



CONFERENCE CLOSING

Workshop Report Back & Conference Closing

Al Bustan Rotana Hotel, Al Rashidya Ballroom A & B





CITA 2015



INTERNATIONAL MOTOR VEHICLE INSPECTION COMMITTEE

Conference and 17th
General Assembly

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

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Presentation 1

REPORT BACK WORKSHOP A

ENSURING BEST INSPECTION PRACTICE

Juan Rodriguez

Member of CITA Bureau Permanent

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Beyond Vehicle Testing





Presentations

- Advanced Driver Assistance Systems
 - Heiko Ehrich – TÜV Nord Mobility, Germany
- Benefits of consideration of PTI during homologation
 - Joeg van Calter – Central Agency for PTI, Germany
- Harmonisation of test procedures and integration into type approval
 - Frank Leimbach – DEKRA Germany

Challenges

- Effective and efficient PTI of Advanced Driver Assist Systems (ADAS) and in the future autonomous vehicles
 - Which offer enormous opportunities to improve road safety and reduce environmental impact
 - Higher importance of PTI
- Supply of vehicle technical data for PTI
- Data security and privacy



Recommendations

- Full consideration of PTI in type approval is required
 - Could allow cost reduction if integrated with other items, for example built upon maintenance type procedures
- Standards required for types of inspection methods, PTI data format and interfaces



Questions

- How to decide which systems should be inspected?
 - Mandatory systems?
 - All safety related systems including optionally fitted?
- How to deal with vehicle software / firmware updates following type approval?



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Presentation 2

REPORT BACK WORKSHOP B1

PRIORITIES FOR NEW TESTING PROCEDURES – TESTING EMISSIONS SYSTEMS

Lothar Geilen

Member of CITA Bureau Permanent



Sustainable Emissions Test (SET) CITA project - Gerhard Muller

- Modernization of the emission test needed
- New test:
 - Combination of EOBD reading and;
 - Tailpipe test
 - Lower thresholds for PM and CO
- Leads to significant benefit for the environment and health

Performance of OBD Euro VI

– Antonio Multari

- Combination of ODB and tailpipe testing is best way forward for emission testing of modern in-use vehicles in Europe
- After treatment systems need to be monitored over their lifetime
 - Only possible with OBD

PTI for Euro V and VI vehicles

– Klaus Schultze

- Available measuring equipment suitable for inspection of Euro V/VI vehicles
- Small changes regarding limit values necessary
- Tail pipe test is only possibility to detect DPF manipulation

The move from tailpipe testing to OBD in USA – Darrin Greene

- Shift from tailpipe to OBD testing occurring in USA
- OBD offers advantages and opportunity for future improvements within the context of new vehicle technologies

Introduction to monitoring and enforcement of light-duty and heavy duty vehicle exhaust emissions with remote sensing devices – Jim Sands

- Use of Remote Sensing Services (RSS) as complement to existing vehicle inspection programmes
- Applications:
 - Enforcement – e.g. high emitter identification
 - Inspection program convenience
 - Programme evaluation
 - Additional emission detection benefits , e.g. liquid leak detection



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Presentation 3

REPORT BACK WORKSHOP B2

PRIORITIES FOR NEW TESTING PROCEDURES – TESTING ELECTRONICALLY CONTROLLED SAFETY SYSTEMS

Lothar Geilen

Member of CITA Bureau Permanent





Report of CITA study on testing ECSS - Christoph Nolte

- Inspection methods developed and field testing performed
 - Fitment test (level 1) tool coverage variable 4 to 93%
 - Generally DTCs alone not suitable for PTI
 - Functional brake efficiency test detected 5% additional failures
- Next steps
 - Development of scan tool for PTI
 - Data from vehicle manufacturers

ECSS testing: Concept and implementation of a wider interrogation of ECSS via OBD – Pascal Buekenhoudt

- Full inspection of ECSS using OBD port is long overdue
 - Currently in Europe most member states check MIL only
- Short term
 - GOCA will place VCI in all test stations by end 2015
 - Auto read VIN and mileage to detect fraud
 - (E)OBD emission tests
 - Brake efficiency test improvement
- Longer term
 - PTI needs to be considered at Type Approval and test methods and vehicle technical data made readily available

Capability analysis of different scanning tools to check ECSS – Enrique Taracido

- 834 vehicles tested
- Communication of scan tool with vehicle ECSS ranges from v. good to poor depending on tool
- Testing is quick and can be performed during normal inspection time limits
- Additional information can be provided to customer from DTCs

Test methods and data for the PTI of ECSS and their international provision – Christian Theis

- Described testing using the electronic interface within Germany – start August 2015
 - Fitment test
 - Enhanced brake efficiency test
 - Technical data reverse engineered if not supplied by VM
- Much work to do on new European Directive 2014/45/EU to meet proposed deadlines
 - Definition of technical data required from VMs
 - Definition of inspection methods
 - Work currently ongoing



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Presentation 4

REPORT BACK WORKSHOP B3

PRIORITIES FOR NEW TESTING PROCEDURES – OTHER SYSTEMS

Frank Leimbach

Policy Expert on Safety Systems, Europe



RW workshop, Hens Peeters Weem

Outcomes:

- Mutual recognition (in practice): yes
- Mutual recognition (on paper/by methods): no
- Good to have a co-operation with other governmental organisations
- 2014/45/EU is a great opportunity to improve harmonisation in EU

eCall, Dietmar Bönninger

- eCall is a safety-system
 - has to be tested during the PTI (according to EU type-approval)
 - Inspection concept has to be defined in the PTI directive 2014/45/EU by 2018
- self-test not sufficient, functional tests necessary using a PTI scan tool by testing:
 - minimum set of data, available mobile-networks
 - voice intelligibility by an “echo”-test
- CBA for possible test methods upcoming
- test concept (prototype) will be available this year

FAPS, Hans-Jürgen Mäurer

- Function testing of ECSS
- Full functional test of most common ADAS
- Efficient, high repeatability
 - Wheel speed up to 60 km/h
 - Steering possible
- Addition to current scissor power lifts with a wheel-free jack
 - All wheels can be driven autonomously to have the same wheel speed on all 4 wheels
- Promising approach, further development in progress

Start-stop-battery tests, Roger Eggers

- Start-stop-systems reduce CO₂-emissions and fuel consumption
 - For that, the battery must remain in a good condition
- With an aged start-stop-battery, both CO₂-emissions and fuel consumptions raise about 3%
 - Basis: Practical road tests and roller dyno tests by TÜV Nord / Germany
 - Urban traffic increase of >6% (CO₂, fuel consumption)
- Start-stop-battery status should be included into PTI
 - By tracking battery performance via OBD
 - CITA should get involved in developing an efficient testing method



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Presentation 5

REPORT BACK WORKSHOP C1

CORPORATE MEMBER PRESENTATIONS – INSPECTION PROCEDURES & METHODS

Juha Tukiainen

Member of CITA Bureau Permanent



Inspection Procedures, Methods and Data Systems

NEW LIGHTING SYSTEMS – FUTURE REQUIREMENTS FOR THE TESTING TECHNOLOGY. Manfred Rudhart, MAHA

- Modern headlights need modern test technology
- WG1 is drafting a CITA-Recommendation for testing areas and headlight tester to inspect the Advanced Forward Lighting System (AFL)

COLLECTION OF DATA VIA CRASH DATA RETRIEVAL. Harald Neumann, Robert Bosch

- Event Data Recorder (EDR) is stored at the ECU
- At the near future will be mandatory at US
- It is recorded from -5sec to +2 sec (2 to 6 events)



Inspection Procedures, Methods and Data Systems

IMPROVING PTI: SUSPENSION TEST, 2 & 3 WHEELERS AND COMMUNICATIONS PROTOCOLS. JORDI BRUNET, VTEQ

- New suspension measurement system based on damping coefficient. A unique value for all the vehicles
- Motorcycles + mopeds are 15% of fleet in Spain but the fatalities represent 28%. The economic evaluation of avoided accidents due to PTI. 70 M€
- Creation of a new communication protocol and data exchange format, for all the test equipment

INNOVATIVE PROJECT FOR IMPROVING ROAD SAFETY & POLLUTION CONDITIONS IN DEVELOPING COUNTRIES.

Yannick Le Guevellou, ACTIA MÜLLER

- Project to improve road safety and pollution conditions in India
- Mobile stations for road enforcement: tests transformations, weight, brakes, tyres, lights, emissions
- On road test device at key locations: test identification, weight, tyres, emissions.



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Presentation 6

REPORT BACK WORKSHOP C2

CORPORATE MEMBER PRESENTATIONS – INSPECTION PROCEDURES, METHODS & DATA SYSTEMS

Juha Tukiainen

Member of CITA Bureau Permanent



Inspection Procedures, Methods and Data Systems

Tandem Test Line. Hakim El Jebli (Ryme).

- Allows to test both axles at the same time, for light and heavy vehicles
- Reducing 50% of time of inspection and increasing 100% of productivity

Software for Data Collection and Analysis for PTI-Tests with VerTest . Stefan Velkoski (Robert Bosch GmbH)

- Sole integrated IT system. Centralized unified and secure database
- Error free procedures and data exchange
- Scheduling and organizing the complete process of technical inspection



Inspection Procedures, Methods and Data Systems

Scheduling and organizing the complete process of technical inspection. Jan van der Does. Van Leeuwen Test Systems B.V

- Control access to the IT system by electronic identification
- To ensure a correct process with other measures in each equipment

Confirming Safety of Electric and Hybrid Electric Vehicles. Hannes Bloder. AVL DiTEST.

- Over high voltage vehicles
- The challenge of doing a correct and adjusted process for HV vehicles

Digital PTI (PTI 2.0) - Innovative Approach. Antonio Multari (Maha)

- Nice and fast process for the client
- Efficient technical process.
- Prediction of results
- Continuous improvement of the product



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Presentation 7

REPORT BACK WORKSHOP D

REGIONAL PERSPECTIVE – PTI IN DIFFERENT REGIONS OF THE WORLD

Ferose Oaten

Chairperson CITA Regional Advisory Group – Africa





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Vehicle testing at Tasjeel Dubai Mr Carlos Ison - Tasjeel



TASJEEL AL GHUSSAIS

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

Heavy Vehicle Study – Mr Simon Labette UAE – TRL UAE



WS D – Regional Perspective

PTI in different regions of the world

- PTI Project in Oman by Royal Oman Police
 - Mr. Antonio Multari – OB Royal Oman Police. (Oman)
- Vehicle Testing in Tasjeel - Dubai
 - Mr. Carlos Ison – Tasjeel (Dubai)
- Heavy Vehicle Condition Study
 - Mr. Simon Labbett – UAE TRL Ltd. (UAE)
- The Effects of the emission test using a chassis dynamometer in Korea
 - Mr Jungsoo Park – Korea Trans. Safety Auth. (Korea)



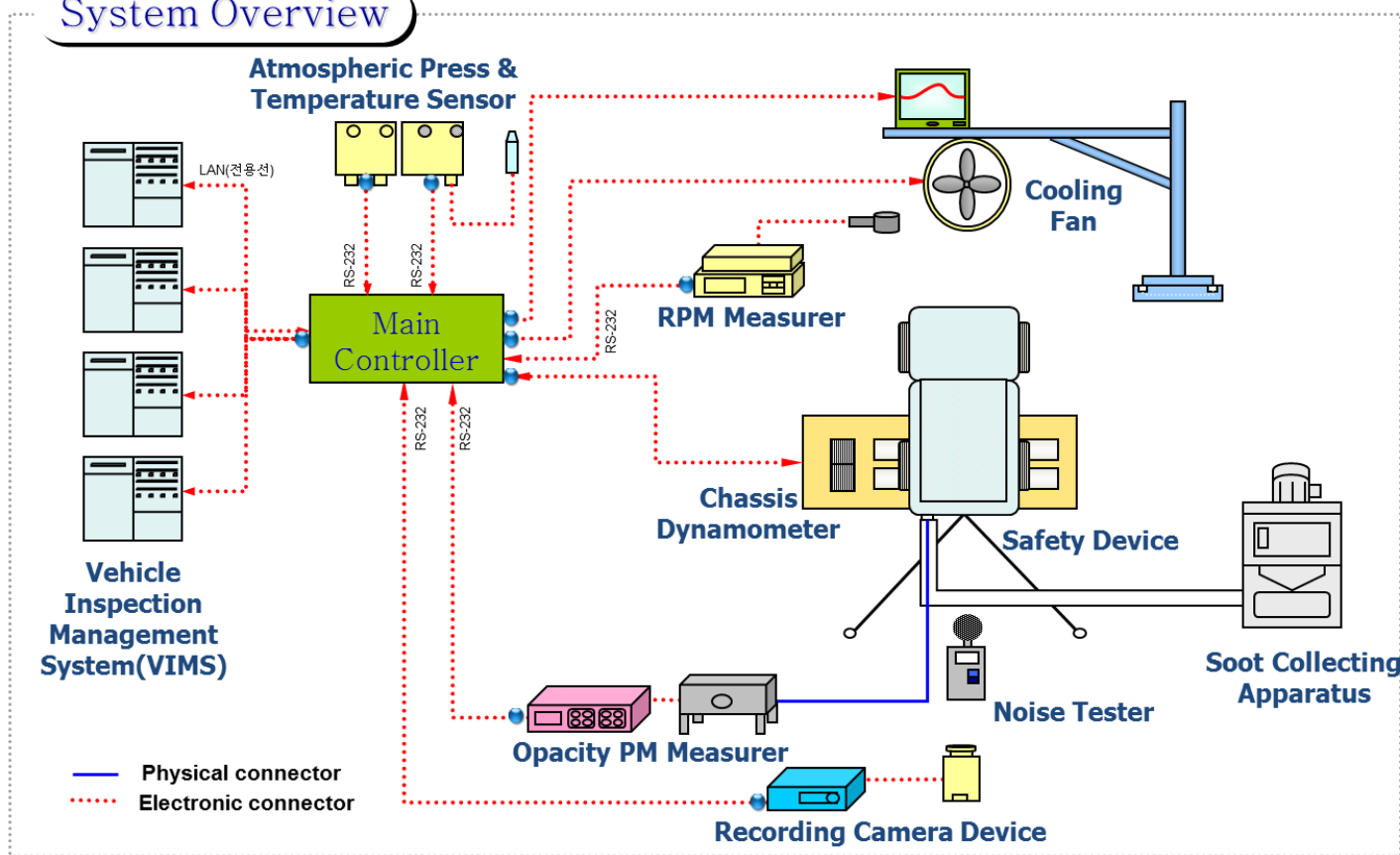
The Effects of the emission test using a chassis dynamometer in Korea

Mr Jungsoo Park – Korea Trans. Safety

Auth. (Korea)

KD-147

System Overview



WS D – Regional Perspective

PTI in different regions of the world

- Conclusions
- Many case studies of best practices to learn from; but there is not a “one size fits all” solution
- Region peculiarities pose specific challenges and needs.
- Cultural, socioeconomic, historical or climate related aspects should be considered when establishing inspection regimes.
- There should be a holistic approach to tackling the safety of vehicles, with different interventions complementing each other; eg regular PTI inspection and on the road enforcement
- Solutions adapted to these specific needs may provide clear improvements (PM density reduction in Korea)



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Presentation 8

REPORT BACK DISCUSSION FORUM ACHIEVING INSPECTION INTEGRITY

Eva Morger

Member of CITA Bureau Permanent





How to Achieve Inspection Integrity?

Not only one solution, a set of tools is needed to minimize fraud.

- Quality assurance, training, supervision. CITA Rec 9 and 18 useful.
- ISO 17020 incl. requirements to identify and manage risks for impartiality.
- Fixed procedures for risky situations.
- Quality control, supervision. Descriptions in CITA Rec 13. Proper quantity?
- Challenges when a conflict of interest, risk for a grey market environment!
- Manage the workflow by technology.
- Code of Conduct, official ratification of values. Link the CoC to employment metrics. Clear consequences, makes the risks not worth taking.
- Impartiality vs customer service, difficult balance.
- Whistleblowing/Hot Line provides transparency and important input.

Try to: avoid difficult situations - make people “think twice” - make it difficult and less worth the effort



WHAT MEASURES ARE NEEDED TO:

- **ACHIEVE INSPECTION INTEGRITY AND IMPARTIALITY ?**
- **AVOID CORRUPTION AND ATTEMPTS FOR FRAUD**

HOW CAN CITA CONTRIBUTE ?

CITA REC No. 9 (UPDATE)

QUALITY REQUIREMENTS

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

CITA REC No. 18 (NEW)

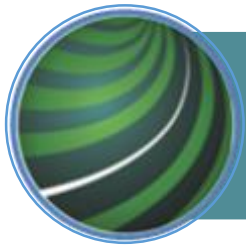
TRAINING AND COMPETENCE

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 criteria for inspectors and examiners.
- Methods, Contents, Assessment, Examination, Continuous improvement of competence.



Guidance for management



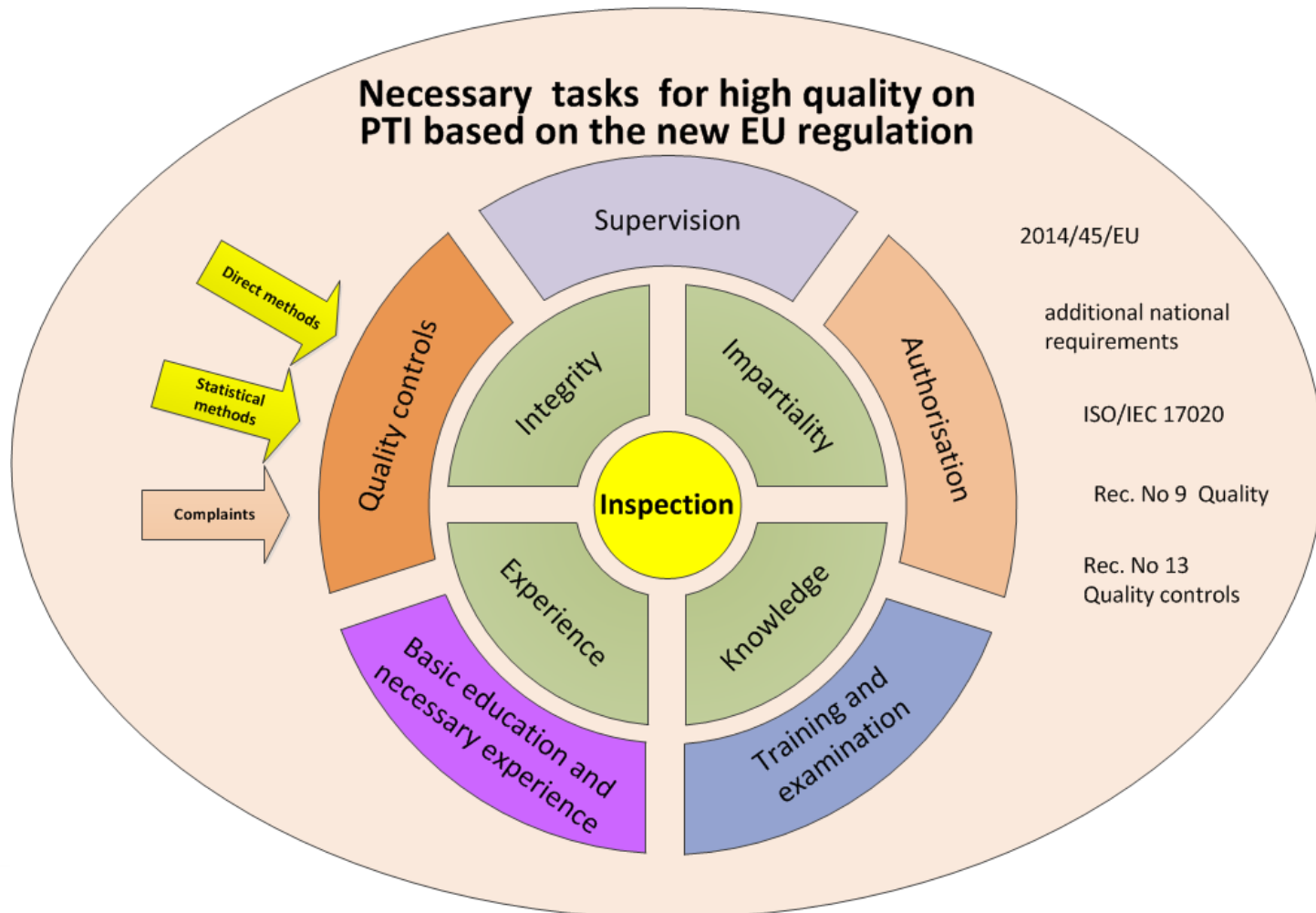
Company Profile when Marketing



Prevents issues in a Natural process



System of supervision - control loop





Reduction of Manipulation by MUSTER intelligent Software BOSCH



- Operation Software
- Access control
- Inspector verification
- Fingerprint and / or RFID


- On-line monitoring of ALL test lanes
- Access to line operating system
- Control of test procedure
- Access to test results



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



PTI business is the
fastest growing
industry in Serbia



The PTI check
price ranges from
0 to 5 euros



- 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.



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Presentation 9

CLOSING REMARKS

Johan Cobbaut

President - CITA

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EXCHANGING IDEAS AND BEST PRACTICES WITH YOU

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