



Safer roads for all

THE EU GOOD PRACTICE GUIDE

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Foreword by Transport Commissioner **Violeta Bulc**



The European Union has come a long way in road safety and achieved incredible results: over the last 15 years we cut down our fatality rates by more than 50%. But despite this progress, there are still 70 people a day who lose their lives on our roads. The devastated family and friends of those persons aren't interested in road safety statistics. They want safer roads and no fatalities – today.

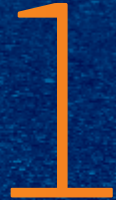
What can we do to save lives on Europe's roads? There is certainly no silver bullet. A mix of measures is required: measures we know work well, like education and enforcement; as well as new and innovative solutions, especially when it comes to vehicles and infrastructure.

Education is crucial. Human error is a contributing factor to 90% of fatal crashes. We are continuously mobilising the civil society, as well as private and public actors to improve road users' behaviour. At the same time, effective enforcement is the key in tackling the reckless minority who risks others' and their own lives on the roads.

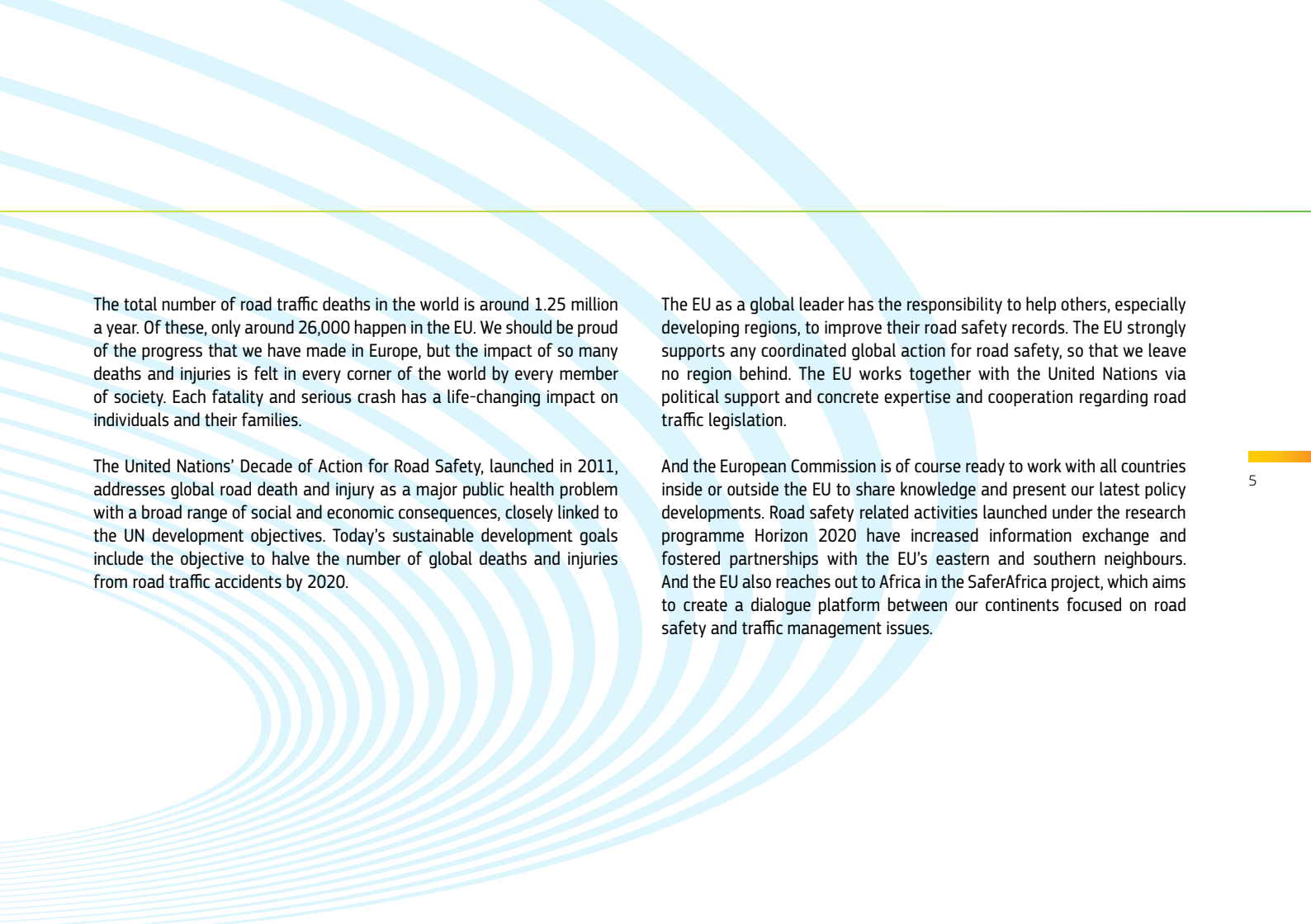
Another critical component of road safety is making sure that our infrastructure and vehicles are forgiving to human mistakes. Motorways are Europe's safest roads, but more work needs to be done on sections where accidents often happen and on other road networks as well as in urban areas.

Safer vehicles have played a significant role in reducing the casualty toll. Here, work is continuing to identify new safety features that will save even more lives. The real game changer in the medium run will be innovation, especially in automation. This will also contribute to our objective.

Whether you take extra care when you use the road, or whether you have been involved in a campaign, or a piece of legislation, or an innovative engineering solution – all of you are part of the solution. We all need to work together for safer roads in Europe and beyond.



GLOBAL RESPONSES
TO A GLOBAL
CHALLENGE



The total number of road traffic deaths in the world is around 1.25 million a year. Of these, only around 26,000 happen in the EU. We should be proud of the progress that we have made in Europe, but the impact of so many deaths and injuries is felt in every corner of the world by every member of society. Each fatality and serious crash has a life-changing impact on individuals and their families.

The United Nations' Decade of Action for Road Safety, launched in 2011, addresses global road death and injury as a major public health problem with a broad range of social and economic consequences, closely linked to the UN development objectives. Today's sustainable development goals include the objective to halve the number of global deaths and injuries from road traffic accidents by 2020.

The EU as a global leader has the responsibility to help others, especially developing regions, to improve their road safety records. The EU strongly supports any coordinated global action for road safety, so that we leave no region behind. The EU works together with the United Nations via political support and concrete expertise and cooperation regarding road traffic legislation.

And the European Commission is of course ready to work with all countries inside or outside the EU to share knowledge and present our latest policy developments. Road safety related activities launched under the research programme Horizon 2020 have increased information exchange and fostered partnerships with the EU's eastern and southern neighbours. And the EU also reaches out to Africa in the SaferAfrica project, which aims to create a dialogue platform between our continents focused on road safety and traffic management issues.



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ROAD SAFETY
IN THE EU

European roads remain the safest in the world: with 50 road fatalities per one million inhabitants – this is the lowest fatality rate out of all world regions. Between 2001 and 2010, the EU cut the number of road deaths by 43% and between 2010 and 2016 by another 19%. In 2016, 25,600 people lost their lives on EU roads, 500 fewer than in 2015 and 5,900 fewer than in 2010.

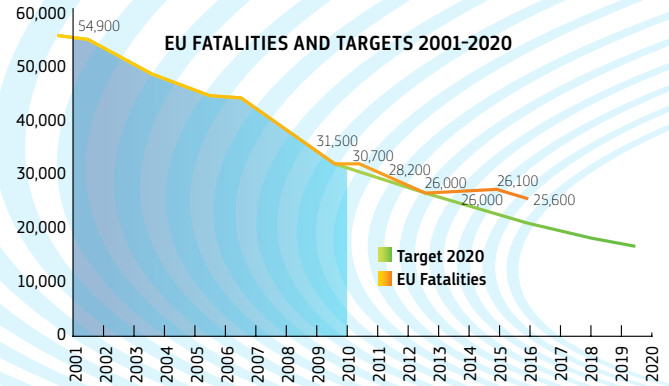
In 2016, after two years of stagnation, the data suggests that Europe is getting back on track showing a 2% decrease in fatalities. While this is encouraging, it is unlikely to be sufficient to meet the target of halving road fatalities between 2010 and 2020. This calls for further efforts from all actors and particularly from the national and local authorities, which deliver most of the day-to-day actions, such as enforcement and awareness-raising.

The chances of being killed in a crash vary from one Member State to another. Although the gap narrows every year, those living in the Member States with the highest fatality rates are still more than three times more likely to be killed on the road than those living in the countries with the lowest rates. However, for the second year in a row in 2016 none of the EU Member States had a fatality rate above 100 deaths per million inhabitants. Furthermore, almost half of the Member States reached their best road safety records ever.

However the data also suggests that we need a stronger focus on vulnerable road users: put together, including pedestrians, cyclists and motorcyclists, they now account for the same proportion among victims as car occupants (46%). Vulnerable road users are particularly exposed in urban areas. 21% of all people killed on roads were pedestrians, and

pedestrian fatalities decreased at a lower rate than other fatalities (by 11% since 2010, compared to the total fatality decrease of 19%). Cyclists accounted for 8% of all road deaths in the EU. Motorcyclists, who are less protected during a crash than car occupants, accounted for 14% of road fatalities. In general, fatalities among vulnerable road users decreased much more slowly than those among all road users.

For every person killed in traffic crashes, many more suffer serious injuries with life-changing consequences. 2016 was the first time the Commission published data on serious road traffic injuries, based on a new common definition, from 16 Member States representing 80% of the EU population. On this basis, the Commission estimates that 135,000 people were seriously injured across the EU. Vulnerable road users were especially affected.



Source – CARE (EU road accidents database)



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WHAT IS THE EU
DOING FOR SAFER
ROADS?

The EU success story is the result of many contributing factors: making road safety a political priority; broad cooperation across borders for a true European road safety area; adoption of the 'safe system' approach and the 'vision zero' perspective; target setting, data collection and continuous monitoring of results; and dedicated actions ranging from education and awareness campaigns to legislative action and safety-focused technical vehicle regulations.

- The EU has created a framework for improved road safety with legislation and recommendations:
 - minimum requirements for the safety management on the Trans-European Transport Networks;
 - technical requirements for safe transport of dangerous goods;
 - the Cross-Border Enforcement Directive tackling driving offences committed abroad;
 - common rules on roadworthiness testing to decrease the number of traffic accidents caused by technical failures;
 - training requirements for professional drivers contributing to higher road safety standards and facilitating the mobility of professional drivers (and a new proposal on the way);
 - the infrastructure safety and tunnel safety directives (reviews also under way);
 - and vehicle safety rules which are also being updated and which will soon integrate new life-saving technologies.
- Road safety is mainstreamed in the discussions on innovative technologies which have a huge road safety potential.
- As of March 2018, all new vehicle types will have to be fitted with the eCall system. eCall automatically dials Europe's single emergency

number 112 in the event of a serious road accident and communicates the vehicle's location to the emergency services.

- The European Strategy on cooperative ITS is a milestone towards cooperative, connected and automated mobility. It will help deploy vehicles that can talk to each other and to the infrastructure on EU roads as of 2019.
- The Commission is now working on a new strategic framework for road safety for the period 2020-2030. Current intentions are to place the focus on a set of key performance indicators to monitor road safety progress across the EU. This will enable decision-makers at all levels to take the most appropriate and effective action for safer roads.
- The Commission supports Member States in their activities to improve road safety through different knowledge sharing platforms and activities, such as the High Level Group on Road Safety, expert groups and peer-reviews.
- The Commission has also created and runs the European Road Safety Charter, a large platform – with more than 3,500 members today – that mobilises public and private entities as well as the civil society in all EU countries for voluntary commitments to road safety actions.
- The Valletta Declaration on Road Safety, adopted by EU Transport Ministers in March 2017 and later endorsed as Council Conclusions, acknowledges all that we have achieved so far and makes strong commitments for the future. It calls, inter alia, for a new European Road Safety Strategy for the decade 2020 to 2030 and commits to a target for halving the number of serious injuries between 2020 and 2030, similar to the fatality reduction target we already have (see above).

GOOD PRACTICES IN ROAD SAFETY



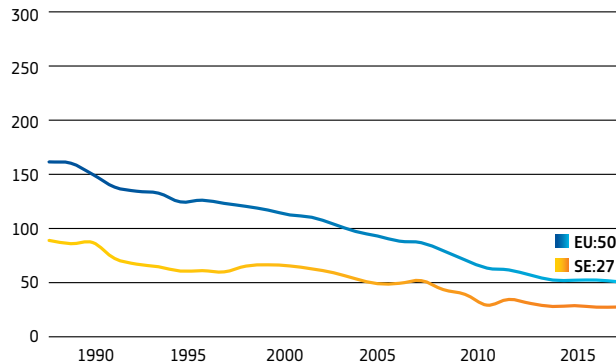
Good practices
**in countries
with different
performance
levels**



SWEDEN: THE VISION ZERO APPROACH

Sweden belongs to the best performing countries in Europe: every year so far its fatality rate has been lower than the EU average.

NUMBER OF DEATHS PER MILLION INHABITANTS OVER TIME
(BLUE LINE: EU AVERAGE)



The most remarkable road safety policy in Sweden is Vision Zero, a strategic approach towards a safe system which envisages no one being at risk of fatal or severe injury while using road transport. The Vision Zero approach is based on an ethical foundation, creating and supporting a totally new perspective on the road safety problem and the approach to solve it.

The Vision Zero approach aims at a more forgiving road system that takes human fallibility and vulnerability into account: the whole transport system is designed to protect people from death and serious injury. It accepts that people make mistakes and that they are vulnerable. Those who design the road system and those who use the roads must share responsibility for creating a road system where crash forces do not result in death or serious injury.

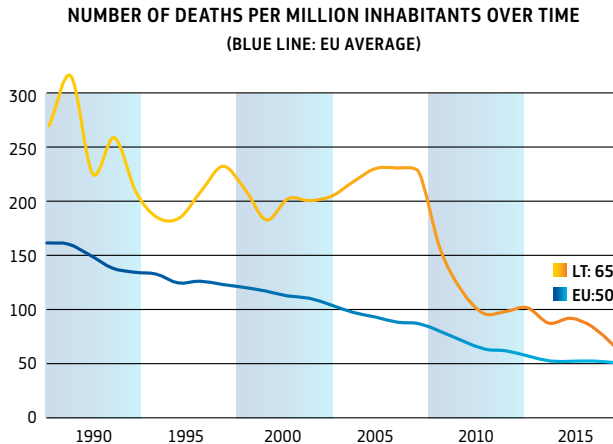
The Safe System approach implies that we need to improve the safety of all parts of the system: roads and roadsides, speed and vehicle construction. The idea is that if one part of the safety system 'fails' (e.g., drivers make a mistake), other parts will still protect the people involved (e.g., more 'forgiving' road infrastructure).

<http://www.visionzeroinitiative.com/>



LITHUANIA: IMPLEMENTING EU BEST PRACTICES

Lithuania is one of the EU countries with a history of high fatality rates but is now making dramatic progress – Lithuania reduced the number of road deaths by 58% between 2001 and 2010 and by another 37% between 2010 and 2016 and is now close to the EU average.



To boost its road safety performance, Lithuania has adopted a national road safety programme for the period 2011-2017, a long-term 'Vision Zero' perspective and a strategic target for 2017: to reach a fatality rate of no more than 60 per million inhabitants.

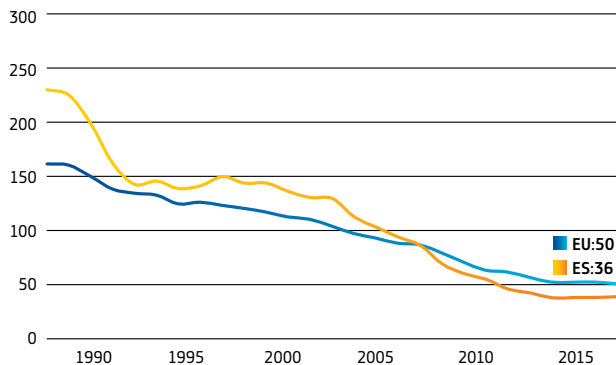
Lithuania has tried to catch up with better performing countries, mainly by improving road users' behaviour, introducing safer vehicles and developing safer infrastructure. It introduced stricter rules for drink-driving than most other EU countries: a maximum level of 0.2‰ of blood alcohol content for novice and professional drivers and 0.4‰ for all other drivers; and the compulsory use of helmets for cyclists under the age of 18. In parallel, Lithuania has paid particular attention to the proper enforcement of traffic rules (speeding, seat belt use and drink-driving) as well as to education. But there remains a lot to do for the safety of vulnerable road users, such as pedestrians who are disproportionately affected in fatal crashes.



SPAIN: EDUCATION AND ENFORCEMENT

Spain is one of the countries where the rate of road deaths is among the lowest in the EU. Since 2001, when the fatality rate was still higher than the EU average, a steady and substantial decrease was recorded resulting in a drop of the fatality rate below the EU average.

NUMBER OF DEATHS PER MILLION INHABITANTS OVER TIME
(BLUE LINE: EU AVERAGE)



Spain recorded 64% fewer road deaths in 2013 than in 2004 and 69% fewer road deaths on motorways. These impressive results followed a comprehensive set of measures, including the introduction of a penalty point system, the deployment of an extensive network of safety cameras and stricter sanctions for traffic offences.

Because evidence showed a substantial drug-driving problem, Spain has implemented changes in legislation and introduced a new surveillance programme for drug use. In 2014, nearly 70,000 drug tests were carried out on drivers.

After the publication of the preliminary 2016 figures showing no decrease in the number of road deaths, Spain has announced in January 2017 an urgent action plan with concrete measures to increase safety on the roads, including better signing and the introduction of new safety cameras on the Spanish roads.



Implementing new ideas for vehicle safety



More than 78,000 lives have been saved since Euro NCAP's crash safety tests were launched 20 years ago. Euro NCAP has published over 630 safety ratings, crash-tested some 1,800 cars and collectively spent over 160 million Euro to make cars safer.

Backed by international federations, European governments and the EU, the first Euro NCAP crash test results were revealed in February 1997. It was the first time that realistic, like-for-like tests were conducted in Europe by independent experts. The first tests exposed safety failings in top-selling family cars, forcing a fundamental rethink in the way vehicles were designed to prevent accidents and save lives. Twenty years on, 9 out of 10 cars sold on the European market hold a Euro NCAP rating, and the motor industry actively supports the development of new requirements for the top safety ratings.

Until now, Euro NCAP has given millions of consumers the knowledge they need to choose the safest cars possible. Tests have become ever more demanding and cars can now achieve a maximum of five stars, awarded not just for how they protect occupants and pedestrians in a collision, but on the car's ability to avoid a crash in the first place.

<https://www.euroncap.com>



NEW LIFE-SAVING TECHNOLOGIES IN CARS

Safety technologies that were non-existent or optional in the past – such as driver and passenger airbags, side protection airbags, seat belt reminders and electronic stability control – are now standard in all cars sold in Europe.

The European type-approval rules establish the safety features and systems that vehicles need to have in order to be sold on the EU market. In particular, three new technologies that have a high potential for saving lives are likely to be part of these rules in the near future:

- Automated Emergency Braking automatically slows down and stops the vehicle if it detects a vehicle in front. Some versions already available on the market can detect pedestrians and cyclists. Advanced Emergency Braking System (AEBS) and Lane Departure Warning System (LDWS) are mandatory for new trucks and buses registered since 1 November 2015.

- Intelligent Speed Assistance (ISA) is an overridable system that communicates the current speed limit to the driver using digital maps and speed sign recognition and helps them keep within the limit. It is already available as standard in some vehicles. ISA could be made compulsory in the future not only for commercial vehicles, but also for passenger cars.
- Seat-belt reminders are already mandatory on driver seats, and can be extended to all passenger seats. The failure to wear a seatbelt is still a leading cause of death on Europe's roads.

The Commission is examining different lifesaving technologies that could be made mandatory in new vehicles in the next update of EU vehicle safety rules.



Good practices in infrastructure safety



Slovakia has undertaken to prevent an estimated 355 deaths and serious injuries over the next 20 years on a 327km sample of motorways and expressways. The total cost of investment was about EUR 40 million.

A report by EuroRAP Slovakia has revealed that 77% of the improved sections are now rated as 3-star, with 1-star sections having disappeared completely. In December 2013, before improvement works began, almost 75% of the road sections were rated 1-2-star.

The wide ranging package of improvements – including shoulder rumble strips and barriers with energy absorbing ends – was undertaken in 2014 and 2015. It was prompted in part by the findings of the SENSOR (South East Neighbourhood Safe Routes) project. The improved roads were reassessed by EuroRAP Slovakia in February 2017.

The minimum 3-star standard should be reached very soon on the Slovak superior road network. This should send a powerful message to other road owners and authorities in the Danube region.

http://www.eurorap.org/wp-content/uploads/NDS-Upgrade_Re-assessment-Case-Study-v1-4_EN-20160603_Final_sdl_edit_mj_....pdf



AUSTRIA: FOCUS ON HIGH RISK SITES

The EU Infrastructure Safety Management Directive has been fully implemented on the Trans-European Network of Austrian motorways and has helped put in place a culture of providing and maintaining safe motorways. It has contributed greatly to reduced motorway deaths – e.g. in Austria where the number of people killed on motorways decreased by 73% from 116 in 2004 to 31 in 2013.

In 2010, the Austrian motorway agency set up an integrated road safety programme with the help of the Austrian Road Safety Board, aiming at making Austrian motorways the safest in Europe. In order to reach the target of halving the number of deaths per billion vehicle-km by 2020, the plan prioritises reducing the number of high risk sites, increasing compliance with speed limits, raising awareness about the danger of not wearing seat belts, driving fatigued or distracted and making better use of Intelligent Transport Systems.

<https://www.asfinag.at/>



UK: SAFER ROADS FUND

Britain has some of the safest roads in the world. Despite this achievement, an average of 57 people are killed and seriously injured on England's roads every day. To ensure that the road network is inherently safer, a roads investment package was announced in 2016. Part of this comprehensive package, funding of £175m will be targeted at upgrading 50 of England's most dangerous local 'A' road sections where the risk of collisions causing death and serious injury is highest.

The Safer Roads Fund is open to local highway authorities with responsibility for the 50 highest risk road sections that have been identified by the Road Safety Foundation in their most recent analysis. The new Safer Roads Fund of £175m covers the four financial years 2017/18 -2020/21. £25m is being made available to local highway authorities for 2017/18 and the remaining £150m will be allocated in the subsequent three financial years.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/583263/roads-funding-information-pack.pdf



30KM/H ZONES IN GERMANY

German state transport ministers have approved legal changes that will allow for easier application of 30km/h limits near schools and hospitals. So far, the limits have been restricted to residential areas. The changes should make it easier for local authorities to set 30km/h zones along main roads where schools and kindergartens are situated. Up to now this has only been possible in proven high-risk sites.

The new measure comes in response to pressure from state transport ministers, the German association of cities and the scientific advisory board of the German transport ministry to use more 30km/h zones for safety reasons and also to reduce noise levels in urban areas.

In parallel, 30km/h zones have been gaining popularity across Europe.



Good practices for the safety of road users



Winner of the Excellence in Road Safety Award in 2017, the HERACLES Group, which is a member of LafargeHolcim, launched a successful corporate social responsibility programme, the 'Good driver' project, specifically designed for professional drivers of heavy goods vehicles and buses. The initiative aims to improve drivers' behaviour and encourage them to be personally accountable for their safety record via an interactive campaign. Through a series of 'webisodes', projected to the company's 600 drivers through a digital platform, the programme gives useful tips and covers in a simple manner a wide range of road safety related topics that professional drivers face in their daily routine.

Drivers can access the platform from wherever they are, and are asked to respond to questions following each video. They use their mobile number and a pin to sign into the platform, making it possible to monitor their participation and carry out corrective actions. Results indicate that 85% of the drivers watched a video on a weekly basis and that 95% correctly replied to the questions after each episode.

www.kalosodigos.gr



EDUCATION OF YOUNG PEOPLE IN THE UNITED KINGDOM

Lockerbie Academy in the United Kingdom won the Excellence in Road Safety Award in 2016 by organising a successful educational programme to improve the behaviour of students on the roads. The 'Road Safety through Physics' initiative introduced a variety of road safety concepts, such as speed, velocity, distance, displacement and braking, within the framework of school physics lessons. Together with Police Scotland, road crashes were simulated, and students could complete their own investigation of a more complicated incident. Students also surveyed parents and teachers about their awareness of driving in bad conditions. They also developed a plan to provide resources and education to help drivers feel more confident and drive more safely.

The initiative raises awareness of road safety while progressing in the normal school curricula. The entertaining nature of some activities increases the efficiency of the programme. It also creates a link between generations. The programme is easily transferrable to other schools thanks to its well-drafted educational material.

<http://www.lockerbieacademy.dumgal.sch.uk/>



EUROPE-WIDE AWARENESS- RAISING: THE EDWARD PROJECT

In 2017, for the second year in a row, project EDWARD – the European Day Without A Road Death, took place on 21 September during the European Mobility Week. The objective of the initiative, launched by the European Traffic Police Network (TISPOL) and supported by the European Commission, is that no one should die on the roads of Europe on 21 September. In the days leading up to EDWARD, road users are asked to think – even for just a few minutes – about the risks they face, the risks they may pose to others and how they can go about reducing those risks.

National governments, private organisations, public agencies, charities, schools, colleges and universities, as well as individuals are asked to join the campaign and organise Road Safety Days across Europe and register them on an interactive map (<http://roadsafetydays.eu>). Furthermore, one can make a commitment by signing a pledge (<http://projectedward.eu>) or being part of a social media campaign ([#ProjectEDWARD](https://twitter.com/ProjectEDWARD)).

The second edition of Project EDWARD was again a great success. As part of the campaign, private and public entities as well as the civil society were mobilised to contribute by sharing the messages, by making a pledge on TISPOL's website, by recording a video message. More than 120 road safety events were organised across Europe, including information and awareness-raising activities in schools and companies, workshops, conferences and competitions. In addition, [#ProjectEDWARD](https://twitter.com/ProjectEDWARD) made a great impact on social media too with a Twitter reach of more than 25 million.

<http://roadsafetydays.eu>



Good practices in enforcement



The Swedish Abstaining Motorists' Association (Motorförarnas Hälmykterhetsförbund) believes that no one should die because of drink-driving. Statistics show that the drink-driving rate around maritime ports is three times higher than the national average. Therefore, the Alco-Gates project aims to prevent drunk drivers from leaving the ports thanks to automatic checkpoints, where drivers take an instant sobriety test. A traffic control centre provides remote support and alerts the police, customs or the coast guard when a drunk driver is detected. First implemented in Gothenburg and Stockholm, the project is being gradually extended to other Swedish ports.

The initiative represents an innovative practice in enforcement, key to any successful road safety policy. Alco-Gates can help the police become more effective. As the entire operation is well documented, the system can be easily introduced elsewhere. There is currently an 'Alco-Gates' trial in a Finnish city. The Australian state of Victoria has also picked up the idea.

The initiative was one of the winners of the Excellence in Road Safety Awards 2017, launched by the [European Road Safety Charter](#).

<http://www.mhf.se>



SAFETY CAMERAS IN FRANCE

France has begun a major programme to triple the number of 'safety zones' covered by its speed camera programme. It is one of a number of measures introduced to improve the country's road safety records.

France has increased the number of its 4,200 active speed cameras by 500, taking the total to 4,700. In addition, between 10,000 and 12,000 decoy units have also been installed – with the potential for cameras to be moved between units.

The intention is to make it difficult for drivers to know whether the camera is activated or not and thus keep to an appropriate speed in all cases. France has a policy of warning drivers of the presence of cameras using road signs – this has not changed. The installation of the 10,000 dummy units see the number of zones covered increase to 15,000.

<https://www.interieur.gouv.fr/Le-ministere/Securite-routiere>



AUTOMATIC SPEED ENFORCEMENT: SAVING LIVES AND MONEY

Under automatic speed enforcement systems, the registration number of the speeding vehicle is captured by a camera and the licence holder subsequently receives a fine through the post. In places where they have been implemented, such systems have had a considerable impact in terms of the reduction of road deaths.

Reports from Member States show that automatic speed enforcement systems are very cost-effective. It is estimated that, for every Euro spent on the installation of such systems, at least three Euros are recouped. Another important characteristic of speed cameras is their adaptability. They can be a useful means of enforcement on any type of road.

As regards issuing fines, the recommendation is to ensure that the fine is issued as soon as possible after the offence to maximise the educational effect of the sanction. In addition, administrative procedures related to fines should be fair and transparent.



Good practices to protect vulnerable road users



A partnership of the Danish Children Accident Prevention Foundation and an insurance company is responsible for Denmark's annual National Reflector Day. On the last Thursday before wintertime, thousands of reflectors and reflective vests are handed out all over the country. A special running event, 'The Reflectors Run', sees children and adults running covered in reflectors, and kindergarten teachers deliver fun lessons about reflectors. The campaign includes TV and cinema spots and ads on trains and in newspapers. In 2015, partners launched a reflective clothing line and a kit for running clubs.

The 'National Reflector Day' focuses on the protection of vulnerable road users, such as cyclists and pedestrians. The highly mobilising character of the campaign, its popularity amongst youngsters as well as the wide media coverage it receives are equally important parts of its success knowing that the use of a reflector reduces the risk of being involved in an accident by up to 85%.

The initiative was one of the winners of the Excellence in Road Safety Awards 2016, launched by the [European Road Safety Charter](#).

www.borneulykkesfonden.dk

www.codan.dk



PROTECTION OF SENIOR ROAD USERS IN FRANCE

With its 'Street code for seniors' campaign, the southern French city of Martigues is raising awareness for traffic dangers among a particularly vulnerable group of road users – the elderly – because 30% of road accidents in the city involved seniors in 2010. Outreach includes popular workshops that raise awareness of the rules of the road and update older members of the community about changes to traffic laws.

The initiative also aims to gather statistics and information on accidents specific to the elderly. It focuses on sustained mobility and improving the quality of life for seniors through, for example, free shuttles and the extension of pedestrian zones.

The initiative was one of the winners of the Excellence in Road Safety Awards 2017, launched by the [European Road Safety Charter](#).

<http://www.ville-martigues.fr>



CYCLING STREETS IN THE NETHERLANDS

A cycling street (Fietsstraat) in the Netherlands is a street designed as a bicycle route but on which cars are also allowed. The car use is usually limited by the character and layout of the bicycle street – in many cases the speed limit is 30 km/h.

In the Netherlands, cycling streets are coloured red, just like bike paths. Bicycle streets form an alternative to traditional cycle routes along main roads. The cycle streets are mostly located in residential areas that generally have less car traffic.

This is a good example to be promoted across Europe to ensure safer infrastructure for this vulnerable category of road users.

https://ecf.com/sites/ecf.com/files/EUCS_full_doc_small_file.pdf

