



Workshop D

Al Bustan Rotana Hotel, Rashidiya Ballroom A & B

Regional Perspective – PTL in Different Regions of the World

Chaired by Ferose Oaten

Chairperson, CITA Regional Advisory Group - Africa





CITA 2015



INTERNATIONAL MOTOR VEHICLE INSPECTION COMMITTEE

Conference and 17th
General Assembly

14-16th APRIL DUBAI U.A.E.

WWW.CITA-VEHICLEINSPECTION.ORG

Workshop D

Presentation 2

VEHICLE TESTING IN TASJEEL - DUBAI

Carlos Ison

Technical Trainer, Tasjeel, Dubai, UAE

HOSTED BY



ENOC

الشريك الأفضل بقطاع الطاقة
Energy Partner of Choice

أكثر من مجرد فحص للمركبات
Beyond Vehicle Testing





2015 CITA CONFERENCE

April 14,15,16 2015

PRESENTATION

CITA 2015 theme: Enhancing the value of Vehicle Inspection

Organization name : ENOC Tasjeel

Name : Carlos Lirio Ison

Title : Site Manager



ENOC TASJEEL is the pioneer in vehicle testing and registration services in Dubai in joint venture with Roads & Transport Authority (RTA) and in Sharjah with Sharjah Police. We have the biggest market share in Dubai and Sharjah and most trusted entities in our line of business.

To become the leading vehicle testing registration and other related services provider in our chosen markets and to retain our top position in this region.



Building Our Future Together

- To provide efficient services that we offer to our valued customers through convenience, innovation, technology and competence.
- To maximize shareholders value by growing the existing businesses, pursuing and developing new profitable business opportunities.
- To become the employer of choice by providing a healthy, challenging and professional work environment.
- To conduct our business in a socially and environmentally responsible manner in the community that we operate in.

TASJEEL SITES LOCATION

- Tasjeel first Al Ghusais site for light Vehicles
(opened in November 1999)
- Tasjeel Al Aweer for light vehicles
- Tasjeel Al Barsha for light vehicles
- Tasjeel Warsan for heavy & light vehicles
- Tasjeel JAFZA for light & heavy vehicles
- Tasjeel Auto Village for light vehicles in Sharjah opened in April 2006
- Tasjeel Khorfakkan for light vehicles
- Tasjeel Hatta for light vehicles
- Tasjeel MVIS for vehicle test at customer premises



TASJEEL VILLAGE SHARJAH



TASJEEL AL GHUSSAIS

- Vehicle Testing and Registration
- Chassis Checking & Measurement at Ghusais , Barsha & Sharjah.
- Comprehensive Testing of Used Vehicles at Aweer, Barsha, Twar and Sharjah & Khorfakan.
- Mobile Vehicle Inspection Service based at Warsan that conducts tests at customers' premises. The unit is taken by well-equipped van to any locations.
- Drive-thru' service' at Barsha & Sharjah and Ghussais
- Issuance of International Driving License at all sites.
- Car Valuation Certificate
- OBD Test - in Barsha , Ghussais , Al Twar , Al Aweer and Sharjah (NEW)

CHASSIS MEASUREMENTS



COMPREHENSIVE TEST



REGISTRATION TEST





شهادة تقييم المركبة
CAR VALUATION CERTIFICATE



Finance Request for

Emirates NBD

مطلب تمويل مركبة إلى

Vehicle Owner Details

"مالك"

Name	fady shat
License Number	1192086
Mobile	0502125553
Date of Birth	12-JUL-1974

Vehicle Details

admdn13e684441364

إعدة

m84441364

2008

TRAILER TEST

TRAILER TEST



DUBAI MUNICIPALITY TEST



CIVIL DEFENCE TEST







Employees Learning & Development

ENOC/EPPCO has a fully equipped LEARNING & DEVELOPMENT department conducting various courses for its own employees as well as for external organization as and when requested. Some of the courses include:

- English communication skills
- Global English learning - on line course
- Customer Care Training
- Telephone Handling Skills
- Supervisory Skills
- Handling Meeting Effectively
- Effective Business Writing Skills

Tasjeel also arranges refresher courses for its vehicles inspectors with leading automobile & tire dealers from time to time, to acquaint themselves with the new technology and vehicle models.



Tasjeel Vehicle Inspectors and Site Managers at a training course from Porsche Dealer in Dubai.



Vehicle Inspectors / Site Managers and RTA Supervisors at in-house training course from Tasjeel Training department.

THANK YOU FOR YOUR ATTENTION



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Workshop D

Presentation 3

HEAVY VEHICLE CONDITION STUDY

Simon Labbett

Director, United Arab Emirates TRL Ltd., UAE

HOSTED BY



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Beyond Vehicle Testing





CITA Conference, 14-16th April 2015, Dubai, UAE

Heavy Vehicle Condition Study **Transport Research Laboratory**

Presented by: Simon Labbett, Director TRL UAE



Background to study

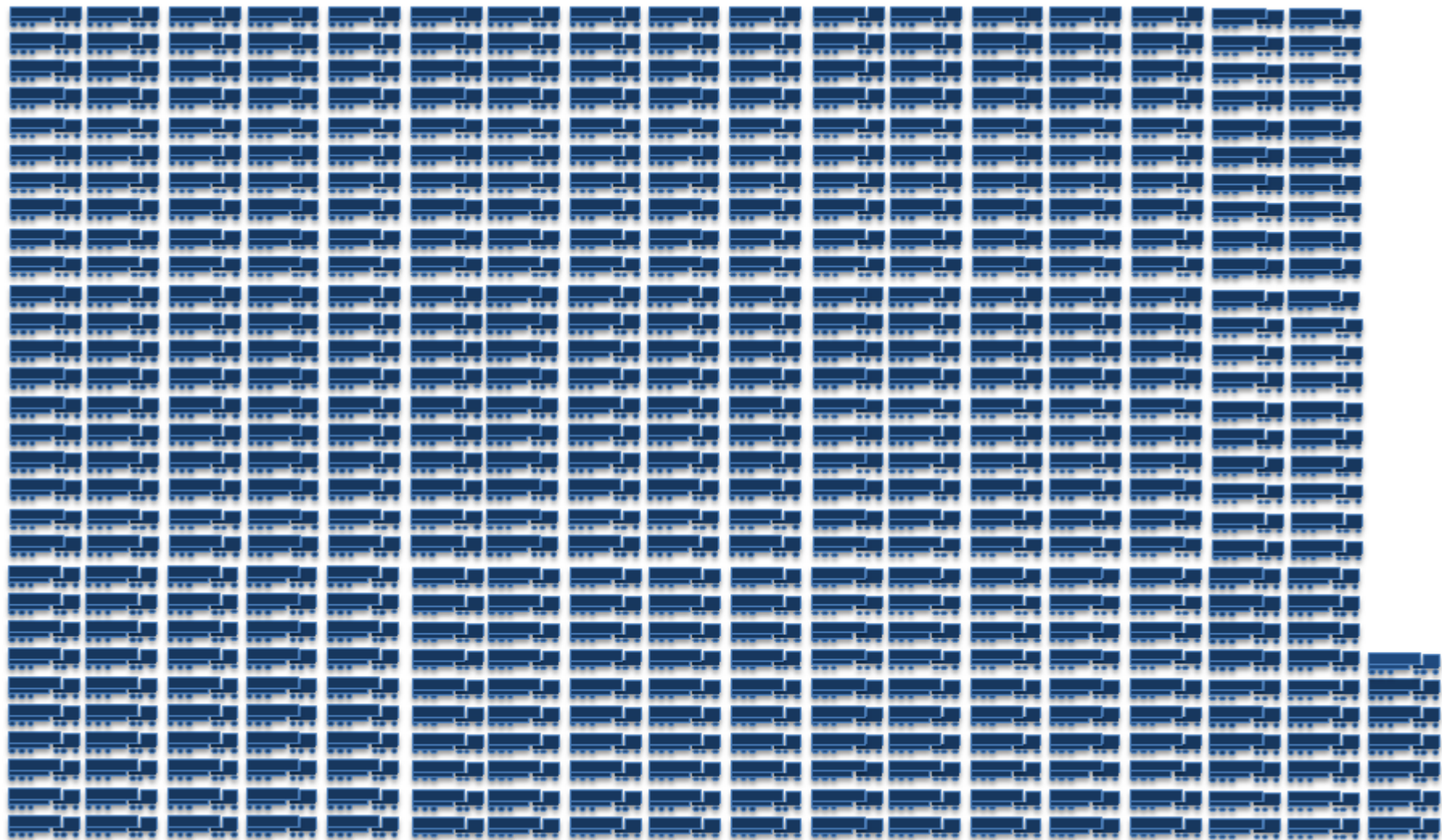
1. High levels of Truck involvement in collisions
2. High profile collisions
3. Observational information but lack of data
4. To provide an industry health check
5. Benchmark to EU vehicle safety standards and regulations



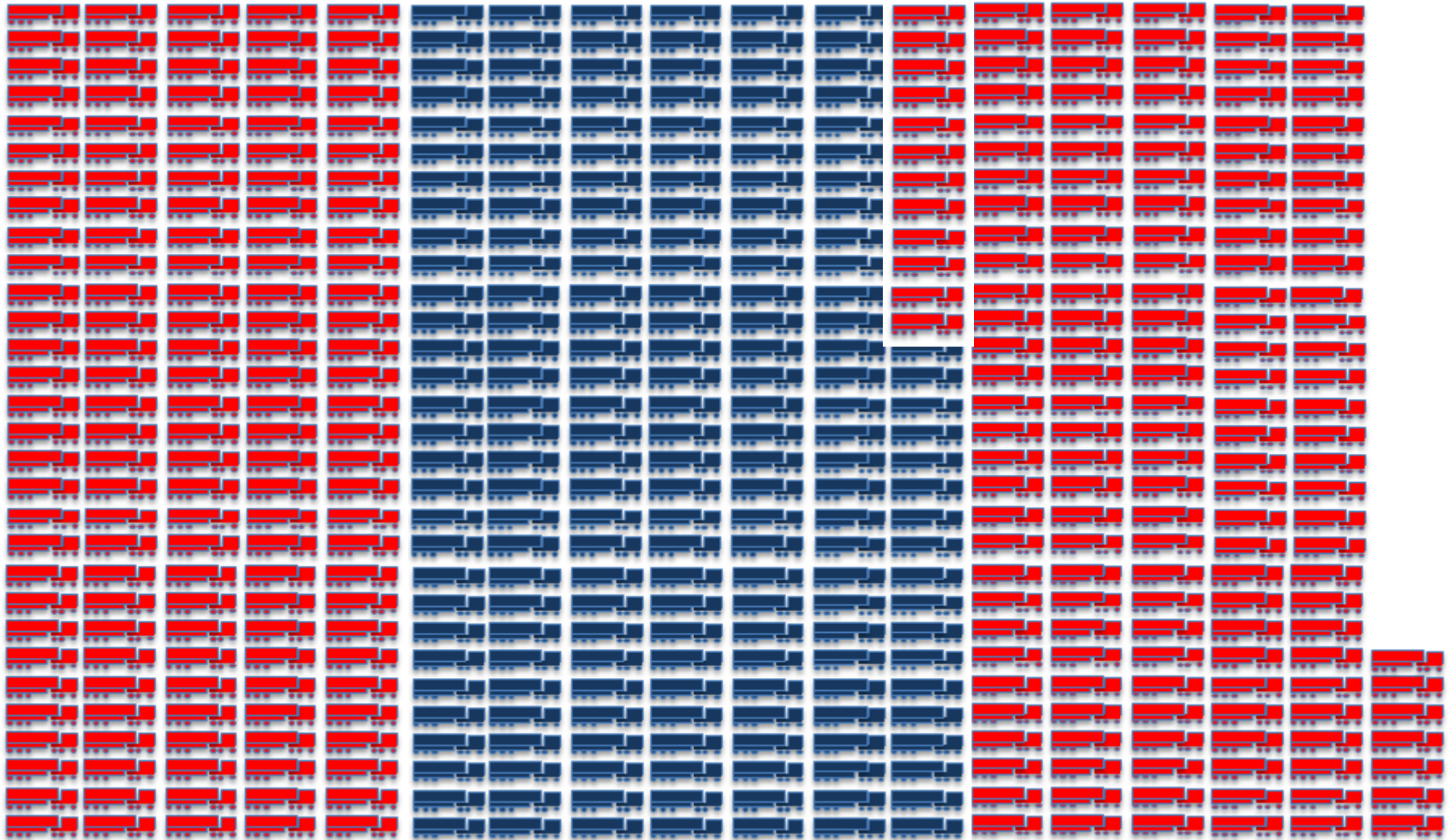
Truck Safety Inspection Findings



Random Vehicle Sample: 517



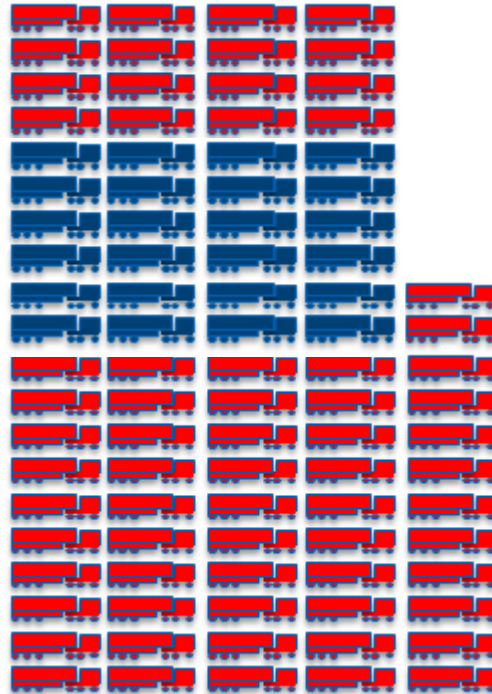
Vehicles without brake defects: 198



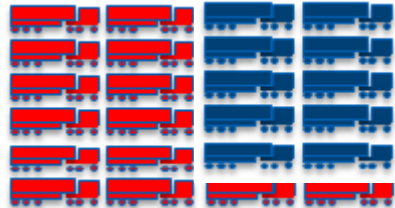
Vehicles without tyre defects: 92



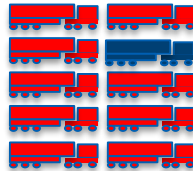
Vehicles without other safety defects: 24



Vehicles without being overweight: 10



Vehicles without Driver hours work/rest conflicts: **1**



Vehicles without Driver hours work/rest conflicts: 1



Vehicle
Safety Award

Bonus payment for the number of loads in a day



Vehicle
Safety Award

Out of a sample of 517 **NO vehicles complied with benchmarked vehicle safety**

0

Detailed Results

- Overview vehicle condition
- Weight
- Brakes
- Lights
- Tyres/wheels etc.
- Driver hours
- Environmental controls



Vehicle Maintenance

- **97%** of all drivers reported that their vehicle had been serviced **less than 3 months ago**
- 3% reported that the last service had taken place 3-6 months ago
- Given, that the majority of vehicles have been serviced less than 3 months ago this may lead us to expect that these vehicles were reasonably well-maintained.

BUT...

Vehicle Condition - Brakes

- 60% of vehicles had defective brakes
- By comparison - UK 0.65% of trucks with dangerous brakes
- Evidence of operators knowingly sending out highly dangerous vehicles with defective brakes
- Excessive truck weights will impact on effective braking force (60% defects will therefore be a significant under representation of braking issues)



Vehicle Condition - Brakes



Vehicle Condition – Wheels and Tyres

- 62% of vehicle with defective wheels and tyres
- Poor industry practice
- Dangerous repairs
- Inadequate standards for re-treading
- Cracked wheels (weight related)
- Wheel nuts missing and incorrect studs fitted



Vehicle Condition – Suspension and Chassis

- 14% defective suspension
- 8% defective chassis
- Cracked chassis
- Broken springs
- Distorted suspension
- Dangerous condition
- Weight related damage



Vehicle Condition - Lighting

- 82% defective lighting
- Lights not kept clean
- Broken warning beacons
- Poor maintenance
- No evidence or requirement for daily/weekly safety checks



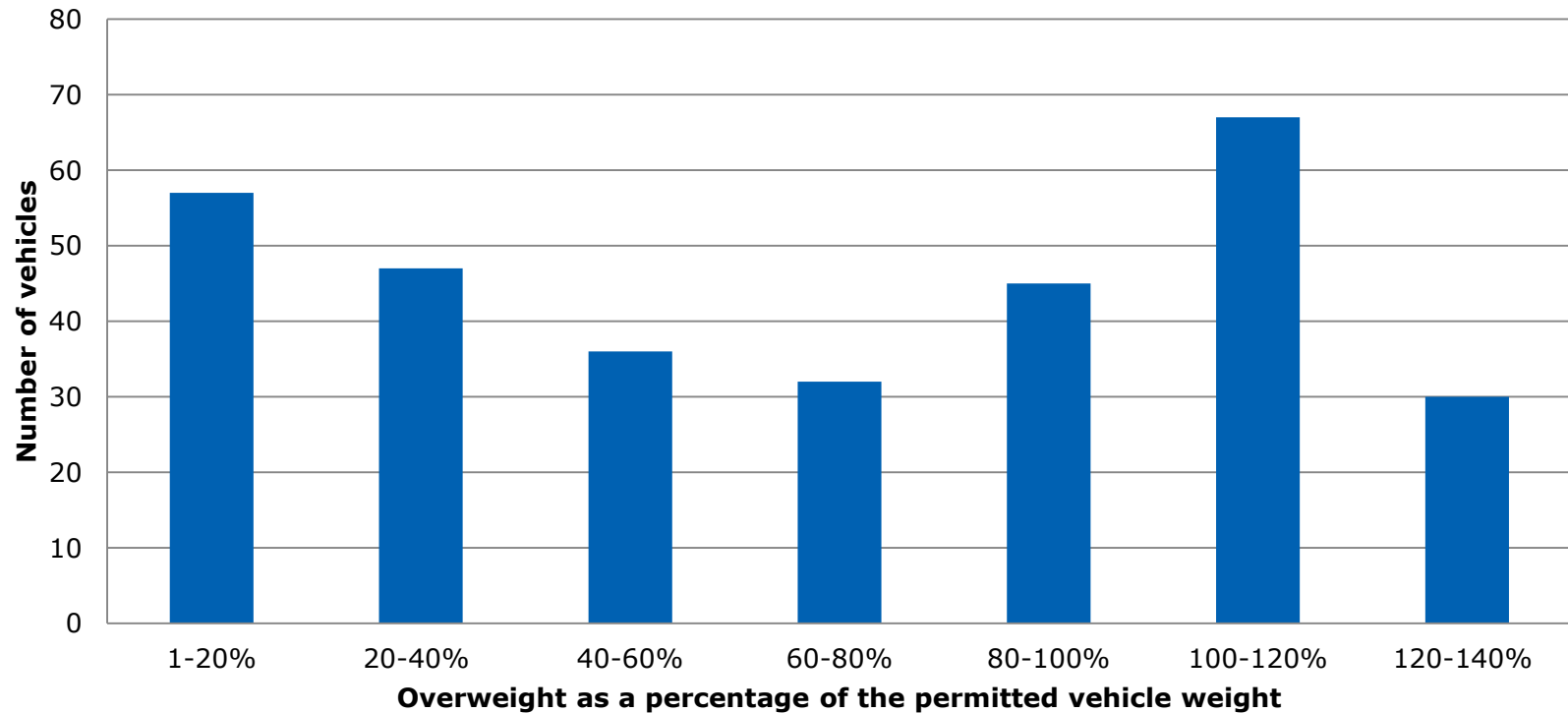
Environmental and Parking Controls

- Lack of restrictions on commercial vehicle parking
- At night 63% of trucks are not parked in company compounds
- Insufficient requirement for operating centres
- Significant health and safety concerns for residential properties
- Uncontrolled parking of fuel tankers within 50m of large residential area



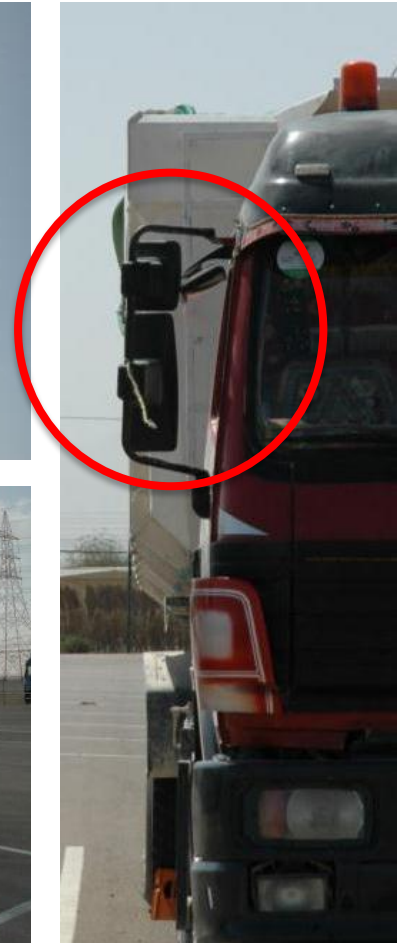
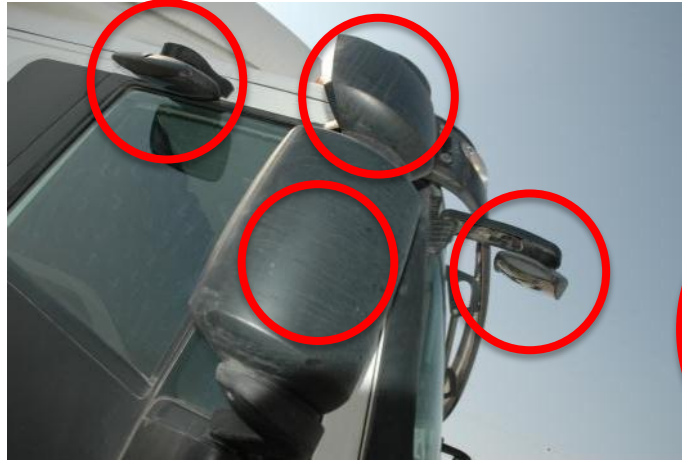
Overweight Trucks

- 62% of vehicles overweight (but not just by a little bit)



Vehicle Standards

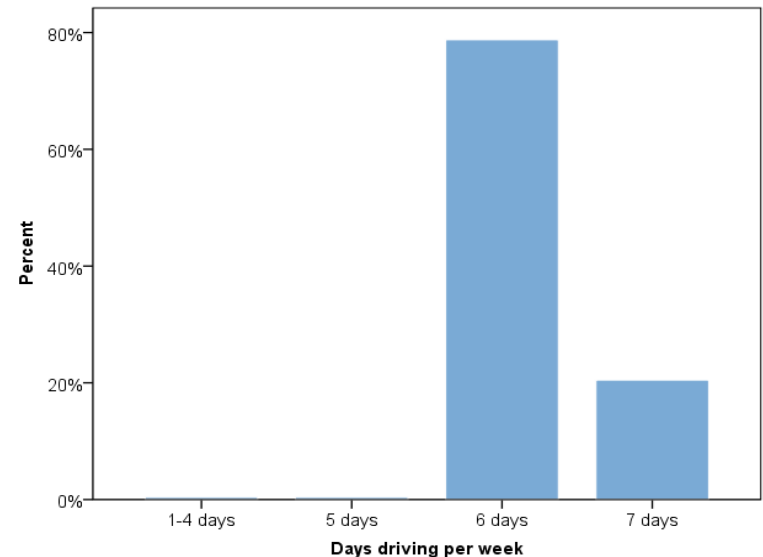
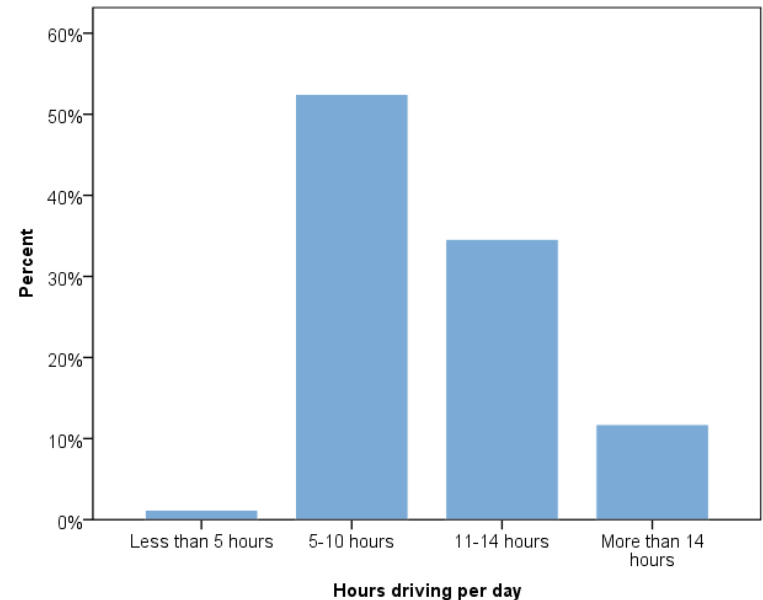
- Driver's can't see!
- Trailer lengths/widths
- Lack of mirror requirements
- Inappropriate coloured lighting



Drivers Hours of Work

- 100% of drivers drive for 6 or more days a week
- 21% of drivers drive every day
- 46% of drivers drive for more than 11 hours a day
- 49% drivers report receiving a bonus for extra journeys

Note: All of the above, if they occur every week, are contrary to benchmarking – (EC 561/2006)



Vehicle Condition - Summary

Condition description/defect	%
Lighting	82
Overweight	62
Brakes	60
Wheels and tyres	62
Windscreen wipers/washers	56
Fire extinguishers	29
Seat belt working	20
Suspension	14
Body/chassis condition	8
Vehicle horn	4

And some just wanted to keep out of the way!



Benchmarked Control Measures

Effective Control Measures	UK	GCC
Driver standards	✓	✗
Vehicle standards	✓	✗
Weight controls	✓	✗
Load security guidelines	✓	✗
Operator licensing	✓	✗
Hazardous materials	✓	✗
Drivers hours of work/rest	✓	✗
Environmental controls	✓	✗



Summary

1. We have a problem! But desire of GCC States to improve road safety
2. Trucks are significantly over represented in injury collision risks
2. Benchmarking highlighted that 100% of vehicles and drivers in sample fail safety controls
3. Industry is out of control and is not currently capable of self regulation
4. Lack of effective enforcement and education programmes
5. Lack of effective operator controls



شكراً
Thank You



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Workshop D

Presentation 4

THE EFFECTS OF EMISSION TEST USING A CHASSIS DYNAMOMETER IN KOREA

Jungsoo Park

Manager Vehicle Inspection Division, Korea Transportation
Safety Authority, Korea



WORKSHOP D

SESSION ONE

Presentation 4

The Effects of the Emission Test Using a Chassis Dynamo in Korea

Jungsoo Park

Manager, Vehicle Inspection Division,
Korea Transportation Safety Authority



16th April 2015

Korea Transportation Safety Authority



Contents

- 1. Introduction**
- 2. Background**
- 3. Emission Test Using a Chassis Dynamo**
- 4. Assessment of the Emission Test Effects**
- 5. Ongoing Project**

1. Introduction

History

(1962) Visual Check

(1981) “Korea Transportation Safety Authority” Foundation

* The number of vehicle: 0.6M

(1997) Divided in Public and Private Sector

* Due to Increasing the number of vehicle('84: 0.9M → '97: 9.8M)

(2002) Emission Test Using a Chassis Dynamometer

* The number of vehicle: 14M

(2009) Combination of PTI and Advanced Emission Test

(2011) KD-147 Mode Introduction for Diesel

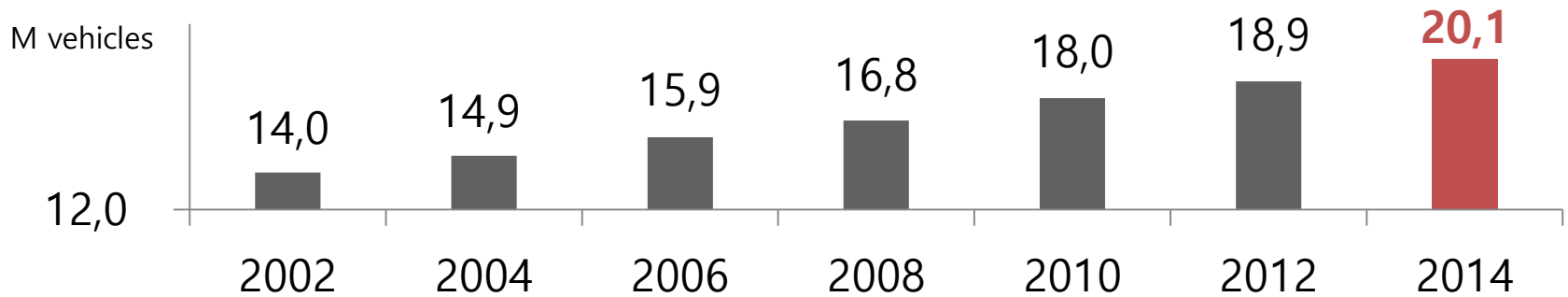
(2011) Pressure-Resistant Container Re-Inspection for CNG

(2014) Motorcycle Emission Testing(more than 260cc)

* The number of motor cycle: 2.1M, more than 260cc: 6 thousands

1. Introduction

Registered Vehicles in Korea



└ Kinds of Fuels in Use

(M vehicles)

Categories	Petrol	Diesel	LPG	Hybrid+EV
2000 yr	7.2	3.6	1.2	0
2005 yr	7.8	5.7	1.9	0
2010 yr	8.9	6.5	2.4	0.02
2014 yr	9.6	7.9	2.3	0.14

1. Introduction

Status Quo for Vehicle Inspection in Korea

1,790 Vehicle Inspection Center

- by TS: 58+54, by Designated Garage: 1,678

Approx. 3,500 Inspectors

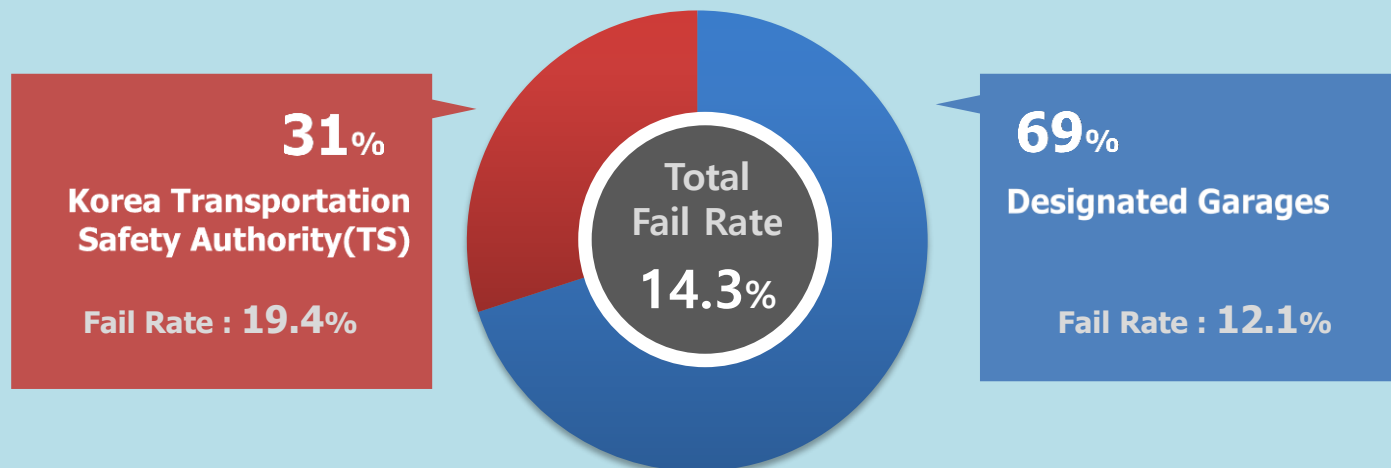
- TS: approx. 500, Designated Garage: approx. 3,000

The Number of Vehicle Registered('14): approx. 20M

The Number of Vehicle Inspected('14): approx. 10M

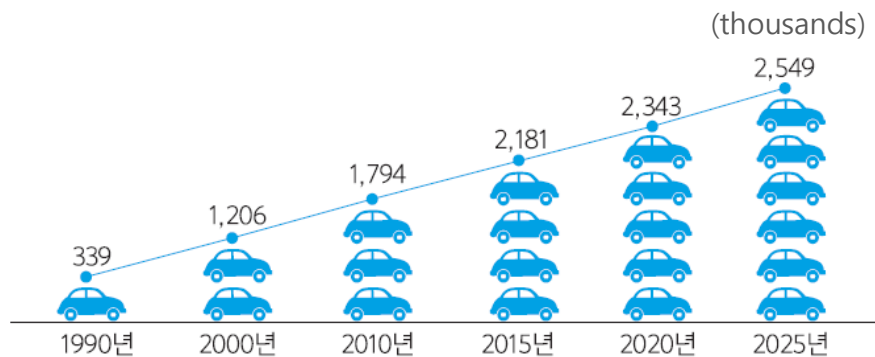
- TS: approx. 3.1M, Designated Garage: approx. 6.9M

Fail Rate and Market Share in Korean Vehicle Inspection



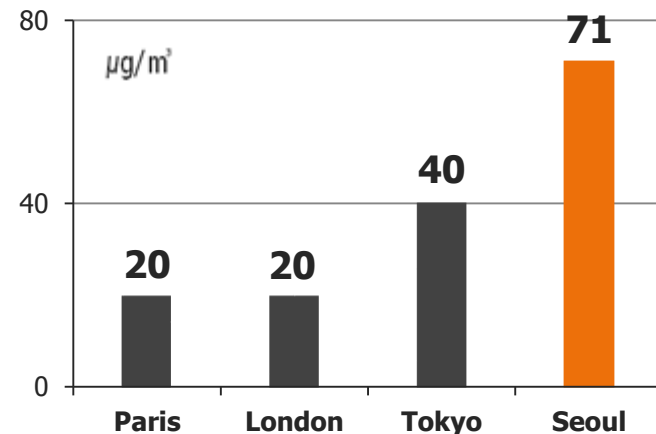
2. Background

- Half of population in Korea inhabit metropolitan area
- Increasing the number of diesel vehicles
- Deterioration of Air Quality



The Number of Vehicles and Prediction

Source : Ministry of Land and Transport



PM10(Dust) Density(2001)

Source : Ministry of Environment

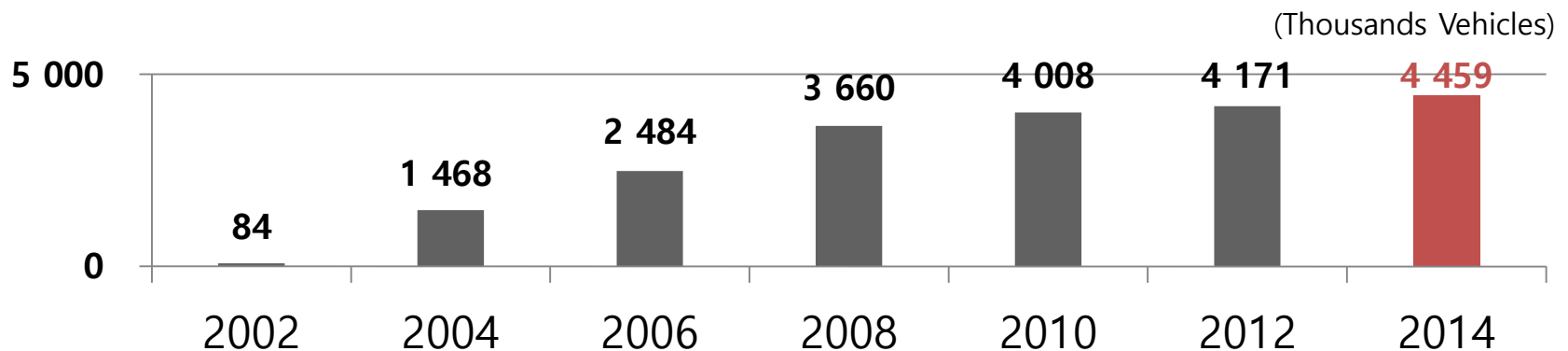
3. Emission Test Using Chassis Dynamometer

Chassis Dynamo Emission Test Overview

- Facilities status quo('14)

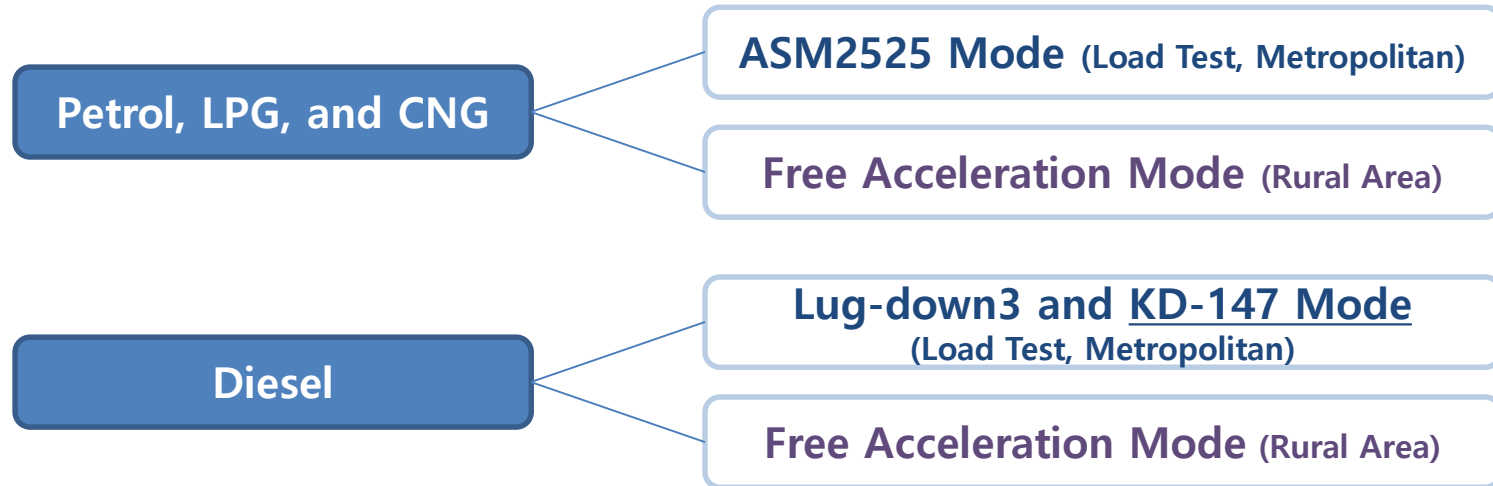
Categories	TS (Korea Transportation Safety Authority)	Designated Garages	TS+Garages
The Number of Inspection Lanes	165	771	936
└ Lanes only for Heavy Vehicle	20	212	232
The Number of Inspection Devices	188	771	959

- The number of vehicles inspected using a chassis dynamo



3. Emission Test Using Chassis Dynamometer

Emission Test System



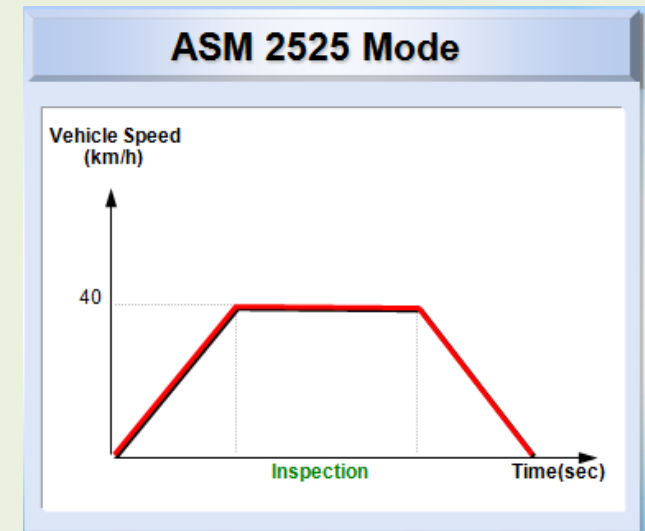
Type of Emission Test Using Chassis Dynamometer

Classification	Petrol	Diesel	
Dynamo Methods	ASM2525 mode	Lug-down 3 mode	KD147 mode
Subjects	The vehicle registered in more than 0.5M population city should be given a dynamo emission test (other than 4WD, AWD, and so on)		
	All	HGV	Small, LGV
Pollutants	CO, HC, NOx, Lamda	Smoke Density	Smoke Density

3. Emission Test Using Chassis Dynamometer

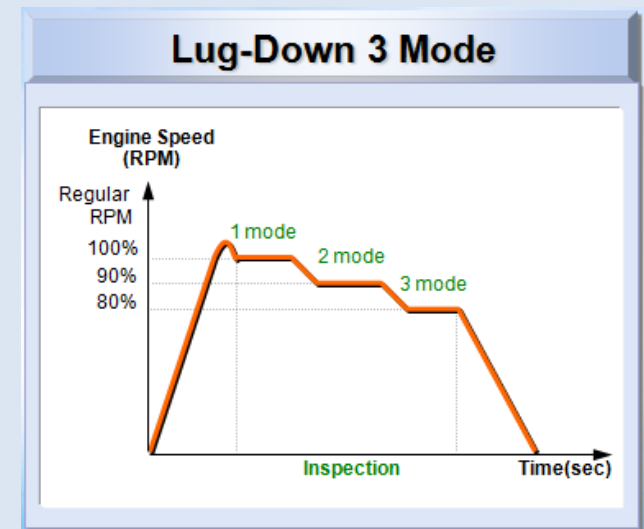
ASM2525 Mode for Petrol

“**Acceleration Simulation Mode Test**”, means an emission test to analyze exhaust emissions of CO, NO, and HC performed at **a steady state of 25mph** and utilizing **a dynamometer load set to simulate 25% of power**.



Lug-Down3 Mode for Diesel

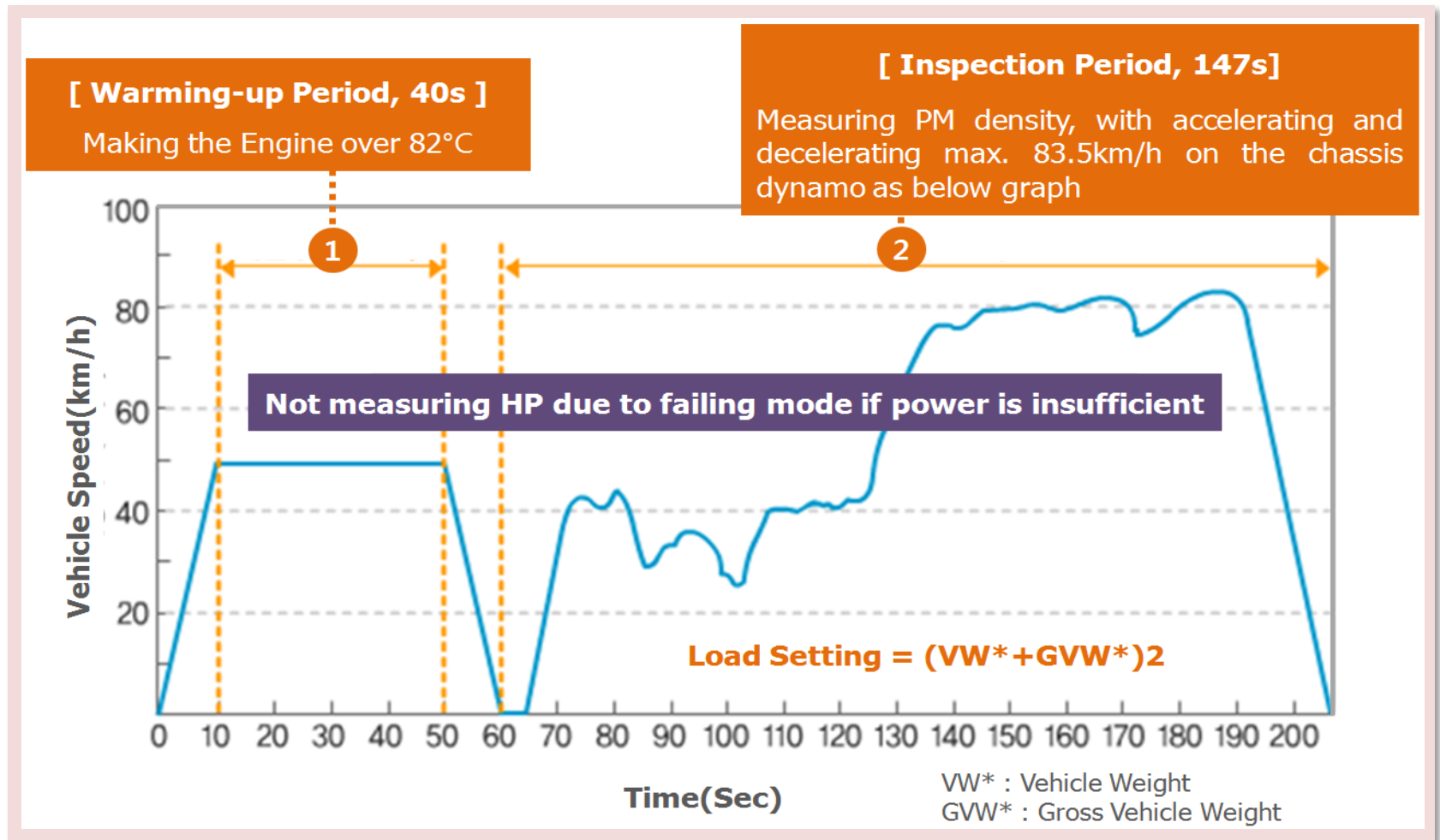
It consists of **3 modes**, 1 mode is the **max** of the power, 2 mode is **90%** of it, 3 mode is **80%** of it while **checking RPM, max HP, and smoke density** following 5 seconds at the modes respectively.



3. Emission Test Using Chassis Dynamometer

KD-147 Mode for Diesel

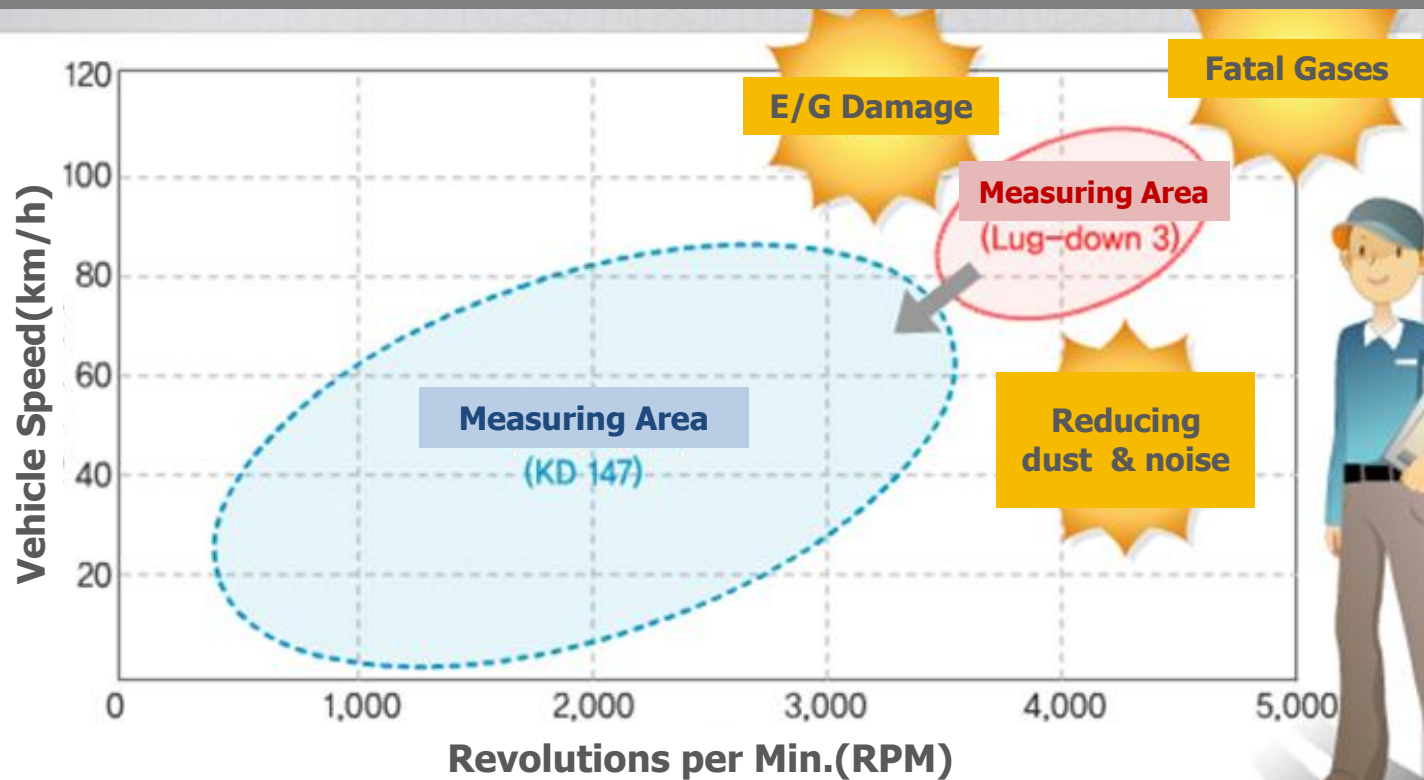
- TS developed **Korean own test method** using a dynamo, called **KD147** benchmarking Canada version.
- Compared to Lug-down 3, KD147 can **reflect real driving** and is **more convenient** to test.



3. Emission Test Using Chassis Dynamometer

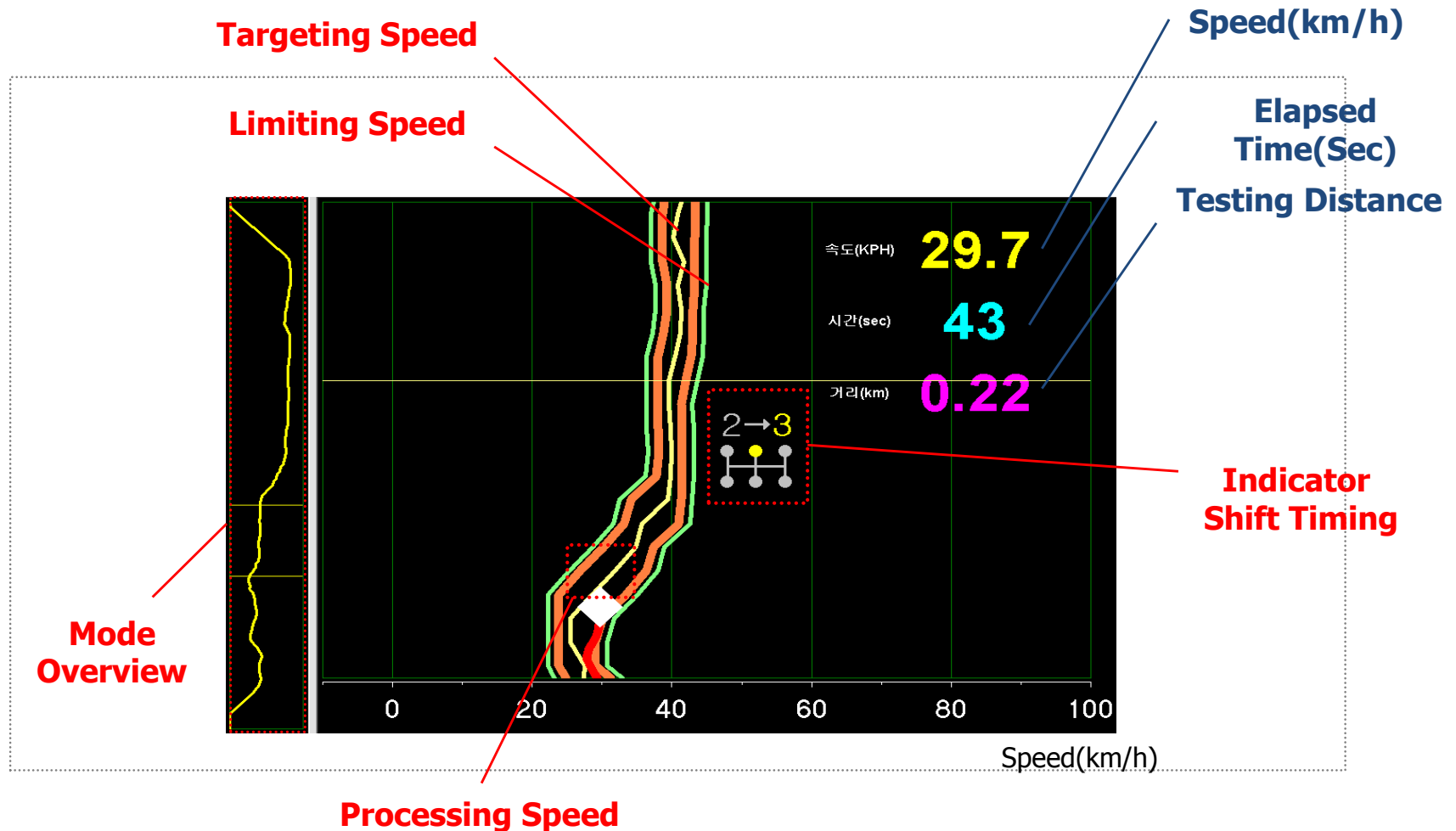
Advantage of KD147 Mode

- Reflecting the real driving situation
- Convenience to test (Not need to attach RPM sensor, etc)



3. Emission Test Using Chassis Dynamometer

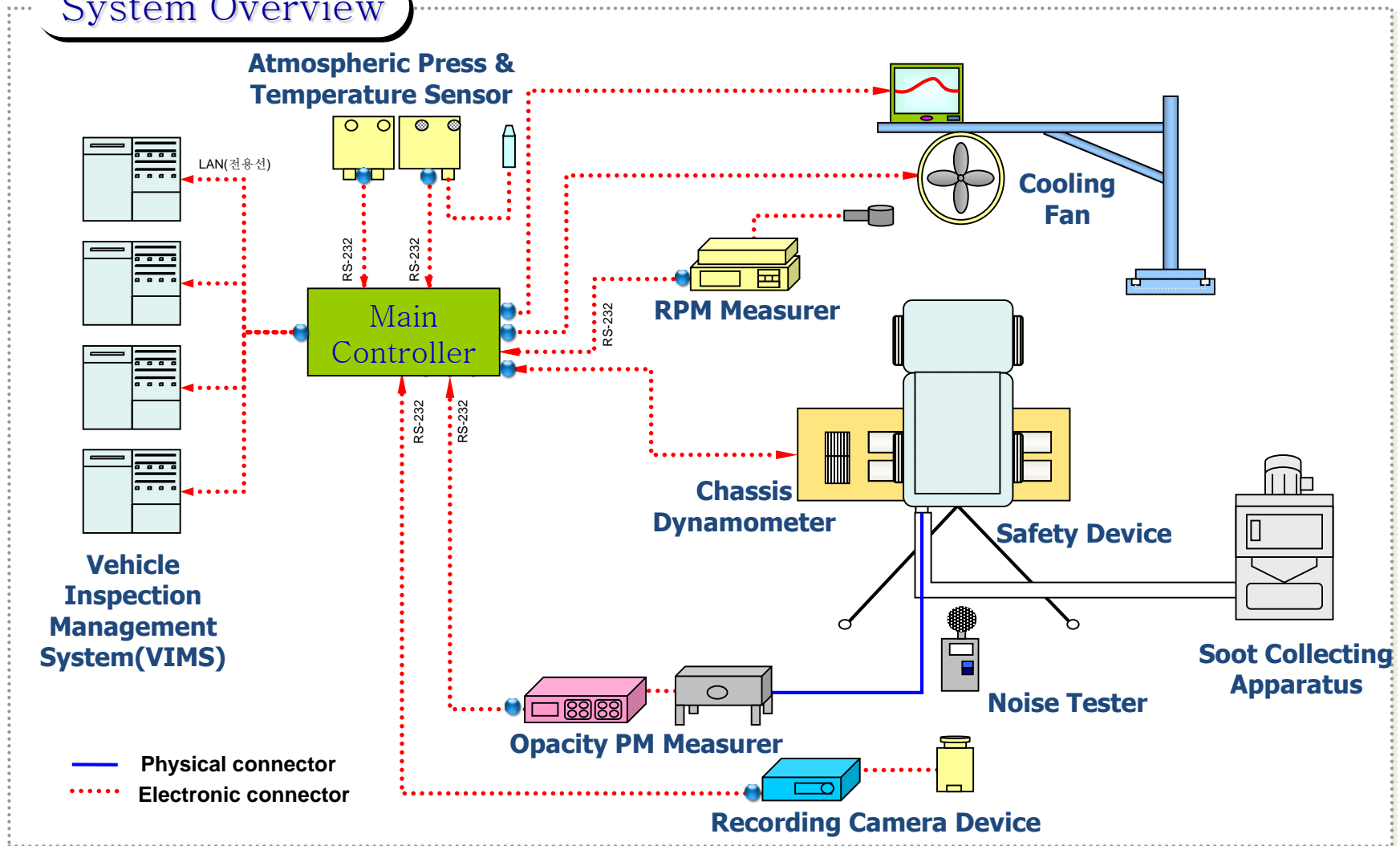
Monitor Watching KD-147 Mode Inspector



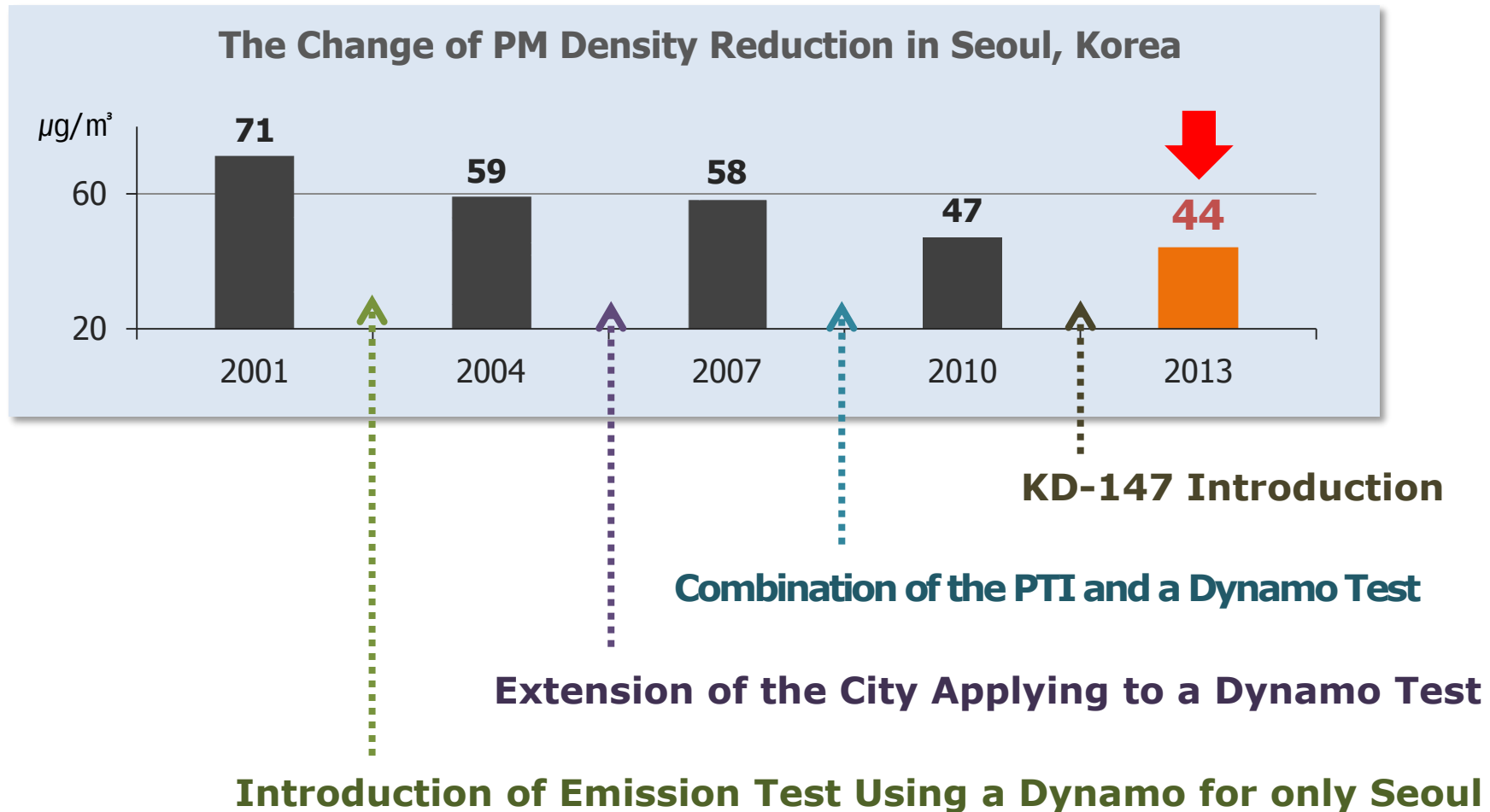
3. Emission Test Using Chassis Dynamometer

KD-147

System Overview

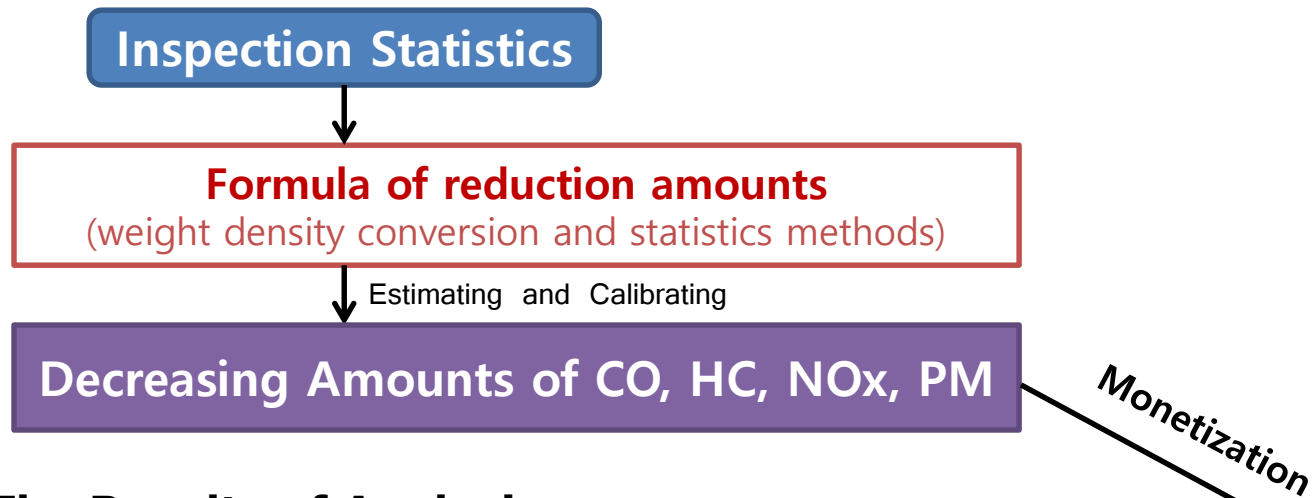


4. Assessment of Emission Test Effects



4. Assessment of Emission Test Effects

• Methods



• The Results of Analysis (2014)

Air Pollutants		The Amount of Reduction as fail vehicles	NPV(Net Present Values)
Petrol LPG	CO	11,603 ton/yr.	32.9 M \$
	HC	439 ton/yr.	1.4 M \$
	NO x	1,615 ton/yr.	10.6 M \$
Diesel	PM ₁₀	1,526 ton/yr.	626.9 M \$
Total		15,183 ton/yr.	671.8 M \$

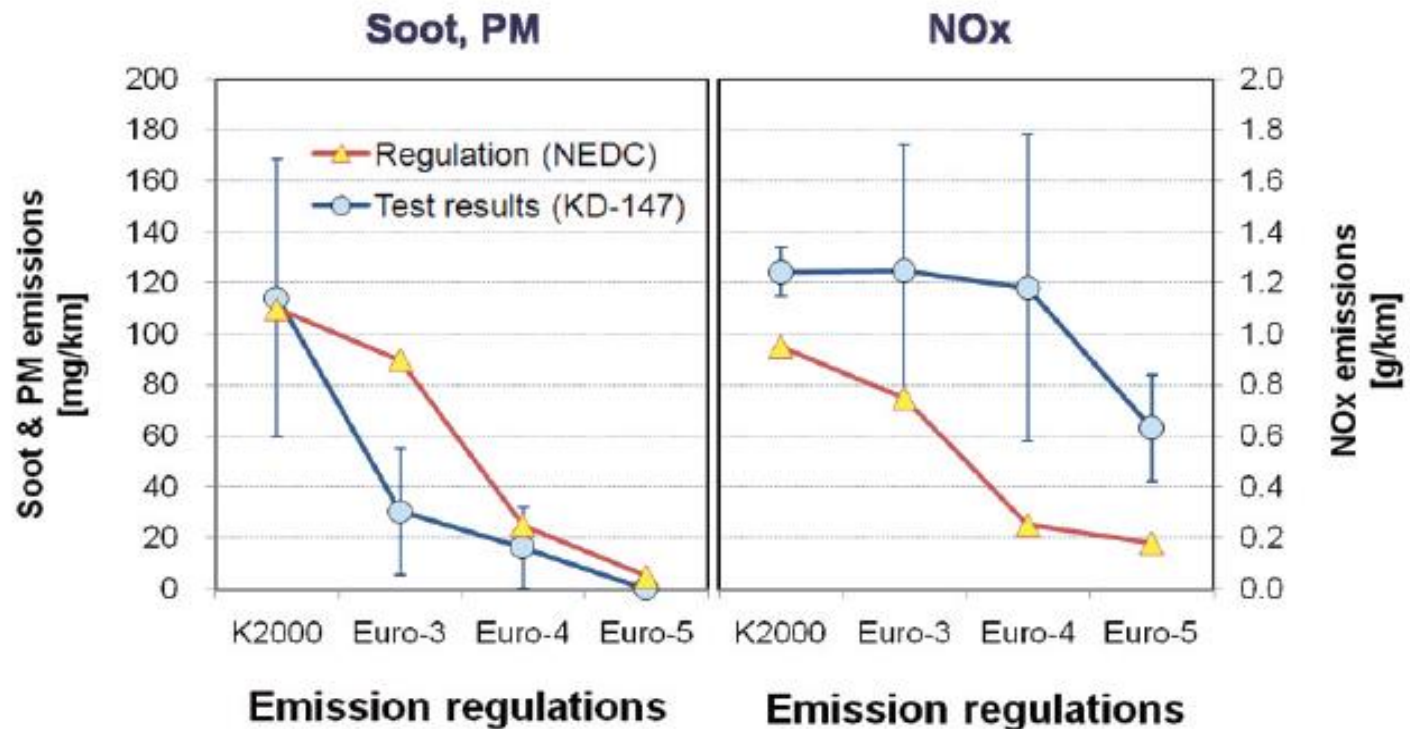
1\$ = 1,000 KRW

5. Ongoing Project

- Developing for standard and methods

to Diesel NOx

to Diesel PM2.5 preparing for Euro VI



Source : Ministry of Environment

Thank you for your time

Q & A

Presenter Information

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