EGEA Activity Overview 2015-2016

EGEA
EUROPEAN GARAGE EQUIPMENT ASSOCIATION

Failure is the road to success…

During the last years…

- Creation of a common suspension testing system (7years)
- Creation of a EU Vehicle Test Equipment Network (4years)
- Creation of an EU market data study (2 years)

Industry 4.0/ The Internet of Things (IoT)/ Electric Vehicles - The need to change

Why?

- Decrease of workshops, change of repair methods, increase of remote diagnostics/predictive maintenance
- Change in the equipment for ADAS (e.g. camera-based systems)
- How to ensure interoperability among products from different sources?
- Changes to the aftermarket
- Changes to the association

How to address the industry changes?

- What are the changes?
- What's the priority?
- Where do we add value?

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Industry changes

Changes	Impacts
Lifts	No major changes → 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	• Without OBD port remaining open and no possibility anymore to reverse engineering, the main threat is that diagnostic will be done only via VMs on their website, no necessity anymore to have an independent diagnostic. • With EVs, hybrid and plug-in hybrid vehicles, OBD plug is not mandatory and therefore not present in many of these vehicles, but still need to be tested in PTI for 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.
Emission testers	Opportunity to develop new test methods for NOx/NO2/SO2 but threat that this will be remotely tested or OBD only

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Industry changes

Changes	Impacts
Lights	Electronic headlight tester should become more important
Tyres	TPMS/TPG but in reality no major changes
Suspension	
Brakes	No major changes → only change would be the decrease of workshops and with Electric Vehicles the increase of more specialised workshops using more specialised equipment.
ECSS	• Need new test methods but to be based on CBA • Lack of evidences (e.g. failures, accidents, statistics) • This question will increase with the semi-/autonomous vehicles
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

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Industry changes

Changes	Impacts
MACs	Connectivity is the key issue to remotely monitor MACs (simple algorythms)
Special equipment for batteries replacement	Opportunity with increase of Electric Vehicles to propose new special dedicated equipment
Technicians	Additional training for technicians to handle advance garage equipment will be more and more needed
Software and additional services	With connectivity, opportunities to develop related services notably regarding electronic maintenance service history/booklet
ADAS	• New test methods would need to be defined for PTI • A completely new level of info needed to handle the increased complexity (e.g. wheel alignment may require recalibration of the radar/camera) • Question: dynamic vs. Static calibration: how to carry out calibrations during a driving cycle (e.g. with environmental constraints)

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How to change the association/members?

- How to become more effective?

- How to improve relationships with…
  - Members?
  - National governements? And EU Council?
  - Allied associations at EU & national levels?
  - EU Commission?
  - EU Parliament?

- How to improve communication?

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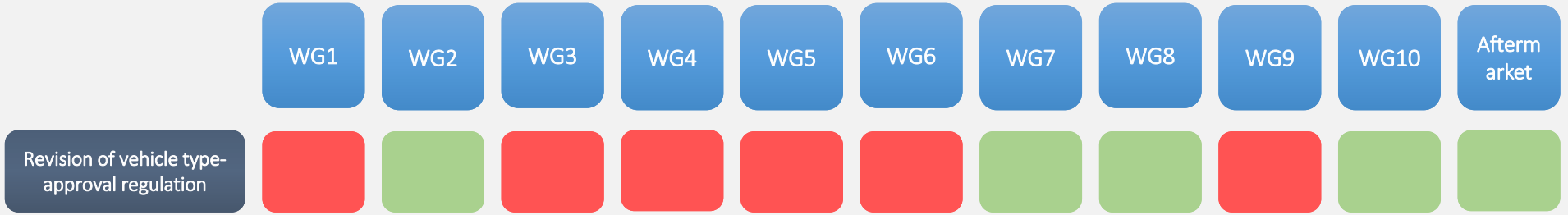
Summary of activities

Summary of activities



Revision of vehicle type-approval regulation:

- Migration of Euro 5/6 provisions on access to RMI into the revised type-approval Regulation COM(2016) 31 final but with omissions and no improvements of RMI provisions dated 10 years old → e.g. official reference of OBD connector is now missing, standards for reprogramming to be updated!
- Other chapters have been improved to respond to structural weaknesses or to the "Dieselgate" scandal:
  - Reinforcement of independent vehicle type approval testing
  - Market surveillance obligations
  - Emissions: introduction of in-service emissions testing

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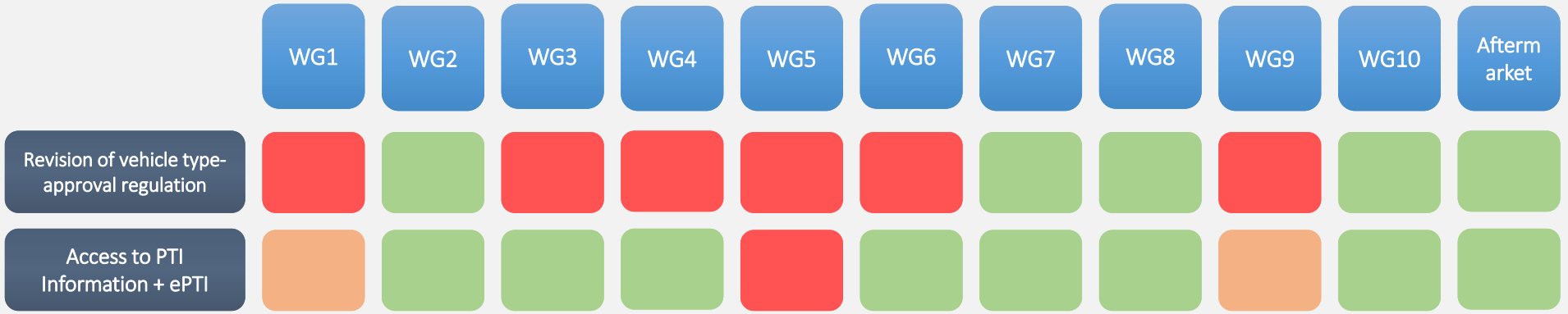
Summary of activities

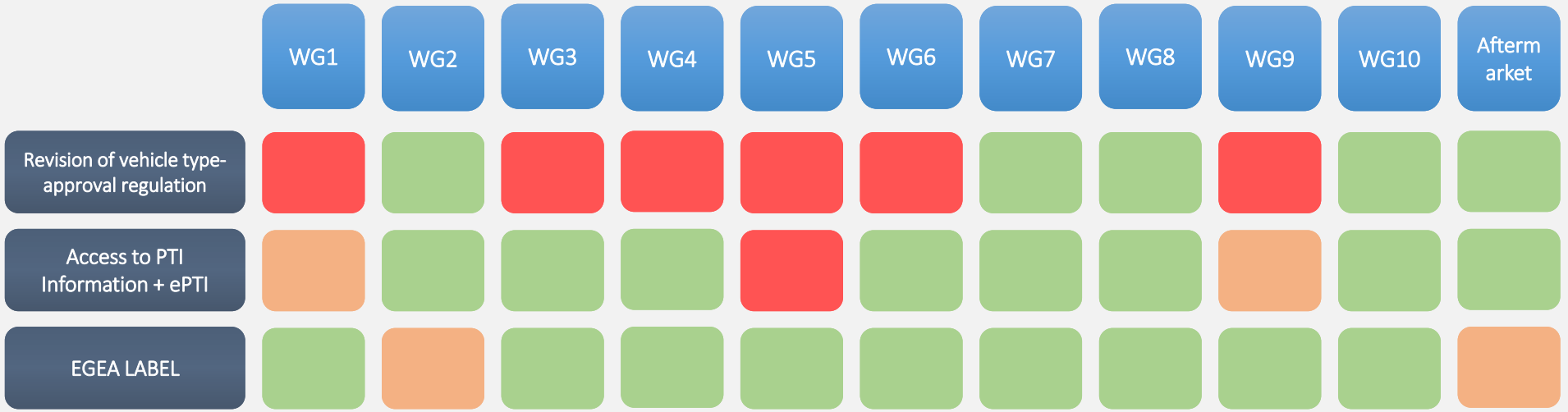


Summary of activities

Access to PTI information + ePTI:

- Access to PTI information is still restricted to tool manufacturers under Directive 2014/45/EU, EGEA still fighting to include functionality testing at least for headlamps testing. EGEA might access info via Member States or VMs.
- ePTI: draft standard for the electronic PTI covering:
  - communication between the Inspection Tool and the ePTI relevant system
  - reading of basic vehicle information (identification, systems fitted)
  - specification of required ePTI tests:
    - fitment test (e.g. Adaptive Cruise Control – equipped [YES; NO])
    - status test (e.g. Airbag – [OK; NOK])
    - functional check (e.g. Activation of exterior lighting)
  - authentication and authorization mechanism
  - protection against tampering of the defined ePTI test methods

Summary of activities



EGEA Label:

- MACs Systems (now)
- Inspection of vehicle lifts according EN1493 – specifications for the inspector
- Wheel alignments specifications
- Tyre changers specifications
- headlamps

Summary of activities

R2CC:

- Awareness political campaign to obtain an EU regulatory framework for fair and equal access to the vehicle and its machine genearated data;
- the Open Telematics Platform enshrined in type approval legislation as a near term objective alongside a roadmap and associated legislation delineating interim solutions

Right to connect
Freedom to choose

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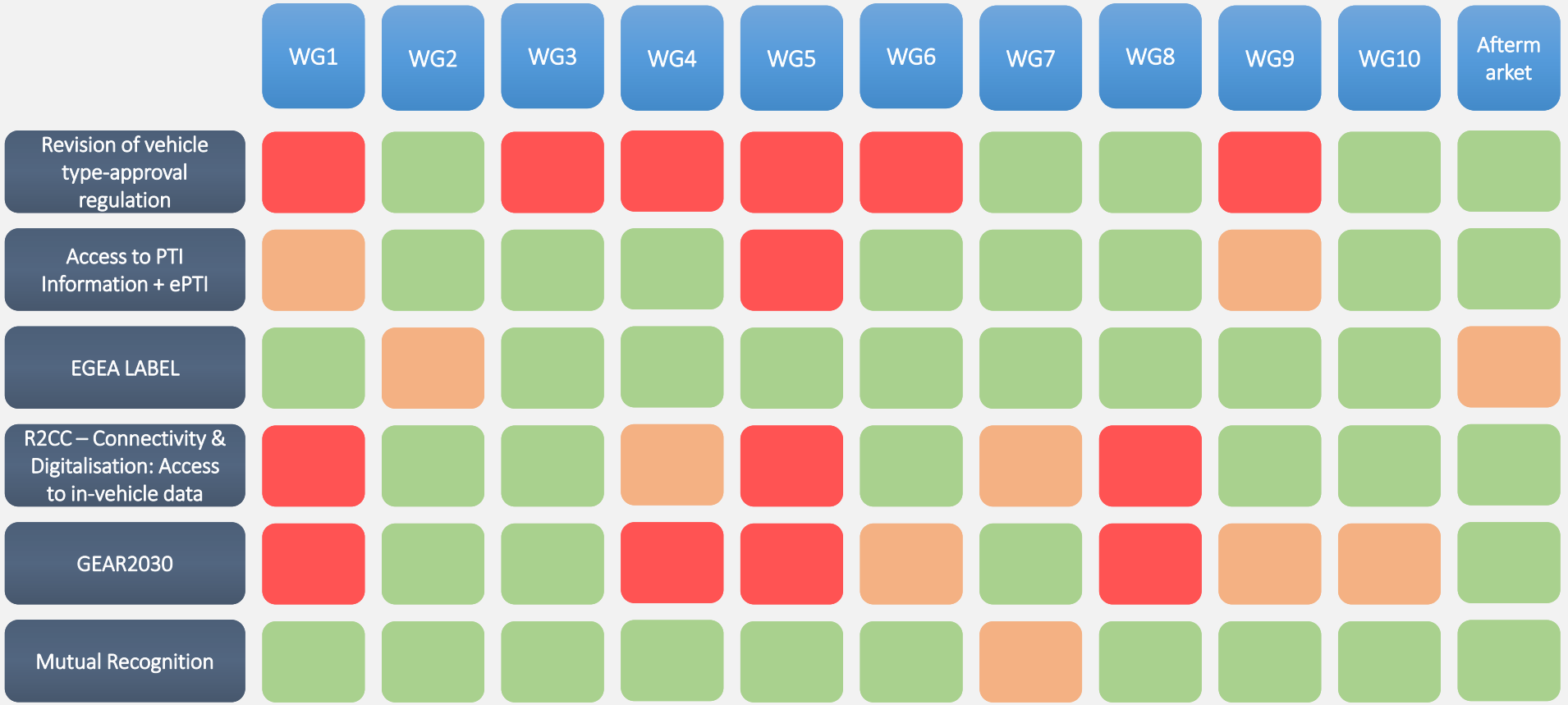
Summary of activities

GEAR2030:

- High level political process organised by the EU Commission and Member States to develop recommendations to reinforce both the short-term and long-term competitiveness of the European automotive industry
- Will set the political and legislative framework for the coming years

Summary of activities



Mutual Recognition:

- It guarantees that any product lawfully sold in one EU country can be sold in another. This is possible even if the product does not fully comply with the technical rules of the other country.
- The list of products might be revised.

Summary of activities – 2/2

Digitalisation & Connectivity

Digitalisation & Connectivity – what does that change?

- Consumer expectations are increasing due to the connectivity, prognosis/predictive maintenance and remote diagnostics
- Focus is not on the repair side anymore but on the proposed third party cross-sectoral services offered in the vehicle, this will increase with autonomous vehicles
- Not anymore speaking about ‘consumer goods’ but SERVICES.
- Innovation is taking place in the OBD dongles (e.g. for repair services, PTI testing, gathering vehicle data) but only if the OBD port remains open!
- Direct acces to in-vehicle data is key

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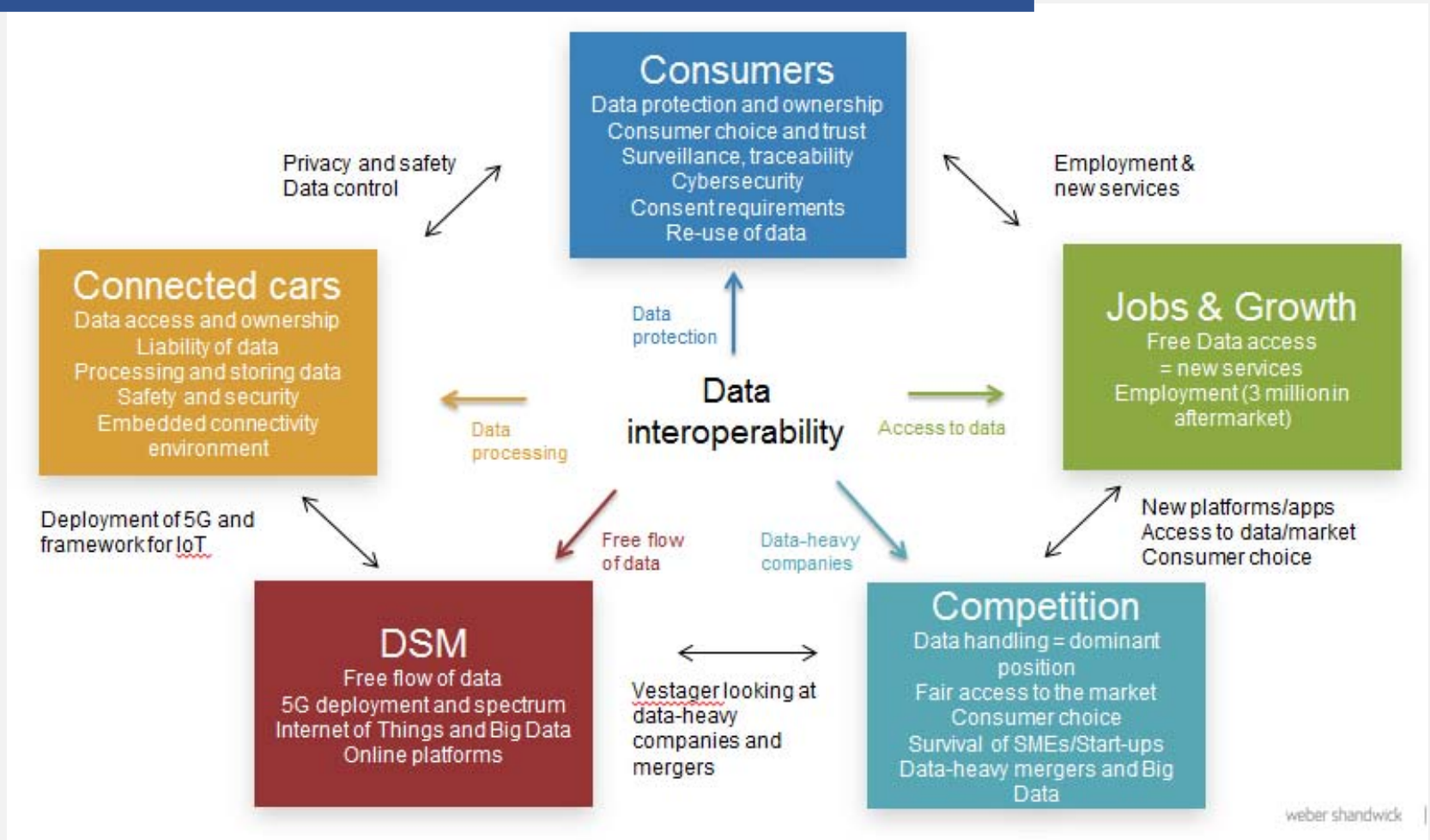
It's all about data control and functionalities



Vehicle-related services in the digital era

Access to data is the key!

New requirements for innovation and competitiveness:

- Capacity to perform an early detection of malfunctions to alert the driver before a breakdown or damage occurs!
- Innovative services such as ‘predictive servicing’, based on analysis of dynamic in-vehicle data or GPS related services have raised customer expectations.

➔ This needs to be reflected in legislation!

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Industrialisation – what does that change?

- Equipment for the manufacturing is not sold anymore but more and more leased/rent → new service provided!
- Multitask hybrid equipment will be created
- New training needed for human capital
- Increased level of intelligence in the process
- Questions:
  - Are there new composants/materials?
  - How will you ensure transition from ‘old products’ to new products generation?
  - What about human capital?

Update on WG activities

WG2 – Chairmanship

- Following a discussion at Automechanika with Mr. Neumann, it appears that according to him Bosch's current position is not so problematic for WG2.
- To ensure transparency, it was suggested to report about the state of affairs and to ask officially to WG2 members for their opinion at the next WG2 meeting (to be scheduled in November).
- After that, new elections might take place but no candidates yet.

WG2 –VDA Paper: access to the vehicle and vehicle generated data (1)

- The VM is the 'system administrator' bc if open, new risks of safety/security/data privacy.

  WRONG: VM should only be held accountable for the physical car on the street (type-approval) vehicle machine generated data are not owned by anybody. IAM will always use the highest safety and security set by the VM.

- Data available through B2B contracts to OEM interface.

  WRONG: 'take or leave it', possibility to lock out competitors from the market.

- No direct remote access/communication with the vehicle, only via the VM server.

  WRONG: competition should be ensured between OEM and IAM, IAM shoudl have remote access.

- No direct ECU triggers over the air by third parties (exception only B2B).

  WRONG: OBD port will be closed during driving and no EU triggers over the air. This is the end for independent dongles and boxes and their ability to provide remote access to real time data.

  Unified diagnostics services under ISO 14229, using VMs diagnostics routines, not multi-brand tools

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WG2 –VDA Paper: access to the vehicle and vehicle generated data (2)

- Access to third-party is given in a 'non-discriminatory manner'

  WRONG: they understand the 'non-discrimination' as NOT applying to them but only between third-party services.

  The VDA paper is highly discriminatory on the data (VM reserve themselves all data categories but not for the IAM), on the timeliness of the transfer via the B2B interface (reference to the point when the data leave the VM server) and on the functionalities (no raw data/functionalities available for innovation, only aggregated/processed data for the IAM).

- There are 4 categories of data.

  WRONG: scope of the data, quality not clear. A piece of data normally falls into more than one category and could then be refused because falling into a VM-restricted category. Any other data to be negotiated over B2B contracts.

- OBD port/Diagnostics.

  WRONG: no clear how and when the OBD port will remain open (only in the workshop and for emission until migration into the ExVe Server). Without access to real-time raw data, no multi-brand diagnostic tool can be developed. Only reading/no writing! No reverse engineering possible!

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WG2 –VDA Paper: access to the vehicle and vehicle generated data (3)

- Data Privacy: data made available to third parties, which have been authorised by the customer for processing (i.e. data that require identification of the user or the vehicle, processed by contract or consent of the customer: vehicle position/VIN)

  WRONG: VMs understand themselves as being responsible for the collection and management of the customer consent and the transfer of the specific data per vehicle. IOs will have to show to the VM the contract they have with the individual customer.

  This major disadvantage is slightly softened by servers such as e.g. CARUSO, as individual companies can hide behind that server for their business model but not for the customer data.

- Monitoring: data access is done over an interface to the OEM backend server with B2B contract.

  WRONG: VMs authorised themselves to indeed monitor every transaction to verify the correct autorisation and the correct data release against the contract agreed between the 3rd party service provider and the customer.

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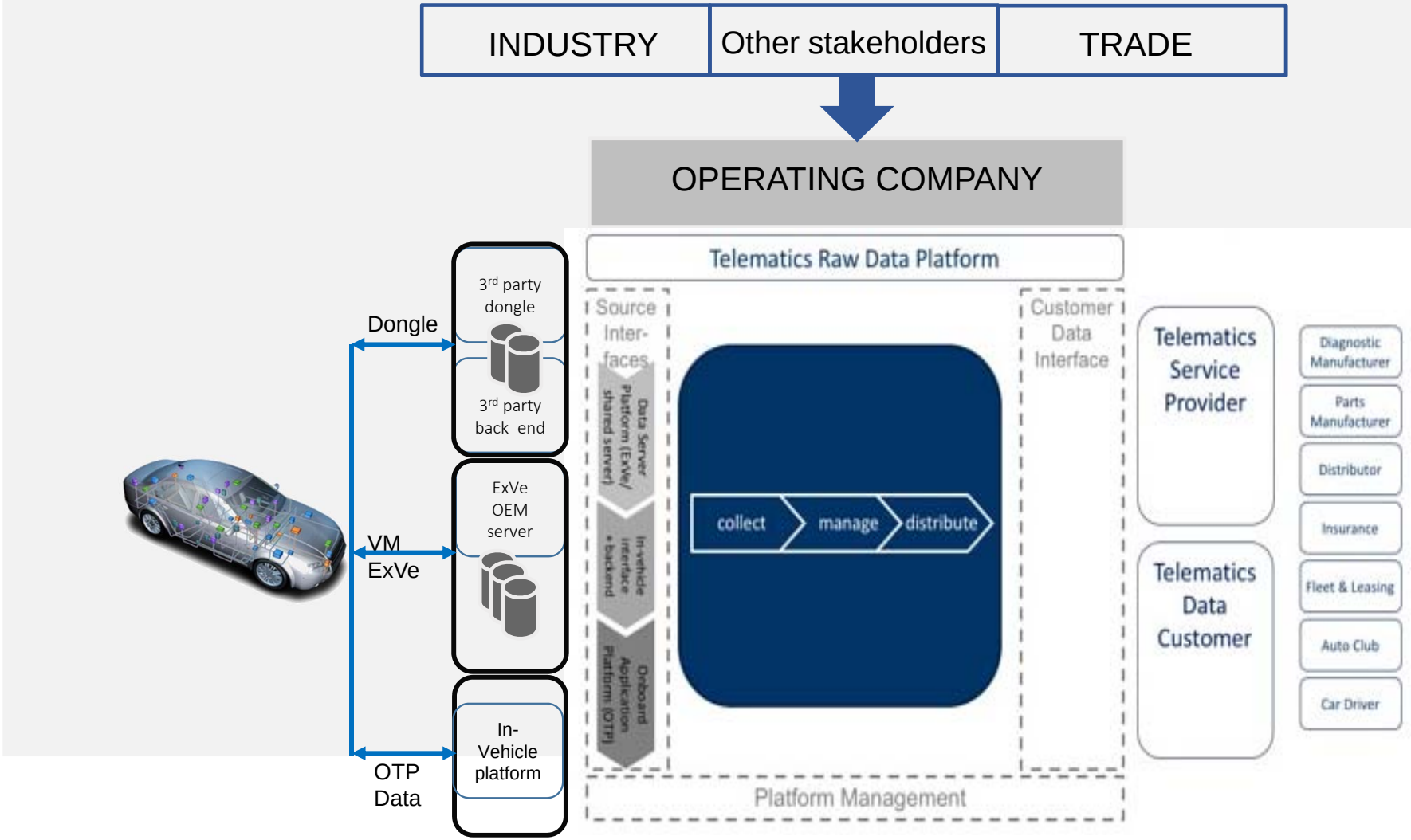
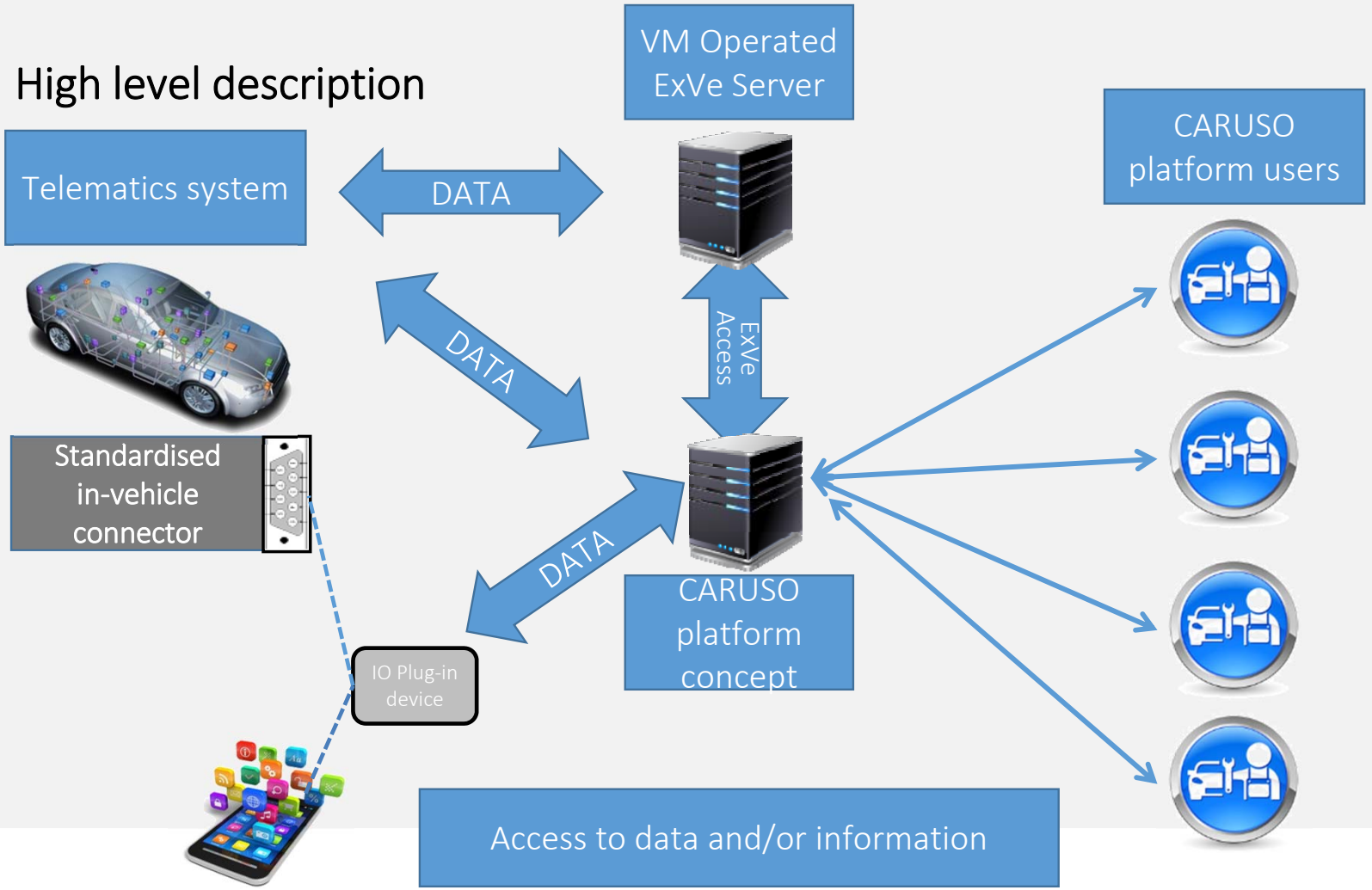
Caruso - Independent Telematics Platform



Caruso - Independent Telematics Platform



WG2 –VDA Paper: access to the vehicle and vehicle generated data (4)

- VDA Paper was signed by CLEPA (incl. Bosch, Hella, Continental, …)
- Risk that this paper becomes legislation at EU level to solve rapidly the issue of accessing in-vehicle data
- VDA Paper promoting the Extended Vehicle Concept
- Diagnostic is the final 'leverage' to get access to that data, as Extended Vehicle only foresees VM diagnostic routine, no independent multi-brand, no reverse engineering possible anymore, OBD port not remaining open.
- Next steps:
  - Free flow of data initiative
  - C-ITS Study on access solutions to in-vehicle data and resources, awarded to TRL (UK), will be launched very soon and run for 9 months. Results will feed into EC report and any future legislation (if EC will legislate), it will be a political decision!

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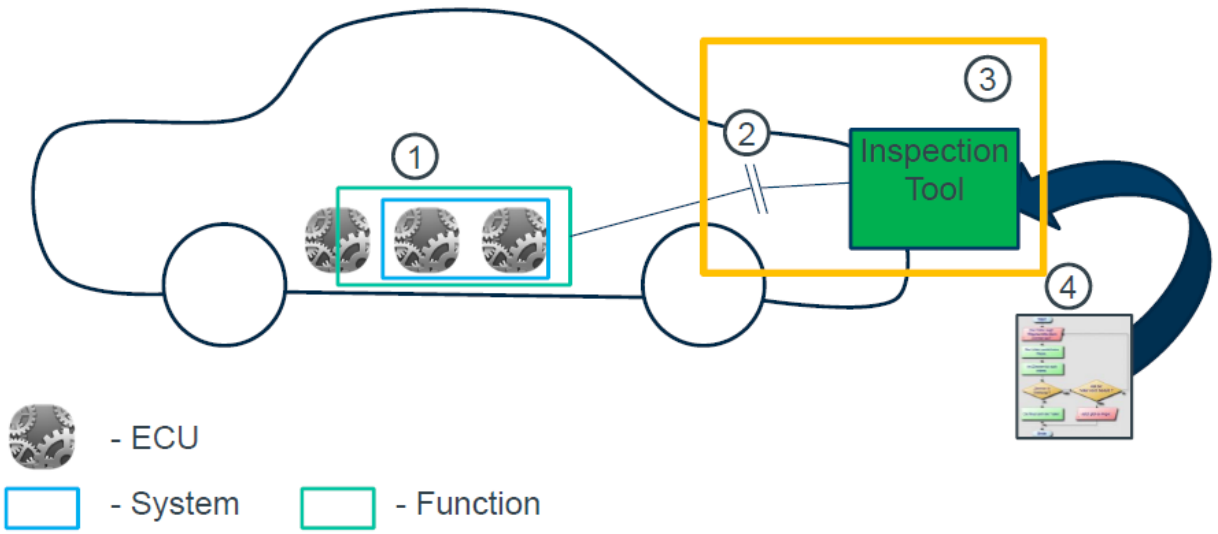
WG2 –VDA Paper: impact on EGEA Members (5)

- Diagnostic tool manufacturers
  - Not being able anymore to communicate with the car
  - Not being able anymore to do reverse engineering
  - Introduction of more web based diagnostics by the VM's

- PTI
  - Vehicle self-testing using remote OBD monitoring
  - Controlled connection with ASAnetwork in PTI testing stations (access by digital certificates)
  - Repairers less able to prepare the car for PTI due to absence/control/cost of communication with the car

ePTI

Scope of ISO NWIP



1. Definition what has to be inspected (e.g. function, thresholds, conditions)
2. **Interface vehicle -> tester (e.g. communication, security, timings, services)**
3. **Data to interpret information (e.g. format, content, exchange methods, versioning)**
4. Definition of inspection sequences and methodologies

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ISO TC22/SC31/WG7 ePTI

Objectives and requirements

LEGISLATION

UN/ECE – VEHICLE REGULATIONS (WP.29)
- Identification of requirements for vehicles in periodical technical inspection, with respect for new technologies
- Analyze existing UN/ECE documents and recommendations for development
- Informal Working Group "Periodical Technical Inspection".

EU – DIRECTIVE 2014/45/EU
- Implementation of electronic vehicle inspection of safety related systems in Europe, in consideration of the EU-Study ECSS with focus of error-management analyses and active checks of actuators.
- Task Force „Roadworthiness Committee".

GERMAN BMVI* – ROUND TABLE HAF**
- further development of the today solution "§29 StVZO" in an ISO-standard, additional discussions related to test-documentation and vehicle homologation.
- BMVI-Subworkinggroup "ePTI"

NHTSA - REVISED NOTICE OF INTENT (NOI)
- legislative requirements for diagnostics and failure prognostic for safety related systems
- NHTSA asked SAE for support

ADDITIONAL REQUIREMENTS
- probably new or additional requirements by other authorities
- analysis of all requirements necessary

Requirements Consolidation

POSSIBLE POINTS FOR DISCUSSION	COMPLEXITY
read basic diagnostic information (e.g. VIN)	
read out conditions of safety relevant systems	
fitment test (check if vehicle is equipped with the systems it should be)	
functional check of exterior lighting	
authentication and authorization mechanism	
...	
validation of the test procedure	
triggering and activation of actuators	
validation of sensor output values	
access to error-management (read DTCs)	
identification of the defective component	
protection for manipulation of the checks	
...	
enhanced data logging	
remote diagnostic	
fault simulation	
...	

*BMVI = Federal Ministry of Transport and digital Infrastructure
**HAF = Highly Automated Driving

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ISO TC22/SC31/WG7 ePTI

Scope in details:

- communication between the Inspection Tool and the ePTI relevant system
- reading of basic vehicle information (identification, systems fitted)
- specification of required ePTI tests:
  - fitment test (e.g. Adaptive Cruise Control – equipped [YES; NO])
  - status test (e.g. Airbag – [OK; NOK])
  - functional check (e.g. Activation of exterior lighting)
- authentication and authorization mechanism → needed but big threat for EGEA members!
- protection against tampering of the defined ePTI test methods

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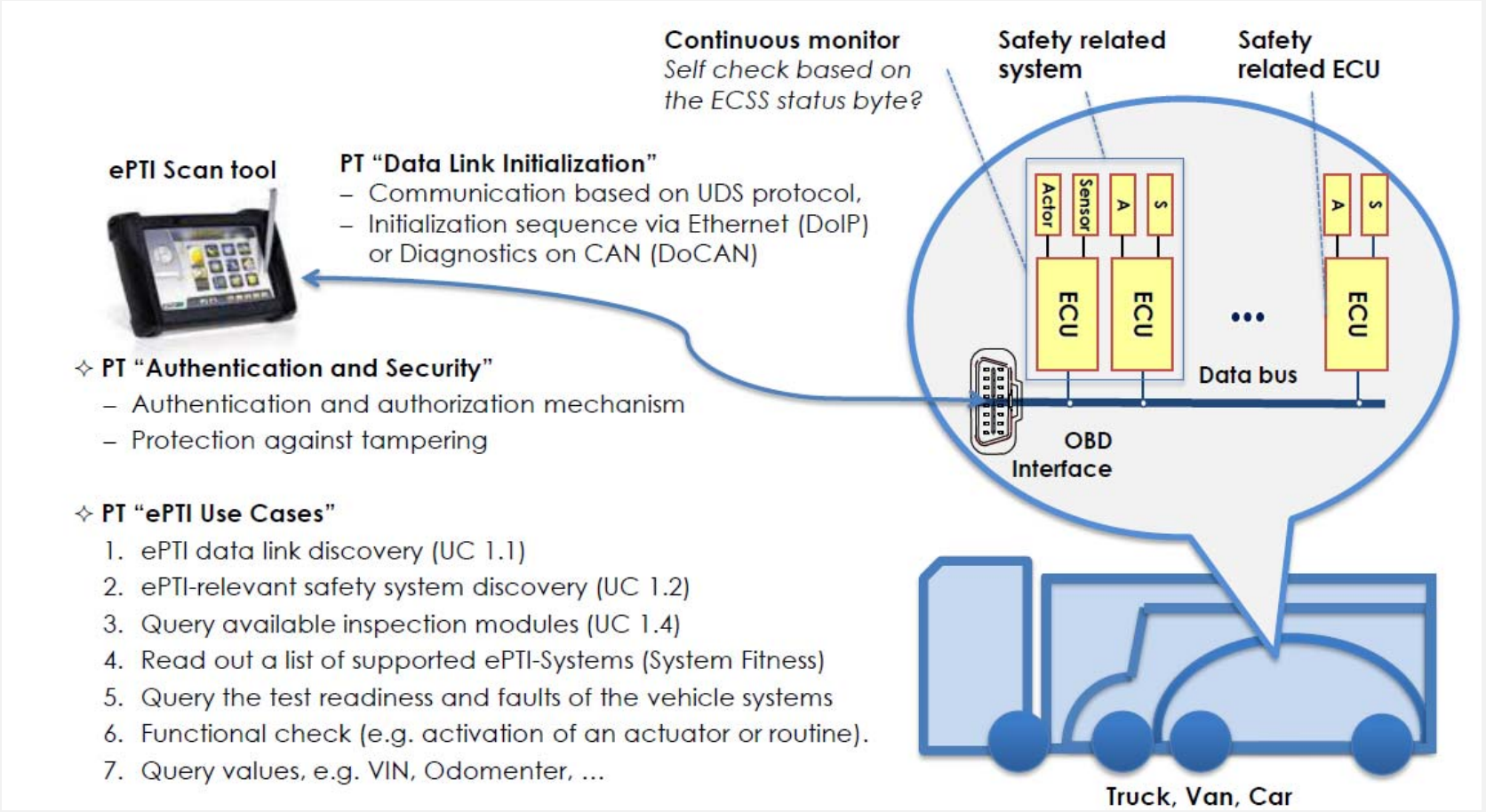
ePTI – Big Picture



Next Steps

- **Next f2f meeting from 12th to 14th October in Berlin**
- **EGEA not able to attend**
- **Key points will be discussed:**
  - Report about the last authentication and authorization mechanisms
  - Last contentious Use Cases:
    - Technical Fault Information Solution (UC 5.3)
    - Software version and integrity information (UC 4.3, 4.4)
    - Readiness Status and conditioning (UC5.1 and 5.2)

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WG2 – CITA SET II Study

- Call for funding was sent to all members
- Interest expressed by several companies and national associations
- Following discussion with CITA, the costs will be 70.000€ (to be divided by 2)
- Financial contribution for each company: 3.000€
- Question: how to proceed if CITA and EGEA do not have the same understanding/opinion on a decision made. How to decide if both associations have 50% of the decision?
- Next steps: collect money + invoicing details → CITA will directly send all invoices

WG2 – CITA SET II Study

Country	Association/ Company	Name	Amount	Confirmed?
Austria	No feedback	AVL DiTEST	3,000€	No
France	Company	FOG Automotive	3,000€	Yes
France	Company	Actia Automotive	3,000€	No
France	Company	Capelec	3,000€	Yes
Germany	Company	Bosch	0	No interest
Germany	Company	Hella/Gutmann	3,000€	Yes
Germany	Company	Maha	3,000€	Yes
Germany	Company	WOW	3,000€	No
Italy	Companies	5 companies	15,000€	No

WG2 – CITA SET II Study

Country	Association/ Company	Name	Amount	Confirmed?
Italy	Company	Brainbee	3,000€	Yes
Netherlands	Company	TEN Automotive Equipment	3,000€	Yes
Spain	No feedback	No feedback	No feedback	No
Sweden	Company	Opus Equipment	3,000€	Interest shown
UK	Association	GEA	+/- 6,000€	No
		TOTAL	51,000€ (tbc)	

WG6 – Blackroom Suspension activities

- Last meeting held on 28th of September – without Bosch and Maha as they did not sign the confidentiality agreement!
- After expression of their respective disappointment that the 2 major players were not present, the participants agreed for a single specification.
- Next steps would be the drafting of these specifications to be finalised asap (tbc).
- As it is now at a blackroom project, no minutes and no information will be circulated.

WG7 – European Market Data Study (1/2)

- Common understanding that there is a need to create an EU market data study for the EU garage and test equipment market
- After discussions, it appears that AICA is not relying anymore on Leo-Impact consulting despite the fact that it was ultimately agreed that aggregated data will be submitted instead on particular company data
- Meetings took place to discuss how to finalise our agreement and how to continue our work together but differently
- After internal discussion between AICA/ASA/EGEA, AICA & ASA finally decided that no project could be done together → decision to sign a termination contract with Wolk & Leo-impact consulting

WG7 – European Market Data Study (2/2)

- Next steps:
  - AICA/ASA/EGEA signed the termination contract mid of September 2016
  - Payments to be done once final invoices/cancellation invoices are received

	AICA	ASA	EGEA
26.000€ to be paid by the 22nd of September 2016	12.380€	12.380€	1.240€
50.000€ to be paid by the end of December 2016	23.810€	23.810€	2.380€
3.240,90 € zzgl. 615,77 € - Lawyers' fees to be paid by the end of December 2016	1.836,5€	1.836,5€	184€
Translation fees for the termination contract	tbd	tbd	tbd

  - AICA & ASA already in discussion to combine their figures at national level
  - What about others EGEA members?

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WG9 – EGEA Label - MACs

- Legal process:
  - Statutes have been officially updated and published into the Belgian Moniteur belge.
  - Decision made by all Board Members to stay with the anonymous pre-filling and not to submit any official ruling process (4 more months of legal procedure without starting labelling activities). No further action required.

- Website update + creation of logo:
  - EGEA logo will be updated
  - New label logo will be created
  - EGEA website will be updated, inclusion of a new 'Get your label!' dedicated tab/page

- Technical side:
  - A face-to-face meeting will be organised beginning of November with the WG9 Chairman, the Vice-Chairman, EGEA Secretariat to review all technical documents and see whether any update is needed.
  - After that, agreement on the final documents will be asked to all WG9 Members before official launching.
  - As regards the notified bodies, Neil and Pete Bradley suggested not to inform them but rather prepare a complete flow chart for the marketing of our label towards our members.

WG10 – EU Vehicle Test Equipment Network

- EGEA LOI was sent to Asanet shareholders confirming our support but with some limitations in order to ensure fair and open competition in the market:
  - It has to be established that the asanetwork protocol is “free content”
  - It is required that the development of alternative “network managers” is legally allowed.
  - It is to be defined how such “asanetwork compatible” products can be labelled, and under which label (e.g. asanetwork, EGEA label, creation of a new label, ….).
  - It should be ‘open’ to any third party to avoid any cartel

- BUT Asanet disappointed that:
  - Agreement was initially reached in Munich that asanetwork GmbH will become open for international shareholders and the asanetwork Technical Working Group will be open for EGEA members as well.
- Asanet requested to organise a meeting to solve all irritations as the EGEA proposal is far away from what was agreed in Munich.
- Next steps: suggestion to start discussing the commercial/political part of the business with Board Members from respective associations/companies.

New WG3 – Digitalization & Innovation?

Who?

- Telematics companies

  (Hubio, Launch Golo, Oocar, Sixsense…)
- Application developpers

What?

- EC initiatives:
  - Industry 4.0
  - Internet of Things
  - Digitalization

Mutual Recognition

- Mutual recognition should be the simplest way of allowing products to circulate freely in the single market: legally marketed in one country means legally marketable in up to 27 other countries. Yet, it seems that only a few companies opt for the mutual recognition route in order to access new markets.
- This is why the European Commission decided to launched this online public consultation to seek the views on all stakeholders on:
  - the mutual recognition principle and its possible shortcomings
  - the functioning of the Mutual Recognition Regulation
  - potential options to be explored for the revision of the Mutual Recognition Regulation
- EGEA replied to EC public consultation (deadline: 30th September)
- Next steps: pending on the Board decision, EGEA to start working on that topic.

PTI – Access to PTI technical information

- Next RTWG (Technical WG) on the 12th of October
- Last open points regarding the technical information needed for PTI will be discussed.
- EGEA together with CITA still fighting for the functionality testing for headlamps at least, EC not in favor of such complete test and would prefer to rely on OBD/MIL lamp only.
- The full text will be adopted by all Member States at the next Roadworthiness Committee. Last lobbying activities should therefore be done at national level.
- Next steps: test methods will be updated in a separate delegated act after consultation of stakeholders in a dedicated WG to be launched within 6 months.

For further information, see next slides…

Revision of the Vehicle Type Approval Framework Regulation [Draft Regulation COM(2016) 31 final]

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Current level playing field for RMI

Current EU RMI legislation ('Euro 5/6 and Euro VI type-approval') supports and underpins via technical requirements the basic principles of:

- Effective competition on the market for vehicle repair & maintenance.
- The Internal Market to provide competitive choices and affordable mobility for consumers and business operators.

OEM obligations :

- All information required for diagnosis, repair, inspection, periodic monitoring, software updates for all independent operators;
- Diagnostic information and spare parts identification data

➔ Ensures the legal basis for a level playing field in the analogue era!

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Current 'Euro 5/6' RMI Legislation

<u>However:</u>

As shown in the Commission's 'Ricardo-AEA' Report, independent operators in the automotive aftermarket value chain face serious difficulties in accessing Repair & Maintenance Information (RMI):

- Compliance and implementation problems
- Difficulties with scope of information, formats…
- Lack of enforcement

Urgent need to address <u>legacy problems</u> and update RMI in the <u>Vehicle Type Approval Framework Regulation</u>, where the RMI provisions are being "migrated"

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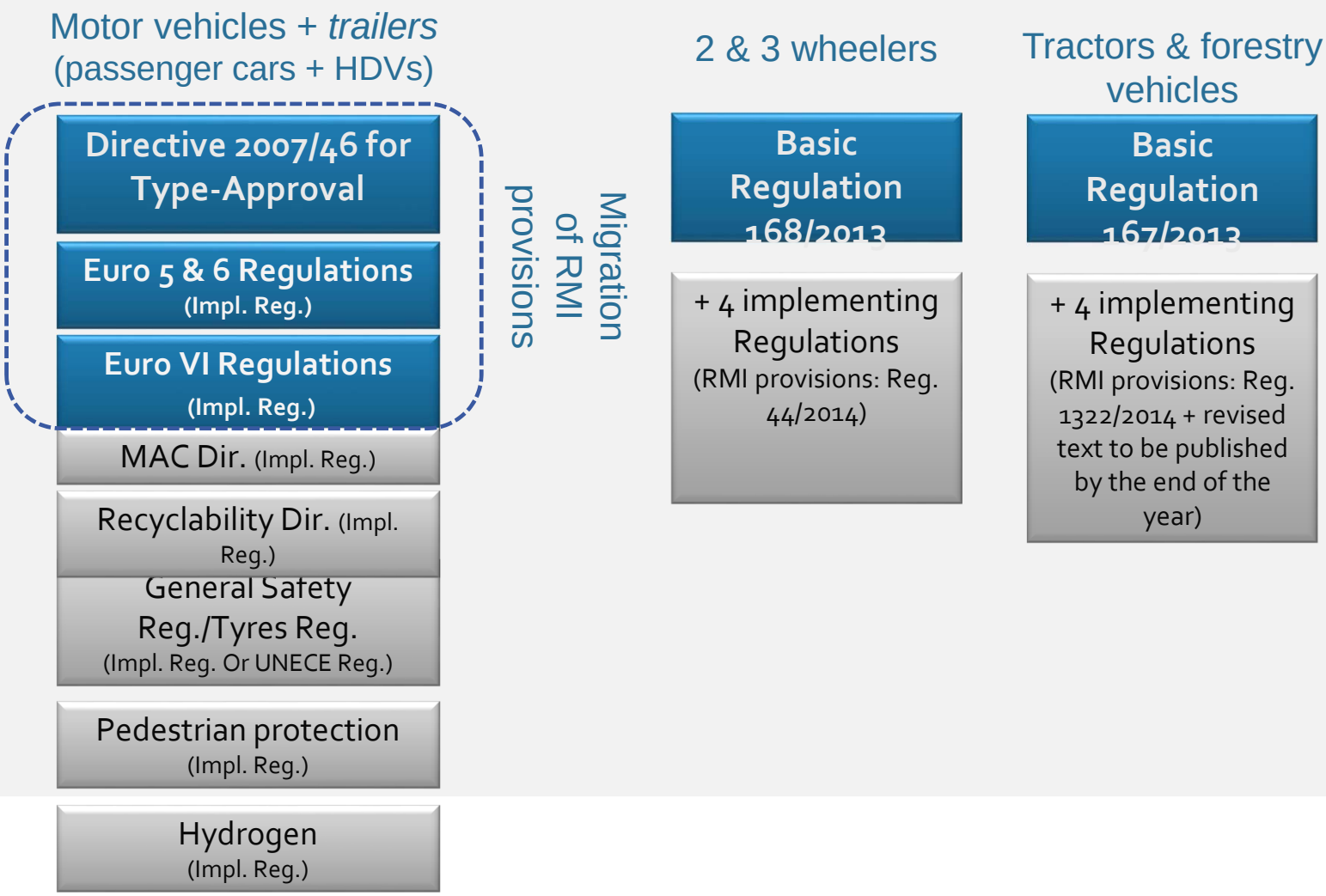
Vehicle Type Approval Framework Regulation – new structure



RMI provisions – AFCAR actions

RMI provisions of Reg. 715/2007 (passenger cars) and Reg. 595/2009 (HDV) consolidated…

… but not modified or improved

Other chapters have been improved to respond to structural weaknesses or the "Dieselgate" scandal

AFCAR acting to:

- Ask European Parliament to act on the Ricardo Report and improve the functioning of the RMI access system
- Screen the regulation and fix transposition errors

New IAM-relevant provisions 1

Reinforcement of independent vehicle type approval testing

- Greater impartiality: Breaking the economic link between the Technical Services responsible for testing and the VMs
- Avoidance of direct or indirect payments by manufacturers for tests and inspections
- Technical Services will be submitted to regular monitoring by TAA Authorities
- National Type Approval Authorities will be submitted to peer reviews

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New IAM-relevant provisions 2

Market surveillance obligations

- More stringent performance criteria, more supervision and coordinated compliance enforcement
- Enhanced requirements for competences, obligations and performances of the Technical Services
- More obligations for TA-Authorities/Technical Services to verify type-approval and conformity of production
- Increased market surveillance obligations of automotive products marketed in the EU (or entering the EU).
- Type-Approval Certificates (vehicles, systems, components, STUs) now limited to 5 years

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New IAM-relevant provisions 3

Emissions:

- Introduction of in-service emissions testing by using 'real driving emissions' test as part of the 'market surveillance'.
- May help increase in-service compliance, but may weaken our claim to maintain tailpipe testing in PTI.
- Could still be a risk that VM's could circumvent the RDE tests by using telematics to change engine map/programming.
- Future PTI emissions test can still be OBD only, but we can also argue that tailpipe testing remains the only reliable method.

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AFCAR Amendments - 1

- **Improved definition** needed and availability of RMI for all IOs, by establishing that the Vehicle Manufacturer (VM) should be the benchmark (and not authorised dealers as it is now)
- **Standard OBD connector**: clear reference is needed + direct access to in-vehicle data to be ensured
- **Roadworthiness testing**: inclusion into RMI definition + EGEA list to include PTI technical information for test tool manufacturers
- **Validation of VCIs**: more robust testing environment that includes conformity compliance is needed + VMs to respond within 6 months to a request for testing

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AFCAR Amendments - 2

- **Reprogramming:** reinstate the reprogramming standards for passenger cars as well + specifications of the high speed communication protocols introduced by VMs to be made available to IOs
- Proprietary communication protocol information to be made available to diagnostic tool manufacturers
- Reprogramming standards should also apply to **diagnostics procedures**
- Availability of **competitive multi-brand replacements parts**: need to access unequivocal parts identification information in bulk

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AFCAR Amendments - 3

- **Remote Diagnostic Support:** to be reinstated into the RMI definition (for HDVs only)
- **Security Forum (SERMI)**: correct misleading wording
- **Standardisation**: no automatic obligation to be imposed for the transfer of International Standards into EU.

Actions & activities in the Member States

Actions to be carried out at 2 levels:

- **EU level**
  - European Parliament: AFCAR had already over 30 meetings since April 2016, and will continue meeting all key Members of the European Parliament (MEPs) depending on the amendments tabled.
  - Field visits have been organised in the UK for the rapporteur/ in the Denmark for the shaddow rapporteur/ in the UK for the EP delegation to illustrate practically all our concerns laid down in our position paper

- **National level**
  - Your support needed to build AFCAR national alliances and organise meetings with your Ministries
  - Indications of framing activities together with your colleagues have been sent to you this summer.
  - Next Council (ministries) Working Party on Technical Harmonisation meetings: 25th October 2016, 15th November 2016 & 6th December 2016

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GEAR2030

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EUROPEAN GARAGE EQUIPMENT ASSOCIATION

GEAR 2030

A "high level" political process on the automotive industry

- 2 years project: 2016-2018
- Aim: "develop recommendations to reinforce both the short-term and long-term competitiveness of the European automotive industry"
- 25 members
- national authority representatives
- EU associations, trade unions and other groups…
- Will set the political and legislative framework for the coming years
- EGEA is not part of the "High Level Group" but is part of the Working Groups

GEAR 2030

A "high level" political process on the automotive industry

- Launched in January 2016 – in the presence of 5 EU Commissioners
- Already 10-15 meetings (WG + project team meetings)
- Three main work areas:
  - WG1: the adaptation of the value chain to new global challenges (e.g connectivity, electrification, shared-mobility, digitalisation, 3D printing, …)
  - WG2: automated and connected vehicles
  - WG3: trade, international harmonisation and global competitiveness

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GEAR 2030

Questions to members

- FIGIEFA is currently mandating Roland Berger Consultancy to analyse the short-term and long-term competitiveness of the European automotive industry from an aftermarket perspective, with a strong focus on parts
- EGEA has been invited to be involved in this paper and that a strong focus is taken on garage and test equipment
- As we are currently seeing that most of EGEA members producers of diagnostic tools are shifting their aftermarket activities towards more OE-related activities, isn't it the right time to analyse the future of EGEA activities regarding new challenges?

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Challenges and opportunities for the Aftermarket with the connected car

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The connected car and telematics

The future of car repair and servicing in the digital era

Remote diagnostics, prognostics & repair

Maintenance management

Eco driving

TPS eCall

Repair management

New consumer expectations, where access to data is ‘key’:

- More remote, interoperable and combined service offers
- Faster, more accurate and more predictable services that reduce downtime and better identify the spare parts requirements
- More location-based and customised innovative services

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OEMs' Extended Vehicle

No fair competition for Independent service providers:

- Reduced scope of data (e.g. no live data) and limited functionality
- VM can monitor business of IOs, their competitors and impose contractual conditions

➔ No open market place with a variety of products/services

➔ True consumer choice no longer possible!

Key objectives for the Aftermarket

- Continue to have access via a standardised in-vehicle connector to the vehicle data, without monitoring from vehicle manufacturers
- To be able to directly access data via the in-vehicle open access telematics platform
- Access at least the same level of data, in the same timescale, and with the same frequency as is used by the OEMs to provide their own services
- Access to the in-vehicle display and controls for the consumer to select competitive services safely.
- Implement interim solutions to ensure continued access to in-vehicle data until a final solution is agreed and implemented

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How do we see the future?

Interoperable in-vehicle platform

Driver decision and consent with whom he shares the data

Decentralised system with intelligence and functionalities in the vehicle for OEMs, IOs and authorities (if required)

data

examples

secure access

Independent repairers

The Good Garage Scheme Registered Member

AA halfords

(examples)

Authorised repairer/dealer

Independent emissions control

Department of Energy & Climate Change

Fair & unmonitored competition between service providers
➔ true consumer choice !

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Key objectives for the open telematics platform

- Allow the aftermarket to have direct access to the vehicle and its data.
- Access to real time data with the possibility to develop the full array of functionalities and services.
- Manufacturers cannot monitor our business activities.
- Safe and secure - the vehicle should be capable of protecting itself and of ensuring safe access and implementation of services.
- Access to in vehicle data is not controlled by the VM to allow innovation and competition
- Data such as location services can be accessed, as they are not covered under current legislation
- Multiservices, so that consumers have a real choice of their service providers.

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Key objectives for the Aftermarket-HMI

- It can demonstrate the implementation of an OTP and that by using VM specific requirements, that access to the in-vehicle data can be achieved in a safe secure manner.
- Demonstrate the principle that when VM's choose to partner with Google and Apple that an open platform is already being implemented
- Greatest challenge is to access all in-vehicle data
- The aftermarket also needs fair and equal access to the HMI to allow the customer to view and select competing services.
- Goods and services can be offered using similar principles that Google and Apple do via the HMI, as this is the safest way to interact with customers as it is covered under legislation!

HMI as the customer portal

Many VMs have adapted their telematics infrastructure to include Apple & Google telematics solutions

android auto

Interim solutions

Key objectives for the Aftermarket – OBD connector

- The physical connector needs to be maintained as a life jacket until a viable interim alternative or OTP is in place. (vehicle manufacturers are claiming it must be closed as it is a security and safety risk).
- The data via this connector will also need to be maintained.
- Currently it is only covered by emissions legislation, so access to all other data can be blocked.
- Additional standardisation for the connector and the data may be necessary, ‘OBD+’ – e.g. Ethernet
- We need to ensure that OBD plug-in devices are seen in a more positive light e.g. that they are only used as the IAM does not have access to the vehicle telematics system

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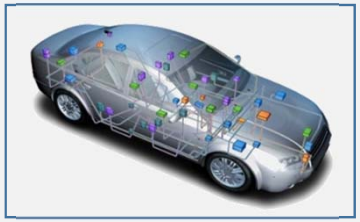
Plug in device remote services

High level description



Standardised in-vehicle connector

IO Plug-in device

Telematics system

DATA

DATA

ACCESS

Driver's mobile device depending on the service model

Access to data and/or information

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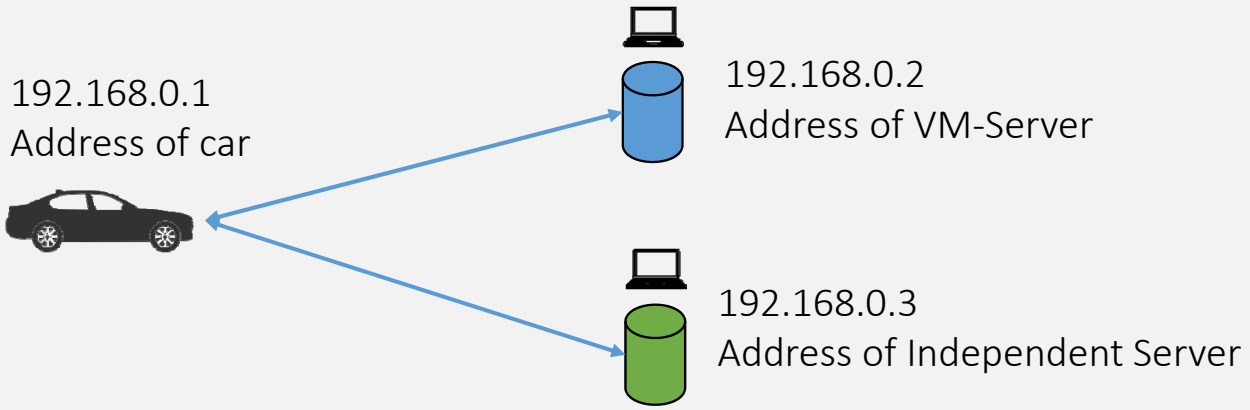
The 2nd IP Address

- The use of two IP addresses allows the data to be transfered to different locations - both Aftermarket and VM.
- VM will know what data is requested, but will not know by whom or for what service.
- Independent Servers will be verified by a neutral authority to ensure compliance for safety and security.
- Possibility for multiple services to access by adding additional IP adresses.
- Access to the same data in the same time Frames with the same freqeuncy.
- Write functions would be difficult to implement, without an in vehicle sound access order.

The 2nd IP Address

2nd-IP-Adress: Assumptions and Concept

General principle of the 2nd IP address:
The car is communicating with 2 partners in parallel.
Neither communication partner can monitor the other



Vehicle would broadcast to both servers

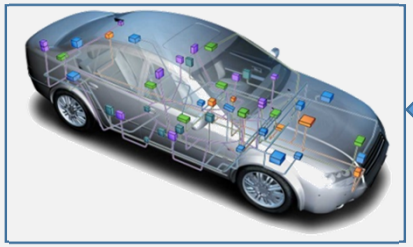
The shared server

- Will support access to other stakeholders who need data access i.e. aftermarket, enforcement agencies.
- Difficult for VMs to monitor IO activities if server is operated by a neutral 3rd party.
- Shared server could be more acceptable for the legislators.
- Possibility to improve security by using the standardised extended vehicle requirements.
- Liability could also be addressed as all data would flow centrally.
- However, it will be administratively complex as all VMs and stakeholders would be using a single server and there would need to be agreements about data/cost sharing.

The Shared Server concept (abstract)

High level description

VM telematics system



VM applications

DATA

DATA

Shared Server (VM/IOs) controlled by stakeholder consortium

Shared Server (run by mutually acceptable third party operator e.g. SAP, IBM)

ACCESS

ACCESS

Independent Operators*

Access to data and/or information

VMs

*(and authorities and other legitimate parties…)

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Participation in ISO ExVe

- As ISO standards are referenced in legislation it is important we are involved in ISO 20077-20078-20080.
- Objectives:
- To stop ExVe as originally proposed, by influencing the outcome through participation.
- Challenge the reasons for actions during the process, for example reasoning behind ‘risk assessment’.
- In parallel, feed back the process to the Commission to explain difficulties and practices that favour the VMs.
- Essential that we have world wide participation as this is a world wide issue with world wide voting.
- Liaise with other aftermarket participants, to ensure a unified approach.
- Could the aftermarket develop its own standard and get it referenced in legislation?

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Developing discussions worldwide

- Restricting the OBD port is a reality - this will change the vehicle architecture. It may also become necessary to have pre-verified applications to access data.
- VMs are proposing only ‘Extended Vehicle’ (ExVe) – which is being standardised (ISO 20077, 20078 & 20080). This could be a remote VM server or be implemented in-vehicle, or a combination of both.
- VMs want to pre-define data ‘Use Cases’ - to ‘understand’ what is needed & to restrict what access conditions would apply. VMs want to sell ‘services’.
- Security, safety and product liability issues are constant arguments from the VMs

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C-ITS Platform – agreed principles

- Maintain the 16-pin connector as it is now
- Data that is available today should be maintained as a minimum
- No anti-competitive monitoring will be tolerated
- Access to in-vehicle data/information should be done on a non-discriminatory basis compare to vehicle manufacturers (and no longer just their authorised repairers)
- Access to in-vehicle data/information is of course possible without compromising the security/safety of the vehicle.

BUT….

- Are these sufficient and how can they be achieved?