# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>FOREWORD</td>
</tr>
<tr>
<td>04</td>
<td>CITA INTERNATIONAL CONFERENCE 2022</td>
</tr>
<tr>
<td>05</td>
<td>CONFERENCE IN COLLABORATION WITH THE CZECH PRESIDENCY OF THE COUNCIL OF THE EU</td>
</tr>
<tr>
<td>05</td>
<td>CITA ACTIVITIES IN THE USA</td>
</tr>
<tr>
<td>07</td>
<td>CITA TOPIC AREA E HYBRID MEETING IN HANOVER</td>
</tr>
<tr>
<td>08</td>
<td>NEW CITA RECOMMENDATION</td>
</tr>
<tr>
<td>09</td>
<td>NEW CITA POSITION PAPER</td>
</tr>
<tr>
<td>10</td>
<td>WEBINARS</td>
</tr>
<tr>
<td>12</td>
<td>EMISSION TEST IN BELGIUM: PN COUNTING</td>
</tr>
<tr>
<td>13</td>
<td>“SAFER &amp; CLEANER USED VEHICLES” MEETINGS IN RWANDA</td>
</tr>
<tr>
<td>14</td>
<td>SUITABILITY ASSESSMENT OF NOx EMISSIONS MEASUREMENTS WITH PTI EQUIPMENT</td>
</tr>
<tr>
<td>14</td>
<td>MOTORIZATION MANAGEMENT FOR DEVELOPMENT REPORT</td>
</tr>
<tr>
<td>15</td>
<td>NEW MEMBERS</td>
</tr>
<tr>
<td>16</td>
<td>MEMBERS INPUT</td>
</tr>
<tr>
<td>16</td>
<td>SAVE THE DATE</td>
</tr>
</tbody>
</table>
Dear CITA Members,
Dear colleagues and friends,

After 2 years of COVID restrictions, I really enjoyed meeting the esteemed CITA colleagues and friends in person at the CITA International Conference and General Assembly in Brussels, last 8 and 9 June.

The gathering was very successful with a lot of voting strongly supported by the members to make CITA ready for the future. Thank you very much for your trust and support!

Amongst others, I am glad that Teemu Toivainen from TRAFICOM - Finland, was appointed as BP member and the Corporate Member’s representatives Antonio Multari, MAHA, and Matthew Berry, 3DATX, have been elected.

In September, CITA could introduce the study about the impact of vehicle inspection programs in USA, made by the Carnegie Mellon University, to the Congress in Washington DC. The number of 1400 fatalities per year that could be avoided if all states (not just 14!) -implemented a vehicle inspection program is truly impressing.

We also had the opportunity to introduce the Assessment of Vehicle Inspection Systems (AVIS scoring) to several development banks in Washington. With this assessment tool we have the possibility to evaluate vehicle inspection systems in countries and to identify the fields of action needed to improve road safety.

During the event with the Czech Presidency of the European Council about PN-measurement and safety of non-road machineries, it was clearly stated that all vehicles must be considered for PTI and emission testing to meet the ambitious goals of the VISION ZERO and the GREEN DEAL.

The first results from Belgium, where the PN emission test started in July of this year are very impressive and show how important it is to regularly adopt test procedures for the technological development of vehicles.

The preparation for the revision of the European PTI Directive 2014/45/EU is in full swing. During the consultation period, CITA was very much involved and discussed the necessary adoption with the European Commission. We expect the revision to be published in the first quarter 2023.

The next RAG conferences will take place in Cape Town for Africa on 2 and 3 November and in Brussels for Europe on 15 and 16 November. I look forward to meeting many of you at these two important events.

Again, CITA and its members have been very active to make the roads safer and cleaner, every day and everywhere, impartially, and responsibly!

I hope you will enjoy reading this CITA NewsRelease October 2022.

Sincerely,

Gerhard Müller,
CITA PRESIDENT
Our International Conference was a great success! We were honoured to welcome such a large number of colleagues to our event in Brussels last June. Covering the theme: "Safe and Clean Road Transport. Always. Everywhere.", the future of vehicle compliance has been the focus of our discussions.

Among the topics covered such as electric vehicles, micro-mobility, ADAS, cybersecurity, emissions, we also discussed vehicle compliance in low- and middle-income countries. The entire event offered the opportunity to retrieve state-of-the-art information on the latest news in technical control, including technical developments and new management approaches.
Tuesday, 20 September 2022 in the frame of the European Mobility Week (16-22 September 2022), CITA hosted a conference in collaboration with the Czech Presidency of the Council of the EU entitled: “The challenge of controlling emissions and non-road machinery”.

International experts got together in Brussels to discuss about two very important environmental protection topics: the PN-measurement for diesel vehicles and road safety and emission, and the safety inspection of non-road machineries.

During the event participants have had the chance to share experiences with representatives of the Czech Republic and experts and to talk about different ways to improve road safety and emission behavior of vehicles. Especially the often-forgotten non-road machineries have been in the focus of the meeting.

The agenda of the meeting included the intervention of:
- Mr. Martin Tichy from the Ministry of Transport of Czech Republic
- Mr. Martin Hron from TÜV SÜD
- Mr. Pascal Buekenhoudt from GOCA Flanders
- Mr. Eduard Fernandez from CITA
- Mr. Andreas Mayer from VERT
- Mr. Guillermo Magaz from AECA-ITV

“Vehicle inspection goes a long way in keeping vehicles as clean and safe as possible. I am convinced that we must maintain the level of safety and environmental standards even for off-road machines throughout their entire life cycle, as we do for any. CITA will continue to push for modern, meaningful and impartial vehicle safety and emission inspections, regardless of vehicle type” concluded Mr. MÜLLER – President of CITA.
In the frame of the RAG North America (RAG NA) activities, CITA President G. Müller, Mr. P. Villari – CITA RAG NA Chairperson, and Mr. A. McIntosh, together with Dr. S. Matthews, presented Dr Matthews research on the impact of safety inspection programs in the USA to the Committee of Transports and Infrastructures of the US House of Representatives.

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 in the United States each year, costing upwards of $240 billion, and causing over 30,000 fatalities, the U.S. Centers for Disease Control and Prevention (CDC) list motor accidents as a leading cause of adult mortality in the United States.

The report clearly shows that States with periodic vehicle safety inspections have 5.5% fewer fatalities than those without.
Hosted by TÜV NORD in its facilities of Hannover, CITA TOPIC AREA E: “Quality, training & confidence” met on 28 and 29 September 2022.

During the first meeting day, we learned about the PTI inspection in Germany, including new inspection methods, electric vehicles, inspector competence criteria, training and examination, the risks to impartiality, and supervision and audit programmes.

We also had updated information about impartiality and anti corruption from Spain and Slovakia.

Moreover, we heard the experiences from Norway in inspecting electric vehicles: its methods, defects found and identified training needs.

The second day, all participants took part at the technical visit, which included a theoretical PTI inspection of an electric vehicle, internal audits, and practical examples.
Due to recent regulatory changes, technological advances, and changing consumer behavior, the adoption of electric vehicles (EVs) is on the rise and will increase dramatically in most major automotive markets. With electric vehicles claiming an ever-increasing share of the vehicle fleet, it is critical to ensure that safety and environmental performance requirements are met through vehicle lifetime compliance.

CITA is convinced that ensuring the safe use of EVs and a proven positive impact on reducing emissions is an enabler of EV adoption rather than a roadblock. At the same time, current Periodical Technical Inspection (PTI) criteria do not yet address the specifics of EVs.

A task force made up of international PTI and EV experts has developed a series of recommendations published in last CITA report entitled: “ENSURING LIFETIME COMPLIANCE OF ELECTRIC VEHICLES (EVs) WITH SAFETY AND SUSTAINABILITY REQUIREMENTS”

The recommendations of this report aim to ensure vehicle safety and compliance with environmental performance throughout the life of the vehicle; to consider the cost / benefit and convenience aspects from the user’s point of view, and to keep the investment for PTI service providers – and therefore the cost for those who pay or finance PTI – at a manageable level. With the term “EV” the document refers to vehicles that have an electric drivetrain, whether or not it is combined with a traditional combustion engine such as in hybrid vehicles. While compliance with many, but not all, of these requirements is checked at type approval, the function of relevant systems and components may deteriorate due to ageing, damage or tampering over the use phase of the vehicle.

This document, divided in four main areas, summarizes CITAs recommendations on how PTI should be adapted to cover EVs appropriately:
1. General safety.
2. Electrical safety inspection (electric elements and resistance/isolation).
3. Rechargeable Energy Storage System (REESS) and Battery Management System (BMS).
4. Electric energy consumption.

Moreover, several prerequisites for an effective PTI-adaption for EVs need to be given. These include, but are not restricted to:
- A mandate for relevant items to become part of the type-approval requirements,
- Open access to relevant OEM data for PTI organizations in a legally standardized form, in a centralized way and on a non-discriminatory basis, and
- Relevant equipment needs to be available at the place where PTI is conducted, and inspectors must be appropriately trained for HSE (health, safety, environment) purposes and to achieve consistent outcomes.

CITA aims to initiate a constructive and target-oriented dialogue with relevant policymakers and key industry stakeholders to adapt PTI where needed for EVs. CITA strongly believes that for EVs to play out their full potential in terms of achieving sustainable and safe mobility while ensuring user acceptance over time, the items as laid out in this document must be regularly inspected over a vehicle’s lifetime.

The Periodic Technical Inspection (PTI) is essential and needs to be adapted quickly for EVs.
“SAFE FUNCTION FOR ROAD-GOING MICRO-MOBILITY”

The micro-mobility market remains embryonic, however, CITA remains focused on retaining the viability of these conveyances throughout their deployment lifetime and to safe disposal.

CITA feel it is an ineffective, unrealistic, and short-sighted defense to suggest that all existing infrastructure, vehicles, and driver/riders/pedestrians must rapidly change to accommodate the safe deployment of this road-going, inter-modal conveyances.

CITA, through its dedicated Task Force on Micro-Mobility, aims to continue constructive and target-oriented dialogue with relevant policymakers and key industry stakeholders to enable adaption and adoption of revised vehicle approval & continuous compliance examination processes.

We strongly believe that, for the “Road Capable Micro-Mobility” that have been scoped in this new position paper, a conveyance of this capability could safely integrate with the existing mobility and logistics ecosystem within existing infrastructure, while becoming more sustainable, less prone to accidents and increasing overall levels of comfort and meeting individual mobility demands beyond borders.

This would support the ambitious sustainability and environmental targets we support while ensuring user acceptance over time.

The content of this new document will be regularly evaluated as knowledge, capability & acceptance continue to change in this embryonic road-going sector.

DOWNLOAD THE DOCUMENT
CITA Member AECA-ITV, the Spanish non-profit Association of the Technical Inspection entities, recently published the results of a research study commissioned to the Institute of Motor Vehicle Safety (ISVA) of the Carlos III University of Madrid (UC3M). The aim of this study was to develop a universal PTI inspection method that determines the levels of NOx pollution and the concentration of particles emitted by vehicles equipped with internal combustion engine. Moreover, AECA-ITV wanted to determine which of the methods considered in the research, the roller test bench, the remote sensing, or static load, was the most suitable for PTI purposes; and finally select the best technology with which these pollutants are measured.

For 20 months, the UC3M tested a considerable number of vehicles looking for the simplest, quick, and inexpensive – effective generalized procedure, suitable for all kind of vehicle category, that could be used without dismantle or remove any part of the vehicle.

In conclusion, the study proposes a new unified method consisting in the measurement of NOx and particle content to be performed at a minimum for 15 seconds before and after acceleration to 1,500 rpm maintained for 15 seconds. This procedure, complying with all Euro type-approval standards, allows to simultaneously measure NOx emissions and particulate matter emitted by M1 petrol and diesel vehicles.

South Korean CITA member KOTSA is about to launch a new project on road safety and environmental protection in Ulaanbaatar, Mongolia.

Entitled "Enhancement of Traffic Safety through Strengthening Vehicle Inspection Capacity and Improving Inspection Facilities in Mongolia", this project will be implemented through budget support from the Korean Ministry of Foreign Affairs and the Korea International Cooperation Agency. Concretely, the objectives of this 4-year project (2023-27) are to improve Mongolian traffic safety through the advancement of PTI facilities and capacity building, and to support the improvement of Ulaanbaatar air quality through national policy advice on gas emissions from vehicles.

Together with KOTI (Korea Transport Institute) and KOROAD (Korea Road Traffic Authority), and with the participation of the Ministry of Road and Transport Development (MRTD) and National Road Transport Center (NRTC - under MRTD) from Mongolia, KOTSA will establish a policy consulting report, and it will try to modernize the Mongolian PTI Services.

All this will be possible thanks to the renewal and modernization of the vehicle inspection stations with new advanced equipment, and the strengthening of the capacity of staff with local training.
Mr. Juraj Hudec from the Ministry of Transport and Construction of the Slovak Republic and Associate Professor Branislav Sarkan from the Faculty of Operation and Economics of Transport and Communications, University of Žilina, Slovak Republic have recently published their findings on the effects of PTI on traffic accidents in Slovakia in the scientific journal The Communications (in Slovak: Komunikácie).

The main aim of the study was the search for links between the PTI and traffic accidents due to vehicle technical defects in the Slovak Republic. Based on these links, the authors tried to assess the justification for PTI regarding road safety.

The article provides an analysis of data concerning the traffic accident rates due to technical defects of vehicles in the Slovak Republic, as well as a research on the incidence of traffic accidents in the period between the performance of technical inspections and the end of their validity.

Furthermore, the article examines the effect of the results of PTI given by temporary roadworthiness and not worthiness of vehicles on the number of traffic accidents due to a technical defect.

The first finding was that with the approaching end of the validity of the PTI the probability of traffic accidents due to technical defects of vehicles increases. The second finding was that with the increasing number of vehicles assessed at the PTI as temporarily roadworthy and not roadworthy, the number of accidents due to vehicle technical defects was decreasing.

The results formulated in the article show that the PTI in the Slovak Republic have a measurable effect on traffic accidents caused by vehicle technical defects, they are thus positively affecting the road safety and thus having a demonstrable justification.
PN COUNTING IN BELGIUM

An important project in the field of automotive inspection in Belgium is the refinement of emissions measurements, with a view to sustainable and environmentally friendly mobility. Last year, the three Belgian regions completed the preliminary phase to integrate the new particulate emission measurement into the inspection process. Today, July 1, 2022, it became official.

This makes Belgium a frontrunner in Europe in the fight against particulate filter fraud. Knowing that a properly functioning particulate filter removes 95 to 99% of particulate emissions, this has a huge impact on air quality.

The Belgium research was focused on the detection of defect and manipulated Diesel Particle Filters (DPF). After an extensive 18-month study commissioned by the Flemish, Walloon, and Brussels-Capital Region in Belgium, it was concluded that a new emission measurement that uses PN measurement instruments can reliably assess the quality of the Diesel Particulate Filter (DPF) during the periodic technical inspection (PTI).

Vehicle exhaust particulate emissions increase with age and mileage. A significant increase in PN emissions was observed especially after 6 years and/or after 150,000 km. As the costs for replacing or repairing a DPF can be high, some end users decide to remove it completely. Thanks to the use of PN meters and their high sensitivity, manipulations of DPFs will be easily detectable in the future.

The three regions published, after this study, the regulations to start with PN counting on diesel M1, N1 vehicles.

Following the particulate matter measurement, GOCA Flanders gained a new study project for the measurement of nitrogen (NOx) last year. In the context of this assignment for the Flemish Environment Agency, GOCA Flanders worked on a refined NOx emission test.

“There has long been a call in Europe for better control of NOx emissions during technical inspection or through roadside checks. However, technical issues make the development of an appropriate test a challenge.

Nevertheless, the research team managed to distil two methods that hold promise for further follow-up research, with a view to implementation as soon as possible,” according to the Flemish Environment Agency.

In this way, GOCA Flanders and the vehicle inspection sector continue to focus on the modernization of the inspection process, thereby confirming their conscious choice to focus on the environment and climate.

DOWNLOAD THE STUDY
“SAFER AND CLEANER USED VEHICLES FOR AFRICA” MEETINGS IN RWANDA

On 30 August and 1 September were held two meetings in Kigali, Rwanda. CITA, represented by Mr. Benny Örnerfors, had a significant role in the presentations given in the events.

During all three days, stakeholders from the ministerial to the purely operational level were on site, deeply engaged and all very communicative.

During the first event with the EAC (East African Community) on the theme “Safer and Cleaner Vehicles for Africa”, CITA was invited to present the results achieved in its two reports “USED VEHICLES INFORMATION SHARING SYSTEMS WITH DATA SUPPORT” and “USED VEHICLES INSPECTION AND MONITORING FRAMEWORK AND IMPLEMENTATION COMPLIANCE SYSTEM” in the frame of the “Safer and Cleaner Used Vehicles for Africa” project (more info here).

This meeting was the second in a row on the theme of training and education of stakeholders on the African continent. The first one was held together with ECOWAS last April.

“Despite very recent and rapid positive developments in Africa are progressing both on the topic of road safety and the environment, for many countries there is still a way to go. But the ambition and willingness for all counties is very strong and that is very positive. The process of Export to Import as recommended by CITA was very well accepted. I am very glad to see the progress”, commented Mr. Örnerfors.

On the closing day (September 1), the UNRSF – Safer and Cleaner Used Vehicles for Africa – “Joint importers & exporters” hybrid-meeting saw the active participation from both importing and exporting stakeholders from NGOS, international regulatory bodies, regional bureau of standards, ministerial and government representative, as well as academia.

The meeting had several presentations on existing technical international regulatory framework, in-depth studies carried over the years and a description of current inspection situations at the port of export and the destination port of used vehicles. In conclusion, several frameworks and agreements have been established at regional and international level.

However, it was agreed that for a more coordinated approach there needs to be unique harmonization of these framework subject to the international vehicle regulatory framework. African delegates are welcomed to actively participate at the international level of technical deliberations where this harmonization process will take place.

CITA’s commitment and work within this project, and the recommendations presented aroused great interest from many African countries. It motivates us for the future development and in sharing the experiences and knowledge that CITA can offer.
This new report entitled “Motorization Management for Development: An Integrated Approach to Improving Vehicles for Sustainable Mobility”, co-funded by CITA, presents the World Bank’s Motorization Management (MM) framework, which is intended to support client countries in the development of policies and measures aimed at managing vehicle stocks in a proactive, phased, and systematic manner to make them safer, cleaner, and more fuel efficient. The MM framework reflects a series of policy considerations and programs that can be implemented to improve the quality of fuels and vehicles in a country’s stock.

Across the developing world, countries are experiencing rapid growth in urbanization and motorization. While high motorization rates potentially meant that more people will be able to claim the benefits of improved accessibility to goods and services as a consequence of enhanced mobility, there are questions about the sustainability of this future.

First, the quality of the motor vehicle stock affects road safety outcomes—that is, the number of people killed or seriously injured in motor vehicle crashes. Second, the quality of the motor vehicle fleet affects air quality, particularly in cities. Finally, the profile of the vehicle fleet. CITA gave its support to advance these important areas of work for both road safety and transport decarbonization goals.

The measurement of NOx emissions in vehicles has so far been exclusively carried out during the type-approval process. For this purpose, high-precision gas measurement laboratory equipment and Portable Emission Measurement Systems (PEMS) are used. Both types of equipment are costly in terms of price, maintenance, complexity, and time of use (calibration and maintenance requirements). Currently, NOx emissions measurements in PTIs are being considered, but PEMS or laboratory equipment is unsuitable for this function, and PTI-grade equipment has to be used. Although CO and O2 are currently being reliably measured with this equipment, there is not enough information about its accuracy for NOx measurements.

Accordingly, in this paper, simultaneous measures have been performed over the same engine in a test cell, with a laboratory and a PTI gas analyser to assess the accuracy of the latter. When performing the test with the most similar conditions found in PTI, the results show that the PTI gas analyser shows an average deviation of 2.6 ppm and 9% rel. with respect to high precision laboratory equipment for concentrations below 700 ppm NOx, which can be considered acceptable for periodic technical inspections.

Authors of the paper are Eugenio Fernández – University of Zaragoza, Abel Ortego and Alicia Valero – Research Centre for Energy Resources and Consumption (CIRCE), Universidad de Zaragoza, and Juan J. Alba – New Technologies in Vehicles and Road Safety (VEHIVIAL), Universidad de Zaragoza.
MIDTRONICS is focused on developing technologies to improve the way batteries are tested, charged, and managed, making us the battery technology partner of choice for the world’s leading automobile and heavy truck manufacturers, vehicle service organizations, and battery manufacturers. MIDTRONICS is well known as market leader for battery diagnostics, battery chargers, and since the introduction of electric vehicles, It has pioneered products used for the service and maintenance of lithium-ion batteries in hybrid and battery electric vehicles.

- Visit the website

MULLER AUTOMOTIVE SAS is the heiress of BEM MULLER created in 1919 by Marcel Muller in France. They are one of the leaders of Test and Inspection Equipment for the worldwide roadworthiness market. They propose Products and Full Services dedicated to those markets (Test Line, Pollution analysis, Headlight tester, Hotline, Maintenance contract, etc.) but also, Lifts, Wheel market devices, A/C station, Diag tools. They are able to also propose a full IT system (VIMS) to manage PTI network.

MULLER AUTOMOTIVE : TO 25m€, 160 people (including ATAL s.r.o. our CZ subsidiary).

- Visit the website
The government of Costa Rica has chosen DEKRA to operate the country's vehicle inspection program. DEKRA will conduct the “Inspección Técnica Vehicular” for two years, including the management of 13 physical stations and 3 mobile stations across Costa Rica.

DEKRA plans to employ approximately 450 local personnel in order to conduct an average of two million vehicle inspections each year. Inspections are required annually in Costa Rica. DEKRA is the world's leading vehicle inspection company and, with the addition of Costa Rica, will perform nearly 30 million inspections annually in 25 countries around the globe.
CITA

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www.citainsp.org