



### Approval of minutes





### Roadworthiness PTI Directive 2014/45/EU – Implementation at national level





### Suspension testing What needs to be done to move forward?





### CITA Conference, 6th to 8th of June 2017, Zagreb



### Possible titles:

- 1) A single solution for suspension testing
- 2) Suspension testing a comfortable solution
- 3) Suspension testing a solution that works
- 4) The ups and downs of suspension testing

#### Possible description/extract:

 After various previous designs and test methods to test the vehicle's suspension, EGEA will present the results of how a single solution has now been found.

Aim of the presentation?



# EN17003pr – standard for the safety of roller brake testers for vehicles $\rightarrow$ 3.5T





### Election of WG6 Chairman





### Digitalisation/connectivity/Internet of Things





# Previous industrial revolutions

	First production line, Cincinnati slaughterhouses 1870	First programmable logic controller (PLC), Modicon 084 1969	4. industrial revolu based on Cyber-Phys Systemss	■ Comparison Ition sical
First mechanical loom 1784		<b>3. industrial revolution</b> uses electronics and IT to achieve further automation of manufacturing		div 🕨
	<b>2. industrial revolution</b> follows introduction of electrically-powered mass production based on the division of labour			complex
<ul> <li>industrial revolution follows introduction of water- and steam-powered mechanical manufacturing facilities</li> </ul>			time	
End of 18th century	Start of 20th century	Start of 1970s	today	Source: DFKI 201

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- A **product-centric view** is defined via the product lifecycle: pre-sales, sales, usage, service, loyalty
- The focus is put on product quality, design and advanced features

New business potential through the connection of appliance and customer

- A **customer-centric view** expands business to areas outside the pure product (customer context, factory automation, supplier context, etc..)
- Focus is extended to product-related and context-related services

### It's all about data control

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# New EU initiatives from the European Commission - The need to change!

- Digital Single Market
- Industry 4.0
- The Internet of Things (IoT)
- Electric Vehicles
- Digitalization of Industry
- Robotics
- Cloud-based computing
- Digital Platforms
- Free flow of Data
- C-ITS
- Autonomous driving





## Industry changes

Changes	Impacts
Lifts	No major changes $\rightarrow$ only change would be the decrease of workshops and with Electric Vehicles the increase of more specialised workshops using more specialised equipment such as for battery carrier or replacement battery lift
Diagnostics	<ul> <li>Without OBD port remaining open and no possibility anymore for reverse engineering, the main threat is that diagnostic will be done in the vehicle or via VMs on their website, no necessity anymore to have an independent diagnostic.</li> <li>In-vehicle applications will support remote diagnostics and prognostics supporting new business models and cloud-based services and eco-systems</li> <li>With EVs, hybrid and plug-in hybrid vehicles, OBD plug is not mandatory and therefore not present in many of these vehicles, but may still be needed in PTI to test safety-relevant systems. New clear procedure (standardised) are required to access high-voltage parts safely during repair and road-side recovery. New types of equipment will be needed.</li> </ul>
Emission testers	Opportunity to develop new test methods for $NOx/NO_2/SO_2$ but there is a threat that this will be tested remotely (e.g remote sensing) or OBD only
MACs	Connectivity to remotely monitor MACs (simple embedded algorithms) and the ability to conduct remote system diagnostics



## Industry changes

Changes	Impacts
Headlamps	Electronic headlight testers should become more important
Tyres	TPMS/TPG testing/re-setting, but in reality no major changes
Suspension	No major changes $\rightarrow$ decrease in the volume of workshops/increase of more specialisation, using more specialised equipment, plus greater exchange of PTI technical information and test results in PTI test centres
Brake testing	No major changes $\rightarrow$ decrease in the volume of workshops/increase of more specialisation, using more specialised equipment, plus greater exchange of PTI technical information and test results in PTI test centres
ECSS	<ul> <li>Needs new test methods, but to be based on Cost-Benefit-Analyis</li> <li>Lack of evidence (e.g. failures, accidents, supporting statistics)</li> <li>This question will increase with more semi-/autonomous vehicles</li> </ul>
Exhaust extraction system	Vehicles are much cleaner, exhaust is less critical and major decrease on the number of workshops in the future, new equipment for CNG



### Industry changes

Changes	Impacts	
Special equipment for battery replacement	Opportunity with increase of Electric Vehicles to propose new special/dedicated equipment	
Technicians	Additional training for technicians and 'just in time' technical information to handle advance vehicle systems. Likely to need certification of their competency to access/work on new automated systems and vehicles	
Software and additional services	With connectivity, opportunities to develop related services - notably regarding enhanced electronic repair and maintenance information at the point of repair	
Advanced Driver Assistance Systems (ADAS)	<ul> <li>New test methods would need to be defined for PTI</li> <li>A completely new level of info needed to handle the increased complexity (e.g. wheel alignment is required for the re-calibration of the radar/camera)</li> <li>Question: dynamic vs. Static calibration: how to carry out calibrations during a driving cycle (e.g. with environmental constraints)</li> </ul>	





### **Questions to Working Group Members:**

- What would be the impact of the 4<sup>th</sup> revolution on your sector products?
- How do you see the way forward to optimise EGEA activities?
- How to address these changes?
- How to become more effective?
- How to raise EGEA profile to address these new challenges?



### WG6 Priorities for 2017-2018





