

# CHALLENGES FACING SOUTH AFRICA AROUND URBAN FREIGHT

Hans W. Ittmann  
Acting Executive Director  
CSIR Built Environment

**CSIR**

*our future through science*

**BESTUFS.NET**   
Best Urban Freight Solutions

 **Transport**  
*forum*  
[www.transportsg.com](http://www.transportsg.com)

# Agenda

- Background to BESTUFS
- BESTUFS Good Practice Guide
- The South African situation
- Challenges re urban freight
- Challenges re 2010
- Conclusions

# BESTUFS

- Funded by the European Commission
- One of the FP5/FP6 research projects
- Active from 2000 until 2008
- CSIR involved in a subcontracting role
- Identify, describe and disseminate best practices, success criteria and bottlenecks of urban freight transport solutions
- Maintain and extend network between urban freight experts and users
- Long involvement with Joburg City

Started because of increasingly severe freight transport problems facing urban areas. Research then focused on the logistics of collection and delivery services in town and city centres.

# Why is urban freight important?

- Cost of freight transport and logistics – direct bearing on the efficiency of the economy
- Essential for major wealth generation activities
- A major employer
- Contribution to competitiveness of region
- Fundamental to sustaining our existing life styles
- Negative social and environmental effects

## Problems associated with urban freight:

- Congestion, inefficiencies and resource waste
- Vehicle access restrictions
- Parking and unloading facilities
- Customer/receiver related problems
- Environmental and social impacts

# BESTUFS Good Practice Guide

- Goods vehicle access and loading in urban areas
  - Efficient use of infrastructure
  - Guidance on measures for good vehicle access and loading in urban areas
  - Technology in urban freight
  - Environmentally-friendly vehicles
  - Enforcement issues
  - Joint work between public and private sectors
- Last mile solutions
- Urban consolidation centres

# Measures for goods vehicle access and loading in urban areas

- Urban freight information and maps
- On-street loading bays
- Nearby delivery area
- Urban Consolidation Centres
- Vehicle weight and size regulations
- Time regulations
- Access and loading regulations
- Environmental zones/emission standards regulations
- Night deliveries
- Lorry lanes
- Road pricing systems
- Technology in urban freight
- Enforcement issues

# Last mile solutions

- Defining last mile solutions
- The supply chain
- Getting the goods to the customer
- Technology and telematics in the last mile logistics
- Guidance on last mile solutions

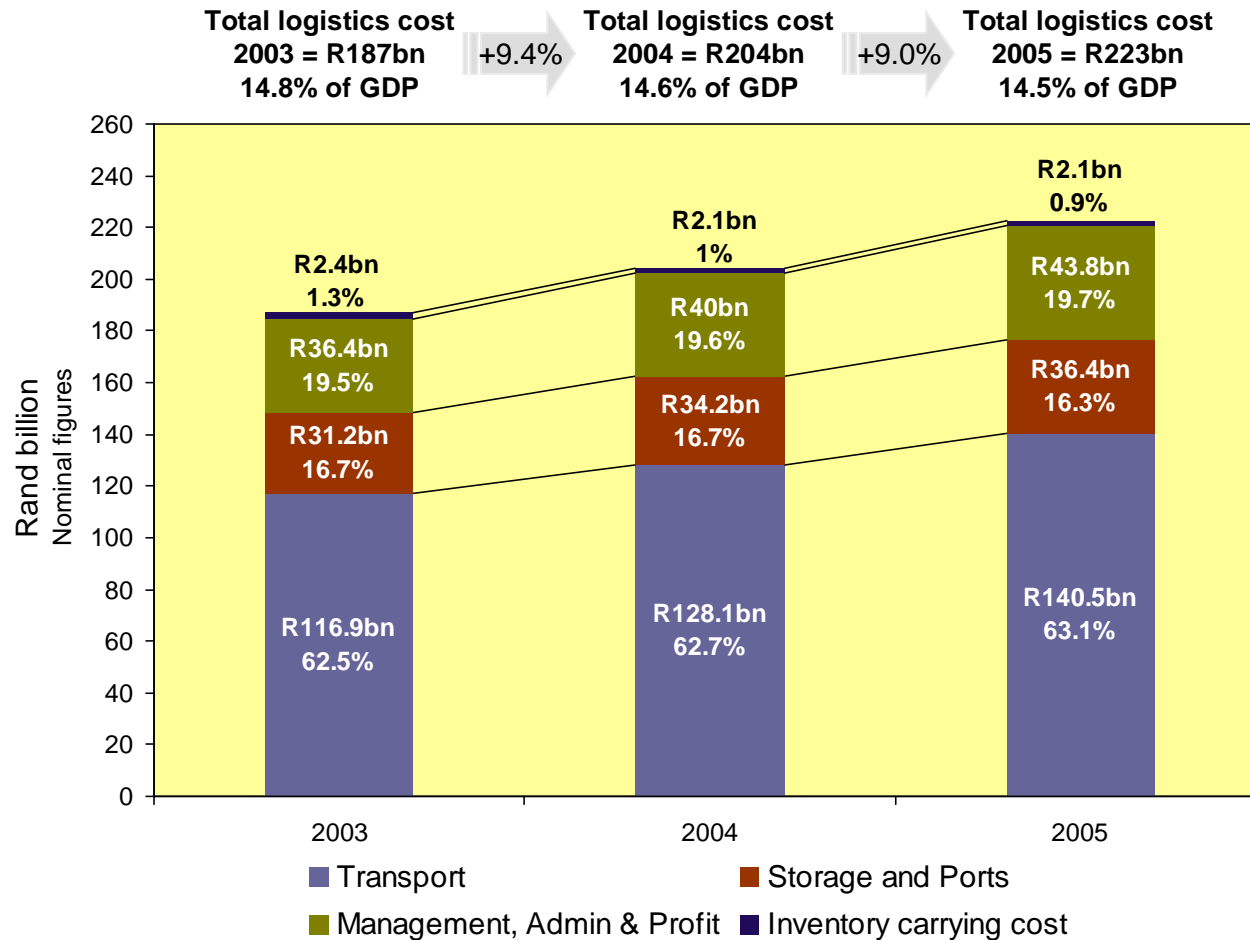
# Urban Consolidation Centres (UCCs)

- Definitions of UCCs
- Classification of UCCs
- Impact of UCCs
- Advantages and disadvantages of UCCs
- Issues in planning UCCs
  - Participation of interested parties
  - Location
  - Management structures
  - Products handled
  - The operations of UCCs
  - Funding
  - Success criteria
- Guidance in UCCs
- UCC check list

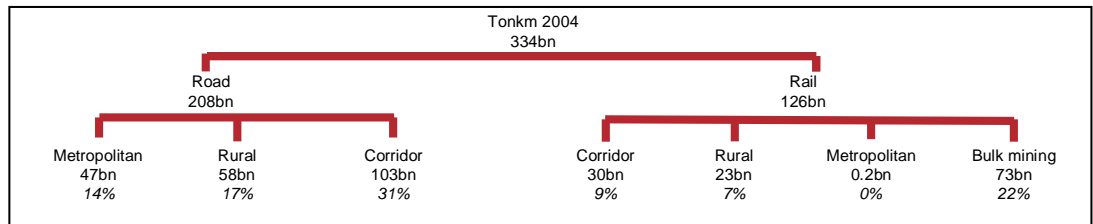
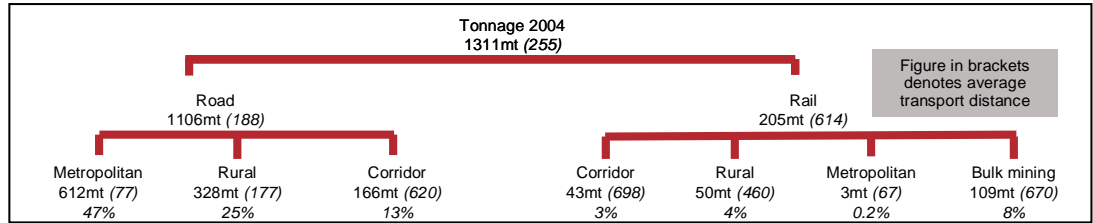
# The South African situation

- Massive shift of freight to road 80% of freight on road
- Total lack of sufficient infrastructure
- Road maintenance lacking
- Too many cars/vehicles on the road
- Number of cars/vehicles on the road increase by 8% per annum
- Current expansion of road capacity is not going to be sufficient
- No real public transport
- Huge congestion on our roads in urban areas, especially early morning and late afternoon
- High logistics cost  
(this is the biggest weakest link in the Worldbank report on logistics competitiveness; South Africa 24<sup>th</sup> but logistics costs 130<sup>th</sup>)
- Energy shortage is complicating things further
- Authorities are doing their utmost but is it enough?

# Logistics Costs in South Africa

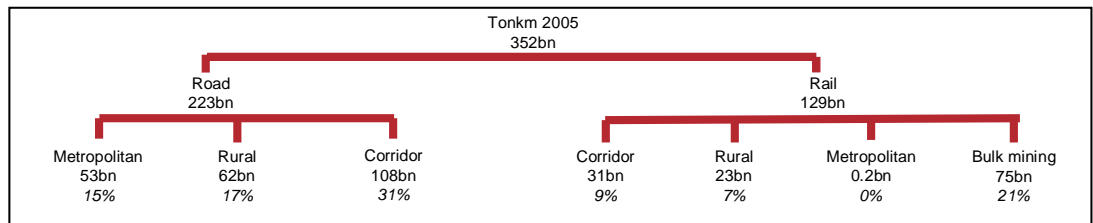
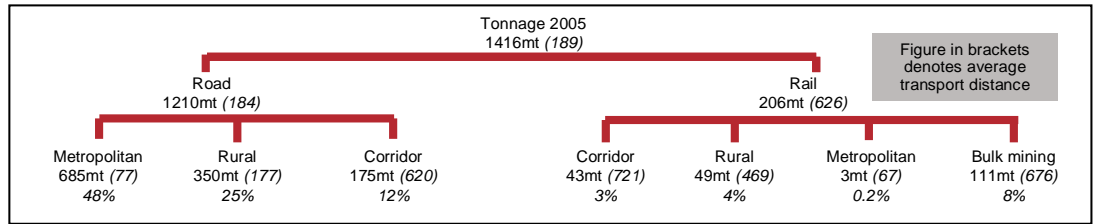


# Land Freight Transport – Split between Road and Rail

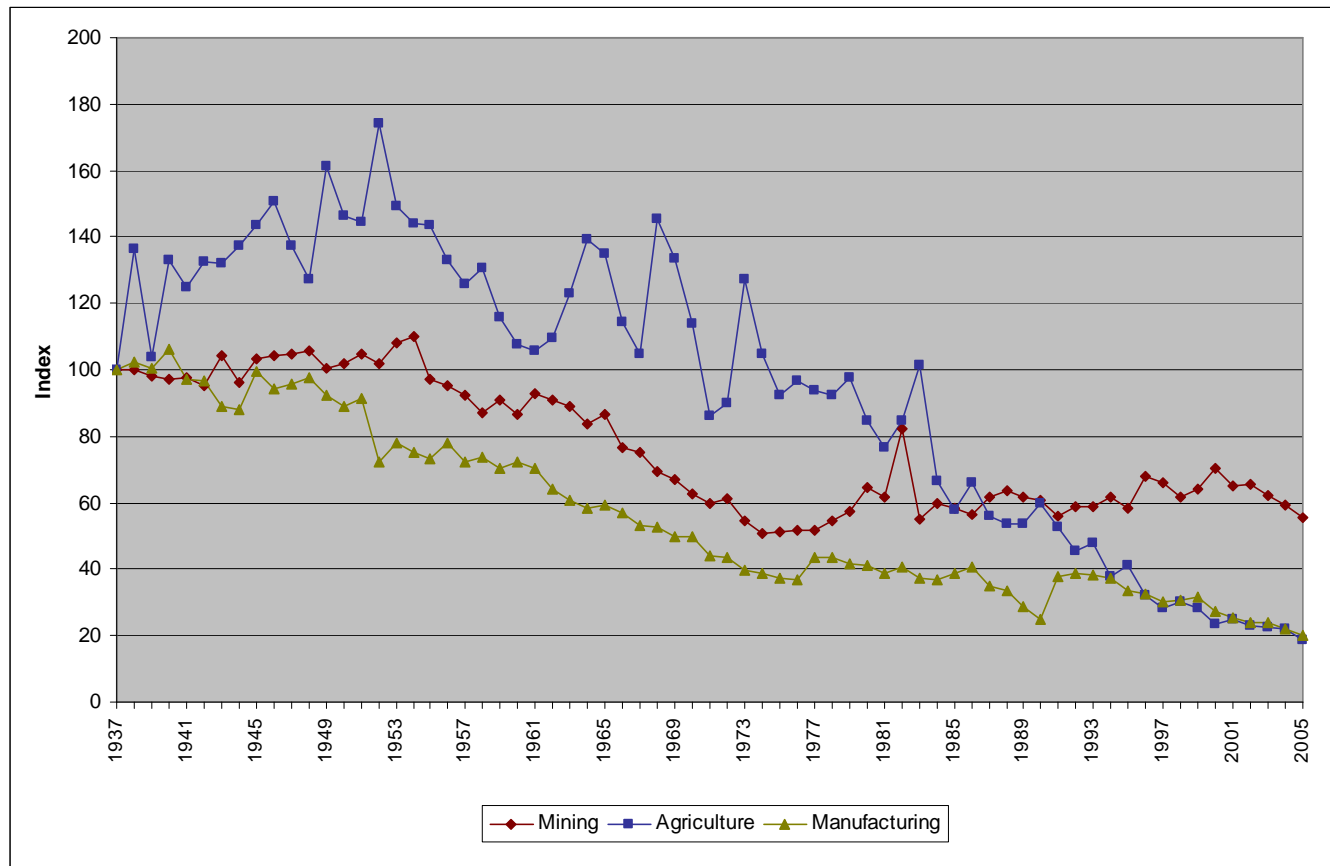


Tonnage increase of 8%

Tonkm increase of 5.4%



# Indexed correlation of the relationship between rail transport and physical production in the economy



# Challenges re urban freight

- The situation is not going to improve
- Innovative ways will be required
- Supply chains will have to be:
  - Reliable
  - Resilient
  - Relationships
  - Responsive
- UCCs the way to go:
  - is industry ready for this?
  - Who will drive this
- Spread deliveries over 24 hour period – more and more overnight deliveries
- Issues that have to be considered:
  - Security
  - Additional staff
  - Further increase in costs

# Challenges re 2010

- Main objective: maximize service by minimizing delays and travel time
- There is so many things happening, and being developed, currently that one is not sure where these will be by 2010
- Most authorities have developed operational plans for this event
- Are there backup plans for these events?
- How is this going to be implemented?
- Is there sufficient trained personnel to implement these plans?
- Use big events now to train and involve people
- Get volunteers to assist – “Team South Africa”

# Conclusions

- Learn from the best practice of BESTUFS
- Adapt these best practices for the South African situation
- CSIR can assist, possibly, through case studies
- Wonderful opportunities to show case South Africa:
  - Innovative solutions and approaches required
  - Collaboration essential
  - Private sector and public sector need interact, work together, develop joint solutions and have the same vision for the future

# Thank you

The logo for the Council of Scientific and Industrial Research (CSIR) of India, featuring the letters 'CSIR' in a stylized, bold, blue font.

*our future through science*

Logo for BESTUFS.NET, featuring the text 'BESTUFS.NET' in a bold, green font above the tagline 'Best Urban Freight Solutions' in a smaller, black font. To the right of the text are three small, stylized icons representing urban freight solutions.Logo for Transport forum, featuring a stylized globe icon to the left of the text 'Transport' in a bold, blue font and 'forum' in a smaller, red font below it. The website address 'www.transportsig.com' is written in a small, black font at the bottom.