



# Road Safety Annual Report 2013

Summary



**International Traffic Safety  
Data and Analysis Group**

## TABLE OF CONTENTS

IRTAD: An International Expert Network and Database on Road Safety Data .....	5
Key Messages .....	6
Summary of Road Safety Performance in 2011 .....	7
National Road Safety Strategies .....	18
Legislation on Key Safety Issues .....	21
List of IRTAD Members and Observers .....	29







# **IRTAD: An International Expert Network and Database on Road Safety Data**

## **The IRTAD Group**

The International Traffic Safety Data and Analysis Group (IRTAD) is a permanent working group of the Joint Transport Research Centre of the OECD and the International Transport Forum. It is composed of road safety experts and statisticians from renowned safety research institutes, national road and transport administrations, international organisations, universities, automobile associations, the automobile industry, and others from OECD and non-OECD countries. Its main objectives are to contribute to international co-operation on safety data and its analysis. The objectives of the IRTAD Group are to:

- Be a forum of exchange on road safety data collection and reporting systems, and on trends in road safety policies.
- Collect accident data and conduct data analysis to contribute to the work of the ITF/OECD, as well as to provide advice on specific road safety issues.
- Contribute to international co-operation on road accident data and its analysis.

Currently, more than 70 organisations from 34 countries are members of IRTAD - representing a wide range of public and private bodies with a direct interest in road safety (see list of members at the end of the report).

The ambition of IRTAD is to include new countries and to build and maintain a high-quality database on road safety information. IRTAD offers a mechanism for the integration of prospective member countries while assisting with improvement of road safety data collection systems, where needed. The IRTAD Group co-operate with the World Bank's Global Road Safety Facility and the Interamerican Development Bank to involve low- and middle-income countries in the work of the Group.

## **The IRTAD Database**

The most visible product of the IRTAD Group is the International Road Traffic and Accident Database. The database includes aggregated data on injury accidents, road fatalities, injured and hospitalised road users, as well as relevant exposure data, in relation to factors such as population, motor vehicle fleet, road network length, vehicle-kilometres and seatbelt wearing rates from 32 countries, covering every year since 1970. Key road safety indicators are compiled on a monthly basis. Data on serious injuries based on MAIS3+ definitions are being progressively included.

## Key Messages

- 2012 will mark a record year, with figures showing the lowest fatalities on record for most OECD-IRTAD countries.
- However, there is still a long way to go in order to achieve the 2020 UN Decade of Action target, which is to reduce by 50% the expected number of fatalities worldwide..
- Road safety performance measured in terms of fatalities per 100 000 population varies 3-fold between the best and the worst OECD-IRTAD countries and 9-fold across all IRTAD members and observers. The countries with the lowest fatalities per head of population are also those that perform best under other performance indicators; in relation to vehicle kilometres driven and in relation to the size of the car fleet.
- Much has been achieved over the last decade to improve the safety of car occupants through improvements in vehicle design and equipment, speed management and effective drink-driving policies, but simple approaches, such as achieving higher rates of seatbelt use still have major potential to save lives, even in best performing countries.
- The safety of vulnerable road users (pedestrians, cyclists, moped and motorcycle riders) is a critical issue. With the adoption in many countries of strategies to encourage active mobility, improving safety for pedestrians and cyclists should be a priority.
- The safety of powered two-wheeler riders is of particular concern in many countries as the number of killed and seriously injured has not been reduced in line with improvements for other categories of road user.
- Reducing serious injuries is a core challenge. These can result in lifelong disabilities with considerable economic as well as emotional costs. The impact is often greatly underestimated, partly because of gaps in the data recording injury crashes. Improving understanding of the full costs of serious injury crashes entails joint analysis of data from police and hospital records.
- Comparable data on serious injuries requires a common benchmark for assessing injuries. IRTAD recommends the use the Maximum Abbreviated Injury Score for assessing injuries, on the basis of medical diagnosis, and a score of three or more as the common definition for a serious injury.

## Summary of Road Safety Performance in 2011

Road safety levels differ widely between IRTAD members. Road safety performance measured in terms of fatalities per 100 000 population varies three fold between the best and the worst OECD-IRTAD countries and nine fold across all IRTAD members and observers (Figures 1 and 5).

The exposure of different classes of road user to crash risks also varies greatly between IRTAD countries (Figure 2). Pedestrians account for more than a third of all fatalities in Korea, Israel, Japan and Poland, whereas this figure is around 10% in New Zealand, the Netherlands and Norway. Cyclists account for a large share of all fatalities in the Netherlands (22%), in Japan (16%) and Hungary (13%) but only 1 to 2% in the USA, Greece and Northern Ireland. Powered two wheeler (PTW) rider fatalities account for a large share of fatalities in Greece (33%), Italy (30%), France (26%) and Switzerland (24%).

The bulk of the substantial **fatality reductions** in IRTAD countries over the last decade benefitted car occupants — a fact that can be largely attributed to the increased passive safety features of cars and also speed management and effective drinking and driving policies— with fatalities reduced by nearly half between 2000 and 2010 (see Figure 3) . Results have been less satisfactory for vulnerable road users, however, there has been a reduction of only a third in pedestrian and cyclist fatalities over the last decade. In terms of killed PTW riders, here, too, results were disappointing, with a reduction of only 14% in fatalities. The safety of vulnerable road users continues to be a core road safety issue, not least in lower income countries.

Figure 1. **Road fatalities per 100 000 population in 2011 in IRTAD member and observer countries**

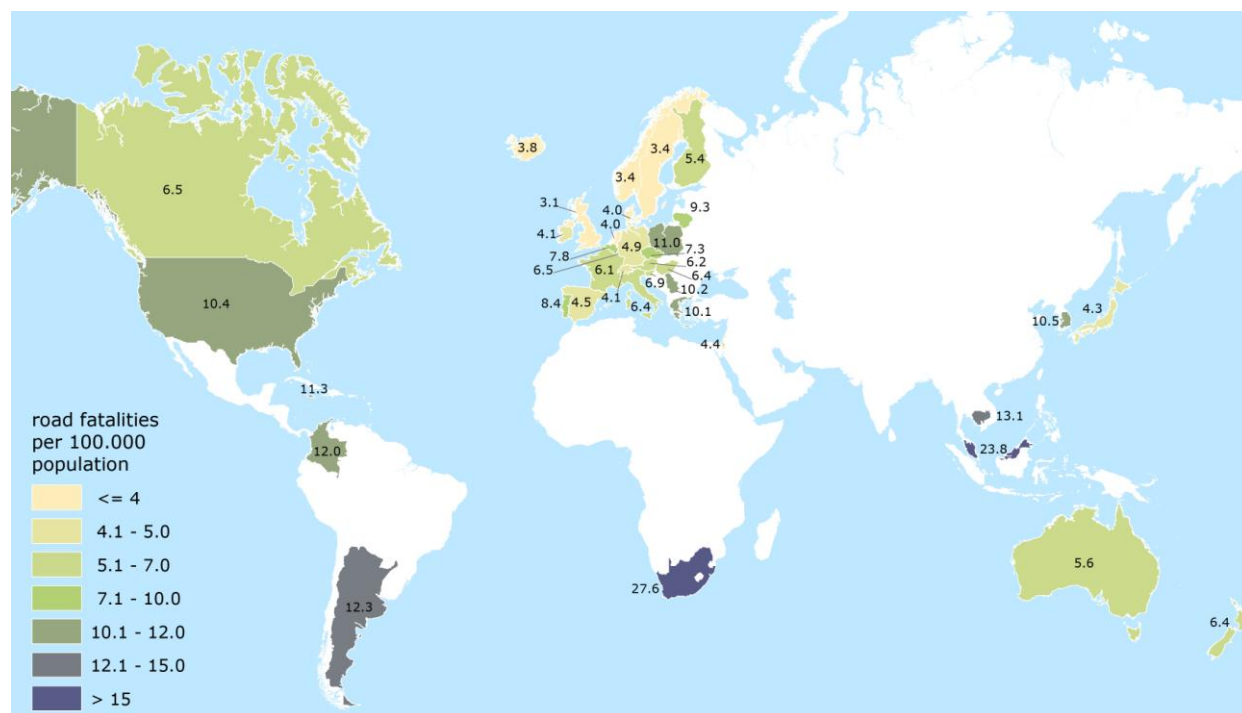
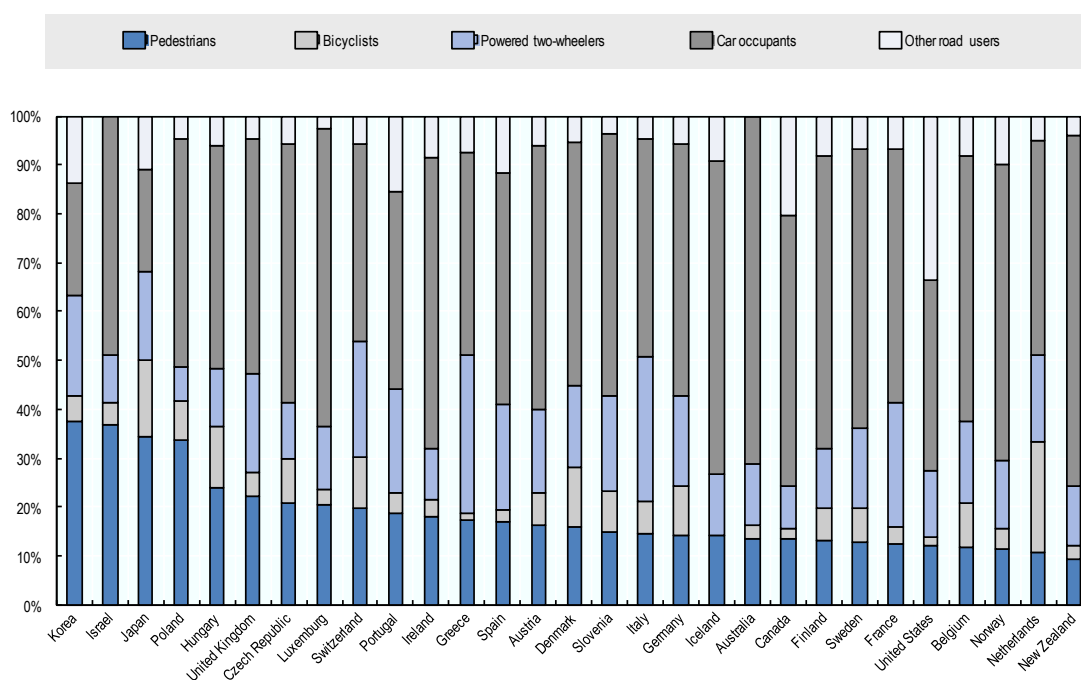




Figure 2. **Fatalities (average 2007-2011)**  
Share of different road user classes



Note: In the United States, SUVs are not included in the "car" category

Figure 3. **Evolution in the number of fatalities among user groups**  
2000-2011

Country	Bicyclists	Motorcyclists	Car occupants	Pedestrians	TOTAL
Australia	10%	6%	-34%	-36%	-30%
Austria	-32%	-46%	-47%	-38%	-46%
Belgium	-49%	8%	-51%	-22%	-41%
Canada	25%	12%	-23%	-21%	-23%
Czech Republic	-58%	-28%	-49%	-51%	-48%
Denmark	-48%	-48%	-54%	-67%	-56%
Finland	-64%	100%	-23%	-34%	-26%
France	-48%	-20%	-61%	-39%	-51%
Germany	-40%	-25%	-55%	-38%	-47%
Greece	-41%	-25%	-47%	-41%	-44%
Hungary	-53%	0%	-46%	-64%	-47%
Ireland	-10%	-54%	-63%	-45%	-55%
Israel	-20%	10%	-24%	-32%	-25%
Italy	-30%	20%	-57%	-40%	-45%
Japan	-32%	-36%	-63%	-33%	-47%
Korea	-14%	-50%	-58%	-46%	-49%
Netherlands **	-14%	-52%	-57%	-35%	-43%
New Zealand	-53%	6%	-44%	-11%	-39%
Norway	-15%	-68%	-56%	-64%	-51%
Poland	-55%	64%	-30%	-38%	-33%
Portugal	-29%	-50%	-59%	-53%	-53%
Slovenia	-46%	-25%	-62%	-65%	-55%
Spain	-42%	-11%	-70%	-58%	-64%
Sweden	-55%	18%	-60%	-27%	-46%
Switzerland	-19%	-34%	-56%	-47%	-46%
United Kingdom	-17%	-40%	-49%	-47%	-46%
United States	-2%	59%	-42%	-7%	-23%

The situation with regard to crashes involving **serious injuries**, which can lead to lifelong disabilities and considerable economic losses, is that only a limited number of countries are able to provide sound road injury data. This data requires joint analysis and input from hospital as well as police records. An internationally accepted definition of a serious injury has only recently been established. A 2012 IRTAD report<sup>1</sup> examines methods for improved data collection and processing and recommended using level 3 on the Maximum Abbreviated Injury Score (MAIS3+) as the definition for a serious injury. The European Commission has adopted this definition and is expected to issue a reduction target for serious injuries for the year 2020 using this benchmark. The challenge for IRTAD members now is to implement the recommendations, following good practice from countries such as Sweden and the Netherlands.





























In 2011, several countries — including best performers such as Germany, United Kingdom, Sweden and Finland — noted an increase in fatalities (Figure 4). In 2012, however, most IRTAD countries seem to be back on track, with preliminary figures pointing to reduced fatalities. **2012** will mark the year with the **lowest ever overall fatality figures in many OECD-IRTAD countries**. The exceptions to these positive short term results are Colombia, New Zealand, Switzerland, the United States, Australia, Korea, Lithuania and Luxemburg, on the basis of preliminary data (see Table 1).


The **economic crisis** that began in 2008 may have had a positive short term impact on figures for road casualties through a decrease in overall mobility. The evidence is mixed and debate so far inconclusive. The IRTAD group has invited a number of renowned experts to prepare an explanatory model for the relationship between economic growth and road casualties, with the results to be presented in the second half of 2013. This should result in an improved understanding of short term trends.


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1. Reporting on Serious Road Traffic Casualties. <http://internationaltransportforum.org/irtadpublic/pdf/Road-Casualties-Web.pdf>

Table 1. **Preliminary trends for 2012, based on provisional fatality data  
(compared to the same period in 2011)**


Country	Trend	Period	Country	Trend	Period
Argentina		annual estimate	Japan		annual estimate
Australia		annual estimate	Korea		annual estimate
Austria		annual estimate	Lithuania		annual estimate
Belgium		annual estimate	Luxemburg		annual estimate
Canada			Malaysia		annual estimate
Colombia		annual estimate	Netherlands (for real data see country report.)		final annual figure
Czech Republic		annual estimate	New Zealand		annual estimate
Denmark		annual estimate	Northern Ireland		annual estimate
Finland		annual estimate	Norway		final annual figure
France		annual estimate	Poland		annual estimate
Germany		annual estimate	Portugal		January-August
Great Britain		January–September	Serbia		annual estimate
Greece		annual estimate	Slovenia		annual estimate
Hungary		final annual figure	South Africa		annual estimate
Iceland		annual estimate	Spain		annual estimate
Ireland		annual estimate	Sweden		annual estimate
Israel		annual estimate	Switzerland		final annual figure
Italy			United States		annual estimate
Jamaica		final annual figure			


-1% < change < 1% 

Decrease 1-5% 

Decrease 5-10% 

Decrease > 10% 

Increase 1-5% 

Increase 5-10% 


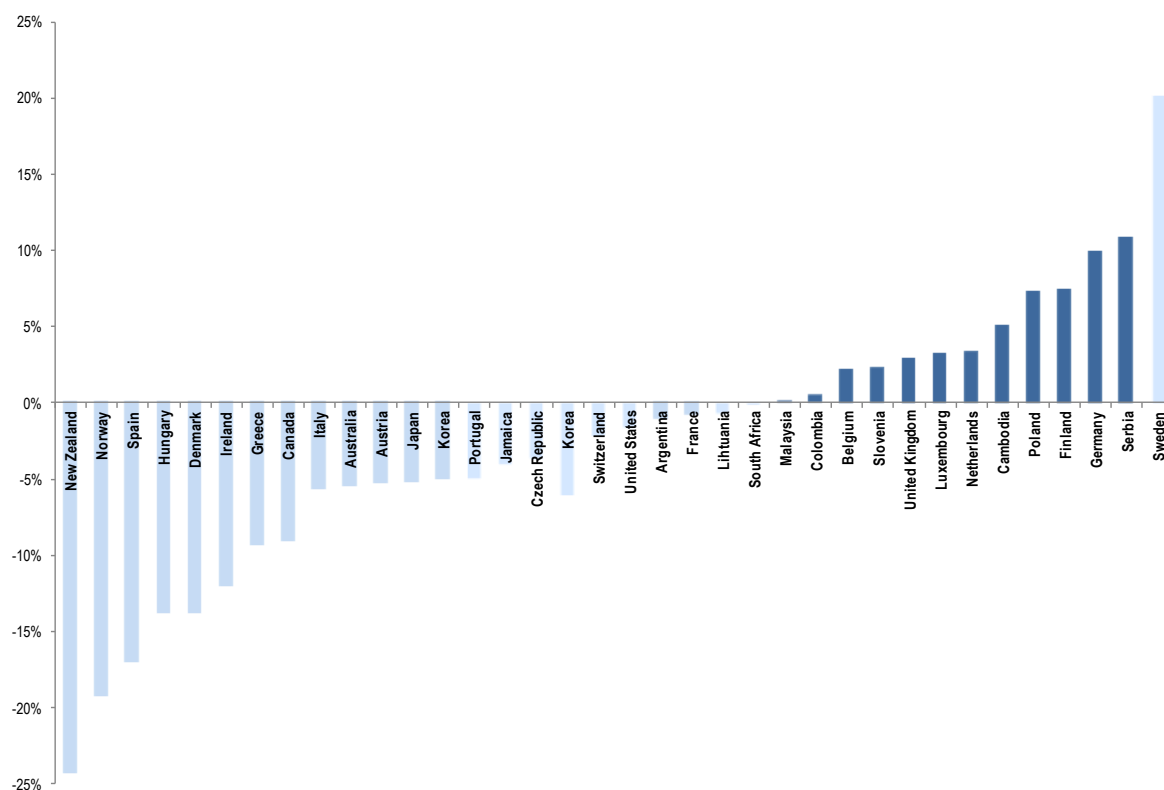
Increase > 10% 

Figure 4. **Short-term change**  
**Road fatalities: 2011 in comparison to 2010**



Note: data for Colombia, Jamaica, Lithuania, Malaysia, Serbia and South Africa are not yet validated by IRTAD. Iceland not included. Real data for the Netherlands.

Figure 5. **Medium term change**  
**Road fatalities: 2011 in comparison to 2000**

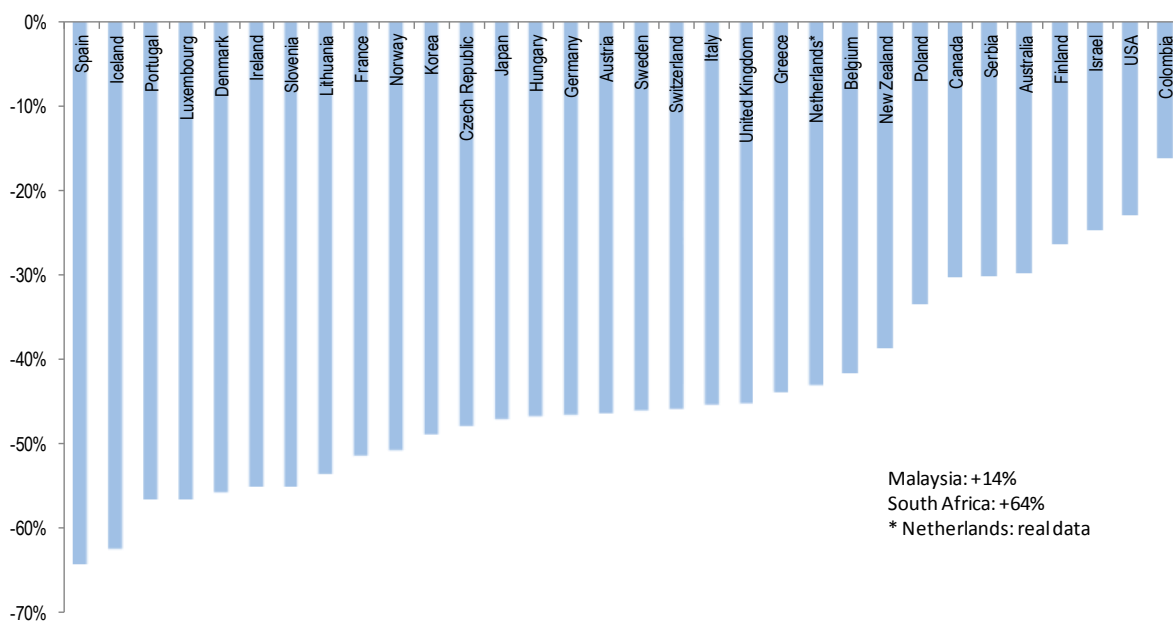


Table 2. Road safety trends

Road Fatalities								
Country	Recent data			Long-term trends	Average annual change			
	2011	2010	Change 2011-2010	Change 2011-2000	2010-2001	2000-1991	1990-1981	1980-1971
Argentina	5 040	5 094	-1.1%					
Australia	1 277	1 352	-5.5%	-29.7%	-2.7%	-1.7%	-3.9%	-1.0%
Austria	523	552	-5.3%	-46.4%	-5.9%	-5.0%	-2.5%	-3.9%
Belgium	858	840	2.1%	-41.6%	-6.1%	-2.7%	-1.3%	-2.8%
Cambodia <sup>a</sup>	1 905	1 816	4.9%			-	-	-
Canada	2 025	2 227	-9.1% <sup>p</sup>	-30.2%	-2.3%	-2.6%	-3.3%	-0.2%
Colombia <sup>ab</sup>	5 528	5 502	0.5%	-15.6%	-1.6%			
Czech Republic	773	802	-3.6%	-48.0%	-5.5%	1.2%	0.8%	-4.9%
Denmark	220	255	-13.7%	-55.8%	-5.7%	-2.2%	-0.5%	-6.1%
Finland	292	272	7.4%	-26.3%	-5.0%	-5.1%	1.8%	-7.8%
France	3 963	3 992	-0.7%	-51.5%	-7.6%	-2.7%	-2.1%	-2.9%
Germany	4 009	3 648	9.9%	-46.6%	-7.0%	-4.4%	-2.3%	-3.7%
Greece	1 114	1 258	-9.3%	-44.0%	-4.4%	-0.4%	2.8%	3.0%
Hungary	638	740	-13.8%	-46.8%	-5.6%	-6.1%	4.7%	-1.3%
Iceland	12	8	n.a.	-62.5%	-11.5%	1.9%	0.0%	2.0%
Ireland	186	212	-12.3%	-55.2%	-7.1%	-0.8%	-2.0%	-0.2%
Israel	341	352	-3.1%	-24.6%	-4.5%	0.4%	-0.2%	-4.0%
Italy	3 860	4 090	-5.6%	-45.3%	-5.9%	-1.5%	-2.2%	-1.9%
Jamaica <sup>d</sup>	307	319	-3.8%	-8.1%	-1.4%	-3.1%	-	-
Japan	5 507	5 806	-5.1%	-47.1%	-5.9%	-3.6%	2.8%	-6.7%
Korea	5 229	5 505	-5.0%	-48.9%	-4.2%	-4.5%	8.7%	5.6%
Lithuania <sup>a</sup>	296	300	-1.3%	-53.8%	-9.1%	-6.5%	2.6%	-
Luxembourg	33	32	3.1%	-56.6%	-8.3%	-1.0%	-3.7%	1.5%
Malaysia <sup>a</sup>	6 877	6 872	0.1%	14.0%	1.8%	-	-	-
Netherlands <sup>*</sup>	661	640	3.3%	-43.3%	-5.7%	-1.9%	-3.0%	-5.0%
New Zealand	284	375	-24.3%	-38.5%	-2.1%	-3.7%	1.0%	-1.4%
Norway	168	208	-19.2%	-50.7%	-3.1%	0.6%	-0.2%	-4.2%
Poland	4 189	3 908	7.2%	-33.4%	-3.8%	-2.5%	2.1%	-
Portugal	891	937	-4.9%	-56.6%	-7.3%	-4.5%	0.3%	3.5%
Serbia <sup>d</sup>	731	660	10.8%	-30.2%	-7.1%	-6.4%	0.9%	-
Slovenia	141	138	2.2%	-55.1%	-7.5%	-4.2%	-1.0%	-1.6%
South Africa <sup>d</sup>	13 954	13 967	-0.1%	64.3%	2.5%	-6.4%	-0.9%	-
Spain	2 060	2 478	-16.9%	-64.3%	-8.5%	-4.6%	3.9%	1.9%
Sweden	319	266	19.9%	-46.0%	-7.8%	-2.5%	-0.2%	-3.9%
Switzerland	320	327	-2.1%	-45.9%	-5.5%	-3.7%	-2.2%	-3.8%
United Kingdom	1 960	1 905	2.9%	-45.3%	-6.8%	-3.1%	-1.3%	-2.8%
United States	32 367 <sup>p</sup>	32 999	-1.9%	-22.8%	-2.7%	0.1%	-1.1%	-0.3%

Source: IRTAD, see [www.irtad.net](http://www.irtad.net)

Police-recorded fatalities. Death within 30 days (except: Lithuania: death within 7 days before 1995).

For recent methodology changes in calculation of the fatality data in Spain and Portugal, see country reports.

a = accession country. Data are under review.

\* For the Netherlands: real numbers 2000 onwards.

b = information provided by CFPV not validated by the government of Colombia.

d = observer, data have not been reviewed.

p = provisional data for 2011.

Figure 5 and Table 2 show that, for most IRTAD countries, the average annual reduction in the number of deaths was higher in the last decade than in each of the three preceding decades. More effective road safety policies account for this favourable development and most countries now have comprehensive road safety strategies in place, with well-defined and targeted measures, producing successful results.

In contrast, many emerging economies undergoing rapid motorisation have incomplete road safety strategies and are confronted with an increasing number of traffic casualties. In its Global Status Report on Road Safety 2013, the UN World Health Organisation (WHO) indicates that, *worldwide, the total number of road traffic deaths remains unacceptably high at 1.24 million per year. Only 28 countries, covering 7% of the world's population, have comprehensive road safety laws on the five key risk factors: drinking and driving, speeding, and failing to use motorcycle helmets, seat-belts, and child restraints.*<sup>2</sup> The Status Report serves as a baseline for the Decade of Action for Road Safety 2011-2020 and the 50% fatality reduction target for 2020, declared by the UN General Assembly.

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2. [http://www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/2013/en/index.html](http://www.who.int/violence_injury_prevention/road_safety_status/2013/en/index.html)

## Trends in death rates

This section discusses the performance of IRTAD countries in relation to various road safety indicators.

### Measuring mortality rate and fatality risk

Comparison of road safety performance depends somewhat on what indicator is used as a measure of exposure to risk; population, number of registered vehicles or distance travelled by motorised vehicles. There has been considerable debate over which indicator is most appropriate to measure exposure to risk. Those in the health sector prefer the use of population as the denominator, since it permits comparisons with other causes of injury and death, including infectious diseases. As the health and transport sectors increase their level of co-operation, fatalities per 100 000 population is becoming more widely used as the standard indicator. In the transport sector it has been common, where data are available, to use fatalities per distance travelled (e.g. fatalities per million vehicle-kilometres) as a principal indicator, or fatalities per 10 000 vehicles.

**Fatalities per 100 000 head of population.** The number of inhabitants is the denominator most often used, as the figure is readily available in most countries. This rate expresses the mortality rate, or an overall risk of being killed in traffic, for the average citizen. It can be compared with other causes of death, like heart disease, HIV/Aids, etc. *This is a particularly useful indicator to compare risk in countries with the same level of motorisation.* It is, however, not at all adapted to comparing safety levels between industrialised countries and countries where the level of motorisation is very low.

**Fatalities per billion vehicle-kilometres (or fatalities per billion person-kilometres, taking vehicle occupancy into account).** This is the most objective indicator to describe risk on the road network. However, only a limited number of countries collect data on distance travelled.

**Fatalities per 10 000 registered (motorised) vehicles.** This rate can be seen as an alternative to the previous indicator, although it differs in that the annual distance travelled is unknown. This indicator can therefore only be used to compare the safety performance between countries with similar traffic and car-use characteristics. It requires reliable statistics on the number of vehicles. In some countries, scrapped vehicles are not systematically removed from the registration database, thereby undermining accuracy. This indicator does not take into account non-motorised vehicles (such as bicycles), which can in some countries represent a large part of the vehicle fleet and of the fatalities figures. Most countries report their vehicle fleet without mopeds.

Ideally, it would be desirable to use all three indicators to make comparisons of performance between countries.

Table3. Road fatalities per 100 000 population and per billion vehicle-km

Country	Killed per 100 000 inhabitants					Killed per billion v-km				
	1970	1980	1990	2000	2011	1970	1980	1990	2000	2011
Argentina <sup>a</sup>	-	14.5	-	-	12.3	-	-	-	-	-
Australia	30.4	22.3	13.7	9.5	5.6	49.3	28.2	14.4	9.3	5.6
Austria	34.5	26.5	20.3	12.2	6.2	109	56.3	32.0	15.0	6.8
Belgium	31.8	24.3	19.9	14.4	7.8	104.6	50	28.1	16.3	8.5 <sup>b</sup>
Cambodia <sup>a</sup>	-	-	-	-	13.1	-	-	-	-	-
Canada	23.8	22.3	14.3	9.5	6.5 <sup>b</sup>	-	-	-	9.3	6.5 <sup>b</sup>
Colombia <sup>a*</sup>	-	-	-	16.5	12.0	-	-	-	-	-
Czech Republic	20.2	12.2	12.5	14.5	7.3	-	53.9	48.3	36.7	16.2 <sup>b</sup>
Denmark	24.6	13.5	12.4	9.3	4.0	50.5	25	17.3	10.7	4.9
Finland	22.9	11.6	13.1	7.7	5.4	-	20.6	16.3	8.5	5.4
France	32.6	25.4	19.8	13.7	6.1	90.4	44	25.7	15.6	7.0
Germany	27.3	19.3	14.0	9.1	4.9	-	37.3	20.0	11.3	5.6
Greece	12.5	15	20.2	18.7	10.1	-	-	-	-	-
Hungary	15.8	15.2	23.4	11.8	6.4	-	-	-	-	-
Iceland	9.8	11	9.5	11.5	3.8	-	26.5	14.9	13.8	3.8
Ireland	18.3	16.6	13.6	11.0	4.1	44.3	28.4	19.2	12.6	3.9
Israel	17.1	10.8	8.7	7.1	4.4	87.9	38.8	22.4	12.4	6.7
Italy	20.5	16.3	12.4	12.4	6.4	-	-	-	-	-
Jamaica <sup>d</sup>	-	-	-	12.9	11.3	-	-	-	-	-
Japan	21	9.7	11.8	8.2	4.3	96.4	29.3	23.2	13.4	7.8
Korea	11.0	16.9	33.1	21.8	10.5	-	-	-	49.5	17.6
Lithuania <sup>a</sup>	-	-	26.9	17.3	9.3	-	-	-	-	-
Luxembourg	-	27.0	18.8	17.5	6.5	-	-	-	-	-
Malaysia <sup>a</sup>	-	-	22.7	25.9	23.8 <sup>b</sup>	-	-	-	26.3	14.7
Netherlands <sup>**</sup>	24.6	14.2	9.2	7.3	4.0	-	26.7	14.2	10.0	5.0
New Zealand	23	18.8	21.4	12	6.5	-	-	-	13.6	7.1
Norway	14.6	8.9	7.8	7.6	3.4	41.7	19.3	12	10.5	3.9
Poland	10.6	16.8	19.2	16.3	11	-	-	-	-	-
Portugal	20.6	30.6	31.2	20.0	8.4	-	-	-	-	-
Serbia <sup>d</sup>	-	-	20.0	14.0	10.2	-	-	-	-	-
Slovenia	35.8	29.2	25.9	15.8	6.9	166.7	96.1	65.1	26.7	7.8
South Africa <sup>d</sup>	-	-	36.7	19.6	27.6	-	-	-	-	-
Spain	16.2	17.7	23.2	14.5	4.5	-	-	-	-	-
Sweden	16.3	10.2	9.1	6.7	3.4	35.3	16.4	12.0	8.5	3.8
Switzerland	26.6	19.2	13.9	8.3	4.1	56.5	30.9	18.6	10.6	5.1
United Kingdom	14.0	11.0	9.4	6.1	3.1	37.4 <sup>c</sup>	21.9 <sup>c</sup>	12.7 <sup>c</sup>	7.3 <sup>c</sup>	3.9 <sup>op</sup>
United States	25.7	22.5	17.9	14.9	10.4	29.6	20.8	12.9	9.5	6.8

Death within 30 days. Police recorded data.

For recent methodology changes in calculation of the fatality data in Spain, Sweden and Portugal, see country reports.

*a* =accession country. data are under review.

*b* = 2010.

*c* = Great Britain;

*d* = observer. data not reviewed by IRTAD;

*p*= provisional;

\* Information provided by CFPV not validated by the government of Colombia.

\*\* For the Netherlands: real numbers 2000 onwards.



### Fatalities per head of population

Table 3 shows the evolution of mortality expressed in terms of deaths per 100 000 population since 1970 and the evolution in risk expressed in terms of deaths per billion vehicle-kilometres.

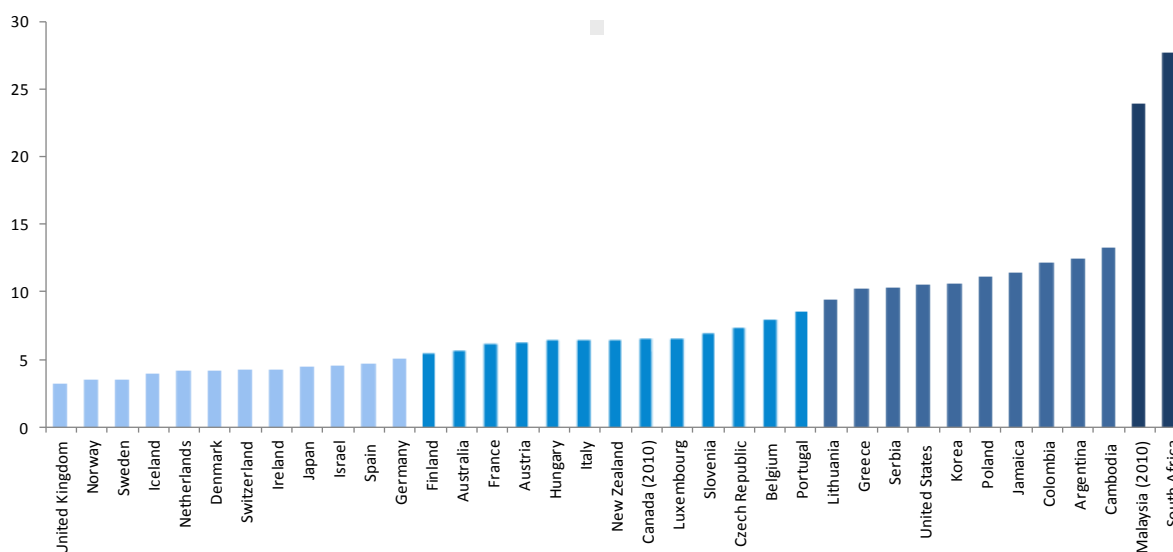
Compared to 2010, in 2011 two additional countries, Norway and Denmark, had a rate at, or below, 4 and joined the league of the top performing countries: United Kingdom, Sweden, Iceland and the Netherlands (see Figure 6).

Since 1970, substantial progress has been made in all countries. In Germany, Switzerland and the Netherlands, the rate in terms of fatalities per 100 000 population has been divided by more than six.

In the last decade (2000-2011), the rate has been reduced by two in about half of the countries. The greatest improvements were seen in Spain (-69%), Iceland (-64%), Luxembourg (-63%) and Ireland (-62%), as well as for Portugal, Denmark Slovenia, France and Norway (reduction greater than 55%; see Table 3).

While this rate is useful for comparing the performance of countries with similar levels of development and motorisation, it should not as useful as a universal tool to rank all countries.

Figure 6. **Road fatalities per 100 000 population in 2011**



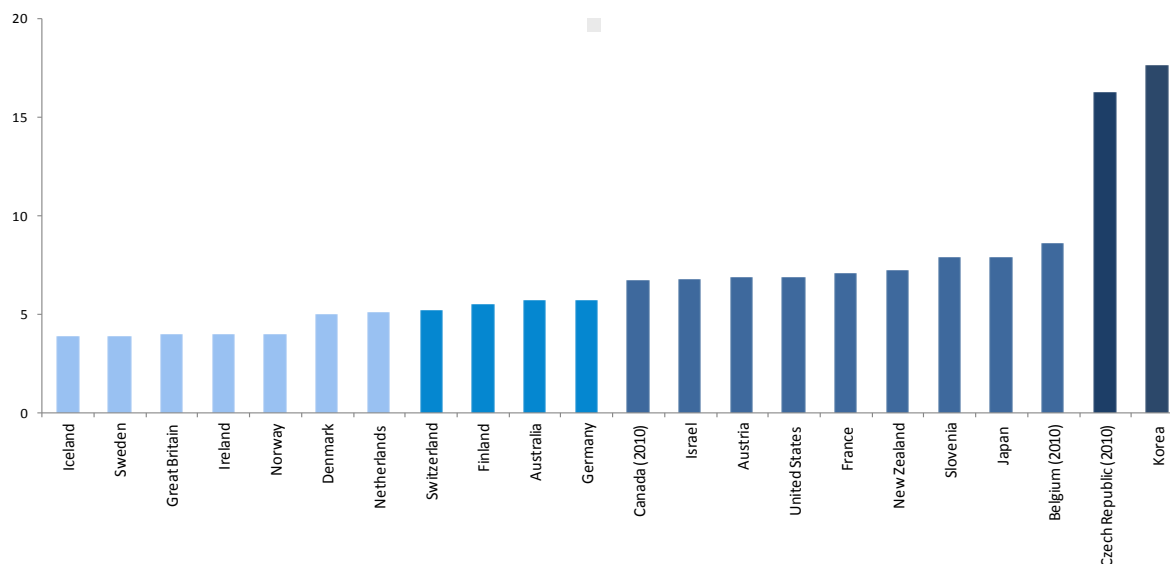
Note: data for Colombia, Jamaica, Lithuania, Malaysia, Serbia and South Africa are not yet validated by IRTAD.

### Fatalities per vehicle-kilometre

Data on risks expressed in terms of deaths per billion vehicle-kilometre are summarised in Figure 7. Analysis in terms of fatalities over distance travelled is a very useful indicator for assessing the risk of travelling on the road network. However, only a subset of IRTAD countries collects regular data on vehicle-kilometres.

Based on this indicator, the situation has also improved substantially for all countries for which data are available. In 2011, the best performing countries recorded risk below five deaths per billion vehicle-kilometres.

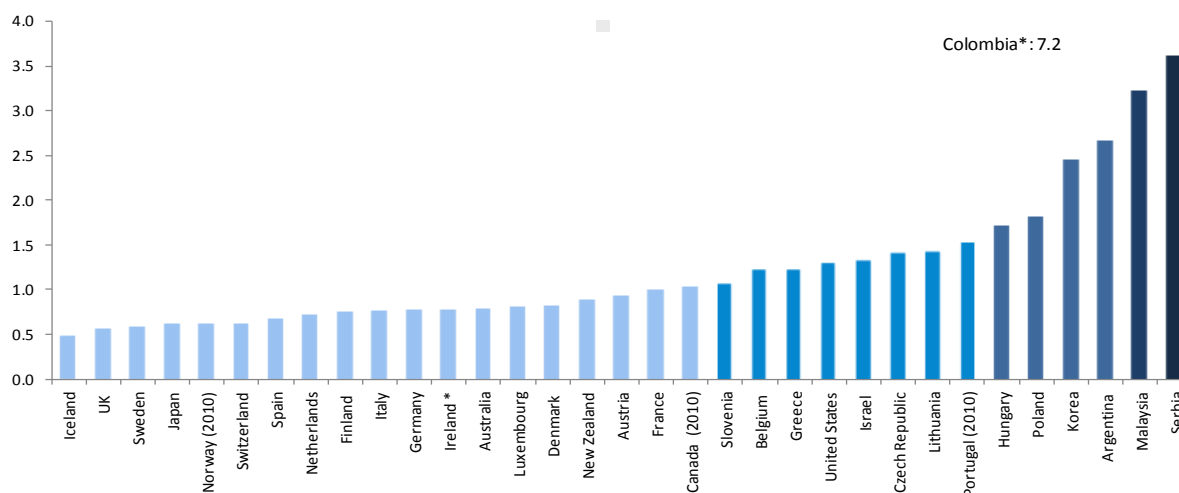
Figure 7. **Road fatalities per billion vehicles-kilometres in 2011**



### Fatalities per registered vehicle

Figure 8 illustrates risk exposure expressed as the number of deaths per 10 000 registered vehicles. In the absence of data on vehicle kilometres for many IRTAD countries, the fatality rate per registered vehicles may be used as an approximation of exposure in order to describe risks and make comparisons between countries.

Figure 8. **Road fatalities per 10 000 registered vehicles in 2011**



Note: data for Colombia, Malaysia and Serbia are not yet validated by IRTAD. \*: denominator also includes mopeds

## National road safety strategies

The year 2011 was marked by the launch of the UN Decade of Action for Road Safety. For this occasion, the UN called on Member states, international agencies, civil society, businesses and community leaders to ensure that the Decade leads to real improvement, and recommended governments to develop national actions plans for the decade 2011-2020. As a response, several countries released or updated in 2011 their national road safety strategies.

This section summarises the strategies and targets adopted by IRTAD countries, or refers to on-going policies. More information can be found in the individual country reports that follow.

Country/Strategy/timeframe	Vision	Targets
<b>Argentina</b> National road safety strategy	Based on the UN Road Safety Plan for the Decade of Action for Road Safety	-50% fatalities by 2014 Base year 2009 Specific targets for 2014 and 2020 are being developed
<b>Australia</b> <u>National road safety strategy</u> 2011-2020	Safe System No-one should be killed or seriously injured on Australia's roads	-30% (at least) fatalities by 2020 -30% (at least) severely injured by 2020 Base year 2008-2010
<b>Austria</b> <u>Austrian road safety programme</u> 2011-2020	Safe system "Become one of the five safest countries in Europe"	-50% fatalities by 2020, based on the average for the years 2008-10 (Interim target: -25% by 2015) -40% serious injuries by 2020, based on the average for the years 2008-10 (Interim target: -20% by 2015) -20% injury accidents by 2020, based on the average for the years 2008-2010 (Interim targets: -10% by 2015)
<b>Belgium</b> Recommendations for 20 priority measures 2011-2020 www.cfsr.be	EU Road Safety Target adopted	-50% fatalities in 2020 in comparison to 2010 (420 road deaths in 2020)
<b>Cambodia</b> Second road safety action plan 2011-2020 (expected to be approved by the Council of Ministers in early 2014)	Based on the UN Road Safety Plan for the Decade of Action for Road Safety	Reduce by 50% the forecasted number of fatalities by 2020 Several sub-targets on helmet wearing rates, speed, drink-driving
<b>Canada</b> <u>Road Safety Strategy (RSS)</u> 2015 2011-2015	"Rethink Road Safety" to make Canada's roads the safest in the world	No hard numerical targets
<b>Colombia</b> National Plan for Road Safety issued by Ministry of Transport in 2012 (consultation of stakeholders ongoing)	Based on the UN Road Safety Plan for the Decade of Action for Road Safety	
<b>Czech Republic</b> Strategic Road Safety Plan 2011-2020	Vision Zero	Reduce fatality rate to EU 27 average. No more than 360 fatalities in 2020 (-60%) No more than 2 100 seriously injured in 2020 (-40%) (This respectively corresponds to an annual decrease by 5.5% and 3.6%)
<b>Denmark</b> Traffic Safety Action Plan 2011-2020 (to be launched in May 2013)	Based on Vision Zero	- 50 % fatalities by 2020 (less than 120 killed ) (based on EU Road Safety target) - 50% serious and slightly injured road users

Country/Strategy/timeframe	Vision	Targets
<b>European Union</b> <u>Road safety policy orientations 2011-2020</u> 2011-2020	Towards Zero	-50% fatalities by 2020 (base year: 2010)
<b>Finland</b> <u>National Road Safety Strategy</u> published in 2012	Vision Zero	Less than 219 fatalities (or 40 fatalities per million inhabitants) by 2014 Less than 137 fatalities (or 24 fatalities per million inhabitants) by 2020 Less than 5750 injuries by 2020 (based on EU Road Safety target) Long term target: less than 100 fatalities by 2025
<b>France</b>		-50% fatalities by 2020 (less than 2000 fatalities) (based on EU Road Safety target)
<b>Germany</b> <u>Road safety programme 2011-2020</u>		-40% fatalities by 2020 (base year: 2010)
<b>Greece</b> National strategic road safety plan 2011 – 2020	Developing a road safety culture	- 50 % fatalities by 2020 (based on EU Road Safety target); base year: 2010 interim targets: reduction by 90 road fatalities per year between 2010-2014 and 50 road fatalities per year between 2014-2020
<b>Hungary</b> Road safety programme 2011-2013		-50% fatalities by 2015 -50% injury accidents by 2015: base year: 2001. - 50 % fatalities by 2020 (based on EU Road Safety target); base year: 2010
<b>Iceland</b> Traffic Safety Plan 2011-2022		Rate per 100 000 population should not be higher than in the best countries by 2022 Average annual reduction in killed and seriously injured of 5%. 11 sub targets defined
<b>Ireland</b> <u>Road safety strategy</u> 2013-2020		Reduction of road collision fatalities on Irish roads to 25 per million population or less by 2020. Provisional target for the reduction of serious injuries by 30% from 472 (2011) or fewer to 330 by 2020 or 61 per million population. Specific targets for reducing speed and to increase restraint use.
<b>Israel</b> 5 year plan		Less than 270 fatalities per year by 2015 Reduce the fatality rate to less than 4.0 fatalities per billion km travelled, Rank among the 5 safest countries based on fatalities per km travelled New target (under consideration): less than 240 fatalities by 2020.
<b>Italy</b> <i>National Road Safety Plan towards 2020 (in preparation)</i>		-50% fatalities by 2020 (under consideration) (based on EU Road Safety target)
<b>Jamaica</b>		Less than 240 death by 2016.
<b>Japan</b> 9 <sup>th</sup> Traffic Safety Programme 2011-2015	Make Japan the safest country for road traffic	Less than 3 000 deaths by 2015 Less than 700 000 casualties by 2015
<b>Korea</b> 7th National transport safety plan 2012-2016	Reach the average safety level of OECD countries	Less than 1.3 fatalities/10 000 vehicles by 2016 (This represents a 40% reduction in fatalities compared to 2010 level (2010: 5 505 -> 2016: 3 000 fatalities) Less than 0.5 fatalities/10 000 vehicles by 2020 As of May 2013, there has been no decision to review the target (no more than 1 200 fatalities by 2020).
<b>Lithuania</b> Road safety strategy 2011-17		Less than 6 killed per 100 000 population in order to be ranked among the 10 best performing countries in the EU
<b>Luxembourg</b>		- 50 % fatalities by 2020 (based on EU Road Safety target); base year: 2010

Country/Strategy/timeframe	Vision	Targets
<b>Malaysia</b> <i>In preparation</i>	Based on the UN Road Safety Plan for the Decade of Action for Road Safety	Reduce by 50% the forecasted number of fatalities by 2020
<b>Netherlands</b> <u>Road safety strategic plan 2008–2020</u>	Sustainable safety	No more than 500 fatalities by 2020 No more than 10 600 serious road injuries (MAIS2+) by 2020
<b>New Zealand</b> <u>Safer Journeys: Road safety strategy 2010–2020</u>	Safe System A safe road system increasingly free of death and serious injury	No overall targets Several sub targets
<b>Norway</b> 2010–2019	Vision Zero	-33% people killed and seriously injured by 2019
<b>Poland</b> National Road Safety Programme 2013–2020	Vision Zero	-50% fatalities by 2020 (based on EU Road Safety target) -40% severely injured by 2020 Base year 2010
<b>Portugal</b> ENSR 2008–15 (under review)	The National Authority for Road Safety (ANSR) is at the moment reviewing the 2008–2015 National Road Safety Strategy. This led to a definition of a new Vision and consequently the redefinition of the existing strategic goals, the definition of new ones and related key actions.	ANSR, even though, since 2010 began accounting fatalities within 30 days has maintained the previous objective of 62 fatalities per million inhabitants in 2015, this representing now an ever bigger challenge for the country and particularly for all of those more directly involved in road safety.
<b>Serbia</b> <i>National Strategy 2013–2020 (in preparation)</i>		
<b>Slovenia</b> National road safety programme 2013 – 2021	Vision Zero no fatalities and no one seriously injured on Slovenian roads	less than 35 fatalities per million inhabitants less than 235 seriously injured per million inhabitants
<b>South Africa</b> Strategy adopted in 2007 currently under review, adoption expected for 2013		
<b>Spain</b> <u>Road Safety Strategy 2011 – 2020</u>	Safe system/Vision Zero. Citizens have the right to a Safe Mobility System in which everyone, citizens and agents involved, have a responsibility	Less than 3.7 killed per 100 000 population aligned with the European 2020 target -25% seriously injured. Several targets for various performance indicators (seatbelt, speed, drink-driving, etc.)
<b>Sweden</b> no safety plan in a traditional sense <u>Management by Objectives for Road Safety Work, Towards the 2020 Interim targets</u>	Vision Zero	-50% fatalities between 2007 and 2020 (the average for 2006–2008 is used as the base figure), i.e. max. 220 deaths by 2020. -25% severely injured between 2007 and 2020.
<b>Switzerland</b> <u>Via Secura</u> adopted in June 2012 by Swiss Federal Council		No hard numerical targets Range of targeted measures
<b>United Kingdom (Great Britain)</b> <u>Strategic framework for road safety 2011 – 2020 (2030)</u>	To ensure that Britain remains a world leader on road safety.	No concrete targets, but estimates for 2030 based on 05–09 average
<b>United States</b>		Targets for the USDOT include an overall fatality rate measure as well as the four submeasures to better identify trends within each group The overall fatality rate goal for 2012 has a target of 1.05 and 1.03 for 2013.

## Legislation on key safety issues

Drink driving, speeding, non-wearing of seat belts and helmets, and the use of mobile phone while driving represent common safety challenges in all countries. Experience has shown that regulation, enforcement and education to modify behaviour on these fronts brings large benefits.

The following tables summarize information on legislation on drink-driving, seatbelt wearing, helmet wearing and the use of mobile phones while driving.

### Drink driving

A drink driving crash is typically defined as a crash where at least one of the road users involved in the crash is under the influence of alcohol. Countries define “being under the influence of alcohol” in two different manners: driver with a positive blood alcohol content, even if below the maximum limit allowed; or driver with a blood alcohol content above the maximum limit.

It is therefore delicate to compare the preponderance of alcohol-related crashes in different countries. In addition, in some countries it is not legally permitted to test a corpse or an unconscious person for alcohol or other substances. Nevertheless, nearly all countries indicate that drink driving is one of the major contributing factors in fatal crashes and in many countries it involves around one third of fatal crashes.

Table 4 summarises the maximum blood alcohol content allowed in IRTAD countries.

Table 4. **Maximum blood alcohol content in 2013**

Country	General BAC level	Differentiated BAC for young drivers, professional drivers
Argentina	0.5g/l	0.0 g/l professional drivers
Australia	0.5 g/l	0.0 g/l for novice drivers 0.2 g/l for professional drivers
Austria	0.5 g/l	0.1 g/l moped riders < 20 years old and novice and professional drivers
Belgium	0.5 g/l	As of 1 June 2013, 0.2 g/l for professional drivers
Cambodia	0.5 g/l	No
Canada	0.8 g/l Most provinces have administrative sanctions in place at 0.4 g/l or 0.5 g/l.	Novice or young drivers in most provinces are subject to 0 g/l BAC (administrative) sanctions
Colombia	0.2 g/l (since August 2012)	
Czech Republic	0.0 g/l	-
Denmark	0.5 g/l	-
Finland	0.5 g/l	-
France	0.5 g/l	0.2 g/l for bus/coach drivers
Germany	0.5 g/l Drivers with a BAC above 0.3 g/l can have their licenses suspended if their driving ability is impaired	0.0 g/l (novice drivers)
Greece	0.5 g/l	0.2 g/l, professional drivers, motorcycles and moped operators
Hungary	0.0 g/l (sanctions when BAC > 0.2g/l)	
Iceland		
Ireland	0.5 g/l (implementation in 2011)	0.2g/l young drivers, professional drivers
Israel	0.5 g/l	-
Italy	0.5 g/l	0 g/l for novice and professional drivers since July 2010.
Jamaica	0.8 g/l	
Japan	0.3 g/l	
Korea	0.5 g/l	-
Lithuania	0.4 g/l	0.2 g/l for novice and professional drivers
Luxembourg	0.5 g/l	0.2 g/l for novice and professional drivers
Malaysia	0.0 g/l	
Netherlands	0.5 g/l	0.2 g/l for novice drivers (first 5 years)
New Zealand	0.8 g/l	0.0 g/l for drivers under 20 years old and for repeating offenders (since 2011)
Norway	0.2 g/l	
Poland	0.2 g/l	-
Portugal	0.5g/l	-
Serbia	0.3 g/l	0.0 g/l for novice and professional drivers and for PTW operators
Slovenia	0.5 g/l	-
South Africa	0.5 g/l	0.2 g/l for professional drivers
Spain	0.5 g/l	0.3 g/l novice and professional drivers
Sweden	0.2 g/l	-
Switzerland	0.5 g/l	-
United Kingdom	0.8 g/l	-
United States	0.8 g/l	0.2 g/l for drivers < 21 0.4 g/l for professional drivers

### Speed limits in IRTAD countries

Inappropriate or excessive speed is reported in a large proportion of fatal crashes (typically around 30%).

The Table below summarises the general speed limits in IRTAD countries. The reader will find information on actual speeds in the country reports section below.

Table 5. **General speed limits for passenger cars**

Country	Urban areas	Rural roads	Motorways
Argentina	30 – 60 km/h	110 km/h	130 km/h
Australia	50 km/h 60 to 80 km/h (arterial roads)	100 or 110 km/h	110 km/h
Austria	50 km/h	100 km/h	130 km/h
Belgium	30 or 50 km/h	70 or 90 km/h	120 km/h
Cambodia	40 km/h	90 km/h	
Canada	40 – 70 km/h	80 – 90 km/h	100 -110 km/h
Colombia	80 km/h 30 km/h near schools and in residential areas	120 km/h	n.a.
Czech Republic	50 km/h	90 km/h	130 km/h
Denmark	50 km/h	80 km/h	110 or 130 km/h
Finland	50 km/h	80 km/h	120 km/h (summer) 100 km/h (winter)
France	50 km/h	90 km/h	130 km/h
Germany	50 km/h	100 km/h	No limit, but 130 km/h is recommended
Greece	50 km/h	90 km/h	130 km/h
Hungary	50 km/h	90 km/h	130 km/h (110 km/h on semi-motorways)
Iceland	50 km/h	90 km/h paved roads 80 km/h gravel roads	n.a.
Ireland	50 km/h	80 km/h or 100 km/h	
Israel	50 km/h	80, 90, 100 km/h	110 km/h
Italy	50 km/h	90 – 110 km/h	130 km/h
Jamaica	50 km/h	50 km/h	70 km/h or 110 km/h
Japan	40, 50, 60 km/h	50, 60 km/h	100 km/h
Korea	60 km/h	60-80 km/h	110 km/h (100 km/h in urban areas),
Lithuania	50 km/h	90 km/h (70 on gravel roads)	130 km/h (110 km/h in winter)
Luxembourg	50 km/h	90 km/h	130 km/h
Malaysia	50 km/h	90 km/h	110 km/h
Netherlands	50 km/h	80 km/h	130 km/h (was 120 km/h until sep 2012)
New Zealand	50 km/h	100 km/h	100 km/h
Norway	50 km/h	80 km/h	100 km/h
Poland	50 km/h	90 – 120 km/h	140 km/h
Portugal	50 km/h	90 km/h	120 km/h
Serbia	50 km/h	80 km/h	120 km/h
Slovenia	50 km/h	90 km/h	130 km/h
South Africa	60 km/h	100 km/h	120 km/h
Spain	50 km/h	90 or 100 km/h	120 km/h
Sweden	50 km/h	70 or 90 km/h	110 km/h
Switzerland	50 km/h	80 km/h	120 km/h
United Kingdom	30 mph (48 km/h))	60 mph (96 km/h)	70 mph (113 km/h)
United States	35 – 65 mph (56-104 km/h) <i>Set by each state</i>	50-65 mph (80-104 km/h) <i>Set by each state</i>	55-80 mph (88-129 km/h) <i>Set by each state</i>

### Seatbelt laws

Table 6 summarizes the situation regarding seatbelt laws in IRTAD countries and provides estimations for seatbelt wearing rates in 2011 or 2012 (see also Figures 8 and 9).

Seatbelt wearing is compulsory in front seats in all IRTAD countries and observer countries, except in some states of the United States. 17 states in the United States do not have a primary seatbelt



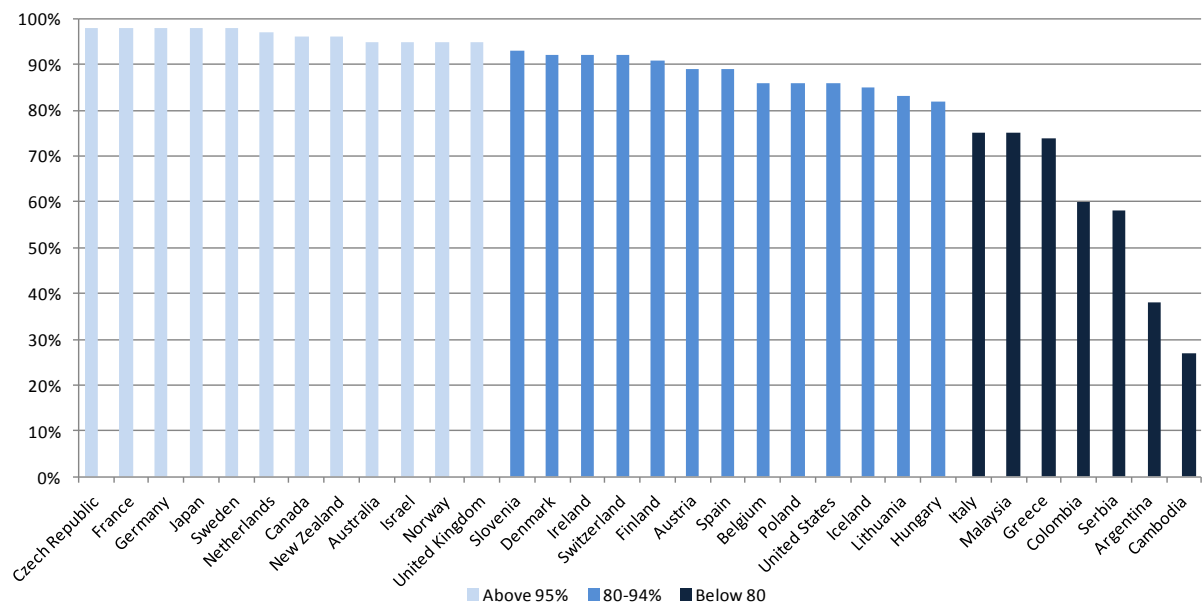
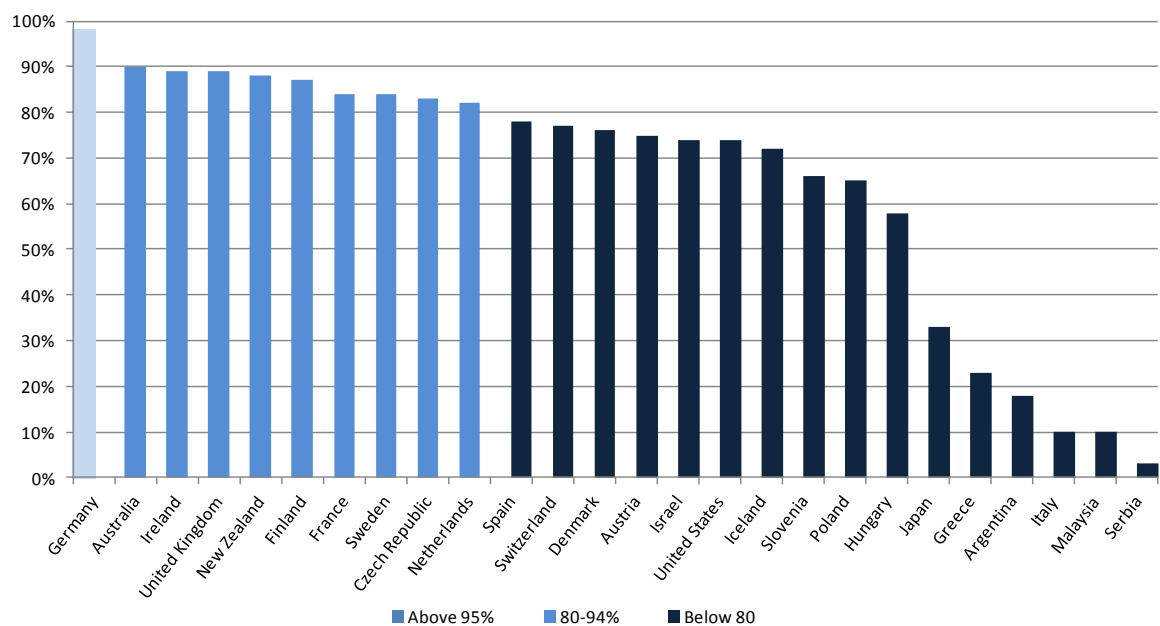
law (which means that a driver cannot be stopped solely because (s)he is not wearing a seatbelt), and one state does not have any belt use law for adults.

In most IRTAD countries mandatory seatbelt laws for rear seats were introduced 10 to 15 years after the front-seat law, and only very recently in some countries (2003 in Greece; 2008 in Japan). The wearing rate in these countries is much lower than in countries where the law has existed for many years. Some countries do not have general seatbelt laws for rear seats; in Korea for example, this only applies on motorways. Some observer countries still do not have a compulsory seatbelt law for rear seats (Cambodia, Colombia).

In almost all countries, there is a significant difference in wearing rates between front and rear seats. In front seats, the wearing rate varies from 27% to 98%, but a large majority of countries have a wearing rate above 80%. In rear seats, it varies from less than 3% to 98%, and the majority of countries have a wearing rate below 80%. However, the wearing rate is usually higher for children.

Table 6. **Seatbelt wearing rates in front and rear seats, 2011 or 2012**

Country	Front seats		Rear seats	
	Date of application	Wearing rate	Date of application	Wearing rate
Argentina	Yes, 1995	38% (average), 44% (driver)	Yes, 1995	18%, 29% for children
Australia	Yes, 1970s	Around 95%	Yes	Around 90%
Austria	Yes, 1984	89%	Yes, 1990	75%
Belgium	Yes, 1975	86%	Yes, 1991	Unknown
Cambodia	Yes, 2007	27%	No	Unknown
Canada <sup>(2009-10)</sup>	Yes, 1976-1988	96%	Yes, 1976-1988	Unknown
Colombia	Yes	Around 60%	No	
Czech Republic	Yes, 1966	99% (driver), 98% (passenger)	Yes, 1975	83%
Denmark <sup>(2010)</sup>	Yes, 1970s	92% (driver)	Yes, 1980s	76%
Finland	Yes, 1975	91%	Yes, 1987	87%
France	Yes, 1973	98%	Yes, 1990	84%, 89% for children
Germany	Yes, 1976	98%	Yes, 1984	98%
Greece <sup>(2009)</sup>	Yes, 1987	77% (driver), 74% (passengers)	Yes, 2003	23%
Hungary	Yes, 1976	82%	Yes, 1993 (outside built up areas), 2001 (inside built up areas)	58%, 84% for children
Iceland	Yes	85%	Yes	72%
Ireland	Yes, 1979	92%	Yes, 1979	89%, 95% for children
Israel	Yes, 1975	97% (driver), 95% (passengers)	Yes, 1995	74%
Italy	Yes, 1988	63% (urban areas) 75% (outside urban areas)	Yes, 1994	10%
Jamaica	Yes, 1999	Unknown	Yes, 1999	Unknown
Japan	Yes, 1985	98%	Yes, 2008	33% , 57% for children
Korea	Yes, 1990	88% (driver) on motorways 76% (passengers) on motorways	Yes on motorways, since 2008	9.4% on motorways
Lithuania	Yes	83%	Yes	
Luxembourg	Yes, 1975	80% in 2003	Yes, 1992	Unknown
Malaysia	Yes, 1978	85% (driver), 75% (passengers)	Yes, 2009	10% (it was 40% in 2009)
Netherlands <sup>(2010)</sup>	Yes, 1975	97%	Yes, 1992	82%
New Zealand	Yes, 1972	96%	Yes, 1979	88%, 92% for children
Norway	Yes, 1975	95%	Yes, 1985	No monitoring
Poland	Yes, 1991	86%	Yes, 1991	65%
Portugal	Yes, 1978	unknown	Yes, 1994	unknown
Serbia	Yes, 1986	58%	Yes, 2009	3%
Slovenia	Yes, 1977	93%	Yes, 1998	66%
South Africa	Yes	68 % (drivers), 75% (passengers)	Yes (where seatbelts available in the car)	< 2%
Spain	Yes, 1974 outside urban areas, 1992 inside urban areas	89%	Yes, 1992	78%
Sweden	Yes, 1975	98% in 2012	Yes, 1986	84% 96% for children
Switzerland	Yes, 1981	92%	Yes, 1994	77%
United Kingdom <sup>(2009)</sup>	Yes, 1983	95%	Yes, 1989 (children); 1991 (adults)	89%
United States	Primary law in 32 out of 50 states. No law in 1 state	86%	Varies by State	74%

Figure 9. **Seatbelt wearing rate in front seats (2011 or 2012)**Figure 10. **Seatbelt wearing rate in rear seats (2011 or 2012)**

Over all, there is still scope for progress and a compliance rate of 100% in both front and rear sets should be the goal for all countries. Even in countries with a relatively good wearing rate, it is found that many of the people killed were not wearing a seatbelt at the time of the crash, and that many lives could have been saved if they had been wearing one. As an example, in France, where seatbelt wearing rate is around 98% in front seats and 84% in rear seats, it is estimated that more than 300 lives could have been saved if the victims had worn a seatbelt at the time of the

crash (see Table 7). Research also shows, however, that drivers not wearing a seatbelt often belong to high risk groups and are more likely to have other risky driving behaviours, such as speeding or drinking and driving.

Table 7 – **Share of unrestrained car occupants killed in a road crash**

Country	Results of research - % of car occupants killed who were unrestrained.	General wearing rate
<b>Australia</b>	28% This high figure is the result of a high crash involvement rate among those who do not wear belts, as well as the fact that they are more likely to be killed if involved in a crash.	95%
<b>Austria</b>	39% (did not wear a seatbelt of the use of safety equipment was unknown)	89% (front), 75% (rear),
<b>Canada</b>	36%,	96%
<b>Finland</b>	43%	91% (front)
<b>France</b>	22%. It is estimated that 336 people could have their lives saved in 2011 (8.5% of all people killed) if they had worn their seatbelt.	84% (rear), 98% (front)
<b>Hungary</b>	72%	82% (front), 58% (rear)
<b>Iceland</b>	42% (average 1998-2010)	85% (front), 72% (rear)
<b>Italy</b>	39% (drivers only)	63-75% (front)
<b>Luxembourg</b>	43%	
<b>New Zealand</b>	33% (average 2010-2012). It is estimated that 10% would have been saved if they had been restrained.	96% (front), 88% (rear)
<b>Spain</b>	24% (22% in roads outside urban areas, 41% in roads inside urban areas)	89% (front), 78% (rear)
<b>Sweden</b>	31% in 2011; 45% in 2012. The increase is partly due to more suicides excluded and to the fact that the figures is based on only 85 killed drivers (38 was unrestrained).	98% (front), 84% (rear)
<b>Switzerland</b>	Around 40%	92% (front), 77% (rear)
<b>United States</b>	52%	86% (front), 74% (rear)

## Helmet laws

### *Motorised two-wheelers*

Nearly all countries have national helmet laws for the riders and passengers of motorized two wheelers (mopeds and motorcycles). In the United States, only 19 states require helmet use by all riders and passengers of motorized two-wheelers and three states have no helmet law at all. Wearing rate is generally very good (around 99%) in countries with high safety performance. In several countries, one observes a much lower wearing rate for passengers of powered two-wheelers.

### *Cyclists*

A helmet is compulsory for all cyclists in Australia, Finland and New Zealand. Several countries require helmet use for children. There is little information on wearing rate.

Table 8. **Helmet laws and wearing rates, 2011 or 2012**

Country	Powered two wheelers		Cyclists	
	Helmet law	Wearing rate	Helmet law	Wearing rate
Argentina	Yes	42% riders 26% passengers	No	
Australia	Yes		Yes	
Austria	Yes		Yes for children up to 12	
Belgium	Yes	Unknown	No	
Cambodia	Yes, for PTW > 49cc, not yet compulsory for passengers			
Canada (2009-10)	Yes		In some jurisdictions	
Colombia	Yes, since 1998		No	
Czech Republic	Yes	Nearly 100%	Yes for children up to 18	
Denmark (2010)	Yes	96% (in 2006)	No	
Finland	Yes		Yes since 2003 but not enforced	37%
France	Yes, since 1973	93%	No	
Germany	Yes	99%	No	13%
Greece	Yes	75% riders 46% passengers	No	
Hungary	Yes since 1965 for motorcyclists, 1997 for moped riders outside built up areas, 1998 for moped riders in urban areas.	Nearly 100%	No	
Iceland	Yes		Yes for children up to 14	
Ireland	Yes	99.9%	No	49%
Israel	Yes	Nearly 100%	No	
Italy	Yes since 1986 for young people below 20; since 2000 for all	76-99%, varies by region	No	
Jamaica	Yes	Very low		
Japan	Yes	Around 99%		
Korea	Yes	75%	No	
Lithuania	Yes		Yes for children below 18	
Luxembourg	Yes, since 1976	Unknown		
Malaysia	Yes, since 1973	90% in urban areas 50% outside urban areas		
Netherlands	Yes, motorcycles since 1972; mopeds since 1975 Not compulsory on mopeds (max. speed 25 km/h)	Riders: 96-100%	No	
New Zealand	Yes, since 1973 (at all speeds)		Yes since 1994	92% for children
Norway	Yes			
Poland	Yes since 1997		No	
Portugal				
Serbia	Yes since 2009		No	
Slovenia	Yes		Yes for children up to 14	
South Africa	Yes		No	
Spain	Yes	98-100%	Yes, except in built up areas	
Sweden	Yes		Yes for children below 15	60-70% children 32% adults
Switzerland	Yes, motorcycles since 1981; mopeds since 1990	Almost 100%	No	40% 70% for children
United Kingdom (2009)	Yes, motorcycles since 1973; mopeds since 1977		No	
United States	No national law 19 states require helmet use by all PTW operators and passengers. 28 states requires helmet use by some segment of population 3 states have no helmet law	60% in 2012	21 states and the District of Columbia have enacted age-specific bicycle helmet laws	

## LIST OF IRTAD MEMBERS AND OBSERVERS

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<b>Belgium</b>	Institut Belge pour la Sécurité Routière (IBSR)	Mr Yvan CASTEELS Ms Heike MARTENSEN Ms Nina NUYTTENS
<b>Cambodia</b>	National Road Safety Committee	Mr. Voun CHHOUN
<b>Canada</b>	Transport Canada	Ms Kim BENJAMIN Mr Michael MARTH
<b>Colombia</b>	Corporación Fondo de Prevención Vial	Ms. Salomé NARANJO LUJAN Ms Alexandra ROJAS LOPERA
<b>Czech Republic</b>	CDV – Transport Research Centre	Mr Jan TECL
<b>Denmark</b>	Road Directorate Danish Technical University University of Alborg	Mr Sven Krarup NIELSEN, Mr Stig HEMDORFF Ms Tove HELS Mr Jens Christian Overgaard MADSEN
<b>Finland</b>	Finnish Transport Safety Agency (TraFi)	Mr Anders GRANFELT
<b>France</b>	Observatoire National Interministériel pour la Sécurité Routière	Ms Manuelle SALATHE Mr Christian MACHU
	IFSTTAR	Mr Sylvain LASSARRE
	SETRA	Ms. Laëtitia COPEAUX Mr Guillaume TREMBLIN
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<b>Greece</b>	National Technical University of Athens (NTUA)	Mr Georges YANNIS
<b>Hungary</b>	KTI – Institute for Transport Science	Mr Peter HOLLO, Ms Viktoria TOTH
<b>Iceland</b>	Public Road Administration	Ms Audur Thora ARNADOTTIR
<b>Ireland</b>	Road Safety Authority	Mr Yaw BIMPEH
<b>Israel</b>	National Road Safety Authority OR YAROK	Ms Sarit LEVI Ms Tsippy LOTAN
<b>Italy</b>	University La Sapienza Automobile Club d'Italia (ACI)	Mr Luca PERSIA, Mr Davide Shingo USAMI Ms Lucia PENNISI
<b>Jamaica</b>	Ministry of Transport, Works and Housing	Mr Kenute HARE
<b>Japan</b>	National Police Agency	Mr. Kazunori FUJIMAKI Mr Tatsuro MITSUI
	National Research Institute of Police Science (NRIPS)	Mr Goro FUJITA Mr Kenji HAGITA Ms Kazuko OKAMURA
	Institute for Traffic Accident Research and Data Analysis (ITARDA)	Ms Satoko ITO
	Kansai University	Mr Shintaro WATABE

<b>Jordan</b>	Jordan Traffic Institute	Mr Mamoon Kamal SALEH
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	Korean Transportation Safety Authority (TS)	Mr Byongho CHOE Mr Yoon Seok JEE Mr Sungjin JO
	Korea Expressway Corporation	Mr. Sun Woong MIN
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<b>Luxembourg</b>	STATEC	Ms Marie Jo AIROLDI
<b>Malaysia</b>	Malaysian Institute of Road Safety Research (MIROS)	Ms Jamilah MOHD MARJAN Ms Sharifah Allyana SYED RAHIM
<b>Netherlands</b>	Ministry of Infrastructure and the Environment SWOV Institute for Road Safety Research	Mr Peter MAK Mr Niels BOS, Mr Fred WEGMAN
<b>New Zealand</b>	Ministry of Transport	Mr Wayne JONES
<b>Norway</b>	Norwegian Public Roads Administration	Ms Guro RANES
<b>Poland</b>	Motor Transport Institute	Ms Justyna WACOWSKA-SLEZAK
<b>Portugal</b>	Autoridade Nacional Seguranca Rodoviara	Mr. Helder BATISTA, Mrs. Helena CLEMENTE
<b>Serbia</b>	Road Traffic Safety Agency	Mr Dragoslav KUKIC Mr Jovica VASILJEVIC
<b>Slovenia</b>	Slovenian Traffic Safety Agency	Mr Andraz MURKOVIC
<b>South Africa</b>	Road Traffic Management Corporation	Mr Collins LETSOALO, Ms. Magadi GAINWE
<b>Spain</b>	Dirección General de Tráfico RACC Automóvil Club	Ms. Rosa RAMÍREZ FERNÁNDEZ, Ms Pilar ZORI Mr Miquel NADAL
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<b>Switzerland</b>	Federal Roads Office (ASTRA) Swiss Council for Accident Prevention (bfu)	Mr Philippe BAPST Mr Steffen NIEMANN
<b>United Kingdom</b>	Department for Transport TRL	Mr Anil BHAGAT, Mr Daryl LLOYD Mr John FLETCHER
<b>United States</b>	National Highway Traffic Safety Administration (NHTSA)	Ms Terry SHELTON, Mr Umesh SHANKAR
	University of Michigan	Mr Charles COMPTON, Ms. Carol FLANNAGAN
	Harvard University	Ms Alison SCOTT
<b>European Commission</b>	DG MOVE	Ms Maria Teresa SANZ VILLEGAS
<b>The World Bank</b>	Global Road Safety Facility	Mr Marc SHOTTEN

The following national institutes also provide information and data to IRTAD:

<b>Finland</b>	Statistics Finland	Ms Marie NIEMI
<b>Greece</b>	EL.STAT.	Ms Nektaria TSILIGAKI
<b>Iceland</b>	Icelandic Road Traffic Directorate	Mr. Gunnar Geir GUNNARSSON
<b>Italy</b>	ISTAT	Ms. Silvia BRUZZONE

## Industry – Non governmental organisations

ACEA - European Automobile Manufacturers Association	Ms. Quynh-Nhu HUYNH
ACEM – European Motorcycle Manufacturers Association	Ms Veneta VASSILEVA
Daimler AG	Mr Jorg BAKKER
DEKRA Automobile	Mr Walter NIEWOEHNER
European Transport Safety Council (ETSC)	Ms Graziella JOST
FIA Foundation for the automobile and society	Mr David WARD, Ms Rita CUYERS
Ford	Mr Paul FAY
IMMA - International Motorcycle Manufacturer's Association	Mr Edwin BASTIAENSEN, Ms Vinciane LEFEBVRE
Nissan Motor Manufacturing	Ms Leoni BARTH
Renault	Mr Yves PAGE
Robert Bosch GmbH	Mr Walter GROTE
Transport Research Laboratory (TRL)	Mr John FLETCHER
Volkswagen AG	Mr Robert ZOBEL

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Ms Véronique FEYPELL-DE LA BEAUMELLE  
 Mr. Sangjin HAN  
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# Road Safety Annual Report 2013

## Summary

The IRTAD Annual Report 2013 provides an overview for road safety indicators for 2011 in 37 countries, with preliminary data for 2012, and detailed report for each country.

The report outlines the crash data collection process in IRTAD countries, describes the road safety strategies and targets in place and provides detailed safety data by road user, location and age together with information on recent trends in speeding, drink-driving and other aspects of road user behaviour.

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