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## TEDDIE

### Test(D)DIesel - EU Low Diesel Emissions

Project details	
Domain	Vehicle Technology: Periodic Technical Inspection
Duration	from 01/01/2011 until 31/12/2011
Website	
Other sources	 <a href="#">Final report</a> (3,9 MB)  <a href="#">Appendices</a> (3,8 MB)

The overall objective is to investigate cost-effective equipment and procedures for measuring emissions of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM) during the periodic technical inspection (PTI) of diesel road vehicles in the European Union (EU).

The current EU legislation on emission testing during PTI is contained in Directives 2009/40/EC and 2010/48/EC. For diesel engine vehicles, exhaust opacity is measured during a so-called 'free acceleration' test. The limits are vehicle-specific, and stated as 'plate' values on the vehicle.

Modern vehicles feature advanced engines with electronic control, on-board diagnostics (OBD), and emission-reduction systems such as diesel particulate filters (DPFs) and selective catalytic reduction (SCR). In recent years the PTI emission test requirements have not kept pace with

developments in vehicle technology and type approval procedures, as well as the increased emphasis on NO<sub>2</sub> and PM mass/number with respect to air quality and human health. TEDDIE was established to examine the limitations of the current PTI approach for diesel emissions, and to investigate ways in which the test could be updated and improved.

Candidate equipment and procedures were identified through a review of the literature. The characteristics of different measuring instruments were then investigated, and then potential testing approaches were evaluated in a laboratory measurement programme. The results led to recommendations for a revised test procedure (and associated equipment). Finally, a cost-benefit analysis (CBA) for the revised procedure was undertaken.

#### Coordinator

- [CITA - International Motor Vehicle Inspection Committee](#) (BE)

## Partners

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