A Challenging Start towards the EU 2020 Road Safety Target

6th Road Safety PIN Report



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Road Safety PIN

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The European Transport Safety Council

The European Transport Safety Council (ETSC) is an international non-governmental organisation which was formed in 1993 in response to the persistent and unacceptably high European road casualty toll and public concern about individual transport tragedies. It brings together experts of international reputation and representatives of 45 national and international organisations concerned with transport safety from across Europe to exchange experience and knowledge and to identify and promote research-based contributions to transport safety. ETSC provides an impartial source of advice on transport safety matters to the European Commission, the European Parliament and to national governments and organisations concerned with safety throughout Europe.

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Executive summary

This 6th PIN Report provides an overview of European countries' performance in three areas of road safety. It builds on the five previous Road Safety PIN Reports published in June 2007, 2008, 2009, 2010 and 2011. The report compares developments in the numbers of road deaths, during the first year of the 2020 EU road safety target, and estimates the monetary value of their benefit to society. It also sets these one-year developments in the context of the reduction in road deaths observed since 2001, the starting point of the first EU road safety target. The report also provides a qualitative analysis of the European countries' road safety management systems, showing that while many elements of good policies are in place, there is still scope for improvement to sustain medium- and long-term reductions in death and injury on the roads. It also looks at the risks faced on the roads by young people and countries' progress in reducing road deaths among this group of road users.

These rankings have been carried out during the sixth year of the Road Safety Performance Index (PIN) between September 2011 and June 2012. Chapters 2 and 3 cover 30 countries: the 27 Member States of the European Union, together with Israel, Norway and Switzerland, while Chapter 1 also includes the Republic of Serbia, who joined the PIN countries in April 2012.

Mixed results in the first year of the 2020 Road Safety Target

Across the EU progress in reducing road deaths has been mixed in 2011. The overall number of road deaths decreased by just **3**% compared with the previous year, a slowdown from the 11% drop recorded in 2010. **Latvia**, **Spain**, **Bulgaria** and **Romania** are the four EU countries with the biggest reductions in road deaths. They are joined by **Norway**, where road deaths were reduced by 20% in 2011 compared with 2010. In 13 countries the number of road deaths recorded in 2011 was above that of 2010. **Estonia**, **Sweden** and **Cyprus** registered the biggest increases. Countries with good road safety records, such as the **Netherlands**, **Germany** and the **UK,** also saw an increase in road deaths after several years of sustained progress.

There have been **940** fewer road deaths in 2011 than in 2010 in the EU as a whole. The monetary value of this reduction is estimated at **1.74 billion euro**. For the EU to reach the 2020 target through constant annual progress, another 1,140 lives would have had to be saved in 2011. The monetary value of this additional reduction would have been **2.09 billion euro**.

However, the new EU target for 2020 should be seen as achievable by all Member States, if they show the political will to invest in road safety. Important safety measures remain to be implemented fully or are being developed.

Road Safety Management

A lot of the important reductions in road deaths that were observed during the past decade can be attributed to the improvements that the PIN countries made in the way they manage road safety and their policy-making process.

Road safety policy needs to be supported by effective institutional management in order to achieve long term effects on road safety levels. Recent calls by the World Bank, the UN Moscow Declaration, the European Commission in its *Road Safety Policy Orientations,* and the ITF/OECD in its report *Towards Zero,* among others, are urging national governments to organise clear institutional roles and responsibilities and adopt national road safety plans and targets against which performance can be measured and delivery made accountable so as to guide their road safety actions.

The list of questions the PIN Panellists were asked constitutes a checklist of the main elements of effective road safety management, as inspired by best practice and innovative experiences in Member States. The current state of key elements of road safety management, as seen by the PIN Panellists, reveals that in every country many elements of good road safety policy are in place, but there is still scope for greatly improved procedures in many of them.

Young People

Around **140,000** young people aged 15 to 30 were killed in road collisions in the EU27 over the 2001-2010 decade. In 2010, **9,150** young people aged 15 to 30 were killed in road collisions in 2010, compared with **18,670** in 2001. On average, in the EU, one young person's death in four results from a road collision.

Member States must make the fight against road deaths among young people a priority if they want to achieve the EU 2020 road safety target and their national targets. The share of young people's deaths among total deaths will increase as road safety of the rest of the population increases unless young people's safety is similarly improved.

The country comparison shows that the differences between countries are large. Curbing deaths among young people therefore requires general road safety measures, coupled with specific measures, for example targeting young drivers and powered two-wheeler riders, in particular males, in countries where reductions in young people's deaths on the road are lower than the EU average reduction.

Introduction

In 2011, approximately **30,100** people were killed in the EU27 as a consequence of road collisions. Around 324,000 were seriously injured and many more suffered slight injuries.

In April 2006, the European Transport Safety Council set up the Road Safety Performance Index – as a response to the first target set by the European Union to halve road deaths between 2001 and 2010 – as an instrument to spur European countries to greater efforts to enhance road safety. By comparing Member States' performance, the Index serves to identify and promote Best Practice in Europe and bring about the kind of political leadership that is needed to create what citizens deserve - a road transport system that offers all practicable safety.

The Index covers all relevant areas of road safety including road user behaviour, infrastructure and vehicles, as well as road safety policymaking more generally. Since 2006, comparisons of countries on sixteen different areas of road safety have been presented in a series of **PIN Flashes,** gathered in six **PIN Reports**. The findings from those country rankings have been discussed in 30 **PIN Talks** gathering key road safety policymakers to discuss national road safety policy, targets and strategies. National decision-makers were confronted with both the successes and shortcomings of their road safety policies.

The **5th PIN Annual Report** presented the results of achieving or striving towards the EU target of halving road deaths between 2001 and 2010, countries' performance in reducing road deaths among three groups of unprotected road users – pedestrians, cyclists and riders of powered two-wheelers – and their progress in reducing the number of road deaths on rural roads.

The current **6th PIN Annual Report** presents in Chapter 1 the results of the first year of progress towards the EU target of halving road deaths between 2011 and 2020. Chapter 2 provides a snapshot of the key elements of road safety management in the PIN countries, as seen by the Panellists. Chapter 3 looks at the countries' progress in reducing the number of road deaths of young people during the 2001-2010 decade. The last chapter presents recommendations to the EU institutions and the responsible authorities in the Member States.

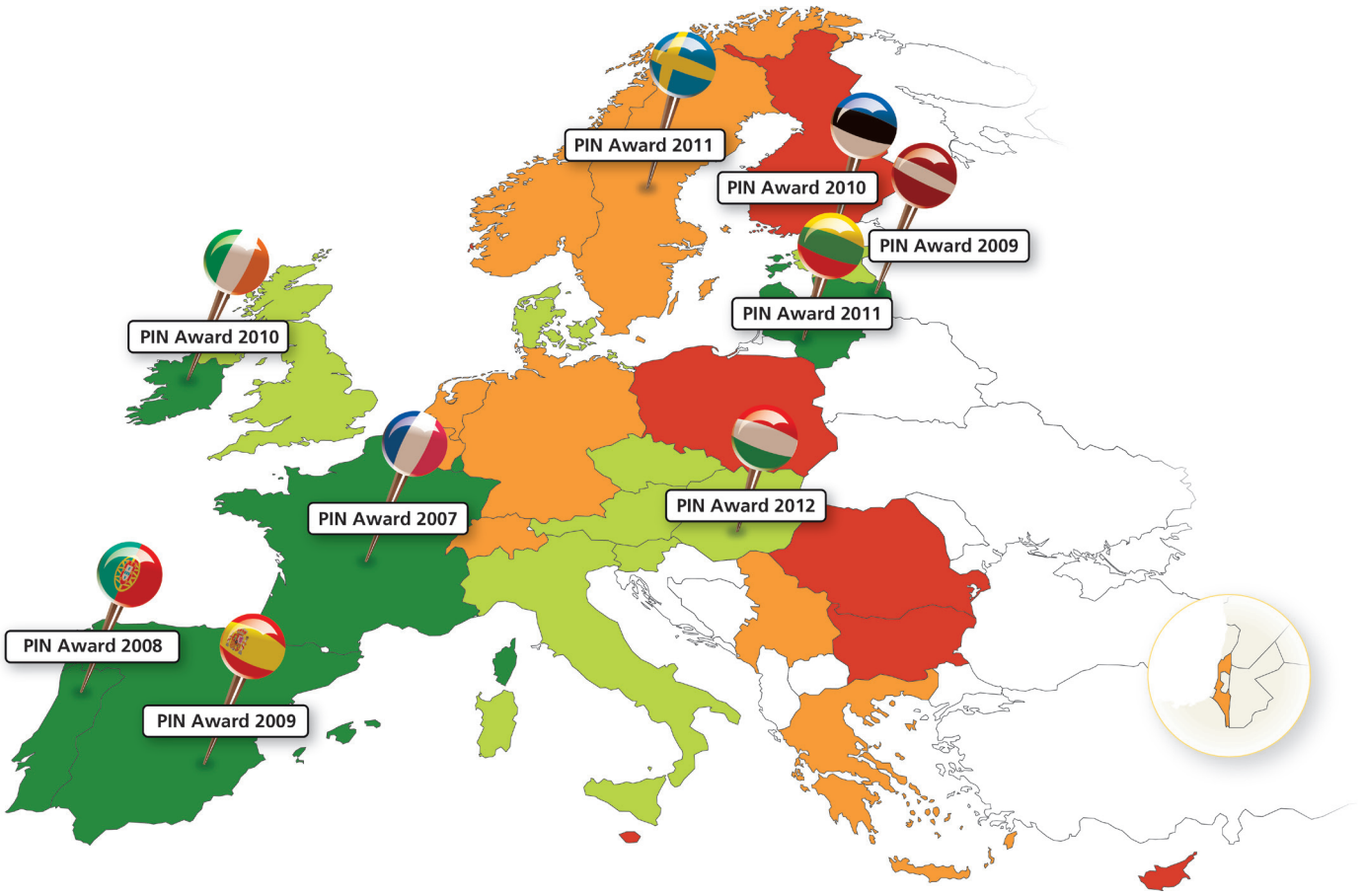
1| Mixed results in the first year of the 2020 target – reduction in deaths slows down

The European Union has renewed its commitment to improving road safety by setting a target of reducing road deaths by another 50% by 2020, compared to 2010 levels. These rankings show the latest developments in road safety in 2011, the first annual step toward the 2020 goal.

Norway and **Latvia** top the ranks for reduction in road deaths between 2010 and 2011, followed by **Spain**, **Bulgaria**, **Romania**, **Hungary**, **Greece**, **Denmark**, **Ireland** and the **Czech Republic** with reductions of more than 10%. Yet 2011 was a year of mixed results, with several countries, including long-standing road safety leaders, seeing an increase in road deaths for the first time after several years of sustained progress.

As many as **30,108** people lost their lives on EU roads in 2011, a mere **3**% reduction compared to the corresponding figure for 2010. There have been **940** fewer road deaths in 2011 than in 2010 in the EU, valued at **1.74 billion euro** according to ETSC estimates. But if the EU had made the progress required to move towards the 2020 road safety target uniformly over the decade, reductions valued at another **2.09 billion euro** would have been achieved.

Ireland and **Portugal** reached the 2010 target with just one year of delay. **Slovenia**, **Denmark** and **Hungary** stand on the verge of halving road deaths compared with 2001 levels, with reductions of 49% each.



1.1 Mixed progress in reducing road deaths in 2011

Eighteen out of the 31 countries monitored by the PIN Programme registered a drop in the number of road deaths in 2011 compared to 2010. **Norway** leads this ranking with a 20% reduction in road deaths, after a just 1% reduction in 2010. **Latvia**, **Spain**, **Bulgaria** and **Romania** achieved commendable reductions of 18%, 17%, 15% and 15% respectively. **Hungary**, **Greece** (-14%), **Denmark** (-13%), **Ireland** and **Czech Republic** (-12%) follow closely.

Sadly, the positive trend in reducing road deaths was reversed in 13 countries. **Estonia** saw an increase of 28% compared to 2010, while **Sweden** had an increase of 20%, **Cyprus** 18% and **Malta** 13%. Other road safety champions, the **Netherlands**, **Germany** and the **UK**, registered an increase in road deaths after years of sustained decrease. Research is ongoing in those countries to understand and attend to this worrying reversal. Any potential impact of the economic crisis to the fluctuation of the number of road deaths should also be investigated.

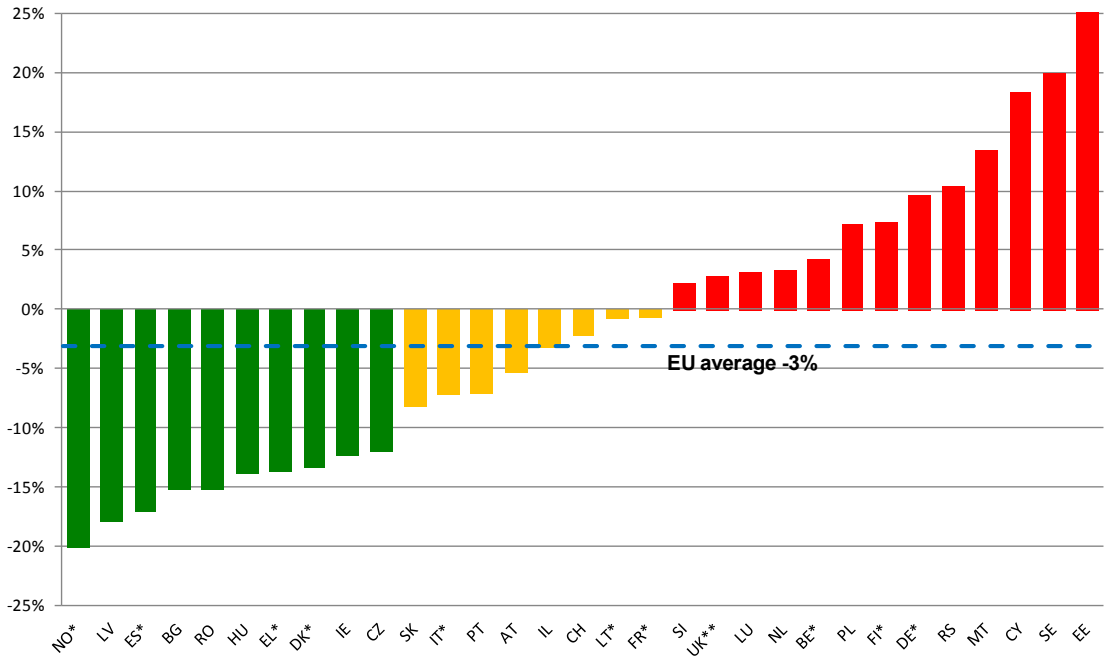


Fig. 1: Percentage change in road deaths between 2010 and 2011
** Provisional estimates used for 2011, as the final figures for 2011 are not yet available at the time of going to print.*
*** UK estimate based on 3% increase in killed in 2011 Q1-3 compared with 2010 Q1-3.*

Reductions in road deaths have picked up pace in Norway with a 20% drop in 2011 following a decrease of just 1% in 2010.
"The number of deaths in Norway has not declined as rapidly in recent years as in many other countries - a fact which has surprised us. In 2011, there was a large reduction in the number of fatalities which brings the developments in Norway more in line with other countries. Although the large drop in 2011 is likely to be partly a result of chance, we also believe that we are now seeing the effects of a number of road safety measures that have been introduced in the past decade, such as median barriers, lower speed limits on high risk roads, the opening of new motorways, the introduction of section control and the renewal of the car fleet. The mean speed of traffic has been reduced since 2006, and the wearing rate for seat belts continues to increase. A new target of no more than 100 deaths in 2024 is being discussed."
Rune Elvik, Institute of Transport Economics, Norway

Latvia continued its positive trend in reducing road deaths with an 18% reduction in 2011.
"The current Latvian Road Traffic Safety Action Programme sets the target of no more than 160 road deaths occurring in 2013. To reach this goal we increased fines for traffic offences increasing road risk, we extended the demerit penalty point system to cover moped riders, we introduced infrastructure safety audits and developed a system to manage high risk areas. We are confident that we will be able to achieve our goal through better education of road users, enforcement of traffic laws and better engineering. The forthcoming 2014-2020 road safety programme in Latvia will have to be aligned with the EU 2020 road safety target."
Aldis Lama, Ministry of Transport, Latvia

In **Spain**, road deaths dropped by 17% in 2011 compared to 2010, following a 9% decrease in 2010.

In **Poland** road deaths increased by 7% in 2011 after three successive years of improvement, and in **Germany** they rose by 10% after continual improvement since 2001.

"There is much to suggest that the 7% increase in road deaths in 2011 is linked, at least partly, with the hasty decision of the Polish Parliament to raise the speed limits on practically all roads. So more than ten years of work that went into changing Polish drivers' attitudes and behaviour towards speed seem to have been totally wasted. Moreover, while the 29% decrease in road deaths observed between 2001 and 2010 is not negligible, the majority of countries have simply done better than us. I think that the poor performance of the last decade comes as the price to be paid for policy-making which is more accidental rather than professional, coupled with a minimal level of monitoring and evaluation of the effectiveness of road safety policies. I hope that the new Polish National Road Safety Programme, which is now being developed, will show that we are learning from past mistakes."
Ilona Buttler, Motor Transport Institute, Poland

"In Germany, the main explanation for the increase of killed and injured persons on the roads is the weather conditions: compared to the year before, there was a mild winter, a warm and dry springtime and a nice autumn season. When the weather conditions are good, more drivers are on the road as well as vulnerable road users such as pedestrians, cyclists and PTW-riders. "
Jacqueline Lacroix, German Road Safety Council

The indicator

Following the adoption of the EU road safety target for 2020, this ranking uses as main indicator the **percentage change** in the numbers of people killed on the road between 2010 and 2011 (Fig. 1). A person killed in traffic is someone who was recorded as dying immediately or within 30 days from injuries sustained in a collision. We also used **road mortality**, referring to the number of road deaths per million inhabitants as an indicator of road safety (Fig. 5). Additionally, the number of road deaths per billion vehicle-kilometres is presented where vehicle-kilometre data are available (Fig. 6).

The data collected to calculate the indicators are from the national statistics supplied by the PIN Panellist in each country. CARE and IRTAD databases were used for verification. Population figures were retrieved from the EUROSTAT database. The full dataset is available in the Annexes – Chapter 1.

The numbers of road deaths in 2011 in Belgium, Denmark, Finland, France, Germany, Greece, Italy, Lithuania, Norway, Spain and the UK are provisional as final figures were not yet available at the time of going to print. The number of road deaths in 2011 in the UK is an estimate based on 3% increase in killed in 2011 Q1-3 compared with 2010 Q1-3. The final count for GB will be available on www.dft.gov.uk/pgr/statistics. Numbers of deaths in Luxembourg and Malta are small and are therefore subject to substantial annual fluctuation.

1.2 Insufficient progress at the EU level...

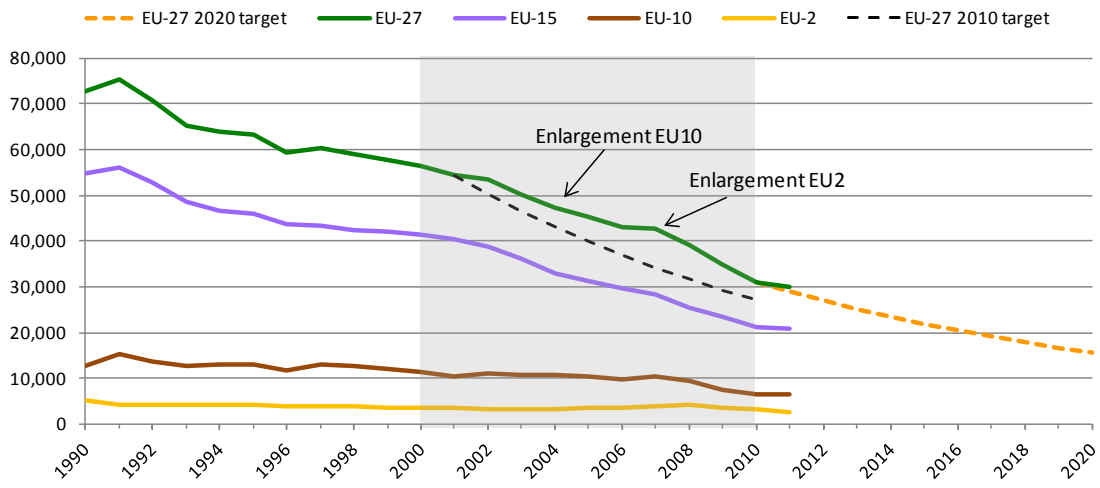


Fig. 2: Reduction in road deaths since 1990 in the EU27 (green line), the EU15 (purple line), the EU10 (brown line) and the EU2 (Bulgaria and Romania, yellow line).
Source: CARE database 1990-2000 and PIN Panellists (2001-2011).

In 2011, the reduction in the number of road deaths has slowed down compared with the trend in the last three years in the group of the 'old' EU Member States, the EU15 (- **2**%), while in the EU10, the countries which joined the EU in 2004, a slight increase has been observed (+**1**%). Romania and Bulgaria maintained the good trend started in 2008 with a **15**% reduction in 2011 compared to 2010.

The 3% reduction in road deaths in the EU in 2011 compared with 2010 is below the 5.7% average annual reduction observed for the 2001-2010 decade and also below the 6.7% annual reduction that would have been needed from 2010 to reach the EU 2020 target through constant progress. EU

Transport Commissioner Siim Kallas announced the slow-down in reducing road deaths and called for intensifying efforts to reach the EU target[1]. Combined efforts at both national and EU level must be stepped up in order to make the EU target for 2020 reachable.

> *"These figures are a wake-up call. This is the slowest decrease in road deaths in a decade. […] I am writing to ministers in all Member States to ask for information about national road safety enforcement plans for 2012. I want to be reassured that even in tough economic times this important work, which is so central to road safety, is not being scaled back."*
> Siim Kallas, European Commission Vice-President, responsible for transport.

There have been **940** fewer road deaths in 2011 than in 2010 in the EU as a whole, which is 1,140 road deaths short of where we should have been in 2011 if the reduction needed to progress towards the 2020 road safety target by constant annual steps had been achieved.

...amounts to more costs for the Union

Putting a monetary value on prevention of loss of human life and limb can be debated on ethical grounds. However, doing so makes it possible to assess objectively the costs and the benefits of road safety measures and to make the maximum use of generally limited resources.

The Value of Preventing one road Fatality (VPF)[2] estimated for 2009 in the 5th PIN Report has been updated to take account of the economic situation in the intervening years. As a result, we have taken the monetary value of the human losses avoided by preventing one road fatality to be **1.84 million euro**.[3]

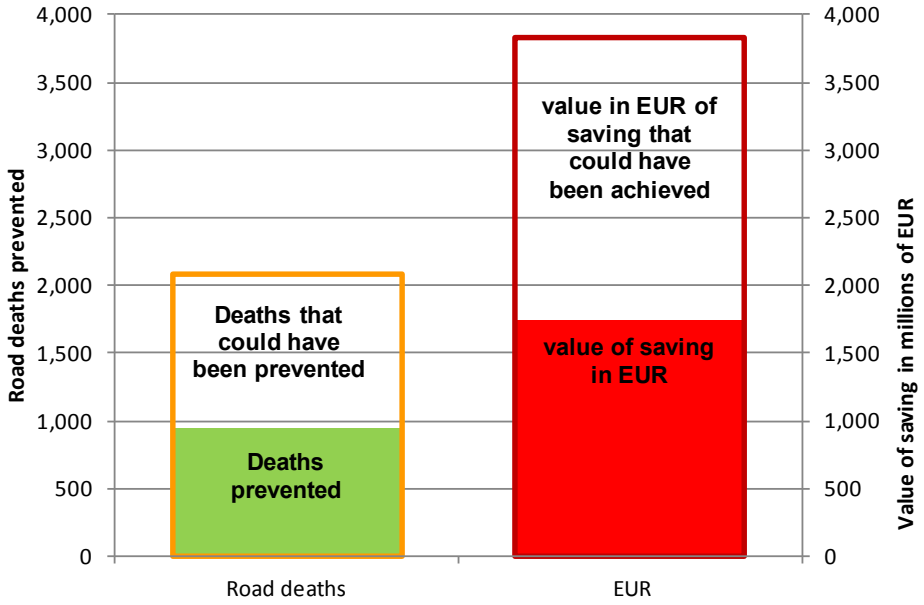


Fig. 3: Reduction in the number of road deaths in EU27 2010-2011 and valuation at 2011 prices, together with the projected savings – both in lives and their EUR valuation – that could have been achieved if the EU had moved toward the 2020 road safety target by steady progress.

[1] Siim Kallas' press release http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/326&format=HTML&aged=0&language=EN&guiLanguage=fr

[2] In countries where the monetary value attributed to human losses avoided by Preventing one Fatality (VPF) is estimated on the basis known as Willingness-To-Pay (WTP). The use of WTP valuations in transport safety has been advocated by ETSC since 1997. ETSC (1997) Transport Accident Costs and the Value of Safety.

[3] See Methodological Notes, PIN Report 2012, www.etsc.eu/PIN-publications.php

The total value of the reductions in road deaths in the EU27 for 2011 compared to 2010 is estimated at approximately **1.74 billion euro**. If the EU countries had moved towards the 2020 road safety target through constant progress, the benefits to society would have been of the order of 3.83 billion euro in 2011, an additional **2.09 billion euro.** Given the financial difficulties that many EU countries face due to the economic slowdown, the value to society of improving road safety should be taken into account in the policy and budgetary planning processes, expressing in monetary terms the moral imperative of reducing road risk. The potential for improving road safety is far from being exhausted and EU countries stand to achieve considerable societal savings if they move towards reaching the road safety target for 2020.[4]

1.3 A 45% reduction in the number of road deaths since 2001

Latvia, **Spain** and **Lithuania** are the leading countries in reducing their respective numbers of road deaths since the adoption of the first common EU road safety target. Latvia has achieved a 68% reduction in road deaths since 2001, **Spain** 63% and **Lithuania** 58%. **Ireland**, **Portugal**, **Luxembourg** and **France** are the other countries where the number of road deaths in 2011 was less than half of that in 2001 with reductions of 55%, 53%, 53% and 51% respectively.

Eight countries had reached the EU 2010 target in that year: Latvia, Estonia, Lithuania, Luxembourg, Sweden, France and Slovenia. Portugal and Ireland had nearly made it and indeed, they both reached the 2010 target with just one year of delay. Unfortunately, developments in 2011 in **Slovenia**, **Estonia** and **Sweden** sent the three countries back below the 50% reduction figure.

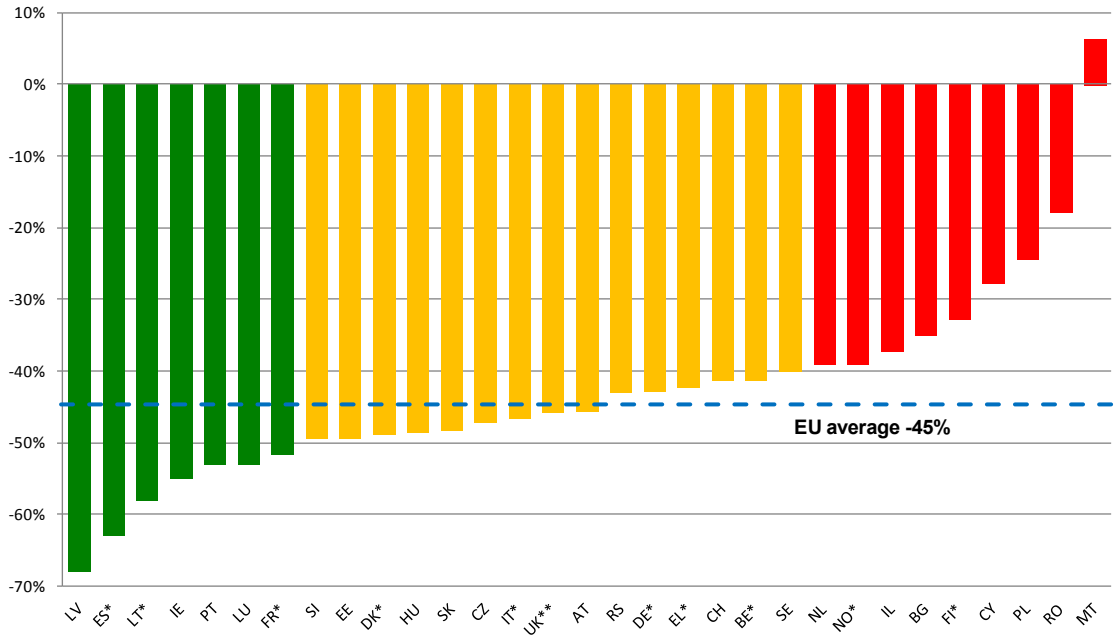


Fig. 4: Percentage change in road deaths between 2001 and 2011
** Provisional estimates used for 2011, as the final figures for 2011 are not yet available at the time of going to print.*
*** UK estimate based on 3% increase in killed in 2011 Q1-3 compared with 2010 Q1-3.*

Slovenia, **Denmark** and **Hungary** stand on the verge of halving road deaths, compared with 2001 levels, with reductions of 49% each.

[4] For more details, see ETSC (2011), 5th PIN Report and Methodological Notes on www.etsc.eu/PIN-publications.php

1.4 Road safety league

In the EU27 the overall level of road safety has improved slightly, reaching 60 deaths per million inhabitants for the first time. The **UK**, **Sweden**, the **Netherlands** and **Denmark** are the four safest EU countries for road use in 2011 (Fig. 5). They are joined by **Norway** in having a level of road mortality lower than 40 deaths per million inhabitants.

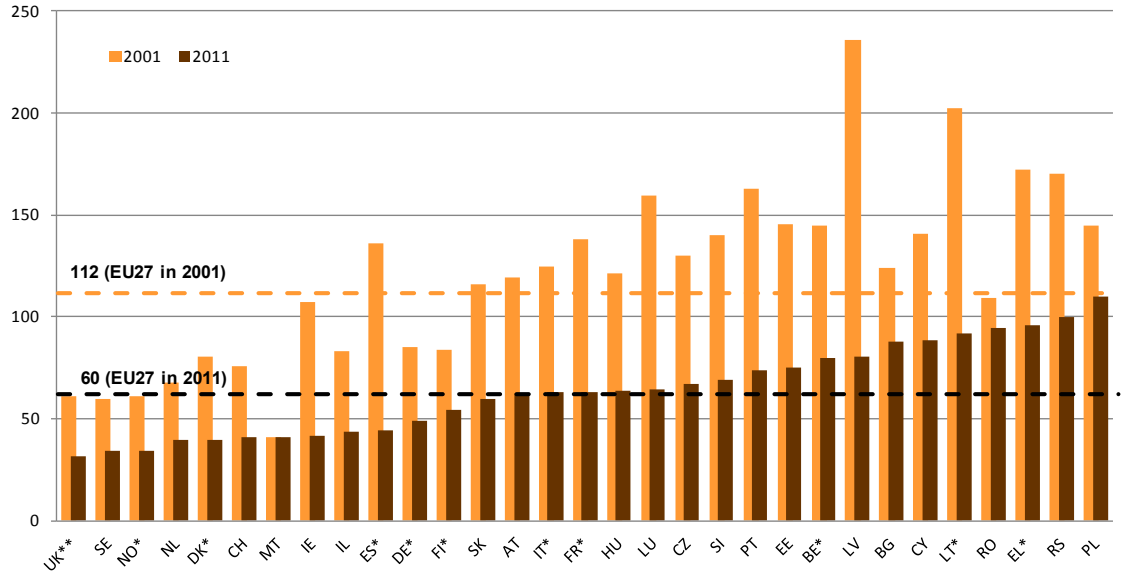


Fig. 5: Road deaths per million inhabitants in 2011 (with road deaths per million inhabitants in 2001 for comparison)
** Provisional estimates used for 2011, as the final figures for 2011 are not yet available at the time of going to print.*
*** UK estimate based on 3% increase in killed in 2011 Q1-3 compared with 2010 Q1-3.*

Due to the increase in road deaths observed in 2011, **Poland** remains the only EU country with more than 100 deaths per million inhabitants. Despite a 43% reduction in road deaths since 2001, **Serbia** is the other country covered by the PIN programme with a three-digit mortality rate, following a 7% increase in road deaths in 2011 compared to 2010.

"In reaction to the need for improving the Serbian Road Safety Performance, the Government created the National Body for Coordination of traffic safety on the roads, which includes representatives from the ministries of transport, home affairs, health, labour, justice, education and trade and services. This body is tasked with monitoring and coordinating road safety activities, as well as drafting and, upon adoption, implementing a National Strategy on road safety. The Strategy is currently being developed in the framework of a capacity-building project supported by the World Bank and the draft should be completed by the end of April 2013."
Jovica Vasiljevic, Road Traffic Safety Agency, Republic of Serbia

1.5 Road deaths per distance travelled

Fig. 6 shows deaths per billion vehicle-kilometres travelled for the 21 countries where data on vehicle-km travelled are available. This indicator complements the well-established indicator of road mortality (Fig. 5).

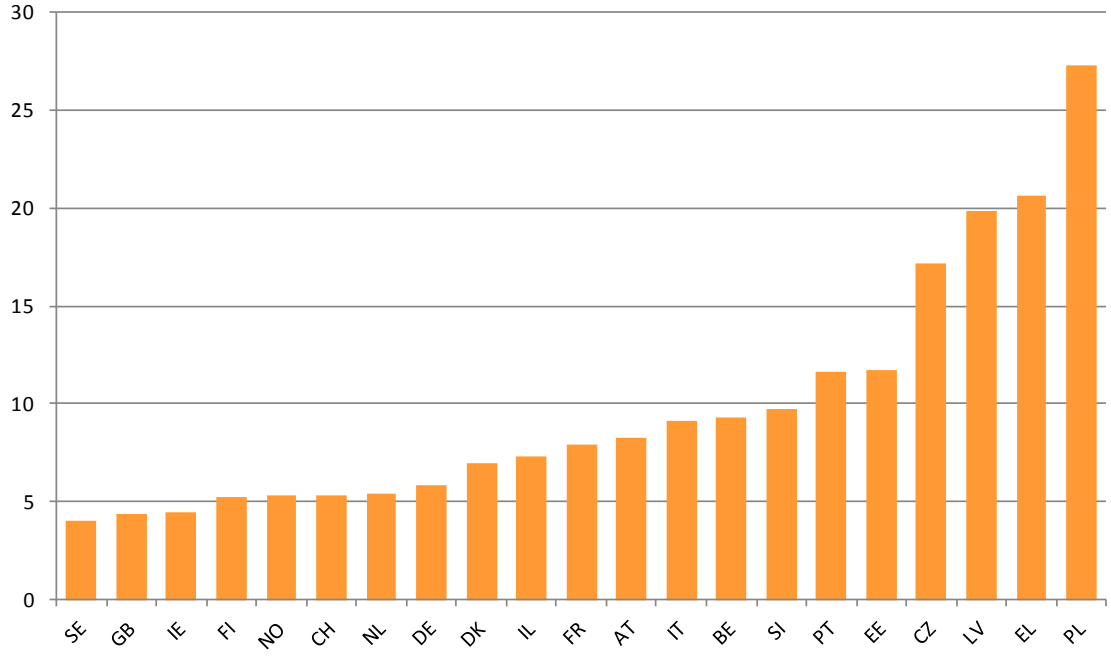


Fig. 6: Road deaths per billion vehicle kilometres (average for the latest three years for which both the road deaths and the estimated number of vehicle kilometres are available).
2009-2011 (FI, IE, IT, LV, SE, CH); 2008-2010 (AT, BE, DK, EE, DE, IL, NL, NO, PT, SI, GB); 2008-2009 (PL); 2007-2009 (FR); 2007-2008 (CZ, EL).

Sweden has the lowest number of road deaths per vehicle-km driven among the countries collecting updated data, followed by **Great Britain**, **Ireland**, **Finland**, **Norway** and **Switzerland**. Road risk per kilometre travelled in **Poland** is more than six times higher than in **Sweden**. Differences between the relative positions of countries in Fig. 5 and Fig. 6 can arise out of the differences in aspects such as the usage of motorcycling, cycling or walking as transport modes, the traffic density, the proportions of traffic on motorways or rural roads, and the method for estimating the number of vehicle-km travelled.

1.6 Reducing serious injuries on EU roads

More than **324,000** people were recorded by the Police as seriously injured following traffic collisions in 2011. Road deaths represent only 'the tip of the iceberg' out of the total number of road collisions. Each country should aim to reduce the number of serious injuries in traffic, according to its own definition, an effort which must be undertaken in parallel with reducing the number of road deaths. At the same time, the EU should work towards the adoption of a common definition of serious injuries to foster EU comparison. Member States should improve the recording of serious injuries by making use of both police and hospital records.

In its White Paper on the future of Transport, the European Commission committed to following a 'zero-vision' in road safety and to help in this it intends to "*develop a comprehensive strategy of action*

on road injuries and emergency services, including common definitions and standard classifications of injuries and fatalities, in view of adopting an injuries reduction target". [5]

Spain, **Ireland**, **Portugal** and **Latvia** have achieved the highest reductions in serious injuries (Fig. 7). Between 2001 and 2011, **Spain** reached an average reduction of 8.7% per year, followed by **Ireland**, **Portugal** and **Latvia** with more than 8% per year. **Slovenia** has achieved an annual average reduction of more than 7%.[6]

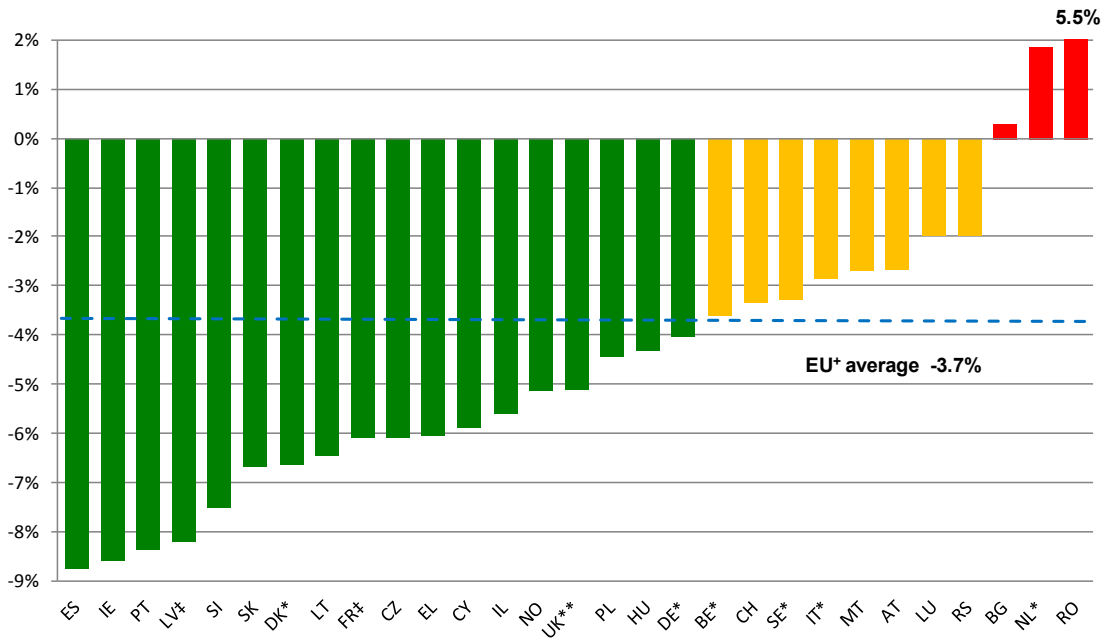


Fig. 7: Annual average percentage change in reduction of the number of serious injuries in road traffic (2001-2011).

⁺EU countries using a similar definition of serious injuries of 24 hours as in-patient: BE, CY, CZ, DK, FR, DE, EL, IE, LU, PT, SK, ES, SE, UK.

** Annual average percentage change calculated for 2001-2010 as 2011 data is not available.*

*** UK estimate based on 1% decrease in seriously injured in 2011 Q1-3 compared with 2010 Q1-3.*

‡ FR(2005-2010), LV(2004-2011)

The numbers of serious injuries were supplied by the PIN panellist in each country, using the prevailing national definition. National definitions are provided in the Annex. In Estonia and Finland there are no separate definitions of a slight injury and a serious injury.

"In addition to the decrease in the total number of serious injuries on Spanish roads, we have also observed a marked decrease of the most serious types of injuries occurred in traffic, spinal cord injury and brain trauma, which have dropped by 25% and 42% respectively between 2001 and 2009. Measures that were implemented recently, such as the introduction of a penalty point system and the reform of the penal code related to traffic offences, have had an impact on driver behaviour, particularly as the legal provisions are targeted at the types of offences resulting in the most severe crashes. Speed reduction and the use of passive safety systems are two such areas."
Pilar Zori, Ministry of Interior, Spain

[5] The European Commission recently launched a public consultation on serious injuries asking stakeholders' views on what should be a common EU target or a common EU definition of serious injury - among others. http://ec.europa.eu/transport/road_safety/take-part/public-consultations/road_injuries_en.htm

[6] The reader should bear in mind that large differences in definition and reporting practices for seriously injured road users exist between countries and that changes in reporting practices might have affected the trend in some Member States.

IRTAD Report on Linking Police and Hospital records for serious injuries

The International Traffic Safety Data and Analysis Group (IRTAD) published a report on linking police, hospital and other data sources to improve the understanding of road collisions not resulting in deaths. The IRTAD working group in charge of the report reviewed the scientific works and collected information on the national definitions for serious traffic injuries, the availability of data sources, as well as the methodologies used to link the various data sources. The IRTAD report recommends the use of a common definition of serious injuries as in-patients with an injury level of MAIS=3 or more.[7]
http://internationaltransportforum.org/irtadpublic/index.html

"As of 2008 we started linking police and hospital data to estimate the real number of traffic casualties. A 2004 survey conducted by the Central Bureau of Statistics showed a rate of under-reporting of almost 50% in the police figures. In 2009, approximately 50% of those seriously injured in traffic appeared in police records as slightly injured or not injured at all. We are looking to use the linked police and hospital data on serious injuries to improve our road infrastructure".
Shalom Hakkert, Ran Naor Foundation for road safety research

1.7 Reduction in serious injuries compared with reduction in deaths

In Fig. 8, the average annual percentage change in road deaths since 2001 (horizontal axis) is plotted against the average annual percentage change in serious injuries (vertical axis). The four quadrants in the graph are delimited by the EU averages calculated for the respective indicators.

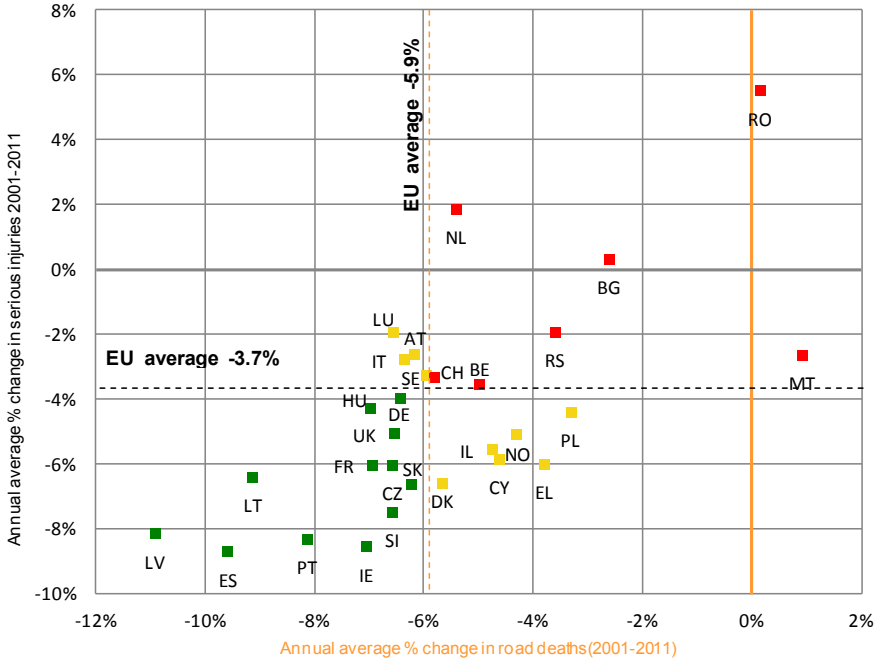


Fig. 8: Annual average change in road deaths (2001-2011) plotted against the annual average change in serious injuries (2001-2010).
** LV(2004-2010), FR(2005-2010)*

[7] The Abbreviated Injury Scale (AIS) is a specialised trauma classification of injuries, ranging from 1 (minor injuries) to 6 (fatal injuries). As one person can have more than one injury, the Maximum Abbreviated Injury Score (MAIS) is the maximum AIS of all injury diagnoses for a person.

As such, green markers reflect a country performing better than the EU average in both indicators, the yellow markers show better-than-average performance in one indicator but not the other, while red markers are used for countries below the EU average in both indicators.

Latvia, **Spain**, **Portugal**, **Lithuania**, **Ireland**, **Slovenia**, **France**, the **Czech Republic**, **Slovakia**, the **UK**, **Hungary** and **Germany** have achieved better-than-average yearly reductions in both road deaths and serious injuries. Of the 29 countries included in Fig. 8, eleven had a better annual average reduction in the number of serious injuries than in road deaths: **Cyprus**, **Denmark**, **Greece**, **Ireland**, **Israel**, **Malta**, **Norway**, **Poland**, **Portugal**, **Slovakia** and **Slovenia**.

1.8 Hungary receives "2012 Road Safety PIN Award"

Hungary has been recognised with the "2012 Road Safety PIN Award" at the 6th ETSC Road Safety PIN Conference on the 20th of June for outstanding progress in reducing road deaths. Road deaths in Hungary have been cut by 49% since 2001, helped by a 14% decrease between 2010 and 2011. Since 2004 and its accession to the EU, Hungary quickly adapted to the rigours of membership and to the challenge of the EU 2010 target.

ETSC talked with Dr. László Felkai, State Secretary at the Ministry of Interior, and Mr. Zoltán Schváb, Deputy State Secretary responsible for infrastructure at the Ministry of National Development, to get an insight into the policies which helped Hungary achieve its road safety improvements and understand how the government is planning to sustain progress.

ETSC: Concerns for road safety have been recognised only relatively recently by the Hungarian government. When did Hungary adopt its first multi-annual Road Safety Action Programme? What prevented Hungary from adopting a Plan as soon as your country entered the European Union?

Mr. Schváb: The National Transport Safety Programme, the first Hungarian multi-annual programme, was adopted in 1992. An update of this programme was necessary as it had become outdated and several of the factors had changed since its adoption. An updated Road Safety Action Programme was elaborated in 2007 and it covered the 2008-2010 period. Following its relative success, a new programme was adopted for the 2011-2013 period. This new Hungarian Action Programme is linked with the main action areas and targets in the EU Road Safety Policy Orientations 2011-2020. Intervention plans are adopted yearly and they set specific tasks and duties for the various stakeholders and the individuals responsible for the programme, as well as deadlines for actions. We are monitoring this process and the results of the monitoring will be taken into account when drafting the next action programme.

ETSC: Hungary's recent success in reducing road deaths is built largely on the adoption of two decisive measures in 2008: the introduction of owner liability for traffic offences and the introduction of a drink driving "zero tolerance". What was the impact of those measures on Hungarian drivers?

Mr. Felkai: The introduction of owner liability for traffic offences removed the final obstacle for the introduction of automated speed enforcement. The Hungarian system has been running since the 1st of March 2010. Fixed cameras are installed mainly on rural roads and highways and we also have 175 mobile cameras. We are conscious that these positive developments must not make us complacent and we have to increase the probability that drivers' speed is being checked while they are in traffic. Moreover, such traffic offences are processed through our automated system, which significantly reduced the time needed to collect the required financial penalties.

Following the introduction of the policy of zero-tolerance to drink driving, licences of offenders can be withdrawn on the spot, even for a small amount of alcohol. We intensively communicated this absolute zero tolerance for drink driving through several series of information campaigns. We also owe our success in part to adopting higher financial sanctions for a series of traffic offences including not wearing a safety belt, not using a proper child seat or using a mobile phone while driving, amongst others.

ETSC: Hungary has introduced a penalty point system. Is it efficient? Is the procedure to get points quick enough and transparent?

Mr. Felkai: The system was first introduced in 2001 and was subsequently made stricter in 2008 and in 2011. If a driver accumulates the maximum number of 18 points within a three-year period their licence is suspended for six months and a rehabilitation course has to be attended in order to regain the licence. Moreover, the Police's administrative powers were enhanced in recent years and we are constantly revising and fine-tuning our system of administrative sanctions for road safety related offences. The latest revision of the penalty point system, adopted in 2011, reintroduced offences related to the use of safety helmets and child safety into the system and increased the number of points carried by several other misdemeanours. Moreover, the penalty point system was extended to certain offences regulated by the administrative fine regime, particularly when the actual driver is identified (this was not legally possible prior to 2011). As the changes described are still recent, we have yet to evaluate their efficiency, but I am fully confident that they make our penalty point system more stringent and at the same time more transparent and in the long run they will contribute to increased levels of road safety on Hungarian roads.

ETSC: Mr. Felkai, you are responsible for Police enforcement. What is the Hungarian traffic Police doing to ensure compliance with traffic laws, particularly speed limits? Does Hungary have a national enforcement plan setting targets for enforcement levels, as recommended by the European Commission in its 2004 Recommendation on enforcement of traffic law?

Mr. Felkai: The Hungarian Police is doing its utmost to enforce road safety related traffic rules. As indicated earlier, certain offences are now regulated under administrative procedures, and the data below reflects this change. The number of completed speed-related administrative procedures went from 231,646 in 2008 to 352,985 in 2009, 663,329 in 2010 and 538,202 in 2011. By introducing vehicle owner liability we have thus taken a major step forward towards achieving higher levels of road safety, as the vehicle owner/holder can almost always be identified, offences practically cannot go unpunished. The European Commission Recommendation calls for a constant update of internal rules and regulations related to traffic policy and, as Mr. Schváb said, one of the aims of the 2011-2013 Road Safety Action Programme is to increase the frequency, efficiency and effectiveness of road checks and to increase the visibility of the Police. This entails making more extensive use of new technological devices, while maintaining the significant deterrent effect of classic road checks at selected spots. Based on the positive feedback from several EU Member States we are currently examining the possibility of introducing section control on Hungarian roads.

ETSC: The final political agreement that led to the adoption of the EU Cross-Border Enforcement Directive was brokered under the Hungarian Presidency of the Council of Ministers. What benefits do you think the Directive will bring to improve road safety in your country? Almost one year since the adoption of the Directive, could you tell us how the Hungarian government is preparing for its transposition process?

Mr. Felkai: The adoption of the Directive in question was one of the major successes of the Hungarian Presidency of the Council during the first six months of 2011. Once the Directive is implemented I am confident that the level of information exchange between Member States will increase considerably and this improved exchange will also facilitate with the follow-up of offences committed by foreign drivers. Moreover, I believe the Directive will enhance cooperation between the competent authorities in the Member States and ideally behaviour in traffic would improve as well. Notwithstanding the fact that road safety related traffic offences covered by this Directive are not subject to homogeneous treatment in the Member States in terms of their administrative or criminal nature, the system of information exchange to be put in place for those offences grants the Member State where the offence was committed access to the vehicle registration data. Before the adoption of the Directive a legal gap was identified in this area and I thus consider the adoption of the Directive to be a major step forward in cooperation at the EU level.

ETSC: Unprotected road users have been identified as a group requiring targeted policies to reduce their risk on the roads. In 2011 you launched an initiative to improve the safety of cyclists. Can you explain why this is a priority group in Hungary? What does this initiative consist of?

Mr. Schváb: The popularity of cycling in Hungary has been increasing. While actions were undertaken to increase the safety of cyclists, about 12-14% of those killed on the road are cyclists. Additionally, the number of certain types of collisions which involve cyclists is increasing, despite significant improvements in road safety in general. Research indicates that we must prioritise improving the visibility, the level of traffic knowledge and the behaviour of cyclists. As sustainable mobility implies a higher rate of cycling, the safety of cyclists should be addressed constantly. Looking to improve the level knowledge of the citizens participating in traffic, the Hungarian Ministry of National Development launched the "Life Journey" programme. The goal of "Life Journey" is to implement the concept of lifelong learning in the field of road traffic through extensive cooperation with the relevant stakeholders. As traffic education is a basic component of driver training, we are looking to also improve the effectiveness of traffic education activities for cyclists. One of the medium term targets of the "Life Journey" programme is to issue a so-called biking licence showing a level of traffic education attained by cyclists. The first step is the "Super Bike" programme where we are cooperating with several organisations in order to increase the level of safety of children cyclists.

Mr. Felkai: If I may add, in 25% of the collisions caused by cyclists they are under the influence of alcohol. In 2011 we addressed this worrying phenomenon by several actions devoted to cyclists. The National Police cooperated with relevant stakeholders on the matter, including the Hungarian Bicycle Club, and launched several information campaigns during the year. In April 2011 we organised a four-week long enforcement action. Moreover, our 'school policemen' have also participated in the "Super Bike" programme that Mr. Schváb mentioned by providing assistance in checking the technical state of youngsters' bicycles. The pupils have to pass an exam to obtain their biking licence, following theoretical and practical training.

ETSC: Young people are a particular group of road users which face significantly higher road risks than the general population. What are your specific policies targeting these road users and how effective are they proving?

Mr. Schváb: We would like to introduce targeted measures to decrease the collision risk of young novice drivers. We are looking to learn from international experiences, particularly with regards to two-phase driver training as well as probationary driver licences. We are also looking to increase the awarenes of the general public and knowledge of traffic safety and to address the problem

of low levels of compliance. We are using the "Life Journey" programme as the framework for reaching these objectives. In this respect, we consider as crucial the training and preparation of those working with children in the field of public education and consequently prepared and published materials intended to help teachers in their preparation for traffic education for children. We are also aiming to reach active adults, who are responsible for the safety of their children and of their ageing parents. One year since the launch of "Life Journey" the initiative seems successful and several actions organised by private sector, such as the Mobile Kids of Mercedes Benz[8] have been integrated into our programme.

ETSC: The use of new technologies that prevent dangerous driver behaviour (such as alcohol interlock devices and Intelligent Speed Assistance) can deliver significant road safety benefits in professional transport and in the context of rehabilitation of offenders. How is your country preparing for the introduction and/or implementation of such technologies?

Mr. Schváb: We are looking to analyse the experience from countries that have introduced such technologies. As we believe that technological harmonisation can play an important role in road safety, we are currently working on a national strategy for Intelligent Transport Systems (ITS). We have taken the first steps towards a rollout of the eCall system by increasing the role of R&D. Additionally, several research projects looking at possible solutions to implement the system are currently in progress.

ETSC: Safe infrastructure is considered to be a prerequisite for achieving a good road safety record. Could you tell us how your country is assessing the safety of the road network infrastructure and tell us what is being done to comply with the EU Infrastructure Safety Directive?

Mr. Schváb: Hungary adopted and implemented the provisions of the Directive two years ago. This means that several road safety audits have already been performed during the planning stage of road projects. We also believe that road safety inspections are equally important as the audits. The specialised training of road safety auditors has been ongoing in Hungary. We also see it as important to join the EuroRAP programme and several risk maps are already available on the EuroRAP website.

ETSC: What are your priorities for the coming years?

Mr. Felkai and Mr. Schváb: The Hungarian road safety programme for 2011-2013 endorsed the EU target of reducing road deaths by 50% by 2020. We have a long way to go to achieve this very ambitious goal and reaching the target will require concerted efforts and increased stakeholder cooperation. We need to do our utmost to ingrain the habit of respecting the traffic rules into road users, to reduce deaths among young people, increase police enforcement and to constantly improve the management of road safety. Based on our empirical studies, special attention must be paid to the most vulnerable and exposed road users such as youngsters and the elderly, to motorcyclists and to cyclists.

We have identified several priorities for future road safety programmes such as increasing the probability that drivers are caught while behaving dangerously, better preparing youngsters to participate in traffic and increasing the safety focus of the driver education system. As far as the Hungarian road network is concerned we have to continue to pursue our prevention activities, to regularly check road users' behaviour through a mix of proven enforcement methods and state-of-the-art technologies and to introduce low-cost infrastructure measures that improve road safety.

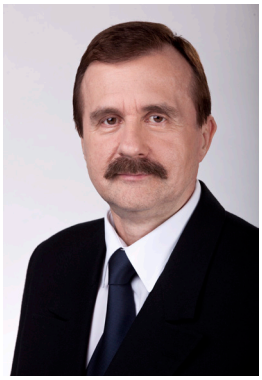
[8] http://www.mobilekids.net/de-EN

To conclude, the Action Programme adopted by the Hungarian Government highlights five focus areas where actions are needed: to address dangerous road user **behaviour**; to reach a higher level of safety by better road **management and engineering**; to constantly evaluate, fine-tune and update road safety related **legislation**; to increase **enforcement** and policing on roads and last but not least, special attention must be paid to **prevention** and R&D.

"The Hungarian road safety programme for 2011-2013 endorsed the EU target of reducing road deaths by 50% by 2020. We have a long way to go to achieve this very ambitious goal and reaching the target."



Mr.Zoltán Schváb is the Deputy Minister of State for Transport in the Ministry of National Development. Website of the Ministry of National Development http://www.kormany.hu/en/ministry-of-national-development



Mr. László Felkai assumed his current position as State Secretary of the Ministry of Interior in 2010, having held the same position between 1998 and 2002. Website of the Ministry of Interior http://www.kormany.hu/en/ministry-of-interior

2| Institutional Setups Fit to Deliver Road Safety

Road safety policy needs to be supported by effective institutional management in order to achieve long term effects on road safety levels. Recent calls by the World Bank, the UN Moscow Declaration, the European Commission in its *Road Safety Policy Orientations,* and the ITF/OECD in its report *Towards Zero,* among others, are urging national governments to organise clear institutional roles and responsibilities and adopt national road safety plans and targets against which performance can be measured and delivery made accountable so as to guide their road safety actions. This Chapter presents a snapshot of the Road Safety Management frameworks in the PIN countries as seen by PIN Panellists. The Panellists have looked at their Road Safety Management setups in terms of key elements inspired by best practice and innovative experience in Member States.

Systematic and strategic thinking, complemented by actions on the lines recommended here are vital for the sustained medium- and longer-term reductions in death and injury on the roads. Implementing such actions requires time, particularly for the planning stage, and the ETSC recommendations presented here should not be used as an excuse for putting off short-term measures that can be implemented through the existing national setup.

2.1. A checklist for road safety management

Road Safety Management (RSM) has a number of generic characteristics that enable for its universal application to all countries, irrespective of their development status or road safety performance. The RSM system has been described as a system of three inter-related layers: institutional management functions, interventions and results. This report focuses on the first layer *institutional management functions* and some key *interventions* (e.g. infrastructure safety) and *outputs* (e.g. enforcement levels).

The following checklist can help decision makers and practitioners at national level to assess what they have achieved so far and to detect potential deficiencies. It is worth noting that most of the items in the checklist can also be applied to regional, municipal or corporate levels. Establishing all items in the checklist will not guarantee success; nor will the absence of one or more of the listed items imply failure of the current efforts. There are many European cases of successful safety measures that have been implemented without an explicitly stated philosophy or plan behind them, but establishing the items in the checklist can be expected to help to improve road safety radically.

The items considered covering three phases of formulation and implementation of policy are:

Phase 1: **The basics of road safety management**
- Vision for road safety
- Targets for casualty reduction
- Road safety action plan
- Political leadership

Phase 2: **From strategy to action, creating the means for effective policy**
- Institutional roles and responsibilities
- Funding for road safety
- Accident and casualty data
- Research
- Best practice exchange
- Training
- Scientific choice of measures
- Public and private sector awareness and involvement

Phase 3: **Implementation and updating of the plan or programme**

- Road safety legislation
- Enforcement of road safety laws
- Infrastructure safety
- Emergency response
- Performance targets
- Monitoring and evaluation
- Exposure data and safety performance indicators

Indicator

Until quite recently, much of the road safety work and research focused on interventions alone and neglected issues of institutional organisation, ownership and accountability for results. Work undertaken by the World Bank and EU research projects such as SUNFlower[9] or DaCoTA[10] and leading examples of practical experience have made clear how important an efficient management of national road safety policies is.

PIN Panellists from each country were asked to answer a set of 23 questions aiming to cover the key elements of successful road safety management (RSM) and points were allocated to countries according to the answers. The questions were inspired by best practice and innovative experiences in Member States as presented in different publications (ETSC 2006 *A methodological approach to national road safety policies*, Bliss and Breen 2009 *Country Guidelines for the Conduct of Road Safety Management Capacity Reviews and the Specification of Lead Agency Reforms, Investment Strategies and Safe System Projects*, ITF/OECD 2008 *Towards Zero*). Half of the questions are common with a DaCoTA questionnaire and Panellists' answers were shared with the DaCoTA researchers. If a question was left unanswered by a Panellist, the question was taken out of the maximum total number of points that country could reach on the whole set of questions. For each country and for each of three subsets of the 23 questions, the total number of points allocated was expressed as a percentage of the maximum it could reach, to provide three indicators of the scope of its efforts towards successful RSM. Panellists' responses are available on www.etsc.eu/PIN-publications.php. No response was received from Bulgaria.

The set of 23 questions constitutes a checklist of the main elements of effective road safety management. The list is not exhaustive and does not substitute for a country capacity review. This Chapter does not attempt to track a chronological approach to RSM. According to the World Bank 2009 report (Bliss and Breen), a comprehensive analysis of road safety problems should be conducted before conceiving a vision, setting a target and developing effective road safety programmes. The objective of this Chapter is not to offer a manual but rather to summarise the current state of key elements of road safety managements in the PIN participating countries as seen by the PIN Panellists.

[9] SUNFlower, a comparative study of the developments of road safety in Sweden, the United Kingdom and the Netherlands. http://sunflower.swov.nl/

[10] DaCoTA (Road Safety Data, Collection, Transfer and Analysis) is an EU funded project. Its Work Package 1 Policy-making and Safety Management Processes is particularly relevant http://www.dacota-project.eu/workpackages/package1.html

The answers to the questions express the personal assessments of the PIN panellists in each of the countries. Some of the items in the checklist are not simply dichotomous, but are matters of degree. Answers on matters of degree can be influenced by personal viewpoint: one Panellist might reply yes to *"Does research influence policy making?''*, while another Panellist might reply 'partly' or 'no' because of different personal expectations and perceptions. Setting a national target or publishing a national plan are examples of more dichotomous matters, but doing either of these can range from being just political announcements without the means or will to achieve them to expressing deep political commitment that will be followed through by effective programmes of action. These limitations should be borne in mind when interpreting countries' percentage scores.

2.1.1 Phase 1: The basics of road safety management

	Question	Points attributed to 'yes'	Points attributed to 'partly'
Q1	Has a national road safety **vision** been set in your country? *If so, what is it?*	3	2 or 1
Q3a	Has a national quantitative road safety **target** been set in your country for reducing the number of **deaths**? *If so, is it different than the EU target of reducing road deaths by 50% by 2020? If it is different, what is it?*	1	-
Q3b	Has a national quantitative road safety **target** been set in your country for reducing the number of people **seriously injured**?	1	-
Q3c	Have any **other** quantitative road safety **targets** been set in your country?	1	0.5
Q4	Has a national road safety **programme or plan** been formulated and adopted in your country? *If so, is this plan still current?*	3	2 or 1
Q22a	Are government authorities in your country seen to show **leadership** in: Purchase or renting of safe vehicles?	0.75	0.5
Q22b	Are government authorities in your country seen to show **leadership** in: Fitment of non-mandatory safety equipment in vehicles they own or rent?	0.75	0.5
Q22c	Are government authorities in your country seen to show **leadership** in: Establishing travel plan including safety for employees?	0.75	0.5
Q22d	Are government authorities in your country seen to show **leadership** in: Requiring their contractors to do any of these?	0.75	0.5
Total of points (if all questions were answered) phase 1		12 = 100%	

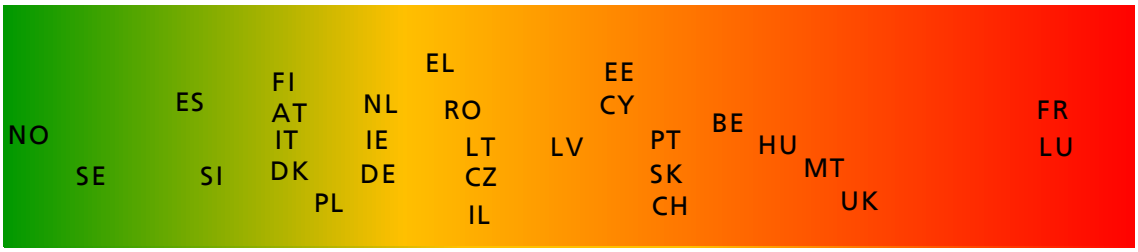


Fig. 9: Country performance in the basics of road safety management expressed as a percentage of maximum 12 points.

According to this process of assessment, **Norway, Sweden** and **Spain** performed best in phase 1. These three countries have adopted a vision and targets for reducing deaths and injuries, as well as other quantitative targets. Sweden failed to reach the maximum number of points as the country has not adopted a road safety plan, but it gains all the points for showing leadership (Q22a to d). **Slovenia** follow closely, losing just one point for not having other quantitative targets than deaths and serious injuries. In contrast, **Luxembourg** and **France** score poorly, with only one point for having set a target for reducing road deaths (France) or endorsing the EU target (Luxembourg).

A **vision or philosophy about the safety of the future transport system** provides a momentum for the implementation of the strategy and helps in removing obstacles as adoption of a vision yields its expected changes in mentality and within organisations. Fourteen out of the 29 PIN countries have officially adopted a vision for road safety: "Vision Zero"[11] (Denmark, Finland, Lithuania, Norway, Poland, Slovenia, Sweden, Switzerland), "Sustainable Safety"[12] (The Netherlands), a "Safe System"[13] (Austria), "road safety as a shared responsibility" (Italy), "Citizens have the right to a Safe and Sustainable Mobility System in which everyone has a responsibility" (Spain), "create a road safety culture" (Greece) or "remain a world leader in road safety" (UK).

The European Commission recommends that Member States adopt **national road safety plans**. Twenty-one of the 29 PIN countries have adopted road safety plans or programmes[14], some inspired by the 3rd Road Safety Action Programme 2003-2010[15]. Belgium, France, Luxembourg, Malta and Romania are lacking a plan. Sweden does not have a plan but initiated a "Management by Objectives" policy[16]. Progress in relation to 13 indicators is monitored and presented to stakeholders annually. Great Britain has no plan but a Strategic Framework rather short on policy details. Road Safety Plans are being drafted in Malta and Romania. In Belgium, a General Assembly for road safety adopted, in 2011, 20 priority measures to reach the 2020 target.

Sweden's position concerning a road safety plan exemplifies how each country can adapt the recommended checklist to find the right way forward from where they have reached in road safety policy.

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[11] www.visionzeroinitiative.com

[12] Sustainable Safety www.sustainablesafety.nl

[13] A Safe System is defined in the ITF/OECD, Towards Zero: Ambitious Road Safety Targets and the Safe System Approach, http://www.internationaltransportforum.org/jtrc/safety/targets/targets.html

[14] See as examples the Austrian Road Safety Plan 2011-2020 http://www.bmvit.gv.at/en/service/publications/downloads/rsp2020.pdf or the Dutch Strategic Plan 2008-2020 or the Portuguese Plan 2008-2015 http://www.ansr.pt/default.aspx?tabid=398

[15] EC (2003), 3rd Road Safety Action Plan, Halving the number of road accident victims in the European Union by 2010: a shared responsibility' (COM(2003)0311) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0311:FIN:EN:PDF

[16] http://publikationswebbutik.vv.se/upload/6340/2011_118_analysis_of_road_safety_trends_2010.pdf

"In Sweden we have made a conscious decision not to have a common road safety plan but to have a current management philosophy (management by objectives) with a common follow-up. This involves various stakeholders and aims to guide stakeholders in their individual planning processes where they can make choices of measures that are suitable for their own organisations and activities. We believe that this strategy is one step further than a traditional road safety plan or programme."
Anna Vadeby, VTI, Sweden.

"The UK Strategic Framework would benefit from a clear allocation of responsibility for implementation of measures, strict deadlines and enough resources to carry out the measures".
Jeremy Broughton, Transport Research Laboratory, the UK.

Targets for casualty reduction

Targets motivate stakeholders to act and help those responsible for the road transport system to be accountable for achieving defined results[17]. Nearly all EU countries have either set a national **target** for reducing road deaths or endorsed the EU target to reduce road deaths by 50% by 2020. The UK, after being seen as a pioneer setting the first target in 1987, abandoned road safety targets in the recently published UK Strategic Framework for Road Safety, as has Switzerland in its recently adopted road safety strategy, the ViaSecura.

For reducing serious injuries **11** countries have adopted targets: Austria, Cyprus, Czech Republic, Denmark, Finland, Ireland, The Netherlands, Norway, Slovenia, Spain and Sweden.

An increasing number of countries have also adopted other quantitative targets concerning deaths among a specific road user group or for safety performance indicators (e.g. 80% compliance with speed limits, 99.9% of traffic with sober drivers in Sweden).

Throughout such a process strong political will and commitment are necessary. No matter how technically well-founded it may be, no action can be implemented effectively without political will and commitment. It is therefore necessary for a number of politicians to be strong advocates for the road safety cause, recognising that it is within their power to act, and to gather together a small group of technical experts from various areas who can propose actions and help to implement them[18].

[17] ETSC (2010) Response to the EC Policy Orientations 2011-2020. Wong and Sze, in Safety Science 48(9) 1182-1188, 2010, estimated a 4% per year greater reduction in deaths over the duration of a target compared with similar countries without targets.
[18] ETSC (2006) A methodological Approach to national road safety Policy.

2.1.2. Phase 2: From strategy to action, creating the means for effective policy

	Question	Points attributed to 'yes'	Points attributed to 'partly'
6a.	Is there a **lead agency** or structure bearing responsibility for road safety **policy-making** in your country? *If so, please name it.*	2	1
6b.	Is there a **lead agency** that is empowered to co-ordinate the road safety **activities** of the main actors involved in advancing road safety in your country? *If so, please name it.*	1	0.5
5a	Is there a **budget** dedicated to the implementation of your national road safety programme or plan?	2	1
5b	Is the budget seen as being adequate to make your country's targets achievable?	1	-
10a	Are the **attitudes of people towards road safety measures** being measured nationally?	1	0.5
10b	Are the **attitudes of people towards behaviour** of road users being measured nationally?	1	0.5
10c	Are **behaviours of road users** being measured nationally?	1	0.5
13	Is there at least one **research institute** or university department in your country helping to choose interventions scientifically and establish transparent and trusted procedures for monitoring and evaluation?	1	0.5
14	Are the results of research seen to influence policy-making and implementation in your country?	2	1
17a	Are the collision and casualty data in your country accessible to all interested people and organisations? (Accessible means here free of charge)	2	1
17b	Do these data distinguish which collisions and casualties occur in course of work or travel to or from work?	1	0.5
18	Are there arrangements in your country for exchange of knowledge about good practice among road safety actors? And sharing of knowledge with other countries?	3	2
19a	Are there facilities for initial training for road safety professionals in all relevant disciplines?	1.5	1
19b	Is there in-service training for road safety professionals in all relevant disciplines?	1.5	1
Total of points (if all questions were answered) phase 2		21= 100%	

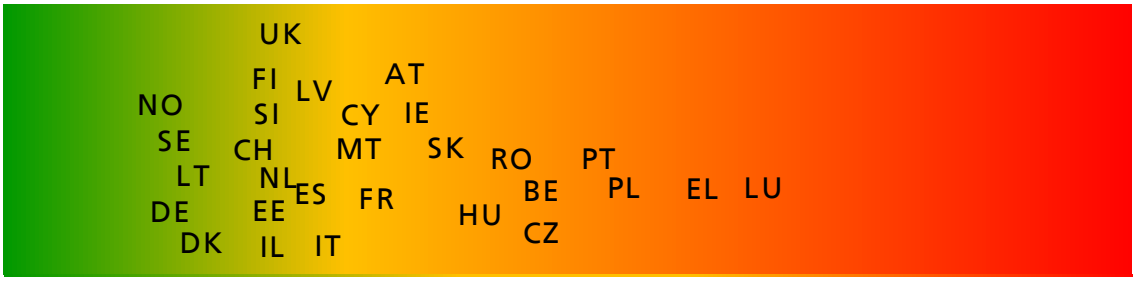


Fig. 10: Country performance in creating the means for effective policy expressed as a percentage of maximum 21 points.

Norway, Sweden and **Germany** performed best in phase 2, followed by **Denmark** and **Lithuania**. In contrast, **Greece, Malta, Slovakia** and **Luxembourg** score poorly.

Institutional roles and responsibilities

No government department working alone can reduce the number of road casualties effectively. It is therefore important to organise clear institutional roles and responsibilities and coordination between all stakeholders, from road user representatives to emergency services, including the regional and local level. Each Member State may adopt a system that suits them best.

The institutional arrangements may include an Inter-ministerial Transport Safety Committee with the Prime Minister as chairperson. The coordination role is best done by a multidisciplinary body supported by a permanent secretariat or Road Safety Agency and led by a senior government official or a high-calibre executive director. The Secretariat should have its own permanent funding, with the power to make decisions, control resources and coordinate the efforts of all participating sectors of government. It is also crucial to ensure a separation of powers when defining the different institutional roles: evaluation should be independent from the executive authority and the executive authority should be independent from the legislative authority[19].

There is a Road Safety Agency or a dedicated structure with more or less power in all Member States, except Belgium, Greece, Hungary and Slovakia. In Denmark, Latvia, Luxembourg, Portugal and Sweden, however the authorities are only partly empowered to co-ordinate the road safety activities of the main actors involved in advancing road safety.

Funding for road safety

Earmarking a part of the national budget to the completion of a Programme or Plan is essential in achieving a successful national policy. In Austria, Belgium, Finland, Greece, Ireland, Italy, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland and the UK, however, there is no budget dedicated to the implementation of the national road safety programme. In the Czech Republic and Slovakia the sums invested in road safety are not seen as adequate, in Denmark, Estonia, France, Israel, Italy, Latvia and Malta they are seen as partly adequate. Only in Cyprus, Ireland, Lithuania, Norway and Slovenia are the sums invested in road safety seen as adequate to meet the national targets. Four countries have reported significant cuts following the economic crisis and road safety experts fear cuts in other countries.

At the EU level, Transport Ministers, in their Conclusions on road safety in December 2010, asked the European Commission to *"take the necessary actions, and allocate the necessary resources with a view to developing coherent and cost-effective action plans for each of the strategies in order*

[19] ETSC (2006).

to implement the road safety policy orientations 2011-2020." The European Parliament recently reaffirmed its own strong support for EU action on road safety including a matching budget to realise its objectives. In its Resolution on European Road Safety 2011-2020 MEPs "*regret that the EU budget for road safety measures has been cut significantly in recent years and calls on the Commission to reverse this trend*"[20].

Data, monitoring and research

The need to constantly inform governments' national road safety policy with evidence based research is a vital ingredient for the national road safety policy cycle. In 22 of the 29 PIN countries there is at least one research institute or university department helping to choose interventions scientifically. 14 Panelists considered that the results of research are seen to influence policy-making and implementation in their country and another 14 considered that results of research are seen partly to influence policy-making. Only in Romania, where there is no national research institute, are results of research not seen to influence policy-making.

In most countries collision and casualty data are accessible to all interested people and organisations. In a few countries, disaggregated data is accessible to research institutes only or on payment of a fee. Good practice in accident data collection recommends distinguishing which collisions and casualties occur in course of work or travel to or from work. These data are available only in France and Finland, and partly in Belgium, Greece, Italy, Romania, Spain, Switzerland and the UK.

Best practice exchange and training

Disseminating successful measures and transfer of best practice are key to avoiding repeating the same mistakes or reinventing the wheel. International best practice dissemination can be achieved through newsletters, internet pages, participation to international projects, attendance at international events and similar means. Most Panellists reported formal arrangements in their countries for sharing of knowledge and good practice among road safety actors.

The availability of highly qualified and motivated professionals is recognised as a critical pre-requisite for effective programme design, implementation and evaluation. Initial training for road safety professionals is seen as lacking or insufficient in a majority of countries and most road safety practitioners start their careers with a very limited formal training in the field.

Training in traffic safety may include doctoral programmes, post-graduate training, university level courses, in-service-training and refresher seminars in subjects such as traffic safety management, biomechanics, vehicle safety, traffic psychology, vehicle trauma care and rehabilitation.

[20] http://www.europarl.europa.eu/sides/getDoc.do?type=REPORT&reference=A7-2011-0264&language=EN#title1

2.1.3 Phase 3: Implementation and updating of the plan or programme based on monitoring

	Question	Points attributed to 'yes'	Points attributed to 'partly'
15a	Number of speed tickets per 1000 inhabitants (both Police roadside checks and from speed cameras) (see Table 1)	3	2 or 1
15b	Roadside alcohol breath tests per 1000 inhabitants and percentage of those tested found to be above the legal limit. (Table 2)	3	2 or 1
20	For which types of road in your country are the requirements of the EU Infrastructure Safety Directive being adopted?	2*	1 or 0.5**
21	Are the main roads in your country the subject of systematic road safety assessment?	1	0.5
7a	Does regular quantitative monitoring of your country's road safety performance take place?	2	1
7b	Are the results of this monitoring published periodically?	1	0.5
9	Is there regular reporting on the road safety measures and interventions implemented in your country?	3	2
8	Does a regular evaluation of the efficiency of the road safety measures or interventions implemented in your country take place?	3	2 or 1
Total points (if all questions were answered) phase 3		18=100%	

** Adopted more widely than TEN-T network.*

*** Adopted in part or being considered for adoption more widely than the TEN-T network.*

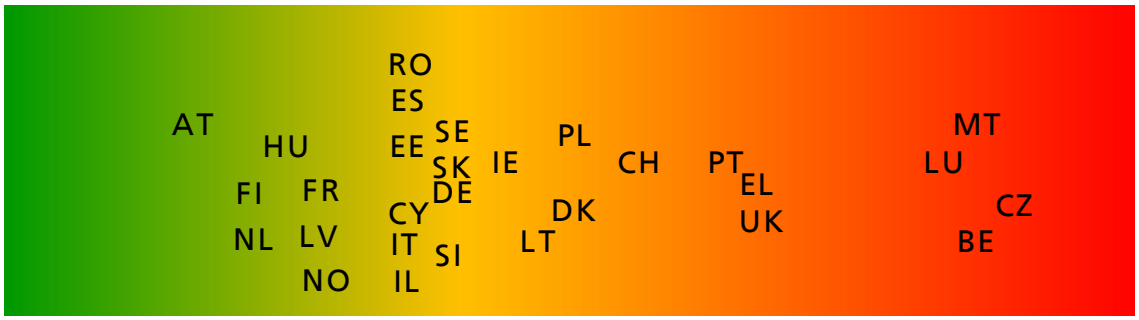


Fig. 11: Country performance in implementing and updating their road safety policy as a percentage of maximum 18 points.

Austria, **Finland** and the **Netherlands** score best in phase 3, reaping points for good monitoring, reporting and evaluation and a high level of enforcement of speeding (Austria and the Netherlands) or of drink driving (Finland). The **Czech Republic**, **Malta** and **Belgium** and **Luxembourg** perform poorly with low levels of enforcement, poor reporting and evaluation and for not going beyond the requirements of the EU Directive on Infrastructure safety.

Create an effective enforcement system for aspects of behaviour with highest death reduction potential

Measures to tackle the three main killers in driver behaviour have been at the core of road safety policy for decades and significant progress has been made since 2001. Experience from fast progressing countries shows that progress in fighting speeding and drink driving and increasing seat belt use can be fast and can save many lives[21], but there still remains a huge potential in addressing these three longstanding aspects of road safety.

Speed

Excessive and inappropriate speed is widely recognised as a predominant road safety problem. Yearly numbers of speed tickets per thousand population are the highest in **Austria** and **the Netherlands** where safety cameras and section controls have been used extensively. In contrast, being fined for speeding is rather the exception in Lithuania, Slovakia, Hungary, the UK, the Czech Republic, Bulgaria, Greece, Luxembourg, Switzerland, Italy, Portugal, Sweden and Israel (Table 1).

Yearly speed tickets per 1000 population (both Police roadside checks and speed cameras)						Points allocated in Q15a
Country	2011	2010	2009	2008	2007	
AT	587	497	495	457	459	3
NL	445	501	552	558	595	3
FR	n/a	161	158	156	136	2
CY	118	107	90	137	165	2
EE*	80	58	35	65	37	2
MT	80	103		n/a		1
FI	62	61	64	52	44	1
IE	59	35	39	40	45	1
HU*	54	66	35	23	n/a	1
DK	51	50	47	45	48	1
RO	50	44	46	51	49	1
SI	49	59	79	72	73	1
ES*	42	46	49	44	27	1
LV	44	45	50	49	45	1
NO	41	44	44	48	54	1
PL	40	35	38	34	32	1
IL	n/a	26	29	29	22	0
SE	22	24	24	23	23	0
PT	22	18	16	20	20	0
IT	16	15	16	20	19	0
CH	n/a	n/a	n/a	n/a	335	0
LU	n/a	n/a	44	42	49	0
EL	21	23	29	31	32	0
BG	n/a	n/a	n/a	20	18	0
CZ	n/a	n/a	19	17	21	0
GB*	n/a	n/a	18	20	24	0
SK	n/a	n/a	0	24	21	0
LT	17	16	14	10	20	0
BE			n/a			0
DE			n/a			0

Table 1: Number of speeding tickets (per 1000 population from both Police roadside checks and speed cameras) and points allocated in phase 3 for question 15a.
Source: PIN Panellists based on national Police data.
EE Speed camera checks started in 10.05.2010. HU* Number of completed speed-related administrative procedures. ES* Data not available from Basque Country, Catalonia and urban areas. GB* England and Wales only. Scottish data not included.*

[21] Numbers of seat belt and drug-driving offences were also collected. See Annexes.

Drink driving

Nineteen countries provided the number of roadside drink driving checks performed during one or more recent years by the Police (Table 2). Police in **Finland**, **Norway** and **Sweden** are most active on the fight against drink driving, with respectively 429, 367 and 287 drivers checked per 1,000 population in 2010. Numbers of checks are also high in **Cyprus** and **Slovenia**. But, even in these countries, the chance of a driver being breath tested during one year is less than 1 in 5 on average.

Norway, **Sweden** and **Estonia** registered the lowest percentages of drivers tested who were found to be above the legal drink driving limit.[22] Percentages of such drivers are high in Great Britain and Poland, possibly because enforcement there is more narrowly targeted at places and time when drivers are likely to have consumed alcohol than where the level of enforcement is higher.

	2010		2009		2008		2007		
Country	Roadside police tests per 1,000 population	% above legal limit	Roadside police tests per 1,000 population	% above legal limit	Roadside police tests per 1,000 population	% above legal limit	Roadside police tests per 1,000 population	% above legal limit	Points allocated in Q15b
FI*	429	0.9%	421	1.0%	385	1.7%	318	1.6%	3
NO*	367	0.2%	333	0.3%	336	0.3%	382	0.2%	3
SE	287	0.6%	293	0.7%	256	0.8%	283	0.7%	3
CY	217	5.3%	196	6.2%	182	5.9%	149	6.8%	2
SI	198	4.7%	212	4.7%	202	5.8%	191	7.2%	2
FR	173	3.4%	181	3.3%	189	3.3%	182	3.3%	1
EL	161	2.1%	147	2.8%	135	3.1%	143	2.9%	1
IE	126	1.9%	119	2.6%	128	3.2%	113	4.1%	1
AT	122	3.7%	102	4.8%	87	5.8%	77	7%	1
IL	122	1.0%	83	1.7%	67	2.2%	24	5.1%	1
HU	120	3.6%	127	3.3%	130	3.1%	143	3.2%	1
ES*	114	1.8%	128	1.8%	112	1.8%	96	2.2%	1
PT*	106	3.8%	81	4.3%	63	5.9%	57	5.6%	1
EE	105	0.7%	98	0.8%	95	11%	68	1.0%	1
PL	88	4.9%	60	7.5%	47	9.5%	n/a		1
LT	39	2.7%	21	5.0%	40	1.7%	34	1.6%	1
IT*	27	2.5%	27	2.9%	23	3.4%	13	6%	1
DK	n/a				36	5.7%	n/a	n/a	0
GB*	n/a	n/a	15	11.6%	13	12.9%	11	16.3%	0
MT	0	46.6%	0	73%					0
LU	n/a				0	n/a	0	n/a	0
BE	n/a								0
CZ	n/a								0
DE	n/a								0
LV	n/a								0
NL	n/a								0
RO	n/a								0
SK	n/a								0
CH	n/a								0

Table 2 Roadside alcohol breath tests per 1000 population and percentage of those tested found to be above the legal limit and points attributed in phase 3 for question 15b.

Source: PIN Panellists based on national Police data.

FI It is estimated that national traffic police makes 50% of all tests. Tests made by traffic police have been multiplied by two.*

NO Number of positives tests is the number of drivers convicted for drink driving.*

ES Data not available from Basque Country, Catalonia and urban areas.*

PT Source: ANSR.*

IT Data from Traffic police forces and Carabinieri (data from local police forces are not included).*

GB England and Wales only. Scotland data not included.*

[22] Information about maximum Blood Alcohol Concentration (BAC) limits is available in the Annexes.

Belgium, Latvia, Lithuania, Slovakia and Romania only collect numbers of checks where drivers tested above the legal BAC (so called "positive tests") without recording total numbers of checks performed by the Police[23]. This deprives them of information about the scale of the problem. The Czech Police stopped collecting this information in 2008.

Improving infrastructure safety

The EU Directive 2008/96 on road infrastructure safety management requires Member States to apply the following four instruments on the Trans-European Road Network (TERN):

- **Road safety impact assessments:** these demonstrate the road safety implications of different planning alternatives for a road project, whether construction of new infrastructure or rehabilitation of existing infrastructure, by analogy with environmental impact assessment.
- **Road safety audits:** independent technical checks aiming at identifying unsafe features of a road project and making proposals for remedying them.
- **Network safety management:** targeting remedial measures at parts of the network with high concentrations of collisions (high-risk road sections) and/or a high potential to avoid collisions in the future.
- **Safety inspections:** carried out as part of regular road maintenance, these enable the detection and hence reduction of collision risk in a preventive way through low cost measures.

These procedures already exist and are applied to varying degrees in some Member States. The aim of this Directive is therefore to extend the above-mentioned measures to the whole of the EU, without defining technical standards or requirements, but leaving the Member States free to keep already existing procedures if they have them in place or to introduce procedures in their own way if not[24]. The European Commission's Road Safety Policy Orientations 2011-2020 promote the application of the four relevant principles of infrastructure safety management as set out in the Infrastructure Safety Directive not only to the Trans-European Road Network but also to other roads where many more road users die.

Thirteen countries - **Austria**, **Cyprus**, **France**, **Germany**, **Hungary**, **Ireland**, **Italy** (from 2016), **Latvia**, **Lithuania**, the **Netherlands**, **Romania, Slovenia** and the **UK** - will implement the Directive also on other roads, mainly motorways and some main rural roads ("national roads"). The Czech Republic, Denmark, Greece, Luxembourg, Malta, Norway, Portugal, Spain, Sweden will implement the Directive only on the TEN-T. In Slovakia, the last two instruments of the Directive will also be implemented on express roads. In Estonia, the implementation on national roads is only recommended. Transposition is still pending adoption by national Parliaments in Belgium and Finland a year and a half after the deadline for transposition (December 2010).

Monitoring and evaluation

Monitoring EU countries' policies specifically as concerns reaching the targets and assessing the cost-effectiveness of measures helps national policy makers to identify fields in which better progress is possible. The EU is already collecting data on accident outcomes and accident circumstances within the CARE database. However, monitoring countries' performance only on the basis of collision outcomes is not enough. The EU should encourage Member States to monitor normal traffic through a set of performance indicators and make use of the results of the EU funded research project SafetyNet as well as from the ETSC Road Safety PIN programme. Safety Performance Indicators allow actions to be targeted in key areas systematically and implementation of measures to be monitored.

[23] See Table 3 in ETSC (2012), Drink Driving: Towards Zero Tolerance

[24] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008L0096:EN:NOT

All 29 countries monitor their road safety performance to different extents, but in Belgium and Poland, the Panellists answered 'partly' to question 7a. The results of this quantitative monitoring, mainly collisions outcomes, are published periodically in all countries, but Ireland in Lithuania, Malta, Romania and Slovenia, the Panellists answered 'partly' to question 7b.

In half of the countries, Panellists agreed that regular reporting on the road safety measures and interventions implemented in their country was taking place, in the other half, reporting of the measures should be improved. In France, as a good example, the National Observatory for Road Safety publishes an annual road safety report presenting the data, the legislative measures adopted during the year and other actions carried, together with their impact. [25]

Finland, Hungary, Israel, Italy, Latvia, the Netherlands, Norway and Slovakia regularly evaluate efficiency of the measures or interventions implemented in their country. Panelists in 16 other countries regretted that the efficiency of road safety measures or interventions is not systematically evaluated. The evaluation process must be scientifically based and transparent through making public its results.

Emergency Response

To mitigate crash consequences effectively, Member States should streamline the emergency response chain and achieve a high quality of trauma management. However, it is difficult to find an indicator of performance in these respects and we failed to produce a question that was understood by all Panellists.

"One of the thirteen indicators monitored annually in Sweden is "Prompt and satisfactory rescue". This indicator has been questioned since it is difficult to measure the efficiency in relation to the development necessary to reach the interim targets".
Anna Vadeby, VTI, Sweden.

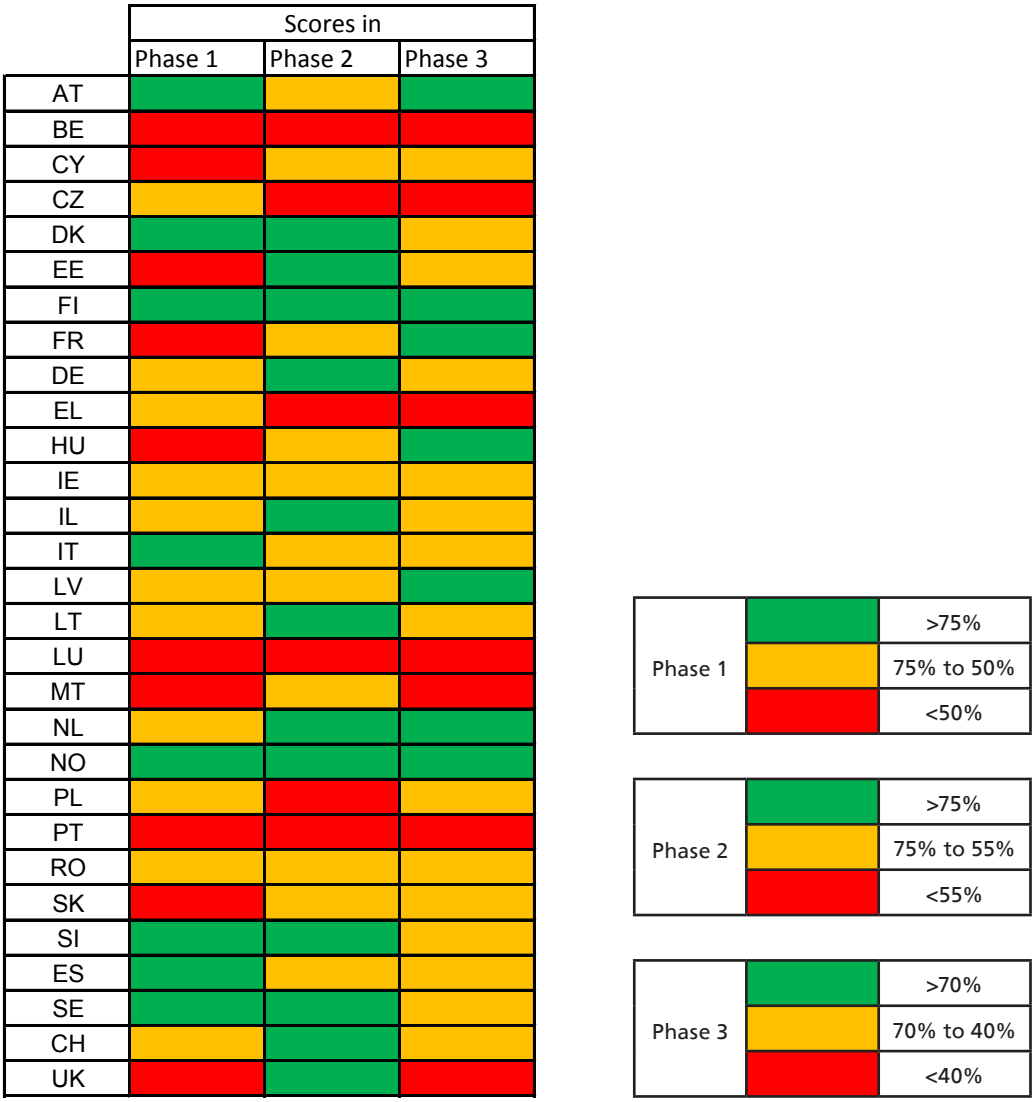
2.2 Overview: All countries can improve their Road Safety Management

The table below is intended to give readers an indication Phase by Phase of the areas where Panellists' assessment has shown a country's road safety management to be efficient (green), moderate (yellow) or disappointing (red) in all three phases. Only Finland and Norway have a good road safety management across the areas.

Country performance reflects the current state of Road Safety Management as seen by the PIN Panellists. Performance might change in the future following a change in political will or commitment. A government can indeed decide for example to purse or abandon the idea of setting targets for road safety; to enhance, continue or not renew the country's road safety plan; to boost or cut the budget dedicated to road safety; or to increase or lower the level of enforcement.

A lot of the important reductions in road deaths that were observed during the past decade can be attributed to the improvements that the PIN countries made in the way they manage road safety and their policy-making process. The current state of key elements of road safety management reveals that in every country many elements of good road safety policy are in place, but there is still scope for greatly improved procedures in many of them.

[25] French National Observatory for Road Safety, 'Bilan annuel de la sécurité routière' (in French), http://www.securite-routiere.gouv.fr/rubrique.php3?id_rubrique=386



2.3 Action at global level to improve road safety management

Further research is needed on all aspects of road safety management. Two European initiatives are underway which aim to build on the current knowledge. DaCoTA is investigating an assessment framework for policymaking processes with reference to current practice in EU countries[26]. The Swedish Vision Zero Academy seeks to generate knowledge about effective innovation and implementation processes[27].

The challenges for low-and middle-income countries will be to benefit from the lessons learnt in the high-income countries, while finding ways forward to suit their own, often very different circumstances.

[26] http://www.dacota-project.eu/
[27] http://www.visionzeroinitiative.com/Academy/

UN Action

In 2010 Transport Ministers and heads of delegations from over 40 countries met at the first UN Ministerial Conference on Road Safety in Moscow. This Conference represented a historical landmark for countries to join forces in tackling the problems of road safety globally. Delegates adopted a resolution that called upon Member States to develop action plans and strategies in road safety including ambitious and measurable targets. Countries are encouraged to build capacity of the lead agency for road safety and focus measures on addressing main risk factors including excessive speed, drink driving, non use of seat belts and helmets, vehicles poorly maintained and lacking safety features, and poorly or insufficiently maintained road infrastructure. Funding was also seen as a top priority and Member States were urged to develop sustainable mechanisms for financing the implementation of national road safety programmes. National collision data systems were also seen to be in need of improvement.[28]

The importance of road safety management is emphasised by the UN in its 2008 Resolution 62/244 on improving global road safety in which it proclaimed the period 2011-2020 as the Decade of Action for Road Safety[29].

The World Bank

The Global Road Safety Facility was established by the World Bank as the first global funding mechanism to support capacity-building and provide technical support for road safety at global, regional and country levels[30].

Guidelines for road safety management have been developed by the World Bank (Bliss and Breen 2009), adopted by the OECD and are in use in low, middle and high-income countries[31]. The guidelines are a revised and expanded version of an earlier World Bank Transport Note (Bliss, 2004) and provide practical procedures designed to be applied at country level to accelerate knowledge transfer and sustainably scale up investment to improve road safety results. Adoption of *Safe System* goals, interim targets, intervention strategies and associated institutional leadership and strengthening initiatives that are properly sequenced and adjusted to the absorptive and learning capacity of the country concerned are recommended for all countries. The framework has been tested in low, middle and high-income countries. Checklists are used by safety management experts to assess country capacity across good practice dimensions of *institutional management functions*, *interventions* and *results*.[32,33,34]

The responsibility of world donors to support investment of safe roads only

The World Bank and other multilateral development banks spend an estimated $500bn on roads each year. The roads they build have potential to stimulate economic growth and lift standards of living by providing access to employment, schools and markets. Yet if not designed and managed well, those same roads can – and often have – become instruments of death. Road safety is still too often an afterthought. A 2007 report from the Commission for Global Road Safety said that donors have

[28] http://www.who.int/roadsafety/ministerial_conference/declaration_en.pdf
[29] http://www.who.int/roadsafety/about/resolutions/A-RES-62-L-43.pdf,
http://www.who.int/roadsafety/decade_of_action/en/
[30] http://www.worldbank.org/transport/roads/safety.htm
[31] http://siteresources.worldbank.org/EXTTOPGLOROASAF/Resources/traffic_injury_prevention.pdf
[32] http://www.internationaltransportforum.org/pub/pdf/11Russia.pdf
[33] Breen (2008), An independent review of road safety in Sweden
http://publikationswebbutik.vv.se/upload/4314/2008_109_an_independent_review_of_road_safety_in_sweden.pdf
[34] Review of Road Safety Management Capacity in Sierra Leone commissioned to SweRoad by the World Bank, draft report http://leonenet.info/documents/Sa_Lone_ROAD_SAFETY_MANAGEMENT_CAPACITY1.pdf

failed to ensure that a significant part of their investment is earmarked for safety measures, such as the separation of pedestrians from traffic.

In the past few years, the International Road Assessment Programme (iRAP) has assessed and "star-rated" the designs of about 50,000km of roads in low- and middle-income countries. Despite evidence that pedestrians are twice as likely to be killed on roads with no footpaths, 84% of the roads iRAP assessed had no footpaths. 58% of roads where traffic travels at 70km/h or more are undivided – roads on which death rates can be as much as 10 times higher than those with a safety barrier.[35]

"It is not uncommon that as little as 1% of road construction budgets is allocated to safety, far short of the 10% which the World Bank's guidelines suggest. The World Bank and other donors should support only road projects that do comply with minimum road safety guidelines".
Greg Smith, regional director Asia Pacific of the International Road Assessment Programme.

EU Road Safety Policy Orientations 2010-2020 – falling short of expectations

The European Parliament, in its *Own Initiative Report on Road Safety* adopted in September 2011, regretted that, instead of a new far-reaching European Road Safety Action Programme, only some weaker Policy Orientations were put forward in 2010. The Parliament also argued that the envisaged measures - although going in the right direction - should be further developed in order to meet the Commission's proposed target of a further 50% reduction of road deaths by 2020.

There are EU Agencies for aviation, maritime and rail transport safety, but not for road transport safety. In an attempt to compensate for the absence of a coordinating body for road safety, the European Parliament calls for the creation of a Road Safety Ambassador. This European figure, endowed with high authority by the EU and recognised by Member State governments, would be held personally responsible for both successes and shortcomings of European action. This Ambassador would also be responsible for setting up a Road Safety Task Force chaired by the President of the European Commission and including key Commissioners such as Transport, Health, Budget, Research, Enterprise and Industry, Information Society, Employment, Environment and Education and Youth. Such high level task forces already exist in other areas such as employment or media integration."[36]

The Council, in response to the European Commission's Road Safety Policy Orientations adopted special conclusions dedicated to road safety in December 2010. They welcomed the new EU road safety plan, its new targets and the seven objectives and invited *"the Commission and the Member States to stimulate the development and use of safety management systems, in order to promote responsibility for road safety among all relevant stakeholders.[37]"*

Engaging the public and private sectors

ISO International Standard 39001 for Road Safety Management

A new ISO international standard 39001 for road safety management is being finalised. Any player with an influence on road safety should be able to use the standard as complementary guidance in its efforts to contribute to safe road traffic. ISO management systems are based on the Plan-Do-Check-Act methodology which is a cyclical approach involving several steps and requires strong leadership

[35] iRAP (2012), Vaccines for roads, 2nd edition http://www.irap.org/irap-news/285-vaccines-for-roads.
[36] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0389:FIN:EN:PDF
[37] http://ec.europa.eu/danmark/documents/alle_emner/transport/101202_raadet_en.pdf

and commitment from top management. A management system is defined as: "a set of integrated or interacting elements of an organisation to establish policies and objectives and processes to achieve those objectives".

The first step *Plan* covers planning and includes identifying the impact of the organisation. Part of this also includes establishing leadership commitment and setting up a work related road safety (WRRS) policy. The WRRS policy should include measurable targets and objectives. The next step *Do* covers implementing the system which relies on coordination, budget, competent human resources and awareness-raising, including internal and external communication. *Check* includes monitoring and should ensure regular analysis and evaluation of performance against the set objectives and targets. *Act* is improving both safety performance and the management system on a continual basis.

Work Related Road Safety Management Programmes

A new report *"Work Related Road Safety Management Programmes"* has recently been published as part of ETSC's PRAISE (Preventing Road Accidents and Injuries for Safety of Employees) EU funded project[38]. The report presents the main elements of Work Related Road Safety (WRRS) management as a means of addressing work-related road risks.

There are some similarities in approach for an employer managing and reducing the road risk of their employees and for a government adopting a national road safety plan to protect the lives of its citizens. These include target setting, monitoring, setting up a management system and showing leadership. The PRAISE report commences by outlining why employers should address WRRS and by giving ideas on where to begin within individual organisations. Part of this is making the business case for managing road risk and demonstrating where savings can be made by employers by investing proactively in road safety. A similar approach can also be taken by governments evaluating the costs and benefits of taking action to reduce road traffic deaths. Leadership in introducing a WRRS programme and integrating that into a management structure is important for employers. Leadership is also important for governments, especially having strong political will to see through the implementation of new road safety measures. Different models of management are presented briefly in the report, with structures aimed at managing risk. The different models could also be of relevance to governments looking to set up systems to reduce road risk.

The report then looks at which indicators should be monitored and evaluated and gives suggestions on how this should be undertaken. Again, setting up monitoring systems is highly relevant to governments managing road safety. The report underlines the need to consider the driver, the journey and the vehicle. The report also includes a summary of key measures to tackle common risk areas for WRRS such as speed, alcohol, drugs and medicine, fatigue and distraction, vehicle management and maintenance.

[38] http://www.etsc.eu/PRAISE-publications.php

3| Reducing road deaths among young people aged 15 to 30

Around 140,000 young people aged 15 to 30 were killed in road collisions in the EU27 over the past ten years. In 2010, 9,150 young people aged 15 to 30 were killed in road collisions, compared with 18,670 in 2001. Deaths among this age group decreased by 44% between 2001 and 2010, compared with 36% reduction in total deaths over the same period. Young people aged 15 to 30 represent 20% of the total EU population but 30% of all road deaths and this share has been reduced only slightly since 2001. Young people, especially males, continue to have the highest number of road deaths per million population of any age group (Figs. 16, 17). Males account for 81% of all young people aged 15 to 30 killed on the roads in the EU.

The number of young people killed has decreased since 2001 in all PIN countries except Romania. Portugal and Spain achieved the best annual average reductions in the number of young people killed between 2001 and 2010, around 12%, followed closely by Latvia (Fig. 12a). Good progress was also made in Sweden, The Netherlands and Switzerland, who have become the safest countries in terms of young people killed per young inhabitants.

Despite these improvements, young people continue to experience particularly high risk on the roads, especially young males. On average, the road mortality rate is 69% higher for young people than the corresponding risk for the rest of the population (Fig. 16). For young males, mortality is 168% higher than for the rest of the population (Fig. 17). Approximately one in four young people who dies in the EU does so as the result of a road collision, about twice as many as die from suicide (Figs. 19 and 20).

Collisions involving a young driver or rider account for 37% of total road traffic deaths (Figs. 21 and 22). For each young driver killed there are 1.2 passengers or other road users killed in the same collisions. Young drivers, especially males, are not just a danger to themselves; they also pose a greater risk to their passengers and other road users than other drivers do.

While young people must gain experience in order to use the roads safely, the process of gaining that experience exposes them and others to disproportionate risk. Governments and road safety actors must find the right balance between the need to tackle the overrepresentation of young people in road collisions and encouraging young people's access to experience and mobility.

Member States must make the fight against road deaths among young people a priority if they want to achieve the EU 2020 road safety target and their national targets. The share of young people's deaths among total deaths will increase as road safety of the rest of the population increases unless young people's safety is similarly improved.

The country comparison shows that the differences between countries are large. Curbing deaths among young people therefore requires general road safety measures, coupled with specific measures, for example targeting young drivers and powered two-wheeler riders, in particular males, in countries where reductions in young people's deaths on the road are lower than the EU average reduction.

3.1 The Scale of the problem

3.1.1 Young people's deaths have fallen since 2001 in all PIN countries except Romania

Portugal and **Spain** scored the highest average annual reductions in the number of young people aged 15 to 30 killed in road collisions since 2001, and **Latvia** ranks third. A group of 12 countries composed of **Estonia, Slovenia, Luxembourg, Germany, Switzerland, Italy, The Netherlands, France, Belgium, Sweden, Czech Republic** and **Austria** follow with reductions above the EU average of 7%. Slowest progress has been made in **Poland, Finland** and **Greece.** In **Romania**, the number of young people killed on the roads has increased since 2001.

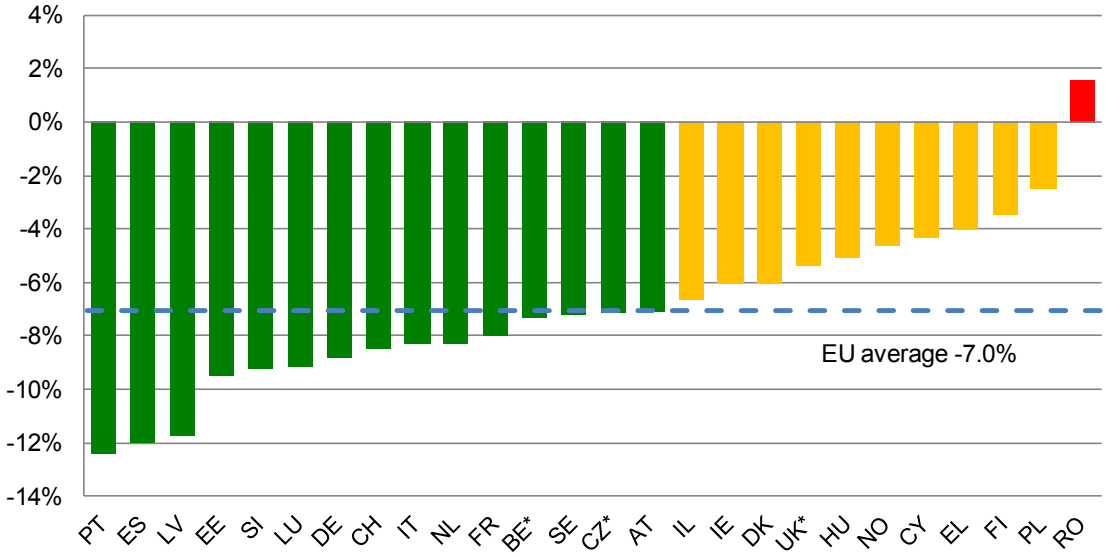


Fig. 12a: Average annual percentage change between 2001 and 2010 in the number of young people aged 15-30 killed on the roads.
**2010 data not available, 2009 figure used for 2010 in calculating the annual average percentage change. Note: Limitations of data prevent the inclusion of Bulgaria, Lithuania, Malta and Slovakia in Fig.12a and 12b.*

The corresponding ranking by average annual percentage change in road mortality is shown in Fig. 12b and is broadly similar to that in Fig. 12a, indicating that differences in the changes in population in this age group have affected the ranking only slightly. The principal exception is Cyprus, where the increase in population in this age group has offset by about one third the reduction achieved in its road mortality.

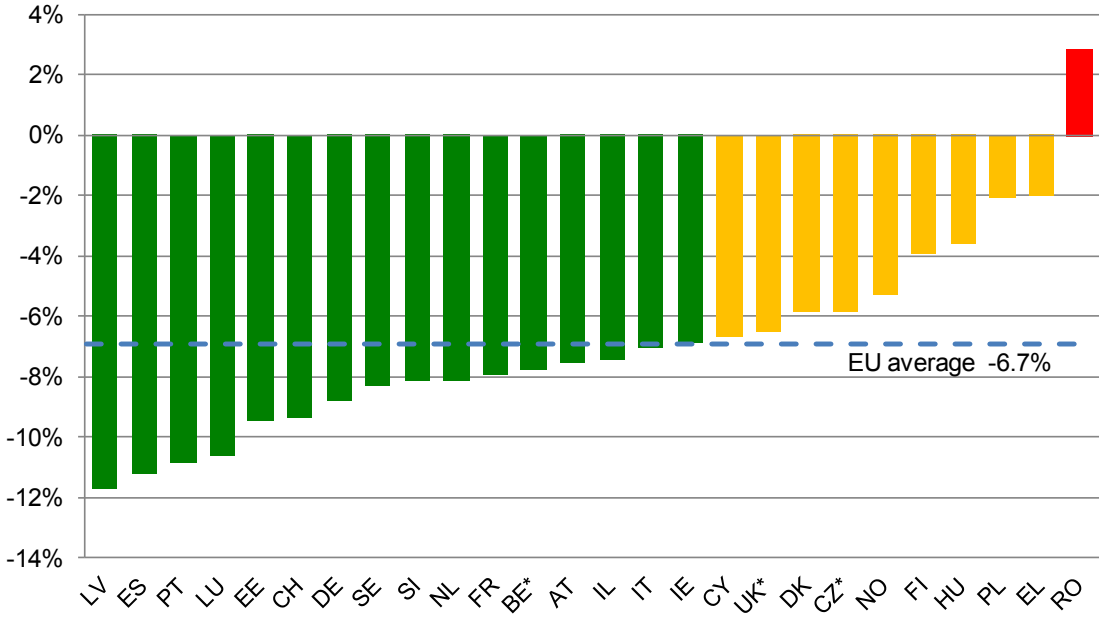


Fig. 12b: Average annual percentage change between 2001 and 2010 in the road **mortality** of young people aged 15-30 (road deaths among young people per million young inhabitants).
**2010 data not available, 2009 figure used for 2010 in calculating the annual average percentage change.*

In **Latvia**, overall road deaths were cut by 61% in 2010 compared with 2001 and road deaths among young people by 77%. These impressive reductions are the result of the implementation of a comprehensive set of measures to reduce overall road deaths and deaths among young people.

"In 2004, we introduced a penalty point system. Novice drivers lose their driving licence when they reach 10 points (16 for other drivers). Police checks of major traffic offences, in particular drink driving, have increased. Our government has also been funding three to four big road safety campaigns a year. As a result, attitudes towards road safety are slowly starting to change amongst the population, in particular amongst young drivers. Research showed that the pre-driving period is key to preparing future drivers to behave safely. Road traffic law is taught in social studies classes: children start to learn how to act as a safe pedestrian and car passenger at 8/9 years old, as a safe cyclist at 11/12 and how to act as a safe moped rider at 14/15. The test for driving a car has been improved and a test for driving a moped was introduced in 2004, to comply with the 3rd EU Driving Licence Directive. Still more needs to be done to reduce young people's high risk of dying when riding a motorcycle or a moped or when driving a car".
Aldis Lama, Ministry of Transport, Latvia.

> *"Since 1994 and the revision of the Portuguese driving code, novice drivers convicted of serious and very serious offences during their two-year probation period see their driving licence revoked (and not only suspended as is the case for older drivers). This law at first faced fierce opposition and was challenged in courts. Now it is recognised that this law has a dissuasive effect among all young drivers who are afraid of losing their driving licence. The Portuguese association of wine and spirit retailers has been running for some years an anti drink-driving campaign, promoting sober drivers as being "100% cool". This campaign was coupled with widespread police enforcement campaigns in key areas and at relevant periods. Local authorities in cooperation with local stakeholders have been improving public transport facilities to and from night recreation spots".*
> João Cardoso, National Laboratory of Civil Engineer, Portugal.

In **Spain** too, young people benefitted from the recent general road safety progress. Deaths among young people were cut by 68% in 2010, compared with 2001, while overall road deaths were reduced by 55%. Enforcement was improved and sanctions were tightened up for all. Specific measures targeting young people have also been implemented. Novice drivers lose their driving licence when they lose 8 points (12 for other drivers). In 2010, the minimum age for riding a moped was increased from 14 to 15 and theory and practical skills tests introduced in line with the EU Driving Licence Directive.

"Campaigns raising awareness among young people on the benefit of wearing an helmet or not drink and drive were combined with increased drink driving Police checks at night and during the weekends. The Ministry of Interior, local authorities, NGOs and companies are running campaigns to encourage young people to designate a sober driver to bring them home safely. Still, every weekend, nearly 40 young people die or are seriously injured in a road collision. Our Strategy for 2020 aims at reducing this number".
Pilar Zori, DGT, Spain.

Several new measures have been introduced recently in **Germany** targeting young drivers. Young people can start driver training at 16 and a half and pass both practical and theory tests at 17, but until their 18th birthday they can only drive accompanied by an experienced driver. Supervised and novice drivers aged 18 or below are subject to a zero alcohol limit until they reach 21 and all other novice drivers during their first two years of driving.

Heated discussions are currently dividing decision makers and road safety stakeholders in Germany about the possibility of the lowering the current limit of 16 years to 15 years old for driving a moped. These discussions follow the transposition into German law of the 3rd EU Driving Licence Directive. Whilst the EU Directive stipulates that the minimum age for driving a moped should be 16 years, Member States are allowed to lower it as far as 14 years or raise it as far as 18. The German Road Safety Council (DVR) has advised the German government not to lower the minimum age for driving a moped.

"In Austria, in 1997, the minimum age for driving a moped was lowered from 16 to 15 years. Three years after, accidents involving a 15 year-old moped rider had been multiplied by more than five. We fear that a similar development could happen in Germany. We have to learn from the Austrian experience and avoid repeating the same mistake."
Jacqueline Lacroix, DVR.

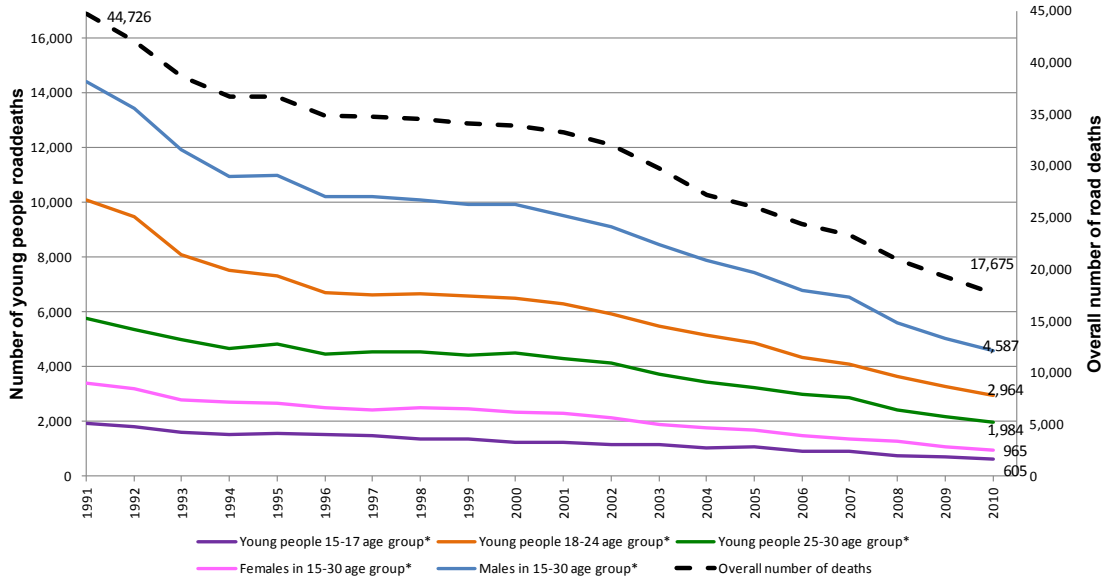


Fig. 13 Reduction in road deaths since 1991 in the EU15 (except Germany) among people aged 15-17 (purple line), 18-24 (orange line), 25-30 (green line), among males aged 15 to 30 (blue line) and females aged 15-30 (pink line) and reduction in total road deaths (black dotted line).
Source: CARE database (except 2010: PIN data as provided by Panellists).
Note: Data for Germany is available in CARE only since 2000.

Why young people 15 to 30?

In this report we consider "young people" to be those aged 15 to 30 (inclusive). There is no official definition for the specific period in life when a person is considered to be "young". While the definition 15 to 30 is somewhat arbitrary, this is the age-range covered by indicators developed in the recently published EU Youth Strategy[39]. 'Up to 14' was used to define the category children for PIN Flash 12, as up to 14 the ways children travel are often dictated by the choice of parents, environment and policies in general[40]. Fifteen is in many EU countries the age at which one can start driving a moped or a motorcycle and finishes compulsory school attendance. Moreover, in some countries, 15 is the age at which one is considered to be legally responsible of their acts. Road safety research has traditionally considered "young people" to be those aged 18 to 25. The path from childhood to independent adulthood is lined with a number of crucial milestones, such as leaving the parental home to study or to work. Longer studies and difficulties in securing a steady job have seen youngsters living with their parents for longer[41] and acting as "young" people for longer. Young people are typically in a period of rapid maturation, during which they test boundaries and assert independence. They are at a stage in life that is often intensely social, including being active at night and at weekends, in groups, and sometimes involving alcohol and other recreational drugs[42].

Drivers represent 38% of total road deaths among young people. Research on road safety of young people therefore often focuses on drivers. This report however considers all kind of road users among young people. Increasing numbers of young people are indeed cycling, walking or riding powered two-wheelers (PTW), partly as a contribution to reducing pollution or for economic reasons (such as unemployment or costs of owing a car or of insurance).

The indicator

The annual average percentage **reduction in the number of road deaths among young people** aged 15 to 30 inclusive between 2001 and 2010 is used as main indicator in this PIN ranking (Fig. 12a). To allow for the effect of changes in the population in this age group, the corresponding annual average percentage reductions in road mortality in this age group are shown in Fig. 12b.

The data were retrieved from CARE when available and completed or updated by the PIN Panellists. The full dataset is available in the Annexes. Information on driving licensing as provided by the PIN Panellist are available on www.etsc.eu/PIN-publications.php. No data was received from Bulgaria. For Lithuania the data do not match the age groups used in this report. The number of young people killed in traffic is available only since 2007 in Malta and Slovakia, making the series too short for estimating the annual average percentage reduction (Fig. 12a, 12b). Population figures were retrieved from the Eurostat database.

The safety of young people on the road is expressed in terms of *mortality*, i.e. the number of young people 15 to 30 killed in road collisions divided by their population size in millions (Figs. 12b, 14, 16, 17). Road deaths divided by population give a good estimate of the overall impact

[39] EC Youth Strategy, http://ec.europa.eu/youth/news/doc/sec401_en.pdf

[40] ETSC (2009), 3rd PIN report, Chapter 3, Reducing child deaths on European roads.

[41] Eurostat, Youth in Europe, A Statistical portrait, http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-78-09-920/EN/KS-78-09-920-EN.PDF

[42] OECD (2006), Young drivers, The road to safety. http://www.internationaltransportforum.org/jtrc/safety/YoungDrivers.html

of shortfalls in road safety on the age group, while taking account of changes in the young population. Unfortunately data on number of young drivers' licences are available in only a few countries. Road deaths among young people are compared with deaths from all causes in the same age group (Fig. 19). Data on deaths from all causes were retrieved from the Eurostat database.

The percentages of different types of young road user among those killed in traffic differ by age and gender. Young males killed in road collisions are killed as car drivers (39%), motorcycle users (22%), car passengers (18%), pedestrians (7%), moped users (7%) and cyclists (2%) (Fig. 18a). Young females killed in road collisions are mainly killed as car passengers (38%), car drivers (34%), pedestrians (11%), motorcycle users (6%), moped users (3%) and cyclists (3%) (Fig. 18b). Unfortunately an estimation of time spent in traffic or the amount of travel by young people is available in only a few countries. Exposure in traffic is therefore not taken into consideration when comparing countries. Yet data available in Sweden, The Netherlands and the UK have shown that large differences in male and female mortality rates remain even after taking into consideration the fact that men drive more than women.

This report does not discuss the causes of collisions involving young people. From the existing research on the topic we know that collisions involving young people often combine aggravating factors such as driving at night or at weekends, carrying passengers of similar age, speeding, drink driving, driving without seat belts. Drug-driving, especially involving cannabis, is increasing and becomes especially dangerous when the drugs are taken along with alcohol[43].Young people are also overrepresented in single-car and loss-of-control collisions[44].

3.1.2 Road safety of young people has improved faster than overall road safety

On average in the EU27, road safety of young people has improved faster than road safety of the rest of the population since 2001 (Fig. 14). In **Luxembourg**, **Switzerland** and **Slovenia**, the annual average reduction in road deaths among young people is more than 3 percentage points higher than the corresponding reduction for the rest of the population. In **Hungary, Greece, Poland, Ireland, Finland** and **Romania** the opposite is true and road safety of other age groups has improved more than one percentage point faster than road safety of young people.

[43] OECD (2006), Young drivers, The road to safety.DRUID, Driving under the Influence of Drugs, Alcohol and Medicines, www.druid-project.eu.

[44] SafetyNet (2009) Novice drivers, retrieved 25.11.2011, http://ec.europa.eu/transport/road_safety/specialist/knowledge/pdf/novice_drivers.pdf

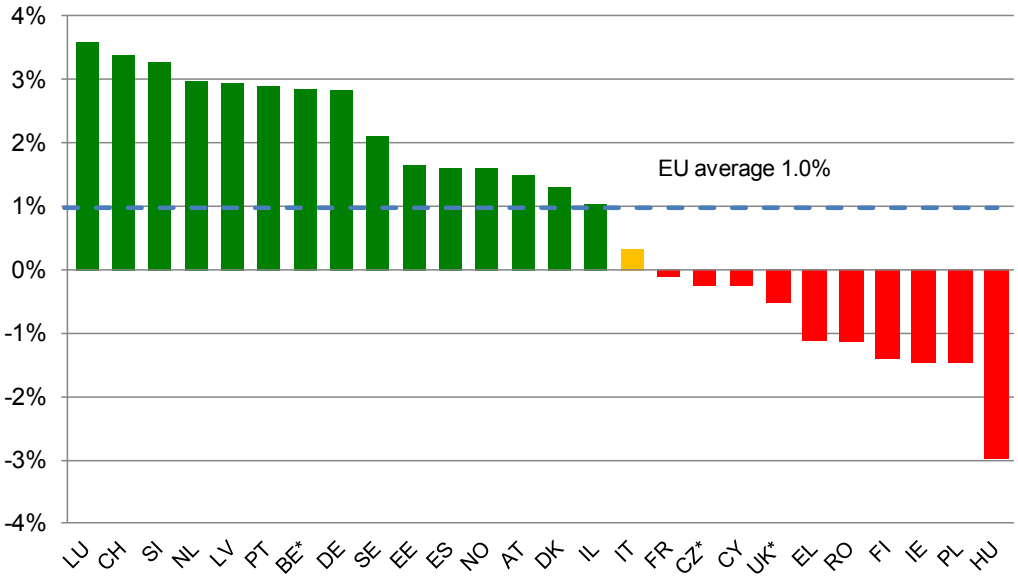


Fig. 14 Amount by which the average annual percentage reduction in mortality among young people aged 15-30 exceeds the average annual percentage reduction for the rest of the population over the period 2001-2010.
**2010 data not available, 2009 figure used for 2010 in calculating the annual average percentage change. Note: Limitations of date have prevented the inclusion of Bulgaria, Lithuania, Malta and Slovakia in Fig. 14 (see indicator box).*

"Road safety of young people has improved faster in Portugal than road safety of the rest of the population since 2001. This is quite logical as young drivers benefited most from overall road safety improvements implemented over this period, in particular infrastructure safety improvement schemes. Young drivers also seem to have been more receptive to recent road safety awareness campaigns than older drivers".
João Cardoso, LNEC, Portugal.

"In Hungary, young drivers are not yet subjected to probational period, nor graduated driving licensing. We need to explore those solutions to avoid young people being left out of our recent progress in improving overall road safety".
Peter Holló, Institute for Transport Science, Hungary.

"Our adverse performance in Fig. 14 is really disappointing. Many collisions involving young people take place at night on isolated rural roads which makes enforcement difficult. The Police have to set targets for enforcement action targeting young people's high risks, speeding, drink driving, and non use of seat belts. In-depth analysis showed that more than half of the drivers aged 15 to 30 who caused a fatal road accident had been caught by the police at least once during the last five years before the accident. Those young people 'at risk' should be identified and offered additional training in order to prevent them from engaging in risky behavior in the future".
Esa Räty, Finnish Motor Insurance Center.

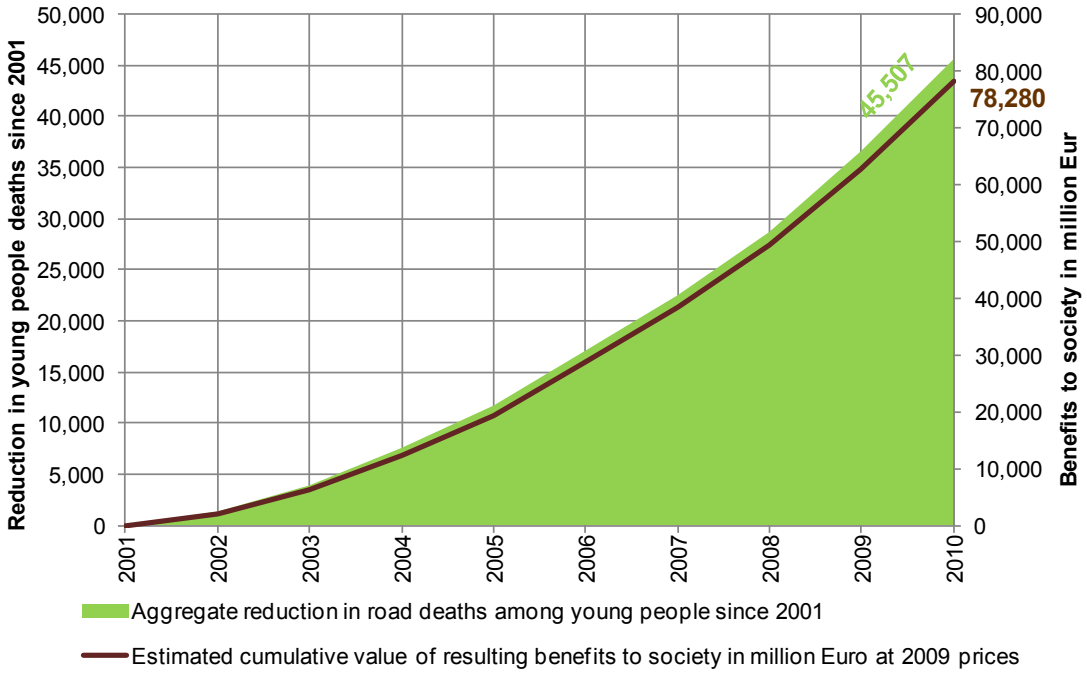


Fig. 15 Cumulative reduction to 2010 in the number of road deaths among young people compared with 2001 and estimated valuation of benefit to society at 2009 prices.

There have been **45,500** fewer road deaths among young people aged 15-30 since the adoption of the EU target in 2001 than if the 2001 numbers had continued. The total benefit to society from the reductions in road deaths among young people in the EU over the year 2002-2010 compared with 2001 is valued at approximately **78 billion Euro**[45] (Fig. 15).

The potential for reduction is far from being exhausted. The EU has adopted a new target of a further 50% reduction in road deaths. If a 50% reduction in young people deaths from their number in 2010 were achieved in 2020 by equal annual percentage reduction, **29,500** young people's deaths would be avoided over the years 2011-2020 compared with 2010. The benefit to society from these further reductions is valued at about **57 billion Euro** at 2009 prices.

3.1.3 The scale of the problem: young people deaths account for 30% of all road deaths across the EU

Young people aged 15 to 30 represent **20**% of the total EU population but **30%** of all road deaths and this share has been reduced since 2001 by only about 4 percentage points. Overrepresentation differs between countries and between the age group 15-17, 18-24 and 25-30 and is concentrated in the 18-24 age group[46].

In **Ireland** deaths among 18-24 year old road users are particularly problematic. The Road Safety Authority (RSA) has therefore implemented a comprehensive integrated road safety education programme which is custom designed for 18-24 year olds including specific programmes for 3rd level students and also includes an educational resource for young people not in formal education called www.wrecked.ie.

[45] 2009 prices. The monetary valuation of the reductions in young people deaths since 2001 is based on the method developed in ETSC (2010) 5th PIN Report, Chapter 1, p. 14. Based on updated values in use in ten European countries, we have taken the monetary value of the human losses avoided by preventing one fatality (VPF) to be 1.70 million Euro.

[46] See Fig. 5a, 5b and 5c in Flash 21 on http://www.etsc.eu/documents/PIN_Flash_21.PDF.

The RSA has also reformed the way people are learning to drive and every driving instructor must meet strict competencies which are reviewed and assessed every two years. The RSA has just begun the implementation of a Graduated Driving Licence programme with the introduction of mandatory lessons for learner motorcyclists and drivers, as well as lower BAC limits for learners and novice drivers. These training programmes are designed to protect inexperienced learner drivers while they are learning to drive and to support them as they develop the skills, confidence and appropriate behaviour to share the road safely with others.

"The Road Safety Authority has an ongoing research programme looking at the psychology of risky driving behaviour of young people which continues to inform our interventions. We might consider the introduction of a Hazard Perception Test, the introduction of R Plates for novice drivers, faster accumulation of penalty points for specified driving offences, and the enhancement of the role of the accompanying driver in the learning to drive phase".
Michael Rowland, Road Safety Authority, Ireland.

3.1.4 The safety of young people compared to the rest of the population

On average, the road mortality rate is **69%** higher for young people than the corresponding risk for the rest of the population (Fig. 16). For young males, mortality is **168%** higher than for the rest of the population (Figs 16 and 17).

However, death rates over the last three years of available data vary greatly between Member States. Young people are safest in **Sweden**, the **Netherlands** and **Switzerland** - countries with good road safety records. In Sweden, the safest country for both young people and the rest of the population, 53 young people were killed on the roads each year per million young inhabitants, compared with 31 for the rest of the population. Young people in **Greece** have approximately 4 times the corresponding risk of being killed than their Swedish counterparts.

The ranking in Fig. 16 of countries by road mortality among young people (brown bars) is mostly fairly similar to the ranking by road mortality in the rest of the population (orange bars). **Greece, Poland** and **Romania** are also among the countries with higher overall road mortality rates. Notable exceptions are that **Slovakia** is ranked 11th (out of 28) for young people but only 24th for the rest of the population, and **France** is ranked only 21st for young people compared with 11th for the rest of the population.

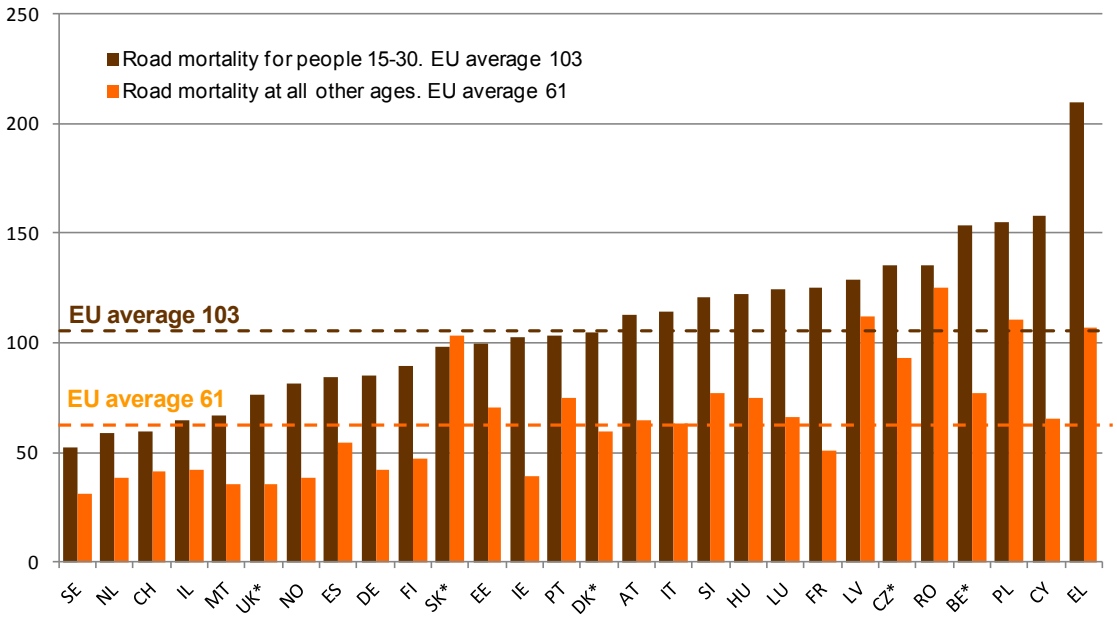


Fig. 16 Young people deaths per million young inhabitants (with road deaths per million inhabitants at all other ages for comparison). Average values for years 2008, 2009 and 2010.
** last three years available: 2007, 2008 and 2009*

The general road safety improvements recorded in **Sweden** since 2001 are benefiting young people as well (Fig. 16). General road safety measures implemented in the spirit of the Vision Zero have also improved the safety of 15-30-year-olds; among them the introduction of separated rural roads (so called 2+1 lane-highways with a median barrier) and safety cameras, the reassessment of speed limits to adjust them to road safety standards, improvement in the infrastructure (separating pedestrian and cycling from motorised traffic), the increase in 30km/h zones in areas where there are many vulnerable road users and improvement in pedestrian and occupant protection in cars.

While low car licensing rates for 18 to 22 year olds have lessened impacts of inexperience and risk taking, there is still substantial over representation in casualty collisions among young people. The levels of collision involvement by 15 year old moped riders are high[47].

"We advised the Swedish government to raise the minimum age for riding a moped to 16 to fall in line with the EU Driving Licence Directive and the practice in the most EU countries".
Nils Petter Gregersen, Swedish National Society for Road Safety (NTF), Sweden.

"We are concerned by the high number of young people killed per million young inhabitants in Belgium. This is why we recently conducted a new research on young drivers. As in other countries, collisions involving young people often combine aggravating factors such as driving at night or at weekends, carrying passengers, loss of control and drink driving. Findings from the EU project DRUID revealed that Belgian car drivers are among those who drive more under the influence of alcohol in Europe. Drink driving is particularly dangerous for youngsters. This is why volunteers are touring nightclubs and music festivals all year round to raise awareness among young drivers of the risk they pose to themselves and others if they speed, drink or take drugs before taking the wheel".
Yvan Casteels, Belgian Road Safety Institute.

[47] Breen, J. et al (2008), An independent review of road safety in Sweden.

3.1.5 Safety is a greater challenge for young males than for young females

The indicator for all young people hides big differences in mortality rates between young males and young females (Fig. 17). Males account for **81%** of all young people aged 15 to 30 killed on the roads in the EU. Young male death rates exceed young female death rates by a factor of more than 4. On average over the last 3 years **164** young males were killed on the road each year per million young male population, compared with **40** young females per million young female population. Across Europe, young females have a lower road mortality rate than the population as a whole. Fig. 17 shows that there is relatively little variation in young female mortality between countries other than Cyprus, Israel, Sweden, Switzerland and The Netherlands so most of the variation in both sexes mortality comes from the variation in young male mortality.

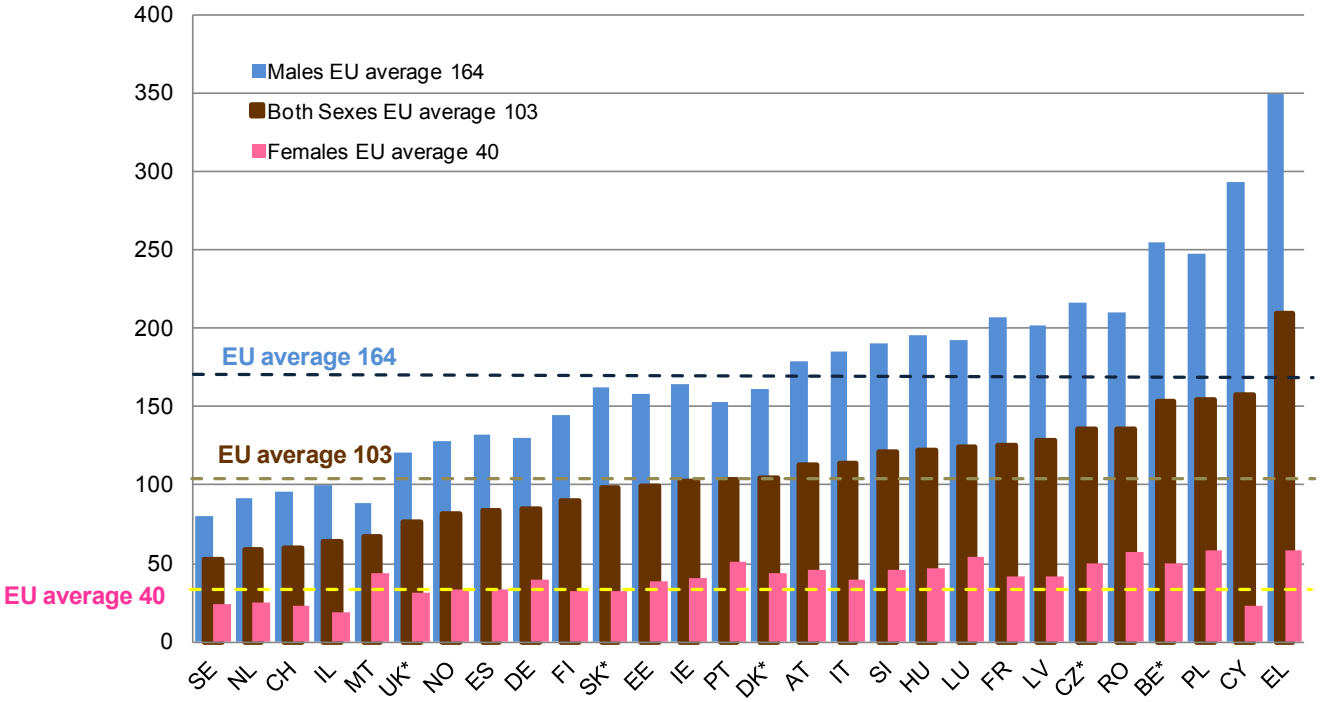


Fig. 17 Young people's road mortality per million young people, in total and by gender – average of the last three years, ranked by the mortality of both sexes.
** last three years available: 2007, 2008, 2009*

Figures 18a and 18b show the percentages of different types of road user among young males and females respectively who were killed on the roads in the last three years.

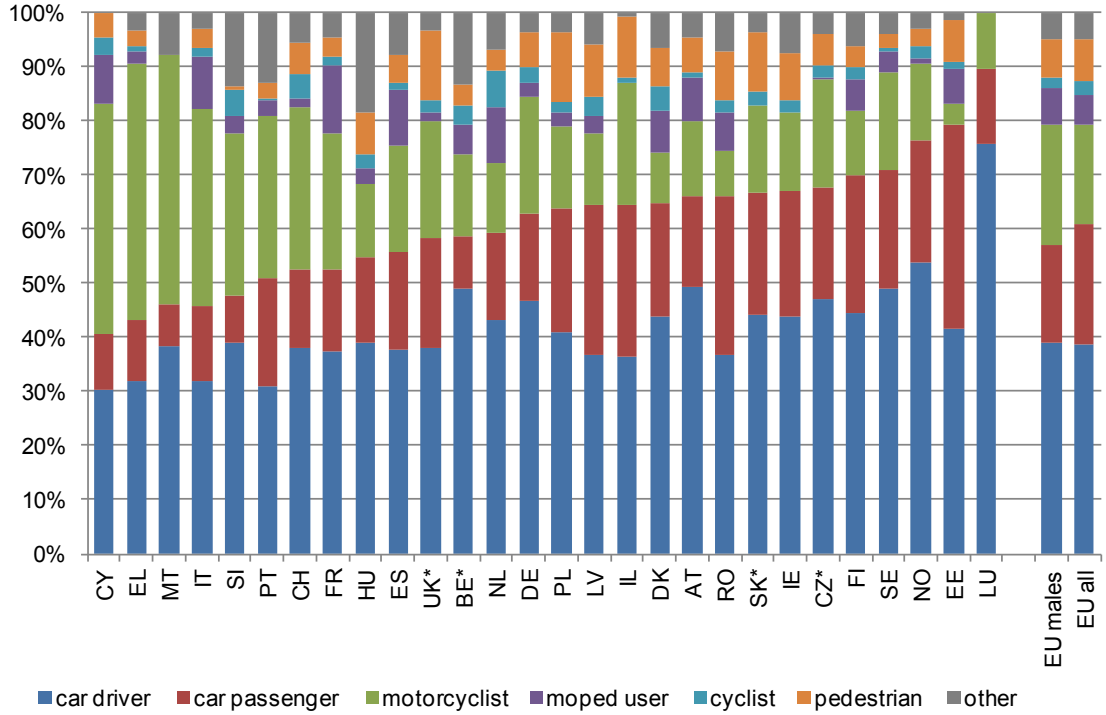


Fig. 18a Percentage share of different types of road user, among **male** road deaths for the 15-30 age group. Average of the last three years available, with countries ranked by percentage of car users (driver or passenger)
** last three years available: 2007, 2008, 2009*

Unfortunately an estimation of time spent in traffic or the amount of travel by young people is available only for a very few countries. Exposure in traffic is therefore not taken into consideration here in comparing countries. Yet data available in Sweden, The Netherlands and the UK has shown that large differences in male and female mortality rates remain even after taking into consideration the fact that men drive more than women.

Deaths among users of **Powered-two-wheelers (PTW)** represent between 30% and 50% of all young people killed in road collisions in Cyprus, Greece, Italy, France and Malta. Male motorcyclists account for 47% of the total number of young males killed in **Greece** – one of the highest shares, together with Cyprus. The more widespread use of motorcycles only explains part of this. Unfortunately only 75% of riders and 46% of passengers wear a helmet. Cities must adopt ambitious action plans to improve PTW safety as a matter of urgency as most of the fatal collisions involving motorcyclists happen in cities.

"Since 2008, overall road deaths have decreased in Greece, partly due to the economic crisis. This decrease has not been witnessed among PTW users as some car users shift to PTW as a cheaper mode of transport and as levels of enforcement could not be sustained following a cut in police budget, and helmet wearing checks are going down".
George Yannis, Technical University of Athens, Greece

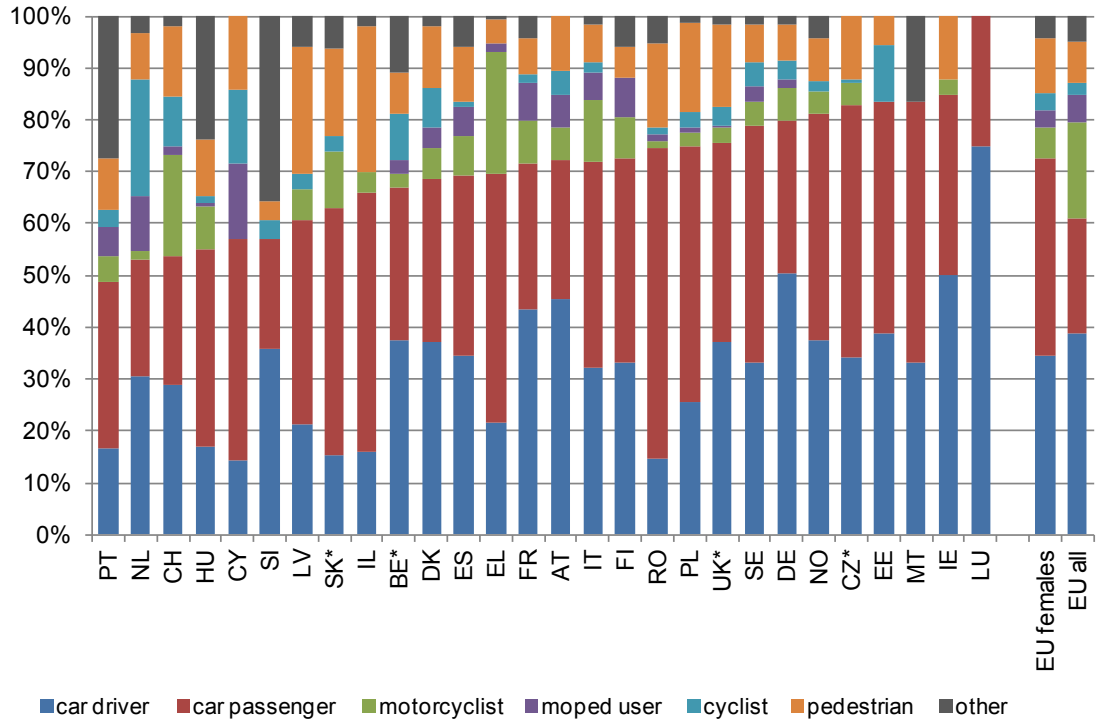


Fig. 18b Percentage share of different types of road user, among **female** road deaths in the 15-30 age group. Average of the last three years available, with countries ranked by percentage of car users (driver or passenger). **Last three years available: 2007, 2008, 2009*

Based on research findings showing that seven out of ten female passengers killed at ages between 17 and 24 were killed in cars driven by men in the same age group, the Road Safety Authority in **Ireland** launched a campaign called **'He Drives, She Dies'** aimed at young women, designed to empower them to say no to getting into a car with a man who drives dangerously[48]. Research shows eight out of ten passengers have felt unsafe in a car. Speeding was the most common factor described as causing fear, with many passengers saying they feared the driver would accelerate if they commented on the vehicle's speed. More than half of those interviewed said they would accept a lift from someone who had been drinking.

"New EU legislation coming in soon means that insurers will not be able to charge different amounts based on gender. It is not good news if you are a female. It is likely that their insurance costs will go up by maybe 25 or 30% while accident statistics are showing that their driving is significantly safer".
Simon Douglas, AA, UK

3.1.6 One young person's death in four results from a road collision

On average, in the EU, one young person's death in four results from a road collision. Road deaths among young people aged 15 to 30 represent **21**% of deaths from all causes in the same age group but these percentages vary markedly between countries (Fig. 19), and with age and between genders within this age group (Fig.20).

[48] www.rsa.ie/RSA/Road-Safety/Campaigns/Archived-Campaigns/He-drives-she-dies

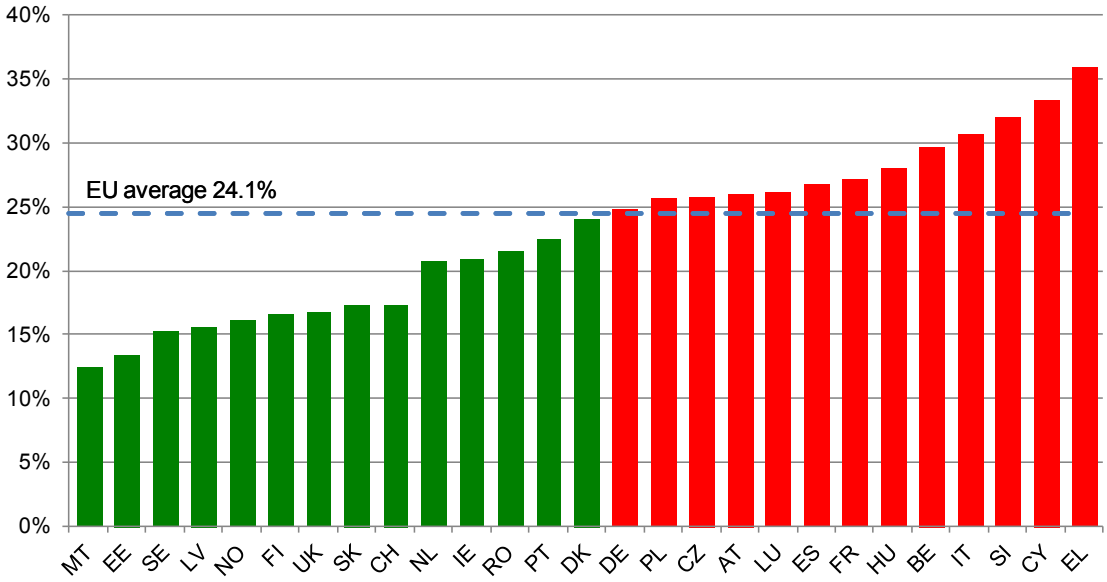


Fig. 19 Road deaths among those aged 15 to 30 as a percentage of deaths **from all causes** in the same age group in last three years available.

Road collisions are by far the leading cause of young people's deaths in Greece.

"Road deaths account for 32% of deaths from all causes among the 15-30-year-olds, which is significantly higher than in other EU countries. This can be explained by particularly low road safety levels in Greece and a higher moped and motorcycle use than in other EU countries. When adjusted for exposure, accident risk for the 18-24-year-old motorcycle riders (202 deaths per million vehicle-km driven) is 8 times higher than the risk for young car drivers (25 deaths per million vehicle-km travelled) and 25 times higher than the risk for older car drivers (8 deaths per million vehicle-km travelled)".
George Yannis, Greece.

On average in the EU, road deaths among **males** aged 15 represent more than 20% of deaths from all causes among males of that age. This percentage is successively greater among males aged 16 and 17, and is more than 30% for males aged 18 to 24. It is only 20% for males aged 25-30. The corresponding percentages are lower for **females** than for males across the age groups considered, especially for the 25 to 30 age group, but show a broadly similar pattern of variation by age.

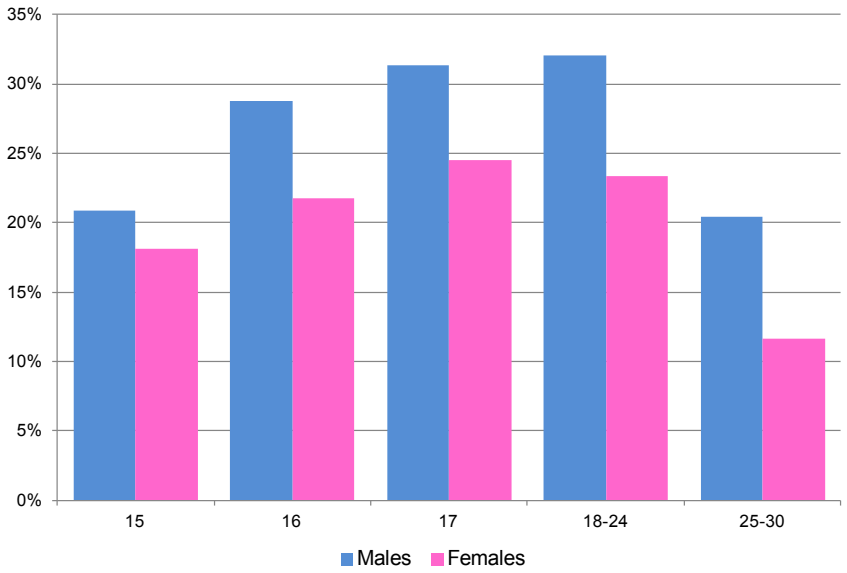


Fig. 20: Road deaths in EU27, by gender and age group as a percentage of deaths from all causes for that particular age group and gender in the last three years available.

3.1.7 Deaths in collisions involving a young driver or rider

Collisions involving a young driver or rider account for 37% of total road traffic deaths (Fig. 21). For each young driver or rider killed there are 1.2 other road users killed in the same collision. Young drivers – especially males – are not just a danger to themselves, they also pose a greater risk to their passengers and other road users than other drivers do.

While young people must gain experience in order to use the roads safely, the process of gaining that experience exposes them, and others, to risk. Governments and road safety actors must find the right balance between the need to tackle the overrepresentation of young people in road collisions and encouraging young people's access to experience and mobility.

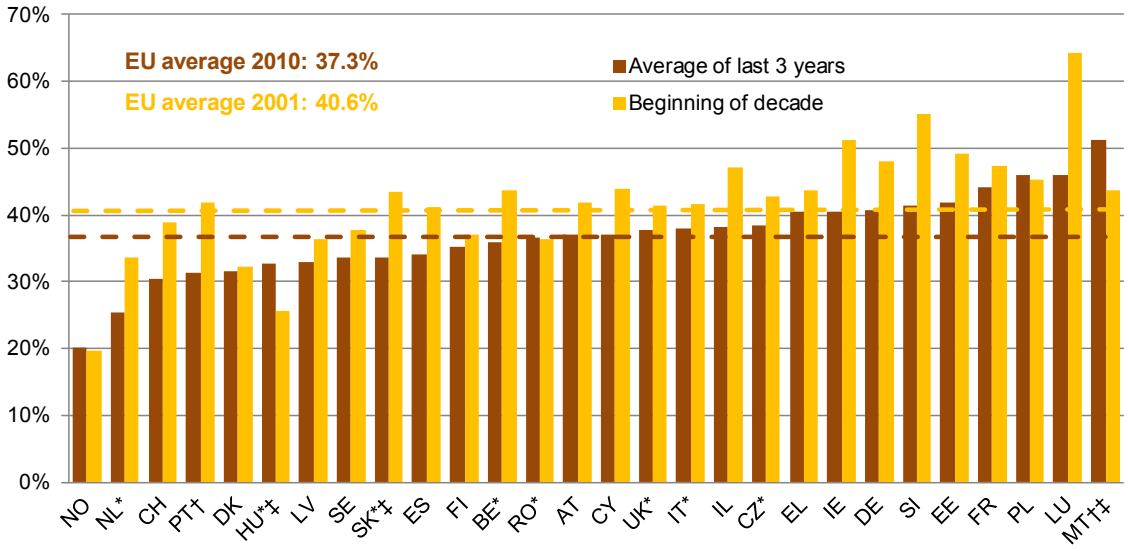


Fig. 21 Road deaths in collisions involving at least one young driver or rider (in latest three years available and in 2001) as a percentage of the total number of road deaths
** Latest 3 years available 2007, 2008, 2009. † Latest 3 years available 2006, 2007, 2008*
‡ First year available: HU 2003; MT, SK 2005

"Requirements for driver training are very extensive in Norway but research has not shown a direct link with the low percentage of young driver and motorcycle rider involvement in fatal collisions. There are reasons to believe that some of the training schemes have adverse impacts on safety as they increase drivers' overconfidence".
Rune Elvik, TOI, Norway.

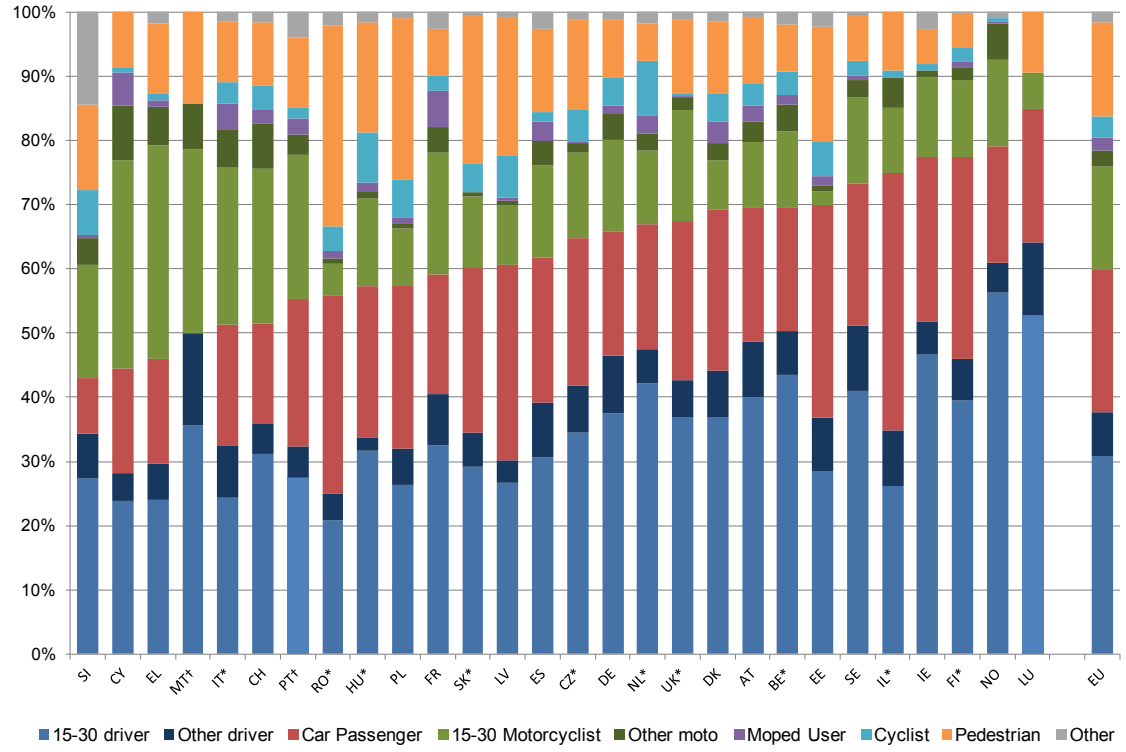


Fig. 22 Road deaths following collisions involving at least one car or motorcycle driven by a young person ranked by the share of car users (drivers or passengers) killed in those collisions.
**Latest 3 years available 2007, 2008, 2009. †Latest data available 2007, 2008.*

In the EU27 the young drivers and riders themselves (represented in light blue and light green in Fig.22) account for less than half of the deaths in the collisions in which they are involved, and Fig.22 shows how the other deaths are distributed among different kinds of road user.

While young people are a high risk group in themselves, most young people are not deliberately unsafe. The high levels of young drivers' and riders' risks result in large measure from factors of inexperience, immaturity and lifestyles associated with their age and gender (OECD 2006). Because of lack of experience, novice drivers' and riders' attention is easily overloaded, and their ability to combine simultaneous actions is relatively poor. At the same time, because serious crashes are relatively rare events, new drivers are not provided with the sort of negative feedback that might induce them to drive more carefully. They might also be motivated to arrive at a destination as quickly as possible, by peer pressure or a desire to 'show off'. Novice driver collision involvement is lower where the licensing age for solo driving is higher, indicating that age of starting to drive affects the level of risk during the early years of driving. Research indicates that the parts of the brain responsible for inhibiting impulses and weighing the consequences of decisions may still be developing until well after the teenage years, limiting some skills needed for safe driving. To keep down costs, young people may also drive older vehicles with fewer safety features.

3.2 Experience from fast progressing and best performing countries

Experience from fast progressing countries suggests that improving road safety of young people is most likely to be achieved through combining measures aimed at improving road safety for all road users and dedicated measures aimed at reducing the high risk of involvement in collisions of young drivers and riders.

3.2.1 Enforcement, in particular against the three main killers, will also prevent road deaths among young people…

Many of the countermeasures targeting young people will be ineffective without related enforcement, which may focus on areas where young people – especially young men – are particularly over-represented, such as speeding, drink- and drug-driving and non-use of seat belts, and at times and locations where young people are particularly active. Special plates identifying novice drivers can also help the police targeting young people[49]. Special attention should also be paid to unlicensed driving.

Deaths among young people in **France** were cut by 40% between 2002 and 2006 following changes in enforcement practices and the introduction of a fully automated speed management system. Novice drivers there are submitted to stricter penalty points systems leading them to check their speed to avoid losing their licence.

"Unfortunately, preliminary results for 2011 show a stagnation of deaths among young people compared to 2010 following the devastating effect of making it easier for drivers to regain penalty points that were withdrawn from their driving licence."
Jean Chapelon, road safety expert, France.

3.2.2… if coupled with stricter sanctions: penalty points and rehabilitation

Enforcement should be coupled with serious repercussions that act as disincentives for unsafe behaviour. Novices should thus be subject to a probationary period, during which they could lose their licence or have to undergo additional training if they break the law. This can be accompanied by special demerit point scales for novice drivers, who either receive more points per infraction, or are subject to a lower point threshold for losing their licences than more experienced drivers. Point systems can be employed under Graduated Driving Licence (see below) or probationary systems, meaning that traffic violations during an intermediate stage of licensing could delay the novice in attaining a full licence.

3.2.3 Safer infrastructure and safer vehicles

Because of lack of experience, young drivers are easily overloaded by the driving tasks. Safer infrastructure and safer vehicles will benefit young people as the environment will accommodate more of their mistakes and mitigate their consequences.

According to the Sustainable Safety Approach, the environment should be:

- **Self-explaining**: the infrastructure should inform the road user what behaviour is expected (clear designing, marking, signing, constant speed limit information, functional classification…)
- **Self-enforcing**: the design and features of the road should encourage drivers to maintain safe operating speeds (traffic calming devices, road markings…)

[49] In some jurisdictions, special plates are employed for identifying novice drivers. These include "L (learner) plates" and "P (probationary) plates", among others. Special plates help older drivers take greater precautions in circumstances involving young drivers and also make it easier for the enforcement of protective measures imposed as part of licensing for solo driving, such as stricter speed limits, night driving or passenger restrictions.

- **Forgiving**: the road is designed as to take into account human limitations and avoid driving errors resulting in fatal collisions (traffic separation, forgiving roadsides). Forgivingness in the Sustainable Safety approach developed in the Netherlands also has a social meaning. The more experienced drivers should, by displaying anticipatory behaviour, offer room to the less experienced drivers. This prevents mistakes by the inexperienced from being 'sanctioned' by a collision.

3.2.4 Licensing

Minimum age

Driving a moped with no driving licence as used to be permitted in many Member States until recently will no longer be possible after 2013. **EU Directive 2006/126/EEC on Driving Licences** (replacing Directive 91/439) introduces a new category AM and a mandatory theory driving test for moped riders. Minimum age for category AM will be 16 years but Member States may lower as far as 14 years or raise it as far as 18. The Directive also reinforces the principle of progressive access to the most powerful motorcycles. Direct access to A2 should be forbidden before 18 and to the most powerful motorcycles (category A) before 24, while riders can upgrade to a more powerful motorcycle after two year experience on a lighter machine.

Minimum age for driving a car will be 18 but Member States may lower it to 17 years. Road safety professionals urge Member States not to lower the minimum age for moped driving nor for solo car driving to avoid an increase in young rider and car driver deaths when the EU Directive is transposed into national laws.

Recent research on human brain development indicates that adolescents may be inherently less prepared for the responsibilities of solo driving than older people[50]. Raising, or not lowering, the minimum age for solo driving, will save lives, by virtue of the fact that it prevents young and inexperienced drivers from solo driving until they are older (OECD 2006).

Graduated Driving Licence (GDL) or 'multiphase' training systems

Graduated Driving Licence (GDL) systems are primarily designed to address the inexperience component of young drivers' collision risk but target also risk-taking behaviour, which can result from age-related factors (OECD 2006). GDL systems are usually divided into three stages: *learner, probationer,* and *fully licensed*. Support and restrictions are reduced from stage to stage. With growing experience, more driving privileges are phased in. GDL systems are currently being successfully used and implemented in more and more EU countries (see Background Tables) and other parts of the world (America, Australia, New Zealand). Most evaluations of the impact of GDL systems have shown that these systems report significant reductions in collisions and road deaths (SafetyNet 2009).

Large scale evaluations stress the characteristics of a 'good' GDL program[51]:

- A mandatory learner period of accompanied driving of at least six months or a minimum of 5000km.
- A probatory licence phase that includes:
  - Night-time driving restriction that begin before midnight or Passenger restrictions on carrying persons under 21.
  - Stricter sanctions coupled with rehabilitation courses to educate offenders
  - A zero Blood Alcohol Concentration (BAC) limit for both learner and provisional drivers.
- A second phase course during or at the end of the probatory licence phase focusing on risk perception and self-awareness and not enhancing driving skills.
- A high level of enforcement and adequate levels of sanctions are also key.

[50] OECD (2006), Young people.
[51] EU projects GADGET and DAN.

Accompanied driving implies that a candidate driver is allowed to practice under the supervision of an experienced driver, often the parents, without requiring the presence of a qualified driving instructor, in order to increase driving experience prior to solo driving. Young drivers often have significantly less than 25-40 hours of driving experience when they are licensed for solo driving. Post-licensing driving risks would be greatly reduced if all learner drivers were to acquire much higher levels of pre-licensing driving experience. This could be achieved by way of targets for minimum hours or kilometres of accompanied practice, as well as minimum periods during which this practice should take place. A lower level of accompanied practice may actually be counterproductive, as it might raise collision risk as a result of an increase of 'perceived' driving skills without a proportional increase of 'actual' driving skills.[52]

Probationary driving licence coupled with restrictions such as lower alcohol limits

Drink driving is particularly dangerous for youngsters for several reasons (SafetyNet 2009):

- Their tolerance of alcohol is lower, as their body is not used to dealing with it.
- Driving is more demanding for young novice drivers than for other drivers; thus, as they need to pay more attention to their driving task, the disrupting effect of alcohol is greater than for drivers with more experience.
- Alcohol reduces inhibition. As young people possess less developed self-control mechanisms, they suffer a stronger euphoric and emotional impact from alcohol.
- Studies have shown that youngsters tend to underestimate their actual level of intoxication.

Austria, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, The Netherlands, and **Spain** have introduced lower alcohol limits for novice drivers and riders (see Annexes: BAC limits in the EU27). In the **Czech Republic, Estonia** and **Hungary** there is a zero tolerance for alcohol for all drivers. Only in **Belgium, Bulgaria, Denmark, Finland, Malta, Portugal** and **the UK** are novice drivers allowed to have as high a BAC as other older drivers, namely up to 0.8g/l in Malta and the UK and up to 0.5 g/l in the rest of these countries.

The measures targeting young people in the EU Policy Orientations on Road Safety

In its Policy Orientations on Road Safety 2011-2020, the European Commission identifies the need to improve the quality of the licensing and training systems, with a focus on young novice drivers (Objective 1). The Commission proposes to view education and training as an overall process, a lifelong 'educational continuum' which should encourage interactive methods and the acquisition of autonomy, while keeping the cost of the licence at a reasonable level. The Commission will examine the possibility of including accompanied driving in the requirement to obtain a driving licence and the introduction of harmonised minimum requirements for accompanying persons and instructors. It will consider how to include broader driving skills within the curricula of the theoretical and practical tests, such as defensive or eco-driving skills.

The International Commission for Driver Testing Authorities (CIECA) encourages the development of high, common standards for driving licences throughout its member countries. It participated to several EU funded projects, among them the NovEV project (2002-2004) which aimed to implement second phase driver training pilot projects, according to the guidelines laid down in a previous EU project, Advanced. www.cieca.be

[52] Several evaluation studies on accompanied driving are presented in the OECD (2006) report on young people, in particular of the Swedish and French systems, showing mixed results depending on the quality of the systems.

3.2.5 Technologies to support enforcement

Young people might well benefit most from technologies that assist with the driving task as they may be overloaded by the driving tasks. Yet as they are more likely to drive second hand or cheaper cars, young people benefit less from those technologies. Information concerning the safety benefit of purchasing cars equipped with Intelligent Speed Assistance, Seat Belt Reminders, alcohol interlocks or Electronic Stability Control – among other safety technologies – should also be included in the theory training provided by driving schools and questions about safety technologies included in the theory test. Employers could also support the take up of safety technologies by their young employees.

3.2.6 Training and education

The goal of driving training should be to create drivers that are safe, and not just technically competent. Driver training should engage novice drivers personally and emotionally, increasing their awareness of their own limitations and of the dangers inherent to driving. This would be a new development compared to the current situation, in which most driver training basically concentrates on vehicle control and the application of traffic rules.

In order to provide an overview of what the licensing process should cover, the Goals for Driver Education (GDE) Matrix was developed in the context of the EU's GADGET (Guarding Automobile Drivers through Guidance, Education and Technology) project[53]. The GDE Matrix provides a hierarchical schematisation of the driver's task, outlining the personal situation within which all drivers undertake driving, including preconditions, attitudes, abilities, demands, decisions and behaviour. These have been categorised into four levels. Driver training traditionally focuses on the two lowest levels (vehicle control and driving in traffic condition), particularly with regard to teaching traffic rules, practising driving in traffic and identifying hazards. However, the proponents of the GDE Matrix propose that, in order to create safer drivers, it is essential to focus on the higher levels as well (Goals for, and context of driving and Goals for life and skills for living), as these have the greatest influence on the sort of driving situations that drivers will most likely find themselves in. This would also reduce the male bias in many current instruction and examination techniques. Females take more lessons than males before the driving test and still find it more difficult to pass both the theoretical and practical tests[54] whereas they are less involved in road collisions.

Courses concentrating on advanced vehicle control skills like skidding and manoeuvring should not be included in driver training for novices, as this leads to overconfidence. This conclusion is supported by, among others, the Norwegian experience with a second phase practical training course, in which novice drivers were taught how to control a skid (Glad, 1988). After this course was introduced, young drivers had more collisions on slippery roads than before. A possible explanation is that, as a result of the course, young drivers were more confident about their abilities to handle a car in such dangerous conditions, which they previously would have avoided.

Peer to peer education

The idea is taken from drug and HIV/AIDS prevention programmes and has become known as the "peer-education" method in which "equals relate to equals". [55] A team of young offenders (in some cases helpers or victims) is integrated in the theory part of the driving training programme to share

[53] Christ, R; Delhomme, P.; Kaba, A.; Mäkinen, T.; Sagberg, F.; Schulze, H; Siegrist, S. (1999). GADGET, Final report http://www.kfv.at/fileadmin/webcontent/Publikationen_englisch/GADGET-FinalReport.pdf

[54] Maycock and Forsyth (1997) in OECD 2006.

[55] The MODULE CLOSE TO involved eleven EU countries which implemented the recommendations developed by the CLOSE TO project.

with learner drivers their own experience and the dramatic consequences of a collision on their lives. Young offenders are offered lower sanctions and an opportunity to be rehabilitated.

Campaigns and awareness raising

Numerous campaigns are run across Europe to raise awareness among young people[56]. For example, the European Night Without Accident (NESA) is an awareness campaign organised each year in nightclubs across Europe on the 3rd Saturday of October to encourage clubbers to designate a driver (BOB) who will not drink and will drive his friends home[57].

Since 2006 ETSC is touring universities around Europe giving lectures on road safety, infrastructure and speed management. ETSC visited 77 universities in 24 countries to strengthen knowledge on road safety among students and encourage them to apply to take part in road safety competitions. 150 students were invited and 22 more will be to a week of integrated training in Brussels (the Camp) to discuss and develop their knowledge on speed, road infrastructure and road safety in general. Following the Camp, students work to implement their road safety projects in their home countries. Through these projects, participants are invited to be road safety ambassadors and to pass their new knowledge on to their peers.
Within **R2R,** "Roads to Respect" students were asked to treat a high risk site. Within ShLOW (completed in 2010) and **STARS,** "STudents Acting to Reduce Speed", students run a local speed management project with the support of ETSC and its partners across Europe. Students have to conduct before and after speed measurements and all demonstrated marked speed reductions thanks to their actions.
ETSC just started **BIKE PAL.** BIKE PAL will go on tour around Europe, reaching out to university students who will attend lectures on cycling safety and receive copies of a cycling manual. The students will have the opportunity to design and implement their project to improve cycling safety in their respective communities.
www.etsc.eu/R2R.php, www.etsc.eu/stars.php, http://www.shlow.eu/

3.3 Recommendations

The large numbers of young people killed or injured in road collisions constitute a serious public health problem. Addressing this risk will be essential to efforts to meet the 2020 EU and national road safety targets.

3.3.1 To Member States:

- Continue to research the causes of young, novice driver risk with a view to designing more effective countermeasures. Areas of particular focus should include the psychological competencies needed to drive safely; brain development in the prefrontal cortex; gender, including the role of testosterone, and whether young women's risk patterns are increasingly resembling those of young men; emotions; drugs; fatigue.
- Achieve high levels of overall road safety. Important road safety benefits for young, novice drivers will result from measures aimed at improving overall road safety. Safer cars and safer road infrastructure will reduce the risk of driving errors that might result in fatal collisions.
- Achieve effective legislation and enforcement in particular against the three main killers: speed, drink driving and non use of protective equipment (seat belts and helmets).

[56] http://www.cast-eu.org/ The EU funded project CAST developed a manual to design and implement a successful road safety media campaign
[57] http://www.europeannightwithoutaccident.eu/

- Improve training and licensing systems. The fundamental goal of pre-licence training and the licensing process should be to create drivers who are safe, and not just technically competent, by the time they are permitted to drive unsupervised. This will involve instilling novices with an appropriate cognitive skill level and safety-oriented motives. The primary goal of training should not be to help novices pass their driving tests. Based on existing knowledge, driving tests are currently unable to discriminate accurately between those drivers who will be safe and unsafe once they start solo driving, although they remain essential as a means of ensuring that novice drivers have essential, basic competencies.
- Seek improvements to formal training processes: expand the traditional method of skills-based instruction; ensure that professional driving instructors have the knowledge and pedagogical skills necessary to guide and assist the candidate towards becoming a safe driver.
- Ensure high levels of experience, via accompanied driving, prior to licensing for solo driving.
- Reduce exposure to risk immediately following licensing for solo driving. Novice drivers should be subject to probationary periods in conjunction with stricter demerit points which make novice drivers subject to penalties (e.g. loss of licence) or rehabilitative measures (e.g. mandatory traffic risk awareness training) if they lose a certain number of points. Under any system, young, novice drivers should be subject to a zero tolerance for drink driving[58]. Limits on driving with peer passengers and/or at night have also shown to be beneficial.
- Provide appropriate incentives and disincentives, i. e. support other countermeasures with stricter demerit point systems for young, novice drivers that provide a concrete disincentive to inappropriate driving behaviour and noncompliance with driving laws and licensing regulations; working with the insurance industry, conduct more research into the potential benefits of economic incentives by way of automobile insurance.
- Exploit the benefits of new technologies. Young people would benefit the most from Intelligent Speed Assistance, alcohol interlocks, seat belt reminders, event data recorders and other intelligent protective systems, but, because of limited resources, they often drive older cars. The take up of intelligent technologies by young drivers should be supported.
- Recognise the benefit of improving public transport (buses, trains), support the introduction of reduced ticket prices for young people, offer alternatives to car driving at places and times when young people are partying.
- Engage parents and other role models, i.e. proactively inform parents about the degree of risk associated with their children's first driving experience, reinforcing the message that their behaviour will have an important impact on their children's future driving and safety.
- Understand the impact of popular media on road safety attitudes, in particular on young people's risk, including advertising, films, television and video games, and understand the impact of voluntary codes of practice for advertising.

3.3.2 To EU institutions

- Consider proposing a Directive setting a zero tolerance for drink driving for novice drivers.
- Encourage Member States to introduce Graduated Driving Licence systems to address the high risks faced by new drivers thus allowing them to gain initial driving experience under lower-risk conditions between gaining the learner permit and fully licensed status.
- Encourage Member States to introduce special demerit point systems which make novice drivers subject to penalties (e.g. loss of licence) or rehabilitative measures (e.g. mandatory traffic risk awareness training) if they lose a certain number of points.
- Support integrating road safety into its youth and education policy giving this a high priority.

[58] A technical enforcement tolerance level could be set at either 0.1 or 0.2g/l BAC but the message to drivers should be clear: no drink and drive.

4 Recommendations

4.1 General recommendations

To Member States

- Adopt or **revise road safety action programmes** aiming at reaching the target of a 50% reduction in road deaths by 2020 and against which delivery can be made accountable.
- Adopt national reduction **targets** for seriously injured (using current definition of what is a serious injury) alongside the reduction of deaths.
- Create a far-reaching **vision or philosophy** about the safety of the future transport system, looking well beyond what is immediately achievable.
- Create a road safety system that **recognises the vulnerability of the human body**.
- **Build political support and commitment** at the highest possible level. Political leadership is essential to coordinate different administrations and to mobilise the public budgets necessary for the implementation of the action plan.
- Set up a **lead agency** or structure bearing responsibility for road safety policy-making and empowered to co-ordinate the road safety activities of the main actors involved in advancing road safety.
- **Provide adequate government funds** that allow the target-oriented setting of measures and set up financing and incentive models for the regional and local level.
- Seek to reach targets by all available means, including applying proven **enforcement strategies** according to the EC Recommendation on Enforcement in the field of road safety (2004/345/EC).
- Build **public and private sector awareness** for the programme in general and particularly for key countermeasures, through adequate campaigns.
- Improve reliability and comparability of **road safety indicators** using SafetyNet recommendations.
- Regularly **monitor road user behaviour** according to latest standards and communicate compliance data to relevant stakeholders.
- Set quantitative **sub-targets based on compliance indicators**.
- Use the evidence gathered to devise and update relevant policies. Make the choice of measures based on sound evaluation studies and - where applicable - cost effectiveness consideration.
- In line with the Infrastructure Safety Directive, apply all four instruments of the Directive (road safety impact assessment, road safety audit, network safety management and safety inspections) to the TEN-T and extend them to other roads.
- Improve the **recording of serious injuries** by making use of both police and hospital records.
- **Disseminate knowledge** about successful measures and research results among decision makers and practitioners.
- Improve **initial training** of road safety in all relevant disciplines and in-service training for road safety professionals
- Streamline the **emergency response chain** and increase **quality of trauma management** in order to effectively mitigate crash consequences.
- Adopt a well-resourced strategy with a clear co-ordination role for implementing meaningful integration of road safety in the key related policy areas of employment, environment and health.

To EU Institutions

- **Show leadership** and actively work towards the fulfilment of the EU ambition stated in the 2011 Transport White Paper to become a world leader in road safety.
- **Work together with Member States** in making progress towards the target of having no more than 15,500 road deaths in 2020, as set in the EC Road Safety Policy Orientations.
- Closely co-operate with the Member States to set an **"open co-operation framework on road safety"**.
- **Monitor progress** towards the common 2020 target and improve data collection, share experience, knowledge and exchange best practice.
- Monitor the progress of Member States to develop **national road safety plans** including their allocation of resources to achieve the common target, measures, timetable and publicise the details of the national road safety plans.
- Stimulate the development and use of **safety management systems** by EU Member States.
- Draw up common guidelines on setting up a national road safety plan and monitor their implementation.
- Designate an **EU Road Safety Ambassador** who would set up a task force which would also work to encourage and motivate actions of EU Member States on road safety.
- Support Member States in preparing **national enforcement plans** with yearly targets for compliance in the areas of speeding, drink and drug driving and seat belt use in line with the EC Recommendation on Enforcement in the field of road safety (2004/345/EC).
- Allocate the **necessary resources** with a view to developing coherent and cost-effective action plans for each of the seven objectives in order to implement the road safety policy orientations 2011-2020.
- Reverse the trend of significantly cutting the **EU budget for road safety measures**.
- Through its different **EU funds** implement the road safety measures that are known, cost effective and science based.
- Support **road safety research** as a priority in Horizon 2020 the EU's new programme for research and innovation for 2014-2020.
- Work towards the adoption of an **EU common definition of serious injuries** to foster comparability and develop a comprehensive strategy concerning road injuries,first aid and emergency response including **eCall**.
- Set **quantitative targets for reducing serious injuries** of at least 40% by 2020.
- Support Member States in implementing all road safety Directives through monitoring implementation, fulfilling reporting obligations and coming up with proposals to revise and update legislation if necessary.
- Adopt **new legislations** when needed to improve road safety.
- Apply strict infringement proceedings against Member States who have not met the deadline to transpose the Infrastructure Safety Directive 2008/96/EC by December 2010. Support those lagging Member States to implement the requirements of the legislation. Furthermore under obligations of Articles 10 and 11 ensure the exchange of knowledge, continous improvement of knowledge and best practice in infrastructure safety.
- Apply **conditionality for compliance** with road safety infrastructure legislation for use of all EU funds used for building and maintaining roads including the Connecting Europe Facility and the Regional Funds.
- Legislate for the implementation of **in-car enforcement technologies** such as seat belt reminders on all seats, Intelligent Speed Assistance and alcohol interlocks.

- Support countries in setting up **data collection and evaluation procedures** and stimulate the use of harmonised protocols for accident, exposure and performance indicators using SafetyNet and DaCoTA recommendations.
- Support regular **public opinion surveys** within the framework of Eurobarometer surveys and the SARTRE (Social Attitudes to Road Traffic Risk in Europe) project to inform political decision-making and track trends before and after the adoption of new road safety measures.
- Further support the EU's **twinning programme** which enables best practice exchange between Member States and between Member States, candidate and neighbourhood countries.
- Adopt a well resourced strategy with a clear **co-ordination role** for implementing meaningful integration of road safety in the key related policy areas of employment, environment and health.

4.2 Recommendations to protect young people

To Member States

- **Continue to research the causes of young, novice driver risk with a view to designing more effective countermeasures**. Areas of particular focus should include the psychological competencies needed to drive safely; brain development in the prefrontal cortex; gender, including the role of testosterone, and whether young women's risk patterns are increasingly resembling those of young men; emotions; drugs; fatigue.
- **Achieve high levels of overall road safety**. Important road safety benefits for young, novice drivers will result from measures aimed at improving overall road safety. Safer cars and safer road infrastructure will reduce the risk of driving errors that might result in fatal collisions.
- **Achieve effective legislation and enforcement** in particular against the three main killers: speed, drink driving and non use of protective equipment (seat belts and helmets).
- **Improve training and licensing systems**. The fundamental goal of pre-licence training and the licensing process should be to create drivers who are safe, and not just technically competent, by the time they are permitted to drive unsupervised. This will involve instilling novices with an appropriate cognitive skill level and safety-oriented motives. The primary goal of training should not be to help novices pass their driving tests. Based on existing knowledge, driving tests are currently unable to discriminate accurately between those drivers who will be safe and unsafe once they start solo driving, although they remain essential as a means of ensuring that novice drivers have essential, basic competencies.
- **Seek improvements to formal training processes**: expand the traditional method of skills-based instruction; ensure that professional driving instructors have the knowledge and pedagogical skills necessary to guide and assist the candidate towards becoming a safe driver.
- **Ensure high levels of experience**, via accompanied driving, prior to licensing for solo driving.
- **Reduce exposure to risk immediately following licensing for solo driving**. Novice drivers should be subject to probationary periods in conjunction with stricter demerit points which make novice drivers subject to penalties (e.g. loss of licence) or rehabilitative measures (e.g. mandatory traffic risk awareness training) if they lose a certain number of points. Under any system, young, novice drivers should be subject to a zero tolerance for drink driving. Limits on driving with peer passengers and/or at night have also shown to be beneficial.

- **Provide appropriate incentives and disincentives**, i. e. support other countermeasures with stricter demerit point systems for young, novice drivers that provide a concrete disincentive to inappropriate driving behaviour and noncompliance with driving laws and licensing regulations; working with the insurance industry, conduct more research into the potential benefits of economic incentives by way of automobile insurance.
- **Exploit the benefits of new technologies**. Young people would benefit the most from Intelligent Speed Assistance, alcohol interlocks, seat belt reminders, event data recorders and other intelligent protective systems but, because of limited resources, they often drive older cars. The take up of intelligent technologies by young drivers should be supported.
- **Recognise the benefit of improving public transport** (buses, trains), support the introduction of reduced ticket prices for young people, offer alternatives to car driving at places and times when young people are partying.
- **Engage parents and other role models**, i.e. proactively inform parents about the degree of risk associated with their children's first driving experience, reinforcing the message that their behaviour will have an important impact on their children's future driving and safety.
- **Understand the impact of popular media on road safety attitudes**, in particular on young people's risk, including advertising, films, television and video games, and understand the impact of voluntary codes of practice for advertising.

To EU Institutions

- Consider proposing a **Directive setting a zero tolerance for drink driving for novice drivers**.
- Encourage Member States to introduce **Graduated Driving Licence** systems to address the high risks faced by new drivers thus allowing them to gain initial driving experience under lower-risk conditions between gaining the learner permit and fully licensed status.
- Encourage Member States to introduce **special demerit point systems** which make novice drivers subject to penalties (e.g. loss of licence) or rehabilitative measures (e.g. mandatory traffic risk awareness training) if they lose a certain number of points.
- Support integrating road safety into its youth and education policy giving this a high priority.

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Annex - Chapter 1

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010-2011
Norway	275	310	280	258	224	242	233	255	212	210	*168**	-20%
Latvia	558	559	532	516	442	407	419	316	254	218	179	-18%
Spain	5,517	5,347	5,399	4,741	4,442	4,104	3,823	3,100	2,714	2,478	*2,056**	-17%
Bulgaria	1,011	959	960	943	957	1,043	1,006	1,061	901	776	658	-15%
Romania	2,451	2,411	2,229	2,444	2,629	2,587	2,800	3,065	2,797	2,377	2,018	-15%
Hungary	1,239	1,429	1,326	1,296	1,278	1,303	1,232	996	822	740	638	-14%
Greece	1,880	1,634	1,605	1,670	1,658	1,657	1,612	1,553	1,456	1,258	*1,087**	-14%
Denmark	431	463	432	369	331	306	406	406	303	255	*221**	-13%
Ireland	411	376	335	374	396	365	338	279	238	212	186	-12%
Czech Republic	1,334	1,431	1,447	1,382	1,286	1,063	1,222	1,076	901	802	707	-12%
Slovakia	625	626	653	608	600	608	661	606	385	353	324	-8%
Italy	7,096	6,980	6,563	6,122	5,818	5,669	5,131	4,725	4,237	4,090	*3,800**	-7%
Portugal	1,670	1,668	1,542	1,294	1,247	969	974	885	840	845	785	-7%
Austria	958	956	931	878	768	730	691	679	633	552	523	-5%
Israel	542	525	445	467	437	405	382	412	314	352	341	-3%
Switzerland	544	513	546	510	409	370	384	357	349	327	320	-2%
Lithuania	706	697	709	752	773	760	740	499	370	299	297	-1%
France	8,162	7,655	6,058	5,530	5,318	4,703	4,620	4,275	4,273	3,992	*3,970**	-1%
Slovenia	278	269	242	274	257	262	293	214	171	138	141	2%
UK	3,598	3,581	3,658	3,368	3,337	3,300	3,056	2,718	2,337	1,905	*1,958***	3%
Luxembourg[3]	70	62	53	50	47	43	45	35	48	32	33	3%
The Netherlands [1]	1,083	1,069	1,088	881	817	811	791	750	720	640	661	3%
Belgium	1,486	1,306	1,214	1,162	1,089	1,069	1,067	944	943	840	*875**	4%
Poland	5,534	5,827	5,640	5,712	5,444	5,243	5,583	5,437	4,572	3,907	4,189	7%
Finland	433	415	379	375	379	336	380	344	279	272	*292**	7%
Germany	6,977	6,842	6,613	5,842	5,361	5,091	4,949	4,477	4,152	3,651	*4,002**	10%
Serbia	1,275	854	868	960	843	910	968	905	810	660	728	10%
Malta[3]	16	16	16	13	16	10	14	15	21	15	17	13%
Cyprus	98	94	97	117	102	86	89	82	71	60	71	18%
Sweden [2]	531	515	512	463	423	428	454	380	341	266	319	20%
Estonia	199	223	164	170	169	204	196	132	100	79	101	28%
PIN	56,988	55,612	52,536	49,541	47,297	45,084	44,559	40,978	36,564	32,601	31,665	-3%
EU27	54,352	53,410	50,397	47,346	45,384	43,157	42,592	39,049	34,879	31,052	30,108	-3%
EU15	40,303	38,869	36,382	33,119	31,431	29,581	28,337	25,550	23,514	21,288	20,768	-2%
EU10	10,587	11,171	10,826	10,840	10,367	9,946	10,449	9,373	7,667	6,611	6,664	1%
EU2	3,462	3,370	3,189	3,387	3,586	3,630	3,806	4,126	3,698	3,153	2,676	-15%

Table 1 (Fig. 1). Road deaths and percentage change in road deaths between 2010 and 2011
Source: National statistics provided by the PIN Panellists in each country.

** Provisional estimates used for 2011, as the final figures for 2011 are not yet available at the time of going to print.*
*** UK estimate based on 3% increase in killed in 2011 Q1-3 compared with 2010 Q1-3.*
(1) Figures have been corrected for police underreporting. In the Netherlands, the reported number of deaths is checked by Statistics Netherlands (CBS) and compared individually to the Death certificates and Court files of unnatural death
(2) The definition of road deaths changed in 2010 to exclude suicides. The time series was adjusted so figures for previous years exclude suicides as well.
(3) In Luxembourg and Malta the numbers of road deaths are small and thus subject to substantial annual fluctuation.

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2001-2011
Latvia	558	559	532	516	442	407	419	316	254	218	179	-68%
Spain	5,517	5,347	5,399	4,741	4,442	4,104	3,823	3,100	2,714	2,478	*2,056**	-63%
Lithuania	706	697	709	752	773	760	740	499	370	299	*297**	-58%
Ireland	411	376	335	374	396	365	338	279	238	212	186	-55%
Portugal	1,670	1,668	1,542	1,294	1,247	969	974	885	840	845	785	-53%
Luxembourg	70	62	53	50	47	43	45	35	48	32	33	-53%
France	8,162	7,655	6,058	5,530	5,318	4,703	4,620	4,275	4,273	3,992	*3,970**	-51%
Slovenia	278	269	242	274	257	262	293	214	171	138	141	-49%
Estonia	199	223	164	170	169	204	196	132	100	79	101	-49%
Denmark	431	463	432	369	331	306	406	406	303	255	*221**	-49%
Hungary	1,239	1,429	1,326	1,296	1,278	1,303	1,232	996	822	740	638	-49%
Slovakia	625	626	653	608	600	608	661	606	385	353	324	-48%
Czech Republic	1,334	1,431	1,447	1,382	1,286	1,063	1,222	1,076	901	802	707	-47%
Italy	7,096	6,980	6,563	6,122	5,818	5,669	5,131	4,725	4,237	4,090	*3,800**	-46%
UK	3,598	3,581	3,658	3,368	3,337	3,300	3,056	2,718	2,337	1,905	*1,958***	-46%
Austria	958	956	931	878	768	730	691	679	633	552	523	-45%
Serbia	1,275	854	868	960	843	910	968	905	810	660	728	-43%
Germany	6,977	6,842	6,613	5,842	5,361	5,091	4,949	4,477	4,152	3,651	*4,002**	-43%
Greece	1,880	1,634	1,605	1,670	1,658	1,657	1,612	1,553	1,456	1,258	*1,087**	-42%
Switzerland	544	513	546	510	409	370	384	357	349	327	320	-41%
Belgium	1,486	1,306	1,214	1,162	1,089	1,069	1.067	944	943	840	*875**	-41%
Sweden [2]	531	515	512	463	423	428	454	380	341	266	319	-40%
The Netherlands [1]	1.083	1.069	1.088	881	817	811	791	750	720	640	661	-39%
Norway	275	310	280	258	224	242	233	255	212	210	*168**	-39%
Israel	542	525	445	467	437	405	382	412	314	352	341	-37%
Bulgaria	1,011	959	960	943	957	1,043	1,006	1,061	901	776	658	-35%
Finland	433	415	379	375	379	336	380	344	279	272	*292**	-33%
Cyprus	98	94	97	117	102	86	89	82	71	60	71	-28%
Poland	5,534	5,827	5,640	5,712	5,444	5,243	5,583	5,437	4,572	3,907	4,189	-24%
Romania	2,451	2,411	2,229	2,444	2,629	2,587	2,800	3,065	2,797	2,377	2,018	-18%
Malta	16	16	16	13	16	10	14	15	21	15	17	6%
PIN	56,988	55,612	52,536	49,541	47,297	45,084	44,559	40,978	36,564	32,601	31,665	-44%
EU27	54,352	53,410	50,397	47,346	45,384	43,157	42,592	39,049	34,879	31,052	30,108	-45%
EU15	40,303	38,869	36,382	33,119	31,431	29,581	28,337	25,550	23,514	21,288	20,768	-48%
EU10	10,587	11,171	10,826	10,840	10,367	9,946	10,449	9,373	7,667	6,611	6,664	-37%
EU2	3,462	3,370	3,189	3,387	3,586	3,630	3,806	4,126	3,698	3,153	2,676	-23%

Table 2 (Fig. 4). Road deaths and percentage change in road deaths between 2001 and 2011
Source: National statistics provided by the PIN Panellists in each country.

** Provisional estimates used for 2011, as the final figures for 2011 are not yet available at the time of going to print.*
*** UK estimate based on 3% increase in killed in 2011 Q1-3 compared with 2010 Q1-3.*
[1] Figures have been corrected for police underreporting. In the Netherlands, the reported number of deaths is checked by Statistics Netherlands (CBS) and compared individually to the Death certificates and Court files of unnatural death
[2] The definition of road deaths changed in 2010 to exclude suicides. The time series was adjusted so figures for previous years exclude suicides as well.

	2011			2001		
Country	Road Deaths	Population	Road Deaths per Million Population	Road Deaths	Population	Road Deaths per Million Population
UK	*1,958***	62,435,709	**31**	3,598	58,999,781	**61**
Sweden (SE)	319	9,415,570	**34**	531	8,882,792	**60**
Norway (NO)	*168**	4,920,305	**34**	275	4,503,436	**61**
The Netherlands (NL)	661	16,655,799	**40**	1,083	15,987,075	**68**
Denmark (DK)	*221**	5,560,628	**40**	431	5,349,212	**81**
Switzerland (CH)	320	7,870,134	**41**	544	7,204,055	**76**
Malta (MT)	17	417,617	**41**	16	391,415	**41**
Ireland (IE)	186	4,480,858	**42**	411	3,832,783	**107**
Israel (IL)	341	7,837,500[1]	**44**	542	6,508,800[1]	**83**
Spain (ES)	*2,056**	46,152,926	**45**	5,517	40,476,723	**136**
Germany (DE)	*4,002**	81,751,602	**49**	6,977	82,259,540	**85**
Finland (FI)	*292**	5,375,276	**54**	433	5,181,115	**84**
Slovakia (SK)	324	5,435,273	**60**	625	5,378,783	**116**
Austria (AT)	523	8,404,252	**62**	958	8,020,946	**119**
Italy (IT)	*3,800**	60,626,442	**63**	7,096	56,960,692	**125**
France (FR)	*3,970**	63,127,768	**63**	8,162	59,266,572	**138**
Hungary (HU)	638	9,985,722	**64**	1,239	10,200,298	**121**
Luxembourg (LU)	33	511,840	**64**	70	439,000	**159**
Czech Republic (CZ)	707	10,532,770	**67**	1,334	10,266,546	**130**
Slovenia (SI)	141	2,050,189	**69**	278	1,990,094	**140**
Portugal (PT)	785	10,636,979	**74**	1,670	10,256,658	**163**
Estonia (EE)	101	1,340,194	**75**	199	1,366,959	**146**
Belgium (BE)	*875**	10,951,266	**80**	1,486	10,263,414	**145**
Latvia (LV)	179	2,229,641	**80**	558	2,364,254	**236**
Bulgaria (BG)	658	7,504,868	**88**	1,011	8,149,468	**124**
Cyprus (CY)	71	804,435	**88**	98	697,549	**140**
Lithuania (LT)	*297**	3,244,601	**92**	706	3,486,998	**202**
Romania (RO)	2,018	21,413,815	**94**	2,451	22,430,457	**109**
Greece (EL)	*1,087**	11,309,885	**96**	1,880	10,931,206	**172**
Serbia (RS)	728	7,276,195	**100**	1,275	7,504,739	**170**
Poland (PL)	4,189	38,200,037	**110**	5,534	38,253,955	**145**
PIN	31,665	528,460,096	**60**	56,988	507,805,315	**112**
EU27	30,108	500,555,962	**60**	54,352	482,084,285	**113**
EU15	20,768	397,396,800	**52**	40,303	377,107,509	**107**
EU10	6,664	74,240,479	**90**	10,587	74,396,851	**142**
EU2	2,676	28,918,683	**93**	3,462	30,579,925	**113**

Table 3 (Fig. 5). Road deaths per million inhabitants in 2011 (with road deaths per million inhabitants in 2001 for comparison)

Source: National statistics provided by the PIN Panellists in each country, completed with EUROSTAT for population figures.

** Provisional estimates used for 2011, as the final figures for 2011 are not yet available at the time of going to print.*

*** UK estimate based on 3% increase in killed in 2011 Q1-3 compared with 2010 Q1-3.*

[1] National population data.

Country	Average number of road deaths	Average number of vehicle-km (in millions)[1]	Deaths per billion vehicle-km	Time period covered
Sweden	309	76,286	**4**	*2009-2011*
Great Britain	2,203	502,935	**4**	*2008-2010*
Ireland	212	47,850	**4**	*2009-2011*
Finland	281	53,875	**5**	*2009-2011*
Norway	226	42,490	**5**	*2008-2010*
Switzerland	332	62,174	**5**	*2009-2011*
The Netherlands	703	129,381	**5**	*2008-2010*
Germany	4,093	698,000	**6**	*2008-2010*
Denmark	321	46,174	**7**	*2008-2010*
Israel	359	48,947	**7**	*2008-2010*
France	4,389	554,833	**8**	*2007-2009*
Austria	621	75,151	**8**	*2008-2010*
Italy	4,042	442,593	**9**	*2009-2011*
Belgium	909	98,104	**9**	*2008-2010*
Slovenia	174	17,841	**10**	*2008-2010*
Portugal	857	73,669	**12**	*2008-2010*
Estonia	104	8,832	**12**	*2008-2010*
Czech Republic	926	53,968	**17**	*2008-2010*
Latvia	217	10,951	**20**	*2009-2011*
Greece	1,583	76,747	**21**	*2007-2008*
Poland	5,005	183,642	**27**	*2008-2009*

Table 4 (Fig. 6). Number of road deaths per billion vehicle kilometres driven

[1] Data provided by the PIN panellists. For additional information on the method for estimating the number of vehicle-km please see background tables for 6th PIN Report at http://www.etsc.eu/PIN-publications.php

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Average annual % change
Austria	8,207	8,043	7,984	7,591	6,922	6,774	7,147	6,783	6,652	6,370	6,397	-3%
Belgium[1]	8,949	8,226	8,083	6,913	7,272	6,999	6,997	6,782	6,647	5,984	n/a	-4%
Bulgaria	7,990	8,099	8,488	9,308	10,112	10,215	9,827	9,827	8,674	8,080	8,301	0%
Cyprus[1]	1,015	945	900	960	741	730	717	661	647	586	561	-6%
Czech Republic[1]	5,378	5,375	5,125	4,711	4,237	3,883	3,861	3,725	3,725	2,823	3,092	-6%
Denmark[1]	3,946	4,088	3,868	3,561	3,072	2,911	3,138	2,831	2,498	2,063	n/a	-7%
Estonia[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Finland[2]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
France[1][3]	26,192	24,091	19,207	17,435	39,811	40,662	38,615	34,965	33,323	29,563	n/a	-6%
Germany[1]	95,040	88,382	85,577	80,801	76,952	74,502	75,443	70,644	68,567	62,620	n/a	-4%
Greece[1]	3,238	2,608	2,348	2,395	2,270	2,021	1,821	1,872	1,676	1,709	*1,634**	-6%
Hungary	7,920	8,360	8,299	8,523	8,320	8,431	8,155	7,227	6,442	5,671	5,152	-4%
Ireland[1]	1,417	1,150	1,009	877	1,021	907	860	835	640	592	*467**	-9%
Israel	2,644	2,419	2,416	2,455	2,363	2,305	2,095	2,063	1,741	1,683	1,340	-6%
Italy[4]	134,383	136,257	128,331	123,544	120,549	119,864	117,306	111,250	107,540	105,957	n/a	-3%
Latvia	n/a	n/a	n/a	1,222	810	630	638	791	681	569	531	-8%
Lithuania	7,103	7,427	7,263	7,877	8,466	8,334	8,042	5,818	4,426	4,230	*3,975**	-6%
Luxembourg[1]	352	351	331	297	307	319	286	290	288	266	317	-2%
Malta	262	314	247	264	257	277	246	248	199	211	235	-3%
The Netherlands[5]	16,000	16,100	16,500	16,200	16,000	15,400	16,600	17,600	18,800	19,100	n/a	2%
Norway	1,043	1,151	994	980	977	940	879	867	751	*673**	*644**	-5%
Poland	19,311	18,831	17,251	17,403	15,790	14,659	16,053	16,042	13,689	11,491	12,585	-4%
Portugal[1]	5,797	4,770	4,659	4,190	3,762	3,483	3,116	2,606	2,624	2,637	2,436	-8%
Romania	6,053	5,955	5,581	5,750	5,868	5,766	7,071	9,380	9,091	8,476	8,768	6%
Serbia	5,777	4,314	4,551	4,864	4,401	4,778	5,318	5,197	4,638	3,893	3,777	-2%
Slovakia[1]	2,367	2,213	2,163	2,157	1,974	2,032	2,036	1,806	1,408	1,207	1,168	-7%
Slovenia	2,481	1,561	1,399	1,398	1,292	1,259	1,295	1,100	1,061	880	919	-7%
Spain[1]	26,566	26,156	26,305	21,805	21,859	21,382	19,295	16,488	13,923	11,995	*11,193**	-9%
Sweden[1]	10,636	11,022	11,166	10,614	10,768	9,891	9,710	9,452	8,997	7,724	n/a	-3%
Switzerland[1]	6,194	5,931	5,862	5,528	5,059	5,066	5,235	4,780	4,708	4,458	4,437	-3%
UK[1]	38,792	37,502	34,995	32,313	30,027	28,673	28,871	27,024	25,725	23,552	*23,313***	-5%
EU 27	439,395	427,826	407,079	388,109	398,459	390,003	387,146	366,047	347,943	324,356	324,055	-3%
EU same def.[1]	229,685	216,879	205,736	189,029	204,073	198,395	194,766	179,981	170,688	153,321	152,135	-4%

Table 5 (Fig. 7). Serious injuries and annual average percentage change in serious injuries over the 2001-2011 period

** Provisional data*

***UK estimate based on 1% decrease in seriously injured in 2011 Q1-3 compared with 2010 Q1-3.*

[1] Countries using a comparable definition of serious injuries: BE, CY, CZ, DK, FR, DE, EL, IE, LU, PT, SK, ES, SE, UK.

[2] Separate statistics for serious and slight injuries are n/a.

[3] Change of definition from in-patient for 6 days to in-patient for 24 hours in 2005. Average annual percentage change 2005-2010 in Fig. 7 and Fig. 8.

[4] Separate statistics on serious and slight injuries are n/a. It was estimated from sample studies made a regional level that serious injuries represent around 35% of the total recorded injuries.

[5] Data for the Netherlands rounded off to nearest hundred.

Country	Definition of a seriously injured person in a road collision
Austria	Whether an injury is severe or slight is determined by §84 of the Austrian criminal code. A severe injury is one that causes a health problem or occupational disability longer than 24 days, or one that "causes personal difficulty". An injury or health problem that "causes personal difficulty" is one that affects an "important organ", if it results in a "health handicap", if the "healing process is uncertain", or if it leads to the fear of "additional effects". Police records
Belgium*	Hospitalised more than 24 hours. But in practice no communication between police and hospitals so in most cases allocation is made by the police. Police records
Bulgaria	n/a. Police records
Cyprus*	Hospitalised for at least 24 hours. Police records
Czech Republic*	No official definition, but common approach is hospitalised for at least 24 hours. Police records
Denmark*	All injuries except "slight". Police records
Estonia	Separate statistics of serious and slight injuries are n/a
Finland	Separate statistics of serious and slight injuries are n/a
France	Until 2004: hospitalised for at least 6 days. From 2005: hospitalised for at least 24 hours. Police records. People injured are asked to go to the police to fill in information about the collision, in particular if they spent at least 24 hours as in-patient.
Germany*	Hospitalised for at least 24 hours
Greece*	Injury and injury severity are estimated by police officers. It is presumed that all persons who spent at least one night at the hospital are recorded as seriously injured persons. Police records
Hungary	Injuries which necessitated hospital care or causing health problems for at least 8 days. Police records
Ireland*	Hospitalised for at least 24 hours as an in-patient, or any of the following injuries whether or not detained in hospital: fractures, concussion, internal injuries, crushing, severe cuts and lacerations, several general shock requiring medical treatment. Police records
Israel*	Hospitalised more than 24 hours as in-patient. Police records
Italy	Separate statistics on seriously and slightly injuries are n/a. It was estimated from sample studies made at the regional level that serious injuries represent around 35% of the total recorded injuries.
Latvia	From 2004: hospitalised more than 24 hours as in-patient. Police records
Lithuania	Separate statistics on seriously and slightly injuries are n/a.
Luxembourg*	Hospitalised for at least 24 hours as in-patient. Police records
Malta	Categorisation as "serious" is made by the police. Police records
The Netherlands	MAIS=2 or higher. The Abbreviated Injury Scale (AIS) is a specialised trauma classification of injuries, ranging from 1 (minor injuries) to 6 (fatal injuries). As one person can have more than one injury, the Maximum Abbreviated Injury Score (MAIS) is the maximum AIS of all injury diagnoses for a person.
Norway	Very serious injury: Any injury that is life-threatening or results in permanent impairment. Serious injury: Any injury from a list of specific injuries; these would normally require admission to hospital as an in-patient. Police records
Poland	Serious injury: Serious disability, serious disease, a life threatening incurable or chronic disease, permanent mental disease, complete or substantial incapacity to work or a permanent or substantial scarring or disfiguration of the body and injuries such as fractures, damage to internal organs, serious cuts or lacerations. Police records
Portugal*	Hospitalised for at least 24 hours. Police records.
Romania	Injuries requiring hospitalisation or any of the following injuries whether or not they are detained in hospital: Organ injuries, permanent physical or psychological disability, body disfiguration, abortion, fractures, concussions, internal wounds, serious cuts or broken parts, or severe general shock which requires medical care and injuries causing death 30 days after accident. Police records.
Serbia	Categorisation of an injury as a "serious injury" is always made on the basis of expert assessment given by doctors during admission to hospital, during hospitalization or after the hospitalization. Police records.
Slovakia*	Hospitalised for at least 24 hours. Police records.
Slovenia	Hospitalised for at least 24 hours. Police records
Spain*	Hospitalised for at least 24 hours. Police records
Sweden*	Hospitalised more than 24 hours. Hospital records
Switzerland*	Hospitalised for at least 24 hours or if the injury prevented the person from doing its daily activity for 24 hours. Police records.
UK*	Hospitalised for at least 24 hours or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushing, burns (excluding friction burns), severe cuts and lacerations, severe general shock requiring medical treatment and injuries causing death 30 or more days after the accident. An injured casualty is recorded as seriously or slightly injured by the police on the basis of the information available within a short time of the accident. This generally will not reflect the results of medical examination.

Table 6. Definition of a seriously injured person

National definition provided by the PIN Panellists in each country.

* Group of countries considered as using similar definitions of serious injuries, spending at least one night in hospital as an in-patient or a close variant of this. The definition may include also a quite wide list of injuries and the allocation of "serious" is made by the police officer at the scene. Errors in the categorisation cannot be excluded.

Annex - Chapter 2

Table 7: Questionnaire on Road Safety Management

PIN Panellists were asked to respond 'No', 'Partly' or 'Yes' to the following set of questions and add comments when needed.

Part 1: Common questions with DaCoTA WP1 Road Safety Management	
Q1.	Has a national road safety vision been set in your country? * If so, what is it?
Q2.	Has a national long-term road safety strategy been set in your country? If so, what is it?
Q3a.	Has a national quantitative road safety target been set in your country for reducing the number of deaths? * If so, is it different than the EU target of reducing road deaths by 50% by 2020? If it is different, what is it?
Q3b.	Has a national quantitative road safety target been set in your country for reducing the number of people seriously injured? * If so, what is it?
Q3c.	Have any other quantitative road safety targets been set in your country? *
Q4.	Has a national road safety programme or plan been formulated and adopted in your country? * If so, is this plan still current?
Q5a.	Is there a budget dedicated to the implementation of your national road safety programme or plan? * If so, how much is it per year?
Q5b.	Is the budget seen as being adequate to make your country's targets achievable? *
Q5c.	Have there been any changes since 2009 to the budget allocated to roads policing in your country?
Q6a.	Is there a lead agency or structure bearing responsibility for road safety policy-making in your country? * If so, please name it.
Q6b.	Is there a lead agency that is empowered to co-ordinate the road safety activities of the main actors involved in advancing road safety in your country? * If so, please name it.
Q7a.	Does regular quantitative monitoring of your country's road safety performance take place? * If so, is it done on an annual or other basis?
Q7b.	Are the results of this monitoring published periodically? * If so, how is it done?
Q8.	Does a regular evaluation of the efficiency of the road safety measures or interventions implemented in your country take place? * If so, who performs the evaluation? What measure of efficiency is used?
Q9.	Is there regular reporting on the road safety measures and interventions implemented in your country? * If so, which body receives the reporting? On which issues?
Q10a.	Are the attitudes of people towards road safety measures being measured nationally? * If so, is it done on an annual or other basis?
Q10b.	Are the attitudes of people towards behaviour of road users being measured nationally? *
Q10c.	Are behaviours of road users being measured nationally? * Which behaviours are covered by the surveys?

** Questions included in Section 1, 2 and 3 for the allocation of points.*

Table 7: Questionnaire on Road Safety Management

PIN Panellists were asked to respond 'No', 'Partly' or 'Yes' to the following set of questions and add comments when needed.

Part 2: Additional PIN questions
(mainly from ETSC Methodological Approach to national road safety policies and DaCoTA)

Q11.	In what ways are actors other than governmental organisations involved in advancing road safety in your country?
Q12.	How is the legal framework for use of the roads kept under review in your country?
Q13.	Is there at least one research institute or university department in your country helping to choose interventions scientifically and establish transparent and trusted procedures for monitoring and evaluation? *
Q14.	Are the results of research seen to influence policy-making and implementation in your country? *
Q15.	**Enforcement of laws requiring safety-related behaviour**
Q15a.	Please provide annual numbers of speed tickets since 2007 (both Police roadside checks and from speed cameras).*
Q15b.	Please provide annual numbers of Police roadside alcohol breath tests since 2007.*
Q15c.	Please provide annual numbers of Police checks for drug driving since 2007.
Q15d.	Please provide annual numbers of seat belt checks since 2007.
Q16.	Are there issues in your country concerning emergency services and trauma management to mitigate injury in collisions?
Q17a.	Are the collision and casualty data in your country accessible to all interested people and organisations? *
Q17b.	Do these data distinguish which collisions and casualties occur in course of work or travel to or from work? *
Q17c.	What do you see as the most important other road safety performance indicators that are measured in your country?
Q17d.	What do you see as the most important indicators of exposure to risk on the roads that are measured in your country?
Q18.	Are there arrangements in your country for exchange of knowledge about good practice among road safety actors? And sharing of knowledge with other countries? *
Q19a.	Are there facilities for initial training for road safety professionals in all relevant disciplines? *
Q19b.	Is there in-service training for road safety professionals in all relevant disciplines? *
Q20.	For which types of road in your country are the requirements of the EU Infrastructure Safety Directive being adopted?*
Q21.	Are the main roads in your country the subject of systematic road safety assessment?*
Q22.	Are government authorities in your country seen to show leadership in: a. Purchase or renting of safe vehicles? * b. Fitment of non-mandatory safety equipment in vehicles they own or rent? * c. Establishing travel plan including safety for employees? * d. Requiring their contractors to do any of these? *
Q23.	Would you like to mention any specific ways in which road safety is: a. The subject of specific efforts to build political support and commitment? b. Considered holistically with social inclusion, sustainability and mobility? c. Considered as a public health problem?

** Questions included in Section 1, 2 and 3 for the allocation of points.*

Country answers are available in the Background Tables at http://www.etsc.eu/PIN-publications.php

Country	BAC for Novice drivers	BAC for commercial drivers	BAC for all other drivers
Austria	0.1	0.1	0.5
Belgium	0.5	0.5	0.5
Bulgaria	0.5	0.5	0.5
Cyprus	0.2 (planned)	0.2 (planned)	0.5
Czech Republic	0.0	0.0	0.0
Denmark	0.5	0.5	0.5
Estonia	0.2	0.2	0.2
Finland	0.5	0.5	0.5
France	0.5	0.5 (0.2 for bus drivers)	0.5
Germany	0.0	0.0	0.5
Greece	0.2	0.2	0.5
Hungary	0.0	0.0	0.0
Ireland	0.2	0.2	0.5
Italy	0.0	0.0	0.5
Latvia	0.2	0.5	0.5
Lithuania	0.2	0.2	0.4
Luxembourg	0.1	0.1	0.5
Malta	0.8	0.8	0.8
The Netherlands	0.2	0.2	0.5
Poland	0.2	0.2	0.2
Portugal	0.5	0.5	0.5
Romania	0.0	0.0	0.0
Slovakia	0.0	0.0	0.0
Slovenia	0.0	0.0	0.2
Spain	0.3	0.3	0.5
Sweden	0.2	0.2	0.2
UK	0.8	0.8	0.8

Table 8: Legal drink driving limits (Blood Alcohol Concentration in g/l)
Source: ETSC (2012), Drink driving: Towards Zero Tolerance.
Last update April 2012.

	Seat belt tickets					Seat belt tickets per 1,000 population				
Country	2011	2010	2009	2008	2007	2011	2010	2009	2008	2007
IL	n/a	262,559	266,746	n/a	n/a	n/a	34	35	n/a	n/a
RO	565,467	590,038	577,893	491,677	394,964	26	27	27	23	18
CY	20,865	20,657	17,879	23,908	15,463	26	26	22	30	20
SI	52,750	63,685	75,654	80,801	85,363	26	31	37	40	42
AT	147,016	136,200	144,979	156,698	141,339	17	16	17	19	17
LV	35,601	35,520	33,436	26,986	23,135	16	16	15	12	10
BE	n/a	121,730	116,886	112,970	115,611	n/a	11	11	11	11
PL	371,388	396,232	378,355	314,013	n/a	10	10	10	8	n/a
EE	10,648	18,412	15,329	30,050	n/a	8	14	11	22	n/a
DK	41,168	43,110	45,633	39,861	40,622	7	8	8	7	7
NL	108,093	187,611	228,270	200,934	278,125	6	11	14	12	17
LU	2,964	3,103	3,498	n/a	n/a	6	6	7	n/a	n/a
NO	25,767	30,043	31,707	29,006	34,660	5	6	7	6	7
FI	27,144	24,163	25,567	26,589	24,627	5	5	5	5	5
FR	n/a	280,803	350,201	382,200	406,982	n/a	4	6	6	7
PT	43,948	43,297	40,836	50,337	61,256	4	4	4	5	6
SE	33,778	37,739	37,842	36,218	39,443	4	4	4	4	4
IE	15,645	17,370	19,367	29,095	n/a	4	4	4	7	n/a
ES[1]	n/a	157,965	230,281	208,066	165,250	n/a	3	5	5	4
EL	37,120	49,703	77,274	86,353	107,112	3	4	7	8	10
LT	9,014	25,654	22,722	16,914	78,143	3	8	7	5	23
GB[2]	n/a	n/a	203,400	227,000	220,100	n/a	n/a	3	4	4
IT	132,455	140,819	154,884	186,170	191,127	2	2	3	3	3
SK	8,591	13,186	14,093	21,157	18,061	2	2	3	4	3
HU	3,968	51	n/a	125,856	107,063	0	0	n/a	13	11
BG			n/a					n/a		
CZ			n/a					n/a		
CH			n/a					n/a		
DE			n/a					n/a		
MT			n/a					n/a		

Table 9: Number of seat belt tickets per 1000 population

[1] Data not available from Basque Country, Catalonia and urban areas.

[2] England and Wales only.

	Number of drug driving offences					Drug driving offences per 100,000 inhabitants				
Country	2011	2010	2009	2008	2007	2011	2010	2009	2008	2007
AT	n/a	1,094	940	949	909	n/a	13.1	11.3	11.4	11.0
BE	n/a	2,236	2,588	2,595	2,167	n/a	20.6	24.1	24.3	20.5
BG			n/a					n/a		
CY			n/a					n/a		
CZ			n/a					n/a		
DK	n/a	1,653	1,485	n/a	n/a	n/a	29.9	26.9	n/a	n/a
EE			n/a					n/a		
FI	n/a	3,130	3,134	3,077	3,276	n/a	58.5	58.8	58.1	62.1
FR	n/a	537	560	575	533	n/a	0.9	0.9	0.9	0.9
DE			n/a					n/a		
EL			n/a					n/a		
HU	n/a	150	461	154	151	n/a	1.5	4.6	1.5	1.5
IE			n/a					n/a		
IL			n/a					n/a		
IT	3,510	4,267	4,383	4,564	4,515	5.8	7.1	7.3	7.7	7.6
LV	135	134	181	340	347	6.1	6.0	8.0	15.0	15.2
LT			n/a					n/a		
LU			n/a					n/a		
MT			n/a					n/a		
NL	No detection method in operation					No detection method in operation				
NO[1]		4,721	4,590	4,525	4,339	n/a	97.2	95.6	95.5	92.7
PL[2]		3,520	16,760	43,494		n/a	9.2	43.9	114.1	n/a
PT		100	120	121		n/a	0.9	1.1	1.1	n/a
RO			n/a					n/a		
SK	n/a	6	4	6	9	n/a	0.1	0.1	0.1	0.0
SI	n/a	1,427	1,705	1,600	1,774	n/a	69.7	83.9	79.6	88.2
ES[3]	361	12	178	84	n/a	0.8	0.0	0.4	0.2	n/a
SE	12,675	12,586	12,133	12,333	11,323	134.6	134.7	131.1	134.3	124.2
CH			n/a					n/a		
UK			n/a					n/a		

Table 10: Annual numbers of drug driving offences

[1] Number of positive tests at forensic laboratory

[2] Number of Police checks.

[3] Data not available from Basque Country, Catalonia and urban areas.

Annex - Chapter 3

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average annual % change 2001-2010
Portugal	606	552	488	433	404	273	275	230	234	195	-12.3%
Spain	1,927	1,877	1,942	1,655	1,487	1,345	1,255	960	759	625	-11.9%
Latvia	166	144	169	141	120	107	109	95	65	48	-11.7%
Estonia	63	77	55	41	50	61	73	41	35	18	-9.4%
Slovenia	118	93	87	88	101	107	116	69	52	33	-9.1%
Luxembourg	33	21	17	21	19	14	13	12	10	15	-9.1%
Germany	2,557	2,520	2,362	2,043	1,771	1,661	1,613	1,493	1,301	1,128	-8.7%
Switzerland	153	159	178	179	124	114	113	97	105	69	-8.5%
Italy	2,226	2,235	2,130	1,959	1,891	1,719	1,578	1,348	1,145	1,078	-8.3%
The Netherlands	338	375	338	268	219	200	230	200	210	156	-8.2%
France	3,204	2,902	2,228	2,146	2,075	1,735	1,711	1,616	1,606	1,468	-7.9%
Belgium*	540	492	429	428	361	363	382	327	265	n/a	-7.3%
Sweden	178	171	159	143	128	139	141	114	105	80	-7.1%
Czech Republic*	425	465	465	439	427	319	375	333	242	n/a	-7.1%
Austria	335	303	294	284	260	222	234	215	186	167	-7.0%
Israel	201	202	155	166	159	152	141	145	98	111	-6.6%
Ireland	196	154	139	161	190	163	128	127	109	96	-6.0%
Denmark	133	163	124	118	107	107	108	118	96	69	-6.0%
UK*	1,305	1,340	1,382	1,280	1,290	1,262	1,144	978	855	n/a	-5.3%
Hungary	403	363	341	337	350	317	382	349	218	225	-5.0%
Norway	100	124	93	104	87	76	70	88	78	73	-4.5%
Cyprus	41	44	39	48	52	47	39	33	39	24	-4.3%
Greece	683	535	592	607	608	587	565	502	479	399	-4.0%
Finland	145	118	98	131	108	118	129	102	100	85	-3.4%
Poland	1,697	1,816	1,683	1,617	1,700	1,616	1,776	1,744	1,449	1,236	-2.4%
Romania	644	581	543	627	640	636	721	797	727	551	1.5%
Malta	n/a	n/a	n/a	n/a	10	5	6	5	5	6	
Slovakia	n/a	n/a	n/a	n/a	166	173	167	159	83	n/a	
EU [1]	18,669	17,341	16,104	15,015	14,534	13,296	13,270	11,967	10,375	9,147	7.0%
PIN	19,123	17,826	16,530	15,464	14,904	13,638	13,594	12,297	10,656	9,400	

Table 11 (Fig. 12a): Road deaths among young people (15-30) and average annual percentage change between 2001 and 2010.

Source: CARE when available, completed or updated by the PIN Panellists.

**2010 data not available, 2009 figure used for 2010 in calculating the annual average percentage change.*

No data was received from Bulgaria. Lithuania: the data do not match the age groups used in this report.

[1] EU27 except Lithuania and Bulgaria.

Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Annual average % change 2001-2010
Latvia	309	266	310	257	218	194	198	173	120	91	-11.6%
Spain	195	191	198	169	153	139	131	101	81	69	-11.2%
Portugal	250	229	205	184	174	120	123	105	110	94	-10.8%
Luxembourg	371	236	193	234	209	150	137	124	101	148	-10.6%
Estonia	201	245	174	128	155	189	227	128	111	58	-9.4%
Switzerland	108	112	125	125	86	79	77	65	69	45	-9.3%
Germany	166	165	155	134	115	107	104	97	85	74	-8.7%
Sweden	103	98	91	82	73	78	77	61	55	41	-8.3%
Slovenia	255	202	190	193	225	240	264	161	122	79	-8.1%
Netherlands	103	116	105	85	69	64	73	63	66	48	-8.1%
France	254	231	178	172	167	139	137	129	128	117	-7.9%
Belgium*	261	239	209	209	176	176	183	155	124	n/a	-7.7%
Austria	206	188	183	176	160	135	142	129	111	99	-7.5%
Israel	116	117	89	94	89	85	78	80	53	60	-7.4%
Italy	189	195	190	177	173	160	149	128	110	104	-7.0%
Ireland	197	152	136	157	183	152	116	114	101	93	-6.8%
Cyprus	244	260	225	268	278	243	197	164	192	118	-6.6%
UK*	108	111	115	105	105	101	90	75	65	n/a	-6.5%
Denmark	125	155	119	115	105	105	107	115	92	65	-5.8%
Czech Rep.*	167	184	186	176	175	133	159	142	105	n/a	-5.8%
Norway	107	134	101	113	95	82	75	92	80	73	-5.2%
Finland	141	115	95	126	103	112	122	96	94	79	-3.9%
Hungary	167	151	143	143	149	138	170	159	101	106	-3.5%
Poland	174	184	170	163	171	163	181	180	152	132	-2.0%
Greece	264	211	238	248	254	250	246	223	218	186	-1.0%
Romania	111	106	99	114	116	117	135	153	143	111	2.9%
Slovakia	n/a	n/a	n/a	n/a	116	122	119	115	61	n/a	
Malta	n/a	n/a	n/a	n/a	106	53	64	53	52	63	
EU (1)	178	167	156	146	141	129	129	117	102	91	-6.7%
PIN	176	165	154	144	139	127	129	115	100	89	

Table 12 (Fig. 12b): Road deaths among young people (15-30) per million young inhabitants and average annual percentage change in their road mortality between 2001 and 2010.

Source: CARE when available, completed or updated by the PIN Panellists.

**2010 data not available, 2009 figure used for 2010 in calculating the annual average percentage change.*

No data was received from Bulgaria. Lithuania: the data do not match the age groups used in this report.

(1) EU27 except Lithuania and Bulgaria.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Deaths among 15-17	1,940	1,793	1,600	1,515	1,556	1,518	1,482	1,371	1,360	1,249
Deaths among 18-24	10,108	9,471	8,095	7,511	7,308	6,719	6,616	6,673	6,565	6,516
Deaths among 25-30	5,769	5,342	4,996	4,646	4,808	4,450	4,556	4,547	4,432	4,500
Deaths among females 15-30	3,412	3,180	2,773	2,721	2,683	2,490	2,434	2,520	2,441	2,355
Deaths among males 15-30	14,405	13,427	11,918	10,951	10,989	10,196	10,221	10,070	9,915	9,911
Total road deaths	**44,726**	**42,140**	**38,608**	**36,700**	**36,642**	**34,868**	**34,763**	**34,552**	**34,151**	**33,898**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Deaths among 15-17	1,256	1,144	1,159	1,050	1,056	928	902	765	713	605
Deaths among 18-24	6,285	5,943	5,462	5,156	4,854	4,346	4,112	3,644	3,266	2,964
Deaths among 25-30	4,309	4,150	3,741	3,427	3,237	2,974	2,879	2,437	2,164	1,984
Deaths among females 15-30	2,311	2,141	1,889	1,750	1,697	1,475	1,363	1,258	1,094	965
Deaths among males 15-30	9,538	9,096	8,473	7,883	7,450	6,773	6,530	5,587	5,049	4,587
Total road deaths	**33,287**	**31,999**	**29,731**	**27,220**	**26,023**	**24,430**	**23,330**	**20,944**	**19,287**	**17,675**

Table 13 (Fig. 13) Reduction in road deaths since 1991 in the EU15 (except Germany) among people aged 15-17 (purple line), 18-24 (orange line), 25-30 (green line), among males aged 15 to 30 (blue line) and females aged 15-30 (pink line) with reduction in total road deaths for comparison.

Source: CARE database (except 2010: PIN data as provided by Panellists).
Note: Data for Germany are available in CARE since 2000 only.

Country	Change in mortality among young people	Change in mortality for the rest of the population	Difference
Luxembourg	-10.6%	-7.0%	3.6%
Switzerland	-9.3%	-5.9%	3.4%
Slovenia	-8.1%	-4.8%	3.3%
The Netherlands	-8.1%	-5.1%	3.0%
Latvia	-11.6%	-8.7%	2.9%
Portugal	-10.8%	-7.9%	2.9%
Belgium*	-7.7%	-4.9%	2.9%
Germany	-8.7%	-5.9%	2.8%
Sweden	-8.3%	-6.2%	2.1%
Estonia	-9.4%	-7.7%	1.7%
Spain	-11.2%	-9.6%	1.6%
Norway	-5.2%	-3.6%	1.6%
Austria	-7.5%	-6.0%	1.5%
Denmark	-5.8%	-4.5%	1.3%
Israel	-7.0%	-6.3%	1.0%
Italy	-7.0%	-6.7%	0.3%
France	-7.9%	-8.0%	-0.1%
Czech Republic*	-5.8%	-6.0%	-0.2%
Cyprus	-6.6%	-6.9%	-0.2%
UK*	-6.5%	-6.9%	-0.5%
Greece	-2.0%	-3.1%	-1.1%
Romania	2.9%	1.8%	-1.1%
Finland	-3.9%	-5.3%	-1.4%
Ireland	-6.8%	-8.3%	-1.4%
Poland	-2.0%	-3.4%	-1.4%
Hungary	-3.5%	-6.5%	-3.0%
EU	-6.7%	-5.7%	1.0%
PIN	-6.7%	-5.7%	1.0%

Table 14 (Fig. 14): Amount by which the average annual percentage reduction in mortality among young people (15-30) exceeds the average annual percentage reduction for the rest of the population over the period 2001-2010.

Source: CARE when available, completed or updated by the PIN Panellists.

**2010 data not available, 2009 figure used for 2010 in calculating the annual average percentage change.*

(1) EU27 except Lithuania, Bulgaria and Malta. In Malta numbers of young people killed are below 10.

Country	Deaths among young people	Young inhabitants	Road mortality for young people	Deaths at all other ages	Population all other ages	Road mortality at all other ages
SE	100	1,895,593	**53**	229	7,364,392	**31**
NL	189	3,197,917	**59**	515	13,290,808	**39**
CH	90	1,515,589	**60**	254	6,178,129	**41**
IL	118	1,831,950	**64**	251	5,572,950	**45**
MT	6	94,871	**67**	10	315,699	**36**
UK*	992	12,937,653	**77**	1,711	48,251,810	**35**
NO	80	977,329	**82**	146	3,820,878	**38**
ES	781	9,296,333	**84**	1,983	35,899,021	**68**
DE	1,307	15,317,916	**85**	2,786	66,689,567	**42**
FI	96	1,061,152	**90**	202	4,240,099	**48**
SK	136	1,385,593	**98**	414	4,016,703	**103**
EE	31	314,476	**100**	72	1,026,017	**71**
IE	111	1,077,837	**103**	132	3,361,903	**39**
PT	220	2,130,057	**103**	637	8,497,456	**75**
DK	107	1,027,199	**104**	264	4,450,910	**59**
AT	189	1,675,641	**113**	432	6,674,073	**65**
IT	1,190	10,512,194	**114**	3,161	49,086,355	**64**
SI	51	424,381	**121**	123	1,605,488	**77**
HU	264	2,154,353	**123**	588	7,875,880	**75**
LU	12	99,296	**124**	26	394,826	**66**
FR	1,563	12,517,220	**125**	2,617	51,468,397	**51**
LV	69	539,611	**128**	193	1,720,576	**112**
CZ*	317	2,336,364	**136**	750	8,042,256	**93**
RO	692	5,095,969	**136**	2,055	16,400,507	**125**
BE*	325	2,114,241	**154**	660	8,553,919	**77**
PL	1,476	9,538,723	**155**	3,162	28,600,892	**111**
CY	32	202,748	**158**	39	593,682	**66**
EL	460	2,247,166	**210**	1,080	8,968,143	**107**
EU	10,497	101,663,421	**103**	28,343	395,642,014	**61**

Table. 15 (Fig. 16) Young people deaths per million young inhabitants (with road deaths per million inhabitants at all other ages for comparison). Average values for years 2008, 2009 and 2010.

** last three years available: 2007, 2008 and 2009*

Country	Road mortality for young FEMALES	Road mortality for young MALES	Road mortality for ALL young people
SE	24	80	53
NL	26	92	59
CH	23	95	60
IL	18	100	64
MT	44	89	67
UK*	31	121	77
NO	33	128	82
ES	34	132	84
DE	39	130	85
FI	33	144	90
SK*	32	162	98
EE	39	158	100
IE	41	164	103
PT	52	153	103
DK	44	161	104
AT	46	179	113
IT	40	186	114
SI	46	190	121
HU	46	195	123
LU	54	192	124
FR	42	207	125
LV	42	201	128
CZ*	50	216	136
RO	58	210	136
BE*	50	255	154
PL	59	248	155
CY	23	294	158
EL	58	349	210
EU	40	164	103

Table 16 (Fig. 17) Young people's road mortality per million young people, in total and by gender, ranked by the mortality of both sexes. Average values for years 2008, 2009 and 2010.

** last three years available: 2007, 2008, 2009*

Country	Car drivers	Car passengers	Car user together	Motorcycle users	Moped users	Cyclists	Pedestrians	Other
CY	30.3%	10.1%	**40.4%**	42.7%	9.0%	3.4%	4.5%	0.0%
EL	31.9%	11.2%	**43.1%**	47.4%	2.3%	0.8%	2.8%	3.4%
MT	38.5%	7.7%	**46.2%**	46.2%	0.0%	0.0%	0.0%	7.7%
IT	31.9%	13.8%	**46.4%**	36.5%	9.8%	1.4%	3.5%	3.0%
SI	38.9%	8.7%	**47.6%**	30.2%	3.2%	4.8%	0.8%	13.5%
PT	31.2%	19.9%	**51.1%**	29.9%	3.0%	0.4%	2.8%	13.0%
CH	37.9%	14.6%	**52.5%**	30.1%	1.4%	4.6%	5.9%	5.5%
FR	37.3%	15.3%	**52.6%**	25.2%	12.4%	1.5%	3.7%	4.6%
HU	38.9%	16.0%	**54.9%**	13.3%	2.9%	2.6%	7.6%	18.6%
ES	37.7%	18.0%	**55.7%**	19.6%	10.5%	1.4%	5.1%	7.7%
UK*	37.9%	20.6%	**58.5%**	21.3%	1.7%	2.4%	12.7%	3.4%
BE*	49.1%	9.7%	**58.8%**	15.0%	5.4%	3.7%	3.8%	13.4%
NL	43.1%	16.2%	**59.3%**	12.8%	10.3%	6.7%	4.0%	6.7%
DE	46.8%	15.9%	**62.7%**	21.8%	2.5%	2.9%	6.6%	3.6%
PL	40.9%	22.9%	**63.8%**	15.0%	2.7%	2.0%	12.8%	3.7%
LV	36.7%	27.7%	**64.5%**	13.3%	3.0%	3.6%	9.6%	6.0%
IL	36.6%	28.0%	**64.5%**	22.6%	0.0%	0.7%	11.5%	0.7%
DK	44.0%	20.7%	**64.7%**	9.5%	7.8%	4.3%	7.3%	6.5%
AT	49.5%	16.5%	**65.9%**	13.8%	8.4%	0.7%	6.6%	4.6%
RO	36.6%	29.5%	**66.1%**	8.5%	6.9%	2.1%	9.2%	7.1%
SK*	44.2%	22.7%	**66.9%**	16.0%	0.0%	2.6%	10.8%	3.8%
IE	43.8%	23.4%	**67.2%**	14.3%	0.0%	2.3%	8.7%	7.5%
CZ*	47.1%	20.5%	**67.7%**	20.2%	0.1%	2.2%	5.9%	4.0%
FI	44.5%	25.4%	**69.9%**	11.9%	5.9%	2.1%	3.8%	6.4%
SE	48.9%	21.9%	**70.8%**	18.0%	3.9%	0.9%	2.6%	3.9%
NO	53.9%	22.5%	**76.4%**	14.1%	1.0%	2.1%	3.1%	3.1%
EE	41.6%	37.7%	**79.2%**	3.9%	6.5%	1.3%	7.8%	1.3%
LU	75.9%	13.8%	**89.7%**	10.3%	0.0%	0.0%	0.0%	0.0%
EU males	39.4%	18.2%	**57.4%**	22.2%	6.9%	2.1%	6.9%	5.1%
EU all	37.6%	21.5%	**59.2%**	18.0%	5.3%	2.3%	7.6%	4.9%

Table 17 (Fig. 18a) Percentage share of different types of road user, among MALE road deaths for the 15-30 age group.

Average values for years 2008, 2009 and 2010.

** last three years available: 2007, 2008, 2009.*

Countries ranked by percentage of car users (driver or passenger).

Country	Car drivers	Car passengers	Car user together	Motorcycle users	Moped users	Cyclists	Pedestrians	Other
PT	16.7%	32.2%	**48.9%**	4.8%	5.6%	3.4%	9.9%	27.5%
NL	30.6%	22.3%	**52.9%**	1.7%	10.7%	22.3%	9.1%	3.3%
CH	28.8%	25.0%	**53.8%**	19.2%	1.9%	9.6%	13.5%	1.9%
HU	17.0%	38.1%	**55.1%**	8.2%	0.7%	1.4%	10.9%	23.8%
CY	14.3%	42.9%	**57.1%**	0.0%	14.3%	14.3%	14.3%	0.0%
SI	35.7%	21.4%	**57.1%**	0.0%	0.0%	3.6%	3.6%	35.7%
LV	21.2%	39.4%	**60.6%**	6.1%	0.0%	3.0%	24.2%	6.1%
SK*	15.4%	47.7%	**63.1%**	10.8%	0.0%	3.1%	16.9%	6.2%
IL	16.0%	50.0%	**66.0%**	4.0%	0.0%	0.0%	28.0%	2.0%
BE*	37.3%	29.7%	**67.1%**	2.5%	2.5%	8.9%	8.2%	10.8%
DK	37.3%	31.4%	**68.6%**	5.9%	3.9%	7.8%	11.8%	2.0%
ES	34.7%	34.9%	**69.7%**	7.6%	5.5%	1.1%	10.7%	5.9%
EL	21.6%	48.1%	**69.7%**	23.2%	1.6%	0.0%	4.9%	0.5%
FR	43.3%	28.4%	**71.6%**	8.0%	7.4%	1.8%	6.9%	4.2%
AT	45.1%	26.5%	**71.7%**	6.2%	6.2%	4.4%	10.6%	0.0%
IT	32.1%	39.8%	**71.9%**	11.7%	5.4%	2.1%	7.0%	1.8%
FI	33.3%	39.2%	**72.5%**	7.8%	7.8%	0.0%	5.9%	5.9%
RO	14.7%	59.8%	**74.4%**	1.4%	1.4%	1.2%	16.3%	5.3%
PL	25.5%	49.3%	**74.8%**	2.7%	1.1%	3.0%	17.0%	1.5%
UK*	37.3%	38.1%	**75.4%**	3.2%	0.3%	3.4%	16.1%	1.5%
SE	33.3%	45.5%	**78.8%**	4.5%	3.0%	4.5%	7.6%	1.5%
DE	50.5%	29.2%	**79.7%**	6.5%	1.6%	3.5%	7.1%	1.6%
NO	37.5%	43.8%	**81.3%**	4.2%	0.0%	2.1%	8.3%	4.2%
CZ*	34.1%	48.8%	**82.9%**	4.1%	0.0%	0.6%	12.4%	0.0%
EE	38.9%	44.4%	**83.3%**	0.0%	0.0%	11.1%	5.6%	0.0%
MT	33.3%	50.0%	**83.3%**	0.0%	0.0%	0.0%	0.0%	16.7%
IE	50.0%	34.8%	**84.8%**	3.0%	0.0%	0.0%	12.1%	0.0%
LU	75.0%	25.0%	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%
EU females	34.37%	38.06%	**72.40%**	6.24%	3.25%	3.16%	10.74%	4.20%
EU all	37.64%	21.54%	**59.20%**	17.96%	5.27%	2.25%	7.60%	4.86%

Table 18 (Fig. 18b) Percentage share of different types of road user, among FEMALE road deaths for the 15-30 age group.

Average values for years 2008, 2009 and 2010.

** last three years available: 2007, 2008, 2009.*

Countries ranked by percentage of car users (driver or passenger).

	Road deaths				Deaths from all causes				Road deaths among young people as a % of deaths from all causes in the same age group
Country	2007	2008	2009	Average of last 3 years	2007	2008	2009	average of last 3 years	
MT	6	5	5	5	42	35	52	43	**12.4%**
EE	73	41	35	31	429	351	333	371	**13.4%**
SE	141	114	105	100	792	814	762	789	**15.2%**
LV	109	95	65	69	603	598	517	573	**15.7%**
NO	70	88	78	80	468	498	499	488	**16.1%**
FI	129	102	100	110	699	645	655	666	**16.6%**
UK	1,144	978	855	992	5,909	6,027	5,860	5,932	**16.7%**
SK	167	159	83	108	773	849	744	789	**17.3%**
CH	113	97	105	90	639	596	586	607	**17.3%**
NL	230	200	210	189	1,067	1,025	992	1,028	**20.8%**
IE	128	127	109	111	643	407	692	581	**20.9%**
RO	721	797	727	692	3,492	3,551	3,403	3,482	**21.5%**
PT	275	230	234	220	1,190	1,109	990	1,096	**22.5%**
DK	108	118	96	94	447	453	440	447	**24.0%**
DE	1,613	1,493	1,301	1,307	6,063	5,891	5,810	5,921	**24.8%**
PL	1,776	1,744	1,449	1,476	6,555	6,539	6,288	6,461	**25.6%**
CZ	375	333	242	317	1,316	1,248	1,121	1,228	**25.8%**
AT	234	215	186	189	833	811	800	815	**26.0%**
LU	13	12	10	12	52	47	35	45	**26.1%**
ES	1,255	960	759	991	4,075	3,761	3,287	3,708	**26.7%**
FR	1,711	1,616	1,606	1,563	6,161	6,020	6,022	6,068	**27.1%**
HU	382	349	218	264	1,183	1,150	1,064	1,132	**27.9%**
BE	382	327	265	325	1,110	1,115	1,054	1,093	**29.7%**
IT	1,578	1,348	1,145	1,357	4,850	4,002	0	4,426	**30.7%**
SI	116	69	52	51	296	227	218	247	**32.0%**
CY	39	33	39	32	122	104	107	111	**33.3%**
EL	565	502	479	515	1,551	1,349	1,407	1,436	**35.9%**
EU	13,270	11,967	10,375	11,871	51,560	49,446	43,791	48,266	**24.1%**

Table 19 (Fig.19) Road deaths among those aged 15 to 30 as a percentage of deaths from all causes in the same age group in last three years available.

Source: Data on deaths from all causes are available in Eurostat up to 2009.

Data on deaths from all causes are not available in Israel.

	MALES			FEMALES		
Age group	Road deaths	Deaths from all causes	Road deaths as a % of deaths from all causes	Road deaths	Deaths from all causes	Road deaths as a % of deaths from all causes
15-year old	157	755	20.8%	80	441	18.1%
16-year old	303	1,054	28.7%	118	543	21.7%
17-year old	452	1,444	31.3%	147	601	24.5%
18-24 year old	5,191	16,213	32.0%	1,218	5,214	23.4%
25-30 year old	3,509	17,150	20.5%	676	5,830	11.6%

Table 20 (Fig. 20): Road deaths in the EU, by gender and age group as a percentage of deaths from all causes for that particular age group and gender in the last three years available.

Source: Data on deaths from all causes are available in Eurostat up to 2009.

	Number of deaths in collisions involving a car or motorcycle driven by a young person										As a % of total road deaths	
Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	last 3 years available	beginning of the decade
NO	54	68	55	54	45	61	47	45	44	47	**20.1%**	19.6%
NL*	365	386	365	207	175	152	154	216	206	n/a	**25.5%**	33.7%
CH	212	198	219	216	154	134	134	113	119	83	**30.5%**	39.0%
PT†	700	670	583	480	461	290	334	261	n/a	n/a	**31.3%**	41.9%
DK	139	160	133	126	103	100	110	118	102	84	**31.5%**	32.3%
HU*‡	n/a	n/a	339	464	503	452	424	316	258	n/a	**32.7%**	25.6%
LV	203	202	211	193	149	147	160	118	75	66	**32.9%**	36.4%
SE	201	197	183	159	146	150	158	126	118	88	**33.6%**	37.9%
SK*‡	n/a	n/a	n/a	n/a	261	237	239	207	110	n/a	**33.7%**	43.5%
ES	2270	2193	2257	1881	1705	1608	1496	1126	905	803	**34.2%**	41.1%
FI	160	148	132	141	131	127	146	109	104	101	**35.2%**	37.0%
BE*	650	538	489	425	419	402	395	330	334	n/a	**35.8%**	43.7%
RO*	894	868	770	915	894	977	983	1133	1057	n/a	**36.6%**	36.5%
AT	401	382	381	349	298	257	274	268	230	191	**37.0%**	41.9%
CY	43	48	38	45	47	43	45	31	29	19	**37.1%**	43.9%
UK*	1488	1481	1473	1387	1400	1392	1223	1021	809	n/a	**37.6%**	41.4%
IT*	2952	2957	2710	2558	2459	2269	2030	1782	1555	n/a	**38.1%**	41.6%
IL	255	165	178	186	200	173	170	154	124	134	**38.2%**	47.0%
CZ*	572	622	612	585	537	381	483	418	328	n/a	**38.4%**	42.9%
EL	822	684	673	767	761	737	711	629	588	514	**40.6%**	43.7%
IE	211	174	159	173	187	176	151	135	88	73	**40.6%**	51.3%
DE	3345	3266	3034	2591	2281	2084	2080	1878	1701	1415	**40.7%**	47.9%
SI	153	123	117	135	120	137	157	90	74	52	**41.3%**	55.0%
EE	98	102	65	57	60	92	83	47	47	36	**41.8%**	49.2%
FR	3858	3522	2578	2523	2377	1960	1898	1790	1755	1984	**44.1%**	47.3%
PL	2501	2628	2398	2407	2458	2323	2561	2504	2128	1768	**46.0%**	45.2%
LU	45	23	23	27	26	22	18	17	21	15	**46.1%**	64.3%
MT†‡	n/a	n/a	n/a	n/a	7	8	6	6	n/a	n/a	**51.3%**	43.8%
EU[1]	22,071	21,374	19,723	18,595	17,965	16,523	16,319	14,676	12,622	11,866	**37.3%**	40.6%

Table 21 (Fig. 21) Road deaths in collisions involving at least one young driver or rider (in latest three years available and in 2001) as a percentage of the total number of road deaths

Source: CARE when available, completed or updated by the PIN Panellists.

** Latest 3 years available 2007, 2008, 2009.*

† Latest 3 years available 2006, 2007, 2008.

‡ First year available: HU 2003; MT, SK 2005

Country	15-30 driver	Other driver	Car Passenger	Motorcyclist	15-30 motorcyclist	Other motorcyclist	Moped User	Cyclist	Pedestrian	Other
SI	27.3%	6.9%	8.8%	21.8%	17.6%	4.2%	0.5%	6.9%	13.4%	14.4%
CY	23.9%	4.3%	16.2%	41.0%	32.5%	8.5%	5.1%	0.9%	8.5%	0.0%
EL	24.0%	5.6%	16.2%	39.5%	33.3%	5.9%	1.0%	0.9%	11.0%	1.8%
MT†	35.7%	14.3%	0.0%	35.7%	28.6%	7.1%	0.0%	0.0%	14.3%	0.0%
IT*	24.4%	8.2%	18.7%	30.4%	24.4%	6.0%	4.0%	3.3%	9.6%	1.4%
CH	31.1%	4.8%	15.6%	31.1%	24.1%	7.0%	2.2%	3.8%	9.8%	1.6%
PT†	27.6%	4.7%	23.0%	25.5%	22.5%	3.0%	2.5%	1.7%	11.1%	3.9%
RO*	20.9%	4.1%	30.7%	5.8%	5.0%	0.8%	1.2%	3.9%	31.3%	2.0%
HU*	31.8%	2.0%	23.6%	14.7%	13.6%	1.2%	1.4%	7.8%	17.1%	1.6%
PL	26.3%	5.6%	25.5%	9.7%	8.8%	0.9%	0.9%	5.9%	25.2%	0.9%
FR	32.5%	7.9%	18.7%	23.0%	18.9%	4.1%	5.6%	2.4%	7.3%	2.6%
SK*	29.1%	5.4%	25.5%	11.9%	11.2%	0.7%	0.0%	4.5%	23.0%	0.5%
LV	26.6%	3.5%	30.5%	10.0%	9.3%	0.8%	0.4%	6.6%	21.6%	0.8%
ES	30.7%	8.4%	22.7%	18.1%	14.3%	3.9%	3.1%	1.4%	13.0%	2.6%
CZ*	34.6%	7.2%	23.0%	14.8%	13.3%	1.5%	0.2%	5.0%	14.2%	1.1%
DE	37.4%	9.1%	19.3%	18.5%	14.4%	4.2%	1.1%	4.4%	9.0%	1.2%
NL*	42.2%	5.2%	19.6%	14.1%	11.5%	2.6%	2.8%	8.5%	5.9%	1.7%
UK*	36.8%	5.8%	24.9%	19.3%	17.3%	2.0%	0.1%	0.4%	11.7%	1.0%
DK	36.8%	7.3%	25.2%	10.3%	7.6%	2.7%	3.3%	4.3%	11.2%	1.5%
AT	40.1%	8.6%	20.9%	13.4%	10.2%	3.2%	2.5%	3.5%	10.4%	0.7%
BE*	43.4%	6.9%	19.3%	16.0%	11.9%	4.1%	1.5%	3.6%	7.5%	1.9%
EE	28.6%	8.3%	33.1%	3.0%	2.3%	0.8%	1.5%	5.3%	18.0%	2.3%
SE	41.0%	10.2%	22.0%	16.3%	13.6%	2.7%	0.6%	2.4%	6.9%	0.6%
IL*	25.1%	8.4%	38.4%	14.3%	9.8%	4.5%	0.0%	1.1%	8.7%	0.0%
IE	46.7%	5.0%	25.7%	13.5%	12.5%	0.9%	0.0%	0.9%	5.3%	2.8%
FI*	39.6%	6.4%	31.5%	13.9%	12.0%	1.9%	0.8%	2.2%	5.3%	0.3%
NO	56.3%	4.7%	18.1%	19.1%	13.5%	5.6%	0.5%	0.5%	0.0%	0.9%
LU	52.8%	11.3%	20.8%	5.7%	5.7%	0.0%	0.0%	0.0%	9.4%	0.0%
EU	31.1%	6.8%	22.5%	17.9%	16.1%	2.6%	1.9%	3.4%	14.8%	1.6%

Table 22 (Fig. 22) Road deaths following collisions involving at least one car or motorcycle driven by a young person ranked by the share of car users (drivers or passengers) killed in those collisions in the last three available years.

Source: CARE when available, completed or updated by the PIN Panellists.

** Latest 3 years available 2007, 2008, 2009.*

† Latest 3 years available 2006, 2007, 2008.