Informal document No. **GRRF-S08-10**
Special GRRF brainstorming session
9 December 2008
Agenda item 4(a)

Advanced Emergency Braking System / Lane Departure Warning System

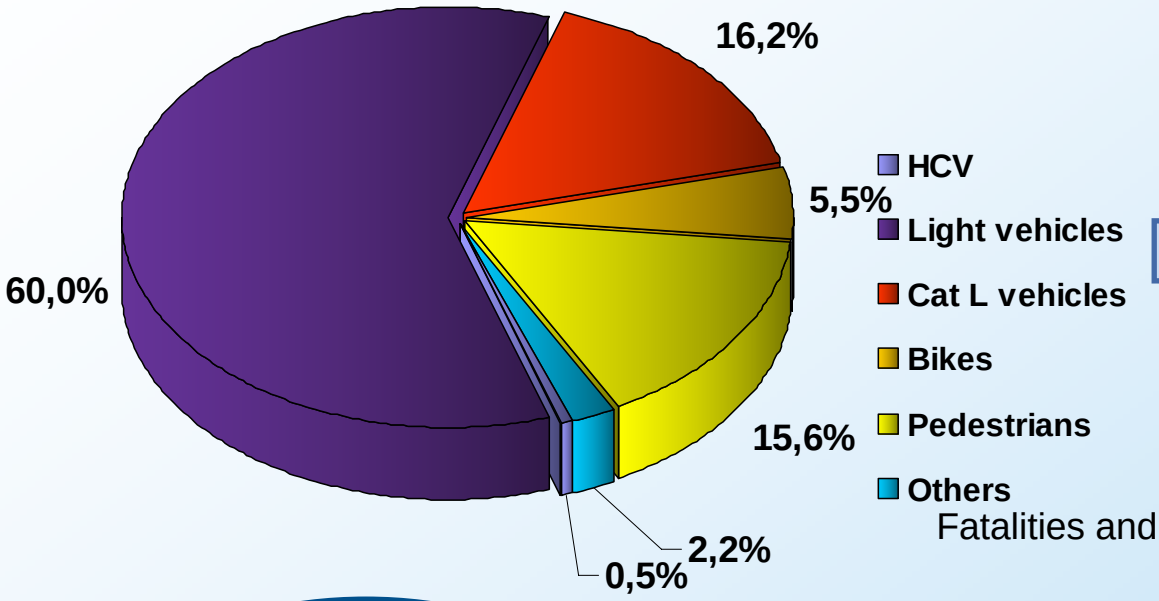
OICA POSITION

Summary

- Data: EU, F, J
- Scope and justifications for a future UNECE regulation
- Requirements for AEBS
- Requirements for LDWS
- Organization of the work

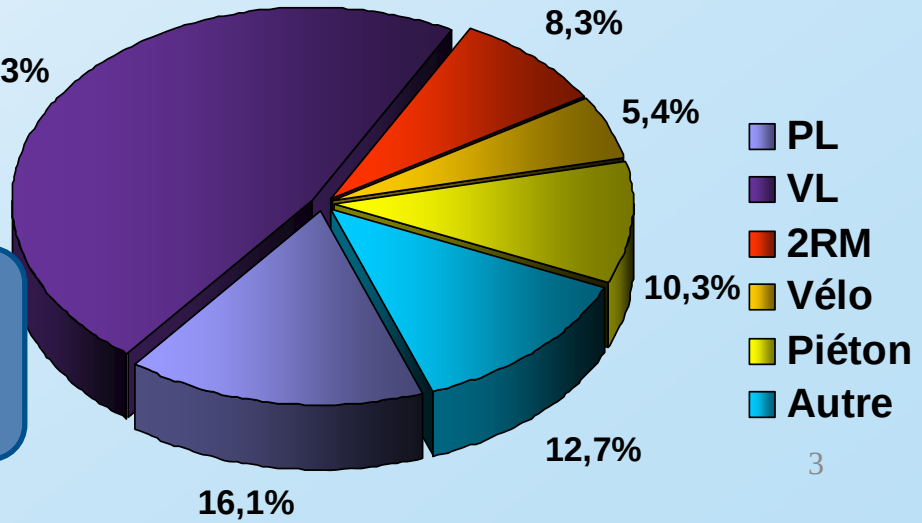
Fatalities and Serious Injuries by Vehicle Category (EU19)

Fatalities and serious injuries for accidents **with at least one light vehicle**



Light vehicles mainly collide with each other

Fatalities and serious injuries for accidents **with at least one heavy commercial vehicle**

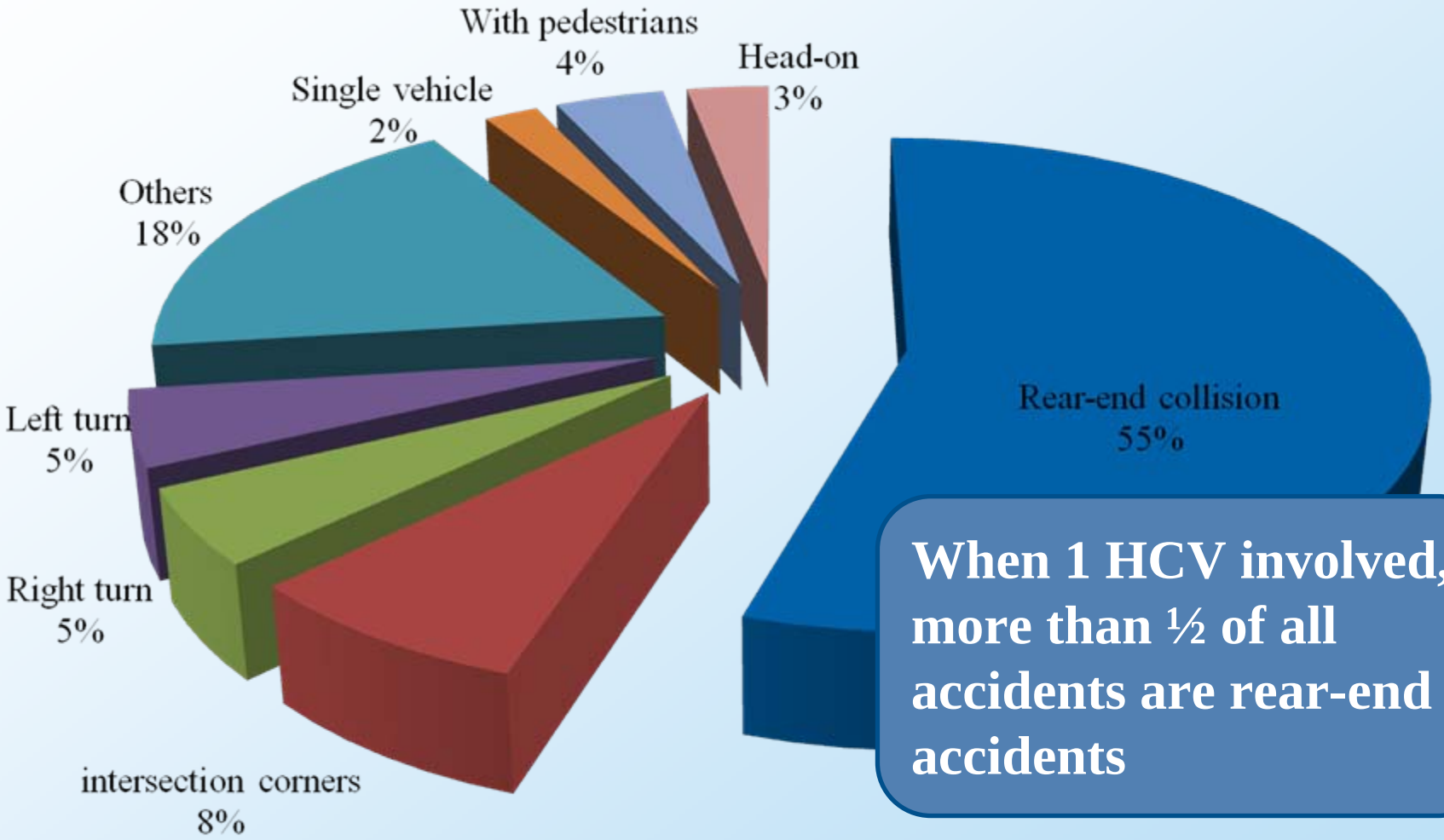


Heavy commercial vehicles mainly collide with light vehicles

When 1 HCV involved, nearly ½ of all serious injuries and fatalities occur in light vehicles.

Source: CARE, EU19 in 2006 (LAB)

Accidents Caused by Large Trucks by Accident Type (Japan)

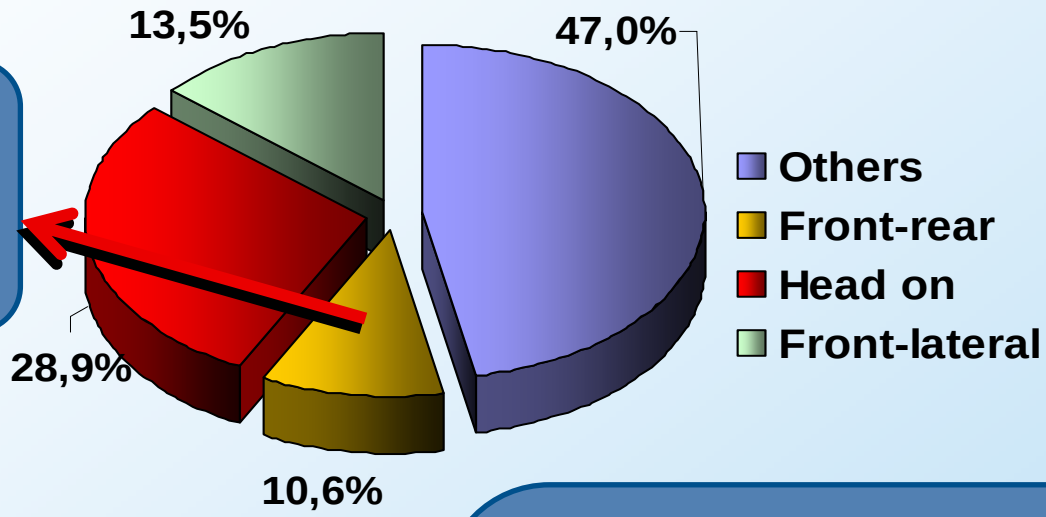


When 1 HCV involved, more than ½ of all accidents are rear-end accidents

Source: Macro Accident Data Japan 2005

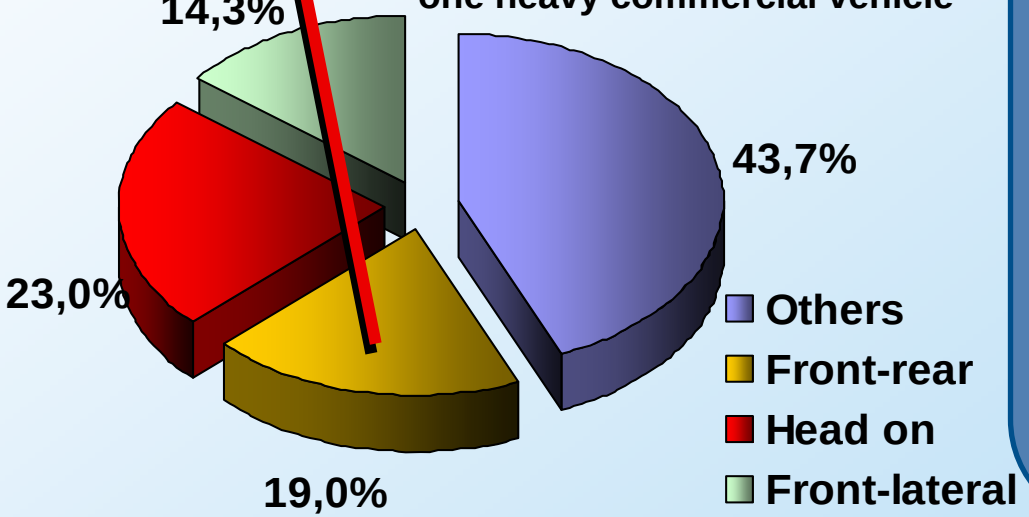
Fatalities and Serious Injuries by Accident Type (France)

Fatalities and serious injuries for accidents **with at least one light vehicle**



The part of front-rear accidents is nearly the double for HCV compared to light vehicles

Fatalities and serious injuries for accidents **with at least one heavy commercial vehicle**



Source: BAAC, France in 2007 (LAB)

Conclusions about available data:

The efficiency of one given AEBS/LDWS varies according to the vehicle category (slide 3)

The efficiency of a system potentially preventing front-rear accidents is nearly the double on a HCV compared to a light vehicle (slides 4 & 5)

Current Situation for Advanced Vehicle Systems

Warning Systems

Advanced Vehicle Warning Systems already exist on a few vehicles

→ No safety need for rulemaking when voluntarily fitted

Active (intervening) Systems

Advanced Vehicle Active Systems already exist on a few vehicles (acting on braking or steering)

→ Safety is ensured by CEL Annex of UNECE R13/13H and R79

With regard to existing regulations, additional rulemaking has the only purpose to align the provisions if the systems are fitted or required.

Installation of AEBS/LDWS

EU is the first region to require installation of AEBS and LDWS on some categories

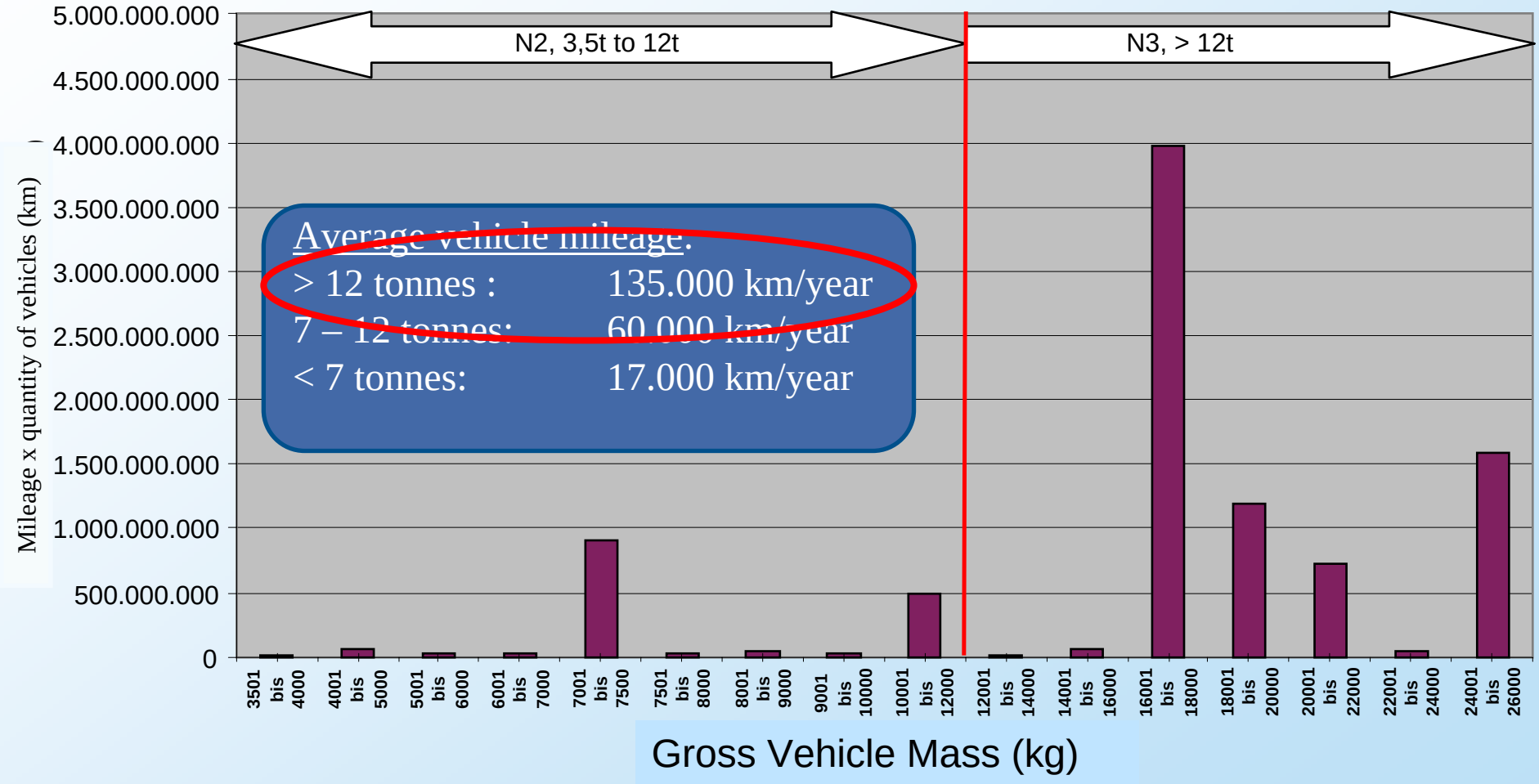
Scope proposed by EC:
"Vehicles in Categories M2, M3, N2 and N3 shall be equipped with an AEBS/LDWS which shall meet the requirements of this Regulation."

Timeframe proposed by EC:

29 October 2013 for New Types
29 October 2015 for New Registrations

In order not to waste time and resources, **future UNECE Regulations on AEBS and LDWS should be "if fitted" requirements** based on the **scope proposed by OICA** and the **timeframe for mandatory installation proposed by EC.**

Mileage data helps defining the relevant scope



Source: VDA 2007

Implementation of new UNECE Regulation

The systems are the most efficient on the following categories:

M3 Class II and III, > 12 t
4 x 2 and 6 x 2
(exception for M3G)

and

N3 > 16 t
4 x 2 and 6 x 2
(exception for N3G)

Should the installation be unavoidable, OICA recommends to limit the scope to these categories

A reasonable limitation of the scope is also necessary to respect the EU time frame

Requirements for AEBS

Some systems already available

Currently no specific regulation

No need to regulate categories where system is not required

Avoid unnecessary packaging

Keep legal flexibility for non EU CPs

AEBS to be introduced into a new UNECE regulation

This regulation to be separated from LDWS

~~Aim: Collision avoidance~~

Aim: Collision mitigation/reduction

Provisions should			
be technology neutral	be performance based	aim moving/ stopping targets only	include test procedure covering rear-end collisions

Requirements for LDWS

Some systems already available

Currently no specific regulation

No need to regulate categories where system is not required

UNECE R79 covers active systems

Keep legal flexibility for non EU CPs

LDWS to be introduced into a new UNECE regulation

This regulation to be separated from AEBS

Aim: ~~warn and intervene~~

Aim: warning only

Provisions should			
be technology neutral	be performance based	Be based on ISO17361 technical provisions	Avoid direct references to ISO standards

Organization of work

EU dates	• October 2013 for New Types • October 2015 for New Registration
Time frame	• Time frame for development of the new regulation should be compatible with the introduction dates
Content	• Content of the regulation should be compatible with the introduction dates
Optimization of the resources	• One informal working group is sufficient