

Commission Proposal on the General Safety of Motor Vehicles

Automotive Unit- F1



European Commission
Enterprise and Industry

Overview

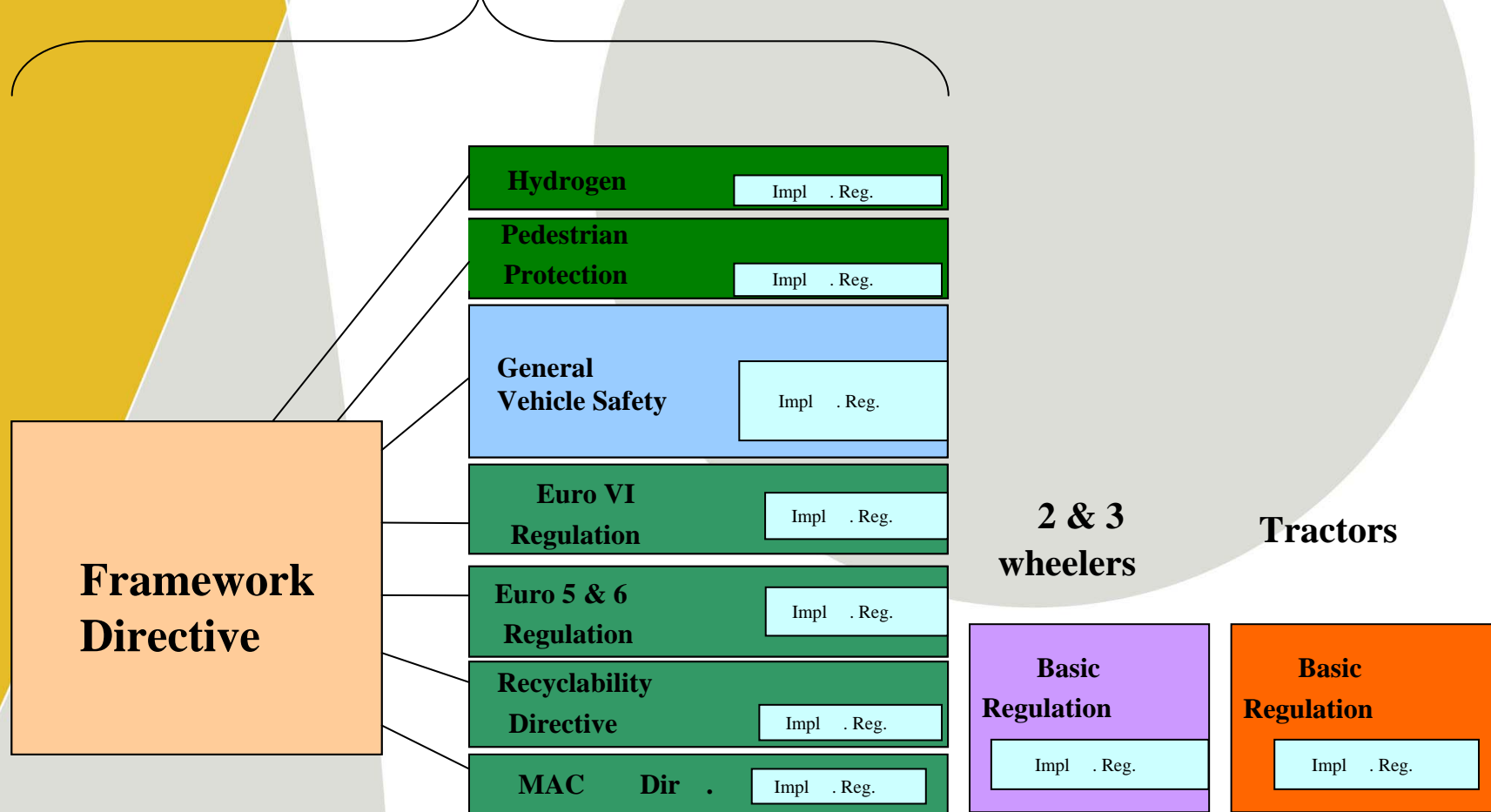
- Background
- The three pillars
- Summary of Impact assessment
- Structure of the proposal
- Next steps

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++++)



New Regulation on General Vehicle Safety

Proposal comprises 3 main pillars:

- Regulatory Simplification
- Advanced Vehicle Safety
- New Requirements on Tyres

An Impact Assessment was developed,
covering each of these aspects

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.**

Regulatory Simplification

- Impact assessment looked at alternative of replacing Directives by Regulations only when modification was necessary
- It was decided that such an approach would slow the simplification process
- In addition, replacement of Directives by Regulations simplifies the process of adoption of new and amended proposals by Member States.

Advanced Vehicle Safety

Regulation will include the following technologies:

- **Electronic Stability Control (mandatory on all M and N vehicles)**
- **Advanced Emergency Braking and Lane Departure Warning (mandatory on M2, M3, N2 and N3 vehicles)**

Electronic Stability Control

- Will 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?

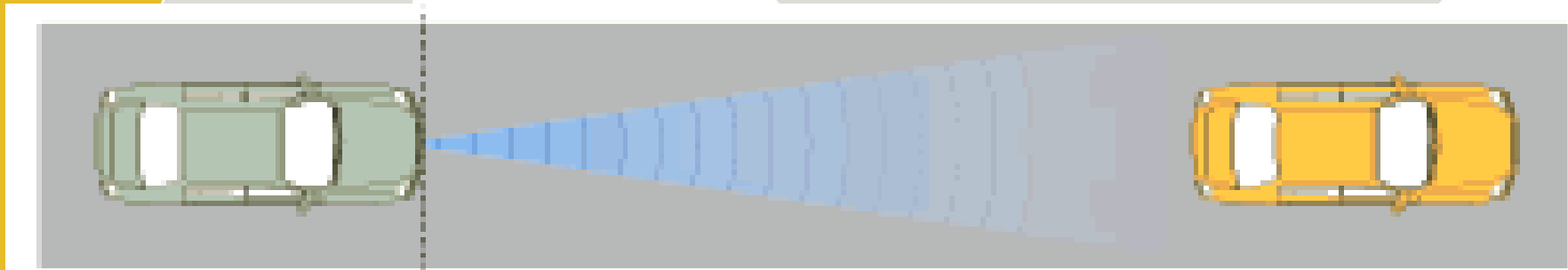
- Wide variation of fitment of ESC to cars between Member States
- Strong evidence to support casualty reduction potential – therefore should not be optional.
- Fitment rate to heavy vehicles is even lower than for cars

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 System

- Radar or Laser systems detect if vehicle in front is too close
- Brakes may be applied automatically if necessary



Options for Advanced Emergency Braking

- TRL study analysed 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

- System warns when driver is crossing road markings
- Can also warn when there is a vehicle in the adjoining lane.



Options for Lane Departure Warning

- Study by COWI (Denmark) indicates strong benefit/cost ratio
- Further work by TRL 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 CO₂)**
- **Type Pressure Monitoring Systems to be mandatory (for CO₂ 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 uncertainty over C2 and C3 tyres – values adjusted to reflect this uncertainty
- Further research expected in this area.

Tyre noise proposals

Tyre class	Limit value db(A)		
	old	new	difference
C1A ($\leq 185\text{mm}$)	72-74	70	2-4
C1B (185-215mm)	75	71	4
C1C (215-245mm)	76	71	5
C1D (245-275mm)	76	72	4
C1E ($> 275\text{mm}$)	76	74	2
C2	75	72	3
C2 traction	77	73	4
C3	76	73	3
C3 traction	78	75	3

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
- CO₂ 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
- This is the subject of a separate Commission initiative.

Tyre Rolling Resistance

Tyre category	Max. Rolling Resistance (Kg/Tonne)	
	Stage 1	Stage 2
C1	12	10.5
C2	10.5	9
C3	8	6.5

Tyre Pressure monitoring systems

- TPMS alert the driver when the tyres are at a low pressure, affecting safety and fuel consumption
- TPMS will be required on new car types from 2012 and existing types from 2014.
- We intend to agree technical standards via the UNECE
- CO2 reduction contribution of around 3.2 g/km for a typical car

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

IMPACT ASSESSMENT SUMMARY

- Impact Assessment available on our website
- Considered optional as well as mandatory requirements
- Mandatory proposals 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 ASSESSMENT CONCLUSIONS

- Mandatory measures can save around 5,000 lives and 35,000 serious injuries per year across EU27
- Tyre measures can contribute around 7g/km towards CO₂ 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.

Structure of the Proposal

- Article 1 – Subject matter
- Article 2- Scope (as 2007/46/EC)
- Article 3- Definitions
- Article 4- General obligations

Structure of the Proposal

Article 5 – Requirements and tests.

- 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

Structure of the Proposal

- Article 6 – Additional requirements relevant to goods vehicles
- Article 7 – Additional requirements relevant to buses
- Article 8 – Classification of tyres
- Article 9 – Requirements for tyres
- Article 10 – Requirements for advanced vehicle systems

Article 11 – Implementation

Item	new types	existing types
General requirements (Articles 5-9)	2012	2014
Advanced safety items (Article 10)	2013	2015
Rolling resistance –P1)	2012	2014 (2016 for C3 tyres)
Rolling resistance-P2)	2016	2018 (2020 for C3 tyres)
Rolling noise	2012	2016

Structure of the Proposal

- Article 12 – Penalties
- Article 13 – Implementing Measures
- Article 14 – Amendments to framework Directive (see Annex II)
- Article 15 Repeal of existing Directives - 2014, except for tyres (2018)
- Article 16 Entry into force (2012)

Structure of the Proposal

- Annex I – Tyre requirements on wet grip, rolling resistance and rolling noise.
- Annex II – Amendments to Framework Directive

Further Steps to be Taken

We will 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)

Further Steps to be Taken

Implementing Regulations will be developed in the following areas:

- Specific requirements on tyres
- Requirements covering areas not covered by UNECE Regulations (such as spray suppression)
- These requirements will be based on existing Directives, but merged and simplified where possible.



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Directorate General**

THANK YOU
for your attention