#### Discussion Forum

Al Bustan Rotana Hotel, Rashidiya Ballroom A & B

# **Achieving Inspection Integrity**

Moderated by Eva Morger

Member of the CITA Bureau Permanent, CITA





#### DISCUSSION FORUM - "RULES OF THE GAME"

#### 1. SHORT PRESENTATIONS - WITHOUT QUESTIONS AND ANSWERS

- Presentations to serve as input of ideas for the upcoming discussion
- Handouts with summaries distributed to assist your questions and comments
- No Questions and Answers during or between the presentations
- During each speach, please note every question and comment until later

#### 2. DISCUSSION WITH PANEL AND AUDIENCE

What measures are needed to achieve inspection integrity and impartiality? What measures are needed to avoid corruption and attempts for fraud?

- Questions and comments from the audience
- Wishes on future CITA work and benchmark related to integrity

#### 3. SUMMARY AND CONCLUSIONS

**Discussion Forum** 

Presentation 1

# New CITA RECOMMENDATIONS ON STANDARDIZED INSPECTION OUTCOMES

Eva Morger

Member of the CITA Bureau Permanent and CITA Policy Expert on Standardized Inspection Outcomes







CITA REC No. 9

**QUALITY REQUIREMENTS** 

(UPDATE FROM 2002)

#### Recommendation No. 9

QUALITY REQUIREMENTS
FOR INSPECTION BODIES AND SUPERVISING BODIES
INVOLVED IN PERIODIC VEHICLE INSPECTIONS

Document status : Recommendation Reference : CITA/rec9 rev1 Document date : 06 March 2015

Adoption date : scheduled for the next CITA general Assembly on 14 April 2015

Original : English (authoritative version)

Pages : 14 pages

#### **PURPOSE**

- General update. CITA experience, correlated legislation and relevant international standards have been updated since 2002.
- Integrated approach for organisations involved in inspection and / or supervision

#### MAIN CHANGES

- Increased focus on impartiality.
- Risk management approach introduced
- Clear references to international standards, recommended for use

Conference and 17th General Assembly | 14-16th April | DUBAI U.A.E.



CITA REC No. 18

TRAINING AND COMPETENCE

(NEW)

Recommendation No. 18

TRAINING AND COMPETENCE

Document status: Recommendation Reference: CITA/rec18 Document date: 16 March 2015

Adoption date : scheduled for the next CITA general Assembly on 14 April 2015

Original : English (authoritative version)

Pages : 12 pages

#### **PURPOSE**

- Provide guidance to build a modern training and examination system.
- Effective, traceable, accountable and sustainable, focusing competence, not only training.
- Correlation to the new EU Directive

#### MAIN CONTENTS

- Training and Examination Institutes, incl technical and soft skills competence critera for inspectors and examinators.
- Methods, Contents, Assessment, Examination, Continuous improvement of competence

**Discussion Forum** 

Presentation 2

# ISO 17020's New Version and Related Experience Exchange

Thomas Nilsson

Quality and Environmental Manager, Opus Bilprovning, Sweden





Performs annually aprox. 1,7 milj PTI

# DPU5 BILPROVNING







# Key changes in 17020:2012 Impartiality and independence



The requirements on impartiality and independence which are crucial for performing inspection activities are considerably improved by implementing the relevant parts of the IAF/ILAC guidance A4 in clause 4.1 and the normative Annex A.



The three types of inspection bodies (Types A, B and C) describing the different degree of independence are kept.



<u>Type A</u> bodies are third-parties independent of the parties involved in the design, manufacture, supply, installation, use or maintenance of inspected items.



<u>Type B</u> are in-house inspection bodies forming a separate independent part of an organisation involved in the mentioned activities.



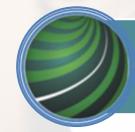
<u>Type C</u> bodies must not be a separate part within the organisation but there must be a clear separation between inspection activities and other activities meaning that a person cannot inspect items designed, manufactured, maintained etc. by him.

### How ISO 17020 can be used

Impartiality and independence



# Accreditation



Certification



Guidance for management

# Can it be used in more ways?



# Company Profile



Marketing

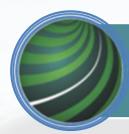


Support in contracting

# Development in the use of risk analysis



# Prevent issues



Enforces overall view

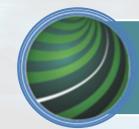


Natural process

# Examples from real life...



# Close relatives vehicles?



Contract with an Auto dealer?



Business to Business?





**Discussion Forum** 

Presentation 3

# LIMITS AND POSSIBILITIES OF DIFFERENT TYPES OF PTI QUALITY CONTROLS

Viktor Kretzschmann

QM e.V., Germany







### Experience with quality controls

#### Content

- Necessity of quality controls
- Objectives of quality controls
- Statistical methods
- Practical methods
- Covering all essential aspects in a well and efficientworking system of supervison.



#### Introduction

- Germany has an efficient and well-working system of PTI
- The system of PTI is separated from car-dealing, maintenance and repair (avoid conflicts of interest)
- 26 different authorised companies (10 groups) provide
   26 Mio PTI a year, done by 14.000 inspectors
- Ministry of Traffic and digital Infrastructure legislation body
- Supervision happens in 16 federal states



## Necessity of quality controls

- Requirements of legislation for PTI companies:
  - Internal revision systems
  - Quality management systems according to EN 17020
  - Clearly defined responsibilities
- Car owners often try to find the easiest way to pass the PTI
  - Result:
     Different trends in living quality and standards,
  - Quality was a distinctive feature in competion
- 2008 a voluntary association was founded by nearly all PTI companies for providing unnanounced quality checks at all inspection places where PTI happens.



#### Experience...

...based on more than 40.000 unannounced quality checks:

- Since 2008 the quality of PTI has been sustainable improved. All statistical key figures are increased.
- Advantage:
   Quality work can be done at the same time without the concern, that anybody can get a temporary advantage or disadvantage.
- The authority considered to make our activity mandatory for all PTI companies and to set up a central supervising body, responsible for all kinds of quality controls in PTI.



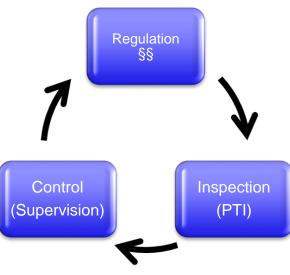
# Directive 2014/45/EU - Important item

Establish national mandated supervising bodies (requirements are written down in annex V)

- Authorizing of inspection bodies and inspectors
- Supervising all activities related on PTI
- Continous evaluating the system of PTI and further developement

#### Aim:

Closing the control loop!



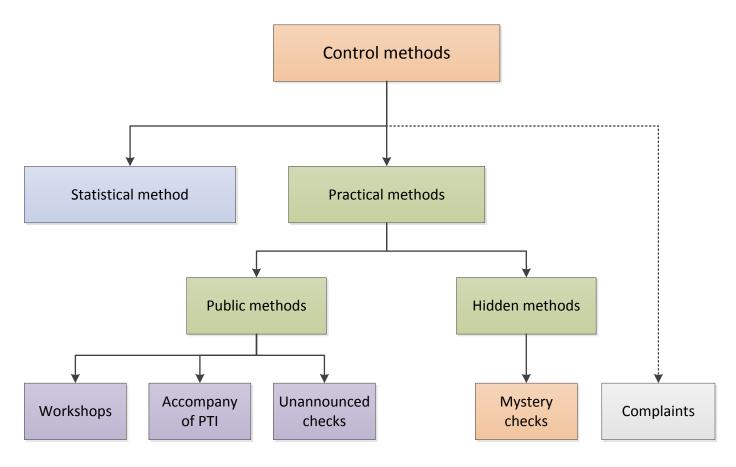


### Information helping to safe and increase quality

- National regulations
- Accreditation EN ISO/IEC 17020
- Special conditions of authorities
- CITA Recommendation No. 9 Quality Requirements
- CITA Recommendation No. 18 Training & Competence
- Handbook on quality
   Collection of best-practice (in work)



### Quality control methods





#### Statistical methods

- Check a database or documents, evaluate obvious results
  - + Checking very easy a great number of documents, you can identify systematical fails.
  - + You can benchmark the inspectors, inspection stations, regions, businessunits etc.
  - + You can search for special items/inspections.
  - + You can do it nearly everytime and everywhere.

:

- No direct link to the process of the inspection (only paper!)
- No regarding definition of 100 % level!



### Practical methods (1) Hidden methods

#### "Mystery shopping" with specially prepared vehicles

- + Comparability of the results, how react a system in case of a fail.
- + Same conditions for all participants.
- In case of differences the inspector justify his work.
- No direct feedback.
- No validation of the complete system of PTI possible.
- Requires a lot of effort for preparing the test vehicles.

Complaints (not planable, they happen)



### Practical methods (2) Public methods

#### **Accompany of PTI**

- + planable
- + systematical
- + open atmosphere
- + working routinely
- + direct feedback in case of fails
- Audit means stress and strain for the inspector, ("Don't make a mistake!")
- Inspector feels under suspection!
- Flash shot, no interference to the daily doing
- It needs high qualified auditors



#### Practical methods (2) Public methods

**Unannounced checks** (four- eyes principle)

Two auditors re-check a car directly after inspection at the place, where the PTI was done.

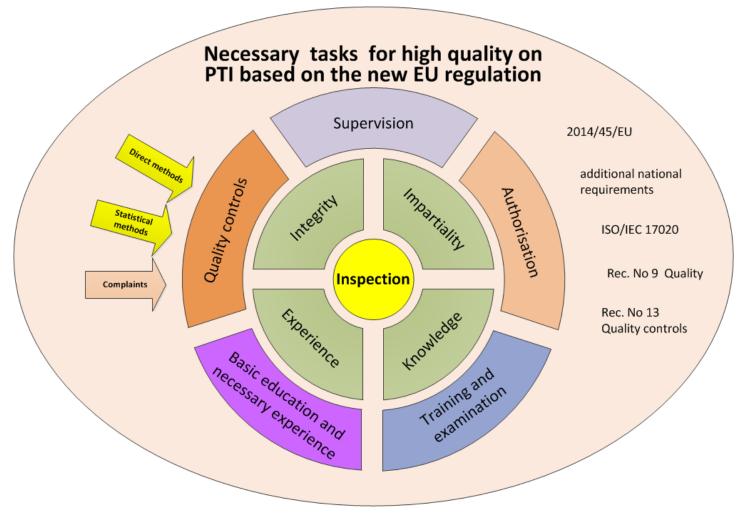
- + Planable and random based on a high number
- + Real life in different inspection stations or garages
- See the result of spot check directy, quick response to the inspector
- + Supporting/helping the inspector in the area of conflict
- + No preparation before, only checking who is where
- Only checking the result, people don't watch the inspection
- Flash-shot, direct link to the doing of the inspector



https://vimeo.com/66655900



#### System of supervision - control loop





#### Summary

- With the new directive on quality, well-working systems for PTI are required, covering all parameters with essential influence on PTI.
- CITA recommends how it can work effectively to reach a high standard of quality.
- It is a "must be" to supervise, evaluate and benchmark all activities closely by providing PTI.
- Practical and statistical control methods on agreed levels are necessary.
- We recommend to define a useful mixture and number of quality controls, based on uniform standards, analyzed by a central supervising body.



# Looking forward

EU set a directive to increase roadworthiness.

- Clear minimum requirements for all memberstates, mandatory from 2017.
- What happens then?
- Who will close this control loop?





















**Discussion Forum** 

Presentation 4

# EXPERIENCES FROM PTI BUSINESS IN SERBIA — CHALLENGES FOR PROFITABILITY AND INTEGRITY

Andrija Vujičić

Director of DUNAV Auto, Serbia







Experiences from P1
Serbia - challenges for and integral Andrija Vujičić





#### **ABOUT DUNAV AUTO**

Dunav auto was founded in 1999

With 350 employees and 80 inspection stations and 200.000 vehicles inspected annually it is the largest PTI organisation in Serbia

It is co-founder of National PTI association of Serbia (NATEP)

Since January 2014 it is member of CITA





#### PRESENT STATUS OF PTI REGULATIONS IN SERBIA

The PTI regulation in significantly obsolete. PTI regulation dates since 1984 and ex-Yugoslavia;

Despite the introduction of the new "Road traffic safety law" in 2009, which is in compliance with EU directives, the PTI regulation (as the sub law act) has still to be introduced;

Other set of regulations that is related to the PTI industry was updated in 2009, along with "Road traffic safety law", leaving only PTI regulation outdated.



#### **BASIC INFO ON PTI REGULATION IN SERBIA**

- The PTI is compulsory when applying renewal of vehicle registration;
- The PTI frequency is annual (one year) and 6 months for certain vehicle categories
  - The PTI and exhaust check are integrated as part of same inspection;
    - The Ministry of interior, department of road traffic police is in charge of PTI station authorisation and regulation enforcement;



#### CHALLENGES OF PTI BUSINESS IN SERBIA



The status of PTI regulations created environment that is challenging for the integrity and lucrative for the gray market speculators;





#### **CHALLENGES OF PTI BUSINESS IN SERBIA**

- •The present PTI environment is harboured by the relations between insurance companies and PTI organisations;
- •The compulsory MTPL insurance policies are sold in the PTI stations;
- •The MTPL sales commission is regulated by "shadow economy", establishing as the primary income of the PTI organisation, degrading the price of PTI check;
- •Since the insurance competition is regulated by market principles, the PTI organisation in this relation have clear conflict of interest;
- •The number of PTI organisation due to relations with insurance companies raised by 250% since 2001 and by 500% since 1991, despite the fact that price of mandatory PTI check reached level of 0 Euros.



#### PROSPECTS OF PTI BUSINESS IN SERBIA

- •The main prospect is that the new PTI regulation will be presented in 2015, rounding the "Road safety law" package;
- •Since Serbia is the EU membership candidate, the perspective is that in regards to EU membership negotiations the PTI importance will be emphasised;
- New PTI regulation is planned to introduce licensing of inspectors hopefully addressing the integrity issues of inspectors and their employers;
  - •The enforcement of insurance industry regulations will help in decreasing the influence of insurance companies on PTI organisation, which could lead to establishing the prices of PTI check.



# THANK YOU FOR YOUR ATTENTION!



Discussion Forum

Presentation 5

## REDUCTION OF MANIPULATION BY INTELLIGENT SOFTWARE

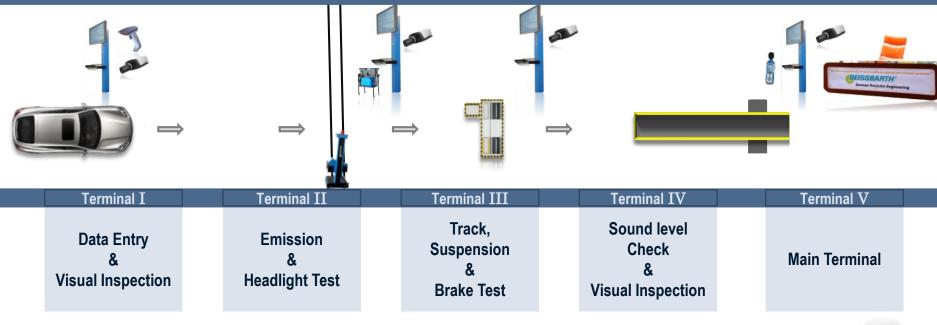
Stefan Velkoski

Robert Bosch GmbH, Germany





## Workflow of Test Inspection (example)



- Automatic Start / Stopp of Tests Automatic Data Transfer
- Quicker Tests / More vehicle tests per day

- Target: ➤ Reducing the waiting time for customers
  - User friendly and easy for employees
  - ➤ Anti-manipulation System

"Fully Automatic Test Lanes"



## ICperform control - Controlling System



**Central Server** 



**BOSCH** 

## **Operation Control**



#### **Video Control**



- Intelligent Software
- → Access control
- Inspector verification
- → Fingerprint and / or RFID

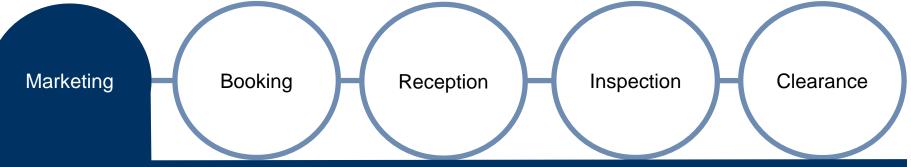


- → On-line monitoring of <u>ALL</u> test lanes
- → Access to line operating system
- → Control of test procedure
- → Access to test results



## ICperform Operation – Streamline by



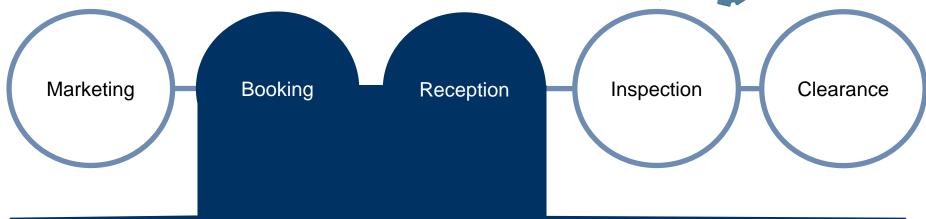


- Access and overview of customer data and operations for multiple stations. Data accessible for all stations and central management.
- Classifications for consumer and business customers.
- Variety of different pricing programs.
- Management of promotional campaigns (via email, sms/text, etc.) and commercial outreach to customers.



## ICperform Operation – Streamline by



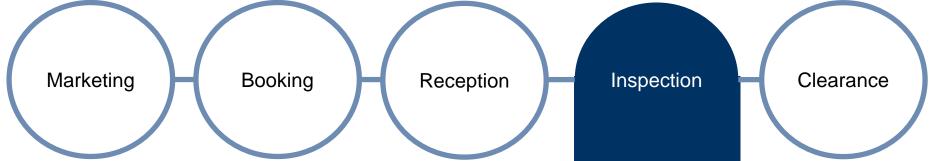


- Customer can schedule preferred vehicle inspection times from home, or anywhere through smartphone or tablet.
- Real-time overview of daily booking status at inspection station's reception desk.
- Point of sale terminal integration and cash register functions, including per-item and promotional billing functions.
- Optimizes scheduling, thereby increasing customer throughput.



## ICperform Operation – Streamline by





## Inspection

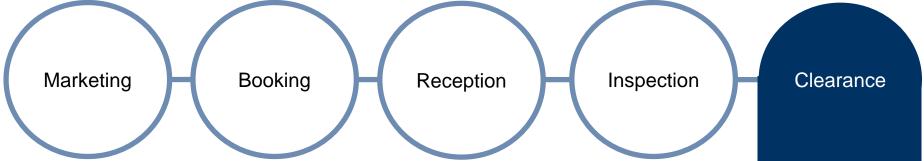
- Enables vehicle inspection with tablet devices, smart phone, laptop or PC.
- Inspection process management and quality control.
- Integration of inspection equipment increases vehicle pass-through time.
- Integration available / planned for:
  - Bosch emission tester BEA 550-Series
  - Bosch brake and suspension tester BSA-Series
  - Bosch Headlight tester HTD-Series





## ICperform Operation – Streamline by





#### **Clearance**

- Fault identifying and reporting functions allow for vehicle inspection history
  - to be retained. This allows for future trends to be predicted by station management.
- Wireless printout capability of vehicle registration certificates, invoices and inspection reports.
- Automated integration into national vehicle database/reporting system reduces time and cost spent on complying with national regulatory requirements.



## Fast, Scalable, Secure and Easy to Deploy.









- Reduced personnel costs as one person can manage entire inspection process.

Simple, intuitive and easy to learn user interface.

Available for all major consumer devices.





Built for both single and multi-site business models.

Cloud solutions benefits:

- Low investment costs.
- Continuous development
- Works fast, even on lower end devices.
- Flexible cost structure.
- Available 24/7.



## Security and Data retention by MUSTER

- Cloud-based service is more resistant to technical failures than solutions where data is stored at a single location.
- → If an inspection office's work station or terminal program is unavailable, the system can be used on any other work station or terminal without loss of data.
- Automatic archiving of inspection data to centralized server environment.
- → High reliability and encryption of key data at ITprovider is more secure than when stored on vulnerable PCs locally.







## ICperform control – Controlling System

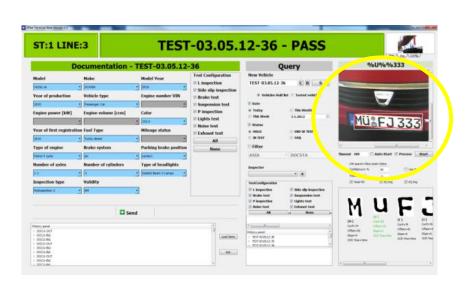


Automatic Plate recognition

Security Systems

- → Vehicle image for evidence
- Test Lane Monitoring

Triggering the next device (f. e. Headlight Tester)



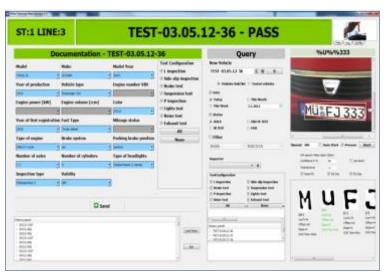




## Why is ICperform an Anti-manipulation system?

Picture of the vehicle is captured and can be saved

with the result in the database.





- Using the 360° BOSCH Camera for the whole inspection center, gives a full control to watch and observe all test procedures.
- This controlling system can either be used internally in the same inspection centre or externally.





## Reduction of Manipulation by intelligent Software

Stefan Velkoski - Robert Bosch GmbH

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

**Automotive Aftermarket** 

