

How new EU Vehicle Safety Standards can improve Work Related Road Safety

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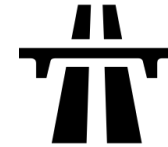


European Transport Safety Council

17 MAY 2018: 3rd MOBILITY PACKAGE PUBLISHED BY THE EUROPEAN COMMISSION

Two legislative proposals:

- Revision of the General Safety (2009/661) and Pedestrian Safety (2009/78) Regulations
- Revision of the Road Infrastructure Safety Management Directive Management Directive 2008/96



Two communications

- Strategic Action Plan on Road Safety
- Strategy on Automated Driving



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New vehicle technologies
and
new vehicle designs

To protect vehicle occupants and those outside the
vehicle (VRUs)

Impact of the proposal

25,000
deaths

140,700
severe injuries

on the road could be prevented
over the period 2022-2037

Measure	Description	Applicable vehicle categories			
		Passenger cars	Light commercial vehicles	Buses	Trucks and trailers
AEB-VEH	Autonomous emergency braking for driving and still-standing vehicles ahead	M ₁	N ₁		
AEB-PCD	Autonomous emergency braking for pedestrians and cyclists	M ₁	N ₁		
ALC	Alcohol interlock installation facilitation	M ₁	N ₁	M ₂ & M ₃	N ₂ & N ₃
DDR-DAD	Drowsiness and attention detection	M ₁	N ₁	M ₂ & M ₃	N ₂ & N ₃
DDR-ADR	Distraction recognition	M ₁	N ₁	M ₂ & M ₃	N ₂ & N ₃
EDR	Event (accident) data recorder	M ₁	N ₁		
ESS	Emergency stop signal	M ₁	N ₁	M ₂ & M ₃	N ₂ & N ₃
FFW-137	Full-width frontal occupant protection crash test	M ₁	N ₁		
FFW-THO	Full-width frontal occupant protection crash test with advanced measuring dummy and lower appropriate injury criteria thresholds to encourage adaptive restraints	M ₁	N ₁		
HED-MGI	Head impact zone enlargement for pedestrian and cyclist protection (to include the windscreen area)	M ₁	N ₁		
ISA-VOL	Intelligent speed assistance (through non-intrusive haptic feedback)	M ₁	N ₁	M ₂ & M ₃	N ₂ & N ₃
LKA-ELK	Lane keeping assist (emergency lane keeping system that intervenes only in case of an imminent threat such as leaving the road, or leaving the lane with oncoming traffic)	M ₁	N ₁		
PSI	Pole side impact occupant protection	M ₁	N ₁		
REV	Reversing camera or detection system	M ₁	N ₁	M ₂ & M ₃	N ₂ & N ₃
TPM	Tyre pressure monitoring system		N ₁	M ₂ & M ₃	N ₂ & N ₃
VIS-DET	Vulnerable road user detection and warning on front and side of vehicle			M ₂ & M ₃	N ₂ & N ₃
VIS-DIV	Vulnerable road user improved direct vision from driver’s position			M ₂ & M ₃	N ₂ & N ₃

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1. AEB

2. Alcohol interlocks

3. EDRS

4. ISA

5. Direct Vision and Detection

1. Autonomous Emergency Braking

- Helps avoid collisions and reduce their severity
 - Especially important for heavier/larger vehicles like HGVs and buses/coaches
- Warns the driver and applies the brakes automatically if the driver doesn't respond in time
- Can also be capable of pedestrian/cyclist detection, to help when turning



2. Alcohol Interlock Interface

What is it?

- A standard 'port' to plug in an alcohol interlock

What is an alcohol interlock?

- An on-board breathalyser which a driver must blow into before starting the vehicle. If he fails the test, the vehicle won't start.
- Often used for drink-drive rehabilitation purposes



2. Alcohol Interlock Interface

How does it help in the workplace?



- Makes it simpler, easier and cheaper to fit an alcohol interlock
- Alcohol interlocks can help to guarantee no employees drive under the influence.

3. Event Data Recorders (EDRs)

- EDRs record information on the circumstances of an 'event', or collision.
- This information can then be used for collision investigation, insurance purposes and the collection of statistics.
- Can help save companies money and ensure fair outcomes of any investigations.

Telematics

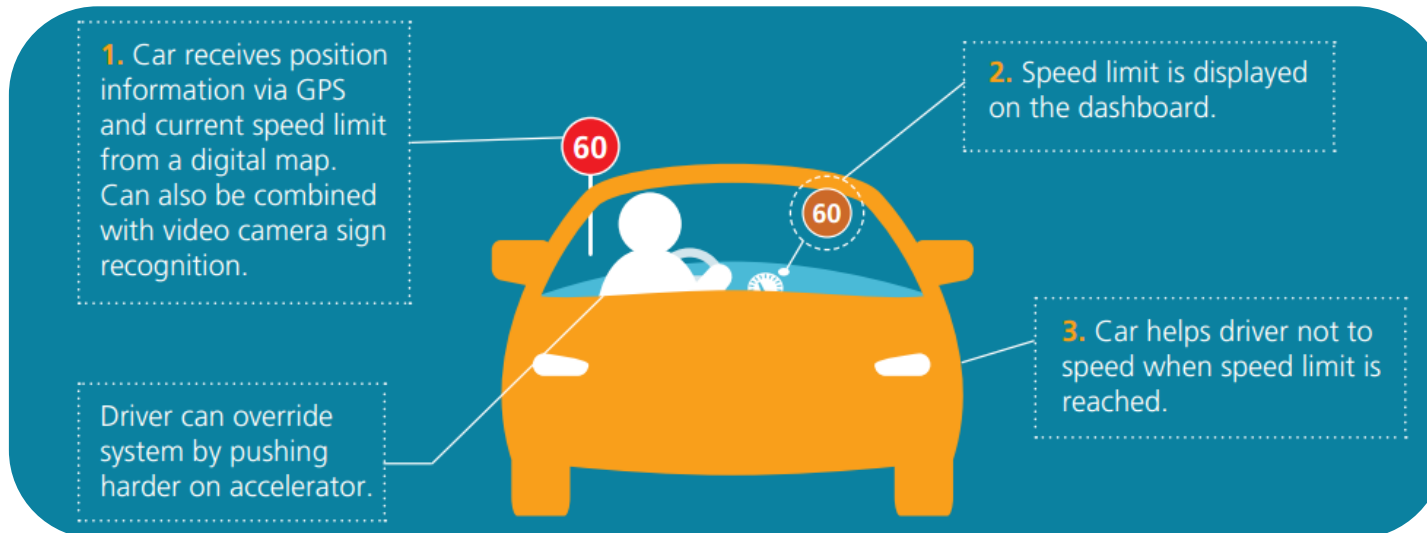
More detailed telematics systems are available which can provide driving information continuously.

This can then be used for training and other purposes.



4. Intelligent Speed Assistance

- Helps drivers to comply with speed limits
- Uses GPS, digital maps and sign recognition to determine the current speed limit
- Supports the driver via warnings and speed limiting systems (can be overridable)



4. Intelligent Speed Assistance

Driving for work and speeding

- Can be stressful/rushing
- Just-in-time management
- Deliveries/stops and time pressures



How can ISA help?

- Helps reduce incidents of speeding – including at lower speeds.
- Reduces chances and severity of collisions.
- Reduces likelihood of speeding fines.
- Can help improve fuel efficiency.

5. Direct Vision

Source: TfL



None of these cyclists can be seen through the vehicle windows

- Improving the field of vision for HGV drivers
- Particular focus on pedestrian and cyclist deaths
- Lower cabs and more glass

Best in class direct vision

Design features

The combination of a lower cab (A), larger windows and glass doors (B), a redesigned dashboard (C) and support pillars (D) can all play a role in increasing direct vision.

A single change in isolation is much less effective.

A low entry cab with a lower dashboard means more of the road and other road users can be seen by the driver.



Source: TfL

- Better reaction speeds
- Less stressful for HGV drivers

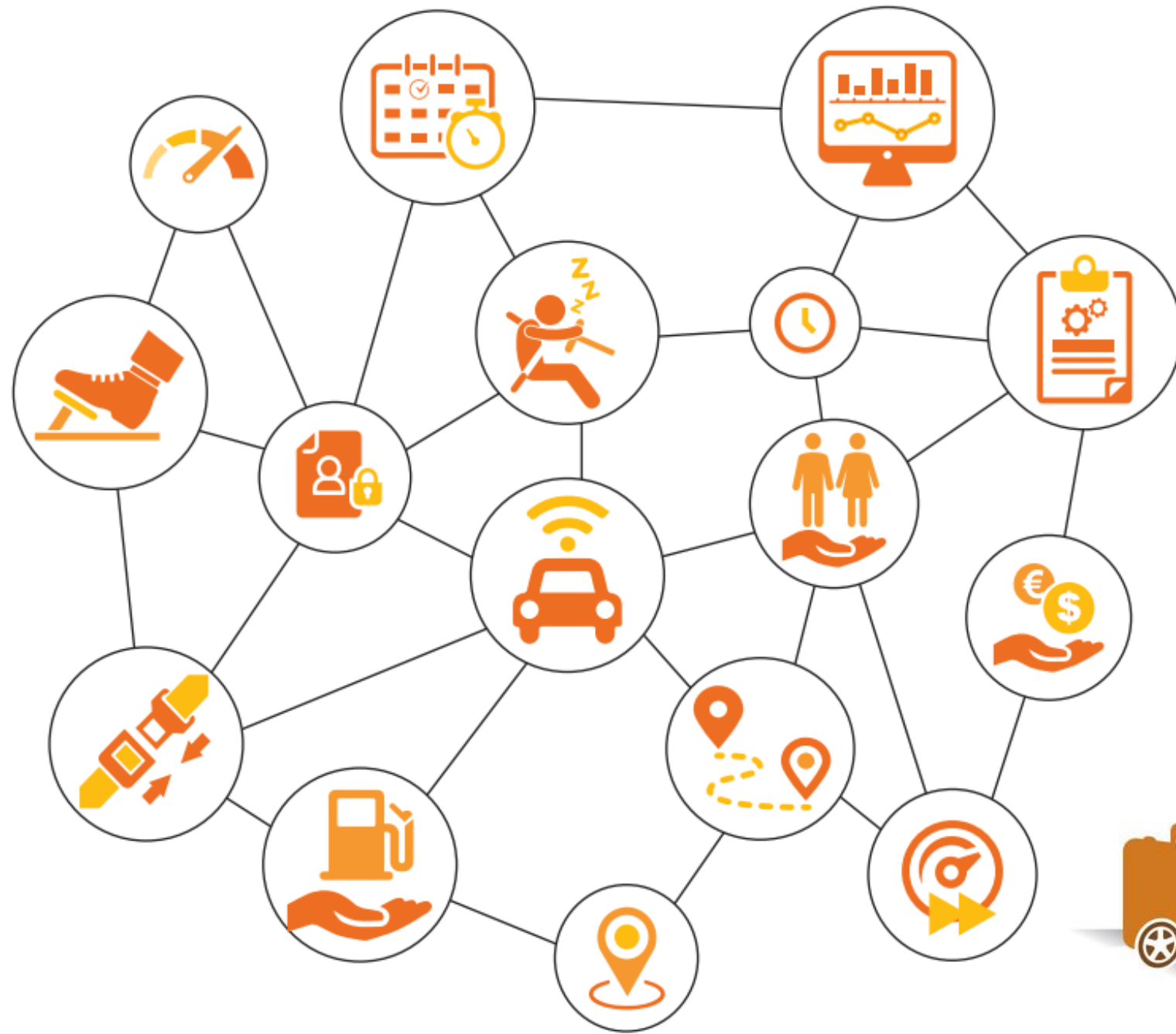
Next steps...

- Hopefully, these measures will be adopted soon – late 2019
- Once adopted – the measures included will start to appear over the course of a few years.
- However, some, like Direct Vision, will take longer to appear.

So, in the meantime...

- Continue to include safety criteria when procuring services and vehicles.
- Consider including these technologies and vehicle designs in your fleet *now* – no need to wait.
- Go above and beyond, to maximise the benefits of managing road safety.

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European Transport Safety Council

25

YEARS

1993-2018

