

The logo for the European Garage Equipment Association (EGEA) is centered in the top left. 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 contained within a white oval that has a soft, glowing blue aura around it. The background of the top section is a dark blue gradient with a pattern of small, lighter blue squares.

EUROPEAN GARAGE EQUIPMENT ASSOCIATION

EGEA WG2 Meeting -Diagnostics-

06.07.2015, Brussels

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

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CITA

PTI ROADWORTHINESS DIRECTIVE 2014/45/EU: UPDATE ON ECSS

Access to PTI Technical Info for ECSS Testing – report from last Roadworthiness Committee meeting on June 16th

- Commission non-paper (dated November 2014) contains general description and footnotes, but no details of the set of data which is still to be finalised at the next Roadworthiness Technical Working Group (RTWG) to be end of September/beginning of October 2015.
- **What kind of data?**
 - The VM's technical data needed to support the test methods in Annex 1 for ECSS that use the electronic vehicle interface
- **How to access the data?**
 - EC recommended to use existing RMI systems (Euro 5) in place through VMs websites
 - But Member States reluctant and question how small testing centres could realistically logged in to 20 different VMs websites in the PTI test station at the same time.
 - CITA proposal that PTI data to be included in the CoC, but EGEA not sure about

Access to PTI Technical Info for ECSS Testing – report from last Roadworthiness Committee meeting on June 16th

- **Format of the data?**
 - Ideally in a standardised format, but at least with the VM's definition/explanation of the data provided.
- **Definition of test methods?**
 - Test methods for functionality testing to be defined in a second stage with delegated acts after the complete implementation of the roadworthiness package (not later than five years)
 - The EC expects that the test methods would need to be defined as a first step with CITA and ACEA, and as a second step with Member States and Commission

Development of “Footnotes” between CITA/EGEA & ACEA 2nd June

Task from DG MOVE road worthiness committee was to improve “footnotes” relating to Annex 1.





European
Automobile
Manufacturers
Association

Update on “Footnotes”



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

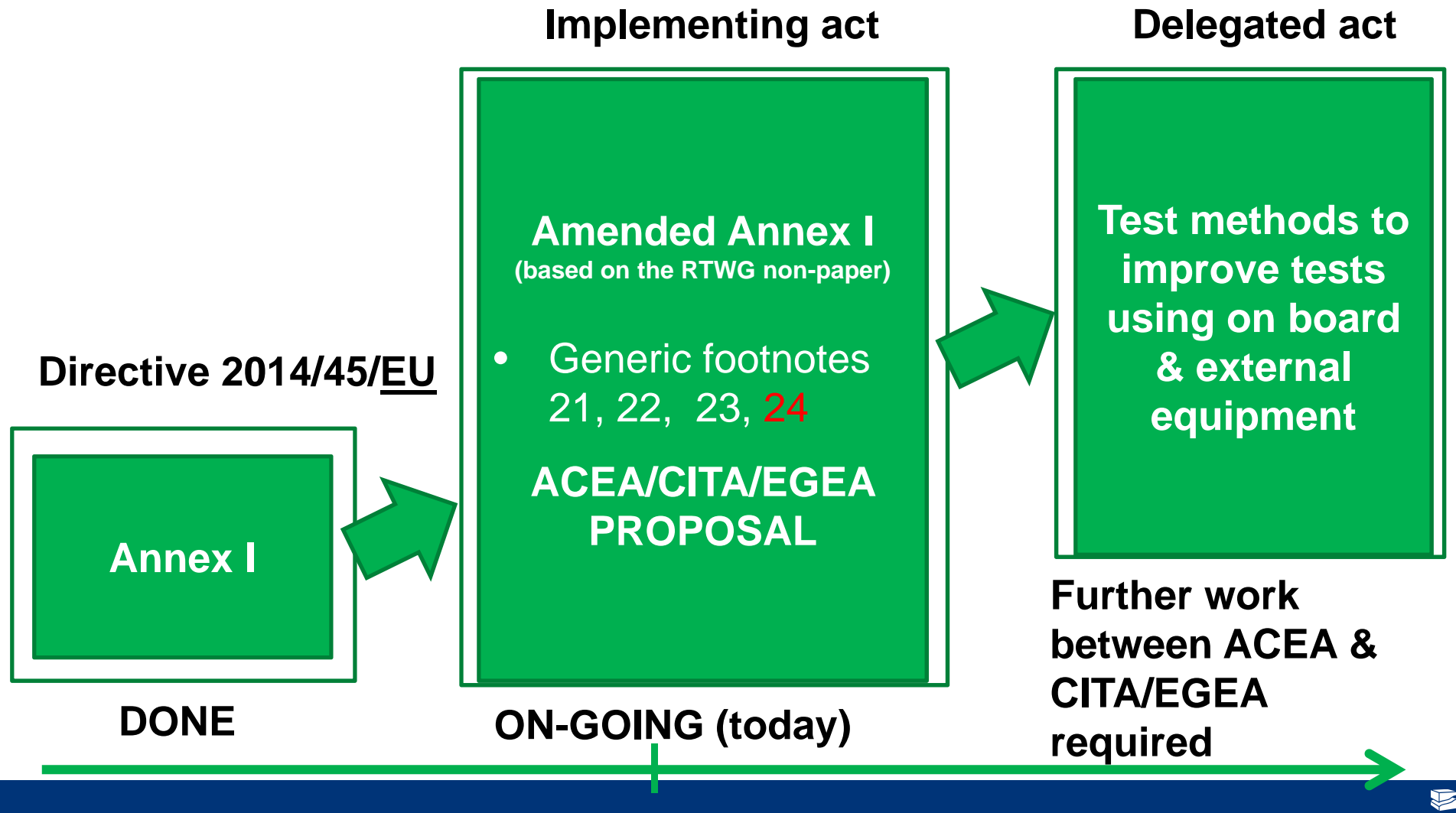
- Vehicle specific information where necessary to support improved test methods, which are introduced by this Directive 2014/45/EU and subsequent delegated acts. Test methods will include the definition of vehicle specific (on-board and off-board) information required.



Lighting

- Both parties agree that while the delegated act will be used to identify improved test methods, improvements in light testing can be made by using diagnostic commands and external equipment to control Headlamps to bring about efficiency savings. Such data can be delivered by this Directive 2014/45/EU and subsequent delegated acts.

Agreed Roadmap for ECSS testing



Access to PTI Technical Info for ECSS Testing – Next steps

- Before next RTWG meeting, ACEA to meet with CITA & EGEA to agree on final wording and how to proceed. ACEA is trying to reduce scope of PTI technical information to fitment test and functional test of lights only.
- Final CITA/ACEA/EGEA agreement on footnote to be finalised at the next RTWG to be scheduled end of September/beginning of October.
- Call for appropriate experts in IT, communications and data will be done beforehand.

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PRESENTATION OF THE NEW ISO PROPOSAL FOR A STANDARD ON EPTI

- **Start in Germany with FSD (HU-Adapter)**
- **Counter-proposal from VDA: (VDA_310-100_Recommendation_StVZO29 – May 2011)**
- **ECSS Study by CITA – September 2014**
- **ISO NWIP on ePTI – March 2015 – based on the VDA 310-100 recommendation)**
- **Presentation of ePTI concept by the proponents (Martin Pfeimer (VW) and Mike Schmidt (BMW): somehow different from the VDA document**
- **Ballot and approval by ISO members – experts nominated – May 2015**
- **ISO TC22/SC31 meets and decides for an ad-hoc WG on ePTI – June 2015**
- **21-22 Sept. 2015: first ePTI ad-hoc WG meeting**

Issues identified by AFCAR with the NWIP:

- Should be handled at CEN level due to its European nature
- Must take into account EU legislation and study results
- Shall only define the technical architecture; vehicle communication and test procedures developed by EU stakeholders under EU legal mandate
- Remove references to cost negotiation

ePTI – AFCAR Issues

- Presentation from proponents (VW and BMW):
- Common standard to communicate with vehicles
- Based on existing diagnostic protocol standards (UDS), with usage of manufacturer specific data
- No mention of «Central Agency» or «Cost negotiation»
- Reference to
 - UNECE Vehicle Regulations (WP.29)
 - EU Directive 2014/45/EU
 - German BMVI – Round table HAF
 - NHTSA – Revised Notice of Intent (SAE is also involved)
- Not clear if other countries outside EU and US are interested (e.g. Japan, China): where the right people involved?

Nominated experts:

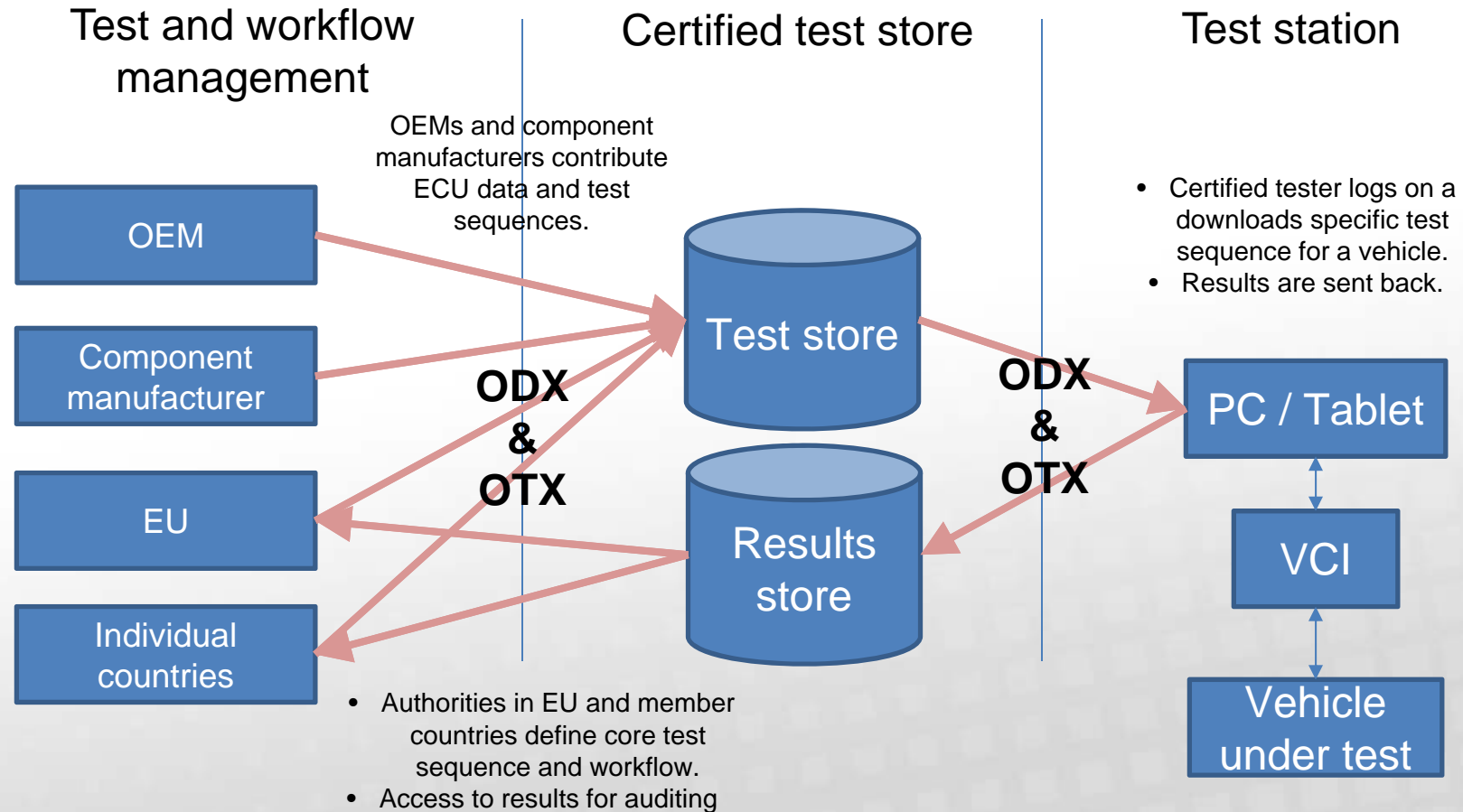
- Austria (ASI): Andrej Prosenc (OEAMTC), Andreas Westermeyer (BIGR2)
- France (AFNOR): Tony Malaterre (ACTIA), Francois Croc (MPSA), Thierry Lopez (MPSA), Dominique Mennesson (MPSA)
- Germany (DIN): Harald Neumann (Bosch), Gangolf Feiter (CSC), Michael Klostermeier (MAN), Erwin Stilz (MAN), Ruediger Zoelch (BMW), Martin Pfreimer (VW)
- Italy (UNI): Marco Le Brun (Bosch)
- Sweden (SIS): Annika Westad (Scania), Joakim Pauli (Volvo)
- United Kingdom (BSI): Chris Roberts (Bosch)

Other invitees to the ad-hoc WG: Dietmar Boenninger (FSD), Bernd Gottschalk (Daimler), T.Hesse (TÜV Thuringen), K.Niewiadomski (TÜV Nord), Dirk Pillau (FSD), Stefan Goss (DPDSG), Erik Wern (VDA, secretary of SC31)

ePTI proposal based on OTX / ODX standards

- **Use of standards (OTX & ODX) provides common format for ECU description and test sequences**
 - Enables use of standard for creation and execution
 - In line with the ECSS Study – sect. 8.3: «The data/information shall be provided in a standardized, machine readable format (e.g. ODX for diagnostic information, OTX for test sequences) via a single point of access.»
- **Test and workflow management**
 - Core sequences can be defined by the legislative body
 - OEMs and Component manufacturers can supply individual test for their components
 - Member countries can add their own sequences or provide customised workflow
- **Certified test store**
 - Secure repository for test sequences and results from individual vehicles
- **Test stations**
 - Authorised testers log in to a central system and provide vehicle ID information.
 - Specific tests for the target vehicle are downloaded
 - Results are sent back to the server for archiving

ePTI proposal based on OTX / ODX standards



Informal Working Group on PTI

- “would allow PTI experts to participate, as usually they are not well represented, in any of the groups, dealing with type-approval issues”
- Provisions for conformity of PTI process:
 - Requirements for the equipment to be used for PTI;
 - Requirements for the skills, training and authorization of persons performing PTI;
 - Requirements for supervision and quality control of PTI centers;
 - Recommended inspection methods;
 - Possible electronic form of the PTI certificate.
- Development of new rules for vehicles and parts incorporating new technologies (e.g. alternative propulsion systems)
- 2 Co-chair (Netherland and Russia); Secretary (CITA)

Joint ISO / SAE / ETI meeting on access to secure IVN

- Security is perceived as a major topic. Issue has been recently amplified by mass media.
- ETI is concerned that, due to this pressure, the VMs will rapidly develop and implement enhanced security for their in-vehicle networks (IVN)
- The J1962 connector is of concern, especially is fitted with aftermarket wireless adapters
- ETI – TTF - AFCAR telematics position paper (<http://www.eti-home.org/TT-2015/TTF-position-paper.pdf>), supporting the Vehicle Station Gateway concept
- Issues with the Extended Vehicle (ExVe) concept (in ETI's view):
 - Granularity of information: it is not clear what we'll get
 - VMs may stop support relatively early in a vehicle's life
 - Hardware obsolescence – VMs care little about older car repair market
 - Retrofit to older vehicles? Upgrade paths?
- ETI is not against ExVe (there is a value there): they are against ExVe as the only connectivity solution

Joint ISO / SAE / ETI meeting on access to secure IVN

- Several initiatives to define access methods*:
 - Inspection and Maintenance
 - SAE E/E Diagnostic
 - SAE Cybersecurity
 - NHTSA - Request for Comment on Automotive Electronic Control Systems Safety and Security
 - GAO
 - NIST
 - ITS
 - ISO TC22/SC31/WG6
 - ePTI NWIP in ISO
 - W3C - <https://www.w3.org/community/autowebplatform/>
 - Directive 2014/45/EU Safety
 - Directive 2014/47/EU Safety

* List from a presentation by Bob Gruszczynski, Volkswagen group of America

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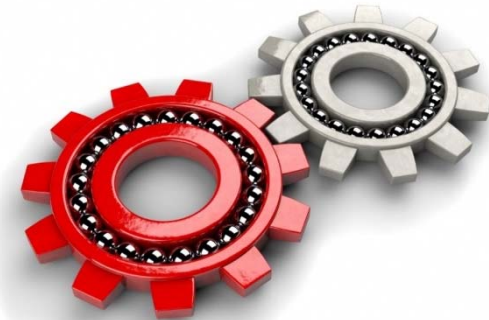
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UPDATE ON VEHICLE TELEMATICS ACCESS TO IN-VEHICLE DATA

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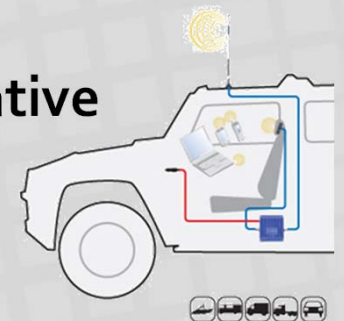
C-ITS & THE WIDER IMPACT

Co-operative Intelligent Transport System (C-ITS)

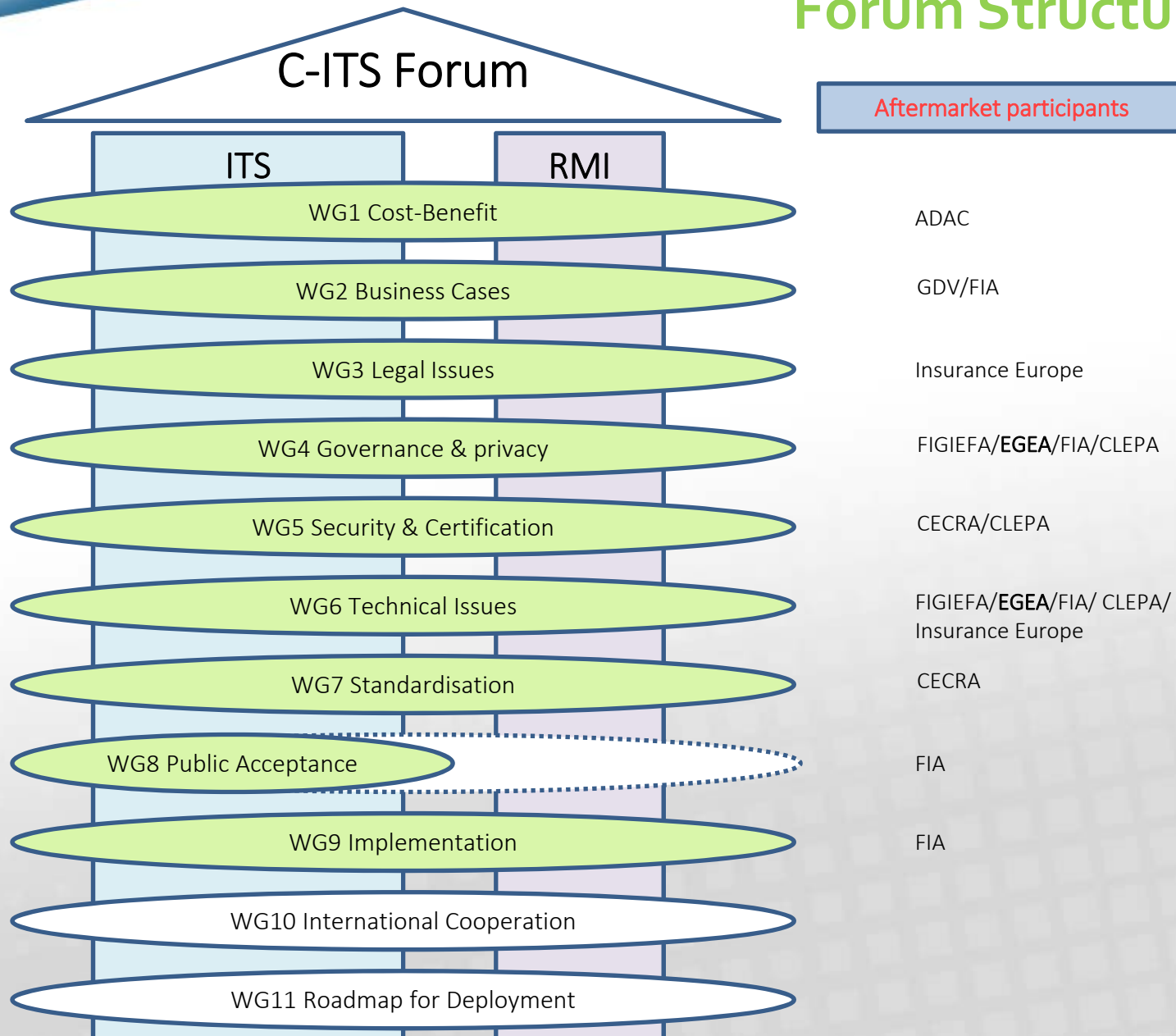
- The European Parliament adopted its official position on the eCall Regulation in February 2014
- The amendment adopted (Art.12 par.2) gives a mandate to the Commission to draft a legislative proposal:

Following a broad consultation with all relevant stakeholders and a study assessing the costs and benefits, the Commission shall assess the need of requirements for an interoperable, standardised, secure and open-access platform. If appropriate, and no later than 9 June 2017, the Commission shall adopt a legislative initiative based on those requirements.

- This amendment has now become part of the 'Co-operative Intelligent Transport System' (C-ITS) forum.



European Commission - C-ITS Forum Structure



WG6 – Technical requirements - Four 'task forces':

- **TF1 – On-board application roadmap**
Proposed the OBD connector as the starting point and a 25 year+ implementation schedule – AFCAR proposed an alternative 10 year plan
- **TF2 – In-vehicle interface**
Presented a standardised connector, but with enhanced data capacity – possibly ethernet – but with significant security access controls
- **TF3 – Data server platform**
AFCAR have proposed a 'shared server' solution to ensure equal access
- **TF4 – Data requirements**
AFCAR have proposed access to the same data as the VMs send to their servers, prior to the server conducting any processing.

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 22077, 20078 & 20080). This could be a remote VM server or be implemented in-vehicle
- 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 while solutions for an in-vehicle platform are agreed and implemented
- The next C-ITS meeting may become an open argument between the VMs and the Aftermarket and may force the European Commission to be more open about their position

Key objectives for the Aftermarket

- Continue to have access via the 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 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.

Key questions

Brussels:

- What is the minimum interim solution? (i.e. – what is our 'red line'?)
- What data is still needed via a standardised connector? (i.e. – what is our 'red line'?)
- What should be covered by the 'OBD+' (best/worst case scenarios)?
- What standardisation for this connector is preferred?

EGEA Members:

- How can existing business models for diagnostic tool manufacturers still be used in the future?
- How to control the costs of VM diagnostic data?
- How to differentiate and add value when using VM data?

Overview: Possible Interim Solution

Shared server

Provides un-monitored equal access to the same data in the same timescale, but limits competitive aftermarket services.

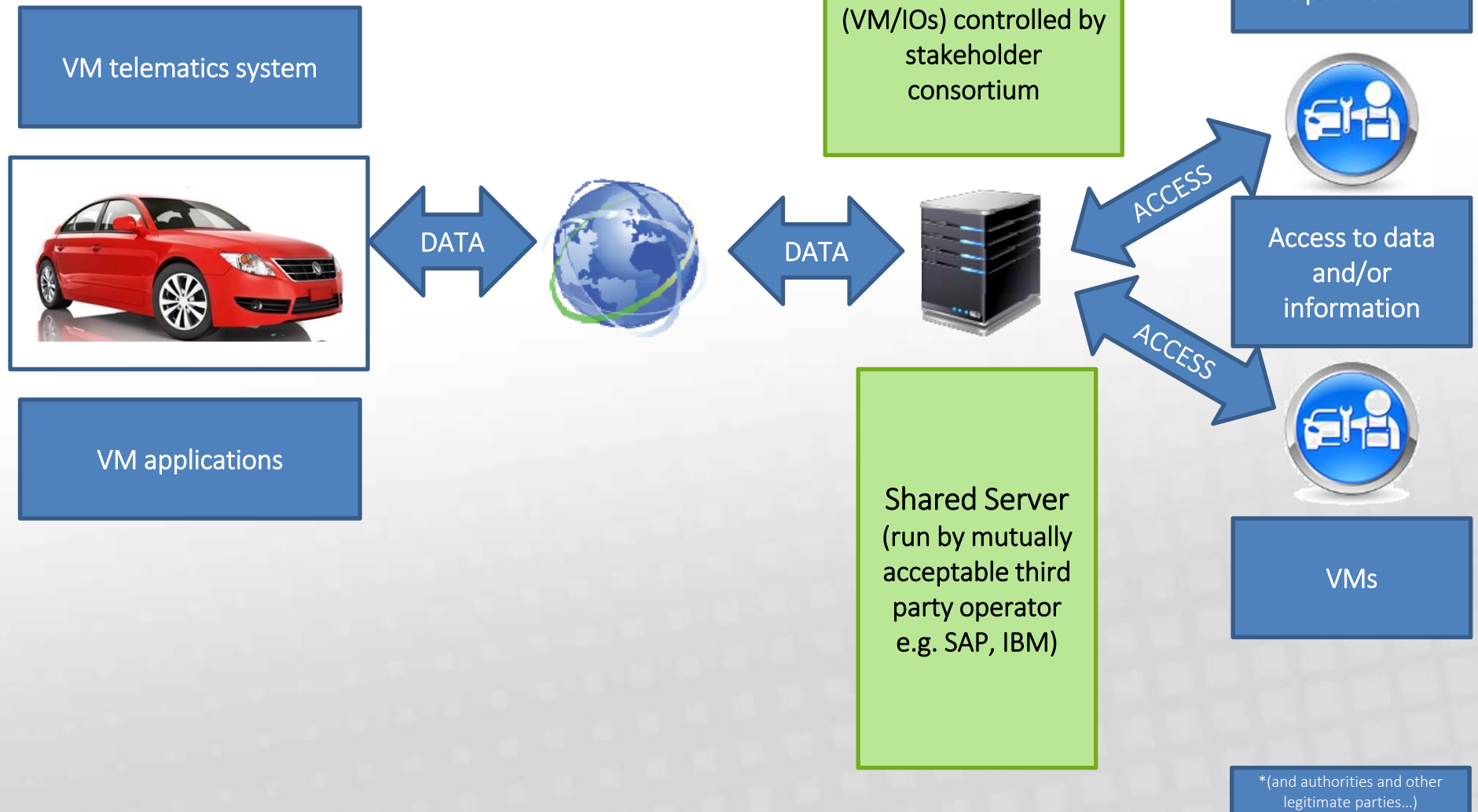


In-vehicle standardised hardware interface (“OBD plus”)

Provides un-monitored equal access to the same data in the same timescale and the ability to support greater competitive consumer choice.

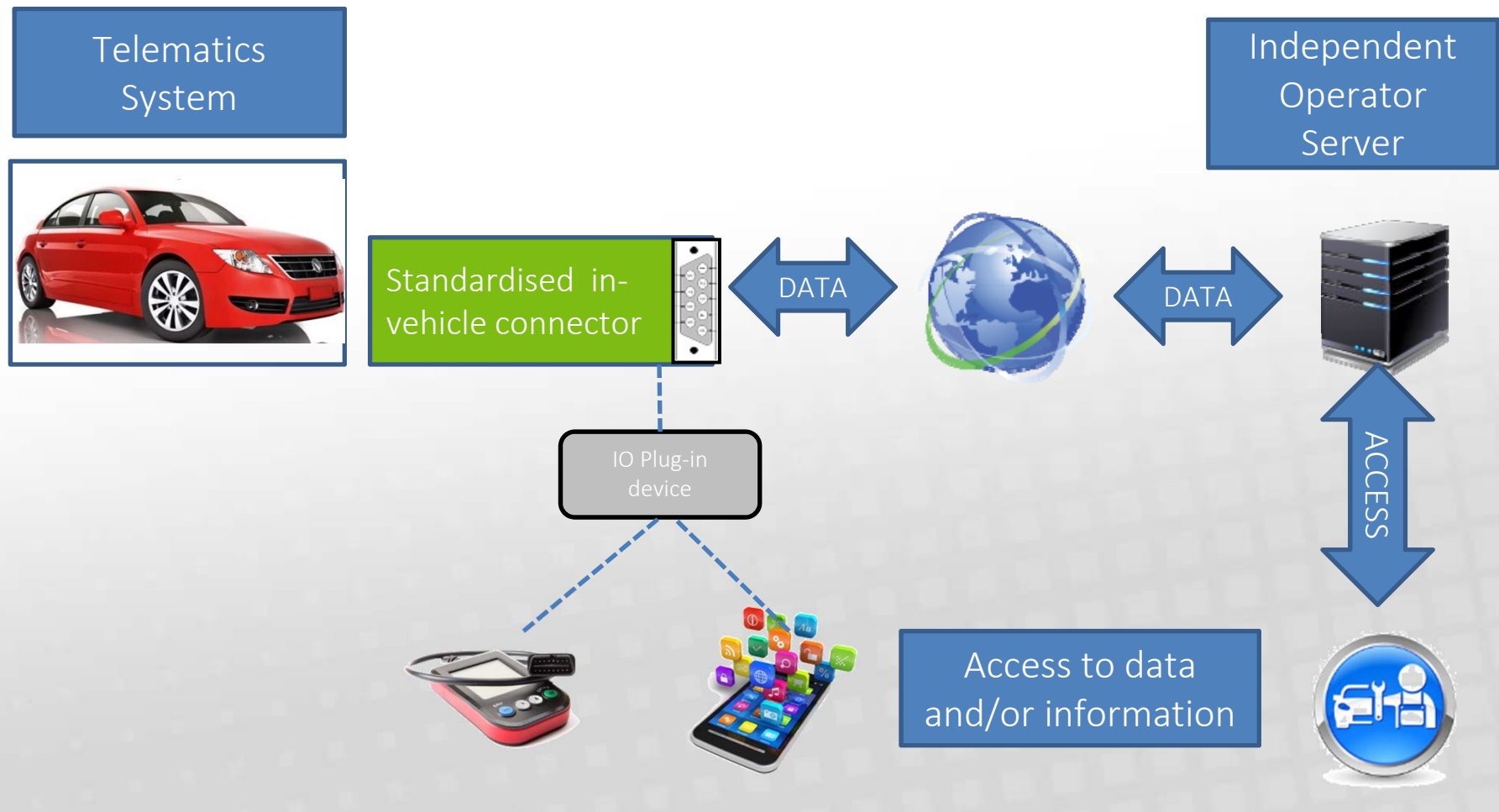
The Shared Server concept (abstract)

High level description



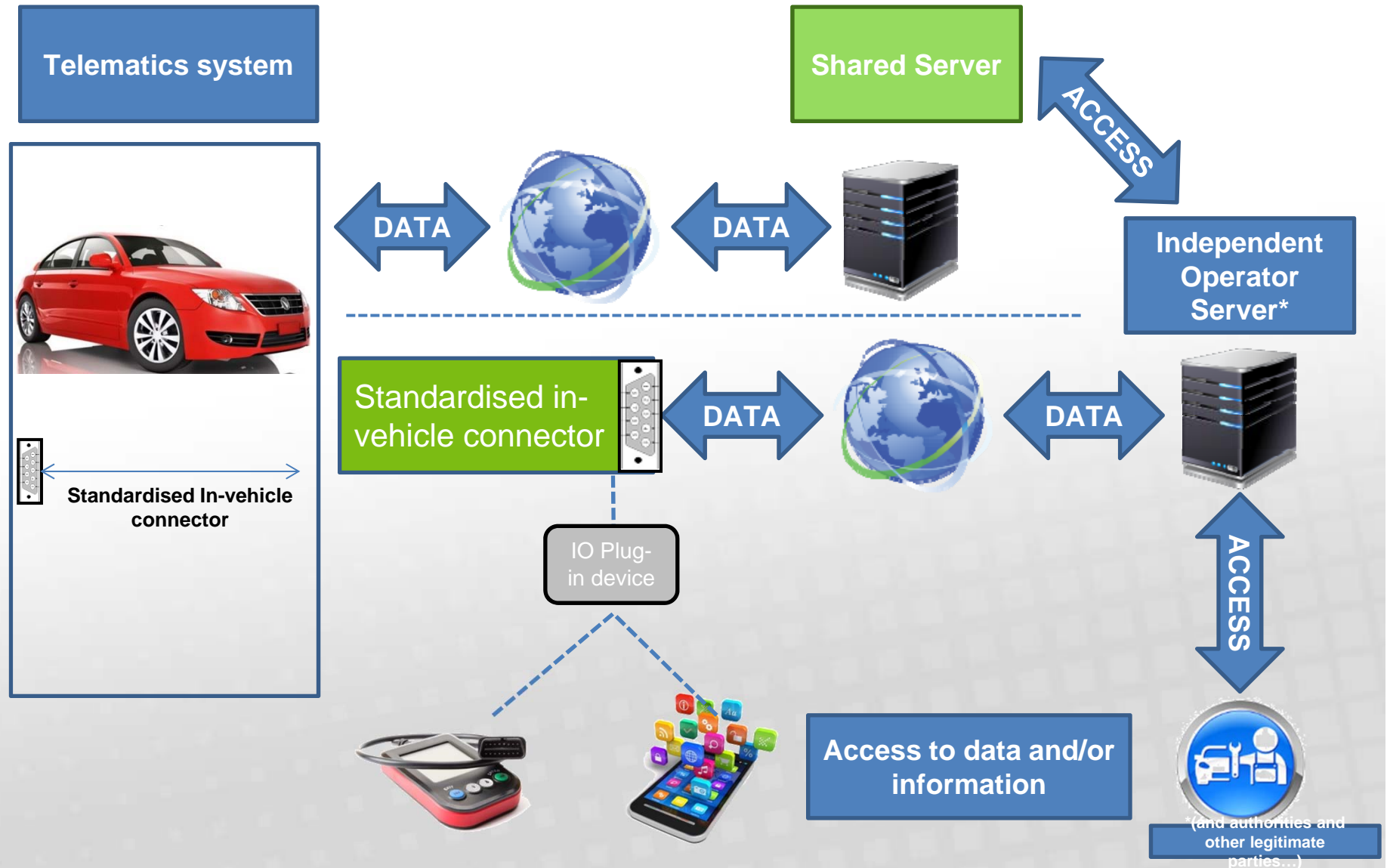
Standardised in-vehicle connector

High level description



AFCAR combined interim solution

High level description: Shared server + in-vehicle connector



Longer term – final solution

The AFCAR proposal: A true interoperable platform for multiple applications

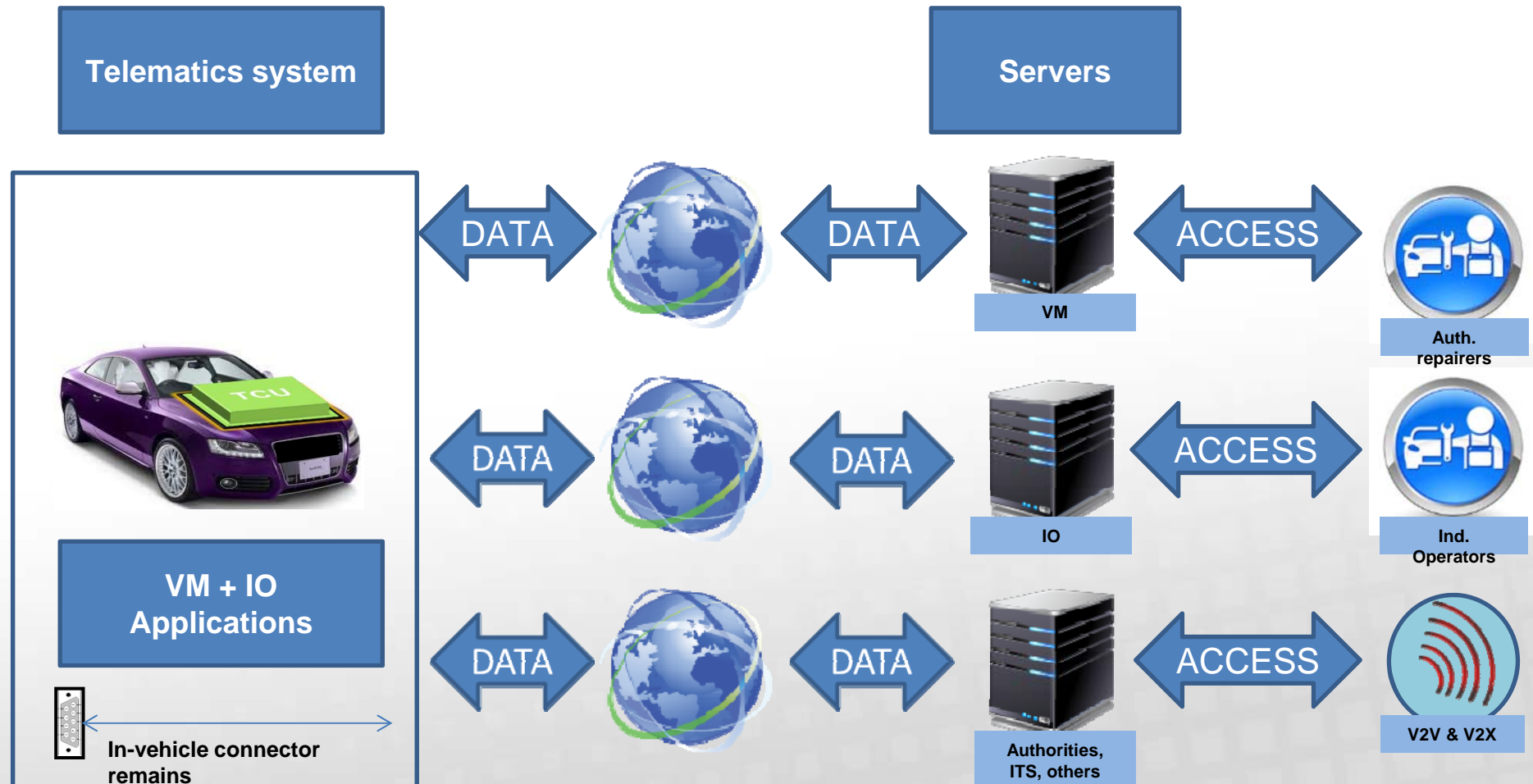


Basic principles for competitive telematics

- ✓ **All IOs need the same access conditions as the VMs in terms of:**
 - same data
 - same latency (timescale)
 - same capacity to read/write information to/from the vehicle
 - interpretation of data to information
- ➡ **No longer non-discriminatory with the authorised repairer!**
- ✓ **The vehicle owner/operator able to choose what width and depth of data is exchanged with whom and when**
- ✓ **IOs need independent, unmonitored access to the vehicle and the in-vehicle data**
- ✓ **Independent and secure development of new services**

The Interoperable In-Vehicle Telematics Platform

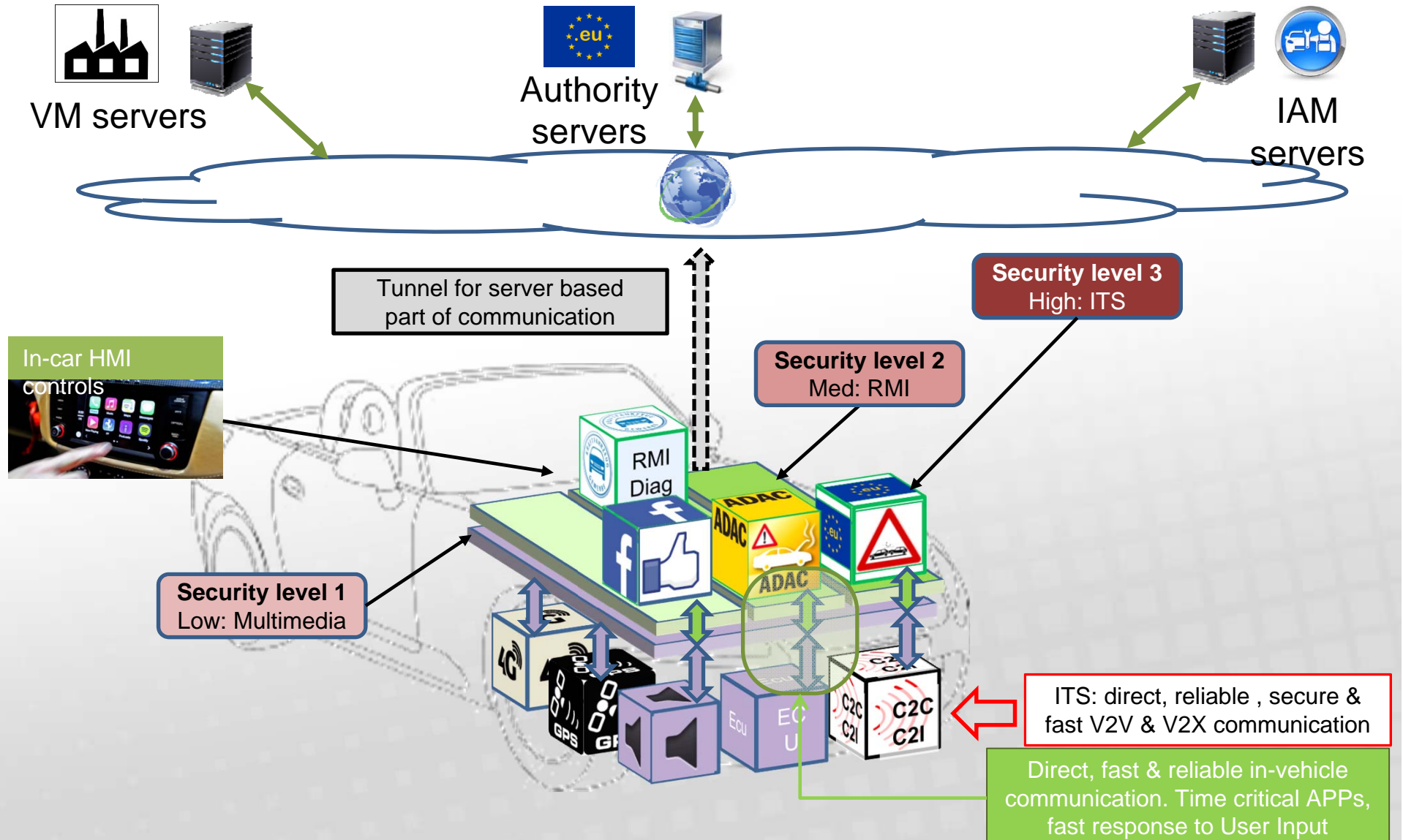
High level description



Equal opportunities for all stakeholders

The interoperable, standardised, secure and open-access platform

A platform, implemented by all VMs, that allows for fast in-vehicle data access, V2V or V2X applications and the implementation of secure APPs through appropriate levels of security control.



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**HOW TO COMMUNICATE WITH THE NEW
VOLVO XC90 WITHOUT ANY PHYSICAL
CONNECTOR?**

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ACCESS TO SECURED IN VEHICLE NETWORKS (IVN)

- REPORT FROM JOINT ISO/SAE/ETI MEETING ON 14TH OF MAY-

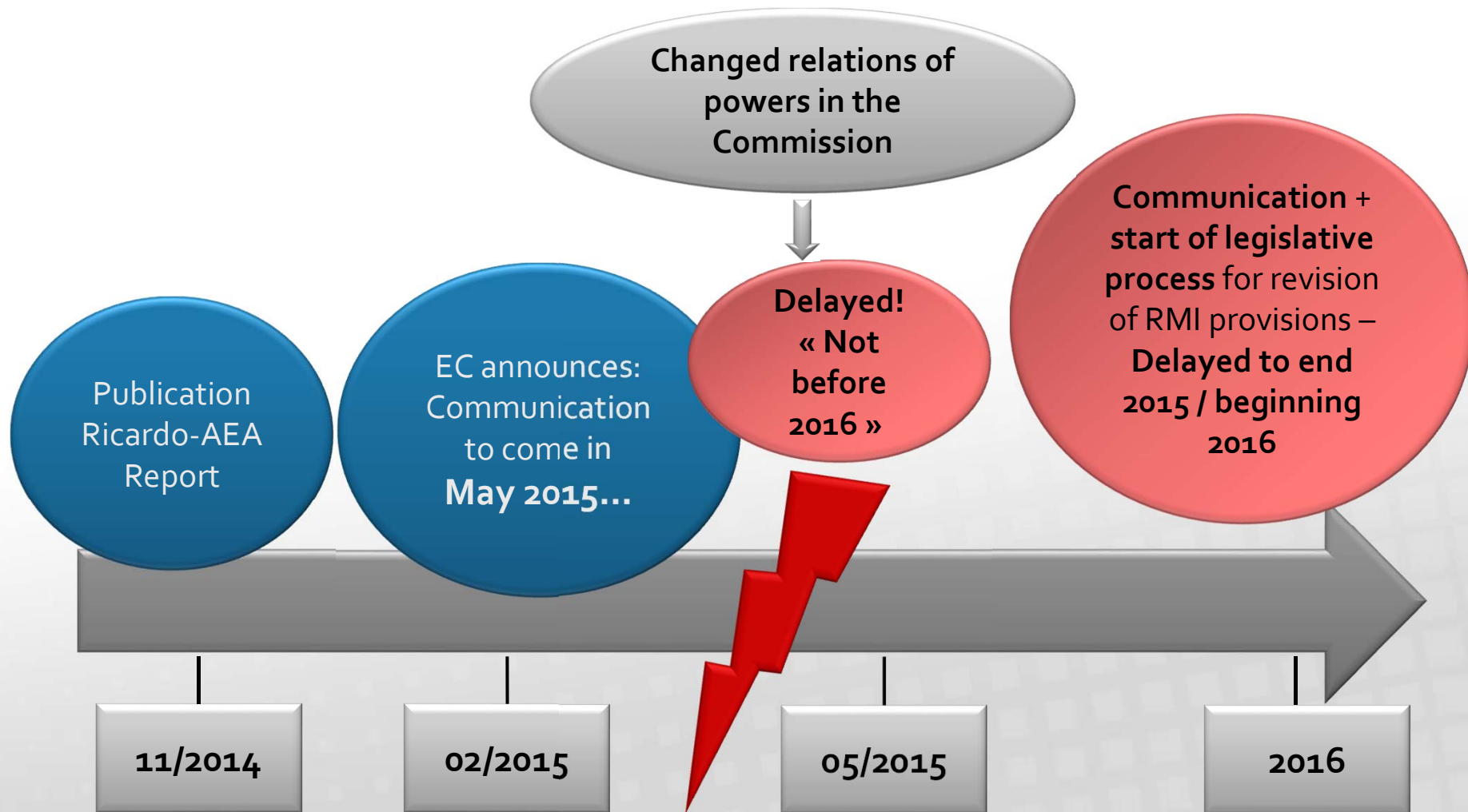
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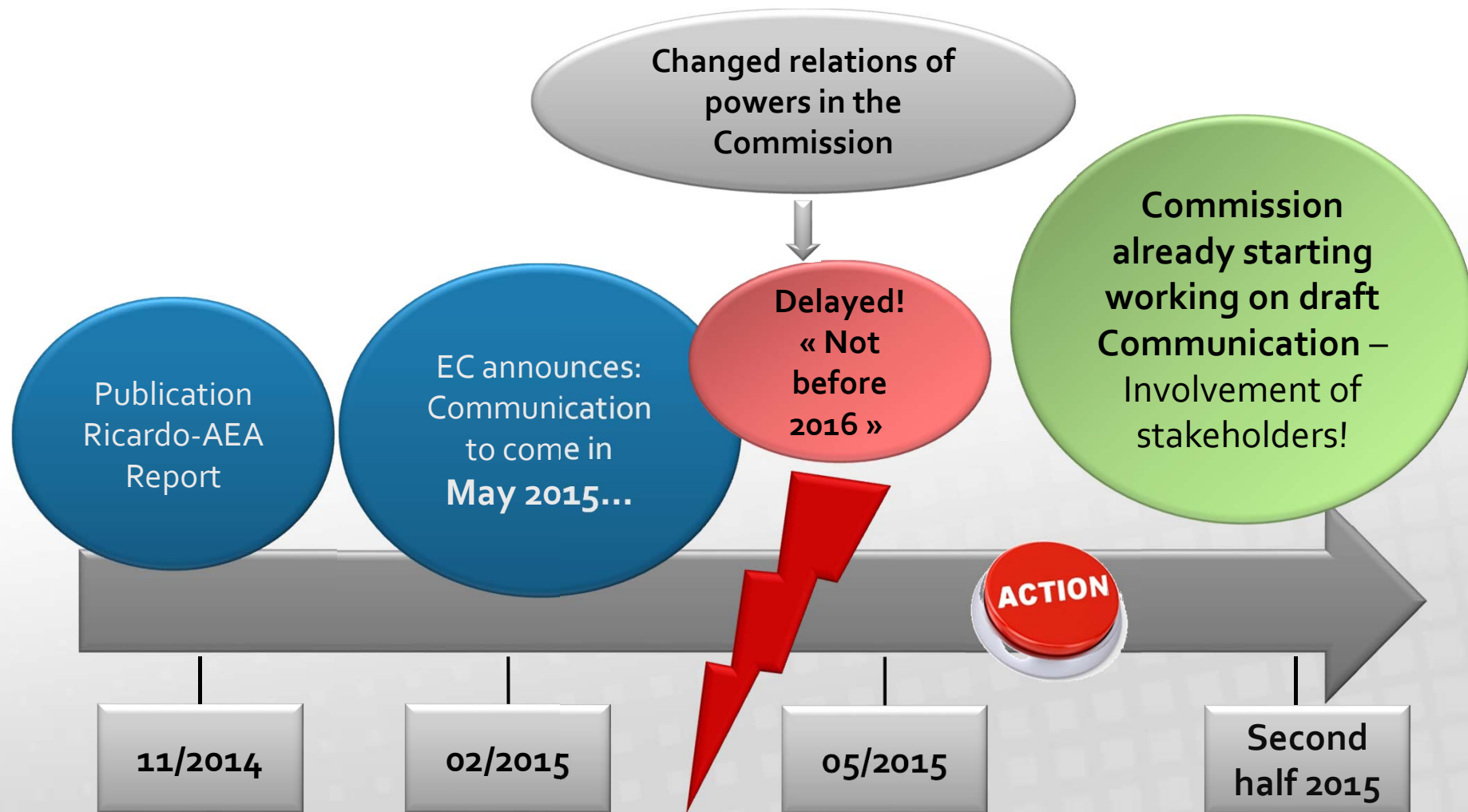


RICARDO STUDY - REPORT ON THE FUNCTIONING OF EURO 5

Ricardo AEA Report: Follow-up



Ricardo AEA Report: Follow-up



Ricardo AEA Study: Next Steps

In the short term

- 'EC Communication' should have been ready in May for submission to the European Parliament and Council
- Due to delays, Commission follow-up Communication is now expected by end 2015 / beginning 2016

In the long term, EC to address shortcomings of Euro 5 Regulations in a more robust way

- Official revision of Euro 5 Regulations → hardlaw approach

EGEA Actions!

- Work to propose improvements to the current Euro 5 legislation
- Liaise with the Commission to contribute to preparation of Commission's Communication and to legislative revision process



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Thank you

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