Informal document No. GRRF-S08-07 Special GRRF brainstorming session 9 December 2008 Agenda item 2(a)

# **Commission Proposal on the General Safety of Motor Vehicles**

**Automotive Unit-F1** 



#### **Overview**

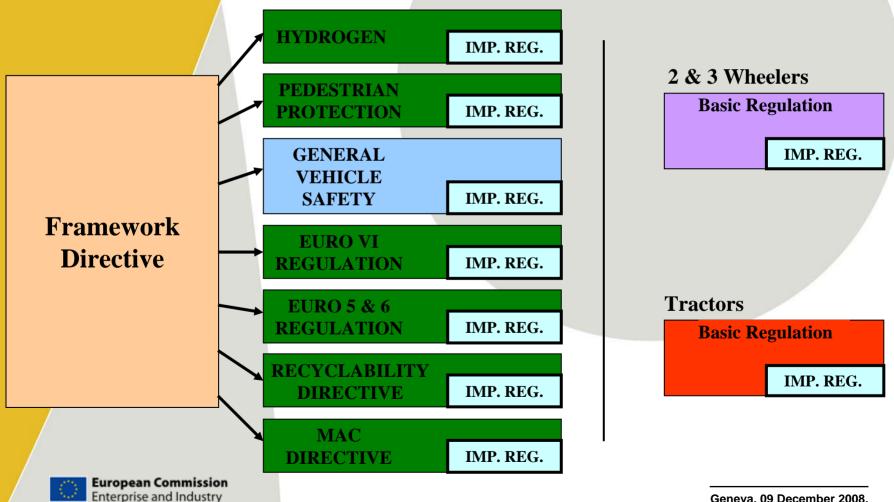
- Current Situation
- General Safety Proposal
- Approach and Implementation
- Next steps

#### **Current Situation**

- Some Directives over 35 years old
- Around 50 base Directives covering vehicle safety issues
- Many duplicate UNECE Regulations
  - others lag behind

#### **Proposed Regulatory Structure**

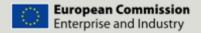
Motor Vehicles (4 wheels+)



# Proposed Regulation on General Vehicle Safety

#### Proposal provides:

- Regulatory Simplification
- Advanced Vehicle Safety
- New Requirements on Tyres
  - Impact Assessment completed

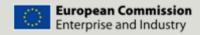


#### IMPACT ASSESMENT SUMMARY

- Optional and Mandatory requirements considered
- Mandatory requirements only introduced where there was a strong cost-benefit case & market forces alone were unlikely to deliver
- Combination of mandatory and market mechanism used for rolling resistance

#### IMPACT ASSESMENT SUMMARY

- Mandatory measures can save around 5,000 lives and 35,000 serious injuries per year across EU27
- Tyre measures can contribute up to 7g/km towards CO<sub>2</sub> reduction targets
- Average vehicle purchase cost increase from all mandatory measures around 200 Euro for cars and 2500 Euro for heavy vehicles
- Running costs for motorists likely to be reduced due to improved fuel economy.



## Regulatory Simplification

- In line with the recommendations of the Cars 21 report
- Will involve the repeal of 50 base Directives and over 100 amending Directives
- To promote wider harmonisation, reference will be made to international regulations (UNECE) wherever possible.
- replacement of Directives by Regulations to simplify the process of adoption of new and amended proposals by Member States.

## **Advanced Vehicle Safety**

Regulation will include the following issues:

- Electronic Stability Control
- Heavy Vehicle Safety
- New requirements on Tyres

## **Electronic Stability Control**

- Apply to new vehicle types from 2012
- Technical Standards based on UNECE Regulation 13 or UNECE Regulation 13H (adopting the GTR requirements)
- Will apply to all new cars from 2014 (later for some heavy vehicles)

# Electronic Stability Control - why mandatory?

- Wide variation of fitment of ESC to cars between Member States
- Strong evidence to support casualty reduction potential – therefore should not be optional.
- Fitment rate to heavy vehicles is even lower than for cars

#### Heavy Vehicle Safety

- Advanced Emergency Braking and Lane Departure Warning
- mandatory for new types of heavy duty vehicles from 2013, - existing types from 2015
- Optional on light duty vehicles
- Technical standards to be agreed through UNECE route.

#### **Advanced Emergency Braking**

- Analysis of potential accident savings for various classes of vehicle and various levels of system capability
- Positive benefit/cost ratio for heavy vehicles
- Impact assessment concluded that systems should be mandatory only on heavy vehicles

#### Lane Departure Warning

- Indications of good cost/benefit ratio
- Further work required to explore costs and benefits in greater detail
- Impact assessment concluded that systems should initially be mandated for heavy vehicles

#### **New Requirements on Tyres**

- Reduction in noise limits
  - by average of 4 db (A)
- New limits on rolling resistance (for reduction of CO<sub>2</sub>)
- Type Pressure Monitoring Systems to be mandatory (for CO<sub>2</sub> reduction and safety)
- New wet grip requirements



#### **Tyre Noise Proposals**

- Tyre noise standards originally introduced in 2001
- Proposed new requirements propose further reductions of up to 5 dB(A)
- Requirements will apply to new tyre types from 2012 and all new tyres from 2016

#### **Tyre Noise Proposals**

- Noise proposals based on study by FEHRL (including TRL, TUV, Bast, VTI)
- Estimated that 30-50% of tyres can meet proposed standards already
- Greater uncertainly over C2 and C3 tyres values adjusted to reflect this uncertainty
- Further research required in this area.

#### Tyre Rolling Resistance

- New limits on rolling resistance introduced for the first time
- Limits to apply in two stages, from 2012 and 2016
- Technical test procedures to be included in UNECE Regulations
- CO<sub>2</sub> reduction contribution of around 3.9 g/km for typical car

#### Tyre Rolling Resistance

- Proposed values based on 'state of art' in 2004.
- 56% of summer tyres in 2004 could meet proposed Phase 1 requirements; 16% could meet proposed phase 2 requirements.
- 26% of winter tyres in 2004 could meet proposed Phase 1 requirements; 3% could meet proposed phase 2 requirements.

## Tyre Rolling Resistance

- Proposal also to apply to after-market tyres.
- Further encouragement to improve rolling resistance could be achieved by labelling scheme
- Subject of a separate Commission initiative.

## Tyre Pressure monitoring systems

- TPMS alerts the driver when the tyres are at low pressure, affecting safety and fuel consumption
- TPMS will be required on new car types from 2012 and existing types from 2014.
- Technical standards to be agreed via the UNECE
- CO<sub>2</sub> reduction contribution of around 3.2 g/km for a typical car (based on TNO estimate of 2.5% drop in fuel consumption)

#### Tyre wet grip requirements

- Introduced to ensure that safety standards are maintained
- Based on the requirements in UNECE Regulation 117
- Will apply to new car tyre types from 2012 and existing types from 2014
- Will be extended to tyres for larger vehicles when standards have been finalised

#### **Proposal Approach**

- Contains the technical areas which will be covered by the Regulation.
- Specific requirements will be covered either through UNECE Regulations or Implementing Regulations agreed through the committee procedure

# **Implementation**

Item		new types	existing types
General requireme	ents	2012	2014
Advanced items	d safety	2013	2015
Rolling resistance	e - P1)	2012	2014 (2016 for C3 tyres)
Rolling resistance	e - P2)	2016	2018 (2020 for C3 tyres)
Rolling no	oise	2012	2016

#### Further Steps to be Taken

Work with the UNECE in the following areas

- Standards for ESC (almost completed)
- Standards for TPMS (ongoing)
- Test requirements for rolling resistance (under discussion)
- New Regulation(s) on AEBS and LDW (to be started)





Enterprise and Industry
Directorate General

# THANK YOU for your attention