

The logo for the European Garage Equipment Association (EGEA) is located in the top left corner. It features the acronym "EGEA" in a large, bold, blue sans-serif font. Below the acronym, the full name "EUROPEAN GARAGE EQUIPMENT ASSOCIATION" is written in a smaller, blue, all-caps sans-serif font. The text is centered within a light blue oval that has a subtle gradient and a slight drop shadow, giving it a three-dimensional appearance. The background of the top left corner is a dark blue curved shape with a pattern of small, lighter blue squares.

EGEA

EUROPEAN GARAGE EQUIPMENT ASSOCIATION

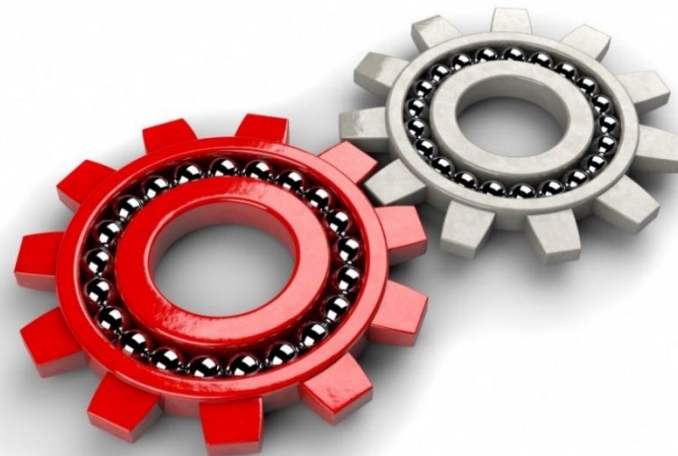
EGEA WG2 Meeting -Diagnostics-

27.01.2016, Brussels

"Providing more influence, better information and stronger support to the Garage and Test Equipment Industry!"



VEHICLE TELEMATICS ACCESS TO IN-VEHICLE DATA: UPDATE & DISCUSSION

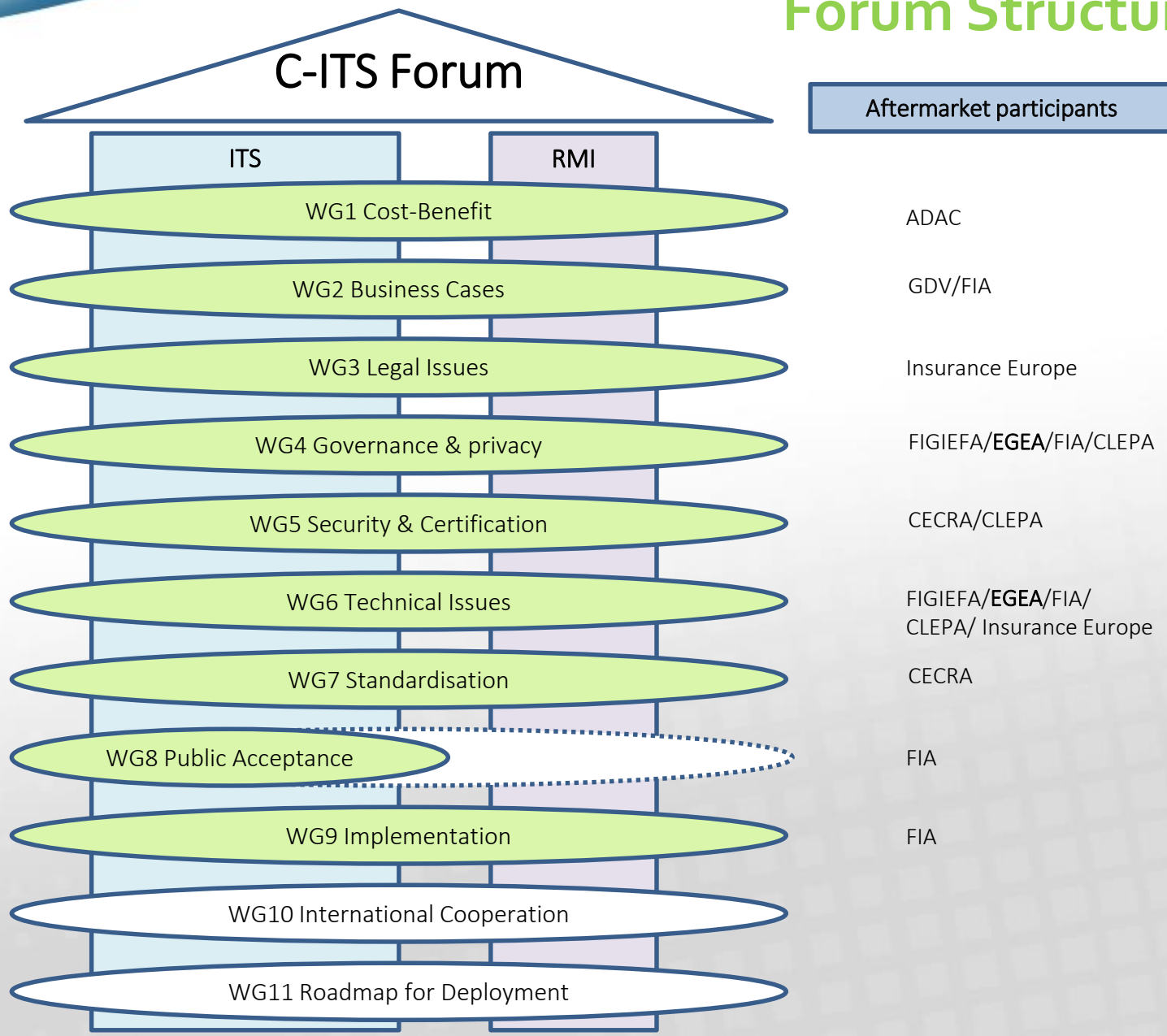


eCall Regulation Mandate

UPDATE ON C-ITS FORUM DISCUSSION

European Commission - C-ITS Forum Structure

Forum established by EC, following eCall (art.12)



Developing discussions in Brussels

- Closing of 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 only proposing 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 - to 'understand' what is needed, but also to restrict what access conditions would apply. VMs want to sell 'services'.
- Security, safety and product liability issues are constant arguments from the VMs
- The challenge for the Aftermarket is how to keep access to in-vehicle data whilst solutions for an in-vehicle platform are agreed and implemented.

Key objectives for the Aftermarket

- **Continue to have access via a standardised in-vehicle connector to the vehicle data, free of charge and without monitoring from the VM.**
- **Directly access data via the in-vehicle open access platform**
- **Access at least the same level of data, in the same timescale as is used by the VMs to provide their own services.**
- **Using in-vehicle display and controls for the consumer to select competitive services**
- **Implement interim solutions to ensure continued access to in-vehicle data until a final solution is agreed and implemented.**

EGEA WG2 – previous agreed principles

- **Maintain the 16-pin connector as it is now**
- **What data is available today should be maintained**
- **No monitoring will be tolerated**
- **Access to in-vehicle data/information should be done on a non-discriminatory basis compare to vehicle manufacturers (and not anymore authorised repairers)**
- **Access to in-vehicle data/information is of course possible without compromising the security/safety of the vehicle.**

BUT....

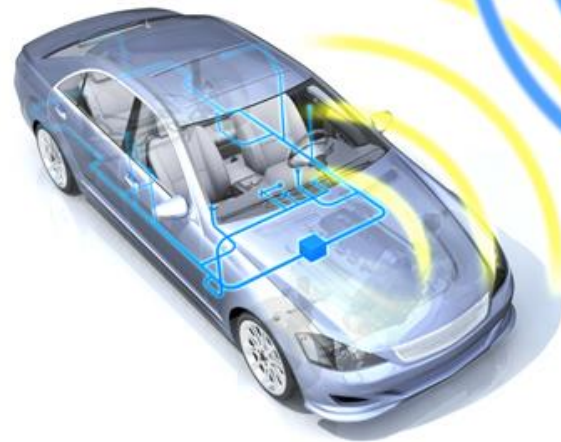
- **Are these sufficient and how can they be achieved?**

C-ITS Report & WGs

- Report was officially released by the Commission on 21st January
- No agreement on a final model for data access, but progress was made in elaboration of Open Telematics Platform Concept, and interim solutions e.g. shared-server and OBD+ physical connector have been conceptually addressed in the Report.
- EGEA and AFCAR allied support interoperable, secured and standardised telematics platform
- Some WGs will continue, but no certainties about WG6

Tender – Study on access to in-vehicle data and resources

- Call for tender for the study on access to in-vehicle data and resources has been published on 23 December 2015 by Commission
- Deadline for submission: 4th of March 2016
- Please inform any interested consultancies, universities or research centres...

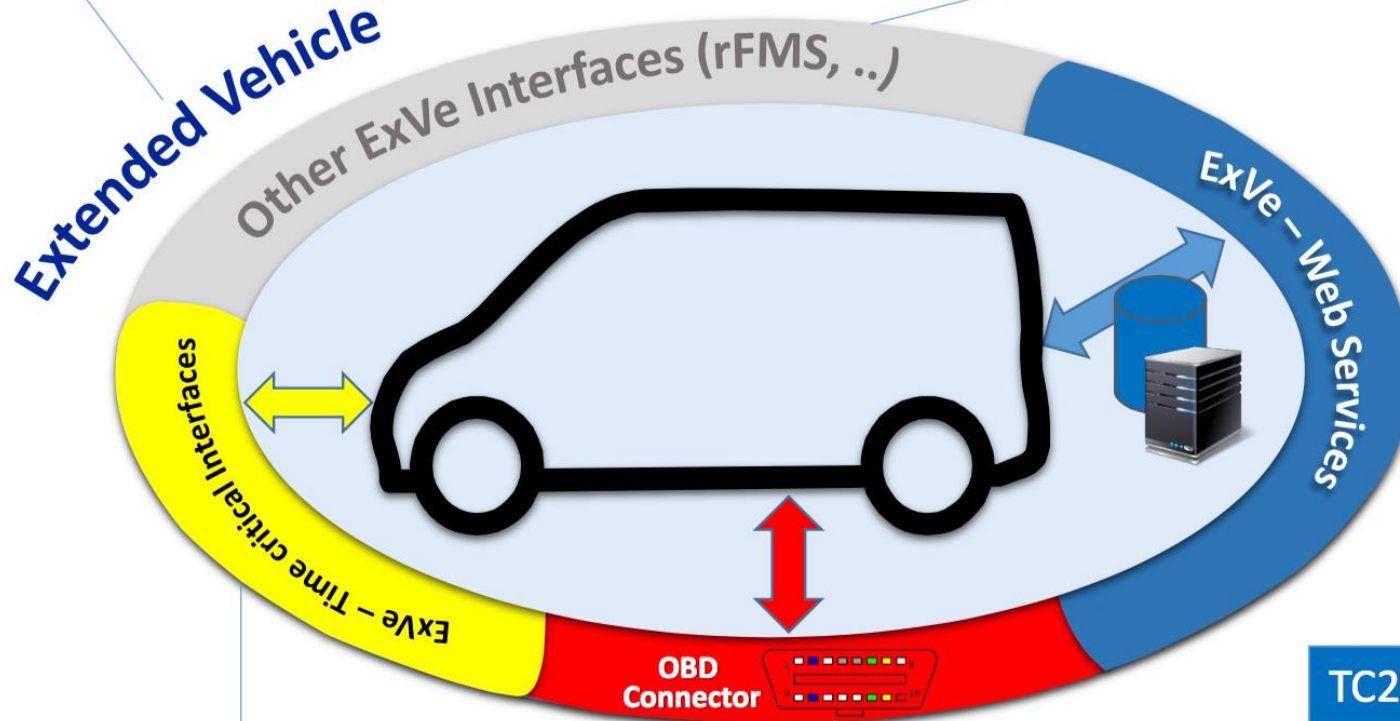


EXTENDED VEHICLE – CONCEPT EXPLANATION

ISO 20077 schematic of ExVe

TC22/SC31/WG6 for
Vocabulary, methodology

ISO or non ISO standardisation bodies



TBD
Under consideration between TC204/TC22

TC22/SC31/WG2

TC22/SC31/WG6

VM definition of ExVe from C-ITS:

An extended vehicle is understood as a physical road vehicle with external software and hardware extensions for some of its features. These extensions are developed, implemented and managed by the vehicle manufacturer. The vehicle manufacturer is fully responsible for the communication among the various parts of the extended vehicle, especially between the internal and external software and hardware components.

The extended vehicle offers open access interfaces for the provision of services by vehicle manufacturers or third parties. The interfaces need to be designed and implemented in such a way that access to the extended vehicle does not jeopardize security, safety, product integrity, data privacy or any other rights or legal obligations. Depending on the purpose for which access is sought, the extended vehicle can be accessed through various interfaces, one of which is a web interface

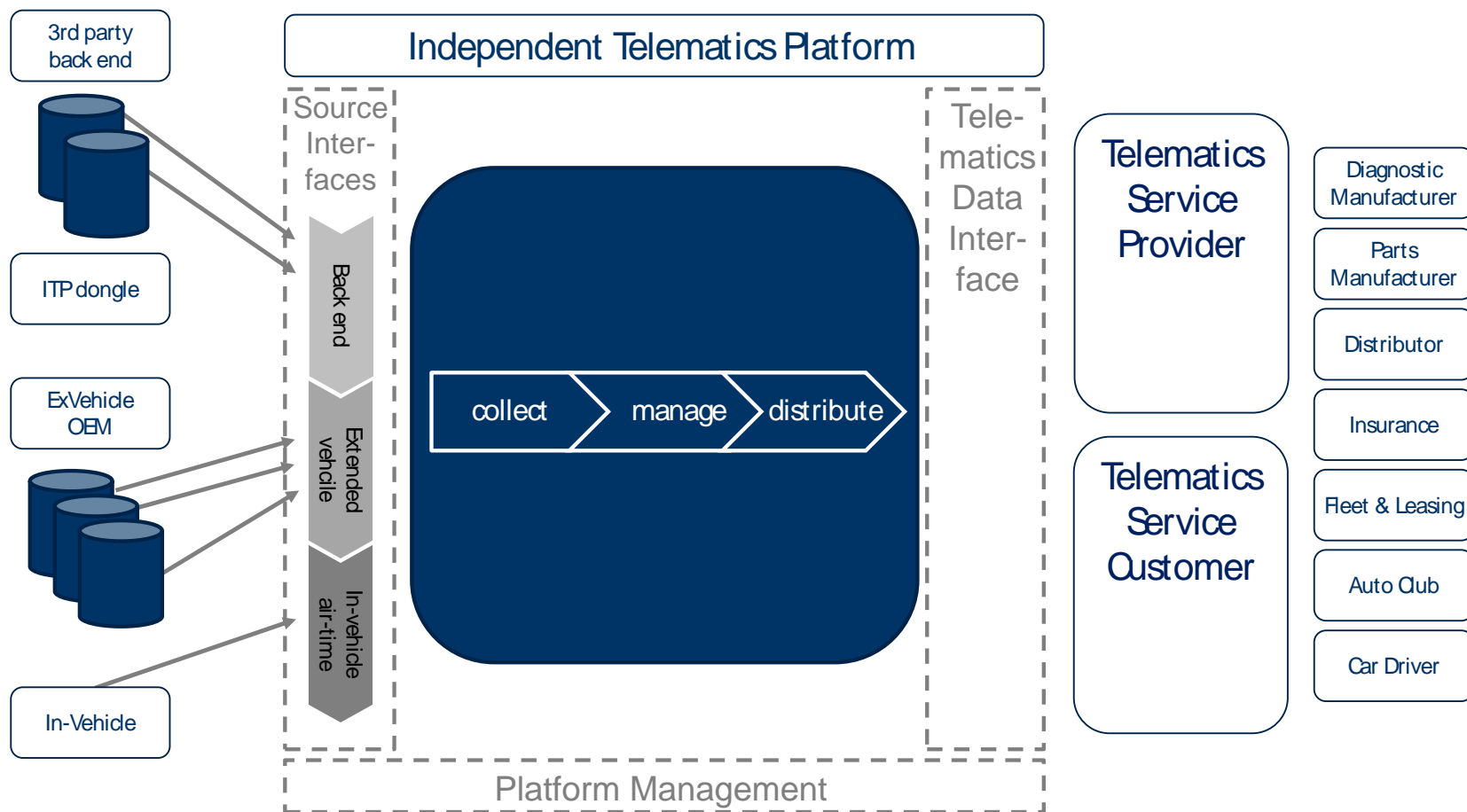


INDEPENDENT TELEMATICS PLATFORM (TEC ALLIANCE INITIATIVE)

Draft



Independent Telematics Platform (ITP)



Definition of standards for data purchase & sales → 3rd party interface



Motivation of key partners/suppliers:

- + optimization & economy
- + reduction of risks & uncertainty
- + acquisition of particular activities & resources

Value Add of the ITP:

- + Accessibility / Newness
- + Convenience/Usability
- + Performance
- + Customization
- + 'Getting the job done'
- + Price
- + Cost reduction, ...

1 Data supplier

Instant suppliers to start:

- Parts Manufacturers
- Diagnostic Manufacturers
- Service Providers
- Insurance
- Fleet & Leasing
- Wholesale
- Garage
- Car Driver

Independent Telematics Dataserver?

collect → manage → distribute

3 Shareholder

2 Data Customer

Instant customers to start:

- Parts Manufacturers
- Diagnostic Manufacturers
- Service Providers
- Insurance
- Fleet & Leasing
- Wholesale
- Garage
- Car Driver

Value Proposition




Independent Telematic Platform (ITP)

DRAFT



Collect

- # vehicles 
- # provider High / Low
- # data fields High / Low
- Data
 - neutralized
 - personalized
 - aggregated
- Data usage approved
 - Yes / No
 - purpose
- Frequency High / Low

Manage

- Data Standardization
 - Content
- Data Aggregation for sales to 3rd party
- Contract Management
 - ...
 - ...
- Partner & Registration Management
 - ...
 - ...

Distribute

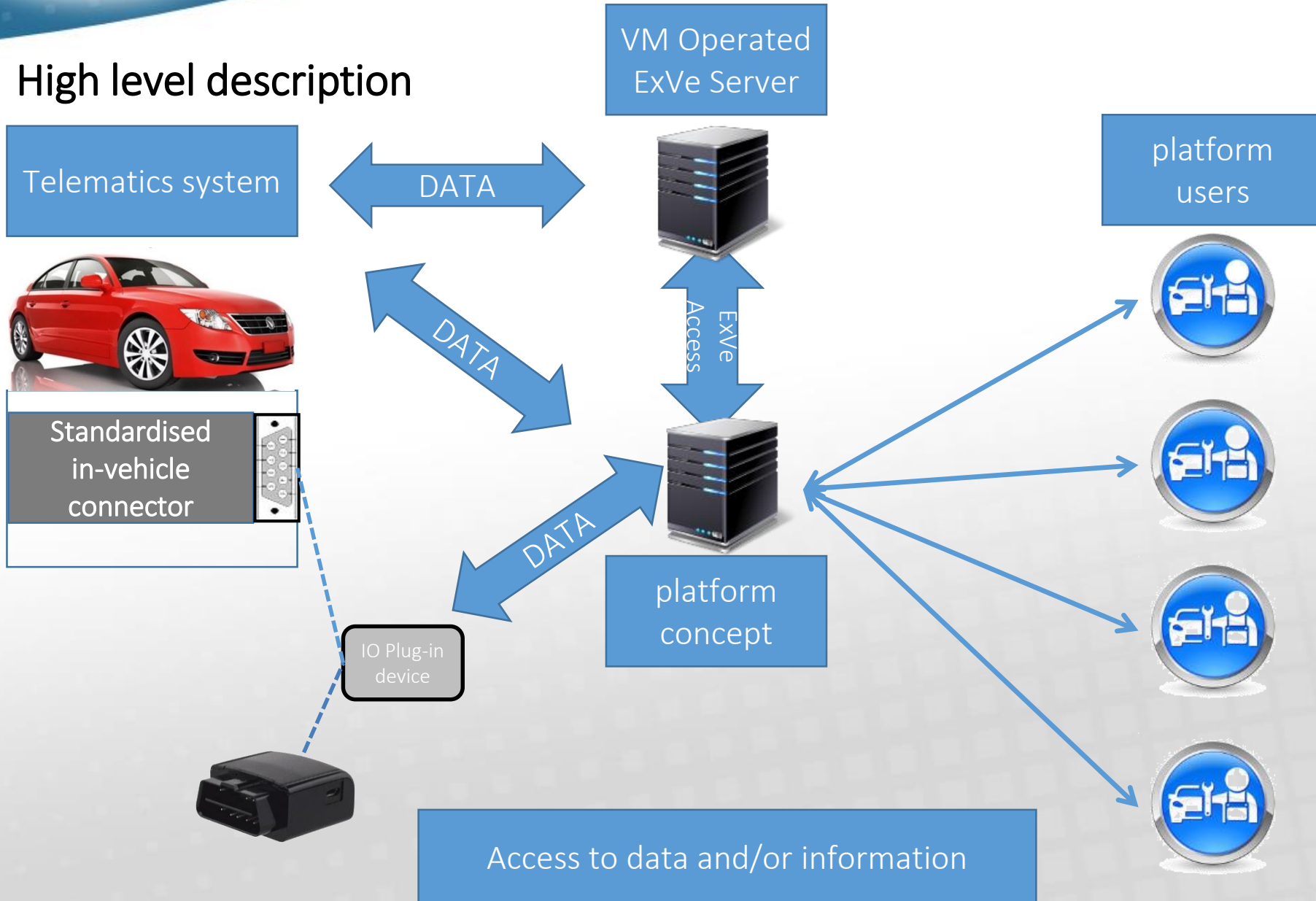
- # data customers
- Interface Telematic Service Provider
 - Standardized
 - Certified
- # data fields
- Data
 - neutralized
 - personalized
- Data usage approved
 - Yes / No
- Frequency High / Low

Use Case (Clusters) → Focus in Phase 1



Use Case		Focus Customer Segment		
#	Name	Garage	Fleets	Insurance
1.	Repair and maintenance - vehicle identification, status, next service, fault codes, ...	✓	✓	
2.	Diagnostics - vehicle identification, software version, fault codes, sensor values, vehicle position, ...	✓	✓	
4.	Usage based insurance - vehicle identification, position, status vehicle / components, driving style, risk assessment, ..			✓
5.	Predictive service, maintenance, breakdown or vehicle use - vehicle identification, monitoring in-vehicle components, calculation wear rate, ...	✓	✓	
14.	Vehicle operational information for fleet vehicle operators – FMSdata	✓	✓	✓

High level description



#DigitalSingleMarket



DIGITAL SINGLE MARKET STRATEGY

Digital Single Market (DSM)

- **European Commission (EC) published on 6th May 2015 its 'Digital Single Market' Strategy which will be built on 3 pillars:**
 - **Better access for consumers and businesses to online goods and services accross Europe**
 - **Creating the right conditions for digital networks and services to flourish**
 - **Maximising the growth potential of our European Digital Economy**
- **EC sent its strategy to the European Parliament and the Council for endorsement**
- **European Parliament (EP) published its report on 21st January 2016, incl. provisions calling to boost competitiveness through interoperability and standardisation, and calling to establish a regulatory framework for connected vehicles to ensure interoperability with different services, including remote diagnostics and maintenance, and applications in order to uphold fair competition**

Digital Single Market (DSM) – News from EP

- European Parliament (IMCO & ITRE) received 1287 amendments on the DSM report
- High interest from the Members of the European Parliament (MEPs)
- Catch-all issue raising also a lot of interest amongst stakeholders
- EGEA with the support of FIGIEFA succeeded to secure 3 amendments:

[...]to ensure direct access for independent and third party service providers for remote diagnostics and maintenance, for example with regard to provisions in the e-Call Directive on car maintenance via the creation of in-vehicle interoperable telematics platforms, in order to uphold fair competition, encourage innovation and increase consumer choice in secondary servicing markets.

EGEA, FIGIEFA & AFCAR allies actions

At European Parliament:

- On 15th of October 2015, organisation of a breakfast workshop at the European Parliament on: 'The Internet of things on wheels' – How to ensure competition, innovation and consumer choice in the Digital Single Market"
- Both hosting MEPs reminded that robust legislation is needed to address the 'platforms of things (-on wheels)' and to develop rules and standards for their interoperability and accessibility by independent service providers and to ensure competition-neutrality and consumer choice in the digital era

At European Commission & Cabinet levels

- AFCAR had already 8-10 meetings with Commissioner's cabinets and EU officials to raise awareness about the future of car repair and servicing in the digital era maintenance, and its upcoming threats for the aftermarket and third party service providers



**POTENTIAL IMPACT OF THE NEW VOLVO
XC90 or MERCEDES WITH A RESTRICTED
PHYSICAL CONNECTOR?**



PRESENTATION OF THE EURO DFT TOOL

NEOFITOS ARATHYMOS, ZDK & CECRA TECHNICAL DIRECTOR

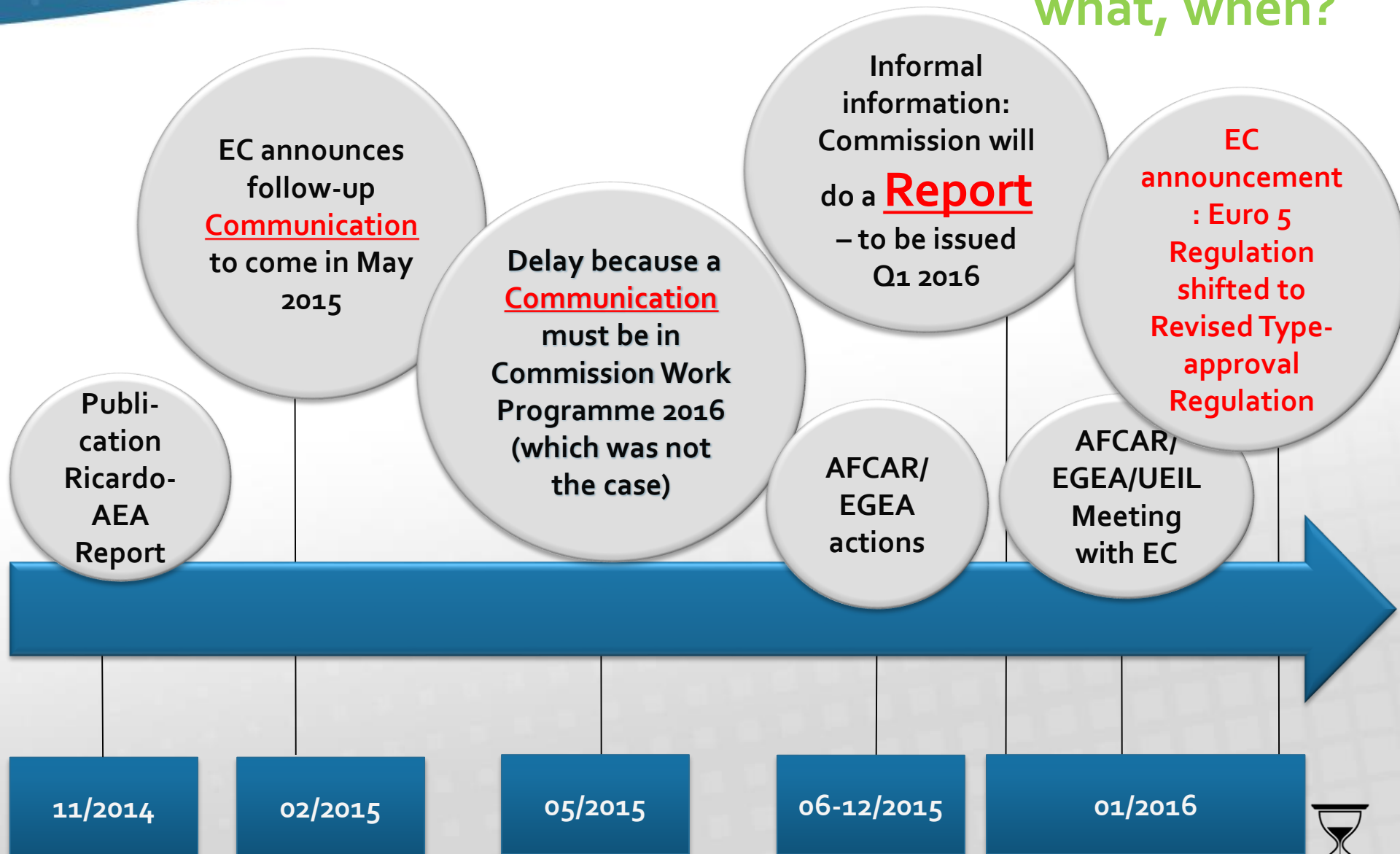


ACCESS TO TECHNICAL INFORMATION FOR DIAGNOSTIC TOOL MANUFACTURERS



RICARDO STUDY - REPORT ON THE FUNCTIONING OF EURO 5: SHORT UPDATE

Follow-up to report on RMI: what, when?



RICARDO Report – General Appraisal

EGEA/AFCAR/UEIL welcome the Ricardo-AEA Report

- 'Big picture analysis' describing the importance of the multi-brand aftermarket supply chain ('eco-system') in providing alternative competitive products/ services to independent and authorised repairers.
- Highlights the importance of access to timely, accurate and useable RMI to support the functioning of the EU Internal Market and ensure the competitiveness of the automotive industry sector as a whole to the benefit of the European consumers and EU economic growth.
- Describes the difficulties faced by IOs → demonstrates the necessity of making the system more effective and compliant

Efficient measures needed – to be more workable and effective

Two 'instrument clusters':

- 1) Improving the functioning of the system on access to RMI in general through structural changes and amendments to the current legislation.
 - Definition of a "reasonable and proportionate" fee levels → more transparency is needed on fees for others diagnostic too manufacturers (as done for repairers on VM websites)
 - 'Time to respond'
 - Better verification and enforcement (filling complaints + harmonisation of penalties)
 - EC Guidance and Verification Forum/Platform: Framework for a "structured discussion process" of stakeholders to address problems and monitoring of the functioning of the RMI system

Efficient measures needed – to be more workable and effective

Two 'instrument clusters':

- 2) Efficiency of the aftermarket value chain: Improving the capacity of IOs to provide competitive products and services along the entire supply chain**
 - Updating the definitions regarding the scope and form/format of RMI
 - Obsolete reference to the “non-discrimination principle with the authorised repairer”

Supply of multi-brand diagnostic tools/ test equipment - proposals from EGEA:

- Need for a **standardised electronically processable format** that can be integrated into multi-brand tools (e.g. ODX or OTX)
- **Strengthen the provisions for the validation of VCIs** because reprogramming standards ISO 22900 and SAE J2534 still have too many interpretations by many of the vehicle manufacturers, creating expensive and time consuming validation requirements for the multi-brand diagnostic tool manufacturers.
- **Updating of list of dedicated test tool information** (Annex I, Appendix 5, Point 3 of Reg. 692/2008) to technical progress and **include the specific information for the periodical technical inspection (PTI)**, as it is part of the RMI definition (see art.3 of Euro 5 Regulation 715/2007).
- **Guidance for VMs to avoid restrictive contractual clauses and unacceptable data costs to test equipment manufacturers.**

EGEA – internal activities

- Creation of a **new task force** to reflect on possible solutions to problems in Euro 5
- After that, start **drafting amendments to the Euro 5 Regulation** which will now be integrated in the new revised type-approval framework Regulation

ATI Coalition (AFCAR + UEIL): 2 x lobbying activities in parallel!

- **Ricardo Report:** EC to send report to European Parliament + Council for approval → lobbying activities needed to get support from these institutions
- **Revised Type-approval Regulation, incl. Euro 5 provisions:** EC to send draft proposal to European Parliament + Council for adoption → lobbying activities needed to include our amendments into Euro 5 provisions

New ATI Campaign

- Access to Technical Information (ATI)-

❖ Campaign objectives

- Awareness creation about the needs/specificities of the independent automotive aftermarket and the difficulties encountered by the aftermarket value chain in accessing technical information
- Ensure consumer's freedom of choice and fair competition

❖ Partners

- UEIL — Union of the EU Lubricants Industry
- FIA — Fédération Internationale de l'Automobile
- FIGIEFA
- CECRA - Repairers
- EGEA



New ATI Campaign

- Access to Technical Information (ATI)-

Campaign map:

- 8 month campaign
- Targeted meeting program (15 meetings) with relevant EC officials (Automotive unit, Competition/anti-trust) and with Members of the European Parliament (MEPs)
- EP breakfast event to be organised at the European Parliament for a roundtable discussion on the state of play and progress to be made
- PR tools to be developed/supported by UEIL/Interel: creation of a campaign microsite, social media, interviews in EU media





ACCESS TO SECURITY-RELATED RMI

Definition “SERMI”

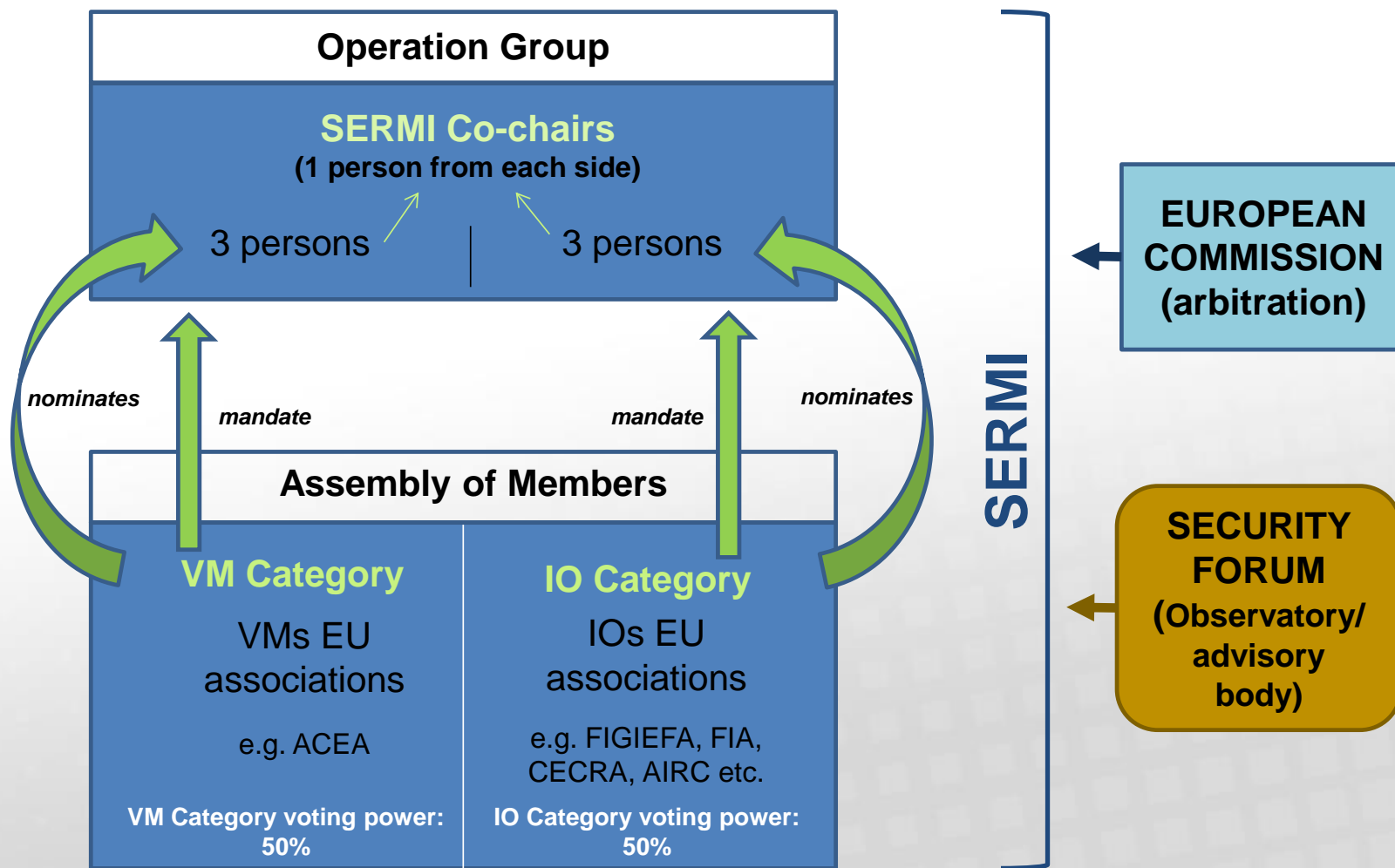
Security-related repair and maintenance information is:

the required information, software, functions and services to repair and maintain the features included in a vehicle by the manufacturer to prevent the vehicle from being stolen or driven away and to enable the vehicle to be tracked and recovered. Repair and maintenance of security-related features includes:

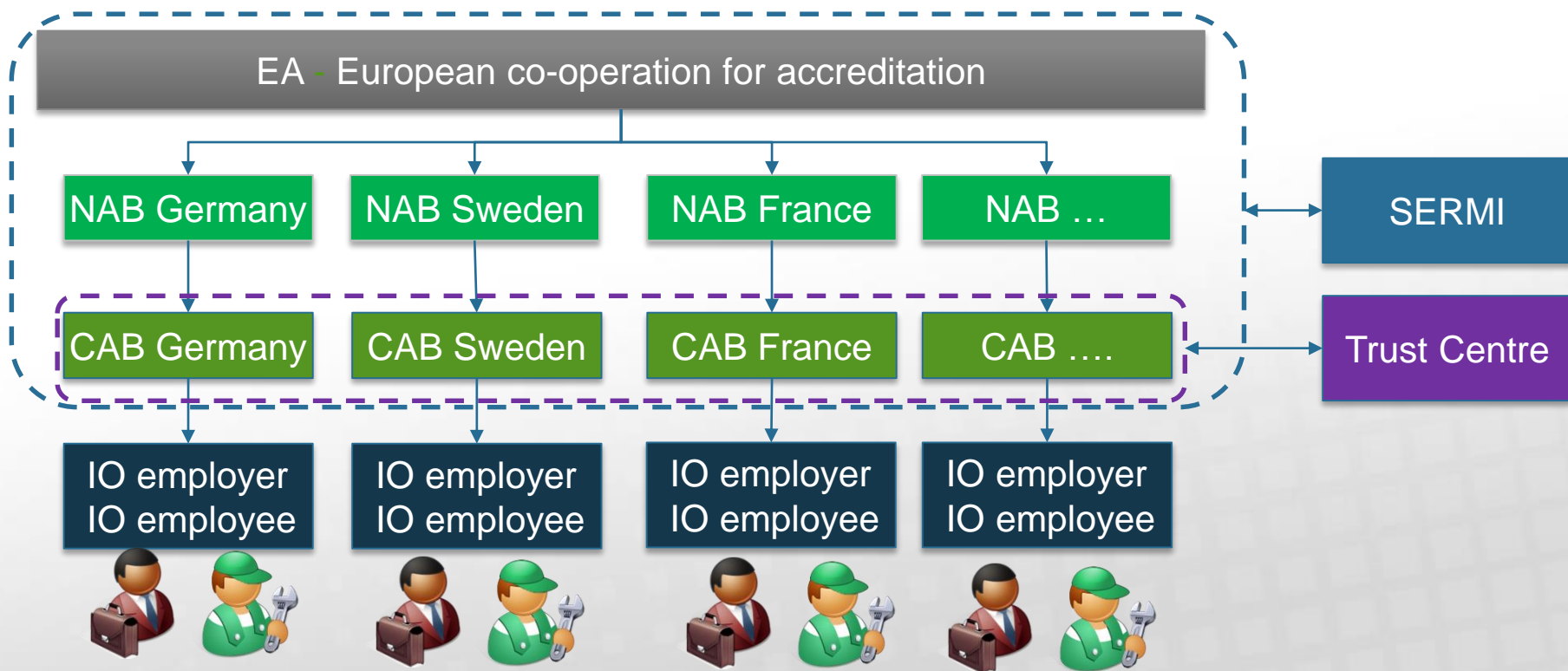
- updating a functionally coherent software when that software performs functions to prevent the vehicle from being stolen or driven away
- purchasing parts that prevent the vehicle from being stolen or towed away or that could be used by unauthorised persons to give the vehicle a new identity.

Vehicle manufacturers shall design the features to prevent vehicles from being stolen in accordance with UN-ECE Regulation 116 on uniform technical provisions concerning the protection of motor vehicles against unauthorised use. They shall design these features in such a manner that it does not render ineffective the right of independent operators to access repair and maintenance information for features that are not security-related.

SERMI Process - structure

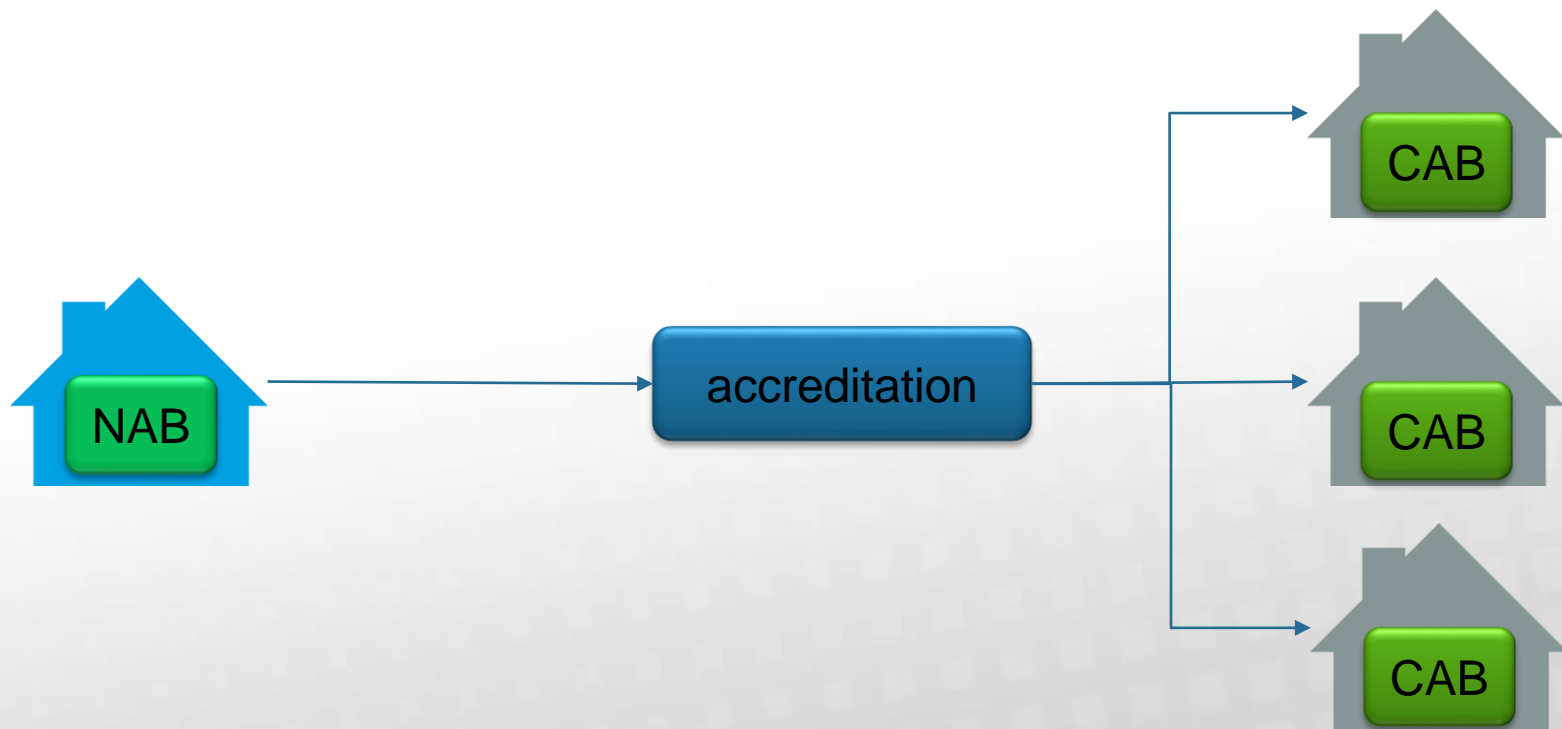


SERMI Process - Hierarchy of the entities



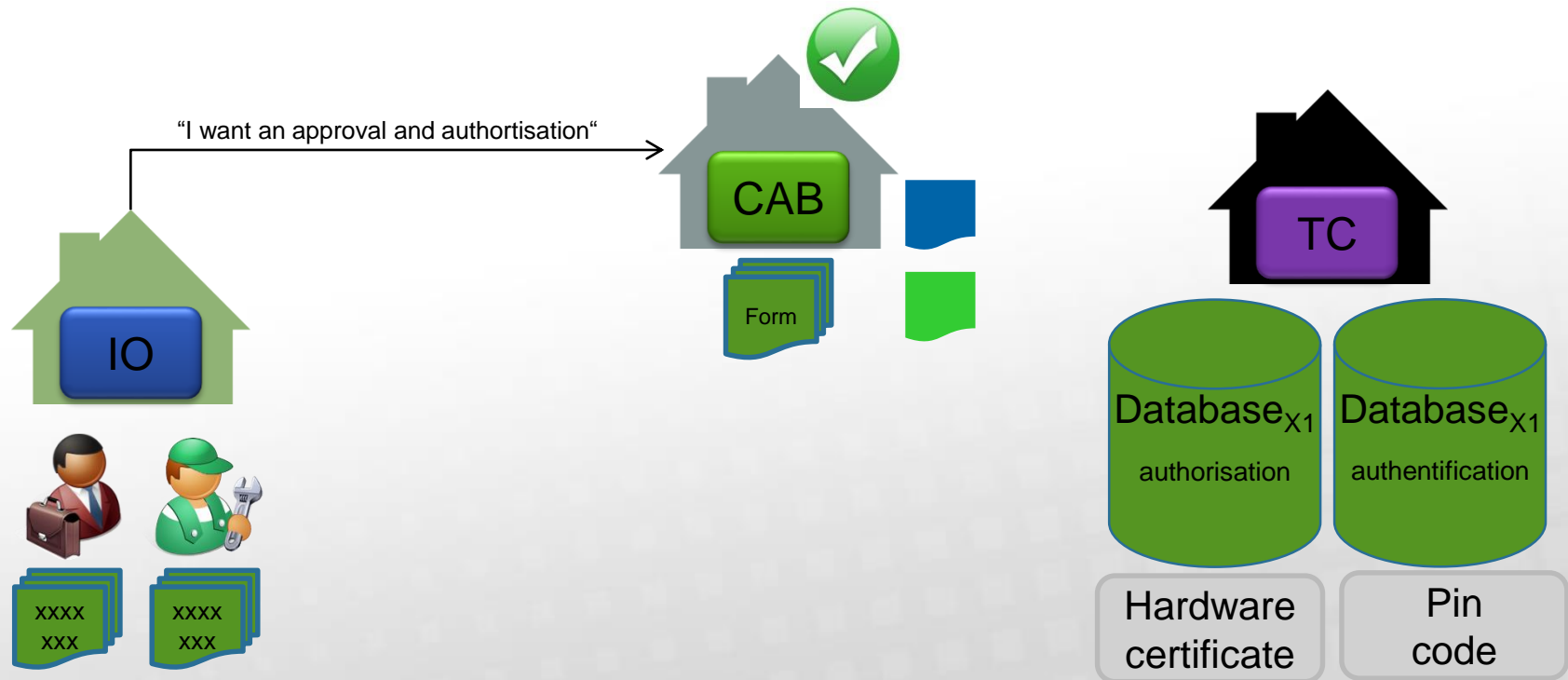
SERMI Process

Step 1 - Accreditation of CABs per country



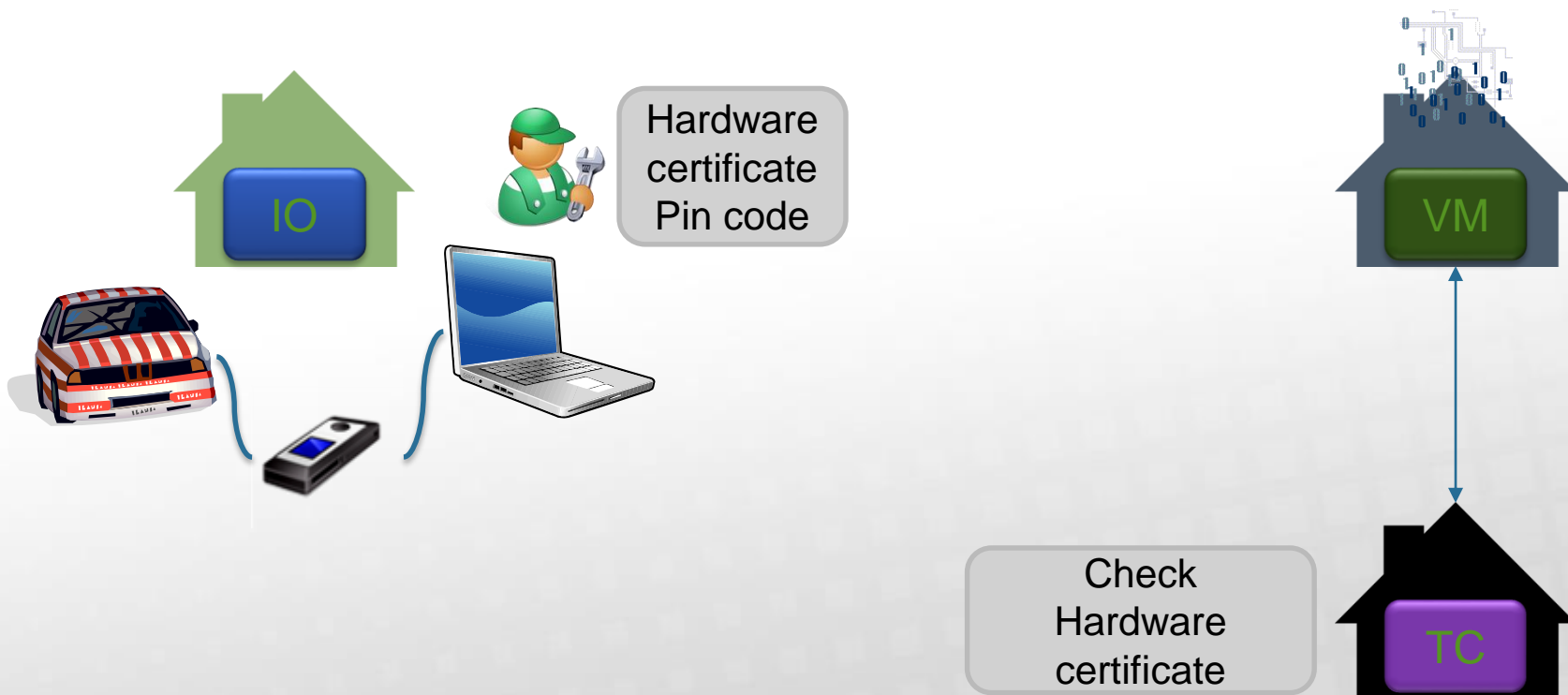
SERMI Process

Step 2 – How an IO gets practically its certificate



SERMI Process

Step 3 – Access to security-related RMI in practice





TECHNICAL TYPE-APPROVAL LEGISLATION

EURO 5, EURO VI, L-CAT AND T-CAT VEHICLES

Technical Type-approval legislation

**Euro 5/6
+
Electric
Vehicles**



Euro VI



L-Category



T-Category



Standardised access to technical info → EC Mandate given to CEN TC 301

Security Forum & SERMI → Special accreditation for software updates involving access to security-related (i.e. anti-theft) information (report expected by 2016)

Technical Type-approval legislation

Euro 5/6
+
Electric
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Euro VI



L-Category



T-Category



Standardised access to technical info → EC Mandate given to CEN TC 301

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Agricultural and Forestry Category Vehicles – T-Cat



Agricultural and Forestry Vehicle Manufacturers (CEMA) lobbied European Commission to reopen the existing RMI legislation & change through current Implementing Acts:

CEMA Arguments (1/2):

- Existing legislation not adapted to Agricultural Vehicles (≠ automotive)
- Referenced diagnostics standards are unuseable
- Referenced standard protocols are not used in practice; T-Cat VMs use only proprietary protocols and thus EU legislation not feasible

Agricultural and Forestry Category Vehicles – T-Cat



CEMA Arguments (2/2):

- T-Cat VMs do not have a central gateway for the external communication.
- ➔ Asked for deletion of big parts of the standards referenced in the current T-Cat legislation and proposed an unspecified “gateway” for IOs



Agricultural and Forestry Category Vehicles – T-Cat



Findings

- Deep investigation amongst EGEA members and some repairers' association at German level
- Most of the T-Cat VMs do use hardware which has the capability of using diagnostics and reprogramming standards, but that these are made proprietary by adding proprietary software.



Agricultural and Forestry Category Vehicles – T-Cat

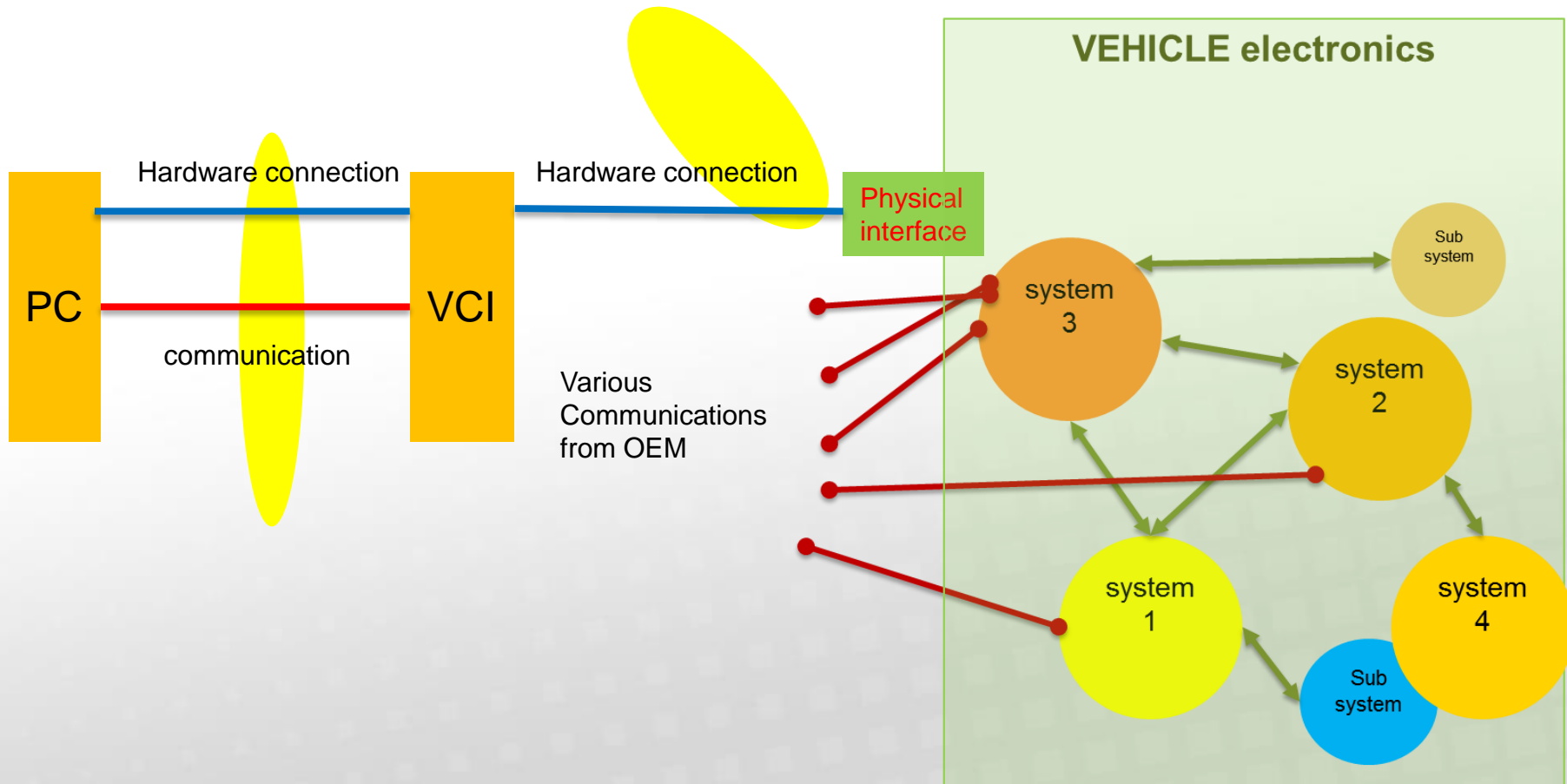
Negotiation outcome

- CEMA dropped idea of unspecified gateway
- CEMA accepted the use of diagnostics and reprogramming standards
- T-Cat VMs get additional time for implementation (3 years)
- Standardised connector will be used
- Exemptions for R & S Categories of vehicles → if these vehicle manufacturers do not employ neither diagnostic tools nor communication with the on-board electronic control unit(s) for the purposes of re-programming or diagnostics, then no obligation to provide diagnostic information
- Co-existence of VMs software to be ensured



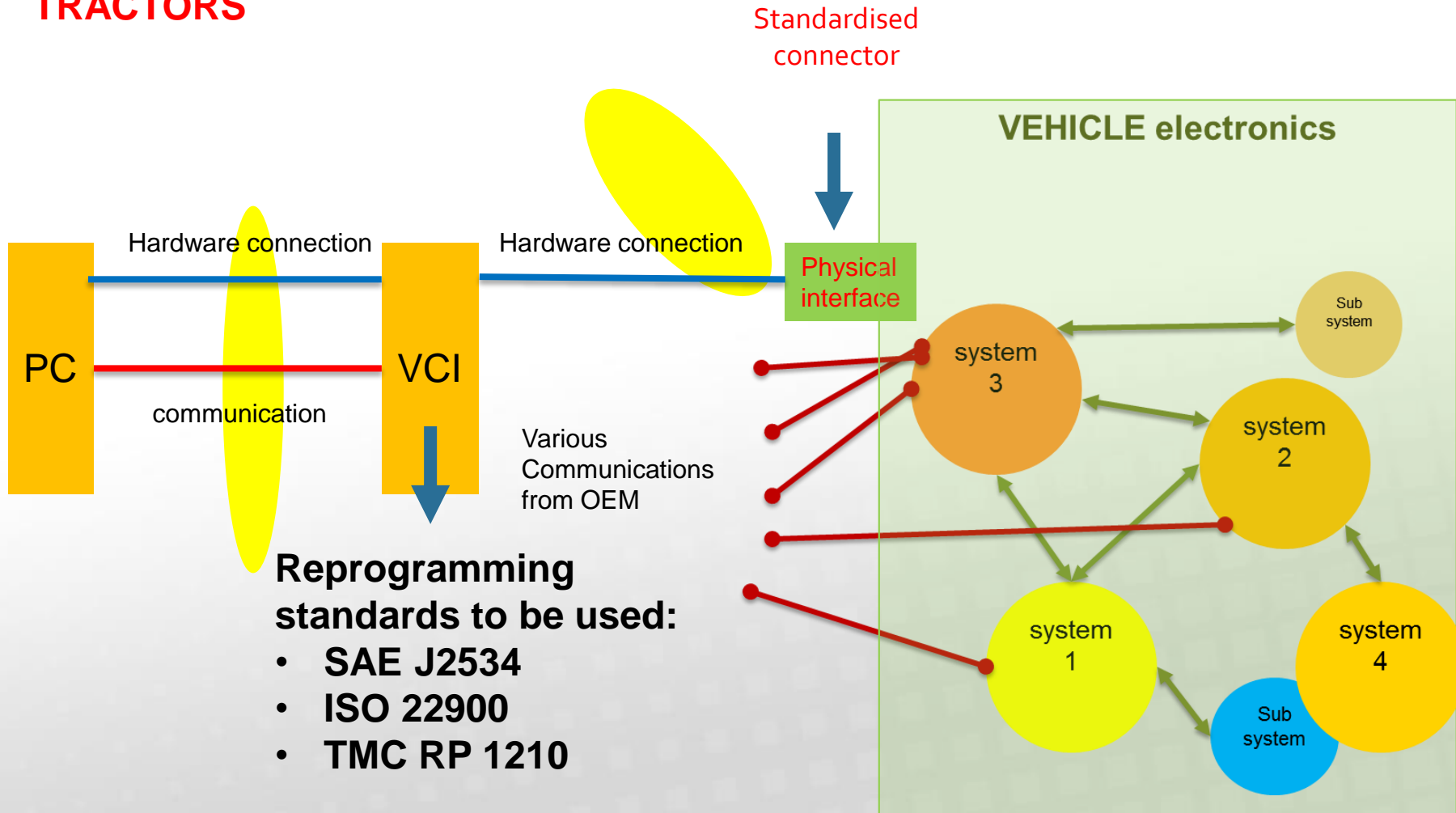
CEMA Proposal

TRACTORS



Negotiations outcome

TRACTORS



Technical Type-approval legislation

**Euro 5/6
+
Electric
Vehicles**



Euro VI



L-Category



T-Category



Standardised access to technical info → EC Mandate given to CEN TC 301

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Technical Type-approval legislation

**Euro 5/6
+
Electric
Vehicles**



Euro VI



L-Category



T-Category



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Agricultural and Forestry Category Vehicles – T-Cat

Creation of a new CEN/ISO standard for access to RMI and OBD information for T-cat

- Draft standardisation work started in new TC144, where no IOs are present
- First draft standard, drafted by VMs only, has been put for public enquiry at national standardisation bodies (deadline: 15th February 2016)
- Main issues:
 - Current proposed draft is not compliance with EU legislation
 - No direct power/influence in the standardisation work due to lack of resources and IO presence at national level



PTI ROADWORTHINESS DIRECTIVE 2014/45/EU: UPDATE ON ACCESS TO PTI TECHNICAL INFORMATION

Access to PTI Technical Info for ECSS Testing – key issues

Access to PTI technical information

- EC pointed out that the Directive 2014/45/EU does not make mandatory the use of technical information
- Reaction from Member States:
 - System at national level, in most cases not defined yet (e.g. Central system? Central authority?)
 - If access to PTI technical information is done via the RMI websites, too costly and difficult to be handled by all competent authorities and PTI testing centres
 - Member States to buy the data → at which cost?, for which car park? What if a car is from another member state?
 - No precision if for Euro 5 vehicle onwards?
 - 'Necessary information for roadworthiness testing' → no precision on what is considered as necessary!

21 Basic information for inspector performing test

- Vehicle-specific description of the location of and the access to the electronic vehicle interface
- Vehicle-specific description of the location of the vehicle identification number

21(a) Basic communication information

- Does the specific system support diagnostic interaction (Yes or No). If yes:
- Vehicle-specific specification of bus types and protocols
- Vehicle-specific specification of the communication parameters of the inspected system/function

22 Fitment test information for inspector performing test

- Vehicle-specific information about the originally installed systems/functions

22a Fitment test information

- Specification of (on-board or off-board) test methods suitable to identify, whether the system/function is still installed

23 Predefined system condition test methods

- Vehicle-specific specification of (on-board or off-board) test methods suitable to verify the correct functioning of the inspected system

24 Improved Test Methods

- Vehicle specific information where necessary to support improved test methods, which are introduced by this Directive 2014/45/EU and subsequent delegated acts. Test methods will include the definition of vehicle specific (on-board and off-board) information required.

Access to PTI technical information – footnote 24

- 'Compromise footnote 24' → 'Improved Test Methods' does not imply necessarily a functionality test, too much room for interpretation
- EC is reluctant to add any burden and obligations on Member States to conduct functionality testing, and vice-versa.
- Strong lobby from VMs to keep fitment testing only (OBD!)
- As no strong leverage in current PTI legislation to ask for functionality testing NOW, difficult to expand list of items that need more than a fitment test for valid test methods
- Only item: lighting system switching
- Currently under discussion: VMs to provide information to efficiently test the brightness of the lights

Access to PTI Technical Info for ECSS Testing – Next Steps

- **Timing**

- 12th February 2016 → Next Roadworthiness Technical Working group meeting
- Summer 2016 → Next Roadworthiness Committee meeting for first official discussions on a final proposal with Member States
- End of 2016 → Vote on the final proposal

- **Actions**

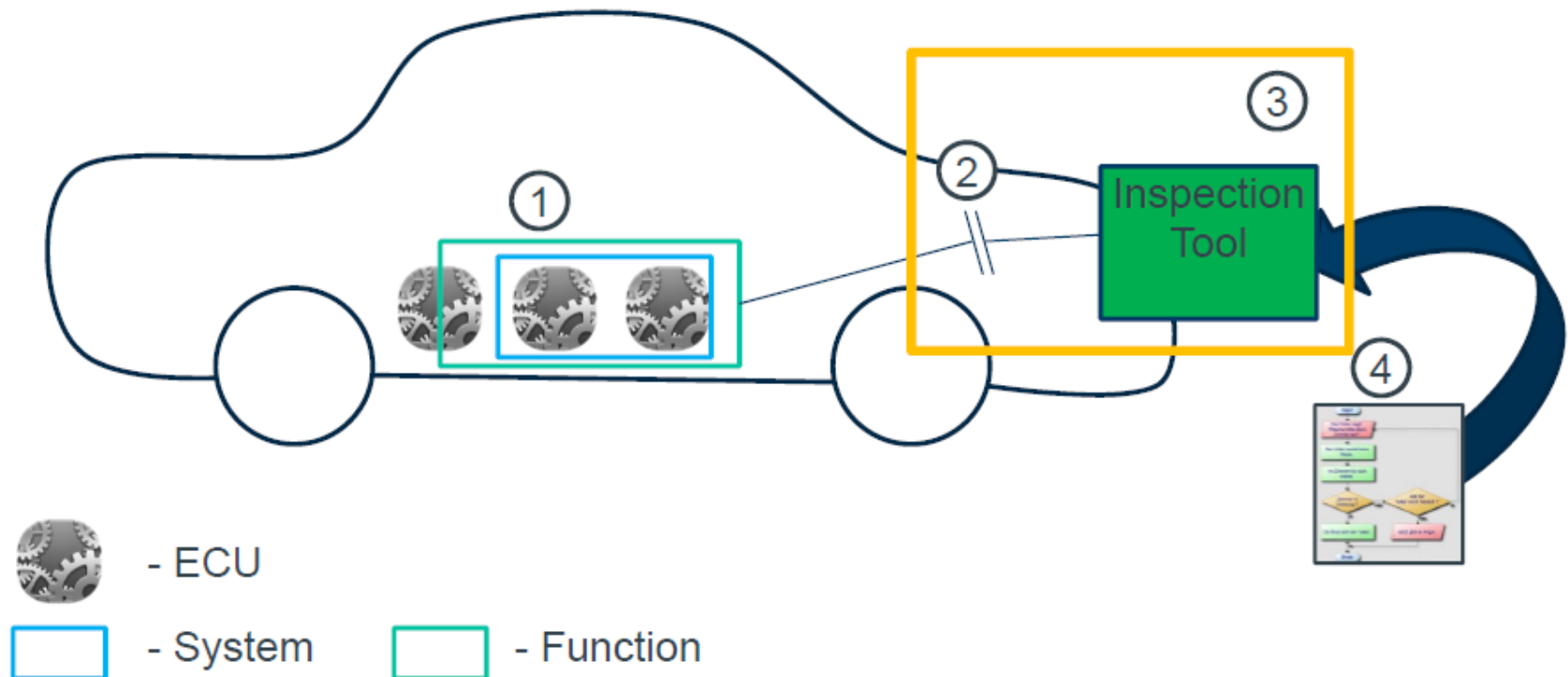
- ACEA invited EGEA to enter into discussion to define together PTI technical information needed → but basic understanding of testing is different (OBD fitment test vs. Functionality testing)!



NEW ISO PROPOSAL FOR A STANDARD ON ePTI

– report from kick-off meeting on 21st & 22nd
September 2015-

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

Objectives and requirements

LEGISLATION	 UNECE – VEHICLE REGULATIONS (WP.29) <ul style="list-style-type: none"> Identification of requirements for vehicles in periodical technical inspection, with respect for new technologies Analyze existing UNECE documents and recommendations for development Informal Working Group "Periodical Technical Inspection".
	 EU – DIRECTIVE 2014/45/EU <ul style="list-style-type: none"> 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** <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> legislative requirements for diagnostics and failure prognostic for safety related systems NHTSA asked SAE for support
	 ADDITIONAL REQUIREMENTS <ul style="list-style-type: none"> 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)	Low Complexity (Green)
	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	
	...	Medium Complexity (Yellow)
	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	High Complexity (Red)
	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

Scope in details

- communication between the Inspection Tool and the ePTI relevant system
- reading of basic vehicle information
- 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 methods

Potential issues identified by AFCAR

- Must take into account EU legislation and study results, and therefore be handled at CEN level, but this was rejected as most stakeholders want an ISO standard
- Test procedures developed by EU stakeholders under EU legal mandate will be minimised - VMs want a wider 'international' solution
- No mention of «Central Agency» or «Cost negotiation» for access or use of PTI technical information
- Based on existing diagnostic protocol standards (UDS), with usage of manufacturer specific data
- Not clear if other countries outside EU and US are interested (e.g. Japan, China): were the right people involved?

Timing

- Plan to achieve a standard within 3 years.
- Next ePTI meeting is 09th, 10th and 11th February in Dresden



ANY OTHER BUSINESS

Counterfeiting & Product piracy

- **A possible and direct support....www.react.org**
 - Not-for-profit organisation fighting counterfeit trade
 - Around 200 members, covering all areas of industry (e.g. Adidas, Apple, Brother, Burberry, Canon, Colgate, Ducati, GlaxoSmithKline, HaynesPro, Kawasaki, Lacoste, Samsung, Siemens ...)
 - Internet monitoring, customs enforcement and investigations program → ads, webshops, social media, app, keywords, domain names using the REACT WebCrawler software
 - Membership fees:
 - Direct subscription per company: €2.500
 - Or to discuss further by association and to meet React

EGEA

EUROPEAN GARAGE EQUIPMENT ASSOCIATION

Thank you

"Providing more influence, better information and stronger support to the Garage and Test Equipment Industry!"