Bringing testing procedures up to speed

Just as future EU legislation must take account of new technological developments, the same is true for testing procedures. As the systems regulating safety functions in motor vehicles become more complex, the same goes for the procedures used to check that they are working properly.

Inspection services must have the means to deal with sophisticated electronic systems as part of periodic technical inspections. Use of modern technology for early detection of defects is vital in order to prevent accidents and thereby make a concrete contribution to improving road safety.

Against this background, the IDELSY project was launched to explore the suitability for practical use of new test procedures including use of generic scan tools within periodic technical inspections of passenger, and eventually of commercial vehicles. The outcomes of the project could eventually contribute to the formulation of new EU legislation which takes account of new testing methods.

The project comprised three modules. The first entailed collection of data from some 500 vehicles. This led to evaluation of the suitability of different scanning tools for different types of vehicle. On this basis, it was possible to draw up specifications for a testing procedure.

EU-wide field trials

The test procedure was then designed. For the purpose of testing, a software tool was developed to support interactive communication between diagnostic tools and various vehicle systems. Finally, this paved the way for field trials of the procedures across Europe. The project was supported by a customer questionnaire which aimed to acquire information about drivers' experiences with electronic systems in their vehicles.

The outcomes of the field tests and the findings of the questionnaire were discussed among the project partners. This led to the drawing up of recommendations for both manufacturers of scanning tools and EU transport authorities.

Those for the former group included rapid update of technical databases following production of new vehicle models and formulation of procedures for the purpose of periodic technical inspections. For the latter, a step-by-step approach was suggested for inclusion of requirements for use of scanning tools in technical inspections in updates to legislation. It is hoped that these recommendations will help both groups to respond effectively to the increasing importance of electronic systems to the automotive sector.

Easier consultation of traffic rules across Europe

In addition to its work in the area of roadworthiness testing, the Commission is also taking steps to adapt to new technological developments in other aspects of road safety. One example of this is a new website which can be accessed via smartphones.

This site allows consultation of traffic rules in force in all EU Member States as well as in Iceland, Norway and Switzerland. It provides information on aspects such as speed limits on motorways and in rural and built-up areas, alcohol limits, rules for daytime running lights and winter tyres, and safety equipment for cars and cyclists.

The site is available in 21 official EU languages and can be visited at http://ec.europa.eu/transport/road_safety/mobile/index.htm.

Any further promotion of the Road Safety website **http://ec.europa.eu/roadsafety** is welcome.

We would like as many people as possible to be aware of the site and the important information it contains about staying safe on the road.

Thank you in advance for helping to keep Europe's roads safe and for raising awareness of Road Safety Europe.

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Commission works

to ensure safer vehicles

In order to make Europe's roads safer, it is necessary to make the vehicles which travel on them safer. Indeed, well maintained vehicles which meet all safety requirements are much less likely to be involved in accidents.

The EU sets high standards for the vehicles on its roads and it has long recognised regular testing of vehicles as a key element in maintaining these standards. The EU has legislated on vehicle approval since the late 1970s and its laws in the area were revised extensively in 1996.

Recent years have seen further modifications to this legislation and the European Commission has now drawn up a proposal for a new legislative package on roadworthiness testing. This is due to be submitted to the European Parliament and Council in the near future.

Furthermore, the Commission has made improving safety of vehicles of both today and tomorrow a main aim of its road safety policy orientations for 2011-20. A key action within this is provision of proposals for progressive harmonisation and strengthening of periodic tests and technical roadside inspections. The upcoming package is therefore in line with the Commission's overall orientations.

The Commission White Paper on transport which sets out its roadmap towards a single European transport area likewise recognises the importance of roadworthiness tests. Improved testing adapted to new technologies is one of the key initiatives outlined in the Paper.

Today, roadworthiness testing is more important than ever due to the increasing role of new technologies in the functioning of vehicles. The prominent place given to testing by the Commission in its road safety policy is thus very timely.

For more information, visit http://ec.europa.eu/roadsafety

Keeping vehicles in full working order

Roadworthiness tests bring a number of benefits. The most obvious is that by ensuring that vehicles are well maintained and working properly throughout their lifetime, they raise safety levels and help to cut accidents.

Their positive impact does not stop there. Checks carried out during vehicle tests help to ensure that their emissions which could harm the environment are kept to a minimum. Regular testing of vehicles on the basis of harmonised safety standards also contributes to maintaining a level playing field for competition within the transport sector.

All vehicles degrade over time and with use. In addition, many owners do not ensure that their vehicles are adequately maintained. This means that a significant number of defective vehicles remain on the road.

Given the possible negative impacts of defective vehicles on safety and the environment, as well as on competition, this is a cause for concern. Moreover, the level of defects in vehicles in Europe remains high and shows little sign of improving, in spite of the introduction of new technologies and manufacturing systems.

Two types of assessment

This underlines the importance of regular vehicle controls. In the EU, there are two types of assessment which although separate, complement each other by contributing to driving up levels of safety.

The first type is the periodic check. This requires owners to take their vehicle to a specialist assessment centre. According to EU law, all vehicles and trailers registered in the Union must undergo inspection at regular intervals. This makes it possible to verify that the vehicles are in roadworthy condition and meet the same safety standards as when they were first registered.

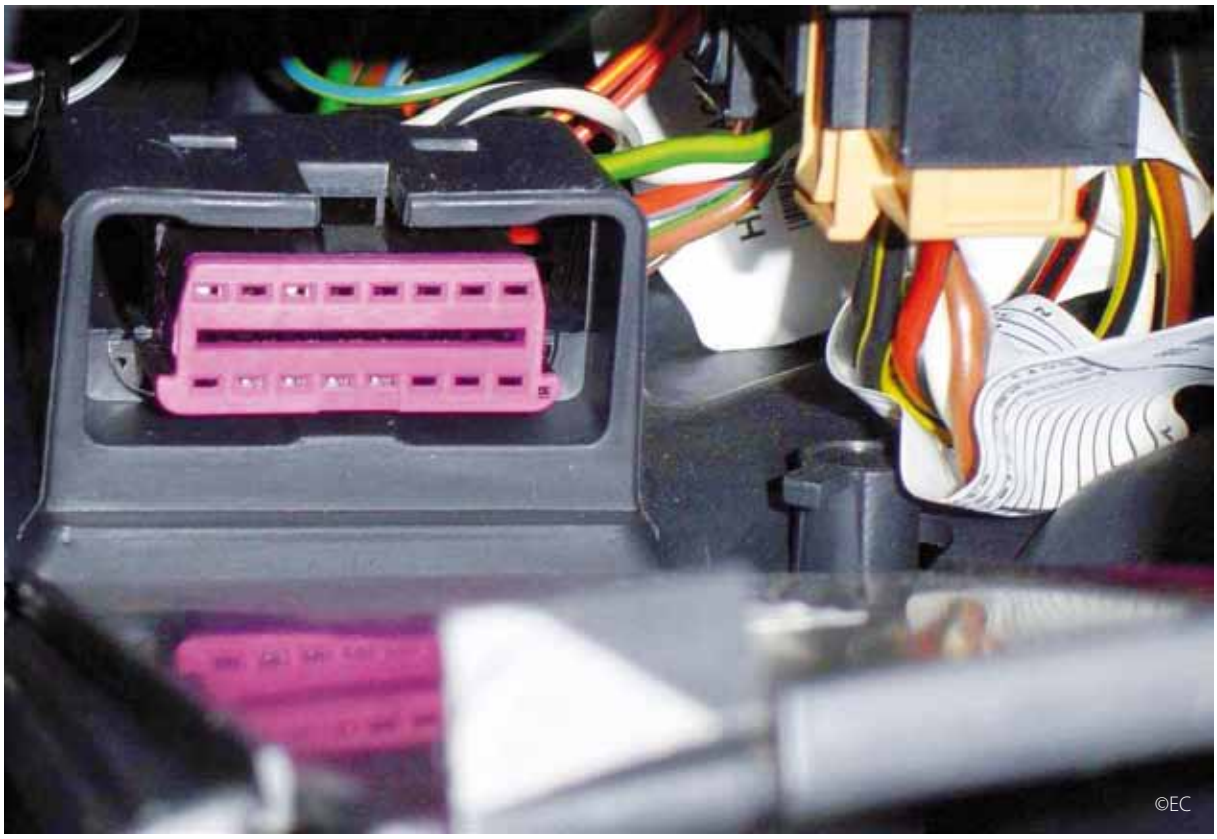
The second type of assessment is the roadside check. The EU empowers transport authorities across the Union to carry out or supervise inspections of commercial vehicles on public highways, irrespective of whether or not the vehicle is registered in the EU.

Roadside checks are performed unannounced and are of a technical nature. They can cover aspects such as brakes, emissions and the vehicle's overall condition. Drivers may also be required to produce recent inspection reports or proof the vehicle has passed compulsory roadworthiness tests.

Together, these different types of assessment will contribute to building on the progress which has been made in the area of vehicle safety in the EU over the past decade. Looking further ahead, they will help to address safety issues arising from future developments in vehicle technology.

Helping law to keep pace with technology

Continuing technological development of vehicles presents legislators with a challenge. Future EU legislative initiatives on roadworthiness testing will have to take full account of new developments as well as the situation in EU Member States, the views of stakeholders and the feasibility of changes to testing methods.



Introduction of advanced technology does not reduce the need for testing. Rather it requires that the scope of testing be broadened to include maintenance of such technology along with its traditional focus on preservation of mechanical systems.

European Commission-funded research has shown that failure rates of electronically-controlled systems are comparable to those of mechanical systems. Similarly, as with mechanical systems failure rates of electronic systems increase with vehicle age and distance travelled.

Fortunately, support has been forthcoming on this subject in the shape of the AUTOFORE project. This project has explored options for verifying and enforcing roadworthiness with a view to making a range of proposals for the direction of EU law in this area.

Strategy for change

The study looked at the aims of enforcement and the potential for improving current measures. On this basis, it proposed a strategy for raising standards and improving compliance, as well as for broadening the scope of standards to encompass new technologies and vehicle types.

A range of options for strengthening enforcement were identified. These included improving approval requirements, legislation and legislative processes and links between forms of enforcement. Other options were development of infrastructure for inspecting electronic systems, databases to support inspection and support for research and development.

The options were analysed and a series of recommendations were made. Prominent amongst these was extension of EU testing requirements to increase frequency of inspection of older light vehicles, to include examination of widely-used electronic systems such as airbags and ABS and to encompass two-wheeled vehicles.

The study also recommended the launch of a follow-up project to look into the extent of the contribution of vehicle defects to accidents and to try out new systems for inspecting e-technologies. Furthermore, it proposed to take further steps towards developing methods for improving compliance and inspection efficiency and to make proposals for increased harmonisation of European roadworthiness standards.