
UNECE Working Party 29
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CARS 21: The Strategic View

High Level Group CARS 21:

“Competitive Automotive Regulatory System for the 21st Century”

Objective: Review of existing regulation and definition of a predictable regulatory environment

Deliverable: Priorities on Safety and Environmental Issues

Roadmap for the next 10 years
Main Results of CARS 21

Regulatory Policy:

- **International harmonisation**: increase the harmonisation of motor vehicle regulations through the United Nations framework.

- **EC type-approval system**: continue with the current system but provide for self-testing and virtual testing.
Roadmap Better Regulation

- Application of better regulation principles
- Virtual testing
- Self-testing
- Replacement of EU Directives by references to UNECE Regulations

|------|------|------|------|------|------|------|
General Safety:

Provide an integrated approach based on

- the vehicle,
- the driver and
- the road infrastructure

as the most effective way of increasing road safety
Roadmap Safety

- Enforcement of rules against drunk driving
- Daytime Running Lights
- Infrastructure measures
- Emergency braking
- Collision avoidance
- Brakes
- Brake assist
- ESC
- Isofix
- Fitting
- Seat belts
- Use

Timeline:
- 2005
- 2007
- 2009
- 2011
- 2013
- 2015
- 2017
Safety Issues of relevance for UN/ECE

- GTR on **Electronic Stability Control**
- **Daytime running lights** (UNECE Regulation 48)
- GTR on **pedestrian protection**
- **Brake assist** as part of pedestrian protection
- **Sensor based Emergency Braking**
CARS 21 – Environmental issues

- Continue reducing $\text{NO}_x$ and particulate matter emissions
  - Euro 5/6 (cars and light duty vehicles) already adopted
  - Proposal for Euro VI (heavy duty) in 2007
- Continue reducing $\text{CO}_2$ emissions from cars on the basis of an integrated approach to reach the Community target of 120 g/km by 2012
CO₂ emissions from cars (1)

**Measures to reduce CO₂ emissions:**

- **Vehicle technology** improvements (engine, hybridisation, vehicle body etc.): 130 g/km
- Tyre pressure monitoring systems
- Low rolling resistance tyres
- Gear shift indicators
- Mandatory fuel efficiency targets for light-commercial vehicles
CO₂ emissions from cars (2)

Increased involvement of other stakeholders:

- **Fuel suppliers** (low carbon content fuels – e.g. biofuels)
- **Member States** (taxation, *fiscal incentives*, traffic management, infrastructure etc.)
- **Consumer awareness** (e.g. amending the Labelling Directive)
- **Drivers’ behaviour** (e.g. eco-driving)

Accountability and ‘monitorability’ are needed to make a quantified contribution
Roadmap Emissions

- **1st Biofuels Directive (5.75 %)**
- **2004**
- **Euro 5 and 6 for LDV**
- **2006**
- **1st Biofuels Directive (5.75 %)**
- **TPMS, LRR Tyres, GSI,**
- **Fuel efficiency 130 g/km**
- **Fuel Quality Directive (1 % p.a.)**
- **2008**
- **New CO₂ strategy**
- **2010**
- **2nd Biofuels Directive (10 %)**
- **2012**
- **Hydrogen Regulation**
- **2014**
- **Test cycle HDV √**
- **Euro VI for HDV**
- **2016**
- **Euro 5 and 6 for LDV √**
Market penetration - direct vs indirect

**Tire Pressure Monitoring Vehicle Penetration**

<table>
<thead>
<tr>
<th>Year</th>
<th>USA</th>
<th>Europe</th>
<th>Rest of World</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>15%</td>
<td>12%</td>
<td>1%</td>
<td>28%</td>
</tr>
<tr>
<td>2012</td>
<td>20%</td>
<td>18%</td>
<td>5%</td>
<td>43%</td>
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**Direct TPMS Penetration Level**

<table>
<thead>
<tr>
<th>Region</th>
<th>2008</th>
<th>2012</th>
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<tbody>
<tr>
<td>USA</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Europe</td>
<td>14%</td>
<td>40%</td>
</tr>
<tr>
<td>ROW</td>
<td>6%</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>39%</td>
<td>47%</td>
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**Vehicles Fitted With Direct TPMS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
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</thead>
<tbody>
<tr>
<td>2004</td>
<td>4 million</td>
</tr>
<tr>
<td>2008</td>
<td>19 million</td>
</tr>
<tr>
<td>2012</td>
<td>29 million</td>
</tr>
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From: Schrader Electronics
Environmental Issues of relevance to UNECE

- Tyre pressure monitoring systems (update of runflat warning systems needed)
- Low rolling resistance tyres
- GTR on Hydrogen
- Update of GTR on heavy duty vehicles testing procedure
Conclusions

• Implementation of the CARS 21 Strategy by a combination of EU-Regulations and UNECE-Regulations

• Midterm review in 2009 to monitor progress made

• Reference documents under http://ec.europa.eu/enterprise/automotive/pagesbackground/competitiveness/cars21.htm

Thank you
THANK YOU
for your attention

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