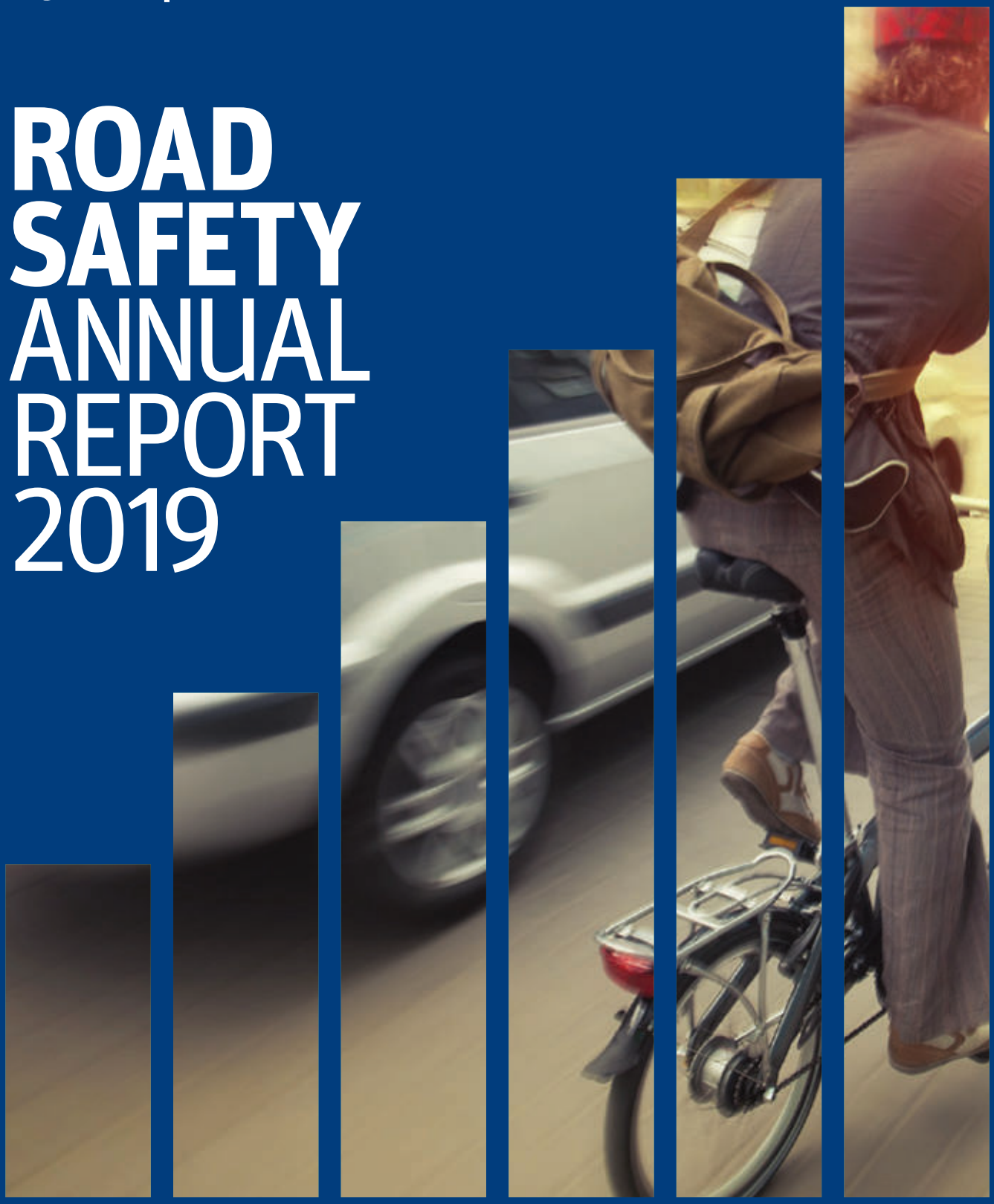
International Transport Forum

ROAD SAFETY ANNUAL REPORT 2019



OECD

irtad
International Traffic Safety Data and Analysis Group

International Transport Forum

ROAD SAFETY ANNUAL REPORT 2019

irtad
International Traffic Safety
Data and Analysis Group

ABOUT THIS PUBLICATION

This work is published under the responsibility of the Secretary-General of the International Transport Forum. The opinions expressed and arguments employed herein do not necessarily reflect the official views of International Transport Forum member countries. This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law. Data in this report have been provided by countries to the database of the International Traffic Safety Data and Analysis Group (IRTAD). Where data in this report has not been independently validated by IRTAD, this is indicated. Additional information on individual countries is provided online at www.itf-oecd.org/road-safety-annual-report-2019

ABOUT THE INTERNATIONAL TRANSPORT FORUM

The International Transport Forum is an intergovernmental organisation with 60 member countries that organises global dialogue for better transport. It acts as a think tank for transport policy and hosts the Annual Summit of transport ministers. The ITF is the only global body that covers all transport modes. The ITF is administratively integrated with the OECD, yet politically autonomous.

ABOUT IRTAD

The International Traffic Safety Data and Analysis Group (IRTAD) is the permanent working group for road safety of the International Transport Forum. The IRTAD database collects and aggregates international data on road crashes; currently its database contains validated road safety data for 33 countries. It thereby provides an empirical basis for international comparisons and more effective road safety policies. The IRTAD Group brings together road safety experts from national road administrations, road safety research institutes, International Organisations, automobile associations, insurance companies, car manufacturers and others. Currently, the IRTAD Group has 80 members and observers from more than 40 countries.

CONTENT

FOREWORD

It is with great pleasure that I present the 2019 edition of the Annual Report of the International Traffic Safety Data and Analysis Group (IRTAD) which contains the most recent road safety data and up-to-date information for 41 countries.

The large majority of IRTAD countries recorded a decrease in the number of road deaths in the year 2017, and provisional data for 2018 show further reduction for several countries. This is good news as following good results at the beginning of the decade, the number of road deaths plateaued or even increased in several countries after 2013. Several countries that achieved a relative strong reduction in the beginning of the decade seemed to struggle to further decrease the number of road casualties. However, further research is needed to understand why this happened, and which measures can now been taken to reverse a downward trend.

Improving road safety and the number of road casualties requires permanent and continuous actions based on the analysis of solid data. In some countries, the "easy" measures have now been implemented and to reduce further the number of road casualties, including serious injuries, it is necessary to exploit available data on the circumstances of crashes, the mechanisms leading to crashes and their severity, the road users involved, etc., as well as to undertake proactive risk assessment of the road network. It is also important to set ambitious targets not only for the number of road deaths and serious injuries, but also for a set of performance indicators, which become indissociable to an effective road safety policy. This is the core of the IRTAD work, which is striving to improve our knowledge about road safety and to offer countries a unique forum to exchange on crash data methodologies and analysis. This report is the fruit of the rich collaborative work undertaken by all IRTAD members throughout the year. Our Group now includes 80 members representing 40 countries; and I would like to thank each member warmly for its engagement and contribution.

IRTAD also plays an important role in assisting low- and middle-income countries in improving their knowledge on road safety and enhancing their crash data system. The International Transport Forum and its IRTAD Group are key partners in the joint initiatives with the World Bank and the Fédération Internationale de l'Automobile (FIA) to develop regional road safety observatories in Asia and Africa, inspired from the successful experience with OISEVI the Ibero American Road Safety Observatory, created in 2012. We hope that these initiatives will bring tangible results leading to a clearer picture on the road safety situation in these countries.

IRTAD has a number of new challenges ahead. In particular, the emergence of new forms of mobility raises new issues in terms of transport

planning and safety management. It also requires new thinking on how to account for new mobility in crash statistics and we will work in this issue in the coming year. It is also of importance to seize the opportunities of "big data" and understand how they can be exploited used to shed new light on mobility and safety issues.

The year 2020 will be a very important year for road safety, with the holding of the Third Ministerial Global Conference on Road Safety in Stockholm in February. It is expected that new road safety targets will be adopted in the framework of the Agenda 2030. Close monitoring of the evolution in the number of road casualties, but more importantly on the development of key performance indicators, will be essential to assist policy makers in implementing successful road safety strategies in the next decade.

Fred Wegman
Chair of the IRTAD Group

TRENDS

15 IRTAD COUNTRIES REACHED THEIR LOWEST NUMBER OF ROAD DEATHS IN 2017

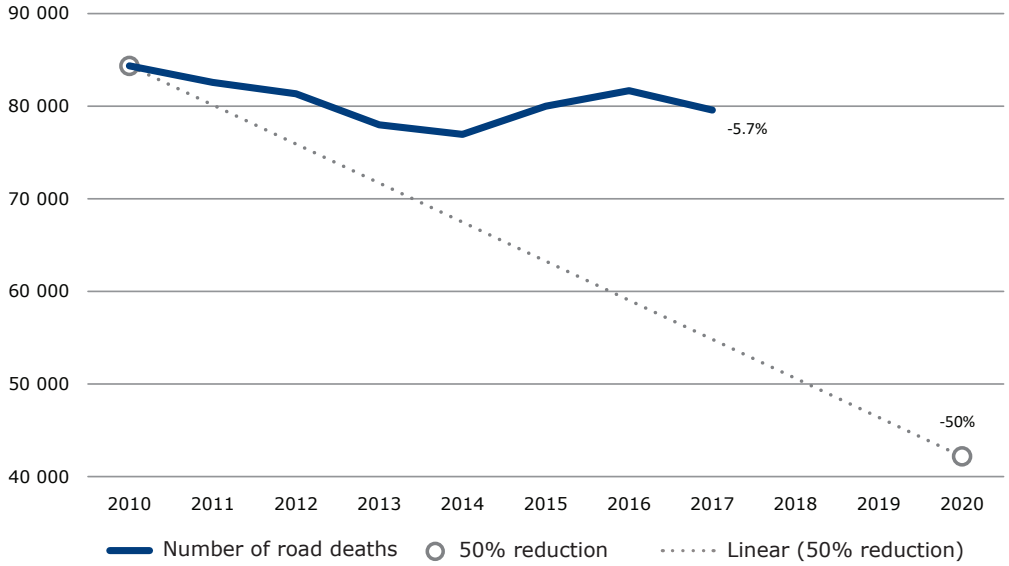
The years 2017 and 2018 have been encouraging for road safety in the majority of IRTAD countries. This is welcome as progress since 2013 had generally slowed. The average annual reduction was much greater between 2010 and 2013 than during the period 2013-17, despite encouraging results in 2017 and 2018.

The number of road deaths declined in the majority of countries in 2018, according to preliminary data. Among the 26 countries with provisional or final data available for 2018, the number of road deaths decreased or stabilised in 16 countries, while it increased in 10 countries. In particular, the number of road deaths increased by 28% in Sweden, by 14% in the Czech Republic and by 11% in the Netherlands. On average, the number of road deaths decreased by 1.7% in IRTAD Member countries in 2018 when compared to 2017. This is all the more encouraging as the year 2017 had already seen fatality reductions in several countries.

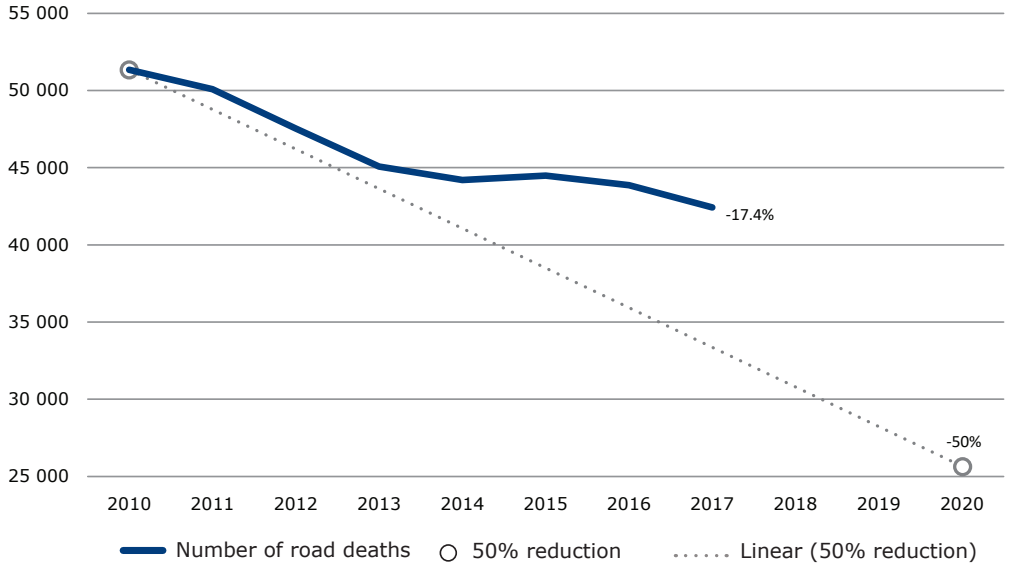
Road safety improved in most IRTAD countries in 2017, based on final data. The number of road deaths decreased in 27 out of the 33

Figure 1. **Aggregate evolution in the number of road deaths in IRTAD countries,** 2010-17

a. Number of road deaths - aggregated data for 33 countries



b. Number of road deaths - aggregated data for 32 countries (excluding the US)



Data for Argentina in 2016 are an estimate.

countries with validated data. Overall the number of road deaths decreased by 2.6% from 81 669 road deaths in 2016 to 79 554 road deaths in 2017 across the 33 countries. Information from countries with non-validated data suggests a similar downward trend.

Fifteen countries registered the lowest number of road deaths in 2017 since the start of systematic record-keeping. These countries are Austria, Belgium, Canada, the Czech Republic, Germany, Greece, Ireland, Japan, Korea, Lithuania, Luxembourg, Norway, Poland, Slovenia and Sweden. The countries that recorded the largest decrease in 2017 were Luxembourg, Norway and Slovenia with a reduction of more than 20%. However, the number of road deaths increased in six countries (Spain, Hungary, Italy, Portugal, Switzerland, and New Zealand). This is the fourth consecutive year that New Zealand and Spain have experienced increases.

Traffic fatalities were down by 5.7% in 2017 compared to 2010. It is important to recognise the degree to which the United States, as the most populous IRTAD member, heavily influences the data. If the United States is excluded, the average reduction in road deaths is 17.4%.

Progress in reducing road fatalities has been slow since 2013. From 2010-13, the overall average annual reduction in the number of road deaths in IRTAD countries was 2.6%. The period 2013-17, by contrast, saw an average annual increase of 0.5%. In some countries, this reverse trend is particularly marked. New Zealand for example benefited from an average 12.3% annual reduction in the number of road deaths in the period 2010-13, but faced an average 10.6% increase in the period 2013-17.

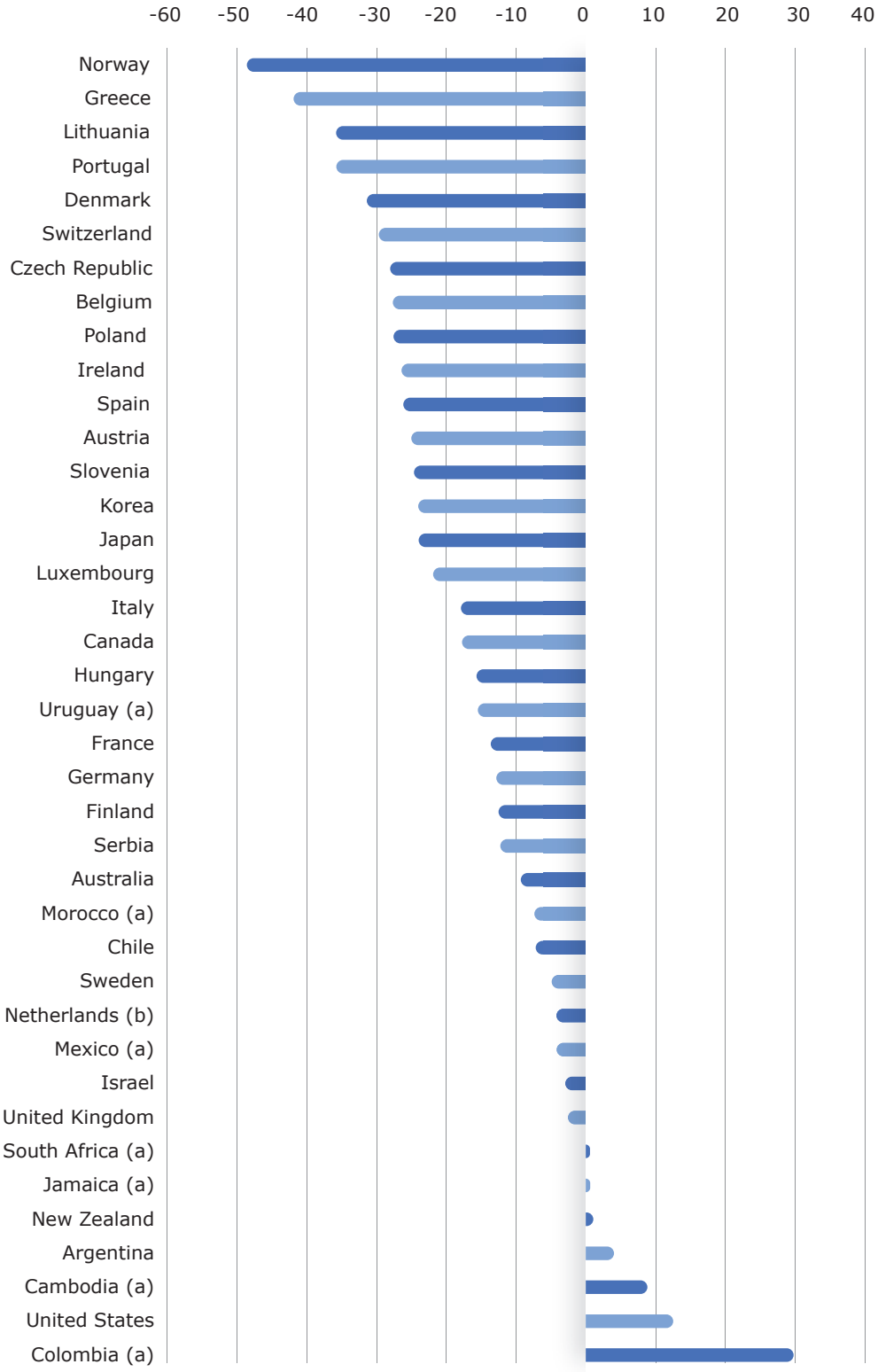
Large disparities between countries' longer-term road safety development lie behind the average figures. Benchmarked against 2010 data, the number of traffic deaths fell in 29 out of 33 countries in IRTAD member countries in 2017 (see Figure 2). The strongest reductions were achieved by Norway and Greece. Norway nearly halved its number of road deaths from 208 to 107 in the period 2010-17. Greece reduced the number of traffic fatalities from 1258 to 731, a drop of 42%.

The success of Norway is particularly remarkable, as the country's roads were already among the safest in the world. An additional group of three countries (Portugal, Lithuania and Denmark) saw a reduction in fatalities of over 30%. Four countries registered an increase in the number of road deaths in the period 2010-17: the United States (+12.5%), Argentina (+4%) and New Zealand (+1.1%). Iceland recorded eight more road fatalities.

Since 2000 most IRTAD countries achieved a significant reduction in the number of road deaths, even if this was achieved mostly from 2000-13. Twenty countries out of 32 with consistent data achieved a reduction of traffic deaths by 50% or more during the 2000-13 period.

PROGRESS IN REDUCING ROAD FATALITIES HAS BEEN SLOW SINCE 2013

Figure 2. **Percentage change in the number of road deaths,** 2010-17



Data for Iceland are not shown because the observations are too low to have meaningful percentage changes.
(a) Data as provided by the countries and not validated by IRTAD.
(b) Real data (actual numbers instead of reported numbers by the police).

Figure 3. **Percentage change in the number of road deaths,** 2000-13 vs. 2013-17

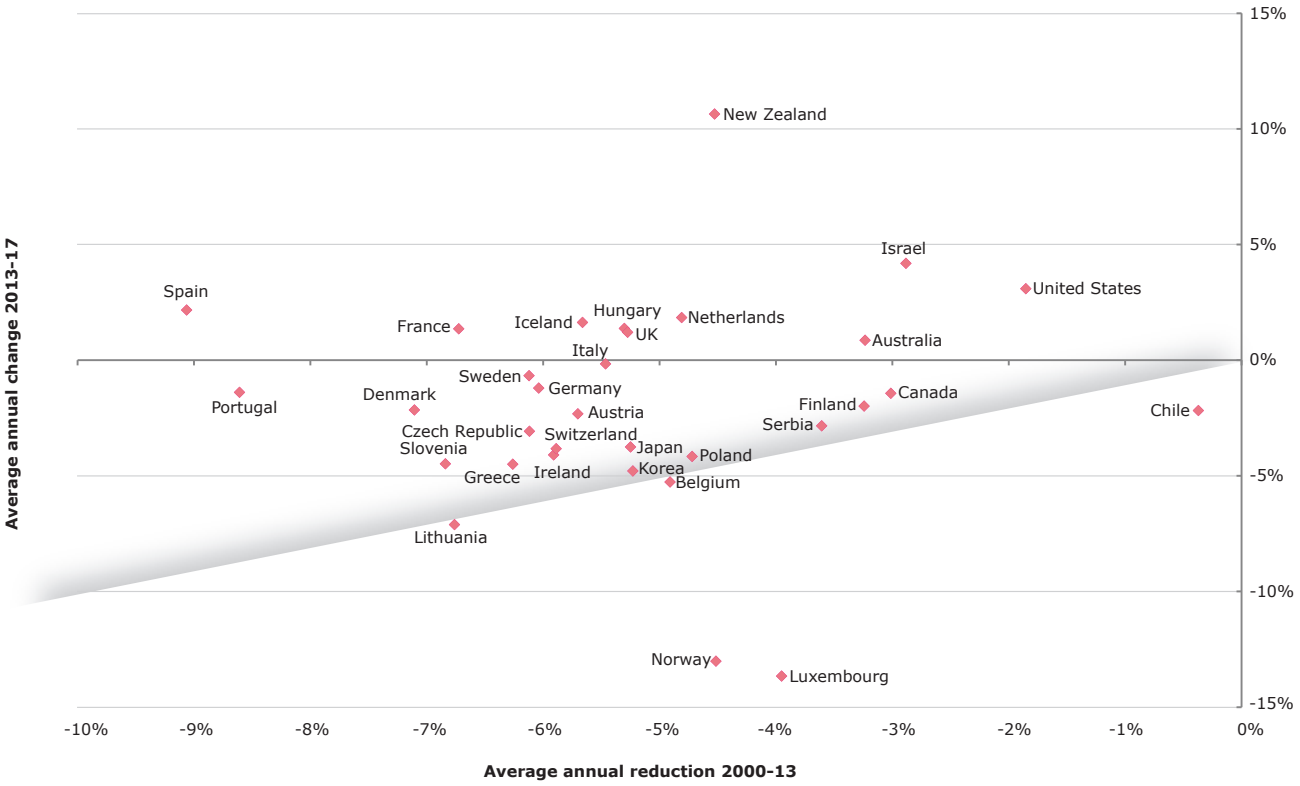


Figure 3 positions countries based on the progress made between 2000 and 2013 (X axis) and between 2013 and 2017 (Y axis). Three groups of countries can be distinguished, based on the progress made in 2000-13.

Six countries recorded an annual average reduction in the number of road deaths of 6.5% or more: France, Lithuania, Slovenia, Denmark, Portugal and Spain. Seven countries recorded an annual average reduction in the number of road deaths of less than 4%: Chile, the United States, Israel, Canada, Australia, Finland and Serbia.

All other countries recorded an annual average reduction in the number of road deaths of between 4% and 6.5%. A comparison between the two periods 2000-13 and 2013-17 shows that, only five countries performed better after 2013 (below the line in Figure 3): Lithuania, Belgium and Chile improved slightly, Norway and Luxemburg significantly. Ten countries saw increases in the number of road deaths in 2013-17. Some of these had recorded strong reductions in the previous period. Further analysis is needed to understand why progress has slowed down, in particular in countries having a relatively good performance up to 2013.

The long-term trend is positive, yet far from sufficient to achieve international road safety objectives. The 50% reduction target for road deaths by 2020 set out by the international community in the context of the United Nations Decade of Action for Road Safety and in the United Nations Sustainable Development Goals (SDGs) remains out of reach on current trends. To achieve a 50% reduction between 2010 and 2020, a reduction by at least 38% by 2017 (i.e. an annual average reduction of 6.7%) would have been needed. Only two countries, Norway and Greece, have achieved this.

Most of IRTAD's validated data concern high-income countries. Yet indicative numbers are available from low- and middle-income IRTAD observer countries. These suggest that in some of those countries the number of road deaths has increased between 2010 and 2017.

Fully 90% of global road deaths occur in low- and middle-income countries. Generally, the road safety situation in these countries and regions is much less well understood than the situation in IRTAD member countries. It is likely that road deaths in these regions are underreported, as reflected by the estimates provided by the Global Status Report on Road Safety published by the World Health Organization (WHO).

A number of overarching factors help to contextualise recent trends in road safety performance in addition to factors at work at the national level.

1. Speeding and drink driving remain two key factors in fatal crashes. There is no standard methodology to assess the role of drink driving or excessive and inappropriate speed in the occurrence of road crashes. Yet all countries report that speeding contributes between 15% and 35% of fatal road crashes. Similarly, driving under the influence of alcohol contributes to between 10% and 30% of fatal crashes in most countries.

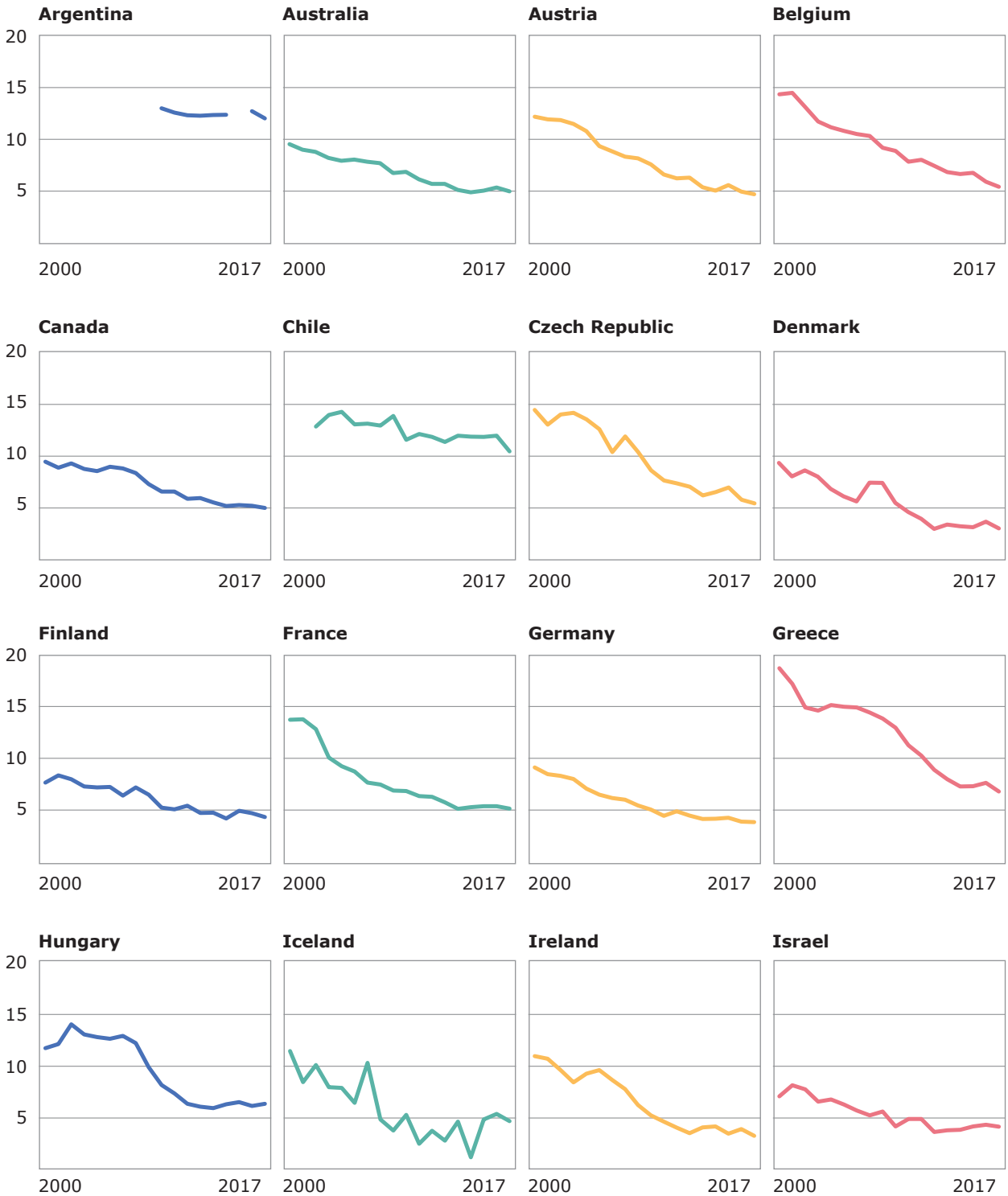
2. Economic factors have an impact on road safety performance. The years following the 2008 financial crisis were associated with a decrease in the number of road deaths. Conversely, the economic recovery from 2013 onwards was accompanied by a significant increase in the number of road deaths as motorised travel picked up again.

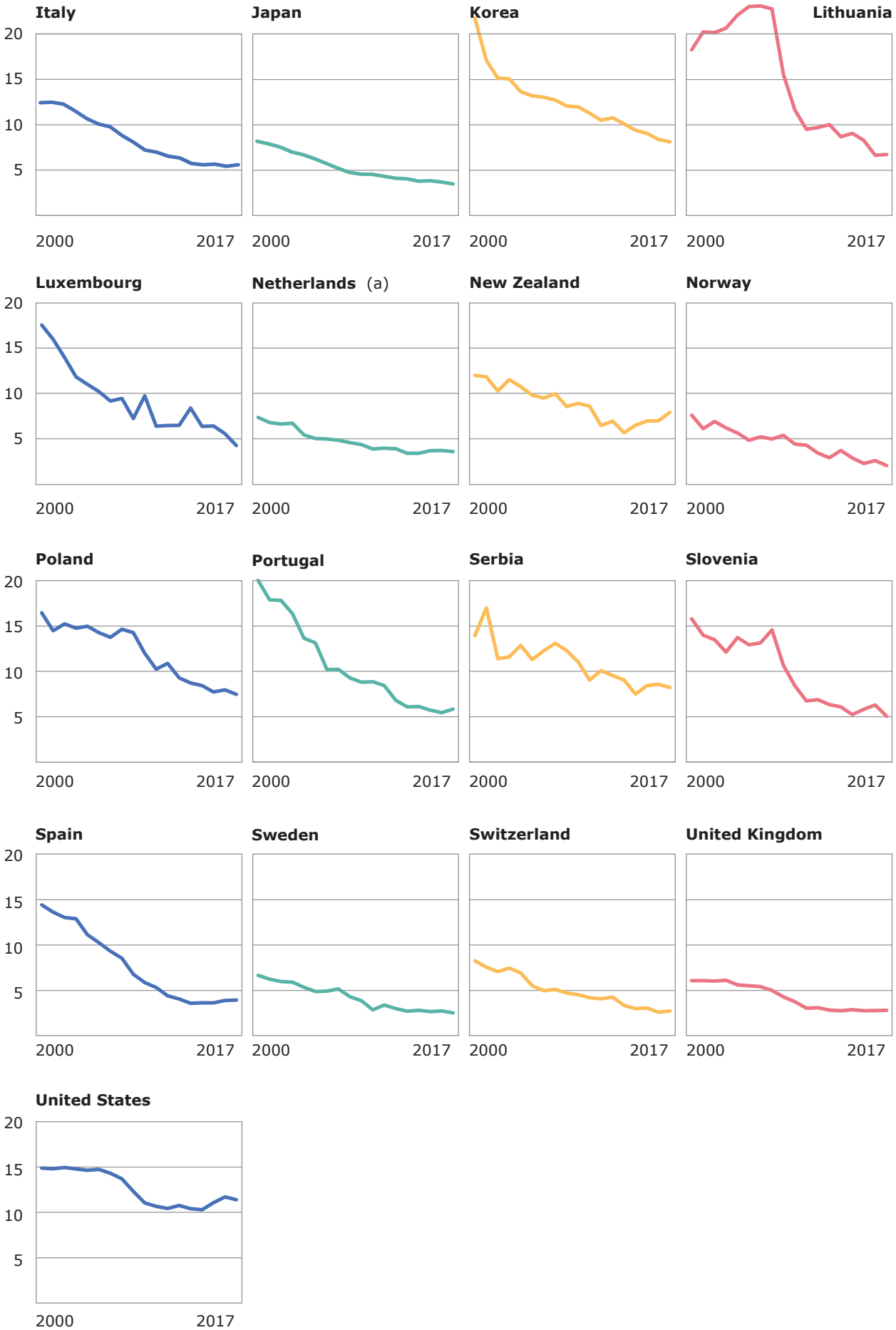
3. The popularity of cycling is increasing. Countries that collect data on cycling have registered a strong increase in the number of kilometres cycled over recent years. A sharp increase in the use of e-bikes has also been recorded. This development is associated with significantly higher numbers of fatal cycling crashes in several countries. Data are also needed on the impact of new mobility forms, for instance electric scooters, on road safety.

4. Enforcement of traffic laws has been reduced. Several countries report a lower intensity of enforcement measures. In some cases, this is due to a shift in police force priorities. Less strict enforcement of traffic laws is likely to encourage dangerous driving behaviour, notably speeding and drink driving, ultimately leading to more crashes and traffic deaths.

5. An encouraging reduction in the number of young people killed. All countries with validated data have observed a reduction in the number of young people aged 18-24 killed in traffic. This can be explained by several factors: the success of road safety education and training policies, the trend in some countries for young people to start driving at a later age when their risk in traffic is lower, and the use of safer travel modes.

Figure 4. **Evolution of road fatalities** per 100 000 inhabitants, 2000-17





(a) Real data (Actual numbers instead of reported numbers by the police).

ROAD SAFETY INDICATORS

THE RISK OF BEING KILLED IN A ROAD CRASH IS SIX TIMES HIGHER IN ARGENTINA THAN IN NORWAY

Traffic-related mortality rates differ widely between countries. The risk of being killed in a road crash is six times higher in Argentina than in Norway, for instance. The mortality rate among the 33 countries with validated data ranged from 2 to 12 in 2017.

Five countries recorded a mortality rate equal to or below 3 fatalities per 100 000 inhabitants: Norway (2), Sweden (2.5), Switzerland (2.7), the United Kingdom (2.8) and Denmark (3). In the year 2000 the best performing country (the United Kingdom) had a mortality rate of 6.1. Fourteen additional countries form a group of relatively well-performing countries with mortality rates of five or less. Not a single country had achieved such a rate in 2000. Three countries registered a mortality rate above 10 road deaths per 100 000 inhabitants: Chile (10.4), the United States (11.4) and Argentina (12).

Traffic-related mortality rates in all IRTAD member countries are far below in many low- and middle-income countries despite those disparities. The average global mortality rate is 18.3 road deaths per 100 000 inhabitants, according to the WHO's Global Status Report on Road Safety released in 2018. Globally, too, there are large disparities between regions. The mortality rate in Africa is 26.6

while it stands at 20.7 for South East Asia. The WHO estimates mortality rates above 30 for several countries, mainly in Africa.

The mortality rate is useful for comparing the level of road safety across countries. Comparing the number of road fatalities in relation to the total distance travelled provides an indicator for assessing the risk of travelling on a given road network. The number of traffic deaths in relation to the number of vehicles on the road serves as an approximation of crash risk exposure in the absence of data on distance travelled.

The fatality rate measured against the number of motorised vehicles in the fleet ranged from 0.3 to 3.8 in 2017. Six countries (Norway, Switzerland, Sweden, the United Kingdom, Japan and Iceland) registered fatality rates below 0.5 deaths per 10 000 registered motor vehicles in 2017.

In 2000, the four best-performing countries had fatality rates of 1.2. Thus, the fatality risk in these countries has more than halved in the past 16 years. Among countries for which validated data exists, the fatality risk was highest in Chile, which had 3.8 road deaths per 10 000 motorised vehicles or 15 times the rate of top-performing Norway. Importantly, other countries exceed the risk level of Chile, but not based on validated data.

Travel risk measured by distance travelled has decreased in all IRTAD countries since 2010, except for the United States (see Table 3). Six countries recorded fewer than four deaths per billion vehicle-kilometres travelled in 2017: Norway, Sweden, Denmark, Ireland, Switzerland and the United Kingdom (without Northern Ireland). Data on vehicle-kilometres travelled is regularly collected in 22 of the 33 IRTAD countries.

MEASURING RISK AND COMPARING COUNTRIES

Three indicators are commonly used to measure road safety performance and compare safety levels across countries:

1. The number of fatalities per population (mortality rate)

2. The number of fatalities per distance travelled by motorised vehicles (fatality risk)

3. The number of fatalities per number of registered motorised vehicles.

Each indicator has pros and cons and in all cases, country comparisons should be interpreted with greatest care, especially between countries with different levels of motorisation.

Fatalities per population

The number of inhabitants is the most often-used denominator, as this figure is readily available in most countries. This rate expresses the mortality rate, i.e. an overall risk of being killed in traffic, for the average citizen. It can be compared with other causes of death, like coronary diseases or HIV/AIDS. It is useful to compare risk in countries with comparable levels of motorisation. It is not very meaningful to compare safety levels between highly motorised countries and countries where the level of motorisation is low. Usually the mortality rate is given as road fatalities per 100 000 or per million inhabitants.

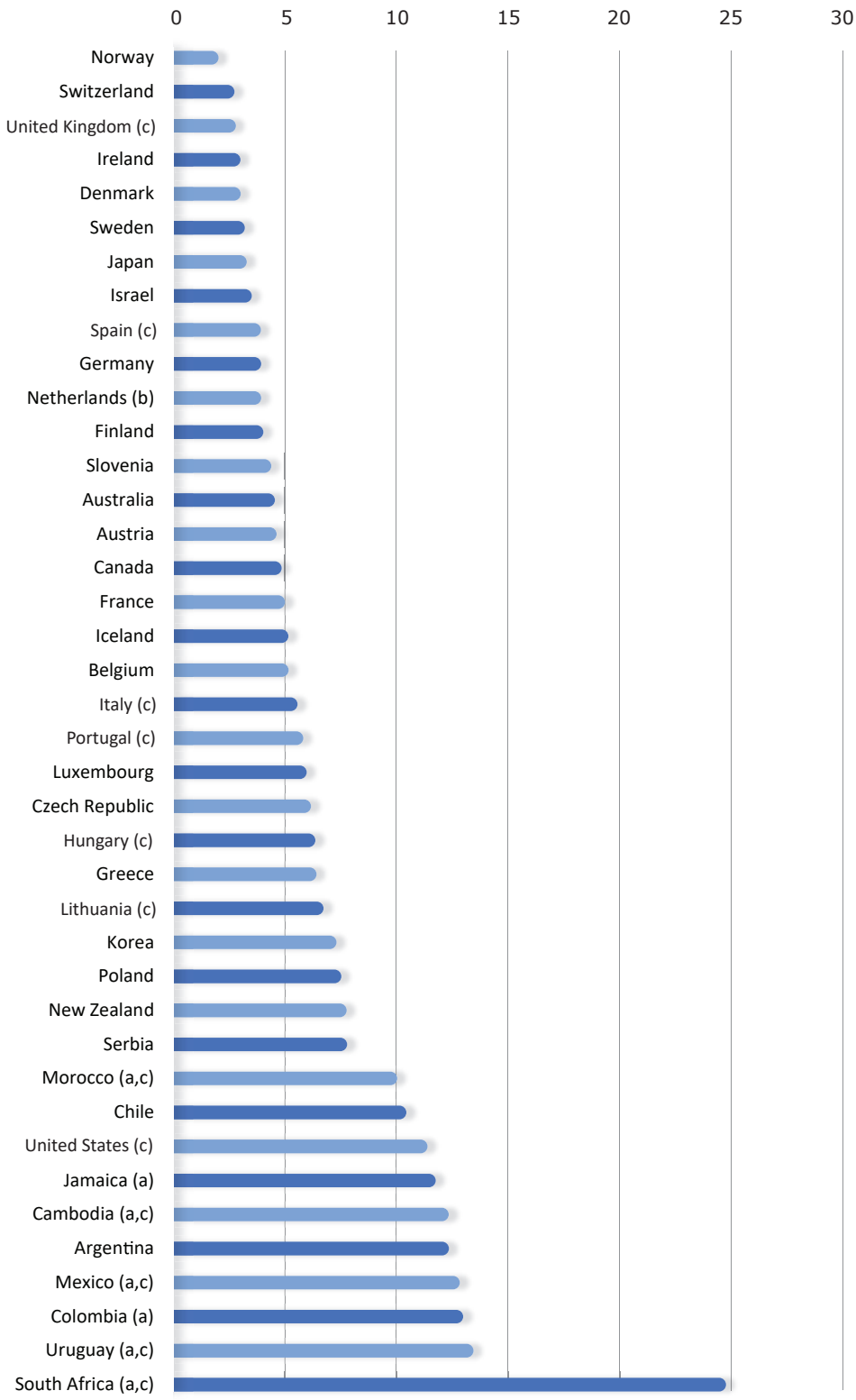
Fatalities per distance travelled

This indicator describes the safety quality of road traffic. Theoretically, it is the best indicator to assess the level of risk of the road network. The fatality risk does not take into account non-motorised vehicles (such as bicycles), which in some countries represent a large part of the vehicle fleet and of road fatalities. Only a limited number of countries collect data on distance travelled. Fatality risk is usually expressed in road deaths per billion vehicle-kilometres.

Fatalities per number of motorised vehicles

This rate can be seen as an alternative to measuring fatalities per distance travelled, although it does take into account the actual volume of traffic. It can therefore only be used to compare the safety performance of countries with similar traffic and vehicle-use characteristics. It also requires reliable statistics on the number of vehicles. In some countries, scrapped vehicles are not systematically removed from the registration database, thereby undermining the accuracy of this indicator. Equally, this indicator does not take into account non-motorised vehicles (such as bicycles), which represent a large part of the vehicle fleet and of the fatality figures in some countries. This indicator is usually expressed as the number of fatalities per 10 000 registered motorised vehicles.

Figure 5. **Road fatalities per 100 000 inhabitants,** 2018 or latest available

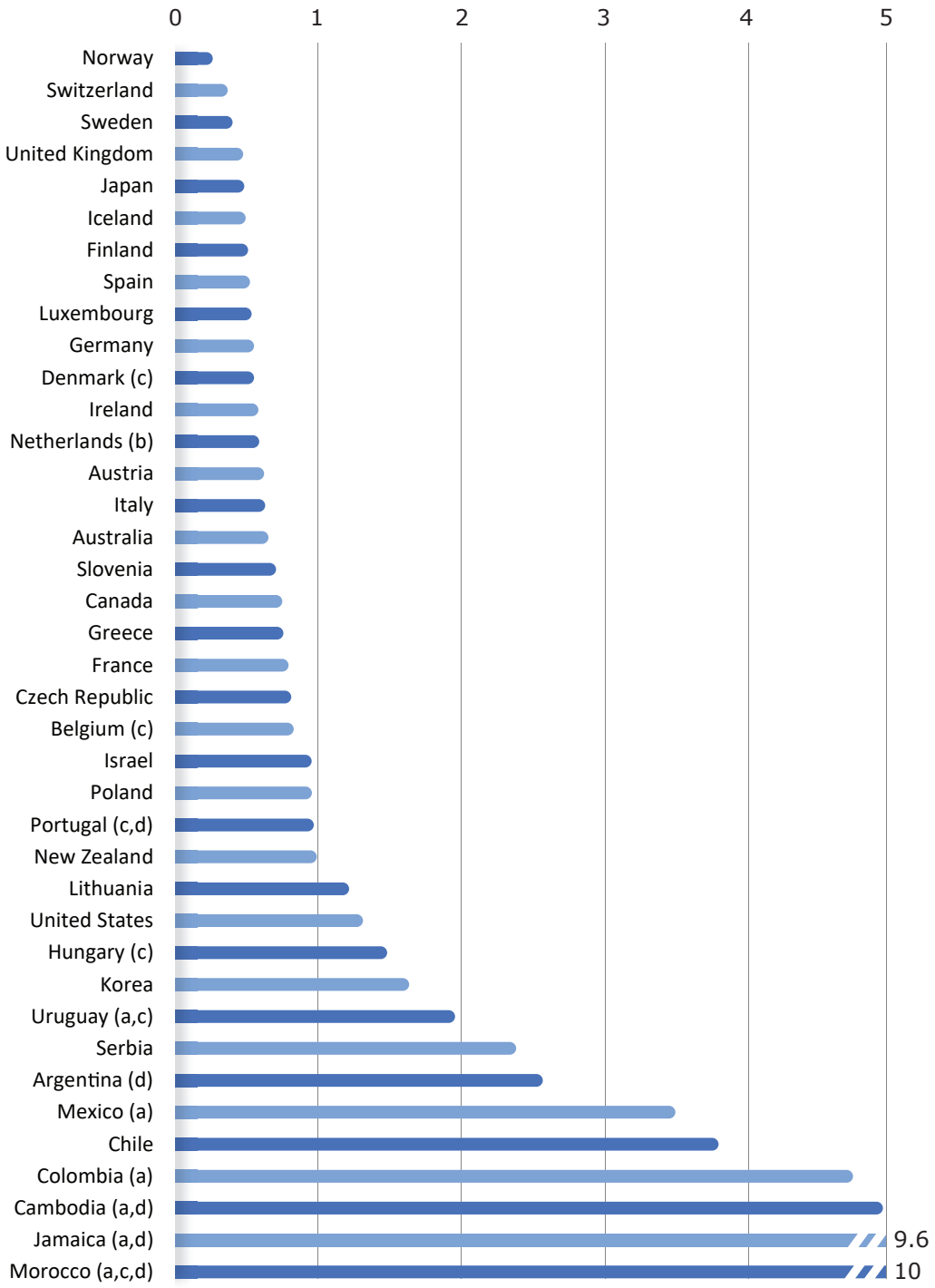


(a) Data as provided by the countries and not validated by IRTAD.
(b) Real data (actual numbers instead of reported numbers by the police).
(c) 2017 data

Figure 6. **Road fatalities per billion vehicle-kilometres,** 2017

(a) Real data (actual numbers instead of reported numbers by the police).
(b) Data only for Great Britain.
(c) 2016 data.

Figure 7. **Road fatalities per 10 000 registered vehicles,** 2017



(a) Data as provided by the countries and not validated by IRTAD.
(b) Real data (actual numbers instead of reported numbers by the police).
(c) Mopeds are not included in the registered vehicles.
(d) 2016 data.

ROAD USERS

THE SAFETY OF CYCLISTS SHOWS A WORRYING TREND IN SEVERAL COUNTRIES

Vehicle occupants continue to benefit most from road safety improvements. The number of car occupants killed in crashes has decreased in all countries since 2010. The exceptions are the United States where the number of killed car occupants has increased by 7.0%, and Iceland. On average, the number of car occupants killed in a traffic crash decreased by 10.8% between 2010 and 2017, against a decrease of 5.7% in the total number of road deaths. The most significant reductions occurred in Luxembourg (-52%) and Norway (-49%). Safer roads as well as the addition to the fleet of safer vehicles equipped with crash-preventing technologies (such as Electronic Stability Control) or impact-mitigation devices (e.g. airbags) contributed to this improvement.

The number of pedestrians killed increased by 2.7% between 2010 and 2017. However, this increase is largely attributable to the rise in pedestrians fatalities in the United States (+38.9%), where walking trips have increased between 1990 and 2017, according to the National Household Travel Survey. Excluding the United States yields a more favourable 15.5% overall decrease in the number of

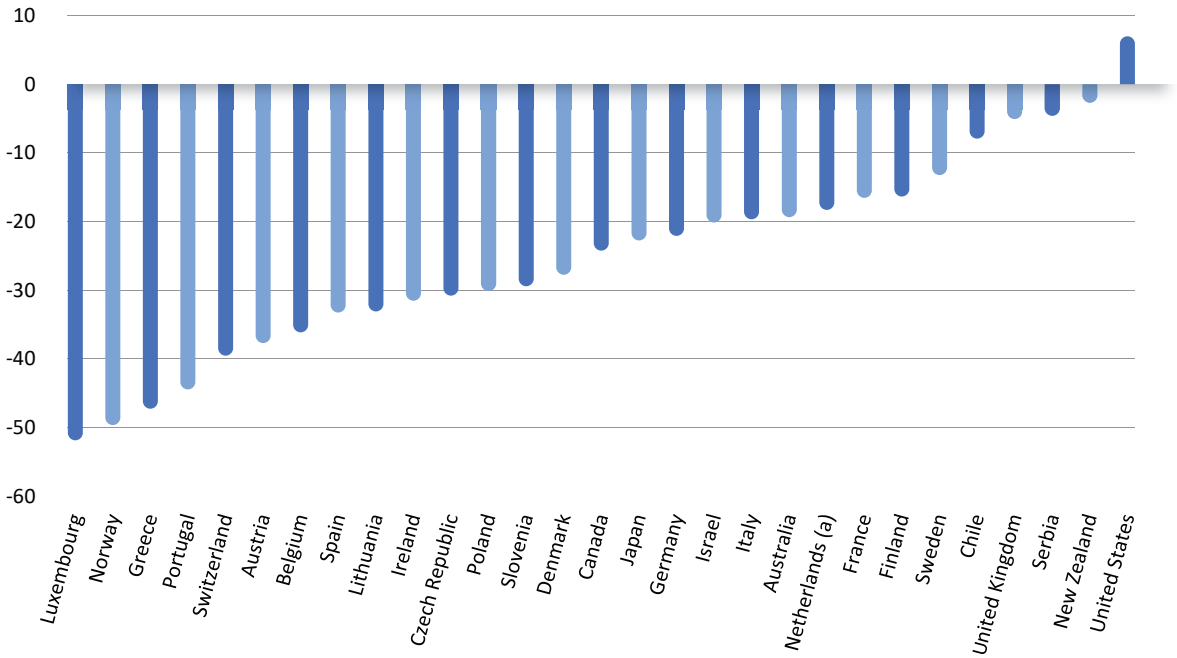
pedestrians killed. In 24 out of the 30 countries with available data fewer pedestrian deaths were recorded. The strongest improvements occurred in Slovenia (-62%) and Denmark (-55%). The number of pedestrians killed increased in Germany (+1.5%), New Zealand (+11%), the United Kingdom (+17%), and Sweden (+19%).

The number of motorcyclists killed in traffic surged in 2017 compared to 2016. Of the 30 with available data, 17 saw an increase in fatalities among users of motorised two-wheelers. Until 2017 the safety of motorcyclists tended to improve, with a 5.2% overall decrease in the number of motorcyclists killed between 2010 and 2017.

The safety of cyclists shows a worrying trend in several countries. The number of cyclists killed increased in 13 countries between 2010 and 2017 out of the 30 countries with available data. The strongest increases were observed in Ireland (from 5 cyclists killed in 2010 to 14 in 2017), Norway (from 5 to 9) New Zealand (from 10 to 18), the Netherlands (from 162 to 206), and the United States (from 623 to 783). The total number of cyclists killed decreased by 5.9% over the same period, however.
To ascertain whether an increase of fatalities among a specific road user group reflects increased risk or is the result of other factors (e.g. more kilometres travelled by that group) is impossible without information on the exposure of the different groups. Vehicle occupants have benefitted from safer vehicles with better protection. Cycling may have seen more fatalities as a result of increased numbers of cyclists, because the promotion of active mobility is not always accompanied by the provision of safe cycling infrastructure.

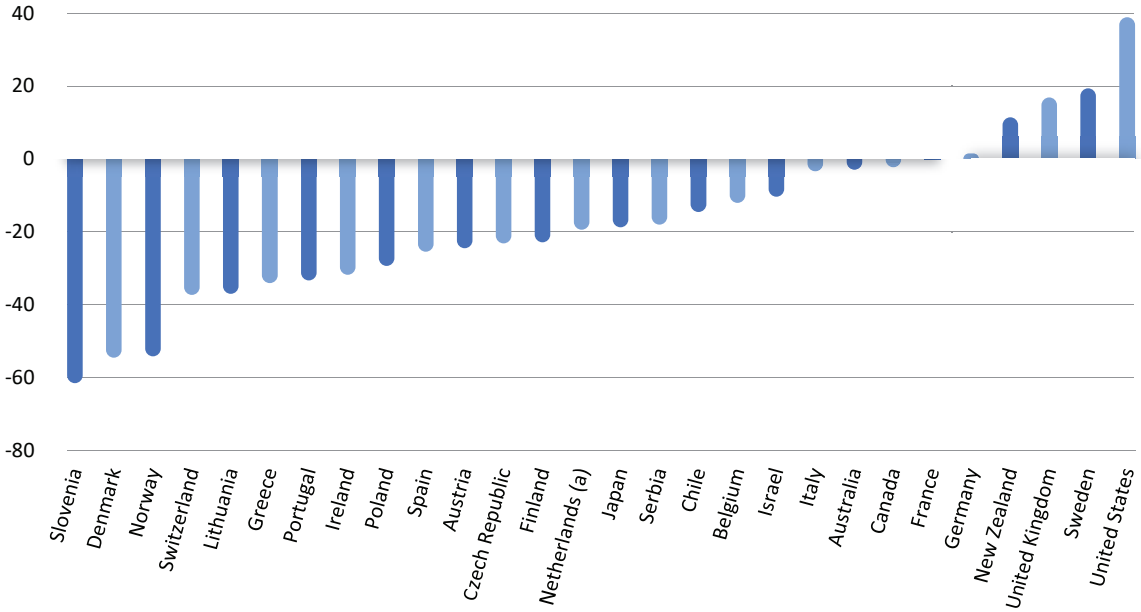
1. Federal Highway Administration (2018), Summary of Travel Trends: 2017 National Household Travel Survey.

Figure 8. **Percentage change in the number of car occupants killed,** 2010-17



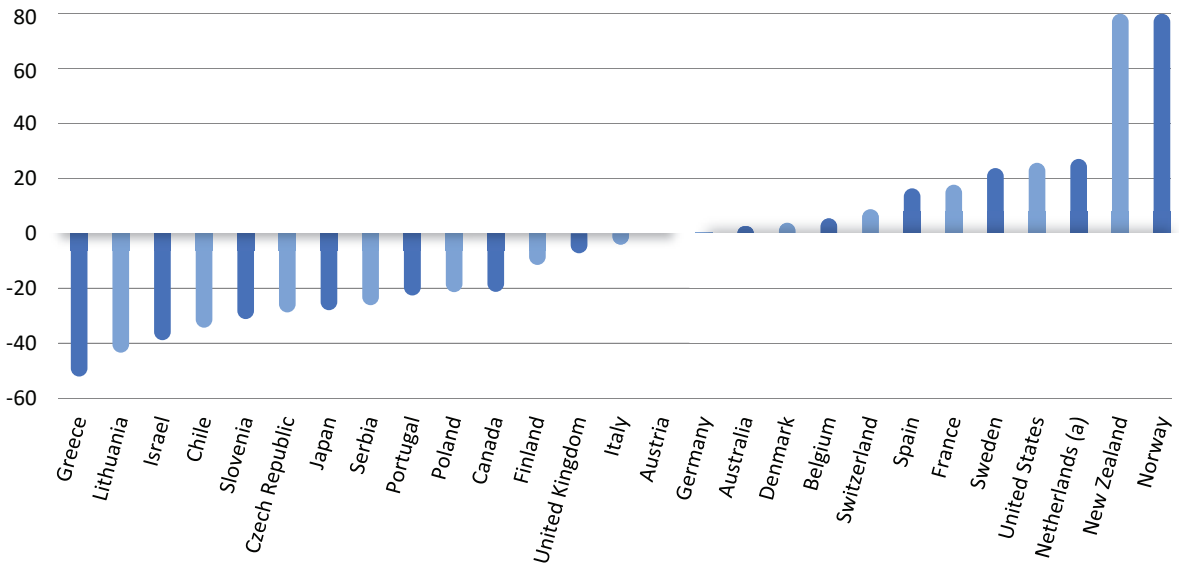
Data from Iceland are not shown since observations are too low to have meaningful percentage changes.
(a) Real data (actual numbers instead of reported numbers by the police).

Figure 9. **Percentage change in the number of pedestrians killed,** 2010-17



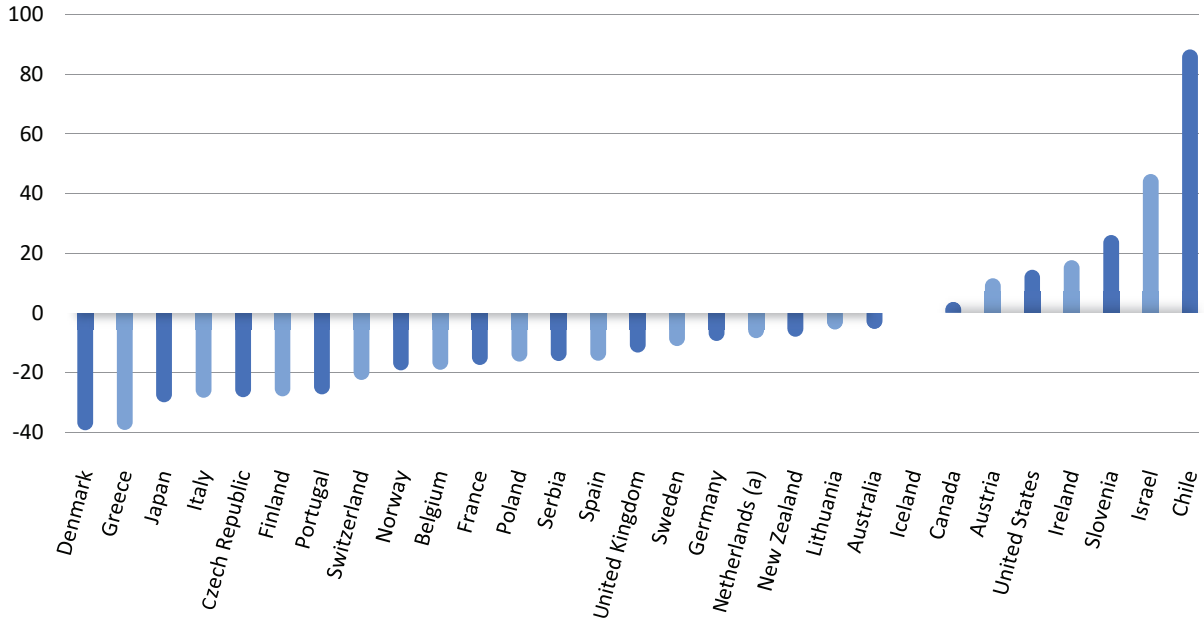
Data from Iceland and Luxembourg are not shown since observations are too low to have meaningful percentage changes.
(a) Real data (actual numbers instead of reported numbers by the police).

Figure 10. **Percentage change in the number of cyclists killed,** 2010-17



Data from Iceland, Ireland and Luxembourg are not shown since observations are too low to have meaningful percentage changes.
(a) Real data (actual numbers instead of reported numbers by the police).

Figure 11. **Percentage change in the number of riders of powered two-wheelers killed,** 2010-17



Data from Luxembourg are not shown since observations are too low to have meaningful percentage changes.
(a) Real data (actual numbers instead of reported numbers by the police).

AGE GROUPS

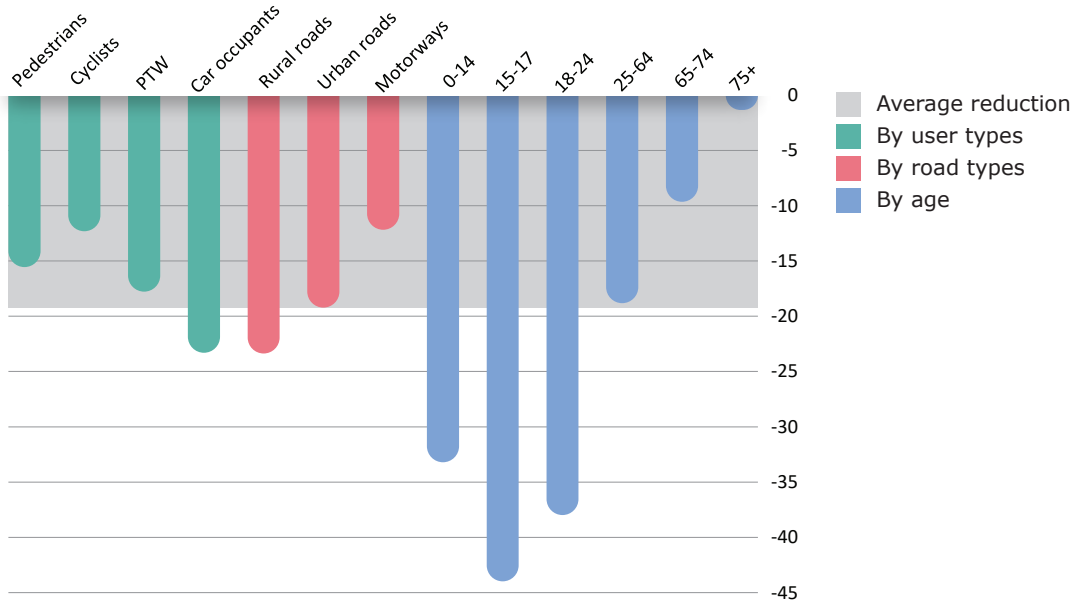
THE NUMBER OF YOUNG PEOPLE AGED 18-24 KILLED IN TRAFFIC DECREASED BETWEEN 2010 AND 2017

Young adults and teenagers benefitted most from the progress made in road safety since 2010. The number of young people aged 18-24 killed in traffic fell in all countries between 2010 and 2017. Overall, the number of road deaths in this age group decreased by 21.5% , much more significantly than for the overall population (-5.7%).

Eight countries succeeded in more than halving the number of young people killed in traffic. Norway reduced road deaths in the 18-24 age group by 74%, Lithuania by 62%, and Ireland and Luxembourg both by 60%. Despite this progress, the road mortality of young people is still higher than that of the general population. Mortality of 18-24 year-olds is above the average in all countries with the exception of Korea and Luxembourg. The gap is narrowing, however. The situation has also improved for the 15-17 age group, where the number of fatalities increased in only one country, Israel. On average, the number of 15-17 year olds killed in traffic crashes fell by 28.5% (Figure 13).

The number of children killed in traffic has massively decreased in the past thirty years but the rate of reduction has slowed down over the past decade. In IRTAD countries, the number of traffic deaths among children aged 0-14 has

Figure 12. **Evolution in road deaths by age group, road type and road user category compared to global average,** 2010-17



Road deaths by road users do not include Argentina, Hungary, Korea and the US.
Road deaths by road type do not include Argentina, Australia, Chile, Hungary, Iceland, Israel, Korea, Netherlands, New Zealand, Norway and the US.
Road deaths by age do not include Argentina, Hungary, Korea, Netherlands and the US.
The global average excludes Argentina, Hungary, Korea and the US.

decreased by 19% on average since 2010. More data and further research is needed to assess whether the road environment is becoming safer for children or whether other factors are responsible, for instance a reduced presence of children on public roads. The strong decrease of road deaths among children is largely limited to high-income countries. The safety of children in traffic in low- and middle-income countries remains a major concern, with road crashes the number one killer of children and young people aged 5-29 according to the World Health Organization.

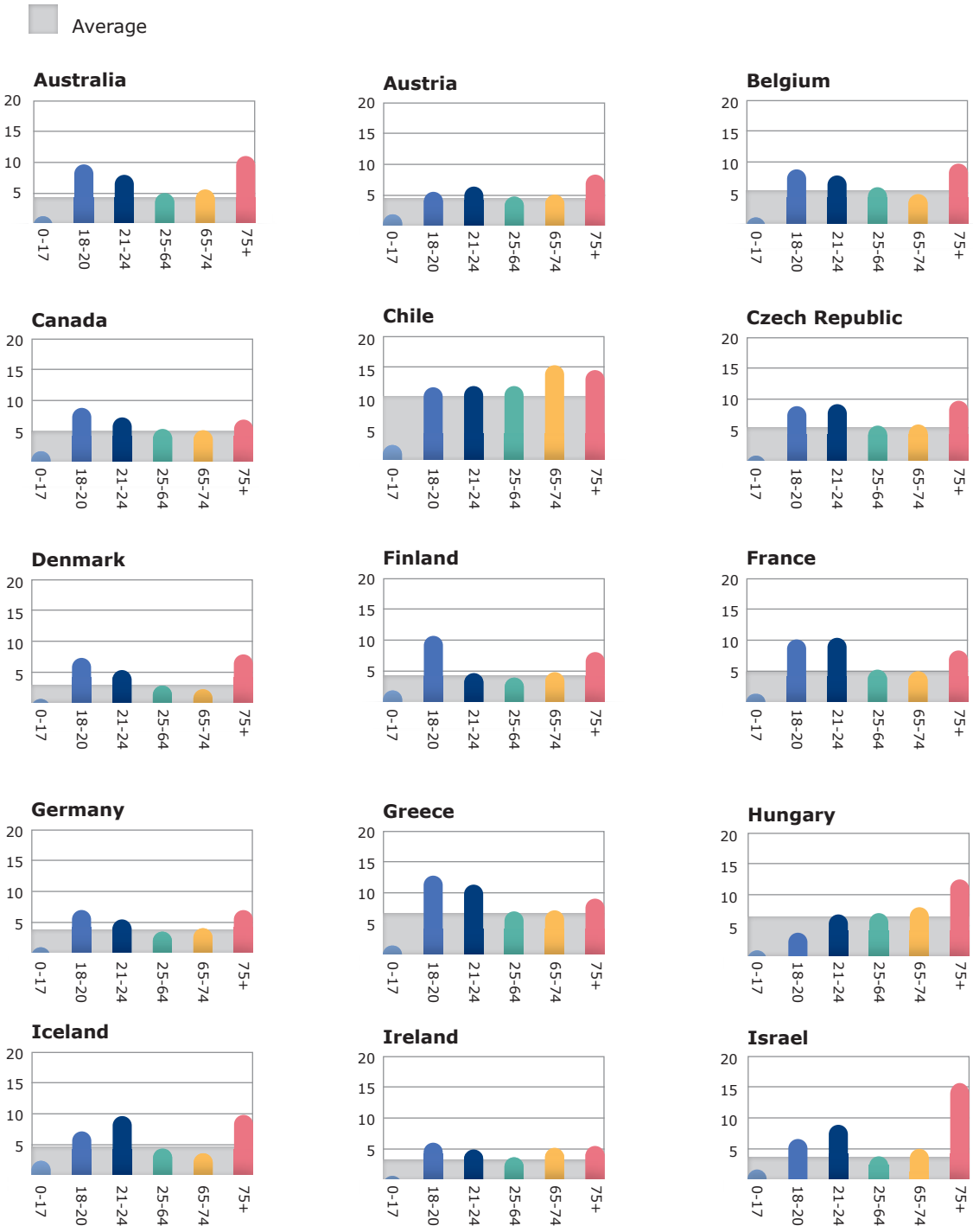
Senior citizens are particularly at risk in traffic. Traffic-related deaths among senior citizens aged 65 or above increased by 5% between 2010 and 2017, while overall road deaths declined by 5.7%.

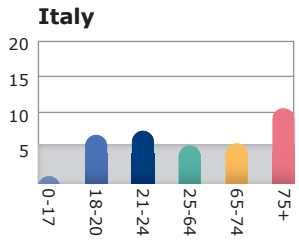
This is partly due to the increased share of seniors in the population. A more active lifestyle into old age and thus longer participation of seniors in traffic may also play a role. Fourteen out of 29 IRTAD countries with available data recorded a rise in the number of road deaths among their citizens aged 65 or over. The strongest increases were recorded in Australia (39%), the United Kingdom (27%) and Israel (26%). In 14 countries, citizens over the age of 75 have the highest mortality rate in traffic of all age groups. In Japan this age group registered 9.4 road fatalities per 100 000 population compared to the national average of 3.5, for instance.

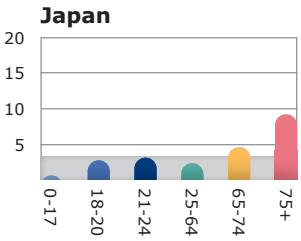
The analysis of road deaths by age group should be interpreted in light of demographic change, in particular the ageing of the population and the comparative shrinking share of young people. Improved road safety among the younger population is not simply due to demographic changes, however. While their relative share in the population is diminishing in most countries, their share in the total number of road deaths has decreased at a stronger pace.

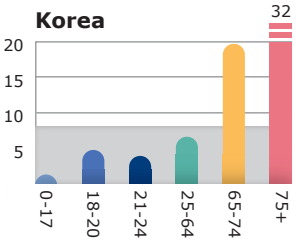
2. World Health Organization (2018), Global status report on road safety 2017, WHO, Geneva

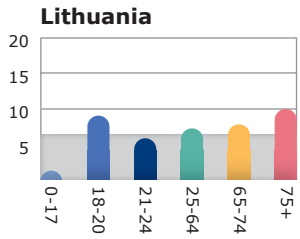
Figure 13. **Mortality rate by age group**
Road deaths per 100 000 inhabitants in a given age group, 2017

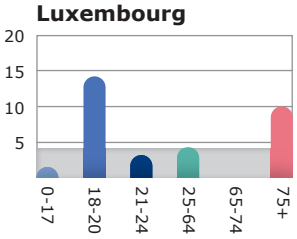


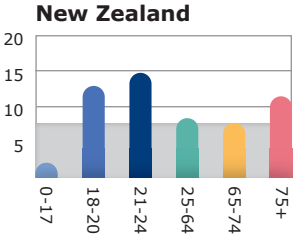

Italy
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

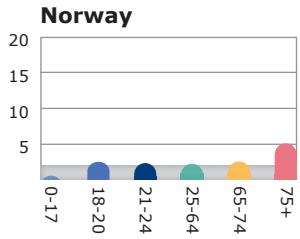

Japan
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

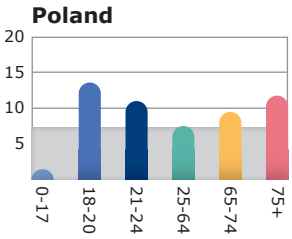

Korea
32
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

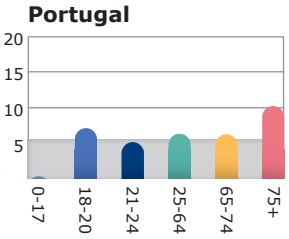

Lithuania
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

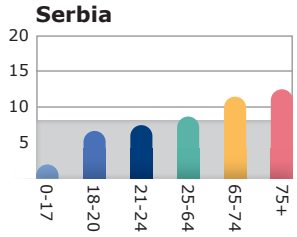

Luxembourg
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

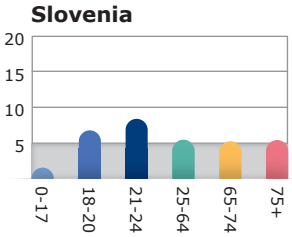

New Zealand
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

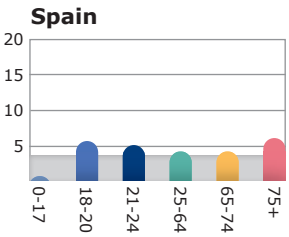

Norway
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

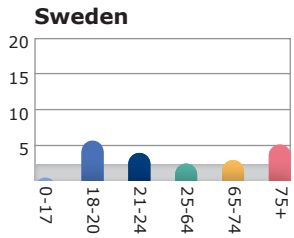

Poland
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

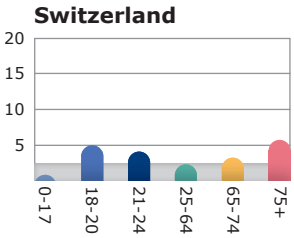

Portugal
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

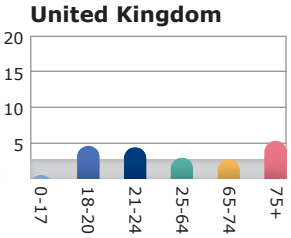

Serbia
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

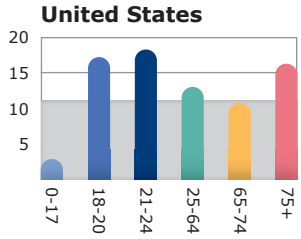

Slovenia
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+


Spain
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+


Sweden
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+


Switzerland
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+


United Kingdom
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+


United States
20
15
10
5
0-17
18-20
21-24
25-64
65-74
75+

ROAD TYPES

THE MAJORITY OF TRAFFIC FATALITIES OCCURRED ON RURAL ROADS

The majority of traffic fatalities occurred on rural roads. Inappropriate and relatively high speeds in combination with the lack of physical separation, poorly maintained roadsides, and mixed traffic involving vulnerable road users are characteristic for many rural roads and increase the occurrence of road crashes as well as their severity.

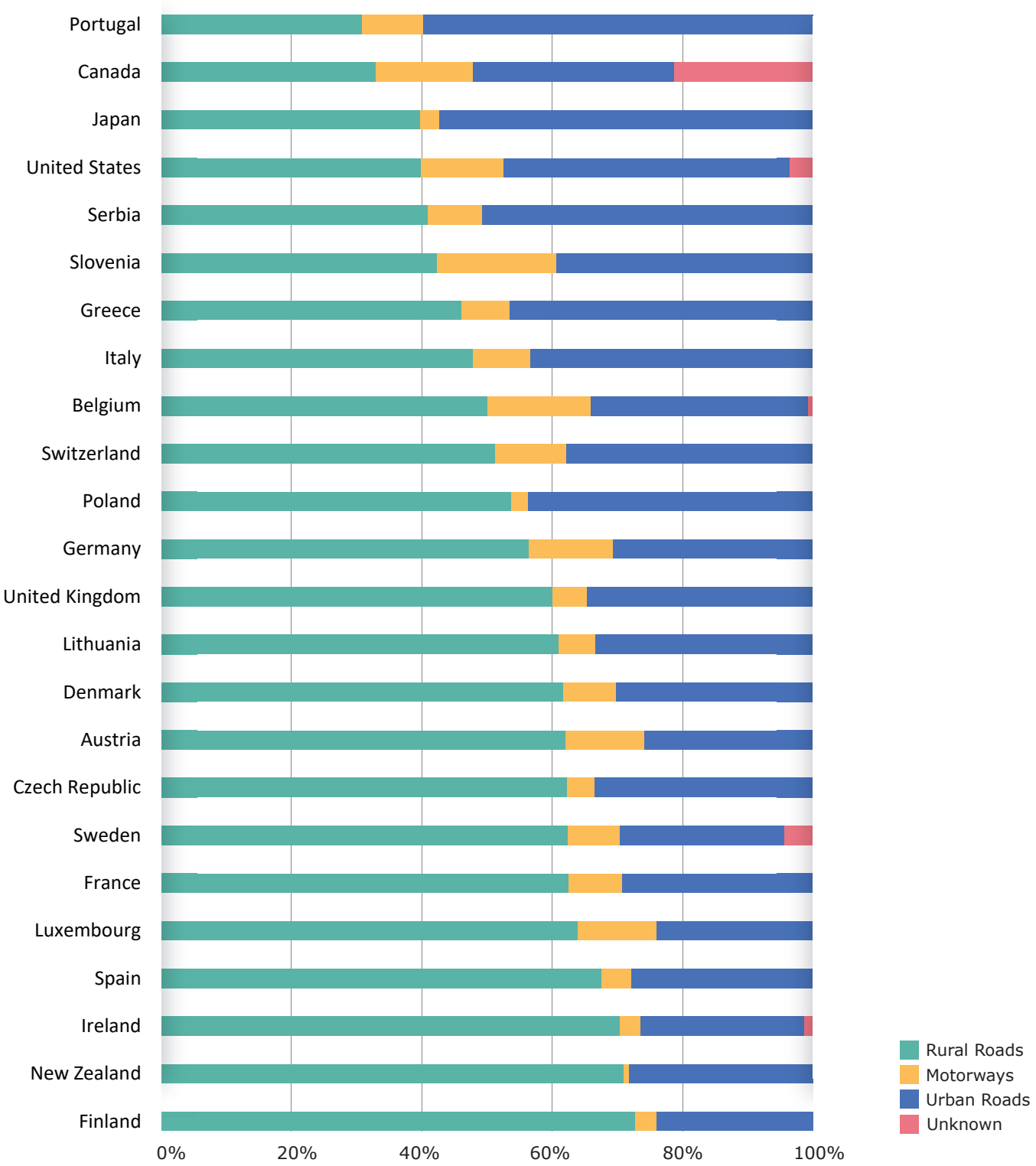
The gap between the share of road deaths on rural roads and urban roads is narrowing. In 2017, road fatalities on rural roads represented between 31% (in Portugal) and 73% (in Finland) of all road deaths. Between 2010 and 2017, all countries witnessed a decrease in the number of road deaths on their rural network, with the sole exception of Serbia.

The number of people killed on rural roads decreased by 15.7% on average, with the strongest decreases in Portugal (-51%), Lithuania (-44%) and Greece (-42%).

The number of road deaths in urban areas is increasing. Traffic deaths on urban roads have increased by 4.5% since 2010. However, this rise is strongly influenced by the figures for the United States, where the number of urban road deaths increased by 30%, while it decreased by 6.7% on rural roads. In the United Kingdom, the number of persons killed on urban roads also increased, by 6.6%. In all other IRTAD countries it decreased.

Motorways are the safest roads. In the twelve countries for which traffic data and fatality data are available by type of road, the risk of dying on motorways per kilometre driven is between 2 to 7 times smaller than for the entire road network. During the 2010-17 period, the decrease of road fatalities was lower on motorways compared to other road types. The number of persons killed on motorways increased in six countries. However, for some countries this is related to the expansion of the motorway network.

Figure 14. **Repartition of road deaths by country and road type,** 2017



Data from Argentina, Australia, Chile, Iceland, Israel, Korea, Netherlands and Norway are not available.

INJURY DATA

EXISTING POLICE CRASH DATA SIGNIFICANTLY UNDERSTATE CRASH INJURIES

Traffic fatalities only show the tip of the iceberg. The number of road deaths is not a sufficient indicator for road safety. The global total of 1.35 million annual road deaths must be seen in the context of an estimated 20 to 50 million serious injuries sustained in crashes around the world every year, according to the 2018 WHO Global Status Report on Road Safety. The wide margin of the estimate suggests the importance of increased investment in the collection and analysis of data on serious road injury.

Existing police crash data significantly understate crash injuries. Information on injuries is usually compiled from police records of crashes. These tend to underreport injuries, and therefore so do official crash statistics. In most cases, this makes the information in police reports inadequate for the purpose of analysing the nature and consequences of serious injury crashes. Hospital records are more accurate and should be used to complement any police data. This is standard practice in only very few countries, for example Israel, the Netherlands, Spain and Sweden. Most IRTAD countries are working on improving the collection of injury data, however. Hospital data often lack information on the circumstances of the crash, the environment, and the road user category. Because the definition of what constitutes a serious injury as well as methodologies for counting them vary widely among countries,

international comparisons of serious injury crashes are not reliable. For these reasons, this report, comparative in nature, does not present injury data. Serious injury data are available for those countries that collect them in the online country profiles that complement this report.

A common definition of serious injuries is urgently needed. This will improve data collection and enable comparisons. A common definition on the basis of the Abbreviated Injury Scale (AIS) has been proposed by the IRTAD Group. It defines a serious injury as one with a Maximum AIS score of 3 or more (MAIS 3+). The IRTAD Group also encourages its members to set up mechanisms for a combined analysis of police and hospital data. The European Commission has started collecting MAIS3+ data from EU Member States. To assess the number of people injured with a MAIS score of 3 or above, most countries use software to translate injury severity from the International Classification of Diseases (ICD 9 or 10) into an Abbreviated Injury Scale (AIS).

The number of serious injuries from road crashes is decreasing at a much slower pace than the number of fatalities. Many survivors of severe crashes do not recover completely and often face a grave reduction of their quality of life. Crash injuries also reduce productivity and, ultimately, a nation's economic performance. The socio-economic costs of road crashes for the European Union are estimated at well above EUR 500 billion or at 3% of the EU's GDP. Most of these costs are related to fatal and serious injuries[3].

Serious injury crashes may follow different patterns than fatal crashes. They may therefore require different countermeasures. This is the case specifically for serious injury crashes in urban areas involving vulnerable road users that are significantly over-represented among all serious traffic injuries and underrepresented in police statistics - a pattern that is less visible when looking only at fatality data[4].

3. Wijnen, W. et al., (2017), Crash cost estimates for European countries, Deliverable 3.2 of the H2020 project SafetyCube.
4. Weijermars, W. (2017), Risk Factors Related to MAIS3+ Casualties, European Road Safety Decision Support System, developed by the H2020 project SafetyCube.

STRATEGIES, TARGETS, LEGISLATION

SPEED MANAGEMENT IS A CRITICAL ELEMENT OF ANY ROAD SAFETY STRATEGY

National road safety strategies are in place in all IRTAD member and observer countries. An overview of national strategies and targets as well as those currently in place at an international level is provided in Table 4. Detailed information on national policies is given in the country chapters available online.

A Safe System approach is becoming the backbone of the road safety strategies of many IRTAD countries, as reflected in Table 5. The approach is based on a long term vision that no one should be killed or seriously injured in road crashes. The guiding set of principles take into account the ineluctable fallible nature of human beings, their limited ability to withstand physical forces above a certain threshold, and the need for shared responsibility of road safety.

Four areas remain of primary importance for road safety: speeding, drink-driving, the non-wearing of seat belts and motorcycle helmets.

Speed management is a critical element of any road safety strategy. Reducing speed is essential to reducing the frequency and severity of road crashes. Setting and enforcing appropriate speed

limits is essential to reducing the number of road deaths. The default speed limit for passenger cars in urban areas in most IRTAD countries is 50 km/h. Lower speed limits are often in force in residential areas or around schools; typically 30 km/h. Higher default speed limits in urban areas (60 km/h) are found in Colombia, South Africa, and in Poland during night time. On non-motorway roads outside built-up areas, speed limits typically vary between 80 km/h and 100 km/h. On motorways speed limits vary between 90 km/h and 140 km/h. In Germany, there is no general speed limit. Instead there is a maximum recommended speed of 130 km/h, and local speed limits apply on a large part of the motorway network.

Setting and enforcing limits for drivers on blood alcohol content (BAC) prevents drink-driving crashes. All IRTAD member and observer countries have established general BAC levels. The most common maximum authorised BAC level is 0.5 g/l. However, limits vary between 0.0 g/l in the Czech Republic, Hungary and Uruguay, to 0.8 g/l in Canada, Jamaica, Malaysia, the United Kingdom (excluding Scotland) and the United States. Most countries also apply lower BAC levels for novice, young, and professional drivers (see Table 6).

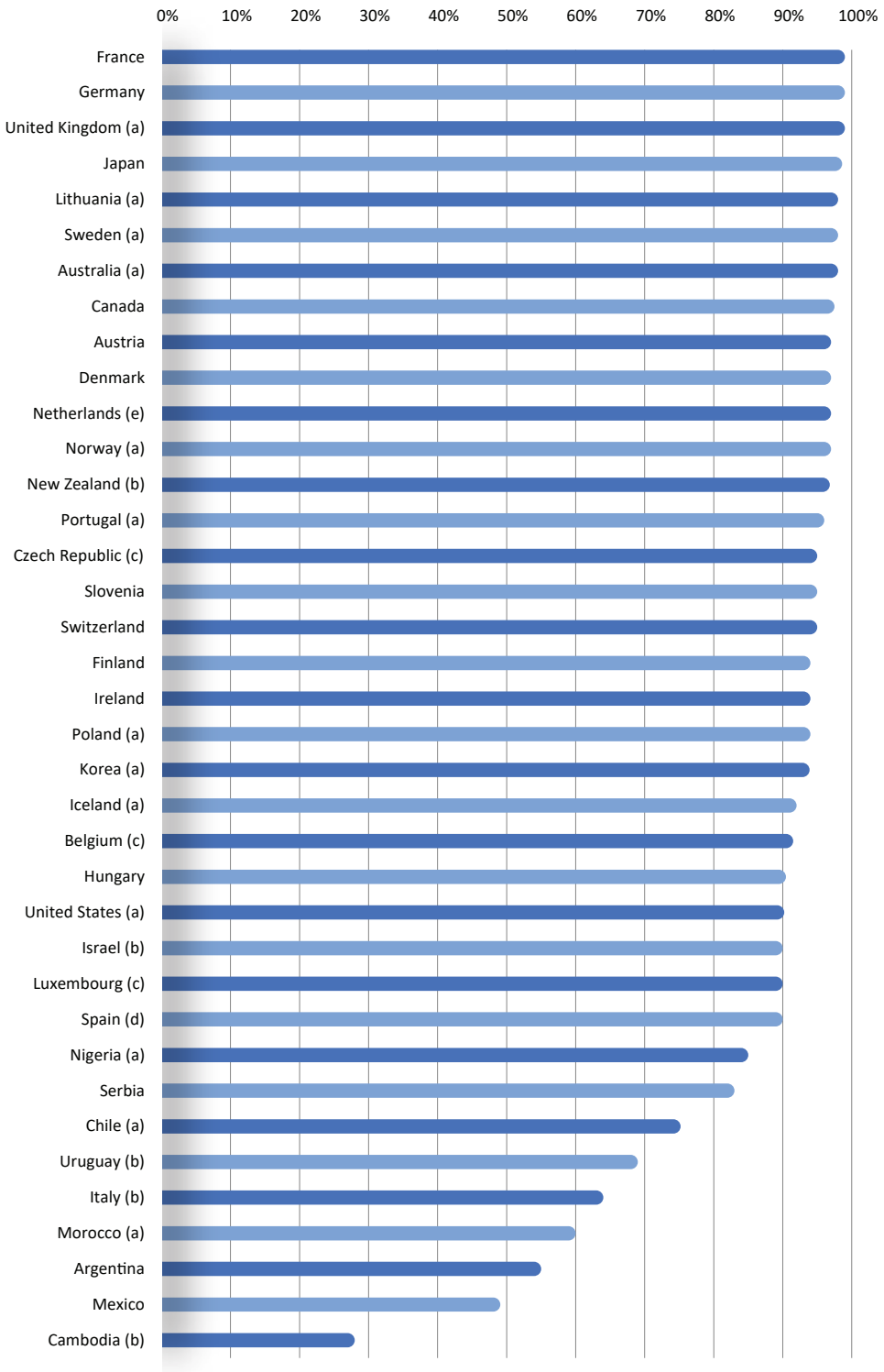
Seat belts are among the most effective tools to save the lives of vehicle occupants. Using seatbelts reduces the severity of injuries in the case of a crash. All IRTAD countries mandate the wearing of seat belts in front seats. The use of seat belts on rear seats is still not mandatory on the whole road network in Cambodia (but the law is in preparation) and in one state within the United States.

There is no internationally agreed methodology to measure seatbelt use. Available data are based on national surveys and cannot be directly compared, but they nevertheless provide an indicative overview on the use of seatbelts. Based on this, wearing rates vary widely in IRTAD member countries.

For front seats, wearing rates are usually higher and typically range between 80% and 100%. However, they can also be significantly lower, for instance 50% for drivers in Argentina. In some observer countries they are very low indeed: the seatbelt-wearing rate was estimated at 28% in Cambodia in 2016. For rear seats, more than 95% of car passengers use belts in Germany, Australia, Canada, and the Czech Republic. In twelve countries, 40% or less use seats belts when seated in the rear of a vehicle (Figures 15 and 16).

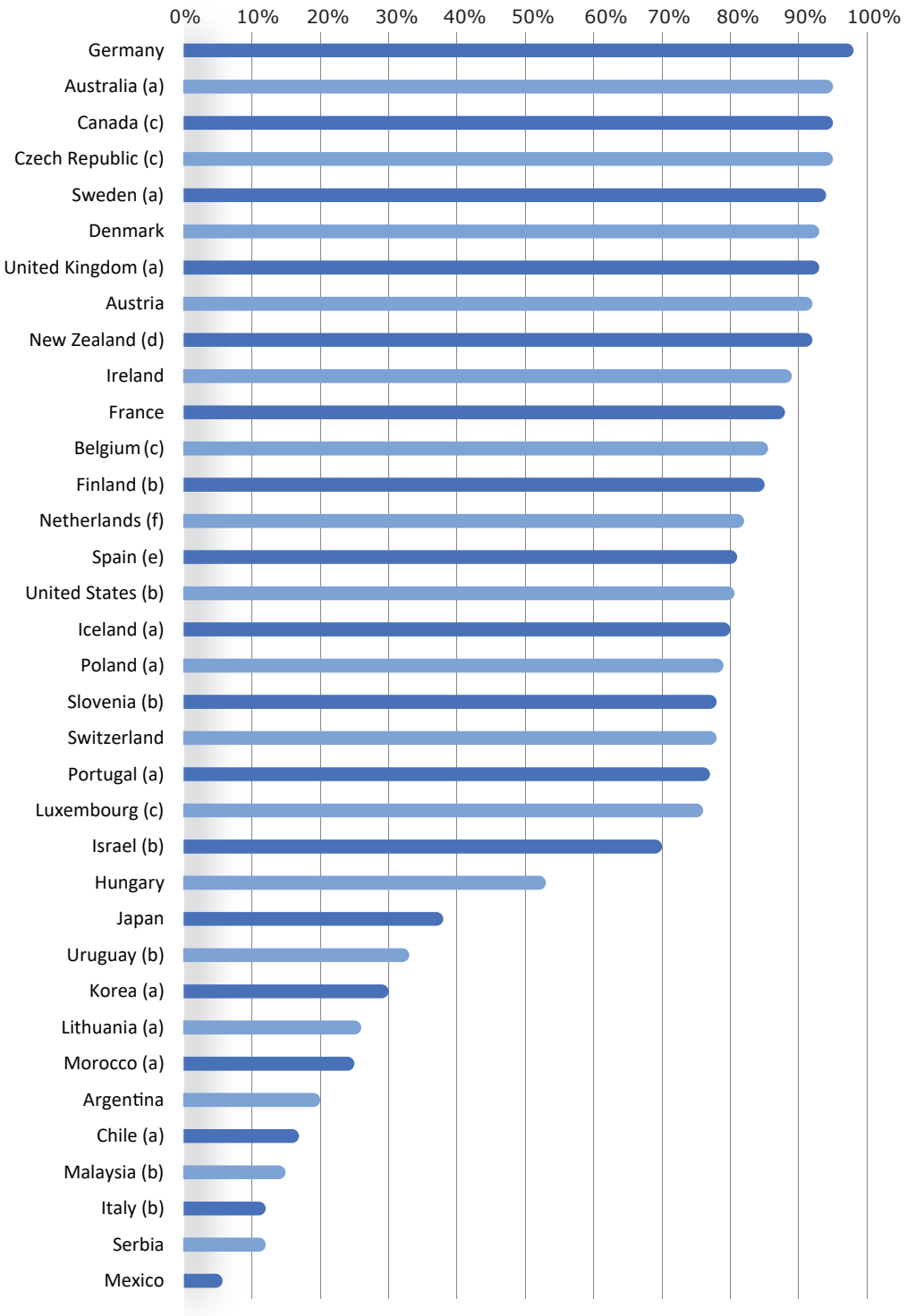
Helmets protect a particularly fragile and critical body part of users of two-wheelers. Motorcyclists, moped riders and cyclists are already among the most vulnerable road users in a crash. In all IRTAD member and observer countries except the United States, the use of helmets on motorised two-wheelers (motorcycles and mopeds) is compulsory. The helmet use rate is generally high, with many countries reporting nearly 100% compliance for motorcyclists.
Helmet use for cyclists is not compulsory in most countries; however the compulsory use of helmets by children is becoming more frequent (see Table 9).

Figure 15. **Seatbelt wearing rates in front seats**, 2018 or latest available year



Data for Colombia, Costa Rica and Jamaica are not available.
(a) 2017 data, (b) 2016 data, (c) 2015 data, (d) 2012 data, (e) 2010 data.

Figure 16. **Seatbelt wearing rates in rear seats**, 2018 or latest available year



Data for Cambodia, Colombia, Costa Rica and Jamaica are not available.
(a) 2017 data, (b) 2016 data, (c) 2015 data, (d) 2014 data, (e) 2012 data, (f) 2010 data.

Table 1. **Road fatality data 2018,** compared to 2017

Country	2018 road deaths	Data status	2017 road deaths	% change
Validated data				
Argentina	5 500	estimate	5 300	3.8
Australia	1 143	provisional	1 225	-6.7
Austria	409	provisional	414	-1.2
Belgium	590	estimate	615	-4.1
Canada	1 804	provisional	1 841	-2.0
Chile	1 955	final	1 925	1.6
Czech Republic	658	final	577	14
Denmark	171	final	175	-2.3
Finland	234	final	238	-1.7
France	3 248	final	3 448	-5.8
Germany	3 275	final	3 180	3.0
Greece	700	final	731	-11.3
Hungary	633	final	625	1.3
Iceland	18	final	16	12.5
Ireland	143	final	156	-8.3
Israel	316	provisional	364	-13.2
Italy	3 325	final	3 375	-1.6
Japan	4 166	final	4 431	-6.0
Korea	3 781	provisional	4 185	-9.7
Lithuania	..	..	192	..
Luxembourg	36	final	25	44.0
Netherlands (a)	678	final	613	10.6
New Zealand	377	provisional	378	0.3
Norway	108	provisional	106	0.9
Poland	2 862	final	2 831	1.1
Portugal	..	..	592	..
Serbia	546	final	579	-5.7
Slovenia	91	final	104	-12.5
Spain	1 806	..	1 830	-1.3
Sweden	324	final	252	28.6
Switzerland	233	final	230	1.3
United Kingdom	..	..	1 856	..
United States	27100	estimate Jan-Sep	27663	-2.0
Non-validated data (b)				
Cambodia	1 761	provisional	1 976	-10.9
Colombia	6 476	provisional	6 718	-3.6
Costa Rica	808	provisional	889	9.1
Jamaica	..	..	321	..
Mexico	..	..	15 866	..
Morocco	3 485	provisional	3 726	-7.9
South Africa	12 921	final	14 050	-8.0
Uruguay	528	final	470	12.3

2017 provisional data for comparative purposes with 2018 data. These data can differ from the 2017 final data shown in the other tables and graphs.
(a) Real data (actual numbers instead of reported numbers by the police).
(b) Data as provided by the countries and not validated by IRTAD.

Table 2. **Overview of road fatality trend,** 2010-17

Country	Road fatalities								2017 % change from		Annual average change
	2010	2011	2012	2013	2014	2015	2016	2017	2016	2010	2016-10
Validated data											
Argentina	5 094	5 040	5 074	5 209	5 279	5 415	5 550	5 300	-4.5	4.0	0.6
Australia	1 350	1 277	1 299	1 185	1 151	1 205	1 294	1 225	-5.4	-9.3	-1.4
Austria	552	523	531	455	430	479	432	414	-4.2	-25.0	-4.0
Belgium	850	884	827	764	745	762	670	615	-8.2	-27.6	-4.5
Canada	2 238	2 023	2 075	1 951	1 846	1 895	1 895	1 841	-2.8	-17.7	-2.8
Chile	2 074	2 045	1 980	2 103	2 116	2 136	2 178	1 925	-11.6	-7.2	-1.1
Czech Republic	802	773	742	654	688	737	611	577	-5.6	-28.1	-4.6
Denmark	255	220	167	191	182	178	211	175	-17.1	-31.4	-5.2
Finland	272	292	255	258	229	270	258	238	-7.8	-12.5	-1.9
France	3 992	3 963	3 653	3 268	3 384	3 461	3 477	3 448	-0.8	-13.6	-2.1
Germany	3 648	4 009	3 600	3 339	3 377	3 459	3 206	3 180	-0.8	-12.8	-1.9
Greece	1 258	1 141	988	879	795	793	824	731	-11.3	-41.9	-7.5
Hungary	740	638	605	591	626	644	607	625	2.8	-15.7	-2.4
Iceland	8	12	9	15	4	16	18	16	-11.1	100.0	10.4
Ireland	212	186	163	188	192	162	184	156	-14.5	-25.0	-4.0
Israel	375	382	290	309	319	356	377	364	-3.4	-2.9	-0.4
Italy	4 114	3 860	3 753	3 401	3 381	3 428	3 283	3 378	2.9	-17.9	-2.8
Japan	5 828	5 535	5 261	5 165	4 838	4 885	4 698	4 431	-5.7	-24.0	-3.8
Korea	5 505	5 229	5 392	5 092	4 762	4 621	4 292	4 185	-2.6	-24.0	-3.9
Lithuania	299	296	301	258	267	242	192	192	0.0	-35.8	-6.1
Luxembourg	32	33	34	45	35	36	32	25	-21.9	-21.9	-3.5
Netherlands (b)	640	661	650	570	570	621	629	613	-2.5	-4.2	-0.6
New Zealand	375	284	308	253	293	319	327	378	15.9	1.1	0.2
Norway	208	168	145	187	147	117	135	106	-20.7	-48.6	-9.1
Poland	3 908	4 189	3 571	3 357	3 202	2 938	3 026	2 831	-6.4	-27.6	-4.5
Portugal	937	891	718	637	638	593	563	602	6.9	-35.8	-6.1
Serbia	660	731	688	650	536	599	607	579	-4.6	-12.3	-1.9
Slovenia	138	141	130	125	108	120	130	104	-20.0	-24.6	-4.0
Spain	2 478	2 060	1 903	1 680	1 688	1 689	1 810	1 830	1.1	-26.2	-4.2
Sweden	266	319	285	260	270	259	270	252	-6.7	-5.3	-0.7
Switzerland	327	320	339	269	243	253	216	230	6.5	-29.7	-4.9
United Kingdom	1 905	1 960	1 802	1 770	1 854	1 804	1 860	1 856	-0.2	-2.6	-0.4
United States	32 999	32 479	33 782	32 893	32 744	35 484	37 806	37 133	-1.8	12.5	1.7
Non-validated data (b)											
Cambodia	1 816	1 905	1 966	1 950	2 226	2 231	1 852	1 976	6.7	8.8	1.2
Colombia	5 177	5 550	5 934	6 209	6 358	6 835	7 159	6 718	-6.2	29.8	3.8
Costa Rica	592	594	675	644	682	..	..	889	..	..	..
Jamaica	319	308	260	307	331	382	379	321	-15.3	0.6	0.1
Mexico	16 559	16 615	17 102	15 853	15 886	16 039	16 185	15 866	-2.0	-4.2	-0.6
Morocco	3 778	4 222	4 167	3 832	3 489	3 776	3 785	3 726	-7.6	-7.4	-1.1
South Africa	13 967	13 954	14 071	12 944	12 702	12 211	13 954	14 050	-0.1	0.6	0.1
Uruguay	556	572	446	506	538	510	572	470	5.4	-15.5	-2.4

(a) Real data (actual numbers instead of reported numbers by the police).
(b) Data as provided by the countries and not validated by IRTAD.

Table 3. **Overview: Road fatalities since 1990**

	Road fatalities per 100 000 inhabitants				Road fatalities per billion vehicle-km				Road fatalities per 10 000 registered vehicles			
	1990	2000	2010	2017	1990	2000	2010	2017	1990	2000	2010	2017
Validated data												
Argentina	..	..	12.6	12.0	..	..	..	..	..	..	2.9	..
Australia	13.7	9.5	6.1	5.0	17.3	9.0	6.5	5.0	2.3	..	0.8	0.7
Austria	20.4	12.2	6.6	4.7	32.0	15.0	7.3	..	3.7	1.8	0.9	0.6
Belgium (c)	19.9	14.4	7.8	5.4	28.1	16.3	8.6	6.0	4.3	2.6	1.3	0.8
Canada	14.3	9.5	6.6	5.0	..	9.3	6.7	4.8	2.3	1.6	1.0	0.7
Chile	..	..	12.1	10.5	..	..	..	..	..	10.6	6.3	3.8
Czech Republic	12.5	14.5	7.7	5.5	48.3	36.7	16.2	10.5	3.3	3.2	1.3	0.8
Denmark (c)	12.3	9.3	4.6	3.0	17.3	10.7	5.6	3.2	3.1	2.1	0.9	0.6
Finland	13.0	7.7	5.1	4.3	16.3	8.5	5.1	4.7	2.8	1.5	0.7	0.5
France	19.8	13.7	6.4	5.3	26.7	15.6	7.1	5.7	3.6	2.3	1.0	0.8
Germany	14.2 (d)	9.1	4.5	3.9	19.7 (d)	11.3	5.2	4.2	2.5 (d)	1.4	0.7	0.6
Greece	20.3	18.7	11.2	6.8	..	..	..	..	..	3.1	1.3	0.8
Hungary (c)	23.4	11.7	7.4	6.4	..	..	..	..	11.2	4.4	2.0	1.5
Iceland	9.5	11.5	2.5	4.7	14.9	13.8	2.5	4.1	..	1.8	0.3	0.5
Ireland	13.6	11.0	4.7	3.3	19.2	11.5	4.5	3.2	4.5	2.5	0.9	0.6
Israel	10.9	8.1	4.9	4.1	28.1	14.2	7.4	6.1	5.1	2.7	1.4	1.0
Italy	12.6	12.4	7.0	5.6	..	..	..	..	2.1	1.6	0.8	0.6
Japan	11.8	8.2	4.6	3.5	23.2	13.4	8.0	6.0	1.9	1.2	0.6	0.5
Korea	33.1	21.8	11.3	8.1	..	49.5	18.7	13.1	..	..	..	1.6
Lithuania	29.3	18.3	9.5	6.7	..	..	..	..	12.7	5.0	1.4	1.2
Luxembourg	18.7	17.5	6.4	4.2	..	..	..	..	3.3	2.4	0.8	0.5
Netherlands (b)	..	7.3	3.9	3.6	..	9.2	5.1	4.6	..	1.4	0.7	0.6
New Zealand	21.4	12.0	8.6	7.9	..	13.6	9.4	7.9	3.3	1.8	1.2	1.0
Norway	7.8	7.6	4.3	2.0	12.0	10.5	4.9	2.4	1.4	1.2	0.6	0.3
Poland (c)	19.3	16.4	10.2	7.5	..	..	..	..	8.1	4.5	1.8	1.0
Portugal (c)	29.3	20.0	8.9	5.8	..	..	..	..	13.4	4.3	1.6	..
Serbia	..	13.9	9.0	8.2	..	..	..	..	..	..	3.6	2.4
Slovenia	25.9	15.8	6.7	5.0	65.1	26.7	7.7	5.4	..	..	1.0	0.7
Spain	23.3	14.4	5.3	3.9	..	..	..	..	5.1	2.2	0.7	0.5
Sweden	9.1	6.7	2.8	2.5	12.0	8.5	3.5	3.0	1.7	1.2	0.5	0.4
Switzerland	13.9	8.3	4.2	2.7	18.6	11.2	5.4	3.4	2.2	1.2	0.6	0.4
United Kingdom	9.4	6.1	3.0	2.8	..	7.4	3.8	..	2.1	1.2	0.5	0.5
United States	17.9	14.9	10.7	11.4	12.9	9.5	6.9	7.2	2.4	1.9	1.3	1.3

	Road fatalities per 100 000 inhabitants				Road fatalities per billion vehicle-km				Road fatalities per 10 000 registered vehicles			
	1990	2000	2010	2017	1990	2000	2010	2017	1990	2000	2010	2017
Non-validated data (a)												
Cambodia	..	..	12.7	12.3	..	..	..	..	..	..	..	..
Colombia	..	..	11.4	13.6	..	..	..	..	..	..	6.7	4.7
Costa Rica	..	..	12.7	..	..	..	..	..	..	..	..	..
Jamaica	..	..	..	11.8	..	..	..	..	..	..	9.4	..
Mexico	..	13.9	14.5	12.8	..	..	..	26.3	..	9.0	5.2	3.5
Morocco (c)	11.5	12.7	11.8	10.0	..	..	..	..	29.0	21.7	13.5	..
South Africa	..	..	27.9	24.8	..	..	..	..	..	..	..	..
Uruguay (c)	..	..	16.6	13.5	..	..	..	..	..	..	3.4	2.0

(a) Data as provided by the countries and not validated by IRTAD.
(b) Real data (actual numbers instead of reported numbers by the police).
(c) Mopeds are not included in the registered vehicles.
(d) 1991 data.
(e) 2015 data.

Table 4. **Road safety strategies and targets**

International Strategies	**Vision**	**Targets**
United Nations Decade of Action for Road Safety 2011-20 Global Plan for the Decade of Action Sustainable Development Goals		Stabilise and then reduce the forecasted level of road traffic fata lities around the world by increasing activities conducted at the national, regional and global levels SDG targets to halve road deaths by 2020 and to improve road safety in cities • Goal 3.6 (health): By 2020, halve the number of global deaths and injuries from road traffic accidents • Goal 11.2 (cities): By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
European Union Policy Orientations on Road Safety 2011-20 Road Safety Action Programme 2020-30	Towards Zero	-50% fatalities by 2020 (base year: 2010)
Country Strategies		
Argentina National Road Safety Strategy 2016-26	Based on the UN Global Plan for the Decade of Action for Road Safety	-20% fatalities by 2021 and -30% by 2026 (base year 2016) Several sub-targets on seatbelt wearing rates, child restraint usage and helmet use
Australia National Road Safety Strategy (NRSS) 2011-20	Safe System No-one should be killed or seriously injured on Australia's roads	-30% (at least) fatalities by 2020 -30% (at least) seriously injured by 2020 Base year average 2008-2010
Austria Austrian Road Safety Programme 2011-20	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 2008-10 (Interim targets: -10% by 2015)
Belgium National Road Safety Strategy 2011-20 Recommendations for 15 priority measures for 2015-20	EU Road Safety Target adopted	-50% fatalities in 2020 in comparison to 2010 (420 road deaths in 2020)
Bosnia-Herzegovina Road Safety Strategy of Republic of Srpska	Based on the UN Road Safety Plan for the Decade of Action for Road Safety	Reduce the number of fatally injured persons by 15% in 2013, 10% in 2014, 7% in 2015 and by 5% per year for the rest of the period so that the overall decrease of 50%, as compared to 2011, by 2022 Reduce the number of severely injured persons by 15% in 2013, 10% in 2014, 7% in 2015 and by 5% per year for the rest of the period so that the overall decrease of 50%, as compared to 2011, by 2022 Increase the use of seat belts and other protective systems (child safety seats and protective helmets) Manage speeds on urban and open roads and streets (to reduce both the percentage of drivers exceeding speed limits and the excessive speed average values) Reduce the number of alcohol-impaired drivers in traffic Improve road safety Educate and inform all traffic participants through campaigns and traffic education

Country Strategies	Vision	Targets
Cambodia National Plan for Road Safety 2011-20 (approved by the Council of Ministers in 2014) 2016 Annual Road Safety Plan (approved by the government)	Based on the UN Global Plan for the Decade of Action for Road Safety Based on UN Sustainable Development Goals	Reduce by 50% the forecasted number of fatalities by 2020 Several sub-targets on helmet wearing rates, speed, drink-driving Interim target 2016: reducing the number of road deaths by 10% compared to 2015 Interim target for 2017: reducing the number of road deaths by 9% compared to 2016
Canada Road Safety Strategy (RSS) 2025, introduced in January 2016	Towards Zero	No hard numerical targets Achieve a continual downward trend in fatalities and serious injuries throughout the ten-year duration of the strategy
Chile New national road safety strategy launched in 2017	Towards Zero Based on the UN Global Plan for the Decade of Action for Road Safety	Specific targets are being developed under the new strategy 30% reduction in fatalities by 2030, baseline average number of deaths 2011-2017
Colombia	Based on the UN Global Plan for the Decade of Action for Road Safety	26% reduction in fatalities by 2021 at the national level 18% reduction in fatalities by 2021 among pedestrians 27% reduction in fatalities by 2021 among motorcyclists 21% reduction in injuries caused by traffic accidents by 2021 Reduce the number of fatalities due to traffic accidents for driving under the influence of alcohol and the use of psychoactive substances at 0% by the year 2021
Czech Republic The National Strategic Road Safety Plan 2011-20	Vision Zero	Reduce fatality rate to EU 27 average 60% reduction in fatalities by 2020 compared to 2009, 40% reduction in in the number of persons seriously injured by 2020 compared to 2009 Interim targets for the number of fatalities and persons seriously injured are set for each year until 2020
Denmark Danish Road Safety Commission National Traffic Safety Action Plan, 2013-20	Every accident is one too many - a shared responsibility	Fewer than 120 killed in 2020, equivalent to 53% fatalities compared to 2010 (based on EU Road Safety target) 52% serious and 52% of slightly injured road users in 2020 compared to 2010 Plan includes 10 focus areas and defines a performance indicators, for each of the area
Finland National Road Safety Strategy 2012-14 ended. A new resolution on road safety was approved by the Government on 15 December 2016	Based on Vision Zero	Fewer than 137 fatalities (or 24 fatalities per million inhabitants) by 2020 (based on EU Road Safety target) Fewer than 5 750 injuries by 2020 (based on EU Road Safety target) Long term target: fewer than 100 fatalities by 2025
France Action Plan for Road Safety, including 26 measures announced by Minister of Interior in January 2015 55 measures announced during Inter-Ministerial Road Safety Committee (October 2015) 18 measures announced during the Inter-Ministerial Road Safety Committee (January 2018)	Based on EU Road Safety target	-50% fatalities by 2020 (fewer than 2 000 fatalities) Working also towards La Valette European objectives of halving road deaths and serious injuries by 2030
Germany Road Safety Programme 2011-20	Based on EU Road Safety target	40% reduction in fatalities by 2020 compared to 2010 Specific targets in individual German states

Country Strategies	Vision	Targets
Greece National Strategic Road Safety Plan 2011-20	Developing a road safety culture	50% reduction in fatalities by 2020 (based on EU Road Safety target); base year: 2010 Interim targets: reduction by 80 road fatalities per year between 2010-15 and 50 road fatalities per year between 2016-20
Hungary Road Safety Action Programme for 2017-19		50% reduction in fatalities by 2020 compared to 2011 (based on EU Road Safety target)
Iceland Road Safety Plan 2011-22		Rate per 100 000 inhabitants should not be higher than in the best countries by 2022 Average annual reduction in killed and seriously injured of 5% until 2022 11 sub-targets defined
Ireland Government Road Safety Strategy 2013-20		Reduction of fatalities to 25 per million population (i.e. 124 or fewer fatalities) or less by 2020 Specific targets for reducing speed and to increase seat belt use
Israel National Road Safety Plan 2020		Fewer than 240 fatalities per year by 2020 (reduction of about 30% compared to the 2010) Fatality rate less than five fatalities per billion kilometres travelled no later than 2022
Italy National Road Safety Plan Horizon 2020	No child should die on the road.	50% reduction in fatalities by 2020 (based on EU Road Safety target)
Jamaica Below 300 Programme	Make Jamaica the Road Safety Capital of the Caribbean and Latin American Region in accordance with the principles of the Safe Systems Approach	Fewer than 300 persons being killed on the road network by 2020 Reduce the fatality rate per 100 000 population to 10.0 by 2022 90% seatbelt usage on both the front and back seat of motor cars 90% helmet usage by 2021
Japan 10th Traffic Safety Programme 2016-20	Make Japan the safest country for road traffic	Fewer than 2 500 deaths (deaths within 24 hours) by 2020 Fewer than 500 000 casualties by 2020
Korea 8th National Transport Safety Plan 2017-21	Reach the average safety level of OECD countries	Fewer than 2 700 fatalities by 2021, with interim targets for each year from 2017 to 2021 Reducing the rate of fatalities per 100 000 inhabitants to 5.2 by 2021 Less than 1.0 fatalities per 10 000 vehicles (including mopeds) by 2021
Lithuania Vison Zero declaration for road and railroad transport 2018-30	No one should be killed or seriously injured on Lithuania's roads and railroads	The main goal of this declaration is to sharply reduce number of road fatalities and serious injuries
Luxembourg National Charter for Road Safety	Zero fatalities and serious injuries on Luxembourg's road network	Fewer than 16 fatalities by 2020 (50% reduction in fatalities by 2020 compared to 2010, based on EU Road Safety target)
Malaysia Road Safety Plan 2014-20	Based on the UN Global Plan for the Decade of Action for Road Safety	Reduce by 50% the forecasted number of fatalities by 2020 (corresponds to a 22% reduction compared to 2010)
Mexico National Road Safety Strategy 2011-20	Based on the UN Global Plan for the Decade of Action for Road Safety	50% reduction in fatalities by 2020
Morocco New National Road Safety Strategy for 2016-25	Development of responsible road behaviour and a safe road system	Reduce the number of deaths to less than 2 800 by 2020 (decrease of 20% from 2015 to 2020) Reduce the number of deaths to less than 1 900 fatalities by 2025 (decrease of 50% from 2015 to 2025)

Country Strategies	Vision	Targets
Netherlands Road Safety Strategic Plan 2008-20 (SPV) National Action Plan (2019-21) Road Safety Strategic Plan 2020-30 (SPV2030)	Sustainable Road Safety	Fewer than 500 fatalities by 2020 (-28% compared to 2010) Fewer than 10 600 serious road injuries (MAIS2+) by 2020 (-43% compared to 2010) Strive for zero road traffic casualties in 2050, no intermediate targets; eliminate risks as much as possible balancing (free choice for) mobility and modal choice and road safety Road Safety Performance Indicators are an important tool in this approach
New Zealand "Safer Journeys": Road Safety Strategy 2010-20 3rd Action Plan for 2016-20 New road safety action plan is under development	Safe System A safe road system increasingly free of death and serious injury	No general fatality target Several sub–targets and performance indicators
Nigeria Road Safety Strategy (NRSS 2016-20)	Based on the UN Global Plan for the Decade of Action for Road Safety	50% reduction in fatalities by 2015 compared to 2007 level Reduce by 50% the forecasted number of fatalities by 2020 in comparison with 2010 level (based on UN Decade of Action Plan)
Norway National Transport Plan 2018-29 National Plan of Action for Road Traffic Safety 2018–21	Vision Zero	Fewer than 350 fatalities and serious injuries by 2029
Poland National Road Safety Programme 2013-20	Vision Zero	50% reduction in fatalities by 2020 (based on EU Road Safety target) 40% reduction in severely injured by 2020 Base year: 2010
Portugal National Strategic Road Safety Plan (PENSE 2020)		41 fatalities per million inhabitants in 2020, representing a decrease of 56% compared to 2010 Fewer than 178 seriously injured (MAIS3+) people in 2020, representing a decrease of 22% compared to 2010
Serbia National Strategy for Road Traffic Safety for the period 2015-20 (adopted in June 2015)		No child killed in traffic by 2020 50% reduction in fatalities and serious injuries by 2020 compared to 2011 Halving by 2020 the total annual social-economic costs of traffic crashes compared to 2011 level Several sub-targets on seatbelt wearing rates, child restraint usage, helmet wearing rates, speed and drink-driving
Slovenia National Road Safety Programme 2013-22	Vision Zero No fatalities and no-one seriously injured on Slovenian roads	50% reduction in fatalities by 2022 or less than 35 fatalities per million inhabitants 50% reduction in seriously injured by 2022 or less than 230 seriously injured per million inhabitants
Spain Road Safety Strategy **2011 – 2020**	Safe System/Vision Zero Citizens have the right to a Safe Mobility System in which everyone involved has a responsibility	Less than 3.7 killed per 100 000 population aligned with the European 2020 target 35% reduction in seriously injured compared to 2009 Several targets for various performance indicators (restraint systems, speed, drink-driving, etc.)
South Africa National Road Safety Strategy 2016-30	Aligned with the United Nations Decade of Action pillars	Target under consideration: 50% reduction in fatalities by 2030 compared to 2010
Sweden No safety plan in a traditional sense	Vision Zero (renewed commitment in October 2016)	50% reduction in fatalities between 2007 and 2020 (the average for 2006-08 is used as the base figure), i.e. max. 220 deaths by 2020 25% reduction in severely injured between 2007 and 2020

Country Strategies	Vision	Targets
Switzerland Via Sicura, adopted in June 2012 by Swiss Federal Council		No hard numerical targets Range of targeted measures
United Kingdom Road Safety Statement: "Working together to build a safer road system"	Safe System approach	This British Road Safety Statement sets out the context of road safety in Great Britain today and the overarching scope of road safety activity for the government. It will be followed by consultations on specific issues as options are developed. The statement covers road safety policy within Great Britain as governed by the Department for Transport (DfT). The governments and administrations of Scotland, Wales and Northern Ireland will seek to produce their own policies and strategic documents on devolved matters.
United States	Dedicated to achieving the highest standards of excellence in motor vehicle safety and reducing deaths, injuries and economic losses resulting from motor vehicle crashes.	Performance targets set to end 2019 1.02 fatalities per 100 million vehicle miles travelled in 2019. Performance targets for four sub measures: large trucks, passenger vehicles, non-occupants, and motorcycles

Table 5. **Countries that have adopted the Safe System**

Country	Name and date of adoption
Australia	Safe System Safe System officially endorsed by the Australian Transport Council of federal, state and territories ministers in 2004. It was adopted by Federal and State Ministers in the 2000s (https://roadsafety.gov.au/nrss/safe-system.aspx). Individual states and territories have also adopted the Safe System.
Canada	National strategy based on Safe System principles Canada's Road Safety Strategy (RSS) 2025 Formally adopted by the Council of Ministers in 2016
Czech Republic	Adopted by the government in 2011 with a revision in 2017
European Union	Safe System adopted in 2018. Detailed plan under development
Finland	Vision Zero formally adopted in 2000
Germany	The current German government has committed itself to "Vision Zero" in the coalition agreement from early 2018.
Ireland	Safe System approach underpinned the Government Road Safety Strategy 2013-20 (http://www.rsa.ie/Documents/About%20Us/RSA_STRATEGY_2013-2020%20.pdf)
Lithuania	Vision Zero strategy published in 2018; should be formally adopted by the government in 2019
Luxembourg	Vision Zero adopted by government in 2015
New Zealand	Safe System adopted by government in 2010
Norway	Vision Zero Adopted by the administration in 1999 and by the Parliament in 2001 The current national transport plan covers the period 2018-29 The 5th action plan covers the period 2018-21
Slovenia	Vision Zero adopted by Parliament in 2003 and again in 2013
Spain	Estrategia de Seguridad Vial 2011-20 Approved on 25th February 2011
Sweden	Vision Zero Adopted by Parliament in 1997 https://www.trafikverket.se/en/startpage/operations/Operations-road/vision-zero-academy/This-is-Vision-Zero/
The Netherlands	Sustainable Safety Adopted by Parliament in 1991 There has been a second (2005-20) and third edition (2018-30) of Sustainable Safety approach. https://sustainablesafety.nl/
United Kingdom	2015 Road Safety Strategy, "Working together to build a safer road system", based on the Safe System principle

Table 6. **Maximum authorised blood alcohol content,** 2019

Country	General Blood Alcohol Content level (g/l)	Differentiated Blood Alcohol Content level (g/l)
Argentina	0.5	0.0 for professional drivers 0.2 for motorcycle and moped riders
Australia	0.5	0.0 for novice drivers 0.2 for professional drivers
Austria	0.5	0.1 for moped drivers under 20; novice drivers, truck (>7.5 tons) and bus (>9 seats) drivers
Belgium	0.5	0.2 for professional drivers (since January 2015)
Bosnia-Herzegovina	0.3	0.0 for professional drivers, novice drivers, drivers who perform public transport, driving instructors, driving candidates, drivers under 21 or with less than 3 years of driving experience
Cambodia	0.5	-
Canada	0.8	Administrative maximum level of 0.5 g/l or 0.4 g/l in most provinces 0.0 g/l administrative maximum level for novice and young (under 21) drivers in most provinces
Chile	0.3	-
Colombia	0.2	-
Czech Republic	0.0	-
Denmark	0.5	-
Finland	0.5	-
France	0.5	0.2 for bus/coach drivers, novice drivers
Germany	0.5	0.0 for drivers under 21 years of age, novice drivers and for professional drivers who transport passengers or hazardous goods Drivers with a BAC between 0.3 and 0.5 g/l can have license suspended if driving ability impaired
Greece	0.5	0.2 for professional drivers, novice drivers, riders of motorcycles and mopeds
Hungary	0.0	-
Iceland	0.5	-
Ireland	0.5	0.2 for novice and professional drivers

Country	General Blood Alcohol Content level (g/l)	Differentiated Blood Alcohol Content level (g/l)
Israel	0.5	0.1 for young drivers under 24 years of age, novice and professional drivers
Italy	0.5	0.0 for young, novice and professional drivers
Jamaica	0.8	-
Japan	0.3	-
Korea	0.5	-
Lithuania	0.4	0.0 for novice, professional, moped and motorcycle drivers
Luxembourg	0.5	0.2 for novice and professional drivers
Malaysia	0.8	-
Mexico	0.8	May vary by state on urban roads. 0.3 for professional drivers (may vary by state)
Morocco	0.2	-
Netherlands	0.5	Including cyclists 0.2 for novice drivers (first five years)
New Zealand	0.5	0.0 for drivers under 20 years
Nigeria	0.5	0.2 for novice drivers 0.0 g/l for professional drivers
Norway	0.2	-
Poland	0.2	-
Portugal	0.5	0.2 for novice (first three years) and professional drivers (since 1 January 2014)
Serbia	0.2	0.0 for novice and professional drivers and for riders of powered two-wheelers
Slovenia	0.5	0.0 for novice (first three years) and professional drivers
South Africa	0.5	0.2 for professional drivers
Spain	0.5	0.3 for novice and professional drivers
Sweden	0.2	-
Switzerland	0.5	0.0 for novice drivers (first three years) and professional drivers
United Kingdom	0.8	England, Wales, Northern Ireland 0.5 in Scotland
United States	0.8	0.4 for professional drivers 0.0 to 0.2 for drivers under 21 years
Uruguay	0.0	0.0

Table 7. **National speed limits on urban roads, rural roads and motorways,** 2019

Country	Urban areas (km/h)	Rural roads (km/h)	Motorways (km/h)
Argentina	40-60 20-70 (Buenos Aires City)	110	120-130
Australia	50 (default) 60-80 (arterial roads - increasing use of 40 or lower in urban areas with high pedestrian activities)	100, 110	100 default, although often set to 110 (130 in the Northern Territory)
Austria	50	100	130
Belgium	30-50	70-90	120
Bosnia-Herzegovina	50	80, 100	130
Cambodia	30-40 (motorcycles, tricycles) 40 (passenger cars, trucks)	60-70 (motorcycles) 90	No motorways
Canada	40-70	80-90	100-110
Chile	50 (maximum default limit but can vary according to the type of road)	100	120 (maximum default speed limit)
Colombia	60	80	120
Costa Rica	50	50-100	No motorways
Czech Republic	50	90	130
Denmark	50	70, 80 (90 for specific sections)	110, 130
Finland	50 (sections with 30, 40, or 60)	100 (80 in winter)	120 (100 near cities)
France	50	80 on two lanes single carriageways 90 when two lanes in the same direction, 110 on dual carriageways	130 (110 in wet weather and for novice drivers)
Germany	50	100	None (recommended: 130)
Greece	50	90	130
Hungary	50	90	130 (110 on ”motor roads”)
Iceland	50	90 (paved roads) 80 (gravel roads)	n.a.
Ireland	60 or less (can be 60 on arterial roads, 30 in built up areas)	80, 100	120

Country	Urban areas (km/h)	Rural roads (km/h)	Motorways (km/h)
Israel	50-70	80, 90, 100	110, 120
Italy	50	70-90 (110 on some main dual carriageways)	130 (110 in wet weather, 100 for novice drivers. Motorway operator may increase speed limit up to 150 if stringent requirements are met)
Jamaica	50	50, 80	70, 80, 110
Japan	40, 50, 60	50, 60	100
Korea	50	60-80	110 (100 in urban areas)
Lithuania	50	90 (70 on gravel roads and for novice drivers)	120, 130 (110 in winter, 90 for novice drivers)
Luxembourg	50	90	130 (110 in wet weather)
Malaysia	50	90	110
Mexico	20-80 (20 in school zones)	60-110 (60 on collector road)	110
Morocco	60	100	120
Netherlands	30-50	60-80	100-130
New Zealand	50 (sections may have higher or lower limits)	100 (specific sections may have lower limits)	100
Nigeria	50 (45 for tankers, trailers)	80 (differentiated by vehicle type)	100 (differentiated by vehicle type)
Norway	50 (30 on residential streets)	80	90, 100, 110
Poland	50 (60 at night time)	90, 100, 120	140
Portugal	50	90	120
Serbia	50	80, 100	130
Slovenia	50	90 (110 on expressways)	130 (110 on expressways)
South Africa	60	100	120
Spain	50	90,100	120
Sweden	30, 40, 50	60, 70, 80, 90, 100	110, 120
Switzerland	50	80	120
United Kingdom	48 (30 mph)	96, 113 (60, 70 mph)	113 (70 mph)
United States	Set by each state	Set by each state	88-129 (55-80 mph, set by each state)
Uruguay	45	90	No motorways

Table 8. **Seatbelt wearing rates,** 2018 or latest available in front and rear seats of passenger cars

Country	Front seats		Rear seats	
	Date of application	Wearing rate (%) in 2018	Date of application	Wearing rate (%) in 2018
Argentina	1995	55 driver	1995	20
Australia	1970s	98 (2017 data)	1970s	95 (2017)
Austria	1984	97 drivers 98 passengers	1990	93
Belgium	1975	92 drivers and passengers (2015)	1991	86 (2015)
Bosnia-Herzegovina	2006	--	2006	--
Cambodia	2007	28 (2016)	Law in preparation	--
Canada	1976-1988	97.5	1976-88	95 (2015)
Chile	1985	75 drivers 64 passengers (2017)	2006	17 (2017)
Czech Republic	1966	95 (2015)	1975	95 (2015)
Denmark	1970s	97	1980s	93
Finland	1975	94 passengers in urban areas 95 passengers outside urban areas	1987	85 (2016)
France	1973 (rural), 1975 (urban) 1979 (all times)	99 rural roads 97.3 major urban areas (2017)	1991	85 major urban areas 92 motorways (2017)
Germany	1976	99 drivers, 99 passengers	1984	98
Greece	1979	77 drivers 74 passengers (2009)	1993	23 (2009)
Hungary	1976	90 drivers and passengers	1993 outside built up areas, 2001 in built up areas	53 (for adults)
Iceland		79 urban roads 92 rural roads (2017)		80 (2017)
Ireland	1971	94 drivers 95 passengers	1971	89
Israel	1975	90 (2016)	1995	70 (2016)
Italy	1988	64 (2015-16)	1994	12 (2015-16)
Jamaica	1999	Very low	1999	Very low
Japan	1985	99 drivers 96 passengers	2008	38
Korea	1990	94 drivers on motorways 87 passengers on motorways	2008 (on motorways only) Since September 2018, on the whole road network	56 on motorways

Country	Front seats		Rear seats	
Lithuania	--	98	--	26
Luxembourg	1975	90 (2015)	1992	76 (2015)
Malaysia	1978	87 drivers 74 passengers (2016)	2009	15 (2016)
Mexico	2016	49	2016	5.6
Morocco	1977 for rural areas 2005 for urban areas	71 drivers on motorways 62-65 drivers on urban/rural roads 59-62 passengers on urban/ rural roads (2017)	2005 for rural areas	25 (2017)
Netherlands	1975	>95 (2010)	1992	82 (2010)
New Zealand	1972	97 drivers 96 passengers (2016)	1979	92 (2017)
Nigeria	1997 (enforced since 2002)	85 (2017)	1997 (enforced since 2016)	3 (2017)
Norway	1975	97 drivers	1985	--
Poland	1983	94 drivers 95 pass (2017)	1991	79 (2017)
Portugal	1978	96 drivers and passengers (2017)	1994	77 (2017)
Serbia	1982	83 all 85 drivers 80 passengers	2009	12
Slovenia	1977	94.8 drivers 95.6 passengers	1998	78.1 adults (2016)
South Africa	2005 , vehicles registered after 1 January 2006	4.5 drivers 5 passengers (2010 estimate)	2005, vehicles registered after 1 January 2006	--
Spain	1974 outside urban areas 1992 inside urban areas	90 (2012)	1992	81 (2012)
Sweden	1975	98 (2017)	1986; child restraint since 1988	93 children 94 adults (2017)
Switzerland	1981	95 drivers 94 passengers	1994	78
United Kingdom	1983	99 drivers 97 passengers (2017 data for Great Britain)	1989 (children); 1991 (adults)	93 (2017 data for Great Britain)
United States	Primary law in 34 states, secondary law in 15 states. Not mandatory for adults in one state.	90.2 drivers 87.9 passengers (2017)	Varies by State	80.6 (2016)
Uruguay	2007	69 drivers (2016)	2007	33 (2016)

Table 9. **Helmet laws and wearing rates,** 2018 or latest available year

Country	Powered two-wheelers		Cyclists	
	Helmet law	Wearing rate (%)	Helmet law	Wearing rate (%)
Argentina	Yes	69 riders, 42 first passengers, 21 additional passengers	Yes	8
Australia	Yes	99 drivers (estimate)	Yes	
Austria	Yes	99.9	Yes, for children to age 12	31 (80 for children)
Belgium	Yes	No national data 99.3 Brussels (2013)	No	
Bosnia-Herzegovina	Yes	--	Yes	--
Cambodia	Yes, motorcycles from 50 cc, motorcycles with trailers, motorised tricycles (riders and passengers)	Low (no precise data)	No	
Canada	Yes		In some jurisdictions	
Chile	Yes	99 riders 100 passengers (2017)	Yes in urban areas.	n.a.
Colombia	Yes	n.a.	No	n.a.
Czech Republic	Yes	100 (approx.)	Yes, for children to age 18	
Denmark	Yes	90 mopeds, 98 motorcycles (2016)	No	35 (2016)
Finland	Yes	n.a	No	44 (2017) 64 Helsinki area (2016)
France	Yes, since 1973	99 (2017)	Yes, for children to age 12	19 weekdays, 29 weekends (2017)
Germany	Yes	98 riders, 100 passengers (inside urban areas)	No	18 (inside urban areas)
Greece	Yes, since 1992	75 drivers, 46 passengers (2009)	No	
Hungary	Yes since 1965 for motorcyclists, 1997 for moped riders outside built up areas 1998 for moped riders in urban areas.	100 Budapest area (2017) 92 Rural areas (2017)	No	23 Budapest area 4 Rural areas (2017)
Iceland	Yes	n.a	Yes, for children to age 14	
Ireland	Yes	100 (approx.)	No	47
Israel	Yes	100 (approx.)	Yes, for children to age 18, for adults on rural roads	90 rural roads (2013) 21 urban areas (2015)
Italy	Yes, for all since 2000 Since 1986 for motorcyclists and riders of moped under 18	98 (2015-16)	No	
Jamaica	Yes, since 1999	Very low	Yes, since 2019	Very low
Japan	Yes	100 (approx.)	No	

Country	Powered two-wheelers		Cyclists	
	Helmet law	Wearing rate (%)	Helmet law	Wearing rate (%)
Korea	Yes	84 (2017)	No	
Lithuania	Yes		Yes, for children to age 18	
Luxembourg	Yes, since 1976	100 (estimate)		
Malaysia	Yes, since 1973	c. 77 (2015)	No	
Mexico	Yes	83 drivers, 55 passengers (2016)	Yes	
Morocco	Yes, since 1976	65 drivers 34 passengers	No	
Netherlands	Yes, motorcycles since 1972; mopeds since 1975. Not compulsory on mofas (max. 25 km/h)	100 motorcyclists (approx.), 96 moped riders (2008)	No	
New Zealand	Yes, since 1956 when travelling above 30 mph Since 1973 at all speeds	100 (approx.)	Yes, since 1994	92 (2012)
Nigeria	Yes	20 (estimate)	Yes	Not available
Norway	Yes	100 (approx.)	No	59 (all age groups) 57 (above 12) 79 (below 12)
Poland	Yes since 1997	100 (approx.)	No	
Portugal	Yes	n.a	No	
Serbia	Yes	89 motorcyclists 70 moped riders	No	
Slovenia	Yes	n.a	Yes, for children and youngster under 18	15 66 (children) 6 (young) (2017)
South Africa	Yes		Yes	
Spain	Yes	100 (approx.)	Except in built-up areas. Mandatory below age 16	
Sweden	Yes	96-99 98 mopeds (2017)	Yes, for children to age 15	67-85 children (2017) 37-40 adults (2017)
Switzerland	Yes, motorcycles since 1981; mopeds since 1990	100 (approx.)	No for regular bicycles Yes for e-bikes > 25km/h	50 cyclists 67 e-bikes <25km/h 87 e-bikes >25km/h
United Kingdom	Yes, motorcycles 1973; mopeds since 1977		No	
United States	No national law.19 states require helmet use by all, 28 by some users, 3 have no helmet law.	65 (2016) use of DOT-compliant helmets	Age-specific helmet laws in 21 states and D.C.	
Uruguay	Yes	92.6 drivers 81.8 passengers (2016)	Yes	

List of IRTAD members and observers

International Traffic Safety Data and Analysis Group

Chair: Mr Fred Wegman (Netherlands)

Argentina	National Road Safety Agency (ANSV)	Ms Veronica HELER Ms Eugenia KELLER
Australia	Department of Infrastructure, Transport, Cities and Regional Development	Mr Tim RISBEY
	Australian Road Research Board	Mr Blair TURNER
Austria	Austrian Road Safety Board (KFV)	Mr Robert BAUER Mr Klaus MACHATA
	AIT-Austrian Institute of Technology	Mr Peter SALEH Mr Christian STEFAN
Belgium	Belgian Road Safety Institute (BIVV - IBSR)	Ms Heike MARTENSEN Mr Wouter VAN DEN BERGHE
Bosnia and Herzegovina	Ministry of Communications and Transport	Mr Miroslav DJERIĆ
Cambodia	National Road Safety Committee	Mr Sattya BORAN Mr Davann YUN
Canada	Transport Canada	Mr Michael DEJONG Mr Ibrahima SOW Mr Michael MARTH
Chile	Comisión Nacional de Seguridad de Tránsito (CONASET)	Ms Carla MEDINA ARAOS
Costa Rica	Consejo de Seguridad Vial (COSEVI)	Ms Teresita GUZMAN
Colombia	National Road Safety Agency (ANSV)	Mr Carlos HERNANDEZ
Czech Republic	CDV – Transport Research Centre	Mr Jan TECL
Denmark	Road Directorate	Mr Lartey Godwin LAWSON
	Danish National Police	Ms Tove HELS
	University of Alborg	Anne VINGAARD OLESEN
	Technical University of Denmark (DTU)	Ms Kira HYLDEKÆR JANSTRUP Ms Mette MØLLER
Finland	Finnish Transport Safety Agency (Trafi)	Ms Riikka RAJAMÄKI
France	Observatoire National Interministériel pour la Sécurité Routière	Ms Mélanie d'AURIA Ms Ornella MALAGUTTI Ms Manuelle SALATHE
	Institut français des sciences et technologies des transports, de l'aménagement et des réseaux (IFSTTAR)	Mr Laurent CARNIS Mr Jean-Louis MARTIN Mr Dominique MIGNOT
	Cerema	Mr Gilles DUCHAMP

Germany	Bundesanstalt für Straßenwesen (BASt)	Mr Andreas SCHEPERS Ms Susanne SCHOENEBECK
	German Road Safety Council	Ms Jacqueline LACROIX
	German Insurance Association – German Insurers Accident Research	Mr Jean Emmanuel BAKABA
	ADAC	Mr Karlheinz.OBERMEIER
	Traffic Accident Research Institute at University of Technology Dresden	Mr Henrik LIERS
Greece	Centre for Research and Technology Hellas (CERTH)	Mr Dimitris MARGARITIS
	National Technical University of Athens (NTUA)	Mr George YANNIS
Hungary	KTI Institute for Transport Sciences Non-Profit Ltd	Mr Peter HOLLO
Iceland	Icelandic Road and Coastal Administration	Ms Audur Thora ARNADOTTIR
Ireland	Road Safety Authority	Ms Velma BURNS Ms Aoife KERVICK Ms Sharon HEFFERNAN
Israel	National Road Safety Authority	Ms Adina MARCIANO Mr Assaf SHARON
Italy	University La Sapienza	Mr Luca PERSIA Mr Davide Shingo USAMI
	Automobile Club d'Italia (ACI)	Ms Lucia PENNISI
Jamaica	Ministry of Transport, Works and Housing	Mr Kenute HARE
Japan	National Police Agency	Mr Masaki OGURA Mr Kotaro UEGAKI
	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 Mr Toru KIUCHI Mr Makoto NAKANISHI Mr Hiromishi SATO
	Kansai University	Mr Mitsuhiro YAMAMOTO
Korea	Korea Road Traffic Authority (KoROAD)	Ms Hyungeun CHO Mr Daegon HWANG Ms Haesoo PARK
	Korea Transportation Safety Authority (KOTSA)	Mr Byongho CHOE Mr Jinheoun CHOI Mr Dongsoo KANG Mr Sungmin HONG
	Korea Expressway Corporation	Mr Sun Woong MIN
	Korea Transport Institute (KOTI)	Mr Sangjin HAN
Lithuania	Road and Transport Research Institute	Ms Natalija GARNELE Mr Mindaugas KATKUS

Luxembourg	Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg (STATEC)	Ms Marie Jo AIROLDI
Malaysia	Malaysian Institute of Road Safety Research (MIROS)	Ms Sharifah Allyana SYED RAHIM
Mexico	Mexican Transportation Institute	Mr Alberto MENDOZA
	Ministry of Health	Ms Laura BAAS
Morocco	Comité National de Prévention des Accidents de la Circulation (CNPAC)	Mr Ahmed BARDAN
		Mr Benacer BOULAAJOUL
		Mr Hicham DIOURI
Netherlands	Ministry for Infrastructure and Water Management	Mr Peter MAK
	Institute for Road Safety Research (SWOV)	Mr Niels BOS
	VIA	Mr Erik DONKERS
New Zealand	Ministry of Transport	Mr Dan JENKINS
		Mr Brent JOHNSTON
Nigeria	Federal Road Safety Corps	Mr Joshua FANOLA
		Mr Boboye OYEYEMI
Norway	Norwegian Public Roads Administration	Ms Guro RANES
		Ms Marianne Stølan ROSTOFT
Poland	Motor Transport Institute	Ms Justyna WACOWSKA-SLEZAK
Portugal	Autoridade Nacional Seguranca Rodoviara	Mr Helder BATISTA
Serbia	Road Traffic Safety Agency	Ms Andrijana PEŠIĆ
	AMSS-CMV Ltd	Mr Dragoslav KUKIC
Slovenia	Slovenian Traffic Safety Agency	Mr Andraz MURKOVIC
South Africa	Road Traffic Management Corporation	Ms Magadi GAINEWE
Spain	Dirección General de Tráfico (DGT)	Ms Sheila FERRER
		Mr Alvaro GOMEZ
	RACC Automóvil Club	Ms Nuria UBACH
Sweden	Swedish Transport Agency	Ms Karin BENGTSSON
	Swedish Transport Administration	Mr Simon STERNLUND
	Swedish National Road and Transport Research Institute (VTI)	Ms Anna VADEBY
Switzerland	Swiss Federal Roads Office (FEDRO)	Mr Christian KAMENIK
		Ms Iris OBERAUNER
	Swiss Council for Accident Prevention (bfu)	Mr Steffen NIEMANN
United Kingdom	Department for Transport	Mr Paul BADEN
		Mr Anil BHAGAT
		Mr Ian KNOWLES
		Ms Delphine ROBINEAU
	Transport Research Laboratory (TRL)	Mr John FLETCHER
	Road Safety Analysis Ltd	Mr Richard OWEN
		Mr George URSACHI

United States	National Highway Traffic Safety Administration (NHTSA)	Ms Jane DOHERTY Mr Luke JOHNSON
Uruguay	Unidad Nacional de Seguridad Vial (UNASEV)	Ms Magela NEGRO
European Commission	Directorate-General Mobility and Transport (DG MOVE)	Ms Maria Teresa SANZ VILLEGAS
The World Bank	Global Road Safety Facility	Ms Véronica RAFFO

▸ Industry and international non-governmental organisations

European Motorcycle Manufacturers Association (ACEM)	Ms Veneta VASSILEVA
Daimler AG	Mr Jorg BAKKER
Dekra Automobile	Mr Walter NIEWOEHNER
European Transport Safety Council (ETSC)	Ms Graziella JOST Ms Dovile ADMINAITE
Fédération Internationale de l'Automobile (FIA)	Mr Luca PASCOTTO
FIA Foundation for the Automobile and Society	Ms Rita CUYPERS
International Motorcycle Manufacturer's Association (IMMA)	Mr Edwin BASTIAENSEN
Global New Car Assessment Programme (Global NCAP)	Mr David WARD
LAB PSA Renault	Mr Henri CHAJMOWICZ
PTV Group	Ms Sofia SALEK DE BRAUN
Robert Bosch GmbH	Mr Thomas LICH
Together for Safer Roads	Mr David BRAUNSTEIN
Volkswagen AG	Ms Stefanie ACHMUS Mr Jörn Marten WILLE

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

Israel	Central Bureau of Statistics	Ms Tehila KLEIN Mrs. Orit YALON-SHUQRUN
Finland	Statistics Finland	Mr Matti KOKKONEN
Greece	Hellenic Statistical Authority (EL.STAT.)	Ms Effrosyni CHANTSOULI
Iceland	Icelandic Transport Authority (ICETRA)	Mr Gunnar Geir GUNNARSSON
Italy	Istituto Nazionale di Statistics (ISTAT)	Ms Silvia BRUZZONE

▸ International Transport Forum

Ms Véronique FEYPELL-DE LA BEAUMELLE

Mr Stephen PERKINS

Ms Rachele POGGI

Mr Alexandre SANTACREU

International Transport Forum

The IRTAD Road Safety Annual Report 2019 provides an overview of road safety performance for 41 countries. The report outlines the most recent road safety developments there and provides comparative data for the main road safety indicators. It also offers detailed analysis by road user, age group and types of road. It describes the crash data collection process in IRTAD countries, the road safety strategies and targets in place and information on recent trends in speeding, drink-driving and other aspects of road user behaviour.

INTERNATIONAL TRANSPORT FORUM
2 rue André Pascal
75775 Paris Cedex 16
France
Tel.: +33 1 73 31 25 00
Fax: +33 1 45 24 97 42
E-mail: contact@itf-oecd.org

OECD

irtad
International Traffic Safety Data and Analysis Group