

Green ITS – Priority Measure Profile

Name:
Technologies supporting efficient driving
Description of measure (what elements are included/necessary): Ecodriving is a way of driving that reduces fuel consumption, greenhouse gas emissions and accident rates. Eco-driving is about driving in a style suited to modern engine technology: smart, smooth and safe driving techniques that lead to average fuel savings of 5-10%. Ecodriving offers benefits for drivers of cars, vans, lorries and buses: cost savings and fewer accidents as well as reductions in emissions and noise levels. Several European countries have implemented successful eco-driving programmes. Fuel efficient driving can be supported by the use of fuel saving in-car devices like cruise control, tyre pressure monitoring systems and gear shift indicators.
Functioning (how it works): On-board diagnostics inform drivers about the performance of their vehicle and the consequences of driving habits and maintenance. The potential support for eco-driving from gear-shift indicators has been discussed in an informal working group in which stakeholders amongst which the European Commission, car manufacturers and users have participated. Such devices could help motorists in realising the full potential of eco-driving, which has been demonstrated to be large in many studies.
Enabling factors (e.g. information, technologies...): Gear-shift indicators (GSI): the GSI displays which gear you should select to increase fuel efficiency in your direct line of vision. Depending on your driving style, the system gives recommendations on how to go up and down the gears more effectively. Tyre pressure monitoring systems (TPMS): TPMS is designed to ensure the driver is aware of deflated tyres. A well-inflated tyre decreases the rolling resistance and thereby increases efficiency. Driving on tyres with air pressure at 50kPa (0.5kg/cm ²) lower than it should be decreases fuel efficiency by 2 per cent and 4 per cent respectively in urban and suburban areas. Cruise control: Cruise control (sometimes known as speed control or Autocruise) is a system that automatically controls the rate of motion of a motor vehicle. The driver sets the speed and the system will take over the throttle of the car to maintain the same speed, so increasing the energy efficiency.
Impact (what, when): Long-term analysis shows that the promotion of efficient driving increases overall fuel efficiency of passenger cars by five to ten percent, a non-negligible contribution to reducing greenhouse gases. The ECMT review of transport CO ₂ abatement policies, co-funded by the FIA Foundation, confirms that initiatives to improve fuel efficient driving must play a key

role in efficient abatement policies.
Cost (vehicle, infrastructure, etc):
The European Conference of Ministers of Transport (ECMT) report “Cutting Transport CO2 emissions: What Progress?”, which was co-funded by the FIA Foundation, examines the level of CO2 emissions from the transport sector and reviews the effectiveness of CO2 abatement policies. The report analyses over 400 abatement measures that have either been introduced or are under development across Europe and makes recommendations for future policy direction. URL: http://www.fiafoundation.com/policy/environment/index.html
Stakeholders:
Authorities, industry, consumers
Deployment requirements (timing, legislation, investment, organisation...):
The proposal for a regulation concerning type-approval requirements for the general safety of motor vehicles, which was published at the end of last month. The provisions addressing Low Rolling Resistance Tyres (LRRT) and Tyre Pressure Monitoring Systems (TPMS) in the proposal will strongly contribute to the CO2 reduction strategy for cars, adopted in February 2007.
Other comments:
Recommendations (identify for whom intended):
EU to make Tyre Pressure Monitoring Systems (TPMS) and gear shift indicators (GSI) mandatory for all new cars.