

Emissions meeting

23rd July 2014 - Brussels



AGENDA - Meeting 23rd July 2014 (1)

➤ **Update New Roadworthiness Directive 2014/45 (EU)**

- Implications for emission testing
- Vehicle Information Platform (VIP)
- Actions on National level by EGEA members
- WG2 participant feedback
- EGEA questions to the EC

➤ **Initiatives on emissions - National level**

- Italy
- France
- Germany
- others.....?

AGENDA - Meeting 23rd July 2014 (2)

- **Initiatives on emissions - European level**
 - SET study CITA
 - Review of UNECE Regulation 83 for Euro 6 OBD requirements:
What would be the impact of IS 27145 being included?
Is more robust type approval and market surveillance needed for OBD?
 - Should EGEA support better technical provisions?
- **How to include NOx and particle in future emissions testing**
 - Review of studies
 - Should/could NOx be included in future PTI Directive?
- **Input from WG2 emission members for 2014/15 activities**
(EGEA Board request)
- **Any other business**
- **Date of next meeting**

New PTI Roadworthiness Directive 2014/45/EU!



New Directive 2014/45/EU: key elements

- **Legal form: Directive**
 - to allow Member States to better adapt to their needs. The Member States are allowed to set higher test standards than those required by this new Directive
- This new Directive defines **common minimum requirements**
- **Scope**
 - Extension to ‘heavy’ L-category vehicles (> 125 ccm) , T5-category vehicles and trailers which are used for commercial transportation
 - With opt out from motorcycle testing if road safety enhancement can be reached by other measures published by the memberstates
- Possibility for **additional high mileage vehicles testing (>160.000 km)**

New Directive 2014/45/EU: key elements

- **Exemptions for some vehicles**
 - Historic vehicles, vehicles covered by diplomatic immunity, vehicles used by armed forces, etc...
- **Provides for testing of electronic safety components**
 - Access to technical information for testing
 - Use of electronic vehicle interface for testing (safety relevant systems)
- **Emissions:**
 - tailpipe testing as default up to Euro 5/V or *OBD when equivalence proved by Member States!!!*
 - OBD or tailpipe testing as of Euro 6/VI
- Harmonised assessment of defects

New Directive 2014/45/EU: key elements

- **Preamble**

- (9) During the last two decades, requirements on vehicle emissions for type-approval have been continuously strengthened. However, air quality has not improved as much as predicted with the tightening of emission standards for vehicles, especially in respect of nitrogen oxides (NO_x) and fine particulate matter. Possibilities to improve test cycles to match on-road conditions should be closely examined in order to develop future solutions, including the establishment of test methods for the measurement of NO_x levels and of limit values for NO_x emissions.

New Directive 2014/45/EU: key elements

- **Annexes**
 - Common minimum standards for test equipment
 - Common minimum standards for skills and training of inspectors
 - Common minimum standards for supervision of non – governmental test centres
 - Provides for detection and punishment of mileage fraud
 - Provides for mutual recognition of inspection certificates in cases of re-registration

- **Next steps for the European Commission**
 - The Commission to examine feasibility, costs and benefits of establishment of an electronic vehicle information platform
 - Delegated acts for defined elements (vehicle category designation, test methods, ...)
 - Implementing act on technical information from manufacturers for testing (commenced as Roadworthiness Technical Working Group)
 - Improvements of test cycles, test methods of NO_x, limit values.

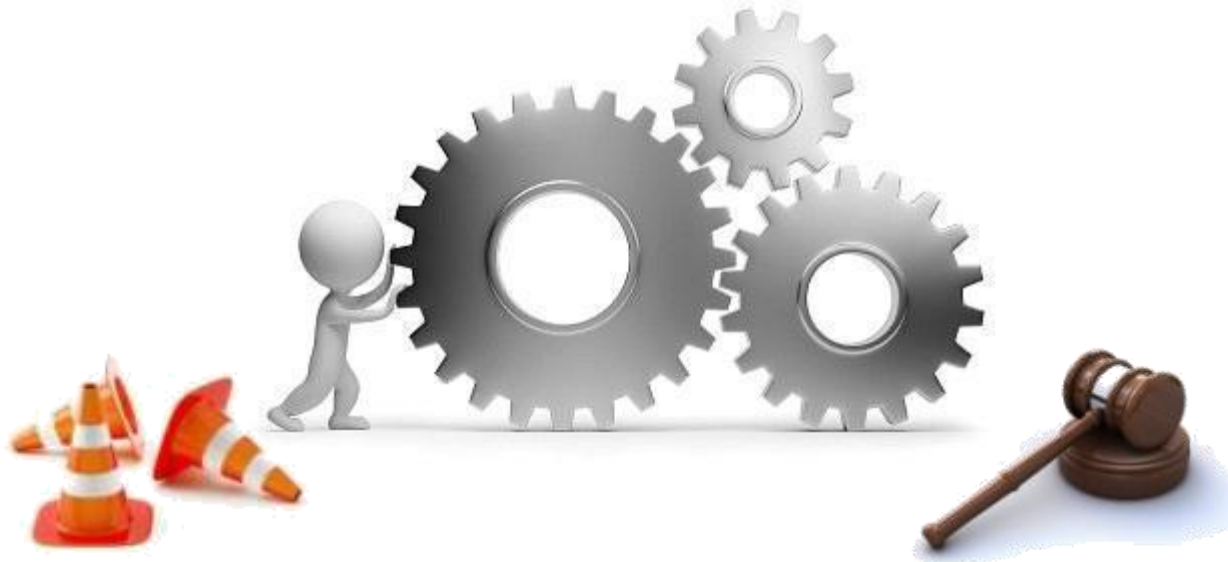
New Directive 2014/45/EU: key elements

- **Directive entered into force on May 20, 2014**
- **Transposition into National legislation**
 - Transposition: 36 months after the entry into force
- **Application**
 - Application: 48 months after the entry into force
 - Different application dates for:
 - Motorcycles (1.1.2022)
 - Equipment and supervision (5 years after the application, i.e. 9 years after the entry into force)
 - Risk-rating (5 years after the entry into force)

Implementing acts & Work programme

- **20 May 2018:** implementing act on
 - Set of technical information necessary for the roadworthiness testing
 - Detailed rules for data format and access procedures
- **30 April 2019:** report on inclusion on light trailers and powered two-wheelers into scope of PTI
- **30 April 2020:** report on level of harmonisation, scope, frequency of testing, mutual recognition and VIP
- **30 April 2020:** report on inclusion of light vans and light trailers in scope of technical roadside inspection
- **20 May 2022:** report on harmonisation of risk-rating systems
- **Xx xx 20xx:** implementing acts on detailed rules regarding format for communication of data on roadside checks electronically between Member States and the Commission

Other implications for the implementing measures Vehicle Information Platform (VIP)



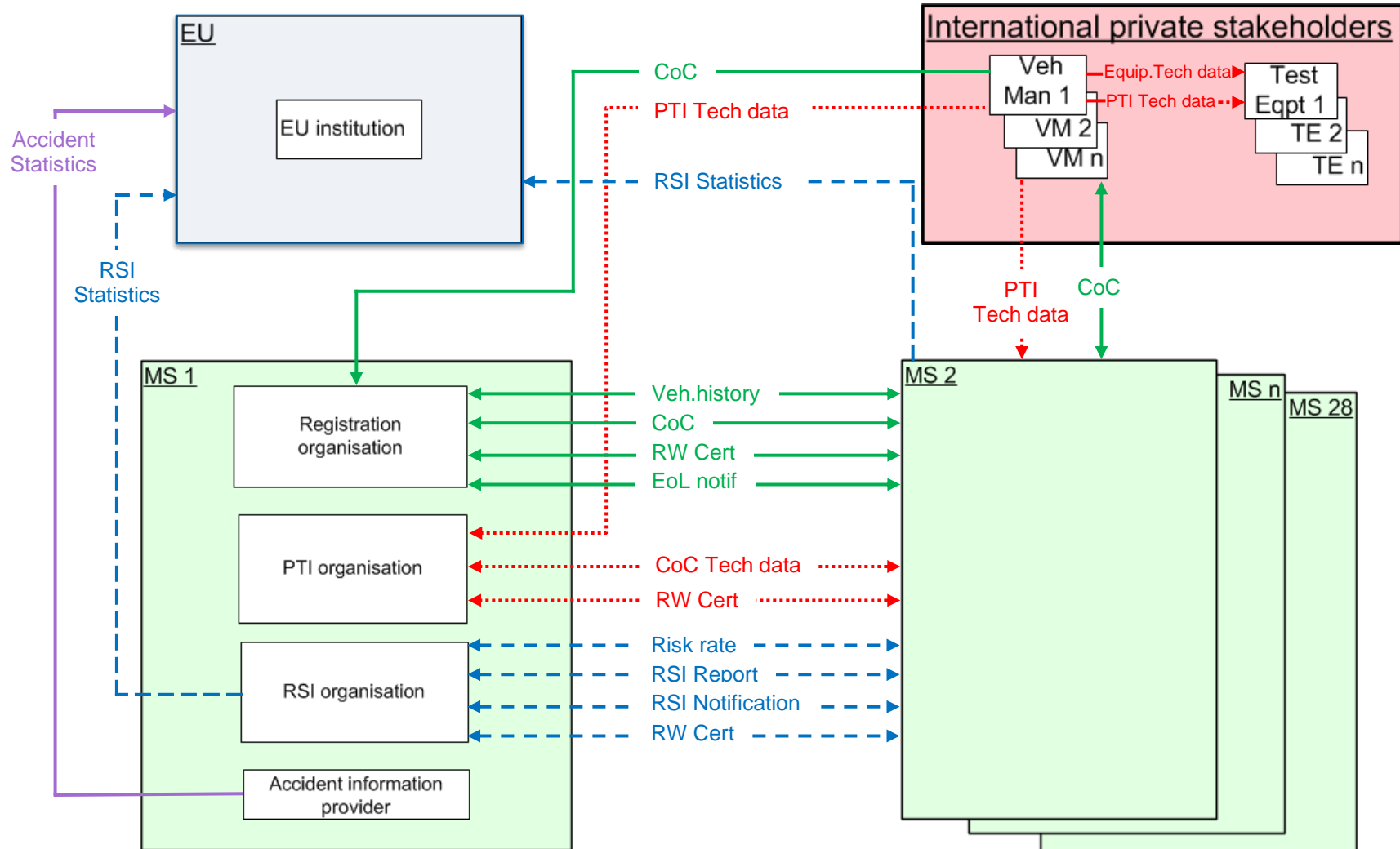
Implementing acts: VIP

- **Interim presentation of the feasibility study on the creation of the vehicle information platform by UNISYS at the last Roadworthiness Committee meeting**
- **UNISYS clearly explained that there is NO one single technical solution and recommended two scenarios:**
 - To create something completely new or improve existing systems already in place such as EUCARIS
 - For some data flow exchange, it could be done only between Member States and no need to have the VIP for these data flow exchange

Implementing acts: VIP – vehicle data

Vehicle data	Registration	Certificate of Conformity (CoC)
		End-of-Life
		Vehicle history
	Periodical Technical Inspection (PTI)	CoC technical data
		PTI technical data
		Equipment technical data
		Roadworthiness certificate
	Roadside Inspection (RSI)	Risk rate
		RSI report
		RSI notification
		RSI statistics
	Accidents	Accident history
		Accident statistics

Implementing acts: VIP – business flow



Actions on national level by EGEA Members



Implementation of Directive 2014/45/EU at national level

➤ **Key issues for action:**

- Emissions testing: OBD vs Tailpipe testing
- Electronic certificate
- Electronic interface/link to other test equipment (brake tester, headlamp tester, etc...)
- Headlamp testing
- Access to technical information

➤ **Tools to accompany the implementation – how to?:**

- Creation of EGEA implementation guide
- Organisation of EGEA experts WGs
- Each individual EGEA national association must monitor and accompany the national developments

➤ **How to proceed with EU Member States with no EGEA members?**

2014/45 (EU) – Gaseous emissions

From 20th May 2018

- For vehicles up to emission classes Euro 5 and Euro V, measurement using an exhaust gas analyser in accordance with the requirements or reading of OBD.

Tailpipe testing shall be the default method of exhaust emission assessment. On the basis of an assessment of equivalence, and by taking into account the relevant type approval legislation, Member States may authorise the use of OBD in accordance with the manufacturer's recommendations and other requirements.

- For vehicles as of emission classes Euro 6 and Euro VI, measurement using an exhaust gas analyser in accordance with the requirements or reading of OBD in accordance with the manufacturer's recommendations and other requirements.



2014/45 (EU) – Opacity

From 20th May 2018

- For vehicles up to emission classes Euro 5 and Euro V, Exhaust gas opacity to be measured during free acceleration (no load from idle up to cut-off speed) with gear lever in neutral and clutch engaged or reading of OBD. The tailpipe testing shall be the default method of exhaust emission assessment. On the basis of an assessment of equivalence, Member States may authorise the use of OBD in accordance with the manufacturer's recommendations and other requirements.
- For vehicles as of emission classes Euro 6 and Euro VI, Exhaust gas opacity to be measured during free acceleration (no load from idle up to cut-off speed) with gear lever in neutral and clutch engaged or reading of OBD in accordance with the manufacturer's recommendations and other requirements.



Implications for emission testing

- How will Member States show 'equivalence'?
- What test procedure will be used in each Member State?
- How will Member States handle vehicles where OBD communication has not been possible?
- What does 'OBD testing' actually mean? Fault codes? Readiness function??
- What functionality does an OBD test need to support (protocols, test routine, pass/fail criteria...?)
- What happens with vehicles showing NOx codes which are present during PTI test (400 days/9600 hours phase)



More Questions (to be elaborated by WG2)

- How can we ensure that EGEA members benefits from both OBD and tailpipe testing?
- Could an OBD tool costing 30 Euros also be used for PTI?? Definition of an OBD tool for PTI
- How will OBD test results kept recorded (certificate??)
- Where is fixed which protocols must be covered by an OBD tool SAE J1850??
WWH-OBD, SAE J1939

Initiatives on emissions at national level – Round-up



Initiatives at National level – round up

- Italy – creation of a new standard for tailpipe tests – diesel
- France – study for improvements for opacity meters
- Germany – update of the PTB study findings
- Others.....

Initiatives on emissions – European level



Implementing acts: Emissions

- **Launch of new Sustainable Emission Testing (SET) by CITA in close collaboration with the Commission, because:**
 - Follow-up project from first TEDDIE project for N1 and M1 vehicles
 - No significant improvement regarding air pollution especially in urban areas
 - There are findings that deterioration, faults and manipulation of emission control systems can only partially be detected with the current emission test procedures
 - Current thresholds and measurement procedures of emission tests are put into question because suitability for modern vehicles is limited and therefore the fault ratio is decreasingly continuously
 - OBD only not sufficient

Implementing acts: Emissions

- **To guarantee independent emission tests also in future, SET has to deal with the following topics:**
 - Further development of the test procedures including meaningful measurement categories und updated thresholds.
 - Determination of suitable and cost-efficient devices.
 - Confirmation of the results of laboratory testing (TEDDIE) by field tests
 - Establishment of a transparent cost/benefit analysis
- **A research in the context of NO_x will not be part of this study**
- **EGEA Members participating in this study:**
 - Maha, AVL, Capelec and Bosch

Initiatives on OBD – European level

Key activities for discussion:

- Review of UNECE Regulation 83 for EURO 6 OBD
- ISO 27145 be included – what would be the impact?
- 29 bit identifiers for OBD – ACEA proposal
- Market surveillance for OBD emissions type approval compliance – should it be more robust?
- Should EGEA propose technical revisions to support improved OBD functionality?

Future NOx measuring – European level

Key activities for discussion:

- Review of studies and their analysis
- Laser particle versus 2nd generation opacity?
- How to introduce NOx measuring in the future?
 - Collection and review of studies
 - Should NOx measurements be included in Type Approval legislation for future PTI testing?

WG2 activity planning – 2014/2015

- Work plan for 2014 – 2015 – key activities
- Budget planning – needed by the EGEA Board

Any other business

- New EGEA WG rules
- Any other business?



Thank you!

