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Toyota SA Academy, Jhb, 11 February 2015**



An overview of the Road Transport Management System

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CSIR Built Environment**



XNMO47 GP



Road Transport Management System

RTMS

Driver Wellness • Safety • Loading • Productivity

CONTENTS

- Heavy vehicle issues (in Developing Countries)
- The concept of self-regulation
- Some observed successes (in South Africa)

The Culture of Non-compliance

- Overloading
- Speeding
- Vehicle maintenance (brakes, tyres, lights)
- Driver hours
- Reckless driving
- False licenses (vehicles & drivers)
- Load securement
- Bribery & corruption

Regional Road Transport Issues

QUALITY OF LIFE

Road safety
Congestion
Cost of logistics
Road condition

GLOBAL COMPETITIVENESS

Transport efficiency
Cost of logistics
Congestion
Cross-border delays
Optimum road maintenance

HEAVY VEHICLE TRANSPORT

“maintaining and preserving natural systems”

SUSTAINABLE ENVIRONMENT

Transport efficiency
Road crashes
Road condition
Congestion
Energy consumption
Emissions

Measurement of Productivity

$$\textit{Productivity} \sim \frac{\textit{Output}}{\textit{Input}}$$

Measurement of Productivity

$$Productivity \sim \frac{Output}{Input}$$

BUT – with some constraints:

- Community safety and quality of life
- Environmental sustainability
- Protection of infrastructure

Key Elements in Road Freight Transport

- Road infrastructure
- Vehicles (design, maintenance & operation)
- Drivers

Road infrastructure



BETTER ROADS,
BETTER WORLD

*motto of the International
Road Federation*



Excess heavy vehicle maintenance and repair costs

Road condition	Average maintenance and repair cost (R/km)	Average percentage increase in the truck maintenance and repair cost	Average percentage increase in company logistics cost
Good	R 0.96	-	-
Fair	R 1.24	30%	2.6%
Bad	R 2.11	121%	10.4%



Brake & Tyre Watch

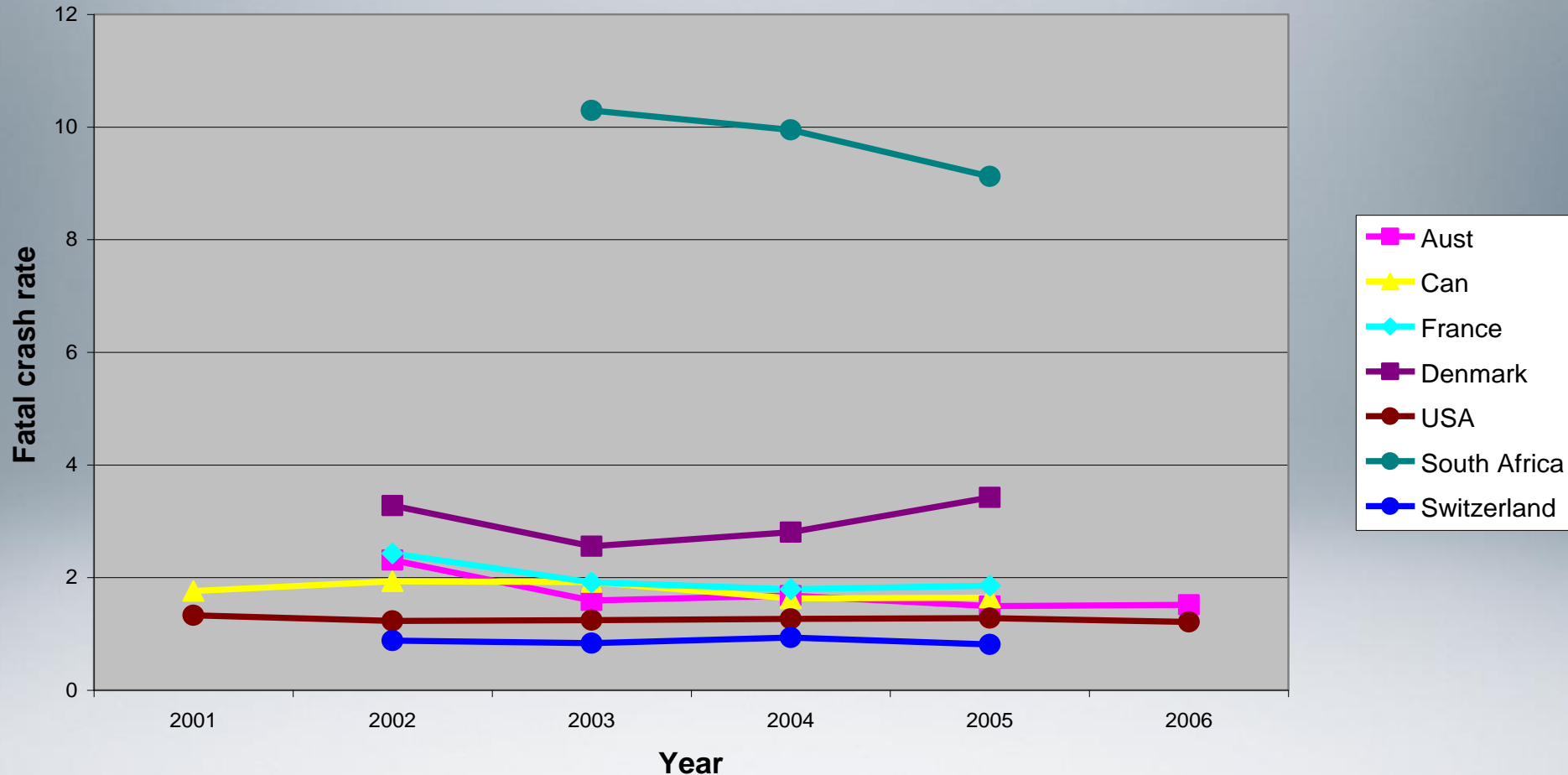
Brake & Tyre Watch Results

Location	Inspected	Discontinued	%
City Deep	24	21	88%
Middelburg	35	24	69%
Centurion	41	17	42%
Midway KZN	26	10	38%
Kroonstad	8	7	92%
Brackenfell, W. Cape	25	25	100%
Pietermaritzburg	12	11	92%
Port Elizabeth	15	6	40%
Rustenburg	7	5	72%
Polokwane	11	10	91%
Midway KZN	24	20	83%
Bloemfontein	24	20	83%
Nelspruit/Komati	13	12	92%
TOTAL (25 events)	564	376	67%

**26
B&TW
events
from
Feb.
2006
to date**



Heavy Vehicle Fatal Crash Rates

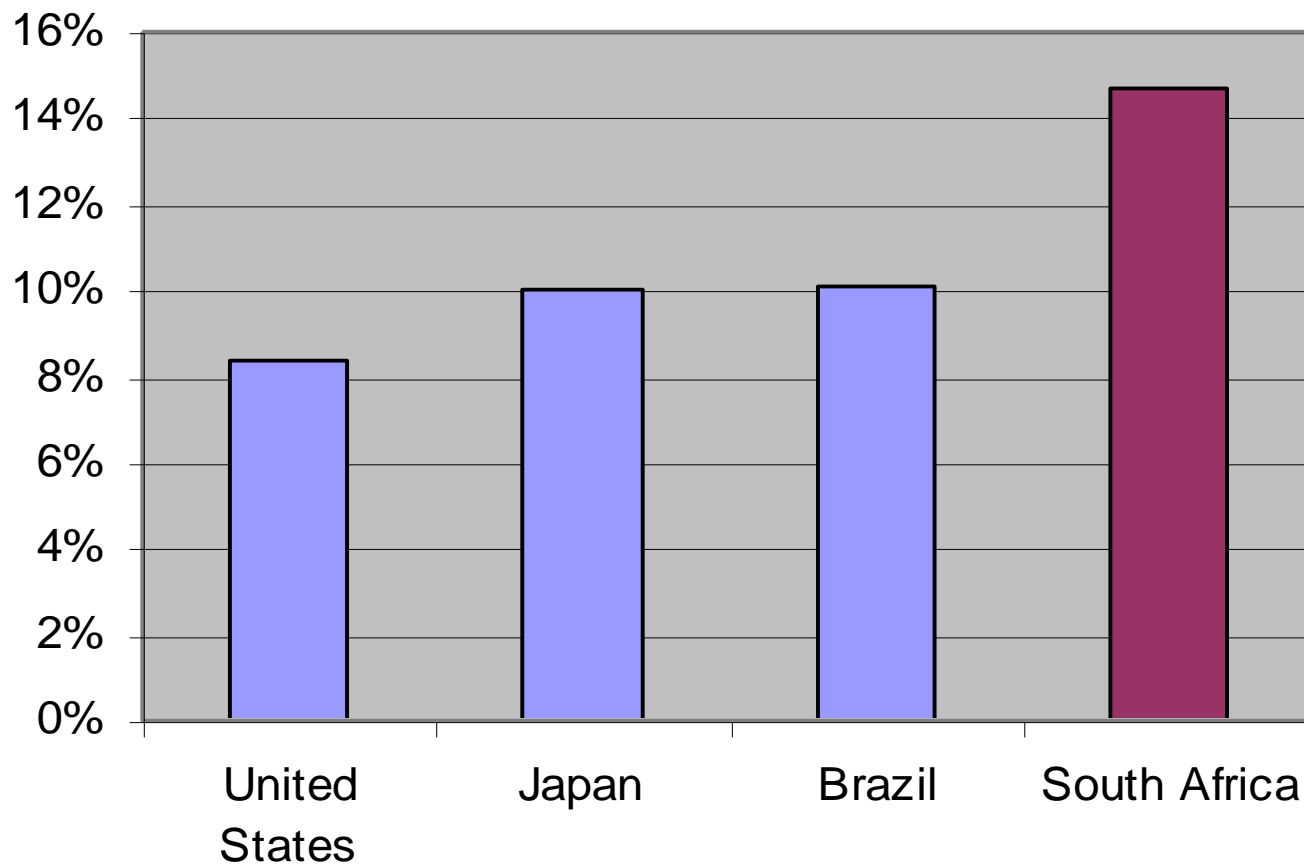


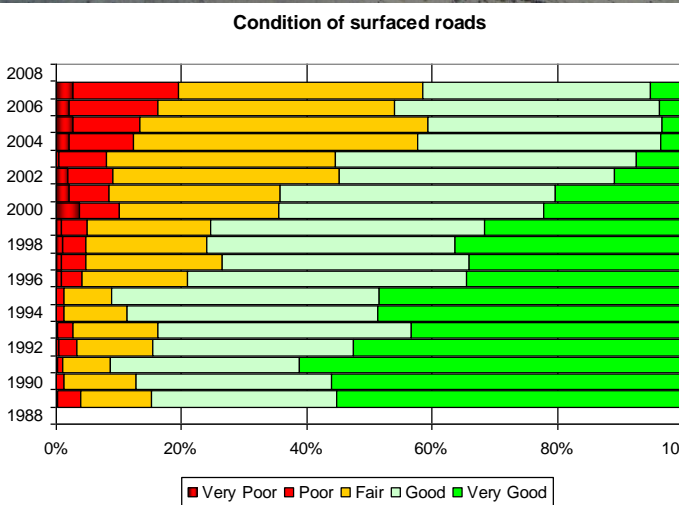
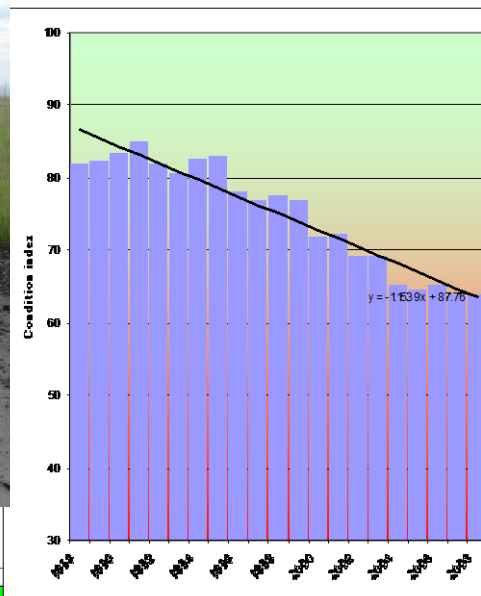
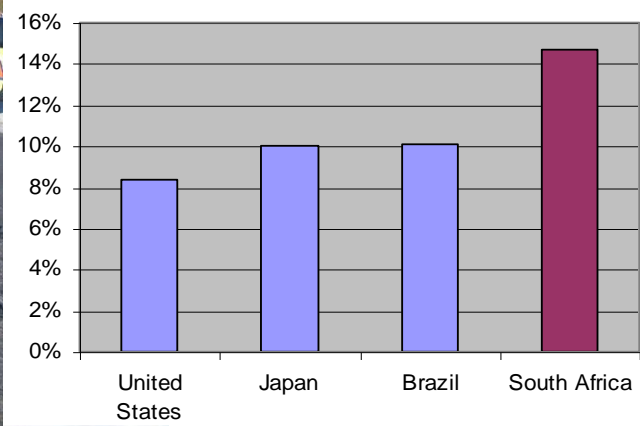
Fatal truck crash per 100 million vehicle kilometres travelled

Source: OECD report, Moving Freight with Better Trucks, 2010

Cost of Logistics

- The cost of logistics as a percentage of GDP in South Africa is almost double that of the United States and 50% more than Japan and Brazil





Road Safety

Infrastructure Protection

Fair Competition between modes & operators

OVERLOAD CONTROL

National Overload Control Strategy

Implemented by National, Provincial and Local Authorities

Infrastructure & Equipment

- Main routes (major facilities)
- Alternative routes (minor facilities/screening)
- Monitoring (HS-WIM)
- Alternative weighing equipment
- Private weighbridges

Self-regulation

- Road Transport Management System (RTMS)
- Performance-Based Standards (PBS)

Legislation

- Consignors/Consignees
- 5% Tolerance
- User charges
- Habitual Overloaders
- Public Prosecutors
- Alternative weighing equipment
- AARTO

Information sharing & Public Awareness

- Overload website
- Overload information booklet

Operations

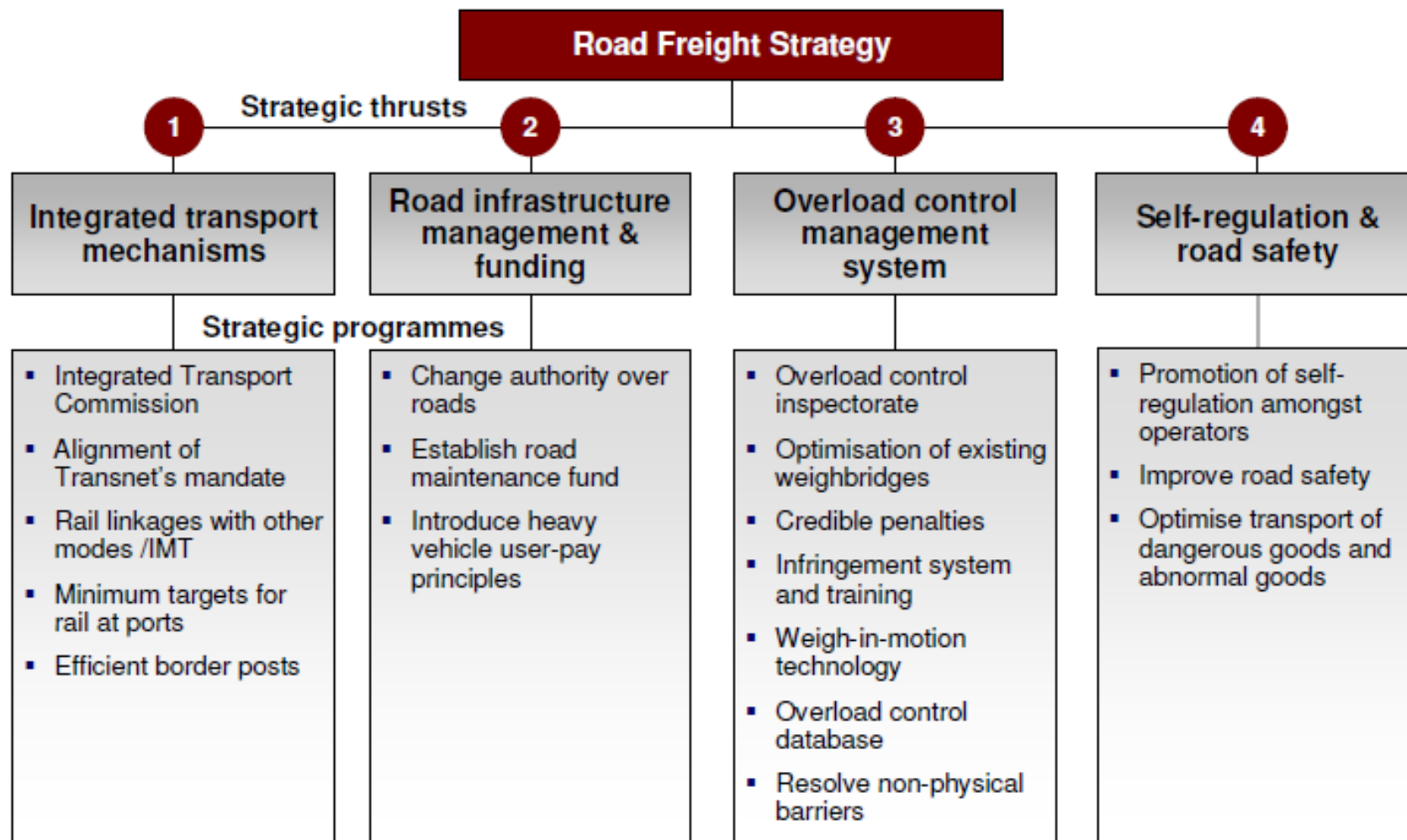
- Human Resources
- PPP
- Training
- Guideline document for law enforcement

Co-operation

- Provinces
- Local authorities
- Department of Justice
- Private sector



Strategic thrusts & programmes



Operational issues: Driver and vehicle fitness; system and systems integration; performance

The Road Transport Management System

- RTMS is an industry–led, government-supported, voluntary, self-regulation scheme that encourages consignees, consignors and road transport operators to implement a management system (a set of standards) with outcomes that contribute to preserving road infrastructure, improving road safety and increasing productivity.
- Key focus areas are:
 - load optimisation
 - driver wellness
 - vehicle maintenance
 - productivity

i
information
bulletin

vic roads

National Heavy Vehicle Accreditation Scheme

April 2000



ISBN 978-0-626-19331-7

ARP 067-1:2007

Edition 1

STANDARDS SOUTH AFRICA

Recommended practice

Road transport management systems

Part 1: Operator requirements — Goods

This document does not have the status of a South African National Standard.

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Road Transport Management System: Rules of Compliance

- Maintain a haulage fleet inventory
- Assess the vehicle mass before each trip
- Verify mass determination method
- Vehicle and load safety
- Vehicle maintenance
- Driver wellness (fatigue and health)
- Provide training & education
- Assign tasks and responsibilities
- Keep records and documentation
- Perform internal reviews

INTERNATIONAL
STANDARD

ISO
39001

First edition
2012-10-01

Road traffic safety (RTS) management
systems — Requirements with guidance
for use

*Systèmes de management de la sécurité routière — Exigences et
recommandations de bonnes pratiques*



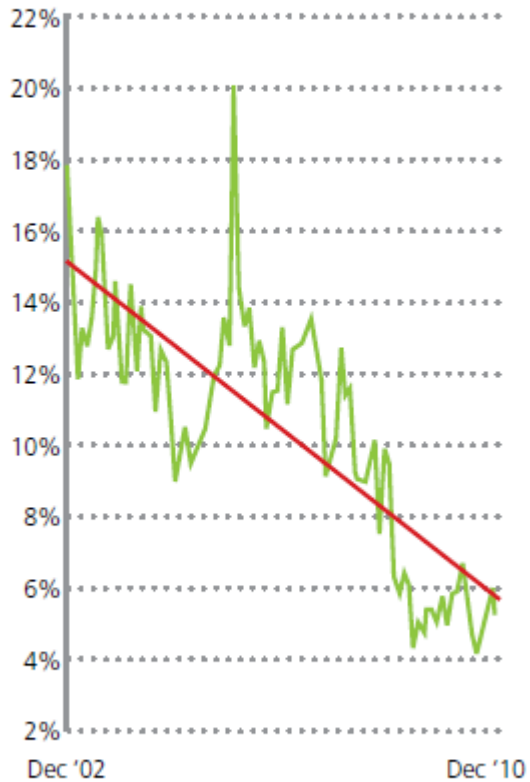
Reference number
ISO 39001:2012(E)

© ISO 2012

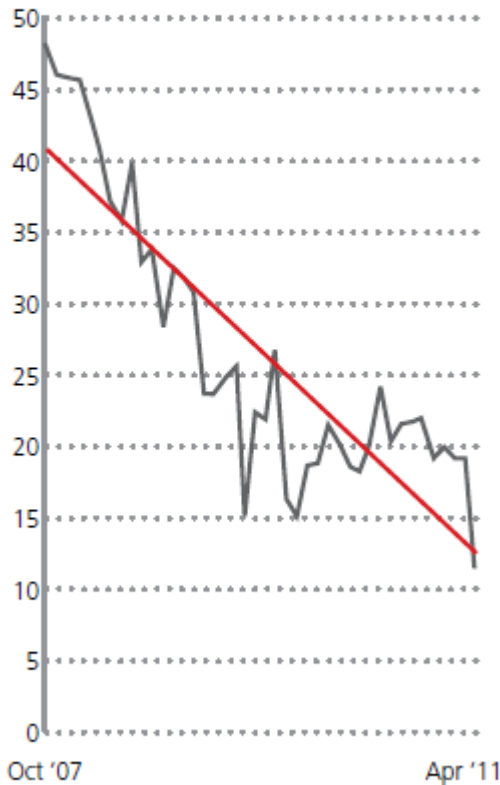
The RTMS standards are aligned with the new ISO 39001: Road Traffic Safety management systems, released in October 2012

Reduction in overloading & speeding

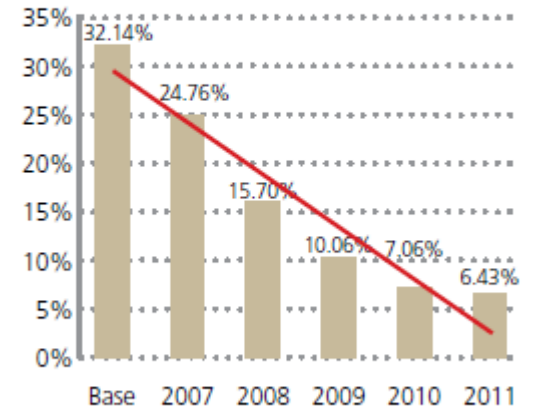
OVERLOADING OVER TOLERANCE SINCE NOVEMBER 2002



NUMBER OF SPEEDING INCIDENTS



% LOADS OVER 2% TOLERANCE YEAR ON YEAR IMPROVEMENT – RTMS MILLS





Barloworld
Logistics

WHAT DOES RTMS MEAN TO ME?

- ◆ I will abide by traffic Rules and Regulations;
- ◆ I will ensure that my vehicle is roadworthy and safe to drive;
- ◆ I will share the roads responsibly with fellow road users;
- ◆ I will comply with the indicated speed limits;
- ◆ I will drive defensively and safely;
- ◆ I will ensure that my vehicle is not over loaded;
- ◆ I will buckle up at all times;
- ◆ I will keep a safe following distance;
- ◆ I will acknowledge that pedestrians are important road users;
- ◆ I will acknowledge that cars, busses, taxis, as modes of transport, carry someone's loved one.

**"RTMS* accredited, we don't just talk
good governance, we practice it."**

* Road Traffic Management System
accreditation, APR067-1:2007



**Barloworld
RTMS card
for drivers**



Unitrans Zululand obtained its RTMS Accreditation in September 2009





Control Measures Implemented

- Driver Wellness – strict screening and medicals for all drivers at the start of the cane season.
- Timber SMART drivers sent twice a year for medicals
- Alcohol testing of all staff entering the premises.
- Weekly vehicle checks and immediate defect reporting and defects fixed.
- Speeding buzzers on all vehicles – buzzer goes off at 85 km/hr.
- Screening of all drivers before getting into a vehicle by Controllers.
- Onboard weighing on all vehicles. Vehicle overloads was a major problem on sugar cane with monthly overloads up to 25% a month prior to the RTMS accreditation drive.





Achieved Benefits

- Improved driver wellness
- Improved driver training with ongoing evaluation by in house Driver Trainer as well as external Driver Trainers
- Improved vehicle performance, less down time for major defects
- Improved fuel consumption – 4%
- Improved tyre and brake wear
- Overloads under 4% consistently for 3 years!!!!
- Reduced number of overload fines – drive and steer axle overload still a problem however
- Less vehicles weighed at the RTI weighbridge
- Speeding reduced significantly to almost ZERO
- Buy in from all parties



THE SPIRIT OF CAN DO



Achieved Benefits - Accidents

Reduced accident and incidents over R30 000 damage (July to June):

- 2006 / 2007 – 20 accidents, 6 serious
 - » Accident damage – 67 cpk or 5% of revenue
- 2007 / 2008 – 9 accidents, 5 serious
 - » Accident damage - 76 cpk or 5% of revenue
- 2008 / 2009 – 3 accidents, 1 serious
 - » Accident damage – 103 cpk or 6% of revenue
- 2009 / 2010 – 4 accidents, 1 due to driver falling asleep.
 - » Accident damage – 40 cpk or 2.0% of revenue
- 2010 / 2011 – 3 accidents, 2 due to driver negligence.
 - » Accident damage - 27 cpk, or 1.3% of revenue
- 2011 / 2012 – 5 accidents, 2 due to driver negligence.
 - » Accident damage - 29 cpk or 1.3 % of revenue

THE SPIRIT OF CAN DO





Achieved Benefits – Tyre Wear

Improved tyre wear, due to less overloads

Figures July to June

- 2008 / 2009 – 60 cpk
- 2009 / 2010 – 57 cpk
- 2010 / 2011 – 54 cpk
- 2011 / 2012 – 50 cpk



RTMS Accreditation

Overview 2005 - 2012



CITY OF CAPE TOWN | ISIXEKO SASEKAPA | STAD KAAPSTAD

Overview 2005 - 2012

Fleet management was generally viewed as a **fleet maintenance service**, which led to the various activities being dealt with on a decentralised somewhat fragmented basis.

During the financial year 05 / 06 the **organisational structure** of fleet services was reviewed and consequently aligned with a proposed business model which provided functionally aligned vehicles to the operations in terms of an internal price recovery agreement.

Fleet Statistics

The Electricity Services fleet comprised a **fleet of 840 vehicles** ranging from off road utility vehicles, sedans, Idv's and panel vans to light, medium and heavy trucks as well as a variety of truck mounted aerial platforms

The fleet stock replacement cycle at the time was 33 years which was far above the industry norms for vehicle replacement. Current average Fleet stock replacement cycle 8.5 years

Functional alignment - 40% > 95%

Fleet availability – 65% > 92.7%



Committed to service excellence and protection of the environment

Strategy and Culture

KPI Improvements

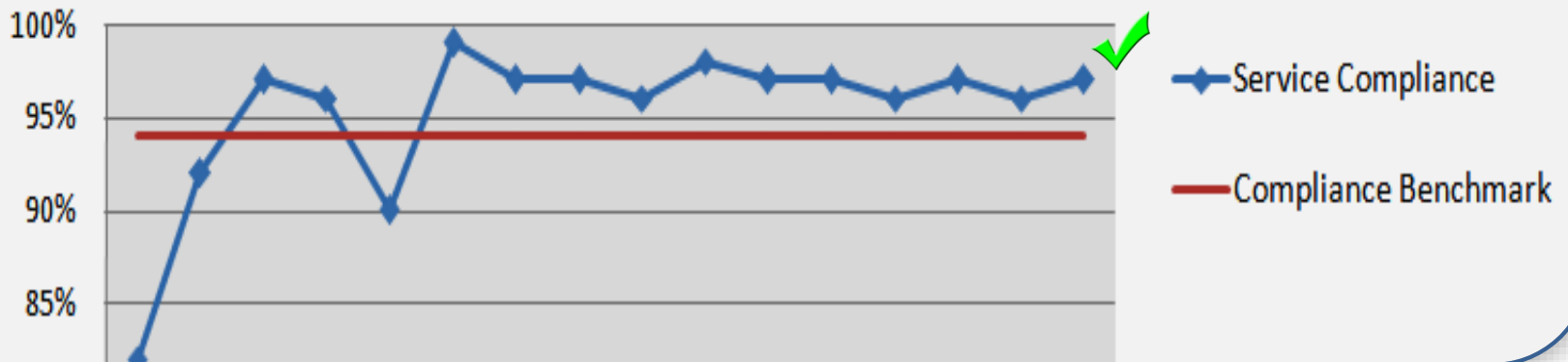
Maintenance compliance



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Proactive Maintenance Compliance

Feb 2008 - Oct 2012



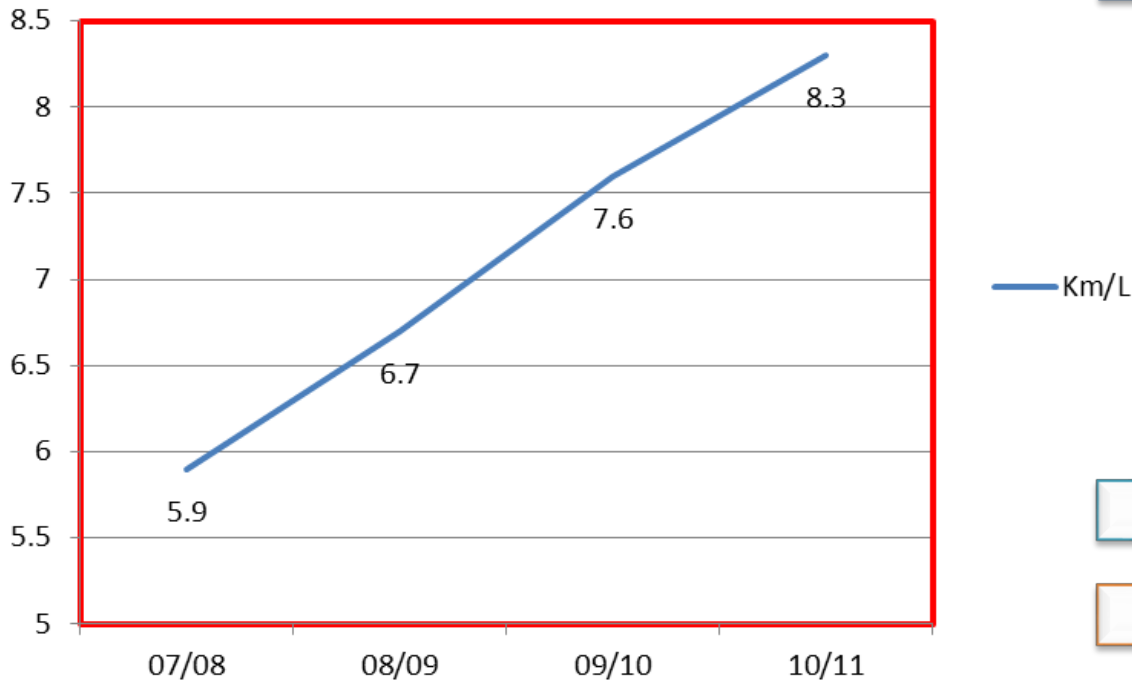
KPI Improvements

Fuel Consumption

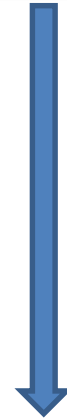


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Improved fuel consumption Km/Liter



Benefits derived from
adequate investment in fleet



Fleet functional alignment

Fuel efficient technology

Committed to service excellence and protection of the environment

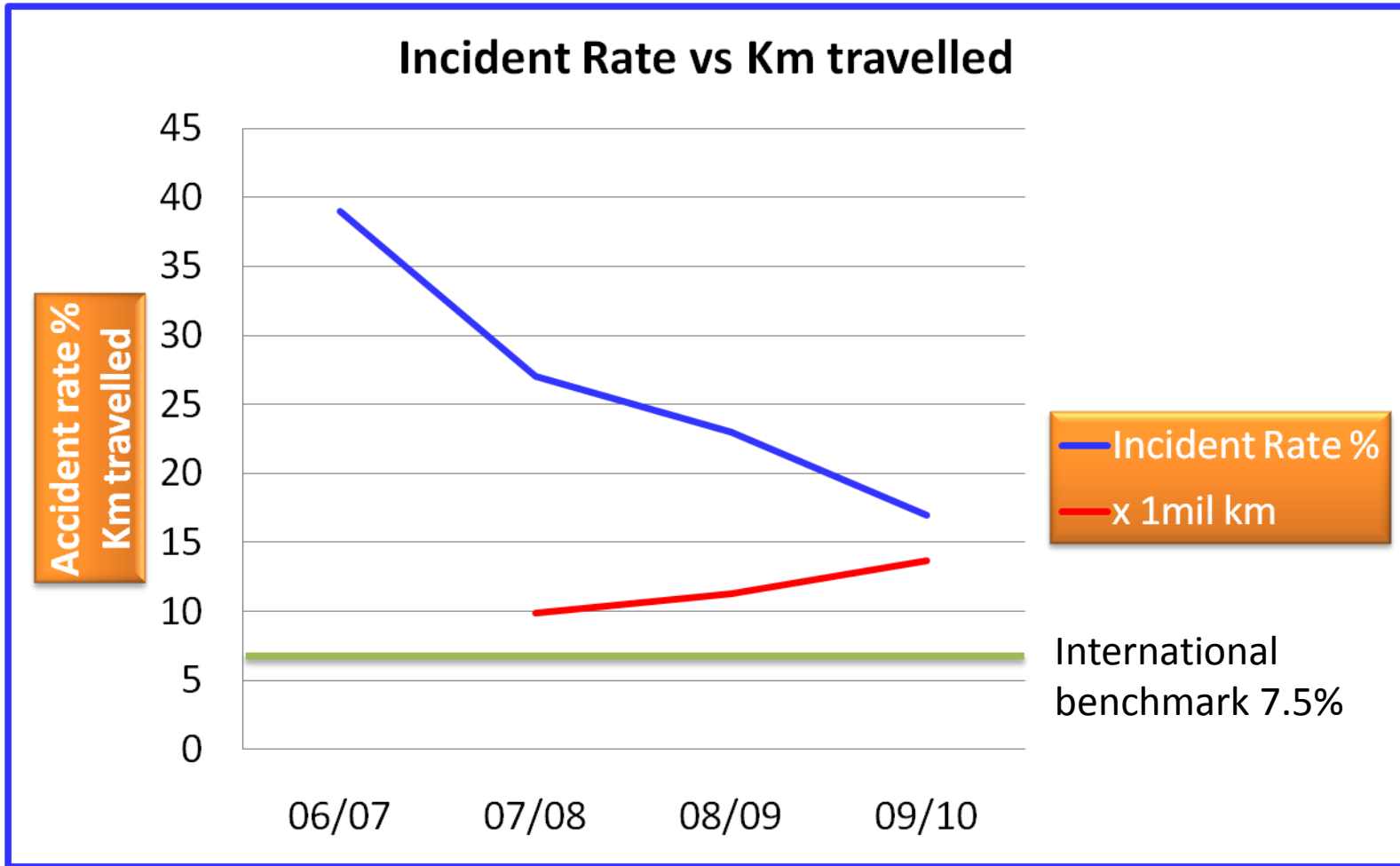


KPI Improvements

Incident Rate vs Km travelled



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Committed to service excellence and protection of the environment

Statutory Compliant

RTMS benefits: Crash reductions

- Barloworld Logistics: 66% reduction in the number of crashes in 2012 (owner driver fleet);
- Vehicle Delivery Services: 42% reduction in serious crashes from 2011 to 2012;
- Timber Logistics Services: 50% reduction in crashes and incidents from 2009 to 2012;
- The City of Cape Town, Electricity Support Services: 44% reduction in the number of crashes;
- Unitrans Amatikulu: cost of crashes reduced from 5.0% of revenue to 1.3% of revenue (reduction in the frequency and severity of crashes)

RTMS qualitative benefits

- Reduced turnover of drivers due to HIV-related issues;
- Improved standard of living of drivers;
- Improvement in driver wellness, resulting in a consequent decrease in absenteeism;
- Reduction in breakdowns and drivers reporting breakdowns;
- Improved fleet utilisation (reduced downtime);
- Improved driver behaviour;
- More control and confidence in the company;
- Reassurance that drivers are medically fit to drive a heavy vehicle; and
- Improved motivation of employees

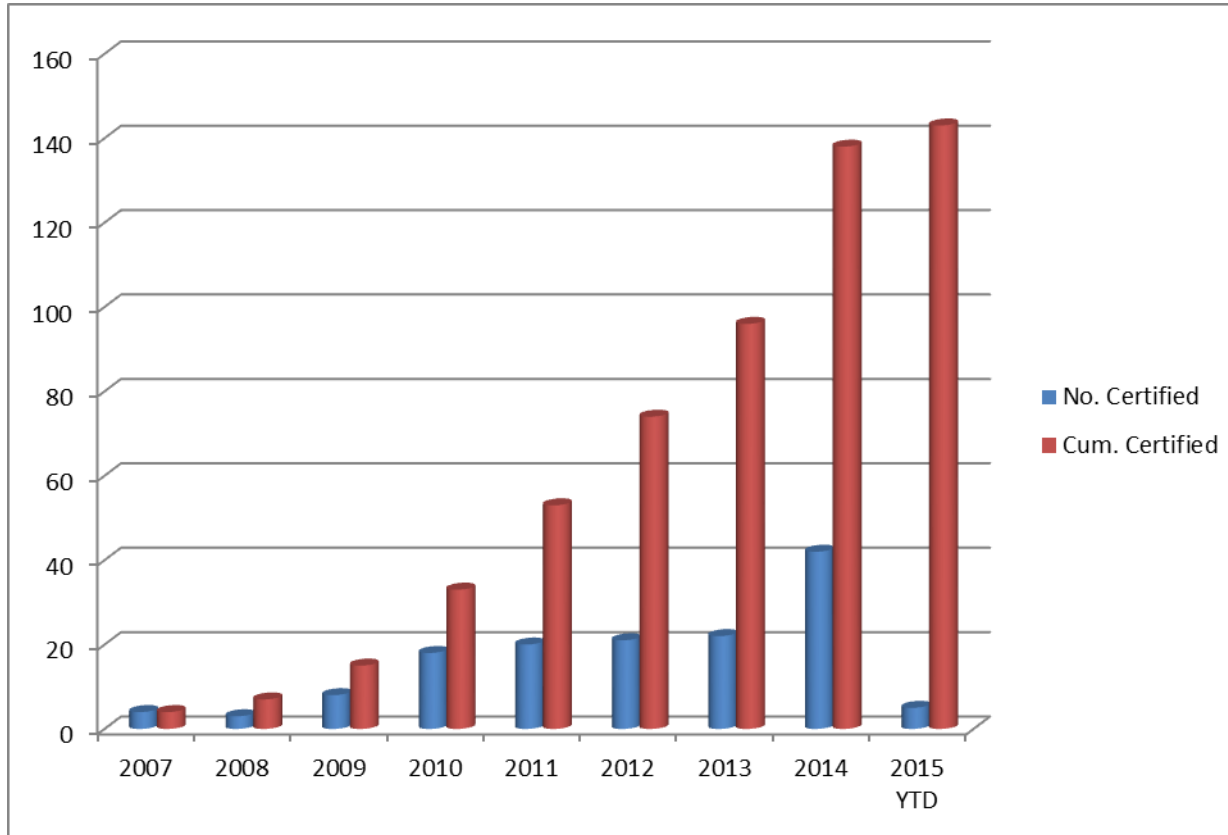
RTMS participation

3ème Congrès
et Exposition
des Transports
Publics Africains

3rd African Public
Transport
Congress and
Exhibition

Johannesburg,
Afrique du
Sud/South
Africa

13-16
Octobre/October
2014



Almost
7 600
trucks
&
buses

Three bus operators:

- Buscor 404 buses 160 000 pass/day, 20m km p.a.
- Intercape 152 coaches, 1.2 m pass/yr, 30m km p.a.
- GABS Over 1000 buses

THANK YOU

