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Dear CITA Members,
Dear colleagues and friends,

Since the launch of the new CITA strategy, we continue to be very active on various topics. Our different Task Forces and Topic Areas worked intensively, and several recommendations and position papers could be released, e.g., on brakes, headlamps and NOx.

I would like to thank all the members for their great commitment!

Furthermore, the challenges of new autonomous vehicle technologies have been at the heart of CITA’s activities. I was honored to introduce our position on the access to reliable vehicle data for the sovereign task of vehicle inspection during the High-level meeting on autonomous and connected vehicles, hosted by the French EU Council Presidency, and at the UNECE Inland Transport Committee (ITC), under the theme “75 Years of Inland Transport Committee: Connecting Countries and Driving Sustainable Mobility”.

In the context of vehicle data, cyber security is also a crucial aspect. To get a better understanding of it, we started a discussion with the European Union Agency for Cybersecurity (ENISA), and we are planning to hold soon a webinar on the matter.

A new research study regarding the impact of vehicle inspection on road safety has been conducted by Carnegie Mellon University in North America. Once more, it demonstrates how vehicle inspection is a key element to reduce road fatalities and accidents.

A correct revision of the European PTI Directive 2014/45/EU is of great importance for us. Indeed, the PTI system in Europe must be prepared for the upcoming challenges of the technological development and the digitalization of future vehicles. To reach the Vision Zero, whole life compliance must be ensured also for vehicles with these new technologies.

During the European PTI Workshop in Bratislava, organised by RDW and TESTEK among others, we were able to discuss the necessary adjustments to the PTI system intensively with representatives of different member states and the European Commission.

I am happy that together with Alejandro Checa, our new Technical Director, we could strengthen the CITA team, and increase the value proposition for our Members.

After two years of COVID restrictions, I very much look forward to meeting you, dear colleagues and friends of CITA, in person at the next CITA International Conference and General Assembly in Brussels, on June 8 and 9.

I hope you enjoy reading the May 2022 CITA News Release.

Sincerely,

Gerhard Müller,
CITA PRESIDENT
Our CITA International Conference & 21st General Assembly is behind the corner!

We are delighted to see such a large number of attendees at our event, and we are looking forward to meeting you in Brussels on June 8 and 9, 2022.

This edition’s theme is: “Safe and Clean Road Transport. Always. Everywhere.”

In addition to the plenary session, with top level representatives of the most relevant stakeholders, you can attend the technical visit. The whole event offers you the possibility to retrieve state-of-the-art information about the last novelties in roadworthiness assurance, including technical developments, and new management approaches.

The future of vehicle compliance will be at the centre of our discussions: among the topics electric vehicles, micro-mobility, ADAS, cybersecurity, emissions, we will also debate vehicle compliance in low- and middle-income countries.

Do not miss the opportunity, there is only one week left to register!!

The deadline for registration is May 27, 2022.

You can choose to:

- REGISTER TO ATTEND IN PERSON IN BRUSSELS (very few places left)
- REGISTER TO FOLLOW THE CONFERENCE REMOTELY

The program is as follows:

**8 JUNE 2022:**
- CITA General Assembly (only for CITA Members / HYBRID)
- Welcome Lunch (open to all participants / FACE-TO-FACE)
- Technical Visit (open to all participants/ FACE-TO-FACE)
- Gala Dinner (open to all participants/ FACE-TO-FACE)

**9 JUNE 2022:**
- Plenary Session (open to all participants / HYBRID)

CONFERENCE WEBSITE
CITA HYBRID MEETINGS IN SLOVAKIA

After more than two years of restrictions due to the pandemic, CITA members were finally able to meet in person at a series of hybrid meetings in Slovakia.

Hosted by TESTEK in its training and R&D facility of Bratislava, CITA Task Forces "Brakes" and "Headlamps" met on 4 April 2022.

During the TF Brakes, José Luis San Román together with his colleague Javier Garcia demonstrated the Spanish fBRAKE brake testing method on a heavy-duty vehicle.

On 5 April 2022, it was the turn of the CITA Topic Area B "OPTIMIZING CURRENT VEHICLE COMPLIANCE" to meet at the Falkensteiner hotel in Bratislava. Hosted by TESTEK, the meeting was attended by over 70 colleagues, 30 of whom attended in person. CITA members could discuss about the identification of the vehicle, braking and lighting equipment, axles, wheels, and tyres. Attendees were also able to watch a live demonstration from FSD on Suspension test by PTI adapter.

On 6 April 2022, CITA members were invited by S-EKA to its new training center in Nitra to attend Topic Area D "ENVIRONMENTAL PROTECTION SYSTEMS". The main topics discussed in the meeting were the NOx PTI activities in Germany, the emissions test in Slovakia, the new CITA position paper on NOx, and the future Euro 7 standard. At the end, the participants visited the S-EKA training center and were able to attend a practical presentation.

NB FOR MEMBERS: IF YOU WISH TO HOST A CITA MEETING (TA OR/AND TF), PLEASE GET IN CONTACT WITH THE CITA SECRETARIAT
NEW CITA RECOMMENDATIONS:

“VEHICLE HEADLAMPS”

The purpose of the Recommendation no.25 is to specify in more detail the test methods and equipment for assessing vehicle headlamp alignment and performance where appropriate.

This document lists the items that must be inspected during the periodic technical inspection of the vehicle, the method of inspection and the principal reasons for failures.

Drawn up by the CITA Headlamps Task Force, the recommendation is based on the requirements regarding lighting systems in European Union Directive No. 2014/45/EU on roadworthiness tests for motor vehicles and their trailers.

It describes two stages:

- **Stage I**: headlamp alignment testing in accordance with the current EU Directive 2014/45/EU.

- **Stage II**: the current advanced or near future technology (camera HAD / OBD) to check the cut-off line position. Stage II describes what can be done beside Stage I.

“BRAKES”

The purpose of the new updated CITA Recommendation No.8 on brakes is to specify top-level test methods, alternatives, and equipment for assessing the required safety of vehicle braking systems.

This document is based on the requirements regarding braking systems of the European Union Directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers, and it takes account of the ISO standard for roller brake testers, supplement 07 to UNECE Regulation 13.09 concerning reference brake forces for periodic technical inspections, and the outcome of the CITA ECSS Project.

This recommendation was first developed by the CITA Working Group 1 and then concluded by its successor Task Force Brakes.
“ACCESS TO IN-VEHICLE DATA”

This document indicates the key requirements for establishing a future legal framework for access to in-vehicle data.

Vehicle safety, security and environmental compatibility must be ensured throughout the lifetime of the vehicle, which increasingly depends on electronic components as well as software versions and AI algorithms.

Independent and trusted access to validated in-vehicle data and diagnostic functions for sovereign use cases is the necessary basis for efficient and independent evaluations, e.g., for type approval, roadworthiness testing, market surveillance or research.

This will ensure road safety and environmental compatibility of vehicles well beyond their initial life cycle. At the same time, consumer confidence in new and existing technologies is strengthened and the EU Member States can fulfill their duties to citizens, which include the protection of road users and their privacy, environmental protection, and road safety.

Sovereign use cases are currently not considered in today’s technical implementations, which motivates CITA to propose a suitable concept for a future legal framework.

“MONITORING OF NOX EMISSIONS AS PART OF THE PTI”

This new report identifies and evaluates fundamentally feasible methods and procedures for the monitoring of NOx emissions under the special and given framework conditions of the PTI.

A recommendation is made on how the emission behaviour can be efficiently evaluated for both current vehicles and future vehicle technologies.

This report represents the current status of investigations. Some other studies on NOx PTI are ongoing. Seven (7) potential methods were identified, presented, and evaluated that could be considered for checking NOx emissions and NOx after-treatment systems as part of a Periodic Technical Inspection (PTI).

These methods and procedures were developed or co-developed and studied by different CITA members.

The potential methods described by CITA were discussed and evaluated trying to take into account that the inspections must be carried out in many different locations, in varying conditions, on a large number of vehicles with a wide range of technical conditions, and with limited time available.
In this webinar, CITA invited Dr. H. Scott Matthews – principal at Avenue C Advisors and former professor in the Department of Civil and Environmental Engineering at Carnegie Mellon University – to present the results of the study “The impact of periodic Passenger road accident vehicle safety inspection programs in the U.S.A.” This research study, led by Prithvi S. Acharya, Laila AitBihiOuali, Daniel J. Graham and H. Scott Matthews himself, and sponsored by CITA, is a perfect example of how vehicle inspection is crucial to road safety and saving lives.

Considering that about 6.5 million roadway accidents occur each year in the United States, costing more than $240 billion, and causing over 30,000 fatalities, the U.S. Centers for Disease Control and Prevention (CDC) ranks motor vehicle crashes as a leading cause of adult mortality in the United States. This study presents strong evidence that jurisdictions experience lower roadway fatality rates due to the presence of an active safety I/M program for passenger vehicles. Panel data regressions showed a negative correlation between the presence of state I/M programs, and the fleet-size-adjusted roadway fatality rate. Fixed effects (FE) estimates suggest that states with I/M programs had 2.8% fewer roadway fatalities per 100,000 registered passenger vehicles (90% CI: 0% to 5.6%) nationwide, based on data from 1975–2018. A two-stage least-squares (2SLS) specification is also presented, which not only supports this finding, but also implies a causal relationship between the presence of I/M programs, and lower road fatality rates.

“AUTOMOTIVE CYBERSECURITY – REGULATION & STANDARDIZATION”
06 May 2022

More than 60 participants logged into the web event organized by CITA in collaboration with ENISA - the European Cyber Security Agency, Applus + and TÜV SÜD last Friday, May 6.

The purpose of the webinar was to explain what cybersecurity is, within the context of road vehicles: the protection of automotive electronic systems, communication networks, control algorithms, software, users, and underlying data from malicious attacks, damage, unauthorized access, and manipulation. Due to the fact that computers monitor and control nearly every system on vehicles, including steering, brakes, and the engine itself, automotive cyber security becomes essential for safety. If a vehicle’s computer systems aren’t properly protected, hackers can steal data or even take control of the vehicle.
Organized by the French Ministry of Ecological Transition, in the frame of the French presidency of the Council of the EU, the meeting on automated and connected driving ("High level meeting on automated and connected driving", HLM-CAD) brought together high-ranking representatives and experts from the field of connected and automated driving from the various EU member States, the European Commission and business, and from academic circles.

Given the health situation, the two-days event was held via video-conference.

The meeting started on Wednesday afternoon, February 16 and ended the next morning. During the first day, two thematic workshops allowed participants to debate on acceptance and environmental and mobility impacts, and on stakeholder animation.

CITA, represented by its President Mr. Gerhard Müller, was involved in the second part of the afternoon to discuss about the access to in-vehicle data.

The plenary session of the 17 included roundtables on research and innovation priorities and use cases for public transport and logistics.

The plenary session was open to representatives of industry, academic institutions, users’ organizations and local governments whose interests you represent at the European level.

Several important parts of the program characterized this meeting:

- An inventory of national and European policies in this area;
- Specific workshops on acceptance, impact on mobility and the environment, exchange of experiences on ecosystem regeneration and cooperation between the public and private sectors;
- A plenary roundtable session on R&D priorities and use cases in the public transport and logistics industries.

The meeting brought together high-ranking representatives and experts from the field of connected and automated driving from the various EU member States, the European Commission and business, and from academic circles.
From February 21 to 25, ministers and transport leaders from around the world gathered for the UNECE Inland Transport Committee (ITC) in Geneva, under the theme “75 Years of Inland Transport Committee: Connecting Countries and Driving Sustainable Mobility”.

In fact, this 84th plenary session of the Internal Transport Committee celebrated its 75th anniversary.

At the ministerial session on February 22, participants adopted the resolution on “Ushering in a decade of delivery for sustainable inland transport and sustainable development” and discussed ITC’s past achievements, current performance and future trajectory, highlighting its evolution and underlying its future potential.

During the VIP lunch break, the president of CITA – G. Müller could address some words to the distinguished guests underlining the need for reliable vehicle data.

“Data are essential to ensure that only good used vehicles are shipped, in international trade for example. Furthermore, these data are instrumental to the recipient countries to verify compliance with the requirements. A solution that networks registrars must be set up to ensure a reliable IT platform. And reliable data is also crucial for the development of automated vehicles. Some levels of autonomous driving are already available in some markets and this requires access to vehicle data which today is controlled exclusively by vehicle manufacturers”, he declared.

The ITC week also included side-events as the Global Road Safety Film Festival, the high-profile exchanges on safer and cleaner used cars for Africa; and meeting on automated and autonomous vehicles, connectivity and e-mobility; and Euro-Asian transport connectivity.

On February 21, CITA actively participated in the “Safer and Cleaner Used Vehicles for Africa” meeting represented by its Executive Director E. Fernández.

This high-level side event was organized by UNECE together with UNEP to explore the advantages and challenges of ensuring access for low- and middle-income countries to safer and cleaner used vehicles that contribute to the sustainable development of countries and cities around the world.

The meeting was build on lessons learned from a successful United Nations Road Safety Fund project on used cars jointly implemented by UNEP and UNECE, where CITA participates in the activity by providing its experience and knowledge on whole-life vehicle compliance in general and vehicle inspection. The side event contributed to a better understanding of the role of used vehicles in meeting national, regional and global goals, including those stemming from the Sustainable Development Goals, the Decade of Action for Road Safety 2021-2030 and its Global Plan of Action, and the Paris Climate Agreement.
Ongoing technological disruption is leading to a paradigm change in the deployment and operation of new vehicles and mobility concepts. Hence, highly automated cars will be smart due to computerization and software-embedded intelligence.

They will communicate with each other and with the infrastructure, sense, and landscape the surroundings, and maneuver in an increasingly changing environment according to their capabilities. Drivers will be operators and eventually passengers.

In this respect, the International Alliance for Mobility Testing and Standardization (IAMTS) and CITA announced a partnership last year to develop recommended best practices to ensure that automated driving systems remain safe and effective on the road for the life of the vehicle.

These practices should close “gaps in standards and regulations for successful global market access of highly automated cars and identify technical needs for safe/secure performance in the market”. Both organizations are committed to creating appropriate proposals for standards and test procedures to increase trust in automated driving and the acceptance of new mobility concepts worldwide.

Recently, a first workshop between the two organizations was held to address the very urgent topic in the automotive industry “assuring regulatory compliance of CAV’s during their operational lifetime”.

The workshop was attended by a large number of CITA and IAMTS members from the U.S., EU and Greater China regions.

The guiding questions of the workshop were expressed in the following considerations:

- What are the key elements of trustworthiness? And how do these elements depend on each other?
- What are the major risks and vulnerabilities in the operational mode of a vehicle?
- How to identify and prioritize relevant use-cases/examples during the lifecycle of a vehicle?
- What is safe enough, secure enough?

The ongoing activities between IAMTS and CITA should lead to a joint whitepaper “whole life vehicle compliance”. For this purpose, IAMTS has established a separate Study Group.

The main purpose of the white paper is to emphasize that in-use vehicles technical conditions must not cause any traffic accidents resulting in reasonably foreseeable and preventable injury or death, must be resistant to cyber-attacks, and must be environmentally compatible with their Type Approvals.
CITA member AECA-ITV, a Spanish association of entities that collaborate with the administration for the technical inspection of vehicles, has launched a new initiative to highlight the role of PTI in saving lives and caring for the environment.

The digital campaign aims to raise awareness of the important work done by the PTI to reduce traffic deaths, and the effects of pollution, avoiding social and economic damage.

With the slogan “Si no pasas, PÁSALA”, AECA-ITV presented a series of graphic and audio visual pieces, including radio spots, mentions on television and radio, as well as a video campaign and online presence and in social networks, to be disseminated throughout the Spanish territory where more than 400 stations belonging to ITV are located.
NEW CITA MEMBERS

**AUTOTERMINAL JAPAN LTD ("ATJ")** is a vehicle inspection specialist providing services required for pre-shipment inspection and verification of used motor vehicles since 1997. Under the strict provisions set out within the International Organization for Standardization ("ISO") 17020, ATJ have been accredited with the Export Vehicle Inspection – Type A Inspection Body approval for pre-shipping inspections of used motor vehicles. ATJ has 25 years experience, and it assessed 350,000 units or more for New Zealand, Australia, Kenya, Tanzania, Zambia, Fiji and Jamaica.

- **Visit the website**

**JEVOL** began its business by providing compact car testing equipment to garages and 4S stores. Over the past ten years, Jevol has grown into a comprehensive service provider integrating R&D, production and service, providing personalized services to vehicle inspection stations around the world. While meeting the needs of customers to the greatest extent, they never stopped the pace of innovation. Jevol’s R&D capabilities have been recognized by the Ministry of Science and Technology of China. They will unremittingly introduce advanced concepts, such as product digitization and networking, and and bring new concepts to the vehicle inspection industry.

- **Visit the website**

**The ASSOCIATION FOR QUALITY MANAGEMENT IN VEHICLE MONITORING E.V. (QM-Verein)** was installed in 2008 by 24 of the 26 PTI organizations operating in Germany as a neutral institution and was commissioned with the development as well as the coordination of cross-competitive quality controls. The members represent about 90% of the German PTI market. The main task is the continuous measurement of the quality of the PTI by means of unannounced follow-up inspections (UN). These are carried out nationwide and according to uniform standards directly after the previous PTI. The four-eye principle guarantees objective assessments. Quality indicators allow for organization-, region- and country-specific assessments of quality. They show developments and provide recommendations for action for the individual quality work of the members.

- **Visit the website**
MEMBERS INPUT

A STEP CHANGE OF THE PTI FAILURE RATE AS A RESULT OF THE EFFECTIVE SUPERVISION

In 2019, TESTEK due to amendment in national Law started to supervise PTI stations in Slovakia. Before that, only the state offices were responsible for this task.

Supervision by TESTEK is characteristic by intensive use of automated monitoring cameras which are obligatory for PTI stations, combined with analysis of data stored in the central PTI information system.

Among other, the complete set of measured data from brake test and from OBD scan is subject of analysis. Thanks to these tools, the supervision by TESTEK is efficient without requiring too many personal resources. The comparison of the ITP statistics for the last 3 years with the previous period proves it.

MORE DETAILS IN THE PRESENTATION

INTRODUCTION OF THE SLOVAKIAN INFORMATION SYSTEM OF EMISSION CONTROL

Information system of emission Control called “AIS EK” has a wide function, ranging from the primary performance of the emission test to the evaluation of the test performed, emission limits, warehousing of the documents, database of the workshops, database of the technicians and their authorizations, database of the measuring devices on the workshops with validity of their calibration and also for the controlling bodies as the Ministry of Transport, District Office and also fort the Department of Control.

The AIS EK also stores the photos taken during the emission control. It also communicates directionally with the Camera systems installed in the workshop and with the mobile application as well.

Our research of AIS EK is mostly in line with the market trend and emission test performance.

SEE THE PRESENTATION
3DATX’S ONGOING ENHANCED PTI PILOT WITH OPUS, SWEDEN

3DATX’s ongoing Enhanced PTI Pilot with Opus, Sweden has measured tailpipe emissions from 627 light-duty vehicles so far.

Using the parSYNC® iPEMS, CO₂, CO, NO, NO₂, and PN concentrations plus OBD data are collected during idle, stationary acceleration, and driving acceleration modes.

The trial is evaluating the efficacy of various PTI test protocols in identifying high-emitters for NOx and PN. The dataset includes petrol and diesel engines from all European emission standards (predominantly Euro 4 – 6), with model years 1979 – 2019, engine size 0.9 – 5 L, and engine power 44 – 426 KW.

VISIT THE WEBSITE

THE LATEST DRAFT REPORT CAN BE REQUESTED HERE
A new project will be promoted in 2023 as an international development cooperation project by the Ministry of Foreign Affairs and the Korea International Cooperation Agency.

The new project aims to strengthen road safety by enhancing Mongolia’s vehicle inspection capacity and improving facilities.

A budget of $13 million is planned to be invested for five years starting in 2023. The Korea Transportation Safety Authority, the Korea Transport Institute and the Korea Road Traffic Authority which specialize in road safety in Korea, participated in the project.

This project will be promoted with the Mongolian Ministry of Road and Transport Development and the National Road Transport Center.
We make roads safer and cleaner. Every day. Everywhere. Impartially. Responsibly.

www.citainsp.org