



Regional Seminar on Weigh-in-Motion Self-Regulation in Overload Control 7 July 2022



The Road Transport Management System (RTMS) - for promoting a safer road environment and improving compliance and logistics efficiency

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RTMS National Steering Committee
Heavy Vehicle Transport Technology Africa (Pty) Ltd





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

CONTENTS



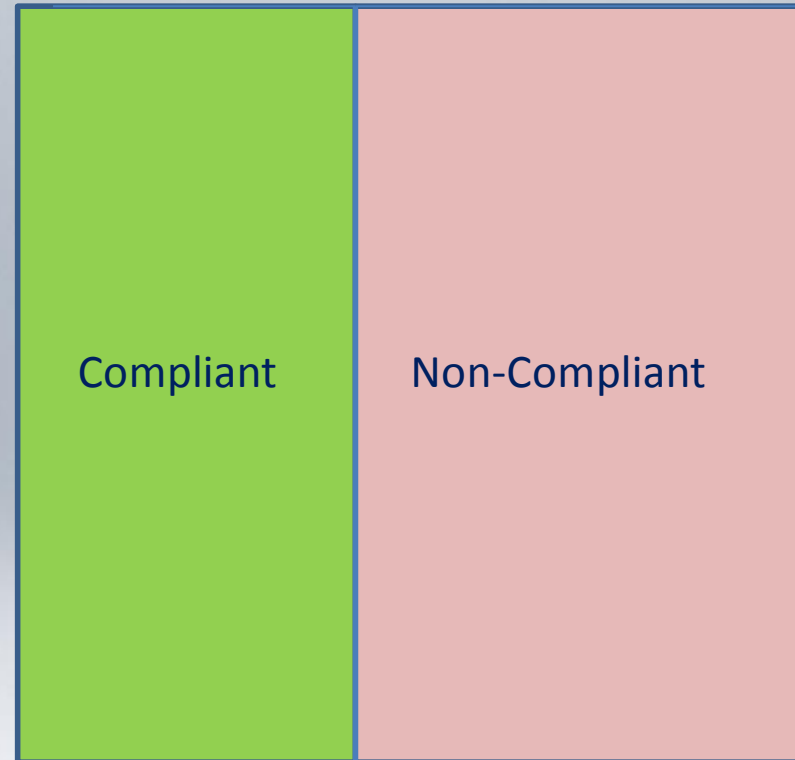
- The focus of the RTMS is:
 - Safety and
 - Sustainability

CONTENTS



- Essentially the RTMS initiative is about:
 - Managing risk
 - Promoting compliance
 - Increasing productivity

Levels of vehicle/driver/operational compliance in South Africa



Heavy vehicles > 25 tons
(approx. 150 - 200 000)

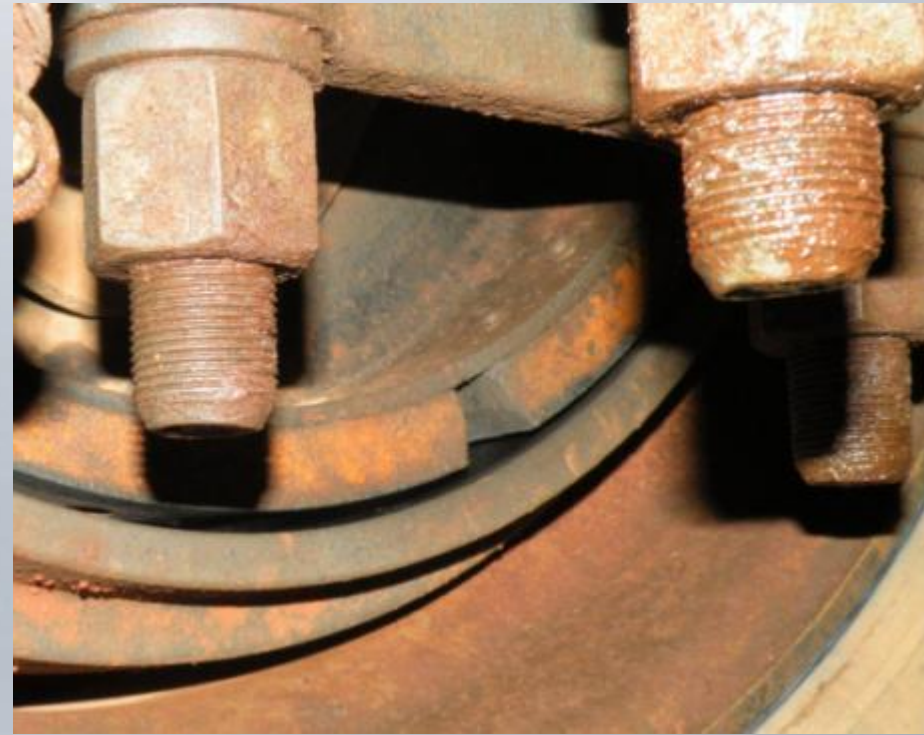
Brake & Tyre Watch Results

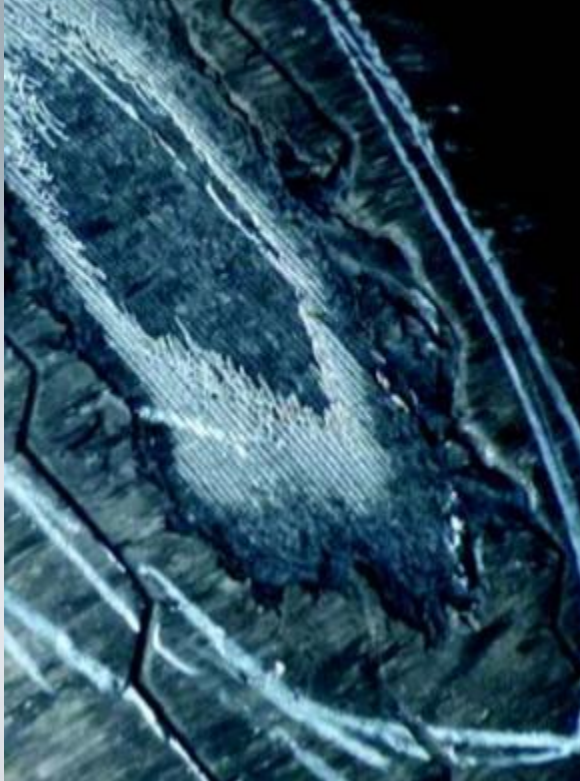


Location	Inspected	Discontinued	%
City Deep	24	21	88%
Middelburg	35	24	69%
Centurion	41	17	42%
Midway KZN	26	10	38%
Kroonstad	8	7	92%
Brackenfell, W. Cape	25	25	100%
Pietermaritzburg	12	11	92%
Port Elizabeth	15	6	40%
Rustenburg	7	5	72%
Polokwane	11	10	91%
Midway KZN	24	20	83%
Bloemfontein	24	20	83%
Nelspruit/Komati	13	12	92%
TOTAL (46 events)	771	533	69%

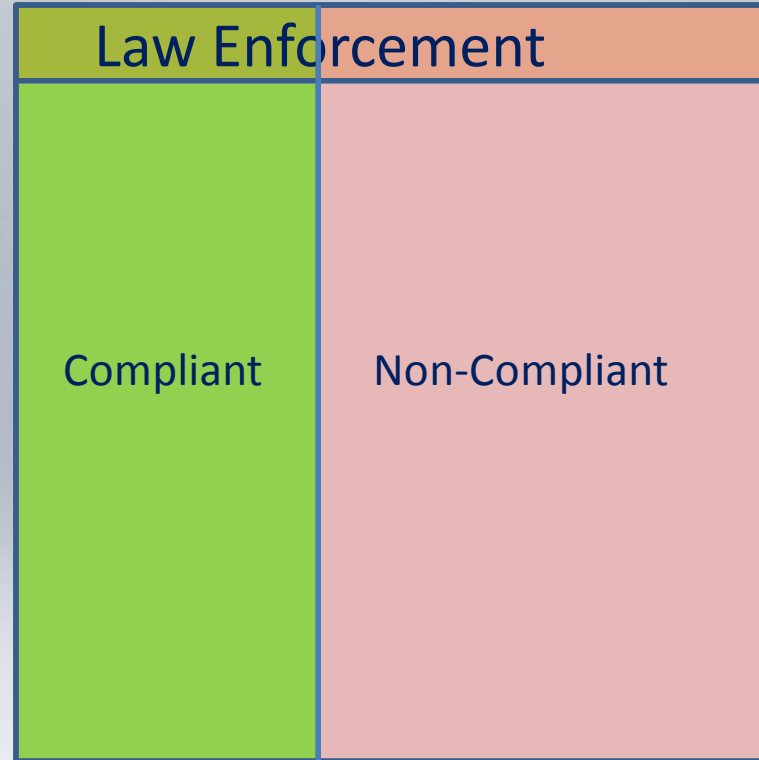
**46 B&TW
events
from Feb.
2006 to
date**





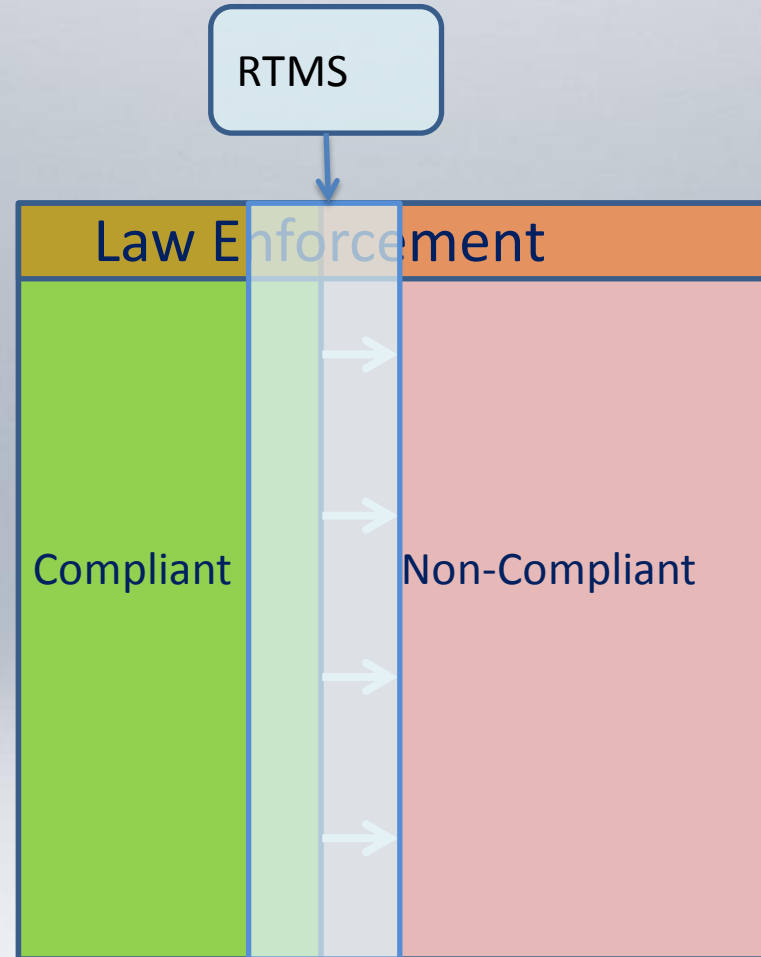


Effect of Law Enforcement on compliance



Heavy vehicles > 25 tons
(approx. 150 - 200 000)

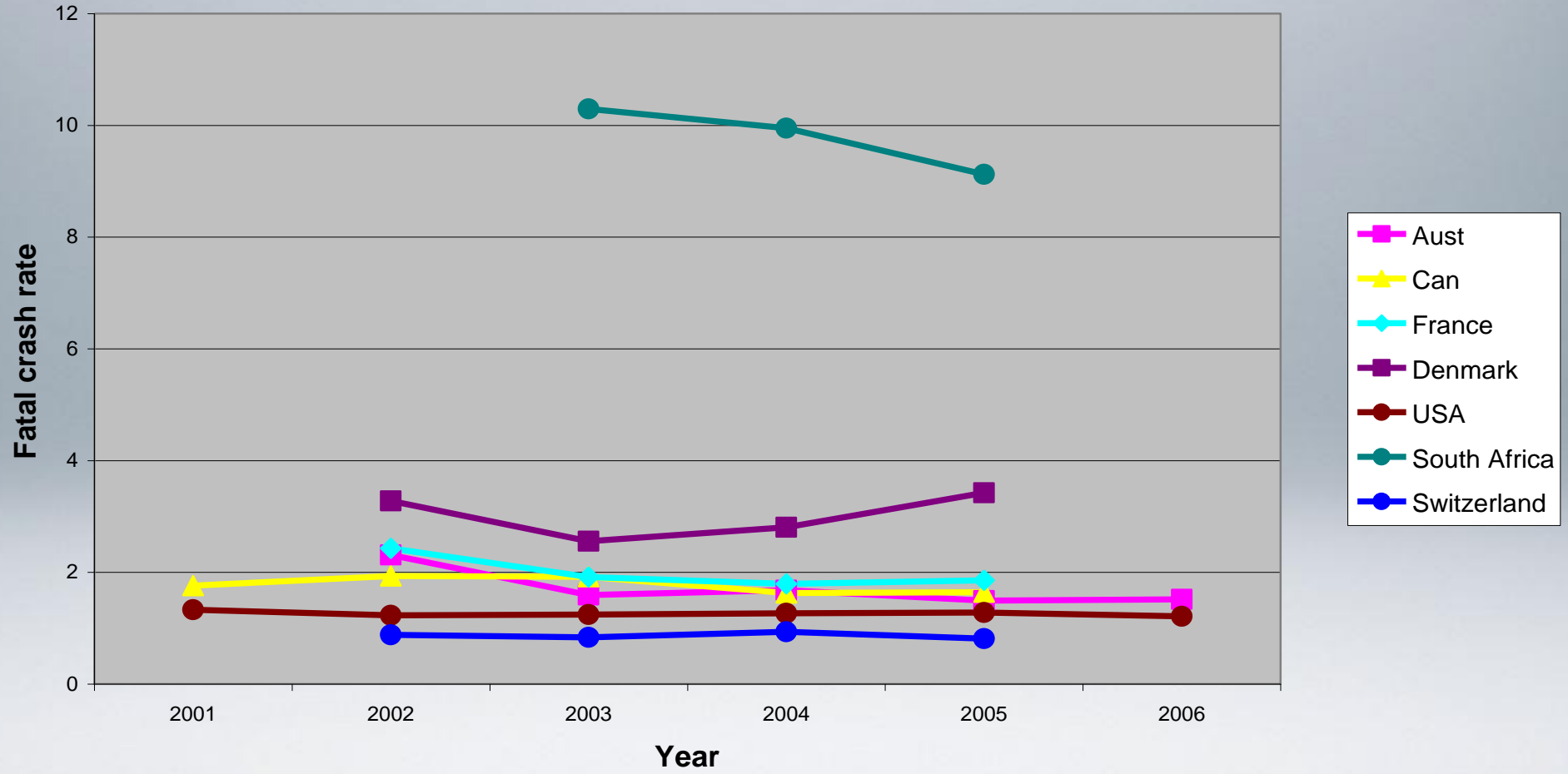
Effect of self-regulation (e.g. RTMS) on compliance



Heavy vehicles > 25 tons
(approx. 150 - 200 000)

RTMS-certified vehicles (motorised)
(approx. 10 000)

Heavy Vehicle Fatal Crash Rates



Fatal truck crash per 100 million vehicle kilometres travelled

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

Crash impacts



Fatalities and serious injuries
Road user delays (and stress)
Infrastructure damage
Increase in fuel consumption
Increase in emissions
Increased logistics costs





Safety and Sustainability



■ Key interrelating factors:

- Poor vehicle servicing and maintenance (increased breakdowns & crashes)
- Driver hours, skills, health (increase in crashes & fuel consumption)
- Heavy vehicle overloading (impacts road network condition & road safety)
- Crashes (road fatalities, serious injuries, congestion, environmental impact)
- Traffic congestion (increase in emissions, cost of transport)
- CO₂ (and other) emissions (Climate change, global warming)
- Deterioration of road network condition (increased cost of transport: fuel consumption, travel time, vehicle maintenance)
- All of the above – **negative impact on safety risk, transport efficiency & productivity** and ultimately the **SA economy**



What is the RTMS?



The RTMS is an **industry-led**, **government-supported**, **voluntary**, self-regulation scheme that encourages **consignors, consignees** and **road transport operators** to implement a **management systems standard** with outcomes that contribute to **preserving road infrastructure, improving road safety** and **improving productivity**.

Key Elements in Commercial Vehicle Transport

- Road infrastructure: **roads**, bridges, roadside furniture, signs, road markings, eToll gantries
- Vehicles: **design**, **maintenance** & operation
- **Drivers: skill, health, fatigue**




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 Edition 1

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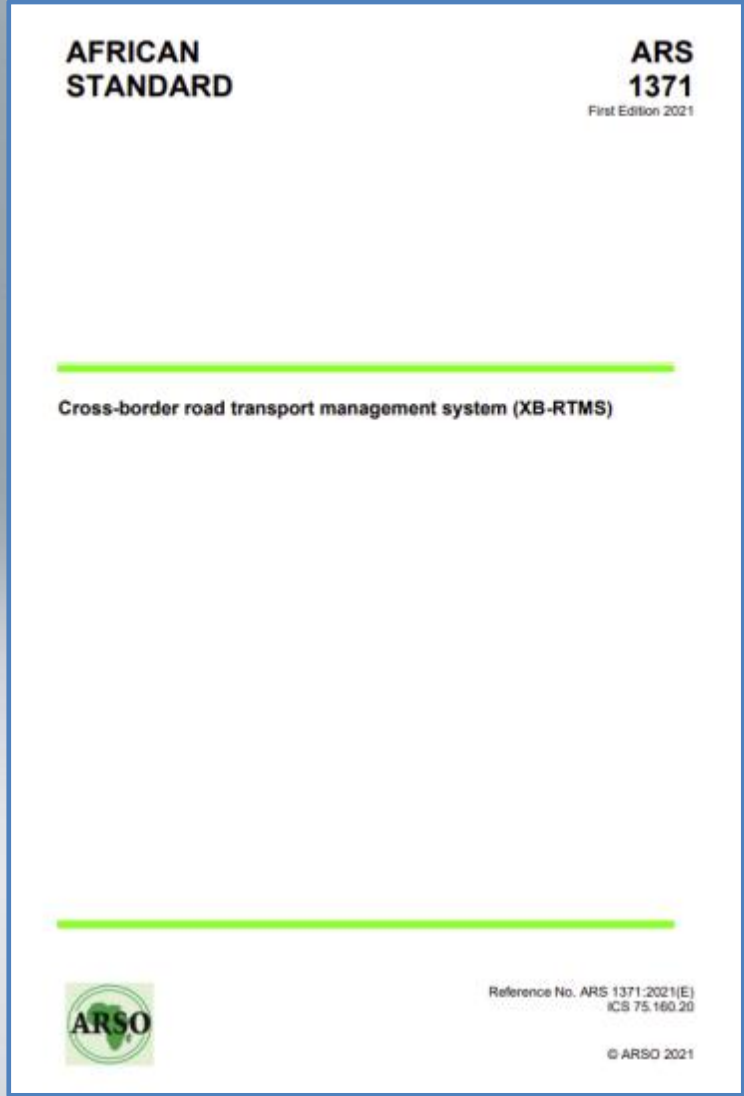
Road transport management systems
 Part 1: Operator requirements — Goods

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RTMS Criteria
 (SANS 1395-1:2014)

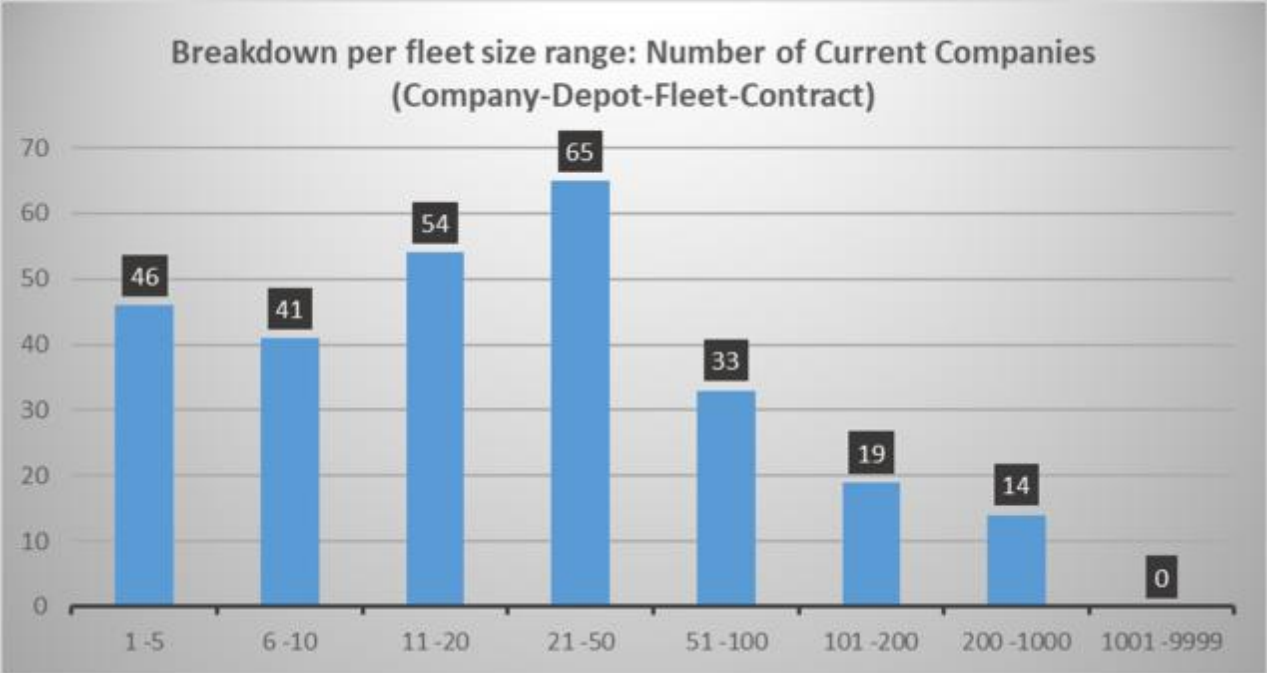
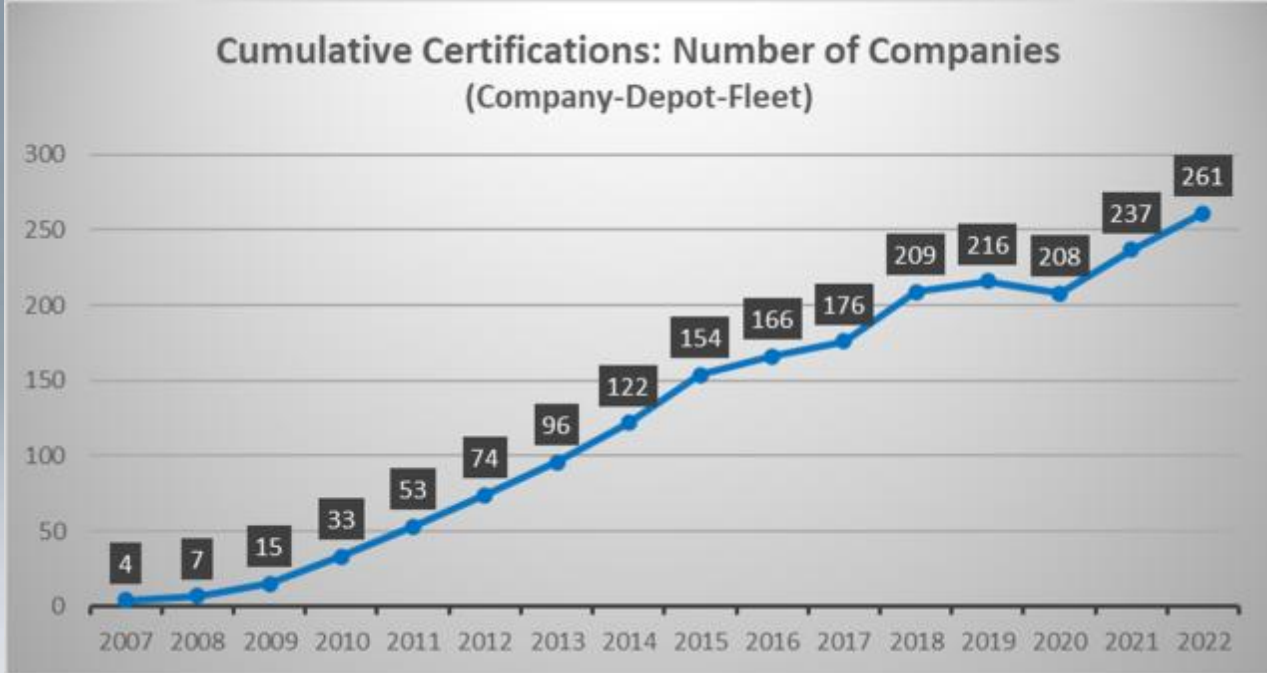
<p>(Clauses 1 & 2) Fleet/ Loading Control</p> <ul style="list-style-type: none"> - Fleet Inventory - Control of loading - Prevent Overloads - Optimise Payload 	<p>(Clauses 3,4,5) Safety/ Compliance</p> <p>Vehicle Maintenance Basic Roadworthiness Minimising breakdowns Speed Management Accident Analysis Traffic violations Risk Management</p>	<p>(Clause 6) Driver Wellness</p> <p>Medical Fitness Chronic illness Management Fatigue Management (Shift / Driving hours) Wellness Initiatives (Nutrition etc.)</p>	<p>(Clauses 7 & 8) Support</p> <p>Providing skills development to ensure drivers obtain and retain competency to be safe, compliant and a minimal risk on public roads</p>
<p>(Clauses 9-13) Documents + Records + Monitoring + Corrective Actions + Internal Audit + Management Review</p>			



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Adoption of the RTMS



<https://rtms-sa.org>

Positive outcomes



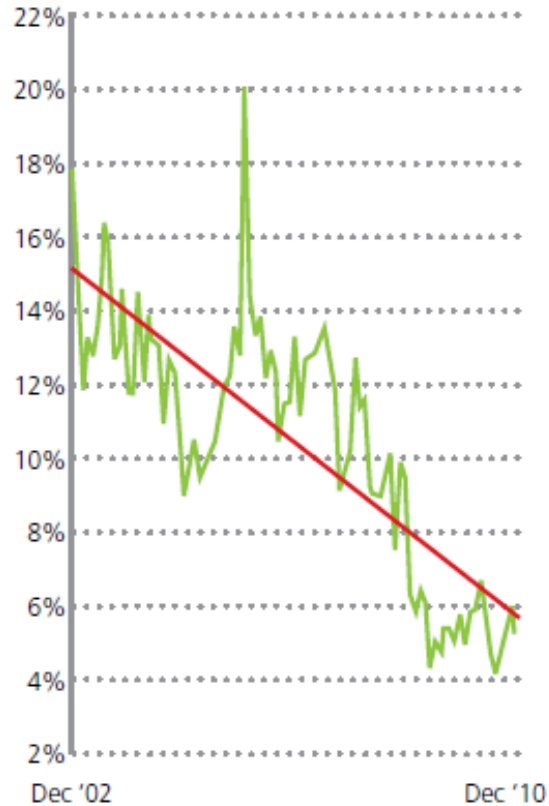
The RTMS is a system that voluntarily regulates the heavy vehicle industry and has achieved significant results including:



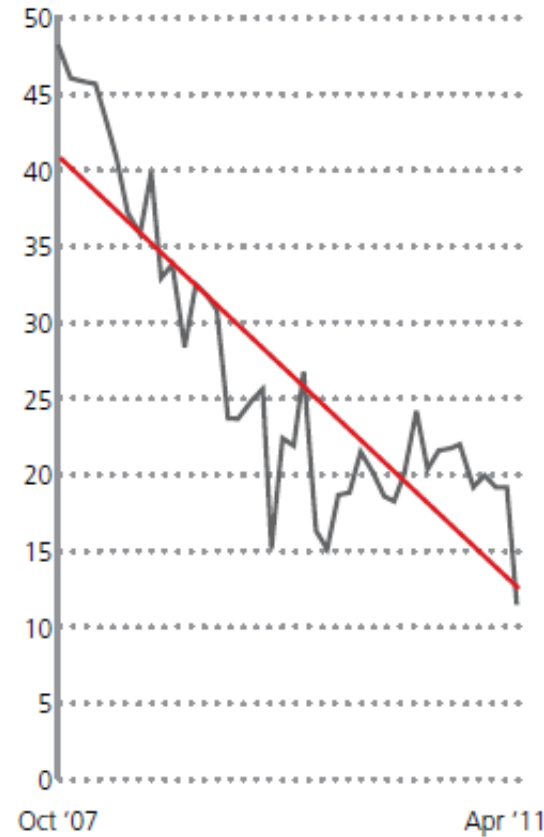
RTMS positive outcomes



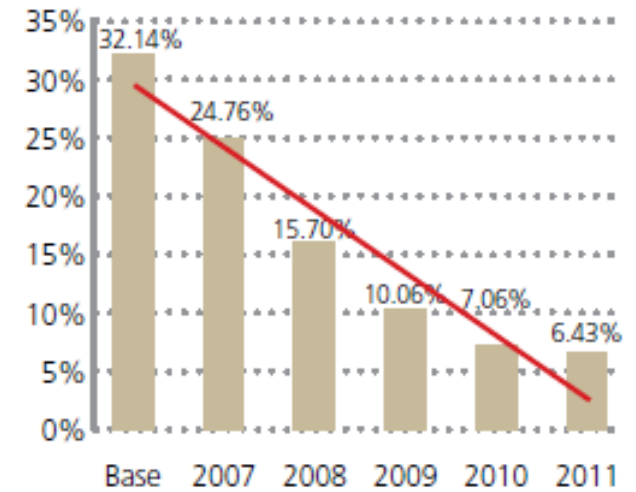
OVERLOADING OVER TOLERANCE SINCE NOVEMBER 2002



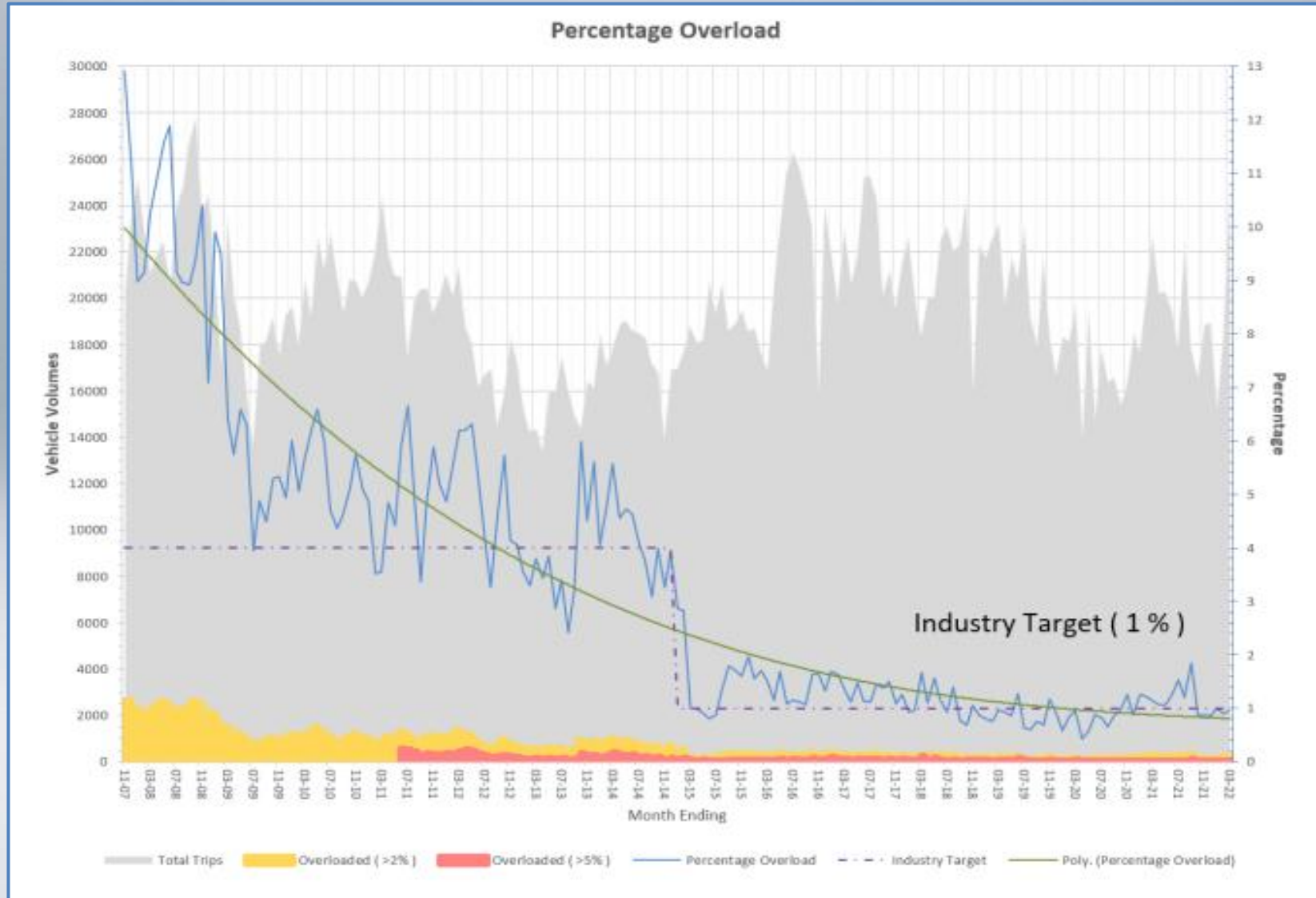
NUMBER OF SPEEDING INCIDENTS



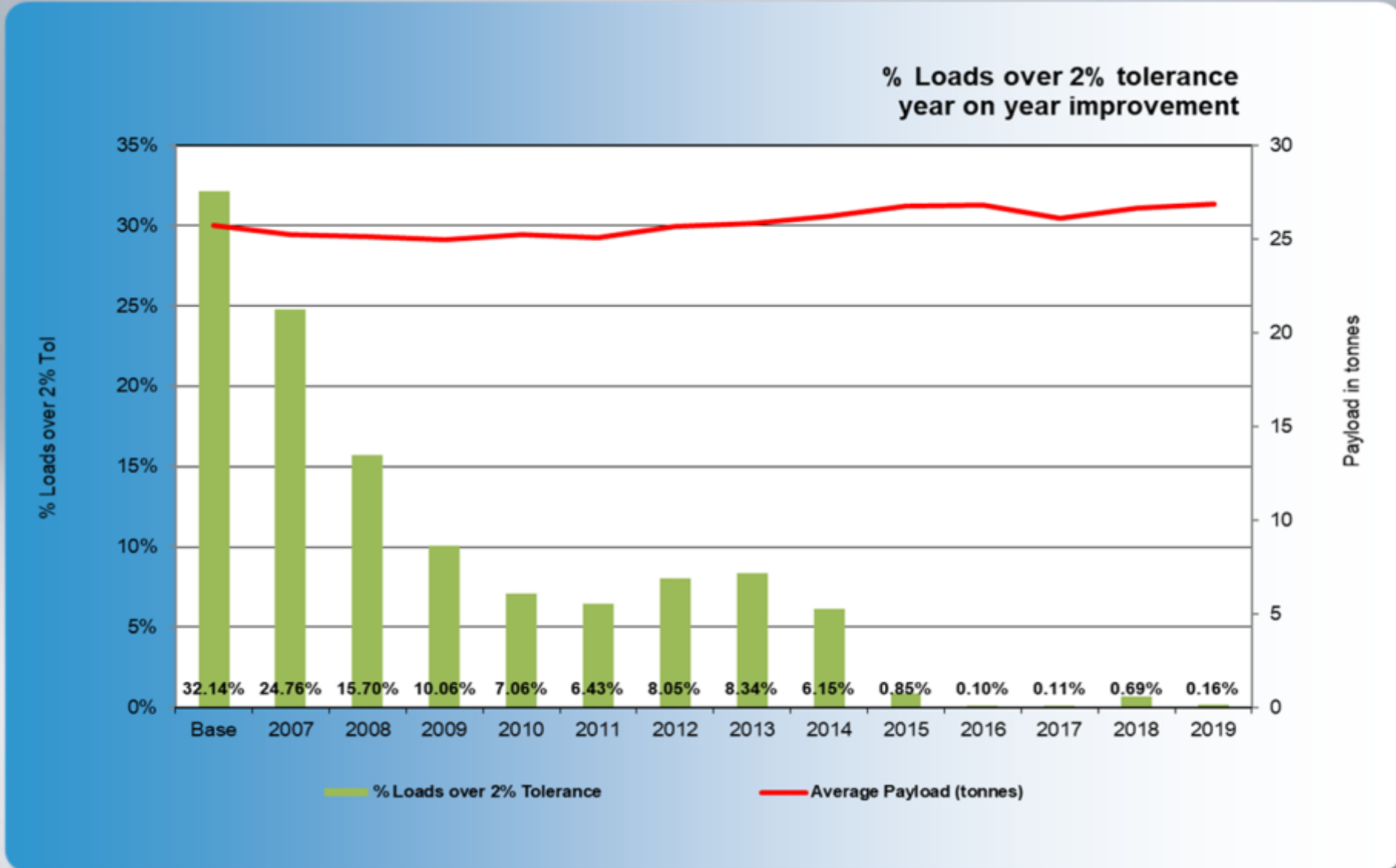
% LOADS OVER 2% TOLERANCE YEAR ON YEAR IMPROVEMENT – RTMS MILLS



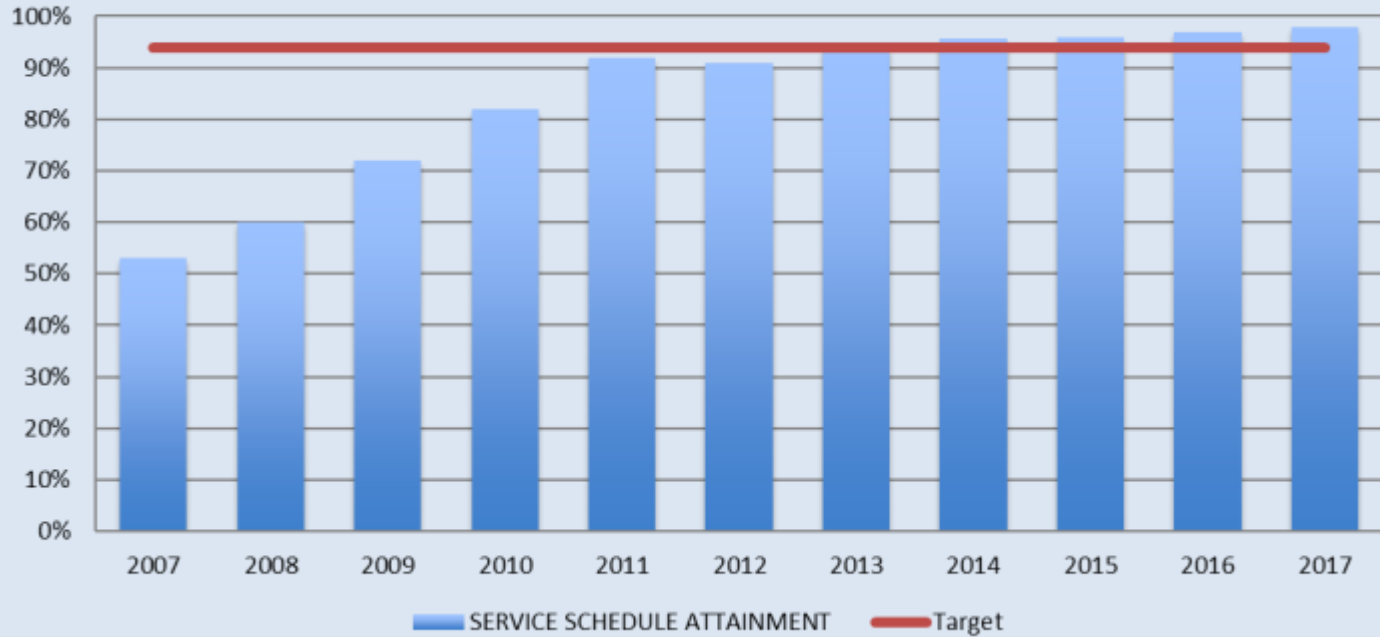
Positive outcomes in Forestry



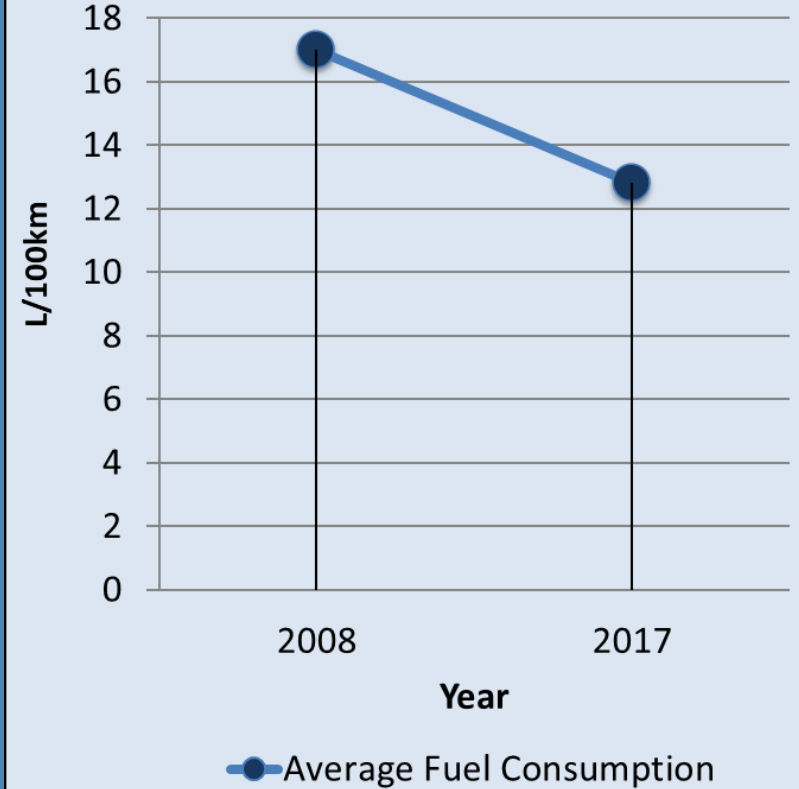
Positive outcomes in Sugar



Service Schedule Attainment



Average Fuel Consumption



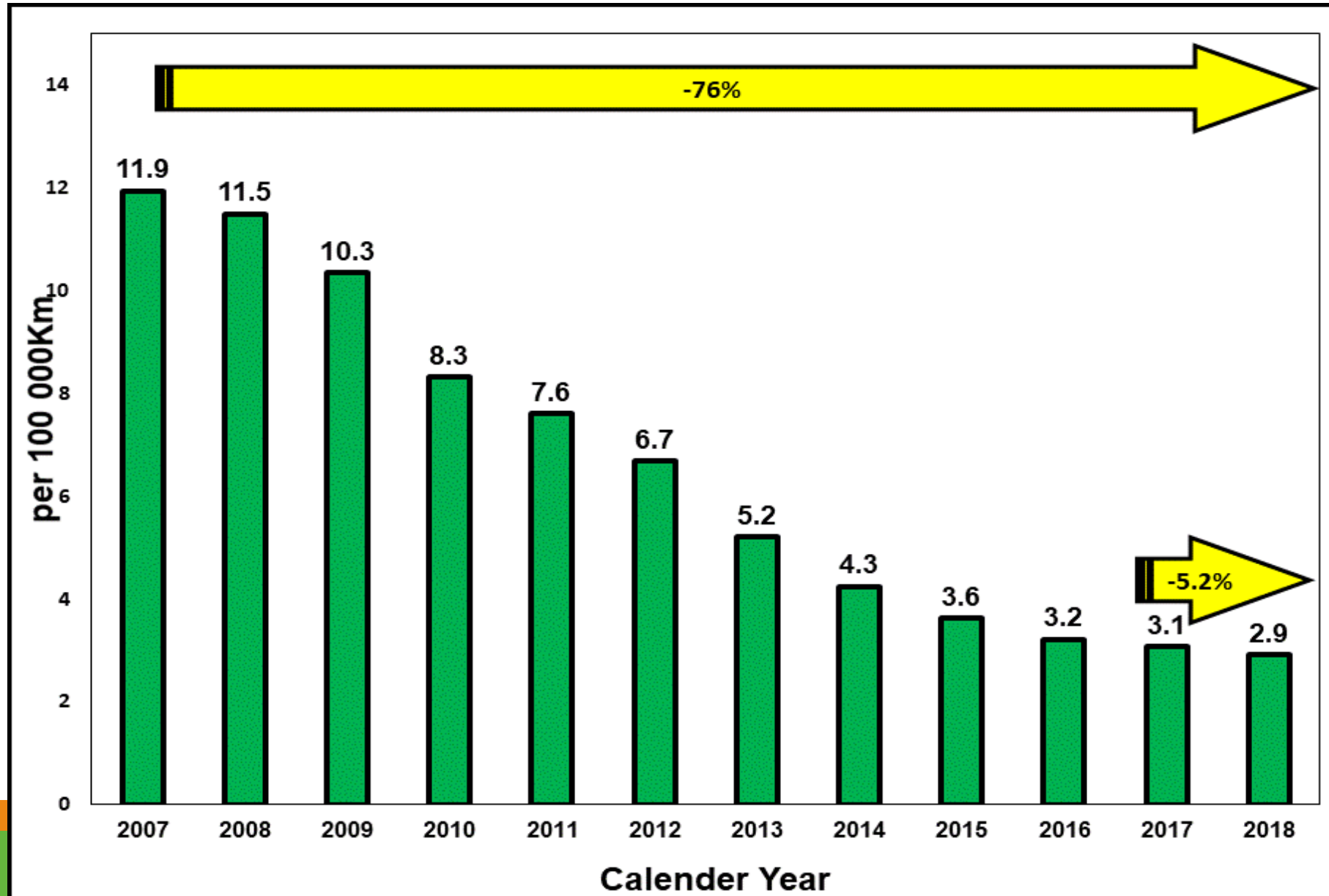
Carbon footprint improved by 24%

Golden Arrow Bus Services RTMS Journey



Golden Arrow Bus Services

Breakdowns



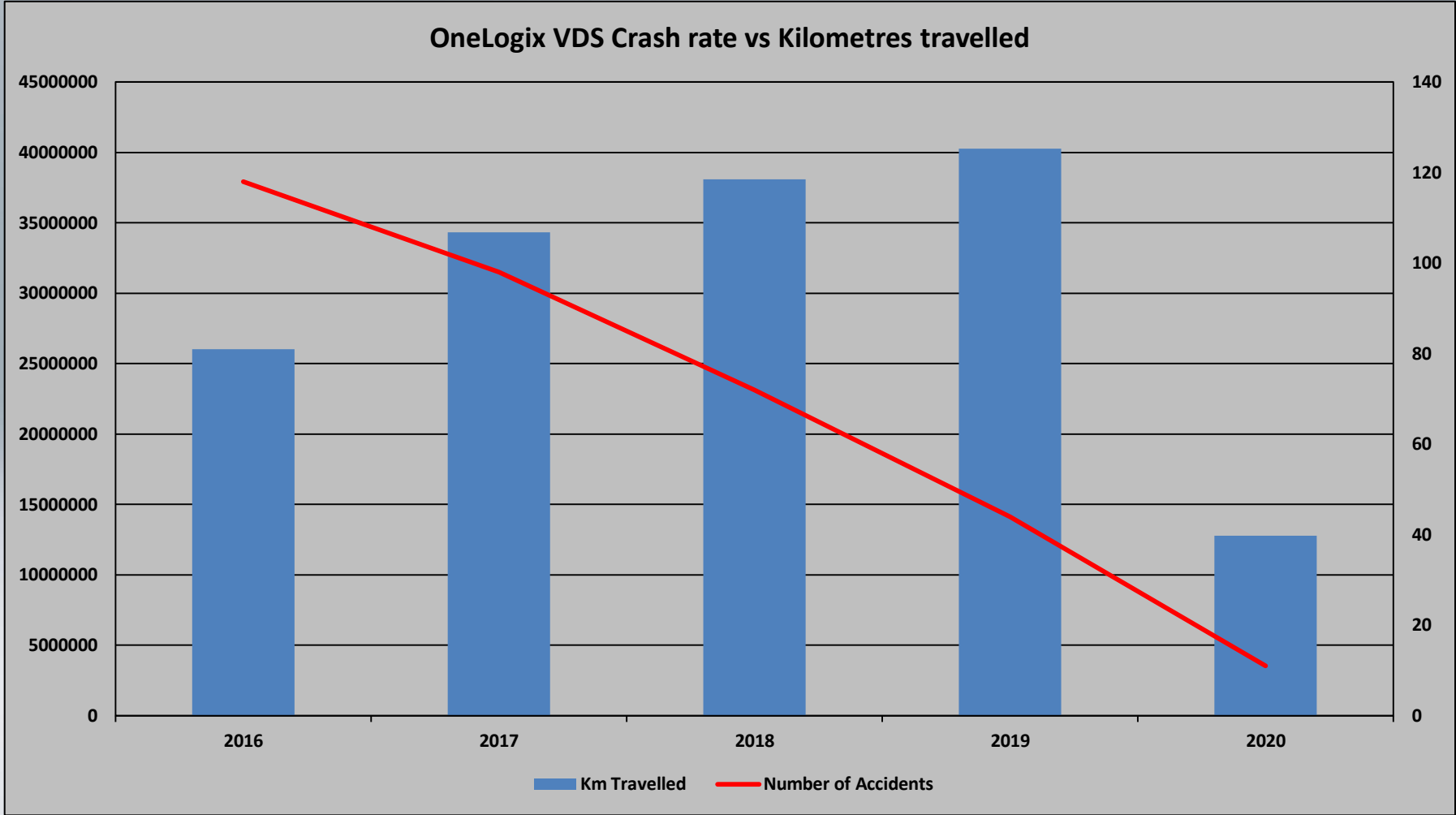
Buscor PBS Bi-articulated Bus



Buscor Crash Stats Summary

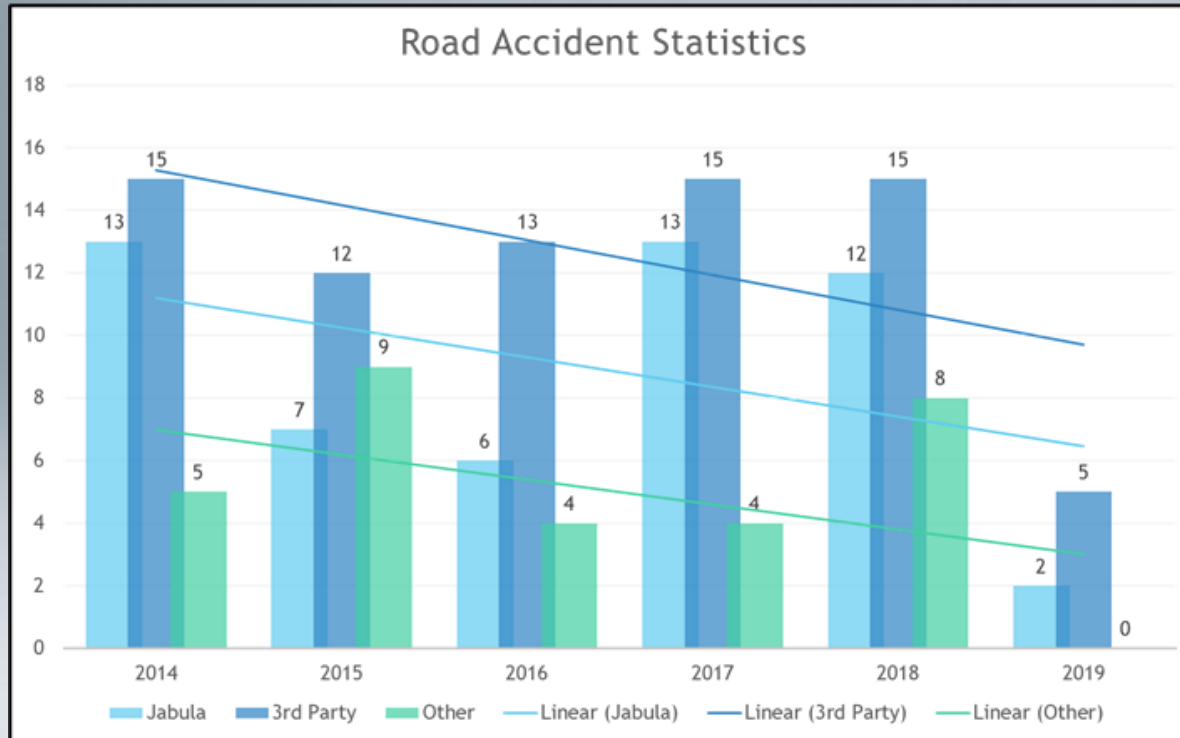


Total Kilometres (2014 - 2022)	Bi-arts	7 418 341
	Bus-trains	196 442 086
	Solo	44 836 229
	Total	248 696 656
Crashes per million kms	Bi-arts	5.0
	Bus-trains	9.1
	Solo	9.5
	Total	9.1

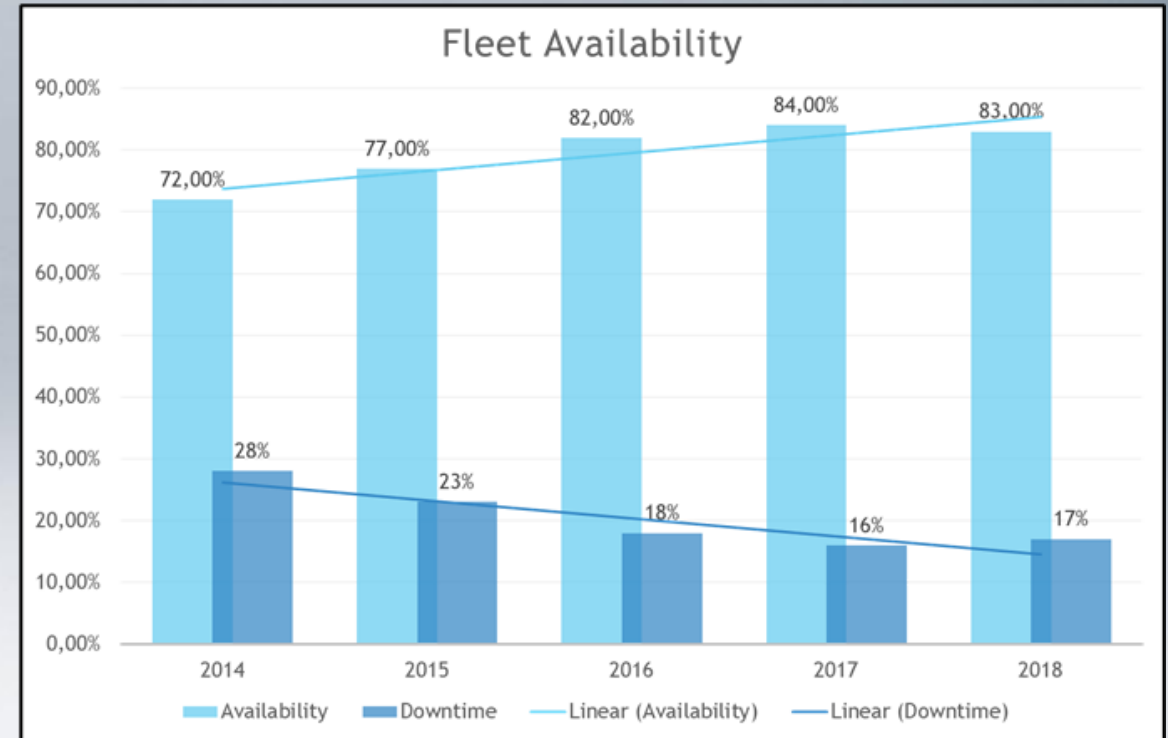




Crashes



Fleet Availability





YEAR	FINES	CRASHES	DRIVER ERROR	BREAKDOWNS
2013	218	37	19	57
2014	232	26	11	46
2015	56	17	5	33
2016	48	26	4	20
2017	46	20	5	22

Since implementation (2013) fuel consumption has improved by **23%** (2017)

This is primarily influenced by good maintenance processes and driver behaviour – defensive driving, reduction in speeding, harsh acceleration & braking, driving economically, which is promoted in the RTMS accreditation scheme.

Speeding

- Driver speeding is monitored on a daily basis through the tracking system and all events are addressed with drivers daily on debriefing
- 2013 = Unknown
- 2014 = 60 127 (201 fleet = 299 speeding events each truck per year)
- 2015 = 8 689 (252 fleet = 34 speeding events each truck per year)
- 2016 = 4 722 (257 fleet = 18 speeding events each truck per year)
- 2017 = 4 925 (257 Fleet = 19 speeding events each truck per year)

SANRAL Research Project: Overload Control Processes & Technology



■ Challenges:

- More than one third of the weighbridges on the major corridors will not be able to cope with the increasing truck volumes over the next ten years;
- 60% of the weighbridges will be over capacity by 2040.

■ Interventions:

- Increase the typical throughput of 60 trucks per hour by implementing a range of low-cost modifications including, at some weighbridges, software/hardware upgrades;
- Decrease the number of trucks directed to the weighbridge for static weighing through more intelligent screening.



Preventing Overloads Preserves our Road networks

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Reduction of crashes saves lives

Register for Workshops



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