ETSC Fact Sheet NUMBER 12 APRIL 06

Promoting Seat Belt Use

Why Seat belts?

Seat belts are a highly effective way of reducing serious and fatal injuries to car occupants. The cost-benefit ratio for seat belt enforcement according to the EC Recommendation 2004[1] is 1:10, on the rather moderate assumption that universal seat belt use could prevent 6,000 deaths and 380,000 injuries every year in Europe . Yet, despite the legal obligation to wear a seat belt, wearing rates still vary greatly across Europe.[2] According to ETSC estimates, current seat belt wearing rates in the EU vary between 59% and 96% for front seat occupants, and between 21% and 90% for rear seat passengers.

Country	Wearing rate, front seats (%)	Wearing rate, rear seats (%)
Austria	77 (2004)	56 (adults, 2004)
Belgium	66 (2004)	not available
Cyprus	n/a	n/a
Czech Republic	75 (driver, 2004)	n/a
Denmark	84 (2004)	63 (2004)
Estonia	75 (2004)	21 (2004)
Finland	89 (2004)	80 (2004)
France	97 (2004)	68 (2004)
Germany	94 (driver, 2004)	90 (adults, 2004)
Greece	40 (2003)	15 (2003)
Hungary	59 (2004)	20 (2003)
Ireland	85 (2003)	46 (adults, 2003)
Italy	n/a	n/a
Latvia	n/a	n/a
Lithuania	n/a	n/a
Luxembourg	88 (driver, 2004)	72 (2004)
Malta	95 (driver, 2004)	43 (2004)
Netherlands	86 (2003)	63 (2003)
Poland	71 (2004)	49 (2004)
Portugal	88 (driver, 2004)	25 (2004)
Slovakia	n/a	n/a
Slovenia	81 (2004)	40 (2004)
Spain	86 (2003)	42 (2003)
Sweden	92 (driver, 2004)	79 (2004)
UK	93 (driver, 2004)	83 (2004)

Table 1. Seat belt wearing rates in the European Union. Data are for 2004, unless otherwise specified.

At the same time, ETSC estimates that about 50% of all car occupants that die in a fatal accident in the EU could have survived if they had worn their seat belt[3]. Reliable statistics on the use of seat belts among accident victims are however not available. The table 2 shows the proportion of unbelted fatalities in some countries.

Country	Percentage of unbelted fatalities in selected countries (2004)
Denmark	20%
Finland	41% (2003)
Germany	5%
Hungary	57%
Slovenia	27%
Spain	38%

Table 2. Drivers killed in accidents not using their seat belt in 2004

FRANCE, is one of the few countries that collects data on how many lives could have been saved if victims had used their seat belts. According to the yearly published data by the National Interministerial Observatory for Road Safety the lives lost due to non-use of seat belts decreased from 870 (2002) to 585 (2004).

How do seat belts work?

Seat belts work primarily by restraining car occupants in the event of a crash. Without a seatbelt in a crash at 30 mph you will be thrown forward with a force of between 30 and 60 times your body weight. If unbelted, car occupants may strike parts of the car interior. An unbelted car occupant is also more likely to be thrown out of the car if a door or a window breaks during the impact of a crash. The three point belt is best at reducing injury as it spreads the force over a wider area and restricts occupant movement better than a lap belt. Seat belts are also most effective in roll-over accidents, frontal collisions and in lower speed crashes particularly in urban areas. However, seat belt wearing rates in built up areas average only 66% (ranging from 36% to 92% across Europe).

Public perception

According to the SATRE 3 project results most drivers had very positive attitudes towards wearing seat belts. However, many drivers still believe that if they drive carefully they do not need to wear a seat belt (between 5% and 34% with an

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EU legislation

EU legislation currently in force (Directive 91/671/EEC) requires that all children under 12 years of age have to be restrained by an approved restraint system suitable for the child's height and weight. (See ETSC Fact Sheet "Promoting Child Safety").

The Directive leaves scope for Member States to allow children of 3 years and older to be restrained by an adult seat belt. It also permits Member States to exempt children younger than 3 years of age from wearing child restraints if they are seated in the rear and if child restraints are not available in the car.

In 2003, a new Directive (2003/20/EC)[4] was passed that extends the obligatory use of seat belts to occupants of all motor vehicles, including trucks and coaches. It also mandates the use of appropriate child restraint systems conforming to UN-ECE standard (Regulation 44.03) (its adaptation or equivalent) for all children traveling in passenger cars and light vans. The only permissible exemption concerns children younger than 3 years of age who may or may not wear seat belts (typically lap belts) in coaches (See also ETSC Fact Sheet "Promoting Child Safety"). This Directive has to be transposed into national law by 9 May 2006. Some countries apply stricter provisions than those included in the 1991 Directive already (see Clifford Chance report, parts I[5] and part II[6].

Finland is planning a special campaign to inform the public about the implementation of Directive (2003/20/EC).

Germany launched a campaign to improve the seat belt wearing rate of truck drivers (www.hatsgeklickt.de). At the moment, only 15% of truck drivers in Germany use their seat belts. The campaign led by the German Road Safety Council (DVR) presents reasons as to why truck drivers should wear seat belts based on arguments they cited for not wearing them, such as discomfort and interruption to their jobs.

How can seat belt use be improved?

Seat belt wearing rates can be improved through the implementation of existing legislation and preparation for new legislation. This occurs through a mixture of measures including police enforcement, education and information, prompts such as seat belt reminders and seat belts fitted in all seats in all cars.

Police enforcement

Enforcement actions concerning seat belt use should be intensive, highly visible and well publicised. Studies have shown that so-called 'blitz' actions, lasting only one to four weeks, can be very effective in producing sharp increases in seat belt wearing. To achieve long-term effects, they should be repeated several times a year. High levels of publicity are crucial for optimising the effects of enforcement[7].

The European Commission[8] recommends that enforcement actions be carried out at least three times a year, with each action lasting at least two weeks. They should be carried out predominantly in those places where there is an increased accident risk.

In the Netherlands the Project WASSTRAAT developed a software behind the camera which detects if front seat belts are being used or not.

In France,[9] the number of fines for non-use of seat belts went up by 15% from 2002 to 2003. In July 2003, penalties were also increased. The use of seatbelts by front seat occupants went up to 90% in urban areas and 97% outside urban areas, resulting in a more than 20% decrease in the number of deaths due to non-use of seat belts. This means that in 2003, the lives of 173 people were saved through increased seat belt use.

In Sweden an increase in fines for non seat belt use (from 30 EUR to 60 EUR), combined with an information campaign and more enforcement led to an increase in seat belt usage from 79% to 84%. (Gunnar Carlsson NTF 05/10/04).

Police should also set an example in wearing their seat belts unless they are in an emergency situation. In the Netherlands police cars carry stickers to say that they are wearing their seat belts.

The European Traffic Police network **TISPOL** has also been very successful at raising the profile of this particularly low priority issue. By co-ordinating international blitz actions, TISPOL has encouraged countries to set up separate seat belt wearing operations. More than 19 out of 25 EU countries took part in an operation that was run in April 2005.

Education and Information campaigns

Education or information campaigns may involve preparing the public for law change and providing drivers with information about the consequences of driving belted or unbelted. A wide variety of approaches can be used, ranging from simple leaflets, elaborate television clips to providing opportunities for the public to experience the forces involved in even very minor crashes (for example with the aid of a seat belt 'sleigh').

The Netherlands conducted an extremely effective campaign targeted at increased seat belt wearing rates for 4-12 year olds. The campaign centred on a toy armadillo which is attached to the seat belt and was accompanied with TV and radio adverts, billboards, school resource material. (www.gorderldier.nl) The seat belt wearing rate went up from 52% in rear for 4-12 year olds in 2002 to 69% in 2004. A new project called Euchires is now being spread to ten other EU countries (Belgium, Catalonia, Czech Republic, Finland, Germany, Poland, Portugal, Slovenia, Sweden and Austria) led by the Belgian Institute for Road Safety, it is being co-funded by the European Commission.

Targeting campaigns at those reluctant to wear seat belts is crucial. In Sweden police conducted a seat belt enforcement campaign in spring 2005 which focussed on lorry and taxi drivers, a both groups are reluctant to belt up. In Sweden it has been compulsory for taxi drivers to wear seat belts since 1999.

Austria launched a campaign "Gurte retten Leben" (seat belts save lives) which stresses how essential the use of seat belts is to save lives in traffic accidents. Core of the campaign is a TV spot, which was the spot with the highest impact in Austria in 2005. It was also combined with strong enforcement activities.

Back and front seat belt wearing rates

Across Europe huge room for improvement remains to increase belt use in the rear seat. In the U.K. information and education campaigns have been particularly back seat belt wearing rates for short urban journeys in the U.K. with a TV and cinema advert called 'Backwards'. Three young men, with a pizza, crash first without rear seat belts; they die in the crash; then the film is run again but this time the same men with the pizza are buckled up. The pizza is crashed against the wind screen and they are saved. The effect was an increase in seat belt use from 60% to 66 %.

Vehicle technology

Research has shown rates of seat belt wearing would increase with an audible seat belt reminder. The device gives a sound warning whenever a seat is occupied but the person is unbuckled. ETSC experts estimate that audible seat belt reminders for front seats can raise seat belt wearing among front seat occupants to 97%. The benefits of requiring audible seat belt reminders for the front seats of cars in the European Union exceed the costs by a ratio of 6 to 1.[10]

The European New Car Assessment Program (EuroNCAP)[11] started providing added point bonuses for vehicles fitted with seat belt reminders. In the June 2004 rating, all but two of the cars had some form of intelligent seat belt reminder, and an "intelligent seat belt reminder" for rear seats was introduced for the first time on a car (Volvo's S40). Cars with seat belt reminders could be promoted via tax cuts.

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