transport

Department: Transport
REPUBLIC OF SOUTH AFRICA

RAIL REFORM STRATEGIC FRAMEWORK

DEPARTMENT OF TRANSPORT

CONTENTS

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REPUBLIC OF SOUTH AFRICA

CURRENT SITUATION

- NO SINGLE INSTITUTIONAL RESPONSIBILITY
  - CONFUSION BETWEEN POLICY AND SHAREHOLDER ROLES
    - DEPARTMENT OF TRANSPORT
    - DEPARTMENT OF PUBLIC ENTERPRISES
    - TRANSNET
    - TRANSNET FREIGHT RAIL (FORMERLY SPOORNET)
    - TRANSNET RAIL ENGINEERING (FORMERLY TRANSWERK)
    - PASSENGER RAIL AGENCY OF SOUTH AFRICA (PRASA)
- ABSENCE OF SINGLE STATE DRIVEN REGULATION
  - RAIL ECONOMIC REGULATOR (RER)
  - RAIL SAFETY REGULATOR (RSR)
- LACK OF TRANSPARENCY
  - PRICE AND TARIFF SETTING
- OPERATIONAL INEFFICIENCIES
- LACK OF INVESTMENTS IN THE NETWORK AND OPERATIONS
- SAFETY & SECURITY FOR PASSENGERS & FREIGHT
- GAP IN SUPPLY OF SPECIALISED TECHNICAL SKILLS
- ABSENCE OF POLICY
  - RAIL POLICY & ACT

Freight Transport 2004

Figure in brackets denotes average transport distance

Tonnage
1105mt *(270)*

- Road 920mt *(200)*
  - Metropolitan 580mt *(75)*
  - Rural 200mt *(200)*
  - Corridor 140mt *(680)*
- Rail 185mt *(600)*
  - Corridor 45mt *(680)*
  - Rural 30mt *(475)*
  - Metropolitan 10mt *(150)*
  - Sishen & Rbay 100mt *(670)*

Tonkm
300bn

- Road 190bn
  - Metropolitan 45bn
  - Rural 40bn
  - Corridor 95bn
- Rail 110bn
  - Corridor 30bn
  - Rural 15bn
  - Metropolitan 1bn
  - Sishen & Rbay 65bn

Income
R120bn

- Road R105bn
  - Metropolitan R30bn
  - Rural R25bn
  - Corridor R50bn
- Rail R15bn
  - Corridor R6bn
  - Rural R2bn
  - Metropolitan R1bn
  - Sishen & Rbay R5bn

CSIR 2005

Freight Transport 2006

Figure in brackets denotes average transport distance

Tonnage
1533mt *(233)*

- **Road** 1337mt *(177)*
  - Metropolitan 777mt *(77)* *50,5%*
  - Rural 380mt *(179)* *25%*
  - Corridor 180mt *(600)* *11,5%*
- **Rail** 196mt *(617)*
  - Corridor 41mt *(683)* *3%*
  - Rural 47,5mt *(505)* *3%*
  - Metropolitan 8mt *(250)* *0,5%*
  - Sishen & Rbay 99,5mt *(673)* *6,5%*

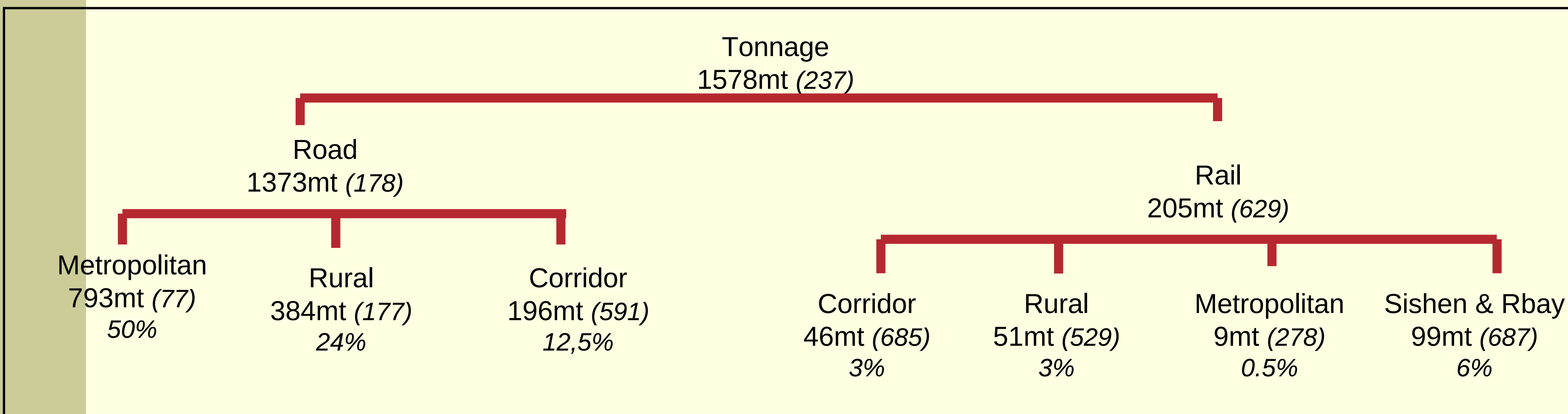
Tonkm
357bn

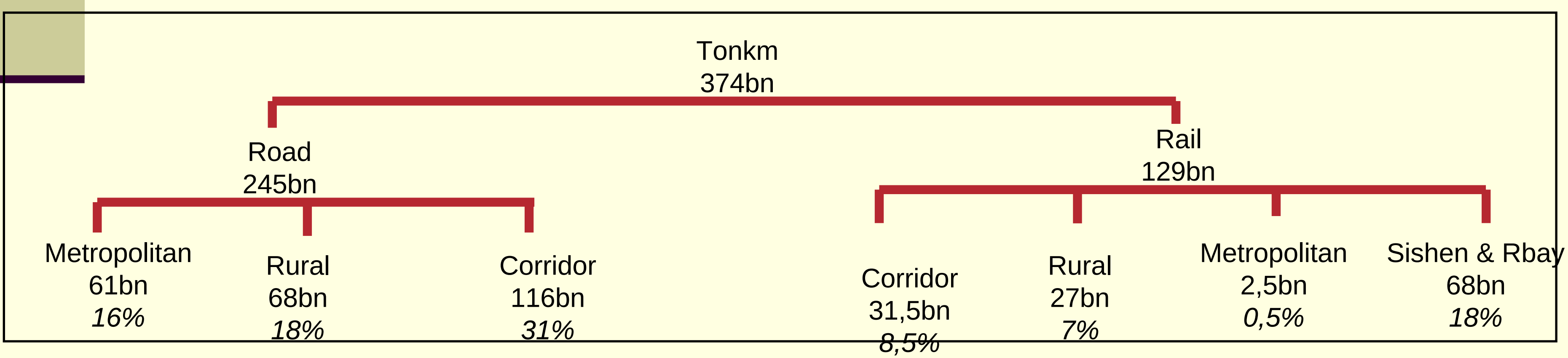
- **Road** 236bn
  - Metropolitan 60bn *16,5%*
  - Rural 68bn *19%*
  - Corridor 108bn *30%*
- **Rail** 121bn
  - Corridor 28bn *8%*
  - Rural 24bn *7%*
  - Metropolitan 2bn *0,5%*
  - Sishen & Rbay 67bn *19%*

CSIR/USB 2006

Freight Transport 2007

Figure in brackets denotes average transport distance





CSIR/USB 2007

PROBLEM STATEMENT

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- INAPPROPRIATE INSTITUTIONAL & REGULATORY FRAMEWORK FOR RAIL
  - UNIFIED OVERSIGHT FOR PASSENGER & FREIGHT OPERATIONS
    - MONITOR INFRASTRUCTURE PLANS, INVESTMENTS & SUBSIDIES
    - IMPORTANCE OF AGREEING ON ECONOMIC REGULATION VS SAFETY REGULATION
- ABSENCE OF INFRASTRUCTURE UTILITY
  - OWNERSHIP & MANAGEMENT BY PRASA ON PASSENGER INFRASTRUCTURE
  - TRANSNET CUSTODIAN OF FREIGHT INFRASTRUCTURE
  - SELF-REGULATED INFRASTRUCTURE ENTITIES EXCEPT SAFETY REGULATOR
  - VERTICAL INTEGRATION VS SEPARATION
- ROLE OF GOVERNMENT
  - IMBALANCED SUBSIDISATION & CROSS FUNDING FOR BOTH PASSENGER & FREIGHT
    - PHASED APRROACH FOR BRANCH LINES
- FUNDING & INVESTMENT REQUIREMENTS
  - CURRENTLY LOW INVESTMENTS
  - AGEING ROLLING STOCK (30 YRS VS 15YRS INTERNATIONAL AVERAGE)
  - SIGNALLING TECHNOLOGY BECOMING MORE OBSOLETE
    - R6 BLN REQUIRED FOR SIGNALLING & RELATED INFRASTRUCTURE OVER 5 YRS
  - 5000 TRAIN SETS REQUIRED BY PRASA AGAINST 2500 CONSTRAINT TO CURRENT BUDGET (R30 BLN)

VISION FOR RAILWAYS

- SINGLE RAIL ECONOMIC REGULATOR FOR PASSENGER & FREIGHT
- VERTICAL SEPERATION FOR PASSENGER & FREIGHT
  - INFRASTRUCTURE AGENCY
  - ROLLING STOCK LEASING AGENCY
    ONE
    - TRANSITIONAL MEASURE
  - MULTIPLE OPERATORS
  - ENGINEERING SERVICES
    - OUTSOURCING VS INFRASRUCTURE AGENCY
  - COACH, WAGON AND LOCO MANUFACTURES
- APPROPRIATE INVESTMENTS
  - INFRASTRUCTURE
  - OPERATIONS
- FLEXIBLE AND RESPONSIVE
  - DEMAND SIDE
  - SUPPLY SIDE
- PRIVATE SECTOR INVESTMENT AND PARTICIPATION
- NEW TECHNOLOGY INVESTMENT
  - HIGH SPEED RAIL
  - LIGHT RAIL WERE APPROPRIATE
- ACCESS TO NETWORK
  - NEGOTIATED ACCESS
  - MANDATED ACCESS
  - OPEN ACCESS
  - HYBRID MODEL

INTERNATIONAL EXPERIENCE (FUNDING OPTIONS)

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- ENGLAND:
  - RAIL OPERATOR RAISES DEBT THROUGH CAPITAL MARKETS & GOVT PROVIDES FINANCIAL INDEMNITY, ISSUE BONDS
- BRAZIL:
  - GOVT PUMPS 1,2 BLN DOLLARS FOR RAIL INFRASTRUCTURE INVESTMENT & KEEN TO ATTRACT FUNDING FROM PPP
- SWITZERLAND:
  - NATIONAL & PROVINCIAL AUTHORITIES FINANCE COMMUTER RAIL SERVICES
- INDIA:
  - RAILWAYS MAINLY FUNDED BY GOVT & PRIVATE SECTOR INVITED FOR FOR CONVERSION OF NARROW TO STANDARD GAUGE
- CHINA:
  - MAJOR RAIL INFRASTRUCTURE PROJECT FUNDED BY STATE OR USING STATE GUARANTEES

RATIONALISATION OF LOW DENSITY RAIL LINES

- RAIL FREIGHT LINES:
  - COMPRISES 50% OF RAIL NETWORK & FINANCIALLY UNSUSTAINABLE
  - IMPACT ADVERSELY ON RURAL TOWNS THROUGH REDUCED RAIL SERVICES
  - TFR CHALLENGE TO BALANCE PROFITABLE NATIONAL RAIL OPERATOR VS SOCIAL OBLIGATION
- COMMUTER RAIL SERVICES:
  - FACES HUGE CAPITAL INVESTMENT BACKLOGS
  - CUTBACKS IN OFF-PEAK SERVICES IN PARTICULAR REGIONS TO MEET FUNDING SHORTFALLS
- PHASED APPROACH TO DEAL WITH ROAD-RAIL MARKET SHARE FOR BOTH PASSENGER & FREIGHT

RAIL REFORM OPTIONS

- **VERTICALLY INTEGRATED STRUCTURE:**
  - SINGLE ENTITY PROVIDING ONGOING MAINTENANCE FOR INFRASTRUCTURE & TRANSPORTATION SERVICES
  - PROVIDES FOR A LOWER COST STRUCTURE (ENTITY PROVISION FOR BOTH INFRASTRUCTURE & TRANSPORT SERVICES)
  - COMPLEXITY OF THIS MODEL OCCUR IN **OWNERSHIP**
  - IN MOST CASES RAIL COMPANY IS PROTECTED FROM COMPETITION BY REGULATION
  - GENERALLY RAILWAYS DO NOT OPERATE ON OTHER'S LINES, BUT MAY VOLUNTARILY GRANT EACH OTHER PERMISSION TO OPERATE
- **VERTICALLY SEPARATED STRUCTURE:**
  - ONE ENTITY OWNS INFRASTRUCTURE & OTHER COMPETING ENTITIES PROVIDE TRANSPORTATION SERVICES
  - INDEPENDENT ENTITY IS USSUALY BUT NOT NECESSARILY A GOVT AGENCY OR DEPT
  - ACCESS CHARGES ARE REGULATED TO AVOID ABUSE OF MONOPOLY POWER
  - ENABLE LOWER RATES & IMPROVED SERVICE

RAIL REFORM OPTIONS (CONT)

- **VERTICALLY INTEGRATION WITH ACCESS REGULATION:**
  - REGULATOR INTERVENES TO FIX TERMS & CONDITIONS BTWN COMPETING OPERATORS
  - RAIL OPERATOR ALLOWED TO REMAIN VERTICALLY INTEGRATED & TO ACCESS TRACK OF ANOTHER OPERATOR UDER REGULATED TERMS & CONDITIONS
  - COMPETITION IS ALLOWED IN ALL PARTS OF THE RAIL NETWORK FOR BOTH PASSENGER & FREIGHT
  - ADDITIONAL TRAFFIC CAN BE ALLOWED ON NON-INTEGRATED BASIS WHERE SERVICES DO NOT COMPETE E.G. BLUE TRAIN, ROVOS RAIL
- **JOINT OR COMMON OWNERSHIP:**
  - NATURAL MONOPOLY INFRASTRUCTURE JOINTLY OWNED BY RAIL OPERATORS
  - ELIMINATE DISCRIMINATION AMONGST RIVALS
  - REDUCES NEED FOR REGULATORY OVERSIGHT & INTERVENTION
  - CAN HOWEVER RESTRICT NEW ENTRANTS INTO THE MARKET
- **VERTICALLY INTEGRATED WITH HORIZONTAL SEPARATION:**
  - INTEGRATED RAIL OPERATORS ARE SEPARATED INTO VARIOUS ROUTE BASED NETWORKS

RAIL REFORM IN DIFFERENT COUNTRIES

- **VERTICAL SEPERATION OPTIONS:**
  - ***LATIN AMERICAN COUTRIES:***
    - ***COLOMBIA:***
      - 1989 BEGAN PRIVATISATION (SEPARATION OF INFRASTRUCTURE FROM OPERATIONS)
      - PRIVATISATION MODEL FAILED BECAUSE THE INFRASTRUCTURE ENTITY FAILED TO REFURBISH & MAINTAIN THE TRACK ADEQUATELY
      - SUBSEQUENTLY COLOMBIA REVIEWED RAILWAY PRIVATISATION (VERTICAL INTEGRATION)
    - ***PERU:***
      - INFRASTRUCTURE MANAGEMENT CONSORTIUM OPERATED IN THE DIFFERENT RAILWAY LINES
      - SCARCITY OF TRAFFIC IN THE RAIL NETWORK & INSTITUTIONAL FRAMEWORK OF THE TRUCKING SECTOR KILLED THE MODEL
      - THE INFRASTRUCTURE CONSORTIUM OFFERED TO PAY THE STATE 33,3% OF ITS INCOME FROM TRACK USE

RAIL REFORM IN DIFFERENT COUNTRIES (CONT)

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- ***MAXICO:***
  - GAVE ATTENTION TO CONCESSIONS TO PROTECT COMPETITION
  - COMPETITION COMMISSION PARTICIPATED ACTIVELY IN PRIVATISATION PROCESS & DEVELOPMENT OF A REGULATORY FRAMEWORK
- ***CHILE:***
  - COMBINED CONCESSIONS WERE UNDERTAKEN FOR BOTH BRANCH LINES & MAIN LINES
  - OPERATING COMPANY ALSO REPONSIBLE FOR MAINTAINING INFRASTRUCTURE
  - GOVT PAYS AN ALLOWANCE FOR EVERY TON-KM TRANSPORTED BY RAIL IN ORDER TO OFFSET SUBSIDY BY TRUCKING SECTOR

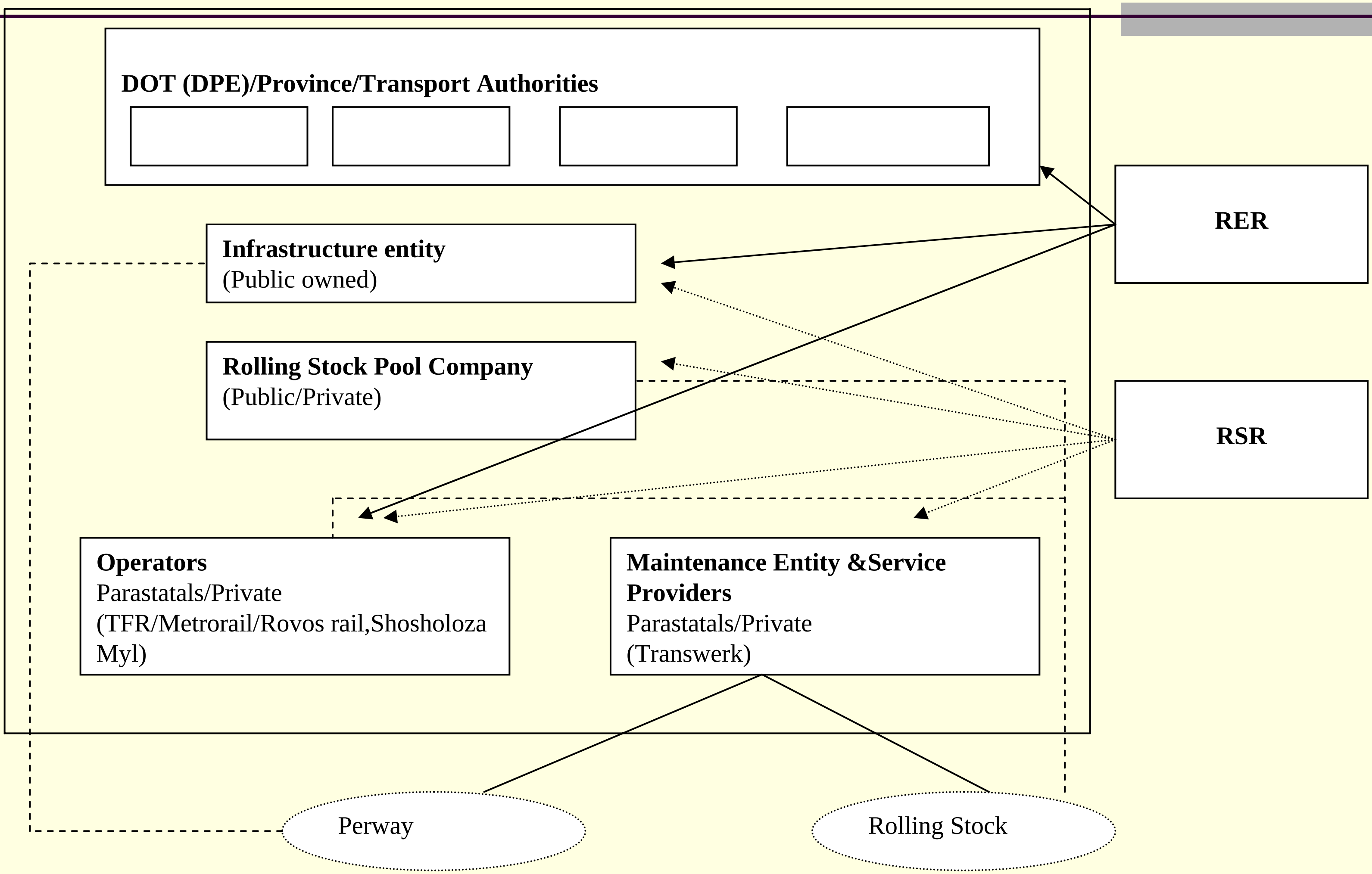
- ***EUROPEAN COUNTRIES:***
  - ***SWEDEN:***
    - BOTH TRACK & VAST MAJORITY OF SERVICES REMAINS IN THE HANDS OF DIFFERENT STATE-OWNED COMPANIES
  - ***GREAT BRITAIN:***
    - CONCESSION HOLDING COMPANIES RECEIVE SUBSIDIES FROM GOVT IN THE INITIAL YEARS

RAIL REFORM IN DIFFERENT COUNTRIES (CONT)

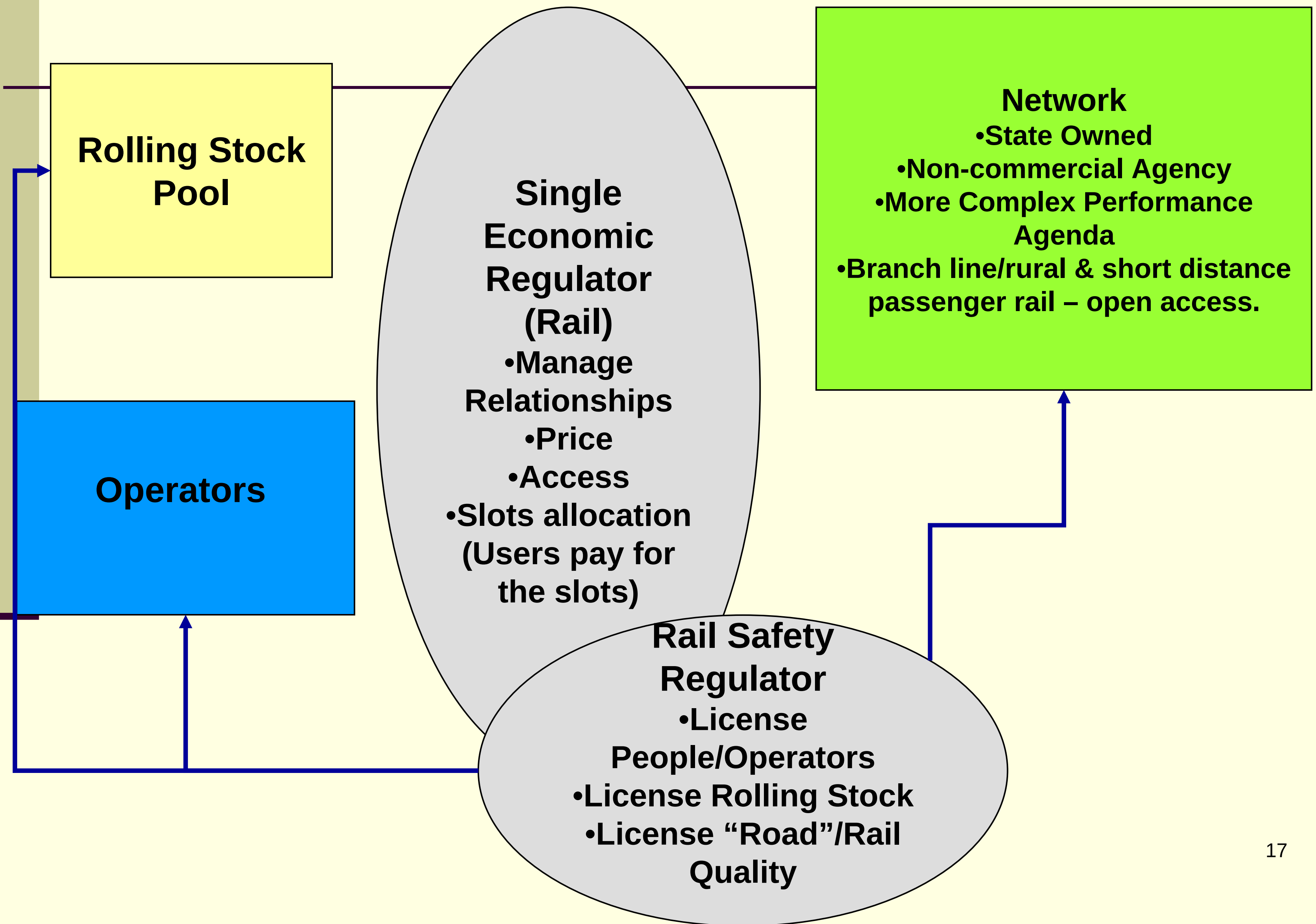
- ***NEW ZEALAND/AUSTRALIA:***
  - BOTH HAD 12 YRS EXPERIENCE IN PRIVATISATION BOTH FREIGHT & PASSENGER OPERATIONS
  - AUSTRALIA: PRIVATISED FREIGHT RAIL IS TRONGER TODAY THAN ANYTIME
  - NEW ZEALAND: GOVT OBLIGED TO TAKE BACK NETWORK & COMMITED SIGNIFICANT FUNDS TO ADDRESS DEFECIENCIES IN THE NETWORK ASSETS

- **VERTICALLY INTEGRATED OPTIONS:**
  - ***ASIAN COUNTRIES:***
    - ***CHINA:***
      - RAIL INDUSTRY IS GOVT OWNED & OPERATED
      - GOVT TIGHTLY CONTROLS PRICE & INVESTMENT LEVELS
    - ***SINGAPORE:***
      - TRANSPORT SYSTEM CALLED MASS RAPID TRANSIT (MRT)
      - REVENUE GENERATED FROM MRT FARES COVER OPERATING & MAINTENANCE COSTS
  - ***AFRICAN COUNTRIES:***
    - RAILWAYS REMAIN LARGELY INTEGRATED

VISION FOR INSTITUTIONAL RELATIONSHIP



Proposed Institutional Framework



FUNDING OPTIONS

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- MANAGEMENT CONTRACT
- JOINT VENTURE
- CONCESSIONS
- BUILD, OPERATE & TRANSFER
- BUILD, OWN & OPERATE
- PRIVATISATION

PROGRESS TO DATE

- ESTABLISHMENT OF RAIL ECONOMIC REGULATION CAPACITY
- DEVELOPMENT OF RAIL POLICY
- BRANCH LINE STRATEGY TO CABINET
- HIGH SPEED RAIL (DURBAN-GAUTENG CORRIDOR)
- FINALISATION OF NATMAP
- POA OF INFRASTRUCTURE DEVELOPMENT CLUSTER PRESENTATION TO CABINET
- REVIEW OF NFLS

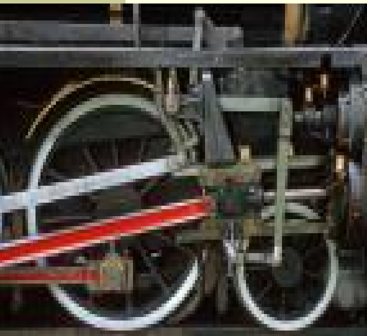
PROPOSED CONCLUSIONS

- NEED FOR TRANSLATION OF FRAMEWORK INTO A POLICY DOCUMENT
- *WHITE PAPER ON NATIONAL TRANSPORT POLICY:*

  Rail is seen as an essential long-term component of the infrastructure network for both passenger & freight transport. The provision and maintenance of rail infrastructure for bulk and general cargo and for inter-city passenger transport, will be better determined by market needs and commercial viability.
- ***MOVING SOUTH AFRICA (MSA) ON RAIL APPROACH:***
  - CALL MAKING STRATEGIC CHOICES AND ACTIONS, WHICH ARE:
    - INTRODUCING COMPETITION
    - APPROPRIATE OWNERSHIP STRUCTURES
    - DEGREE OF REGULATION
    - NON-CORE ROUTES
      - CONCESSIONS
      - OUTRIGHT SALE
      - TRANSPARENT CAPITAL SUBSIDIES OR CROSS-FUNDING
    - CORE-NETWORK
      - INVESTMENTS GENERATED INTERNALLY

PROPOSED CONCLUSIONS (CONT)

- URBAN COMMUTER RAIL:
  - INVESTMENT BACKLOGS
  - HIGH FARE EVASION
  - LOW COST RECOVERY FROM FARES
  - POOR CUSTOMER SERVICE LEVELS
- TACTICAL IMPLEMENTATION ACTIONS:
  - FOCUS ON CUSTOMER GROUPS
  - LABOUR ISSUES
  - ALLOCATION OF RESOURCES TRANSPARENTLY
  - CREATION OF SELF-FUNDING BUSINESS ENTITIES
  - OPTIMISE MODAL DEPLOYMENT
  - INTEGRATE SERVICES & VALUE CHAIN
  - CREATE APPROPRIATE INSTITUTIONS
  - ENCOURAGE COMPETITION WHERE APPROPRIATE



plementation

ional Blueprint example

Current State	Transnet 3 Year Strategy	Nuanced Transitional 3 year Strategy	Vision
•Vertically Integrated •Commercial network and operations	•Vertically Separated •Commercial network and operations	•Vertically Separated •Commercial Main network •Developmental Secondary network (public infrastructure utility) •Open access secondary network •Mandatory access on main network	•Vertically separated •Single Rail Network utility •Multiple public and private commercial operators

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THANK YOU