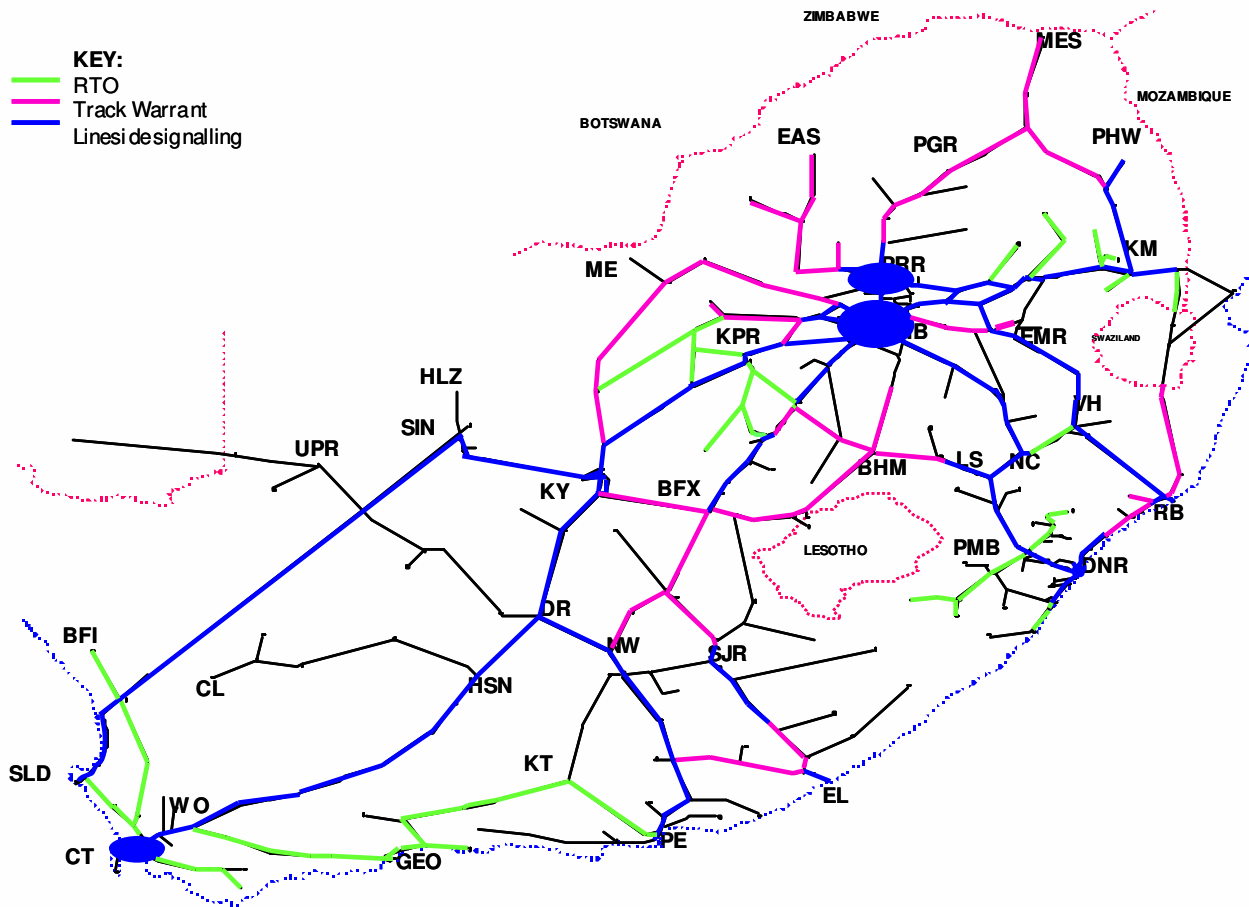
Line Density Challenges



Axle Loading Challenges



Train Authorization Systems



Spoornet (Infrastructure): Maintenance Challenges

Increase in Maintenance Needs due to Traffic Growth

Major Capital Program and Maintenance

- Growth Investment
- Sustainable Investment

Low Density Lines and Safety

Skills, Competency, Capacity

SpoorNet (Infrastructure): Maintenance Projects

- Only Major Projects
- Relook and Refinement of Processes
- Project Bigger, Better, Faster (On Track Machines)
- IAMM Redesign and Maintenance Planning, Scheduling
- Project Rail Wheel Interaction
- Material Logistics
 - Just in Time (Locos, Wagons)
 - Capacity
 - Supplier Interface
 - Refurbishment and Cascading
- Simulations, Scheduling, Occupations

Infrastructure Investment Program

	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Coal Line Expansion to 86 mt/a	R114m	R 514m	R 732m	R 436m	R 169m	R1 965
Ore Line Expansion to 41 mt/a	R 78m	R 516m	R 469m	R 59m	R 29m	R1 151
General Freight Growth to 110 mt/a	R261m	R 667m	R 728m	R 804m	R 670m	R3 130
a) TrainControl Systems	R 149m	R 458m	R 477m	R 446m	R 292m	R1 822
b) Electrical Systems	R 80m	R 167m	R 178m	R 195m	R 171m	R 791
c) Permanent Way	R 32m	R 42m	R 73m	R 163m	R 207m	R 517
Majuba – Ermelo Connection	R 15m	R 42m	R 700m	R 300	-	R1 057
Total	R468m	R1 739m	R2 629m	R1 599m	R 868m	R7 303

Spoornet (Infrastructure): Resource Challenges

- Human Capital
 - Available Capacity
 - Available Skills and Competencies
 - Industry: Pool and Movement
 - Development Roles
 - * Whole Industry
 - * Universities
 - * Technicons
 - * Esselenpark
 - * Chair in Railway Engineering
 - * SAICE (R&H)
- Transnet Support Divisions

Spoornet (Infrastructure): Resource Challenges

- Material and Equipment
 - Maintenance Needs
 - Capital Program Needs
 - Mining Developments (Lines, Yards)
 - Gautrain
 - Africa Projects
 - Capacity, Balancing, Scheduling
 - New vs Refurbished
 - JIT
- Financial
 - Capital Program

Spoornet (Infrastructure): Resource Challenges

- Dedicated Wagon Fleet
 - AY's
 - Sleeper Wagons
 - Rail Train
 - Crossing Transporters
- Wagon Management
- Material Train Management
- Occupation Management
- Locos: SpoorNet vs Contracts

Conclusion

- Program Management
- Project Management
- Contract Management
- User, Producer, Supplier, Contractor Interface
- Two Way Upgrade and Management Improvement
- Win Win Approach
- Capacity, Just in Time
- Research and Development

Thank You