Unit C4: Road Safety

Project:

Stakeholder EGEA.

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Abstract

**In the scope of the Vehicle Information Platform feasibility study, this questionnaire has the objective to collect all necessary information on technical vehicle data exchange in the scope of Periodic Technical Inspection and Road Side Inspection processes.**

Document information

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| owner |  |
| ISSUE DATE |  |
| VERSION |  |
| STATUS |  |

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# Context of the vehicle information platform

In 2010, The European Commission, Directorate General for Mobility and Transport (DG MOVE) led an Impact assessment study on Roadworthiness Package. This study was triggered by the fact that there are too many vehicles with technical defects on the road causing accidents, injuries and fatalities. The study provided evidence on the link between road safety improvement and higher roadworthiness requirements.

The study also identified two root causes of the high level of technical defects:

* The scope of the current EU legislation is too narrow and the level of requirements it sets is too low
* Concerned actors don’t exchange information and vital data for effective tests and test results enforcement

In order to increase road safety, the EU decided to update current roadworthiness regulations in order to take the vehicle’s technological evolution into account and to enable the implementation of a vehicle information data exchange platform. The purpose of this system is to exchange technical information related to the vehicles only.

The updated regulation proposal specifies that member states (MS) competent authority shall exchange data. This updated regulation will support the data-exchange platform. One of the objectives aims towards a more harmonised Periodic Technical Inspection process throughout the EU.

An important aspect of this new regulation foresees that vehicle manufacturers shall provide Periodic Technical Inspection (PTI) centers or National Authorities with the necessary technical information for roadworthiness testing.

Article 15 of the new Regulation proposal on periodic roadworthiness tests requires the Commission to examine the feasibility, costs and benefits of the implementation of an electronic Vehicle Information Platform (VIP).

The objective of this platform VIP is to enable competent authorities of MS, roadworthiness test centers and vehicle manufacturers to exchange technical information related to vehicle approval, vehicle registration and vehicle testing.

From the new roadworthiness package, specific requirements identified for international stakeholders are the following:

* ‘Technical vehicle data shall be made available to the competent authorities or testing centers for the purpose of periodic roadworthiness testing. Member States may limit the use and the dissemination of such data by the testing centers in order to avoid its misuse.’[[1]](#footnote-1)
* ‘For the inspection of vehicles and especially for their electronic safety components it is crucial to have access to the technical specifications of each single vehicle. Therefore vehicle manufacturers should provide data necessary for verification of the functionality of safety and environmental related components.’[[2]](#footnote-2)
* Single point of access for: the technical information on breaking equipment, steering, visibility, lamps, reflectors, electrical equipment, axles, wheels, tyres, suspension, chassis, chassis attachments, other equipment and nuisance necessary for roadworthiness testing of the items to be tested and the use of the recommended test methods, in accordance with Annex II, Point 3.[[3]](#footnote-3)

# Context of the Present study

In June 2013, the Commission contracted Unisys Belgium to conduct the feasibility study of a Vehicle Information Platform. The study includes desk-based research and interviews with different stakeholders at national and European level. These last are conducted in a two-step process:

* E-mail questionnaires sent to stakeholders for collecting general and specific background information on Vehicle information.
* Face-to-face interviews with stakeholders to understand the different perspectives and gather more in-detail information where needed.

The key objective of this questionnaire is to gather information about your current organization and systems dealing with roadworthiness processes, focusing on data exchange with national authorities and stakeholders and European Institutions.

This Questionnaire offers you the chance to provide the European Commission with more insights on your current organisation. Moreover, it offers you the possibility to clarify and communicate your needs and priorities in this domain.

## About the questionnaire

This questionnaire aims to understand the following:

* current stakeholder’s organisation in terms of communication with national authorities and stakeholders in the scope of Vehicle Registration, Periodic Technical Inspection (PTI) and Road Side Inspection (RSI).
* current vehicle technical data exchanges with both national authorities and stakeholders and European institutions
* the future needs and requirements linked to the implementation of a Vehicle Information Platform.

The European Commission requests to have this questionnaire filled in and sent back 2 working weeks after reception.

## How to complete this questionnaire

To help you answering the Questionnaire in an efficient manner, we have used different kinds of questions; open questions, check boxes and tables to be filled in. Editable paragraphs where you can provide your answers are highlighted.

Some questions give you the opportunity to provide comments or to give more explanation.

When answering the questions, please keep in mind that the purpose is to gain a clear understanding and overview of the information data communication channels and how vehicle information is exchanged with national authorities and stakeholders.

Additionally, the questions give you the opportunity to provide your comments and suggestions on vehicle information exchange.

## Important notice

For further enquiries regarding the project in general or this questionnaire, do not hesitate to send an e-mail to the following e-mailbox: VIPstudy@unisys.com.

## Guarantee of Confidentiality

This individual questionnaire will be disclosed “as-is” to the European Commission, but not “as-is” to any other party. However the findings will be consolidated in a general overview or in comparative tables for the purpose of study or trend analysis.

Personal information concerning contact names is needed for further contacts. This information will not be disclosed “as-is” to any party and will only be used by the European Commission in the scope of the study.

# The existing environment for vehicle information

This part of the questionnaire allows clarifying how Stakeholders are organised for data exchange of technical vehicle data information. It will also improve the European Commission’s understanding of the current context of the Roadworthiness system.

**3.0. Please fill in information about the person replying to the questionnaire:**

This information is needed for the European Commission to have a contact name in case they would need clarifications on the responses.

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Phone (with international prefix): +32 2 761 95 10

Organisation: EGEA – European Garage Equipment Association

Function: EU Affairs Manager

## International stakeholder current overview.

### How are stakeholders organised at national level in order to communicate and exchange technical vehicle information data with national authorities and stakeholders? National authorities and stakeholders concerned are the following: Type approval authorities, registration authorities, PTI responsible authorities, PTI centers, RSI responsible authorities.

|  |  |  |  |
| --- | --- | --- | --- |
| Organisation type | Y/N | MS list | Comment |
| National representatives association (ie FEBIAC in BE) | y |  BE: Federauto (FMA), FR:GIEG, IT: AICA, ES: AFIBA, UK: GEA, DE: ASA, NL: RAI, NO: ABL, SE: FVU, PL: STM, AT: AVL DiTest | Communication and organization only, NO exchange of technical vehicle information |
| National representatives | y | BE: GOCA, SPF Mobility, SPF Economy, DIV | Communication and organization only, NO exchange of technical vehicle information |
| Stakeholder’s headquarter | y | EGEA – Brussels | Communication and organization only, NO exchange of technical vehicle information. In Belgium, project currently being developed called MOBIVIS |
| Other, please specify:  | y | Vehicle information can be obtained in various countries from government agencies based on vehicle number plate |  |

Table 1: Stakeholders’ organisation

Additional comment:

Although the focus of this questionnaire is on transmission of vehicle data to the PTI centres, the responder covers here also the creation and transmission of PTI test results.

In the framework of harmonization and mutual recognition across Europe EGEA is working on a single solution to facilitate the creation and transmission of harmonized test results to targeted recipients.

This response is also based on the exchange of PTI technical information today, and cannot completely reflect how this exchange may be structured in the future, especially if functionality testing of electronically controlled safety systems is included, requiring much more detailed data and technical information.

### How are stakeholders organised at international level in order to communicate and exchange technical vehicle information data with EU institutions?

Please describe:

EGEA – European Garage and Test Equipment Association (manufacturers of PTI test equipment) at European level: no exchange of technical vehicle information with EU institution at the present. See also the comment above concerning the more detailed technical information required for future testing requirements, in particular for testing safety electronic systems as requested by the new revision of the PTI Directive.

## The current exchange of vehicle information data

The objective is to allow the European Commission to understand the current organisation of stakeholders related to the data information exchange in relation with the current business processes in place. Also, this section allows the European Commission to identify future needs in respect of the VIP.

### Please identify with which national authorities and/or stakeholders exchange of technical information data are currently in place. Where applicable, please enlist the MS where this is effective.

|  |  |  |
| --- | --- | --- |
| Organisation type | Y/N | MS list |
| National Vehicle Type Approval Authorities | N |   |
| National Registration Authorities | N |  |
| PTI responsible national authorities | N |  |
| PTI centers | Y |  |
| RSI responsible national authorities | N |  |
| EU institutions: please specify |  |  |
| Other actors linked to PTI and RSI processes, please specify: Workshops |  |  |

Table 2: Stakeholders’ communication at national level

Additional comment:

In Belgium, there is a project currently being developed by some stakeholders together with SPF Mobilité called ‘MOBIVIS’, FEDERAUTO shall therefore be a stakeholder. As a general comment and in some EU Member States, workshops are able to conduct some aspects of the PTI (e.g. emissions testing in Germany) or are only authorised to do re-inspections of PTI (e.g in Sweden).

**Additional question: As Garage Equipment provider, do you currently exchange data with those authorities?**

**Answer:** Currently we exchange technical data with PTI centres and, in a limited way, with some national authorities for basic information.

**Additional question: Do you currently exchange technical vehicle information data with Vehicle Manufacturers? If yes, what are the mechanisms in place?**

**Answer:** Currently in a limited and restrictive manner. However this will need to change in the future due to the increasing complexity of PTI (ECSS testing).

### Please list in the table below all international vehicle information systems currently in use for international vehicle data exchange.

|  |  |  |  |
| --- | --- | --- | --- |
| Register/system name | Owner | Register/system content | Usage, functionalities |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 3: List of systems related to international vehicle information data exchange

Additional comment:

### What are currently the main practical problems encountered with respect to transmitting vehicle information to national competent authorities and stakeholders? Would there be more than 1 problem, please prioritize the impact (1: High, 2: Medium, 3: Low).

|  |  |
| --- | --- |
| Practical problem | Impact(1: high, 2 medium, 3: low, 4: not a problem) |
| No formal vehicle information exchange model is defined at EU level | 1 |
| Bilateral agreements not available or EU regulation not in place | 1 |
| Lack of vehicle information data | 1 |
| National vehicle information is not centralised | 3 |
| Technical issues | 3 |
| Budgetary issues | 2 |
| Other: please specify |  |

Table 4: List of practical problems encountered in data exchange

Additional comment:

It is assumed that the question was related to *RETRIEVING* vehicle information (not only transmitting)

**Additional question: what are the most practical problems to exchange vehicle technical information data?**

**Answer:** This is already a problem. No standard format and structure defined for PTI information. New technology in lighting, safety and other equipment require special testing procedures that are not standardized. PTI communication for ECSS is not standardized.

## System data

### In order to understand which vehicle information data are currently exchanged, please identify the kind of information that is exchanged for the business processes enlisted in the table below. In order to understand the future needs, please identify and prioritize the need for the business process.

The objective is to collect detailed information on the current information exchanged with existing registers/systems and understand future needs in terms of data exchange.

For each identified business process in the following table, please specify whether specific functionality is already available in the system at the national level.

* + If yes, please specify
		- The kind of information exchanged: more detail on information will be asked in the following question
		- The name(s) of the other register(s) system(s) exchanging the information with the register the document is about
	+ If no – please assign priority according to needs: 1: absolute necessity, 2: nice to have, 3: not needed.

| Business process | Currently available(Y/N) | Information exchanged | Register/System name | Priority of the future needs (1-3) |
| --- | --- | --- | --- | --- |
| 1. **Vehicle identification functionalities**
 |
| * 1. Exchange Certificate of Conformity with national register
 | *n* |  |  |  |
| * 1. Check for duplicates based on the VIN
 | n |  |  | 3 |
| * 1. Others, please specify
 |  |  |  |  |
| 1. **PTI functionalities**
 |
| * 1. Exchange relevant technical information of a vehicle based on the VIN in order to perform the test for the following inspection areas:
 | n |  |  |  |
| * + 1. *Braking equipment*
 | n |  |  | 1 |
| * + 1. *Steering*
 | n |  |  | 1 |
| * + 1. *Visibility*
 | n |  |  |  |
| * + 1. *Lighting equipment and parts of electric system*
 | n |  |  | 1 |
| * + 1. *Axles, wheels, tyres, suspension*
 | n |  |  | 1 |
| * + 1. *Chassis and chassis attachments*
 | n |  |  | 2 |
| * + 1. *Supplementary tests for passenger carrying vehicles*
 | n |  |  | 2 |
| * + 1. *Other equipment, please specify*
 |  |  |  |  |
| * + 1. *Nuisance (noise and emissions)*
 | n |  |  | 1 |
| * + 1. *Electronic Controlled safety Systems (ECSS):*
 | n |  |  | 1 |
| * + - 1. *Electronic Stability Control (ESC)*
 | n |  |  | 1 |
| * + - 1. *Anti-lock Braking System (ABS)*
 | n |  |  | 1 |
| * + - 1. *Electronic Braking System (EBS)*
 | n |  |  | 1 |
| * + - 1. *Electronic Power Steering (EPS)*
 | n |  |  | 1 |
| * + - 1. *Emergency Brake Assist (EBA)*
 | n |  |  | 1 |
| * + - 1. *Supplemental Restraint Systems (SRS)*
 | n |  |  | 1 |
| * + - 1. *Safety Belt Load Limiter*
 | n |  |  | 1 |
| * + - 1. *Safety Belt Pretensioner*
 | n |  |  | 1 |
| * + - 1. *Airbag*
 | n |  |  | 1 |
| * + 1. *Speed control*
 | n |  |  | 2 |
| * + 1. *Tyres calibration parameter for Tachograph*
 | n |  |  | 1 |
| * 1. Others, please specify
 |  |  |  |  |
| * 1. Others, please specify
 |  |  |  |  |
| 1. **Road Side Inspection functionalities**
 |
| * 1. Please specify
 |  |  |  |  |
| 1. **REPORTS and STATISTICS**
 |
| * 1. Send reports and statistics to EU institutions
 | n |  |  |  |
| * 1. Others, please specify
 |  |  |  |  |
| 1. **Other functionalities (please add as many rows as needed)**
 |
| * 1. Please specify: the VIN shall be the key to access any technical information.
 |  |  |  |  |
|  |  |  |  |  |

Table 5: System functionalities and future needs

### For each kind of information specified in the previous table, please describe the details on the content of the information concerned.

The objective is to gather details on data currently exchanged and the future needs. Please fill in the table as following:

* Information exchanged: refer to the ‘information exchanged’ from the previous table
* Detailed information data: please specify detailed information data concerning the information exchanged
* Currently available: please identify if the information is currently available
* Future need:
	+ Y: if the current information is still needed, or a missing information is needed in the future. In that case, please identify the detailed information needed.
	+ N: This information is not needed in the future.

Please note that data filled in below is an example only.

|  |  |  |  |
| --- | --- | --- | --- |
| Information exchanged | Detailed information data | Currently available(Y/N) | Future need(Y/N) |
| *Vehicle systems fitted by VIN* | *All electronically controlled safety systems fitted, with their version identity, software version, vehicle test status/conditions and test routine* | *N* | *Y* |
| All information on PTI functionalities listed in 3.3.1 | Specific testing procedures | Partially in a few MS (e.g. AU test in Germany) | *Y* |
|  | Specific pass/fail criteria and limits | Partially in a few MS (e.g. MOT database in UK) | *Y* |
|  | Information on vehicle PTI communication to execute the test procedures | *N* | *Y* |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 6: Exchanged information description

Additional comment:

### Are the current data exchange systems using standard codes (dictionaries) for specific types of fields? Please fill in the table below:

|  |  |
| --- | --- |
| Standard codes (dictionaries) | Types of fields concerned |
| None (country-specific codes used in a few MS) |  |
|  |  |
|  |  |

Table 7: Systems standard codes

Additional comments:

In Belgium, this is not in use yet, but it will be developed soon, all fields shall be filled as requested by the institution in charge.

See for example specifications of ASANET, OTC LAN and MCTCNET2.

**Additional question: what are ASANET, OTC LAN and MCTNET2?**

**Answer:** those are standard test equipment communication protocols used on national level

# The future needs

### What evolutions have been already planned concerning the exchange of vehicle information data?

Please explain:

BE: MOBIVIS is the data exchange project in Belgium, project in development

### In respect of the implementation of the VIP in the scope of the new Roadworthiness package, is there any need for the following:

* 1. additional national vehicle information register(s)/system(s)

[ ]  None

[x]  Yes: please specify: vehicle technical database with PTI information related to the VIN

Please explain: Data format shall be consistent across Member States to ensure harmonised testing standards, especially on electronically controlled safety systems and to keep development and validation costs of PTI equipment at a reasonable level, to increase reliability and interoperability of equipment, to foster competition in the market, and to allow testing of vehicles from other MS

* 1. additional national vehicle information data in existing register(s)/system(s)

[x]  None

[ ]  Yes: please specify:

Please explain:

* 1. additional vehicle information data exchange at national level (between national registers/systems)

[x]  None

[ ]  Yes: please specify:

Please explain:

* 1. additional vehicle information data exchange at EU level (with MS registers/systems)

[ ]  None

[x]  Yes: please specify: If future PTI testing of vehicles from other Member States will be allowed or required in the EU, then access to vehicle technical data across Member States will be needed.

Please explain: Online availability of PTI information for a specific vehicle, identified by its VIN or number plate (if number plate is linked to the current VIN in the national register), in a single standardised format, would allow consistent testing standards across all Member States and decrease the time to perform the inspection and would allow inspection of vehicles registered in a foreign country (equipment will be enabled to automatically select test mode and limits according to the specific vehicle by getting access to the PTI technical information).

* 1. Other:

[ ]  None

[x]  Yes: please specify: additional PTI test result information using standardised interface and data format to be exchanged at EU level between PTI Test Centres, EU MS Registers and importantly the VIP.

Please explain:

### Would you have specific requirements or suggestions for guidelines regarding the Vehicle Information Platform?

Please explain:

- Integration with existing systems currently in place at national level

- Electronic test certificate to be created by PTI test centres and sent through a standardised secure interface to EU MS Registers

- Online access and advanced download of specific vehicle technical data in machine readable format for offline use

- Access granted to PTI equipment manufacturers for accurate and consistent testing purposes as well as for validation of the equipment produced.

### Data requirements:

The new regulation requires the following:

* ‘Technical vehicle data shall be made available to the competent authorities or testing centers for the purpose of periodic roadworthiness testing.
* ‘For the inspection of vehicles and especially for their electronic safety components it is crucial to have access to the technical specifications of each single vehicle. Therefore vehicle manufacturers should provide data necessary for verification of the functionality of safety and environmental related components.’

**What would be the preferred high level structure for the data to be provided? Taking that structure into account, what is the estimated record size and how many records do you expect?**

Please explain: XML data, machine readable data such as ISO 22901-1 (ODX) and ISO 13209 (OTX); few KB to 100’s KB for complex diagnostics

### What would be the preferred data security mechanism(s) to be implemented on the VIP (data at rest)?

[x]  Open to public (no encryption, no security requirements)

[ ]  Encryption

[x]  Signature with digital certificate

[ ]  Authentication with digital certificate

[ ]  Hashing

[x]  Access Control (please specify method used): data transmission must be secured

[x]  Other, please specify:

Additional comment: EGEA is not clear on the meaning of “data at rest” as the VIP, as we understand, is only intended to transfer data between systems

Access control depends on the role (e.g. vehicle owner, authorities, PTI centres) and criteria (vehicle type data, PTI test results, mileage, etc.)

### What would be the organisation’s preferred way to connect to the VIP?

[x]  A single connection point for the organisation

[ ]  A single connection point for each member of the organisation

[x]  Other: please specify:

Please explain: a single connection point for each PTI device

### What would be the preferred type of network to be used for connecting to the VIP?

[x]  Internet

[ ]  National Administration network (please specify)

[ ]  sTESTA

[ ]  Intranet

[ ]  Other, please specify:

Additional comment:

### In the scope of the current data exchanges, what are the channels of communication and security implemented? Please select all that apply.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Present | Current channel | Preferred channel with VIP |
|  | **(Y/N)** | **Encryption****(Y/N)** | **Signature****(Y/N)** | **Encryption****(Y/N)** | **Signature****(Y/N)** |
| HTTP/HTTPS | Y | n | n |  |  |
| Web-services | Y | n | n | y for privacy relevant data only | y |
| FTP/FTPS |  |  |  |  |  |
| e-mail |  |  |  |  |  |
| Other: please specify | CD distribution | y |  |  |  |

Table 8: System communication channels description

Additional comment:

### In the scope of the current data exchanges, what are the formats exchanged and security implemented? Please select all that apply.

|  |  |  |
| --- | --- | --- |
|  | Current format | Preferred format with VIP |
|  | **Encryption****(Y/N)** | **Signature****(Y/N)** | **Encryption****(Y/N)** | **Signature****(Y/N)** |
| JSON |  |  |  |  |
| XML | n | partly | n | y |
| Photos, what format is used? Please specify: |  |  | n | Y, JPEG/PNG |
| Scanned documents, what format is used? Please specify: |  |  |  |  |
| PDF |  |  |  |  |
| Csv |  |  |  |  |
| Excel files |  |  |  |  |
| Other: please specify: Custom format (e.g. fixed length binaries) | y | n |  |  |
|  |  |  |  |  |

Table 9: System data format exchange

Additional comment:

**Additional question: With regards to Technical vehicle information data exchange, what data would need to undergo data privacy requirements?**

**Answer:** Vehicle technical data: NO. PTI test results: depends on MS.

# Terminology

## Acronyms & Abbreviations

|  |  |
| --- | --- |
| **Acronym or Abbreviation** | **Meaning** |
| DG MOVE | European Commission Directorate-General for Mobility and Transport |
| EU | European Union |
| ISDN | Integrated Services for Digital Network |
| MS | Member State |
| PTI | Periodic Technical Inspection |
| RSI | Road Side Inspection |
| RW | Roadworthiness  |
| TI | Technical Inspection |
| VIP | Vehicle Information Platform |

Table 10: Acronyms & Abbreviations

\*\*\* End of

1. ANNEX III : Directive of the European Parliament and of the Council amending Council Directive 1999/37/EC on the registration documents for vehicles, p 3 [↑](#footnote-ref-1)
2. ANNEX I: Directive of the European Parliament and of the Council on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC, Introduction (1), p6. [↑](#footnote-ref-2)
3. Op. cit, Art 4, 3 i), p 25. [↑](#footnote-ref-3)