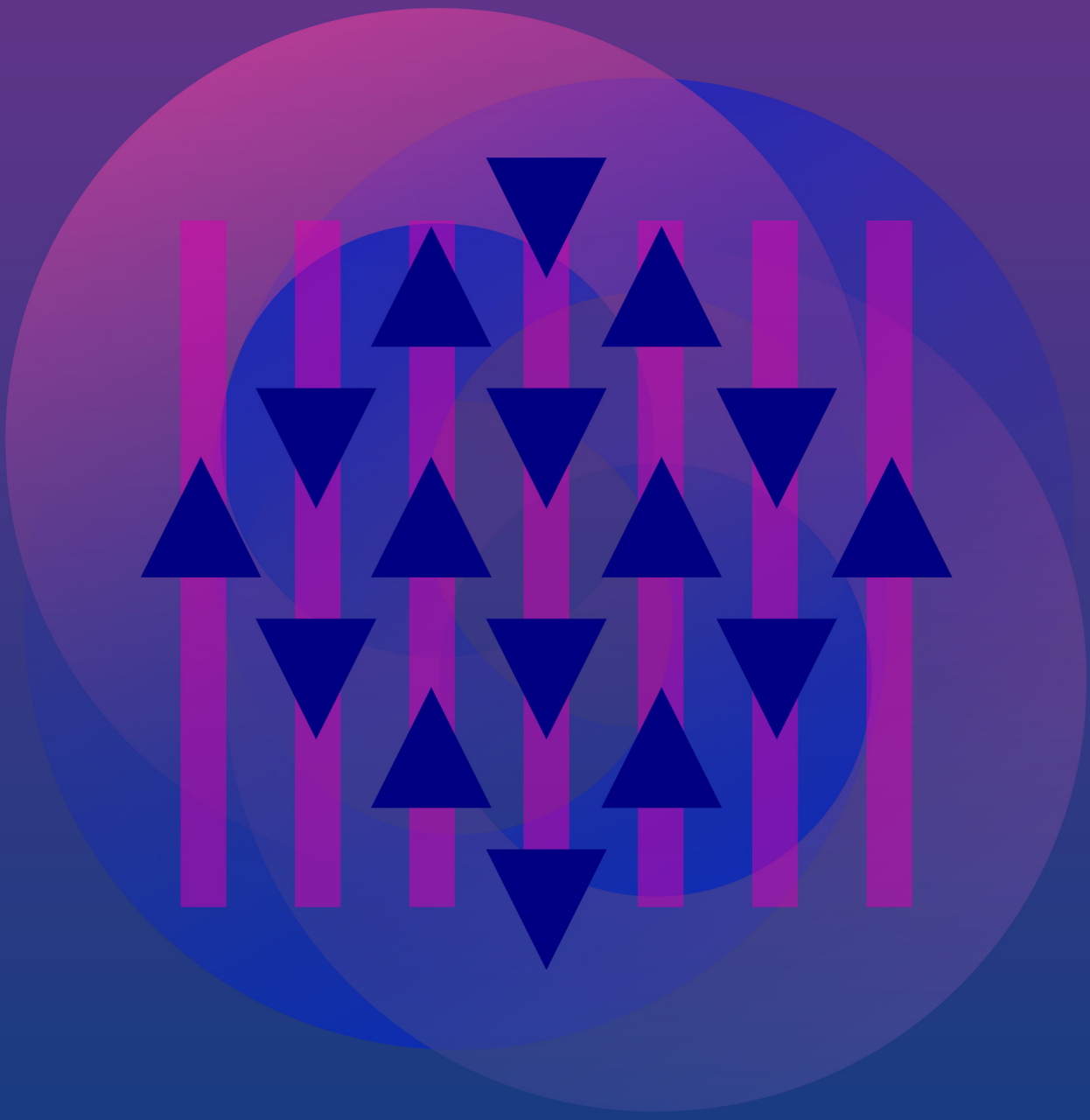
International Transport Forum

Road Safety
Annual Report 2023



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International Traffic Safety
Data and Analysis Group

About this publication

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About the International Transport Forum

The International Transport Forum (ITF) is an intergovernmental organisation with 66 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.

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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 Group brings together road safety experts from national road administrations, road safety research institutes, international organisations, automobile associations, insurance companies, car manufacturers and others. With 80 members and observers from more than 40 countries, the IRTAD Group is a central force in promoting international co-operation on road crash data and its analysis.

About the IRTAD Database

The IRTAD Database includes road safety data, aggregated by country and year from 1970 onwards. It provides an empirical basis for international comparisons and more effective road safety policies.

The IRTAD Group validates data for quality before inclusion in the database. At present, the database includes validated data from 35 countries: Argentina, Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czechia, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Lithuania, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States.

The data in this report are valid as of 3 December 2023. The data are provided in a common format based on definitions developed and agreed by the IRTAD Group. Selected data are available for free; full online access requires IRTAD membership. Access the database via the OECD statistics portal: https://stats.oecd.org/Index.aspx?DataSetCode=IRTAD_CASUAL_BY_AGE.

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Foreword

I am pleased to present to you the 2023 ITF Annual Report on Road Safety. For over a decade, this report has been a trusted source of high-quality traffic-crash data. This report would not have been possible without the dedicated work of the International Traffic Safety Data and Analysis Group (IRTAD), the International Transport Forum's permanent working group on road safety.

The good news is that most of the 35 IRTAD countries analysed in this report recorded a reduction in road fatalities in 2022 compared to the 2017-2019 average. That said, more must be done to reach the target of halving road deaths by 2030, which is enshrined in the 2020 UN General Assembly resolution A/RES/74/299 on "Improving Global Road Safety".

Following the ITF's Safe System approach can help countries reach that goal. ITF's IRTAD working group has actively advocated the Safe System approach in various reports and is currently working on transforming it into a tool for road safety assessment, counselling, and benchmarking Safe System implementations or indicators.

Better data collection and analysis are the essential first steps towards improved road safety, as the foundation for setting targets and monitoring road safety progress. This report offers a glance on the current road safety trends across IRTAD countries, highlighting challenges in front of us, from the emergence of new mobility trends to an ageing population. ITF's IRTAD working group is committed to helping policymakers in addressing these challenges and finding solutions to make our roads safer for everyone. This report offers a departing point of this discussion. I hope you will enjoy reading it.

Young Tae Kim, Secretary-General of ITF

Preface

At its 2022 conference in Lyon, the International Traffic Safety Data and Analysis Group (IRTAD) adopted the Lyon Declaration. The declaration's 14 recommendations focus on improving the quality and comparability of road-safety data to inform policies to achieve the ambitious target of halving the number of road deaths and serious injuries by 2030 (IRTAD, 2022a).

Figures for 2022 presented in this report, as well as the first 2023 figures, clearly show that the impact of the Covid-19 pandemic on traffic, road crashes and deaths has abated. The bad news is that the number of road deaths between 2020-21 and 2022 increased. The good news is that in many countries (among the 35 for which figures are presented here), the number of fatalities in 2022 continued to fall compared with 2019 and previous years. However, the ten-year trends also show that this decrease is sometimes very small. Particular attention must therefore be paid to this issue when devising policies to reduce fatalities and serious injuries.

Two sub-groups have been set up within IRTAD. The first will focus on data harmonisation and regional road safety observatories, as reliable data are not enough to make relevant comparisons between countries. The second group will focus on national road safety strategies, in co-operation with the European Commission initiative to develop a tool for countries to monitor the implementation of national strategies. The first results of these two groups will be reported in 2024.

Data reviews have also been carried out by IRTAD members in Cameroon in 2023. Again, it is important to stress the value of these management reviews in enabling the countries concerned to support effective policies to improve their data collection.

Finally, there is cause for optimism in the adoption of low emission zones, traffic limited zones and the development of 30 km/h zones by many cities. Although the decision to introduce a 30 km/h zone is often taken for environmental reasons (low-emission mobility zones), the impact in terms of improving road safety is obvious.

This shows that road safety is an integral part of mobility management policies and a contributor to sustainable territorial development. The ITF and IRTAD will continue to work for safe and sustainable mobility.

Dominique MIGNOT, Chair, IRTAD

This section presents data on short-term trends in road safety. It includes preliminary data for the year 2023 and mobility and road safety data for the year 2022.

Preliminary 2023 data

Preliminary data for the first half of 2023 shows an improved situation compared to the beginning of 2022. The analysis is restricted to the 24 countries with available data.

Road deaths decreased by 2.8% in 2023 compared to 2022.

In the first half of 2023, road deaths decreased in 17 countries and increased in only seven countries compared to 2022: Colombia, Denmark, Ireland, Japan, Lithuania, Portugal and Sweden. However, in these countries, apart from Colombia and Ireland, road deaths decreased if the first six months of 2023 are compared with the 2017-19 average for the first half of the year (see Table 1).

In the first half of 2023, road deaths increased in the Netherlands (4.4%), Norway (8.5%) and the United States[1] (11.9%) when compared to the average 2017-19.

At the same time, 2023 data for 11 IRTAD members, including several with large populations, were unavailable at the time of writing. Including this data in future reports will influence the overall trend.

1 2022 and 2023 data for the United States are statistical projections.

Table 1:

Road deaths, first half of 2017-2023 Provisional data

Country	Average 2017-19	2022	2023	% change in 2023 compared to av. 2017-19	% change in 2023 compared to 2022
Austria	189	191	179	-5.3	-6.3
Colombia	3 153	3 813	4 002	26.9	5.0
Czechia	265	252	241	-9.1	-4.4
Denmark	84	64	77	-8.3	20.3
Finland	107	85	75	-29.9	-11.8
France	1 557	1 536	1 380	-11.4	-10.2
Germany	1 502	1 271	1 264	-15.8	-0.6
Greece	309	288	281	-9.1	-2.4
Hungary	267	233	213	-20.2	-8.6
Iceland	7	4	1	-85.7	-75.0
Ireland	72	77	84	16.7	9.1
Italy	1 544	1 419	1 384	-10.4	-2.5
Japan	1 869	1 422	1 441	-22.9	1.3
Lithuania	80	49	73	-8.8	49.0
Luxembourg	13	13	13	0.0	0.0
Netherlands	273	324	285	4.4	-12.0
New Zealand	192	182	171	-10.9	-6.0
Norway	47	54	51	8.5	-5.6
Poland	1 225	893	824	-32.7	-7.7
Portugal	299	280	286	-4.3	2.1
Serbia	228	240	220	-3.5	-8.3
Slovenia	51	51	39	-23.5	-23.5
Sweden	117	95	110	-6.0	15.8
United States	17 437	20 190	19 515	11.9	-3.3

Mobility and road safety in 2022

Data on mobility and road safety in 2022 relate to traffic volumes, road deaths, mortality rates and fatality risks.

Traffic volumes in 2022

This report expresses the traffic volume in individual countries as the total distance travelled in vehicle-kilometres (vkm).

Traffic volumes in 2022 had not returned to pre-Covid levels, reflecting changes in mobility behaviour.

In 2022, traffic volumes, measured in millions of vkm, increased compared to 2020 but were not yet back to the levels of 2017-19, before the Covid-19 pandemic (see Table 2). This was the case for all 15 countries which provided these data, except Canada, Czechia, Denmark, Hungary and Iceland, where traffic volumes in 2022 were back to pre-Covid 19 levels.

2022 can no longer be considered an "abnormal" year. In some countries, traffic volumes did not recover to pre-Covid 19 levels, but this was mainly due to a change in mobility behaviour.

In Denmark, for example, the Danish National Travel Survey data indicate that the reduction in travel by car is due to the increase in gasoline prices and a more widespread habit of working from home.

Also, in Germany, working from home could be an explanation for reduced traffic. Between 2017 and 2022, the percentage of employees teleworking some days of the week increased from 13% to 28%. In addition, new mobility routines have emerged in recent years. Walking has increased, while cycling remains stable. Cars and public transport are used less frequently but for longer distances. Box 1 presents the situation in France.

Table 2:

Traffic volumes in 2017-22 (millions vehicle-kilometres)

Country	Average 2017-19	2020	2021	2022	% change in 2022 compared to av. 2017-19	% change in 2022 compared to 2020
Australia	256 626	242 880	244 787	240 011	-6.5	-1.2
Canada	398 337	378 046	409 029	410 000	2.9	8.5
Czechia	56 240	52 280	53 742	58 818	4.6	12.5
Denmark	54 540	51 527	53538	54913	0.7	6.6
Finland	50 349	48 543	48 305	47 695	-5.3	-1.7
France	641 000	531 911	577 044	629 380	-1.8	18.3
Germany	751 900	681 749	690 000	721 000	-4.1	5.8
Great Britain	539 298	427 914	478 874	521 093	-3.4	21.8
Hungary	45 374	41 854	46 611	49 531	9.2	18.3
Iceland	3 981	3 800	3 942	4 010	0.7	5.5
Netherlands	135 057	117 853	123 105	131 510	-2.6	11.6
New Zealand	47 482	45 905	46 550	47 251	-0.5	2.9
Norway	45 836	43 406	44 968	45 404	-0.9	4.6
Slovenia	21 903	17 612	19 449	20 508	-6.4	16.4
Sweden	84 036	77 813	80 119	81 823	-2.6	5.2

Box 1

Mobility in France after the Covid-19 pandemic

In France, there is no recent national survey on mobility behaviour. However, some data are available for major cities. Research lead by LVMT Laboratory (2022) shows that the pandemic increased the attractiveness of cycling and consolidated existing cyling practices due to the construction of new bike lanes. Telework reduced traffic volumes, especially for passenger cars and public transportation. The decrease is more pronounced on Fridays, Mondays and Wednesdays. The impact of telework on car use and average distance remains unclear. However, some studies show that telework is associated with more trips around home on teleworking days but does not necessarily reduce car use.

According to a survey carried out by Île de France Mobilité (2022), new mobility behaviours can be identified in the Île-de-France region. In 2022, for all modes of transport combined, Paris region residents made 10% fewer journeys than in 2018. Teleworking and videoconferencing have developed strongly, reducing the number of home-to-work journeys, as well as journeys for meetings or lunch breaks". In addition, while road traffic has generally returned to pre-Covid levels, this is not the case for public transport use, which reached a plateau in 2022, with passenger numbers at between 80% and 85% of pre-Covid levels. This is also confirmed by public transport operators.

Another research project has been launched, led by LVMT Laboratory (Dablanc et al., 2022a, 2022b), looking at accidental journeys made by delivery drivers on major platforms such as Ubereats and Deliveroo. The data are based on annual surveys conducted by the Logistics City Chair in Paris and a survey in Nantes in 2021, involving fieldwork with 600 delivery drivers. The results reveal a high crash rate reported by drivers themselves. Delivery personnel report 26-29% of crashes on bicycles or scooters, depending on the year, half of which require a trip to the emergency room and 33% of which require medical attention.

Road deaths in 2022

After the shock of the Covid-19 pandemic in 2020 and 2021, when mobility was restricted everywhere and road deaths showed a general decrease, 2022 was a "normal" year. There were no particular restrictions on mobility in IRTAD countries.

To avoid biased results, this report compares road deaths in 2022 to the average for 2017-19 for short-term comparisons.

On average, for the 35 IRTAD countries with validated data, road deaths increased by 3.2% in 2022 compared to the average for 2017-19.

However, the United States, the most populous country in the analysis, significantly impacts the result. When US data are not included, in 2022, road deaths decreased by 6.4% compared to the average for 2017-19.

If the US data are excluded, overall deaths in IRTAD member countries fell by 6.4%.

Evolution by country

The picture is quite varied when looking at the data for each country. Among the 35 IRTAD countries, 23 countries recorded a reduction in road deaths in 2022, compared to the average for 2017-19. In 15 countries, the decline was greater than 10% (see Table 3).

The strongest decreases were in Lithuania (-34.4%), Poland (-33.9%), followed by Iceland (-30.8%), Korea (-27.5%), Japan (-22.9%), Finland (-17.5%), Denmark (-15.4%), Sweden (-14.7%), Czechia (-14.5%), Argentina (-14.4%), Slovenia (-14.1%), Hungary (-13.7%), Belgium (-12.8%), Germany (-12%) and Austria (-10.4%).

Five countries recorded an increase of more than 10% in 2022.

Five countries recorded an increase in road fatalities of more than 10% in 2022 compared to the average for 2017-19: Luxembourg (28.6%), Colombia (22.2%), the United States (16%), the Netherlands (14.4%) and Switzerland (11.1%).

In the Netherlands, the number of road deaths in 2022 (745) was the highest in more than ten years, while in Switzerland the number of road deaths in 2022 was higher than in any year since 2015.

In the United States, even if there was an increase of 16% compared to the average for 2017-19, the number of road deaths slightly decreased in 2022 when compared to 2021.

Table 3:

2022 Road fatality data compared to the 2017-19 average

Country	2022 road deaths	Data status	2017-19 road deaths	% change
Countries with validated data				
Argentina	4 567	provisional	5 334	-14.4
Australia	1 188	provisional	1 182	0.5
Austria	370	final	413	-10.4
Belgium	540	final	619	-12.8
Canada	1 934	provisional	1 852	4.4
Chile	2 137	final	1 951	9.5
Colombia	8 030	final	6 570	22.2
Costa Rica	786	provisional	820	-4.1
Czechia	527	final	617	-14.6
Denmark	154	final	182	-15.4
Finland	189	provisional	229	-17.5
France	3 267	final	3 313	-1.4
Germany	2 788	final	3 167	-12.0
Greece	641	provisional	706	-9.2
Hungary	535	final	620	-13.7
Iceland	9	final	13	-30.8
Ireland	155	provisional	143	8.4
Israel	351	final	345	1.7
Italy	3 159	final	3 295	-4.1
Japan	3 216	final	4 172	-22.9
Korea	2 735	final	3 772	-27.5
Lithuania	120	final	183	-34.4
Luxembourg	36	final	28	28.6
Netherlands	745	final	651	14.4
New Zealand	375	provisional	369	1.6
Norway	116	final	107	8.4
Poland	1 896	final	2 867	-33.9
Portugal	618	final	663	-6.8
Serbia	553	final	554	-0.2
Slovenia	85	final	99	-14.1
Spain	1 746	final	1 797	-2.8
Sweden	227	final	266	-14.7
Switzerland	241	final	217	11.1
United Kingdom	1 766	final	1 834	-3.7
United States	42 795	provisional	36 888	16.0
Observers and accession countries *(a)*				
Mexico	15 979	provisional	15 371	4.0
Morocco	3 499	final	3 695	-5.3
Uruguay	431	final	473	-8.9

(a) Data as provided by the countries and not validated by IRTAD.

Short-term evolution by user group

When looking at data by road user group, data are available for 32 countries (see Figure 1). Australia, Greece, and the United States have not yet published detailed 2022 data.

For the countries analysed, road fatalities decreased in 2022 compared to the average 2017-19 for all road user types except for powered two-wheelers (PTWs), which increased by 6.7%. Pedestrian fatalities recorded the biggest decrease (-17.7%), followed by passenger car occupants (-8%) and cyclists (-3.3%).

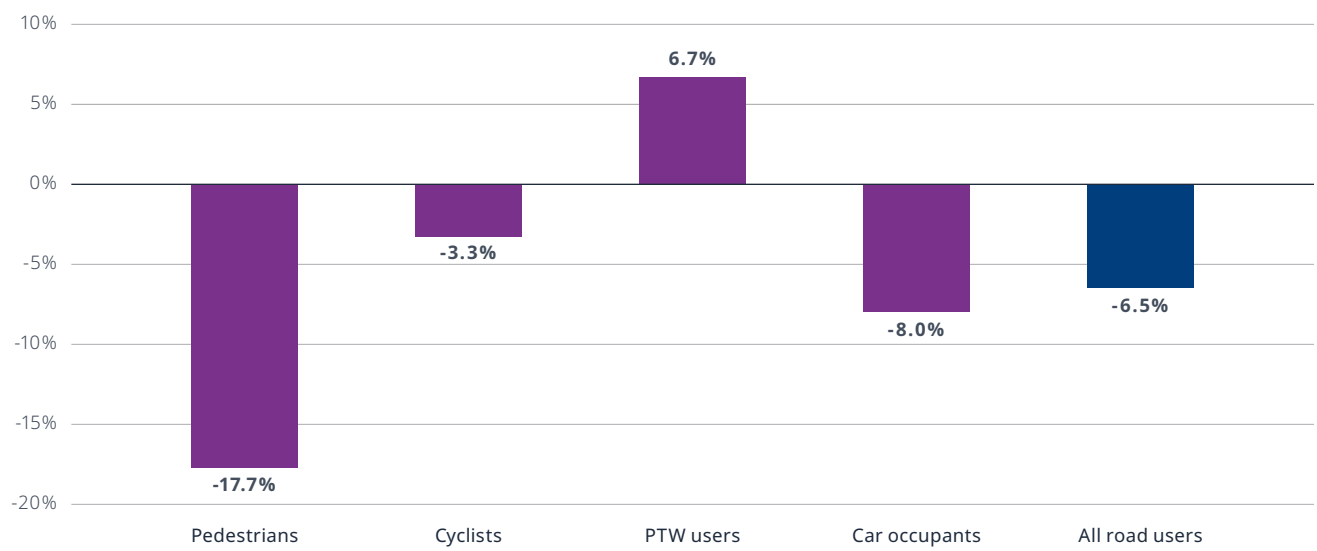
The increase in the number of PTW users was due mainly to the very sharp increase in Colombia (+41.1% in 2022 compared to the average for 2017-19). When excluding Colombia, the number of PTW users killed decreased by 6.9% in 2022 compared to the average for 2017-19.

The safety of PTW users is a growing issue in Colombia as in many Latin American countries. In 2022, over 800 000 new motorcycles were registered in the country, representing the highest number of registrations of new motorcycles over the last decade (see Box 2).

Road deaths decreased for all user groups in 2022, except for users of powered-two wheelers.

Figure 1:

Evolution in road deaths by user category, 2022 compared to average for 2017-19



Note: Data include Argentina, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czechia, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

Box 2

Motorcycle use in Latin America and the Caribbean

In Latin American and Caribbean countries, the number of motorcycle users killed exceeds the world average. According to the International Development Bank (IDB), In some countries, such as Colombia, the Dominican Republic and Uruguay, motorcycles represent more than half of road traffic (IDB, 2022). In these countries, motorcycles accounted for 73%, 56%, and 51% of the vehicle fleet, respectively (IDB, 2022).

Several factors contribute to the increased use of motorcycles in the region. First, in cities where the supply of public transport does not satisfy the demand, motorcycles are considered a valid alternative (Rodríguez et al., 2015). Other contributing factors include rising income levels, lower manufacturing costs, access to financing facilities, tax incentives, ease of maintenance and lower fuel consumption. Additionally, motorcycles provide agility in congested traffic conditions, which are common in large Latin American cities.

There is also a growing trend in using motorcycles as a means of work. The demand for courier, cab or delivery services aboard motorcycles offers lower fares and shorter travel times compared to other modes of transportation. People who use their motorcycles for work tend to have low education and income levels, which is a barrier to accessing employment with better working conditions. The commercial use of motorcycles should be formalised under adequate labour regulations, thus improving the quality-of-life standards for people who provide a service without decent conditions.

The IDB report provides a set of guidelines and best practices to enhance road safety for motorcycle users in the region that should be implemented across three key dimensions: 1) drivers and passengers, 2) motorcycle safety and 3) infrastructure and operation.

First, regarding the driver and passenger, the IDB recommends governments should establish minimum age requirements for motorcycle operation, considering engine power and riding proficiency, and introduce mandatory training programmes for individuals applying for a motorcycle license, starting with a basic category, and progressively advancing based on years of experience. Furthermore, personal safety elements for both the driver and passenger must be enforced.

Second, concerning motorcycles, automatic braking systems (ABS) and appropriate day and night lights should be required and enforced. In addition, compulsory vehicle safety inspections and mandatory insurance coverage are essential to enhance safety.

Third, regarding infrastructure and operation, it is essential to implement speed management measures and the installation of side barriers adapted to accommodate motorcycles.

Source: Inter-American Development Bank (2022).

While cyclist fatalities in 2022 decreased by 3.3% compared to the average for 2017-19, there are growing concerns regarding the safety of e-bikes. Their use is becoming more and more common in the IRTAD countries. This results in increased trips performed by e-bikes and consequently increased share in the fatalities among cyclists, generating new safety challenges.

There are growing concerns about e-bikes.

Data from the ten countries which reported these data for 2022 confirm this trend (see Table 4). In Israel and Switzerland, more than half of the cyclists killed in road crashes were using an e-bike. The percentage was quite high also for Germany (44%), Denmark (39%) and Belgium (38%).

This trend is growing. For example, in Switzerland in 2017 only 19% of cyclists killed were riding e-bikes. This phenomenon particularly affected older people, attracted by the possibility of continuing to do some physical exercise. For example, in Japan in 2022 60% of e-bikers killed were over 75, while the equivalent figures were around 40% in Belgium and Germany.

Few countries record data concerning new micro-mobility vehicles, such as e-scooters. In the countries where these data are collected, there has been an increase in road fatalities in recent years, due mainly to the increasing use. For example, in France, the number of people killed while using these vehicles tripled between 2019 and 2022. However, they still represent a small share of total road fatalities.

Recently, some countries have made efforts to collect road crash data about new mobility modes. But the same cannot be said for exposure (I.e. how many kilometres cyclists and e-scooter users travel). Only the Netherlands has national data on cycling, based on annual ad hoc surveys. In other countries, data can be obtained at the city level from self-service bike or scooter operators.

However, even at the local level, there is little data available on user trips outside self-service fleets. Initial work has been carried out using mobile phone data to measure trips using new mobility modes but at this stage, it has not been shared or validated. This is a major knowledge challenge for the coming years. The ITF Statistics Group has set up a task force on emerging mobility patterns data, including walking and cycling. IRTAD is a member of this group, which is due to report in 2024.

Table 4:

Percentage share of e-bike users in cyclist fatalities

Country	2017	2018	2019	2020	2021	2022
Belgium	28	23	27	35	47	38
Denmark		21	30	30	12	39
France			8	9	11	18
Germany	18	20	27	33	35	44
Israel			47	81	52	55
Italy					6	10
Japan	7	9	12	12	13	15
Netherlands	28	25	32	32	39	34
Portugal	4	0				26
Slovenia	25	0	0	0	0	13
Switzerland	19	29	38	31	41	55

Short-term evolution by age group

When looking at data by age group, data are available for 30 countries (see Figure 2). Australia, Canada, Costa Rica, Greece, and the United States do not yet have detailed 2022 data.

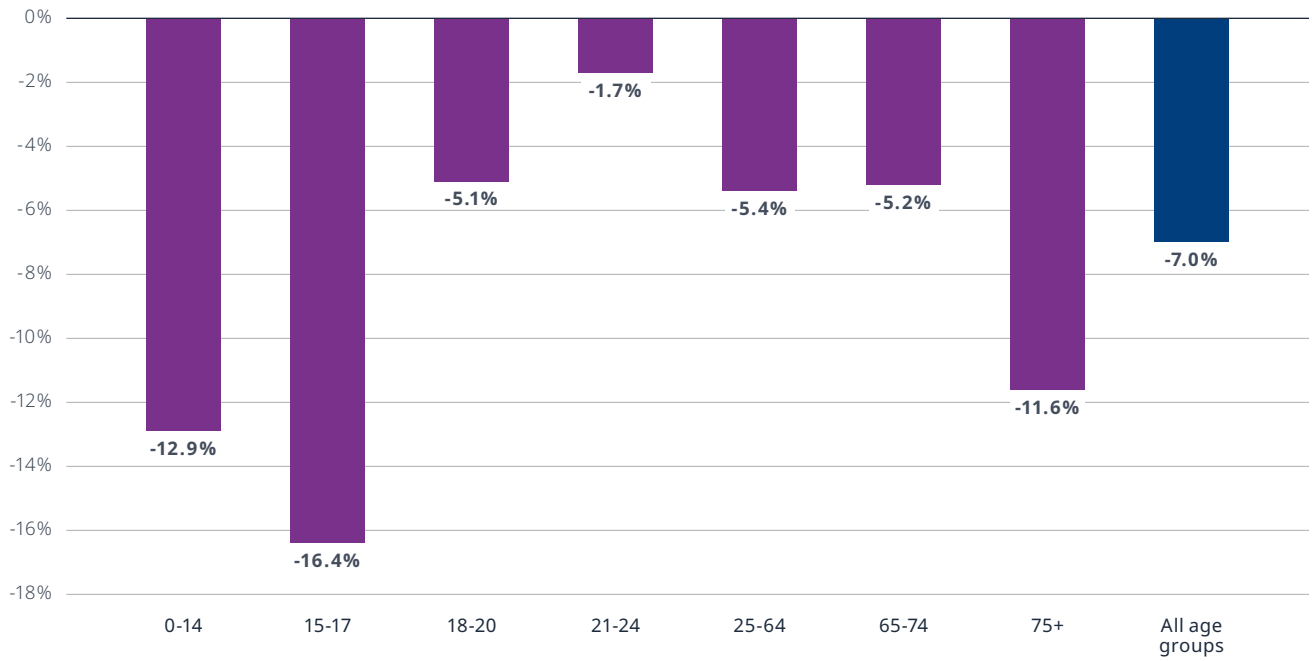
In 2022, road deaths decreased for all age groups compared to the 2017-19 average. The biggest reductions were for the youngest generation. The decrease among children under 14 amounted to 12.9%, while for teenagers between 15 and 17 years old, the decrease was 16.4%.

In contrast with previous years, the senior population recorded an improvement in road safety. In 2022, road deaths decreased by 5.2% for the 65-74 age group and 11.6% among people over 75. People aged between 21 and 24 derived fewer benefits from better road safety. Road deaths for this group decreased by only 1.7%.

Road deaths in 2022 decreased for all age groups.

Figure 2:

Evolution in road deaths by age group, 2022 compared to average for 2017-19



Note: Data include Argentina, Austria, Belgium, Chile, Colombia, Czechia, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

Historically, the 18-20 and 21-24 age groups were the most at risk in traffic. In recent years, in many IRTAD countries, seniors aged 75 and over have become more and more at risk in traffic. In 2022, in almost two-thirds of the countries with available data, the mortality rates of people aged 75 and over were higher than those of people aged 18-20 or 21-24 (see Figure 3).

The are several reasons for this shift. First of all, the population is ageing in most of the developed countries. At the same time, the population is more mobile than before since the average health conditions are better and new transport modes, such as e-bikes, suit the elderly population.

Second, in the last few years, successful measures have been taken to improve the safety of young people. In addition, younger generations tend to drive less and later.

While fewer seniors are dying in road crashes, they remain the most-at-risk age group.

Figure 3:

Mortality rate by age group, 2022


Age group
Total
Czechia
Denmark
Finland
France
Germany
Hungary
Iceland
Ireland
20
15
10
5
0
0-17
18-20
21-24
25-64
65-74
75+


Age group
Total
Israel
Italy
Japan
Korea
Lithuania
Luxembourg
Netherlands
New Zealand
20
15
10
5
0
0-17
18-20
21-24
25-64
65-74
75+


Age group
Total
Norway
Poland
Portugal
Serbia
Slovenia
Spain
Sweden
Switzerland
20
15
10
5
0
0-17
18-20
21-24
25-64
65-74
75+

Short-term evolution by road type

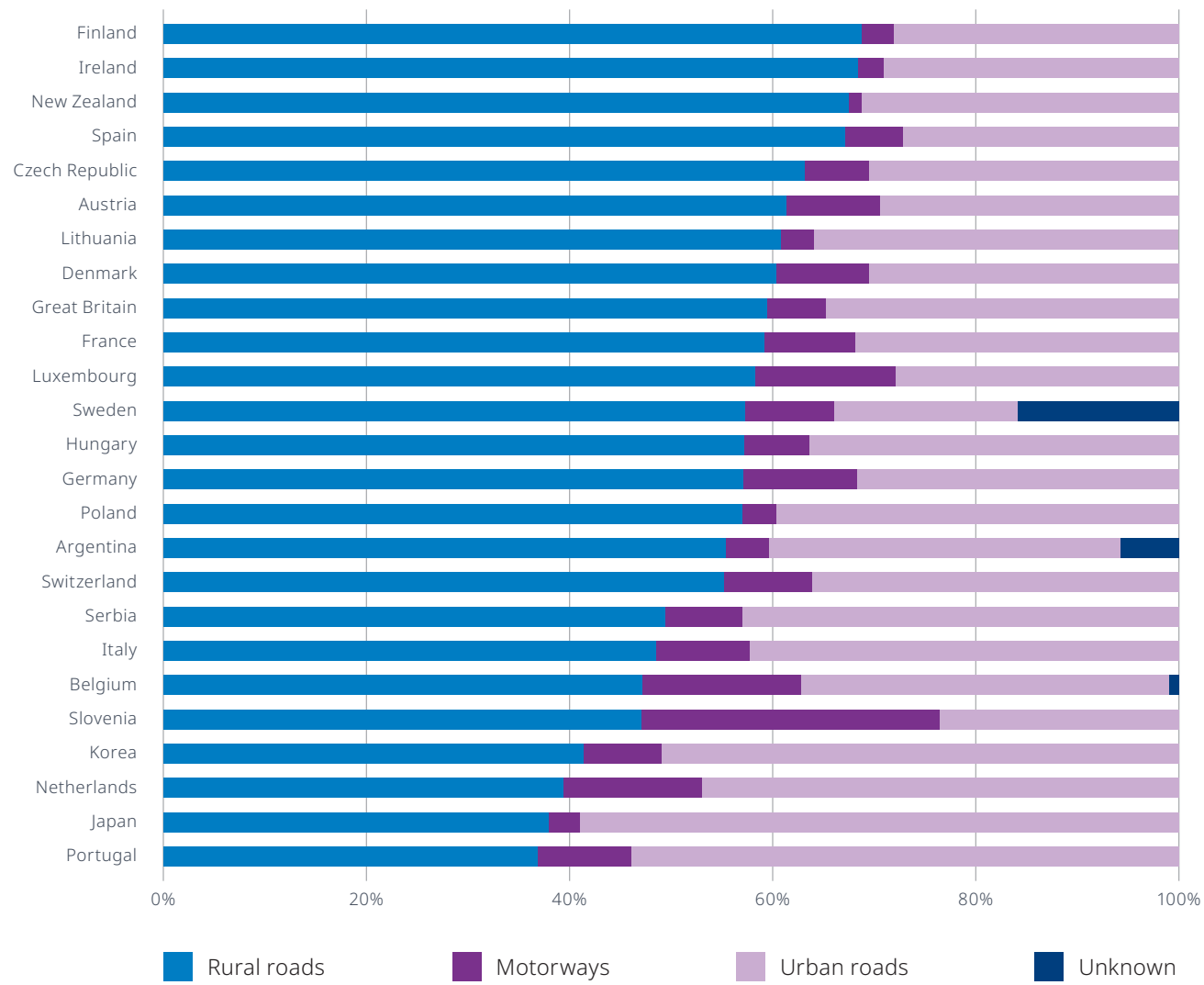
Data disaggregated by road type are available for 25 countries in 2022 (see Figure 4). Rural roads are the deadliest roads in almost all countries. In 17 countries, more than half of the road deaths occurred on rural roads. In Finland, Ireland and New Zealand, two-thirds of road deaths occurred in this type of road. Only in Korea, the Netherlands, Japan, and Portugal are urban roads deadlier than other road types.

The reasons for the dangerousness of rural roads relate mainly to road infrastructure and inappropriate speed. Rural roads often lack physical separation of lanes, have numerous intersections and are sometimes poorly maintained. In addition, drivers tend to speed on rural roads, mainly because of a lack of enforcement.

Rural roads remain the deadliest road type.

Figure 4:

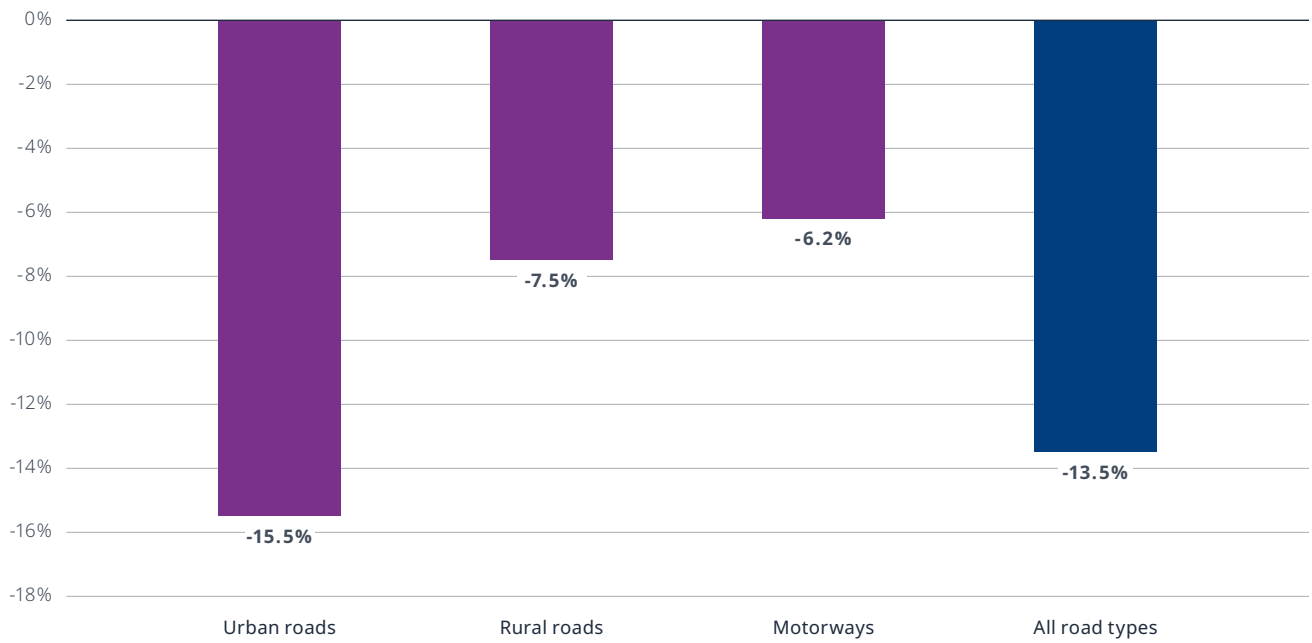
Road deaths by road type, 2022



In 2022, for the 25 countries with available data, road deaths decreased by 13.5% compared to the average 2017-19 (see Figure 5). The biggest decrease was in the number of people killed on urban roads (-15.5%), followed by rural roads (-7.5%) and motorways (-6.2%).

Figure 5:

Evolution in road deaths by road type, 2022 compared to average for 2017-19



Note: Data include Argentina, Austria, Belgium, Czechia, Denmark, Finland, France, Germany, Great Britain, Hungary, Ireland, Italy, Japan, Korea, Lithuania, Luxembourg, Netherlands, New Zealand, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland.

Mortality rates and fatality risks in 2022

Three common indicators are used to measure road safety performance and compare safety levels across countries: 1) the number of road deaths per population, 2) the number of road deaths per motorised vehicle, and 3) the number of road deaths per distance travelled (see Box 3). This section explores the 2022 data for the first two indicators and the 2021 data for the latter.

In 2022, the mortality rate ranged from 2.1 to 15.5 fatalities per 100 000 inhabitants (see Figure 6). Norway recorded the lowest mortality rate, with 2.1 fatalities per 100 000 inhabitants. Norway also registered the lowest mortality rate from road crashes in 2021. A total of 22 IRTAD countries had a mortality rate between 3 and 9 in 2022. Four countries had a mortality rate higher than 10 fatalities per 100 000 inhabitants: Chile (10.8), the United States (12.8), Costa Rica (15.2), and Colombia (15.5).

Seven countries recorded per capita mortality rate below 3 in 2022.

Box 3

Measuring risk and comparing countries

Three common indicators measure road safety performance and compare safety levels across countries. Each has pros and cons; in all cases, interpret country comparisons with great care, especially between countries with different levels of motorisation.

First, the number of **fatalities per head of population** measures the mortality rate. The number of inhabitants (per 100 000 or million) is the most often-used denominator as this figure is readily available in most countries. This rate expresses the average citizen's overall risk of being killed in traffic. It is comparable to other causes of death (e.g. coronary diseases or HIV/AIDS). It is also useful when comparing risk in countries with similar 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.

Second, the number of **fatalities per number of registered motorised vehicles** is an alternative to measuring fatalities per distance travelled, although it does not consider actual traffic volume. It is only useful for comparing 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 registration databases, undermining the accuracy of this indicator. Equally, this indicator does not consider non-motorised vehicles (e.g. bicycles), which represent a large part of the vehicle fleet (and fatality figures) in some countries. This indicator is usually expressed as the number of fatalities per 10 000 registered motorised vehicles.

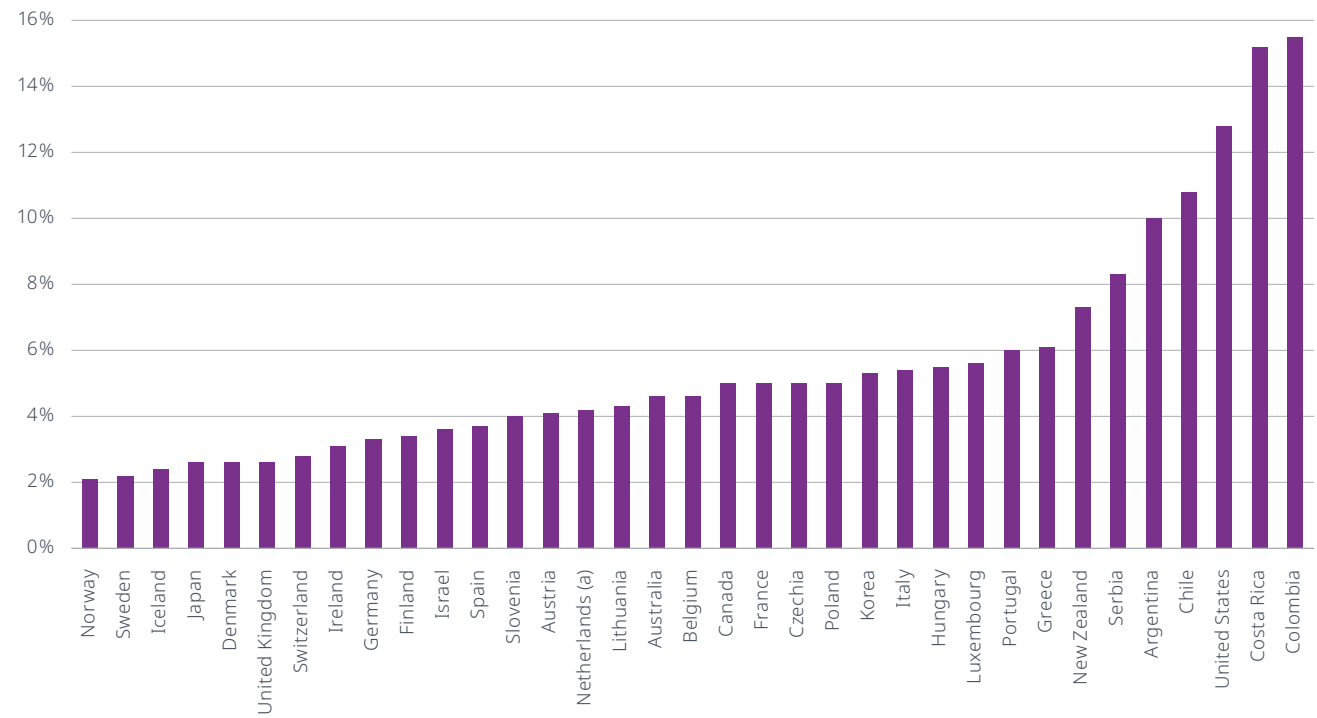
Third, the number of **fatalities per distance travelled** by motorised vehicles measures fatality risk. This indicator describes the safety quality of road traffic. Theoretically, it is the best indicator to assess the level of risk of the road network. However, it does not take into account non-motorised vehicles (e.g. bicycles). In some countries, non-motorised vehicles represent a large part of the vehicle fleet and of road fatalities. Furthermore, only a limited number of countries collect data on distance travelled. Fatality risk is usually expressed in road deaths per billion vehicle-kilometres.

Other six countries recorded less than 3 fatalities from road crashes per 100 000 inhabitants in 2022: Sweden (2.2), Iceland (2.4), Japan, Denmark, and the United Kingdom (2.6), and Switzerland (2.8).

In the case of Switzerland, while it recorded an increase in road fatalities of 11.1% in 2022 compared to the average 2017-19, the country nevertheless registered a relatively low mortality rate. It is also worth noting that the number of road deaths in 2019 in Switzerland was extremely low.

Figure 6:

Road fatalities per 100 000 inhabitants, 2022



Note: (a) Real data (actual numbers instead of reported numbers by the police).

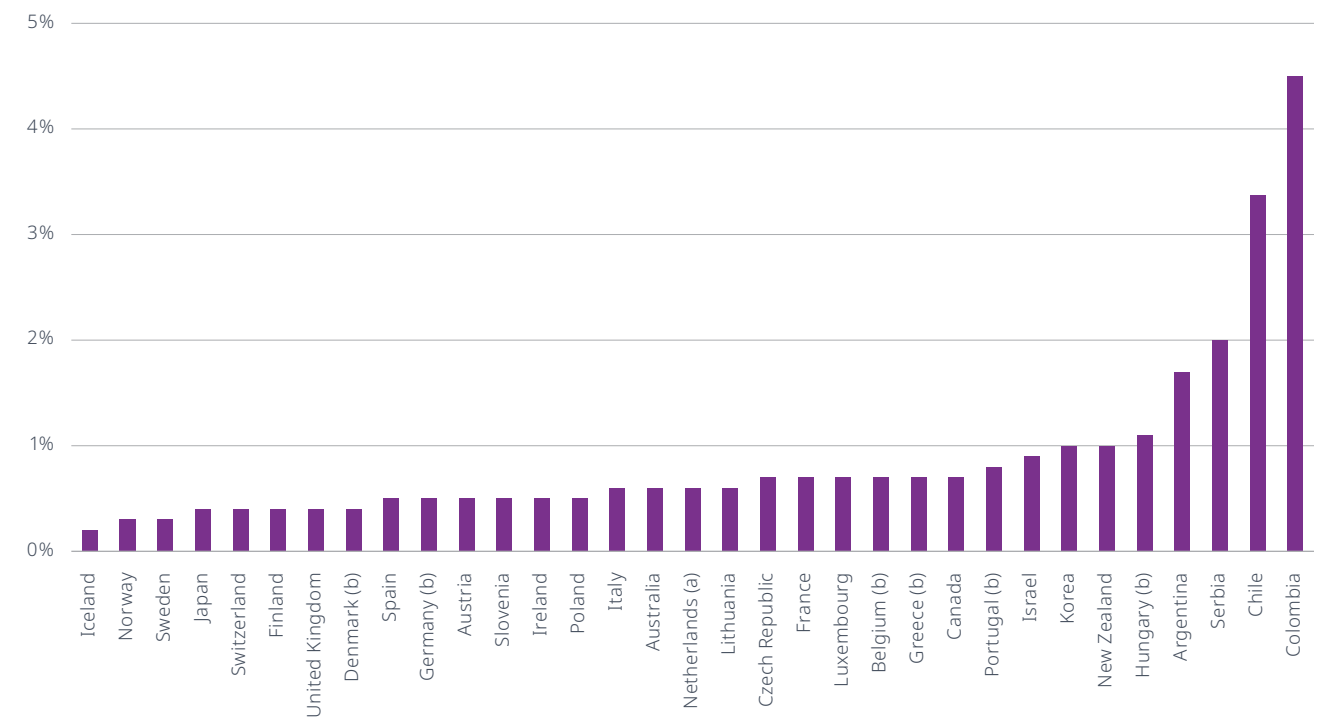
Fatality rates, measured against the number of motorised vehicles, ranged from 0.2 to 4.5 deaths per 10 000 motorised vehicles (see Figure 7) in 2022. Ten countries registered a mortality rate of less than 0.5: Iceland, Norway, Sweden, Japan, Switzerland, Finland, United Kingdom, Denmark, Spain, and Germany.

The fatality risk was highest in Chile and Colombia, with a rate of 3.5 and 4.5 fatalities per 10 000 motorised vehicles, respectively.

Ten countries recorded a mortality rate per registered vehicle below 0.5.

Figure 7:

Road fatalities per 10 000 registered vehicles



Note: (a) Real data (actual numbers instead of reported numbers by the police).
(b) Mopeds are not included in the registered vehicles.

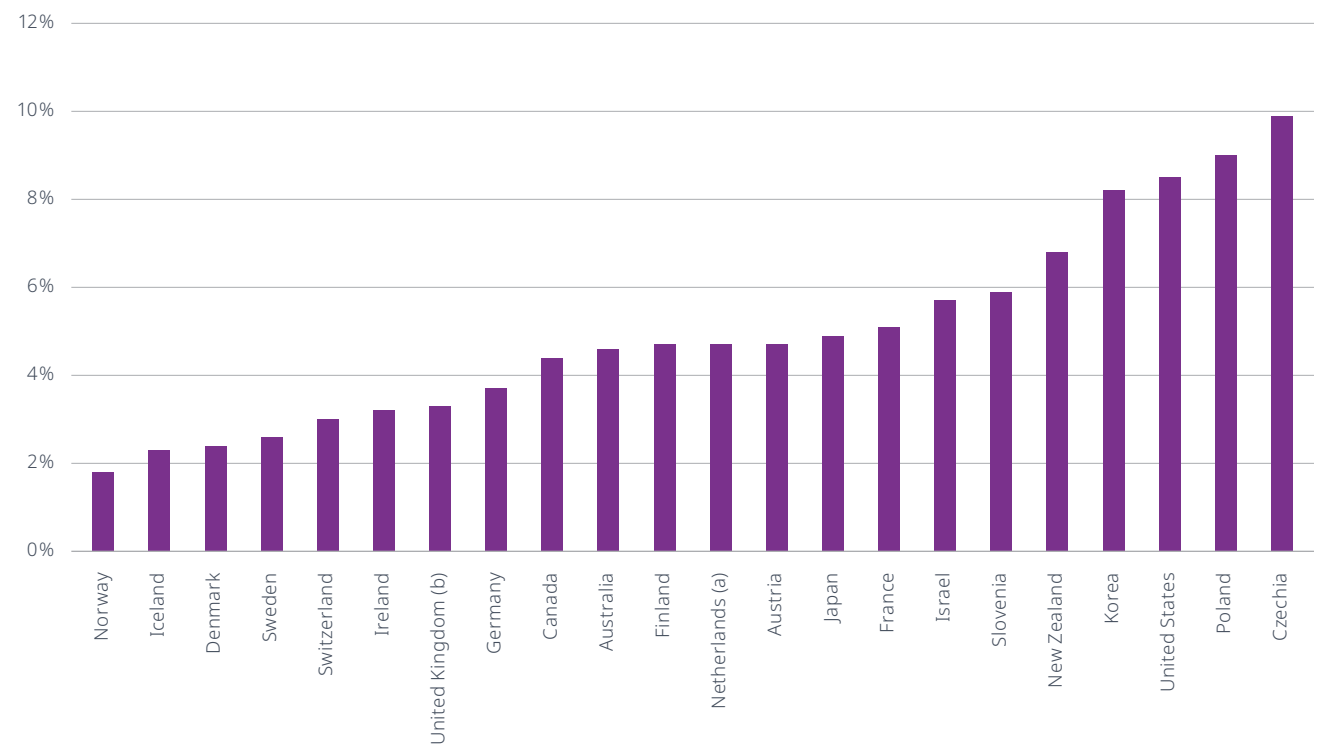
The fatality risk calculated by distance travelled is available for 22 countries in 2021 (but only 11 countries available in 2022). In 2021, the fatality risk ranged from 1.8 to 9.9 fatalities per billion vkm (see Figure 9).

Four countries reported less than 3 deaths per billion vkm: Norway (1.8), Iceland (2.3), Denmark (2.4), and Sweden (2.6). Three countries registered more than 8 deaths per billion vkm: Korea (8.2), the United States (8.5) and Czechia (9.9).

Four countries recorded a mortality rate per distance travelled below 3.

Figure 8:

Road fatalities per billion vehicle-kilometres, 2021



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

This section discusses the longer-term evolution of specific road safety indicators for the period 2012-22. This section discusses two broad sets of data: data on the total number of road deaths; and data on road deaths disaggregated by user group, age group and road type. The IRTAD database also covers serious injuries; details are provided in the accompanying country profiles.

Evolution in the number of road deaths, 2012-22

Between 2012 and 2022, road deaths increased by 1.5% in the 35 countries with validated data.

When the United States's data are not included, road deaths decreased by 14.4%. This decrease needs to be accelerated to meet the target under the second Decade of Action for Road Safety 2021-30 (WHO, 2021).

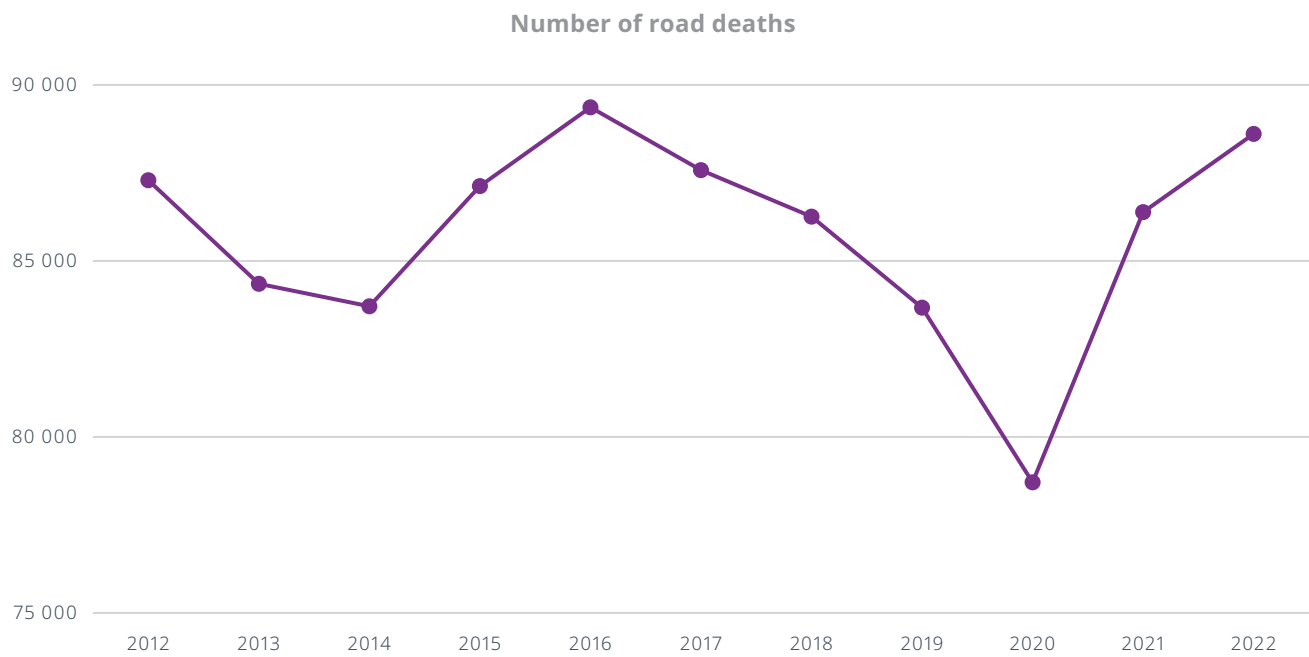
Figure 9 shows the evolution in the number of road deaths between 2012 and 2022, with and without US data.

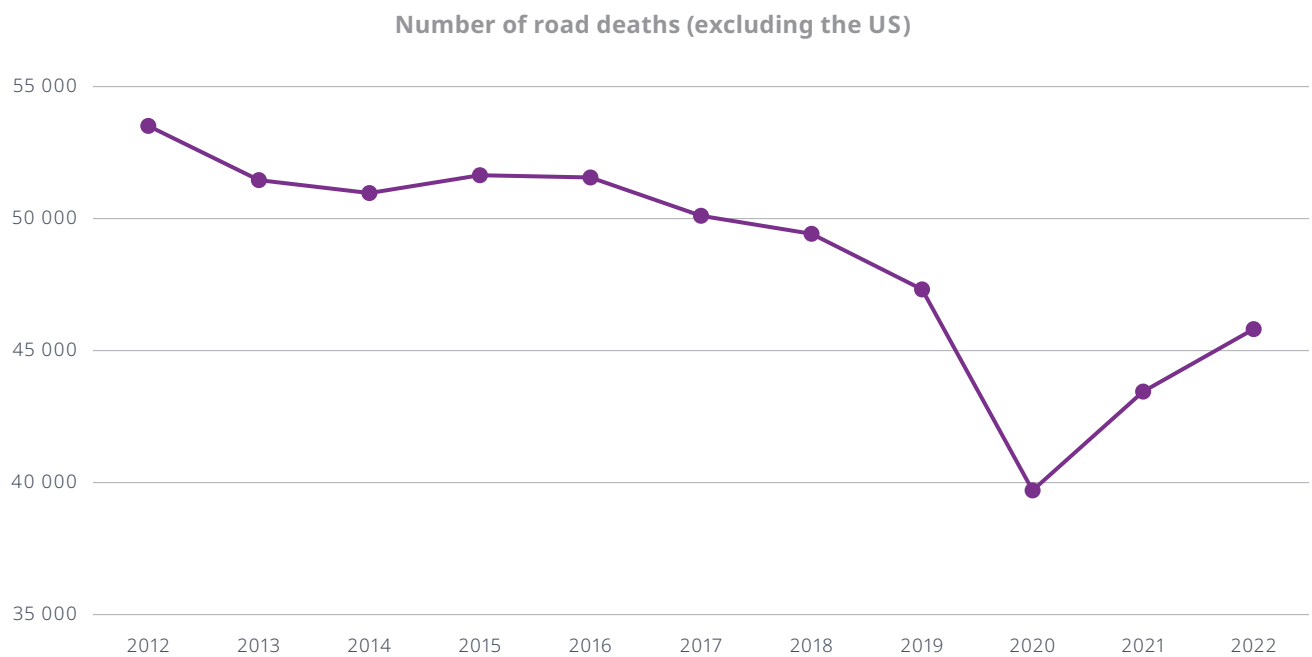
In 2021, road deaths increased compared to 2020 but stayed below the pre-Covid 19 level. In 2022, the total number of road deaths increased a further but stayed below the pre-Covid 19 level.

If US data are excluded, overall road deaths in IRTAD countries fell by 14%.

Figure 9:

Aggregate evolution in the number of road deaths in IRTAD countries, 2012-2022





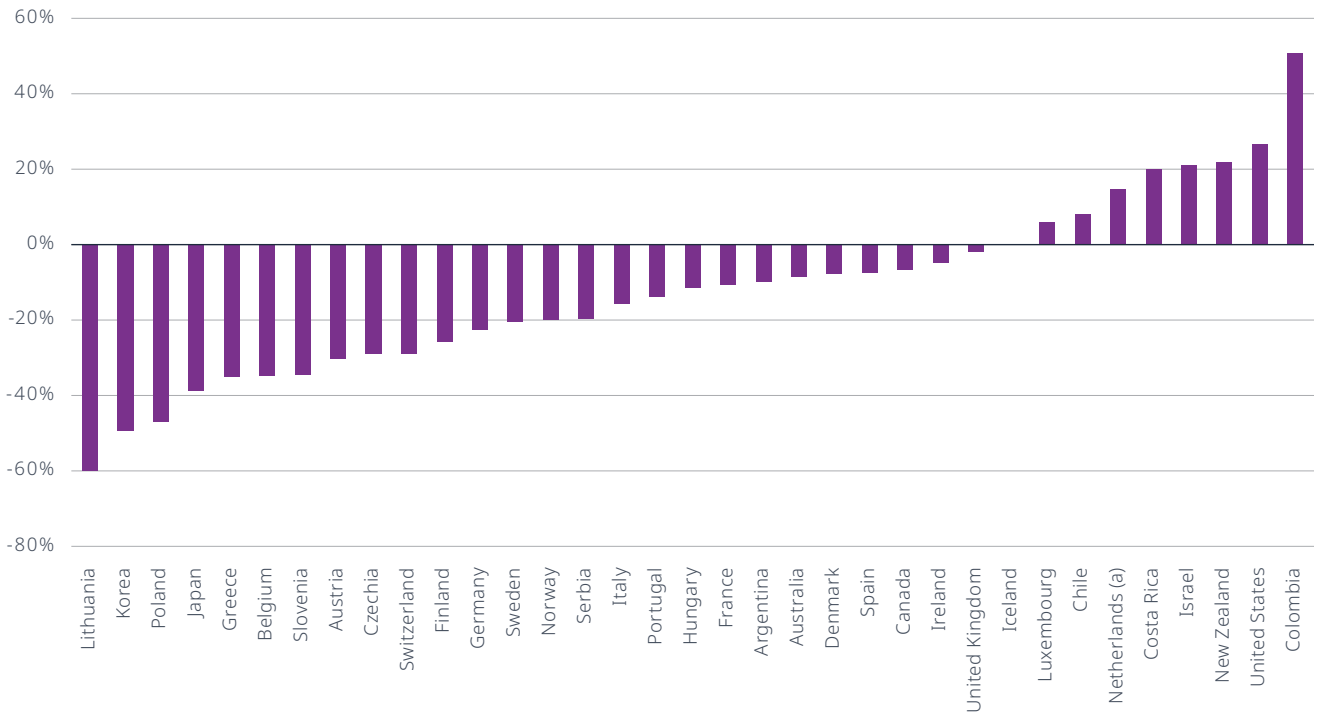
Between 2012 and 2022, road deaths decreased in 27 of the 35 IRTAD countries (see Figure 10 and Table 5). Fatalities decreased the most in Lithuania (-60.1%), Korea (-49.2%) and Poland (-46.9%). Five other countries recorded a reduction of more than 30% in 2022 compared to 2012: Japan (-38.9%), Greece (-35.1%), Belgium (-34.7%), Slovenia (-34.6%), and Austria (-30.3%).

Road deaths increased in 8 IRTAD countries and by more than 20% in five countries: Colombia (50.9%), the United States (26.7%), New Zealand (21.8%), Israel (21%) and Costa Rica (20%).

Lithuania, Korea and Poland have achieved large drops in road fatalities since 2012.

Figure 10:

Percentage change in the number of road deaths, 2012-22



Note: (a) Real data (actual numbers instead of reported numbers by the police).

Table 5:

Road fatality trends, 2012-22

Country	2012	2013	2014	2015	2016	2017	2018
Countries with validated data							
Argentina	5 074	5 209	5 279	..	5 550	5 611	5 493
Australia	1 299	1 185	1 151	1 205	1 295	1 223	1 135
Austria	531	455	430	479	432	414	409
Belgium	827	764	745	762	670	609	604
Canada	2 075	1 951	1 841	1 887	1 900	1 861	1 939
Chile	1 979	2 103	2 116	2 136	2 178	1 925	1 955
Colombia	5 320	5 757	6 118	6 406	6 936	6 505	6 629
Costa Rica	655	625	662	..	..	862	811
Czechia	742	654	688	734	611	577	658
Denmark	167	191	182	178	211	175	171
Finland	255	258	229	270	258	238	239
France	3 653	3 268	3 384	3 461	3 477	3 448	3 248
Germany	3 600	3 339	3 377	3 459	3 206	3 180	3 275
Greece	988	879	795	793	824	731	700
Hungary	605	591	626	644	607	625	633
Iceland	9	15	4	16	18	16	18
Ireland	163	188	192	162	182	154	134
Israel	290	309	319	356	377	364	316
Italy	3 753	3 401	3 381	3 428	3 283	3 378	3 334
Japan	5 261	5 165	4 838	4 885	4 698	4 431	4 166
Korea	5 392	5 092	4 762	4 621	4 292	4 185	3 781
Lithuania	301	258	267	239	188	191	173
Luxembourg	34	45	35	36	32	25	36
Netherlands *(b)*	650	570	570	621	629	613	678
New Zealand	308	252	292	317	326	377	379
Norway	145	187	147	117	135	106	108
Poland	3 571	3 357	3 202	2 938	3 026	2 831	2 862
Portugal	718	637	638	593	563	602	700
Serbia	688	650	536	599	607	579	548
Slovenia	130	125	108	120	130	104	91
Spain	1 903	1 680	1 688	1 689	1 810	1 830	1 806
Sweden	285	260	270	259	270	252	324
Switzerland	339	269	243	253	216	230	233
United Kingdom	1 802	1 770	1 854	1 804	1 860	1 856	1 839
United States	33 782	32 893	32 744	35 484	37 806	37 473	36 835
Observers and accession countries *(a)*							
Mexico	17 102	15 853	15 886	16 039	16 185	15 866	15 574
Morocco	4 167	3 832	3 489	3 776	3 785	3 726	3 736
Uruguay	510	567	538	506	446	470	528

(a) Data as provided by the countries and not validated by IRTAD.

(b) Real data (actual numbers instead of reported numbers by the police).

				2022 % change from		Annual average change
2019	2020	2021	2022	av. 2017-19	2012	2012-22
4 898	3 513	4 481	4 567	-14.4	-10.0	-1.0
1 187	1 097	1 116	1 188	0.5	-8.5	-0.9
416	344	362	370	-10.4	-30.3	-3.5
644	499	516	540	-12.8	-34.7	-4.2
1 756	1 746	1 768	1 934	4.4	-6.8	-0.7
1 973	1 794	2 052	2 137	9.5	8.0	0.8
6 577	5 447	7 238	8 030	22.2	50.9	4.2
787	570	707	786	-4.1	20.0	1.8
617	517	531	527	-14.6	-29.0	-3.4
199	163	130	154	-15.2	-7.8	-0.8
211	223	225	189	-17.6	-25.9	-3.0
3 244	2 541	2 944	3 267	-1.4	-10.6	-1.1
3 046	2 719	2 562	2 788	-12.0	-22.6	-2.5
688	584	624	641	-9.2	-35.1	-4.2
602	460	544	535	-13.7	-11.6	-1.2
6	8	9	9	-32.5	0.0	0.0
140	146	136	155	8.6	-4.9	-0.5
355	305	364	351	1.7	21.0	1.9
3 173	2 395	2 875	3 159	-4.1	-15.8	-1.7
3 920	3 416	3 205	3 216	-22.9	-38.9	-4.8
3 349	3 081	2 916	2 735	-27.5	-49.3	-6.6
186	175	148	120	-34.5	-60.1	-8.8
22	26	24	36	30.1	5.9	0.6
661	610	582	745	14.5	14.6	1.4
350	317	318	375	1.7	21.8	2.0
108	93	80	116	8.1	-20.0	-2.2
2 909	2 491	2 245	1 896	-33.9	-46.9	-6.1
688	536	561	618	-6.8	-13.9	-1.5
534	492	521	553	-0.1	-19.6	-2.2
102	80	114	85	-14.1	-34.6	-4.2
1 755	1 370	1 533	1 759	-2.1	-7.6	-0.8
221	204	210	227	-14.6	-20.4	-2.2
187	227	200	241	11.2	-28.9	-3.4
1 808	1 516	1 608	1 766	-3.7	-2.0	-0.2
36 355	39 007	42 939	42 795	16.0	26.7	2.4
14 673	13 630	14 715	15 979	4.0	-6.6	-0.7
3 622	3 005	3 685	3 499	-5.3	-16.0	-1.7
422	391	434	431	-8.9	-15.5	-1.7

Figure 11 illustrates the trends in road fatalities in IRTAD countries since 2012. It includes expected values for 2020 and 2021 had the trend continued without the Covid-19 pandemic.

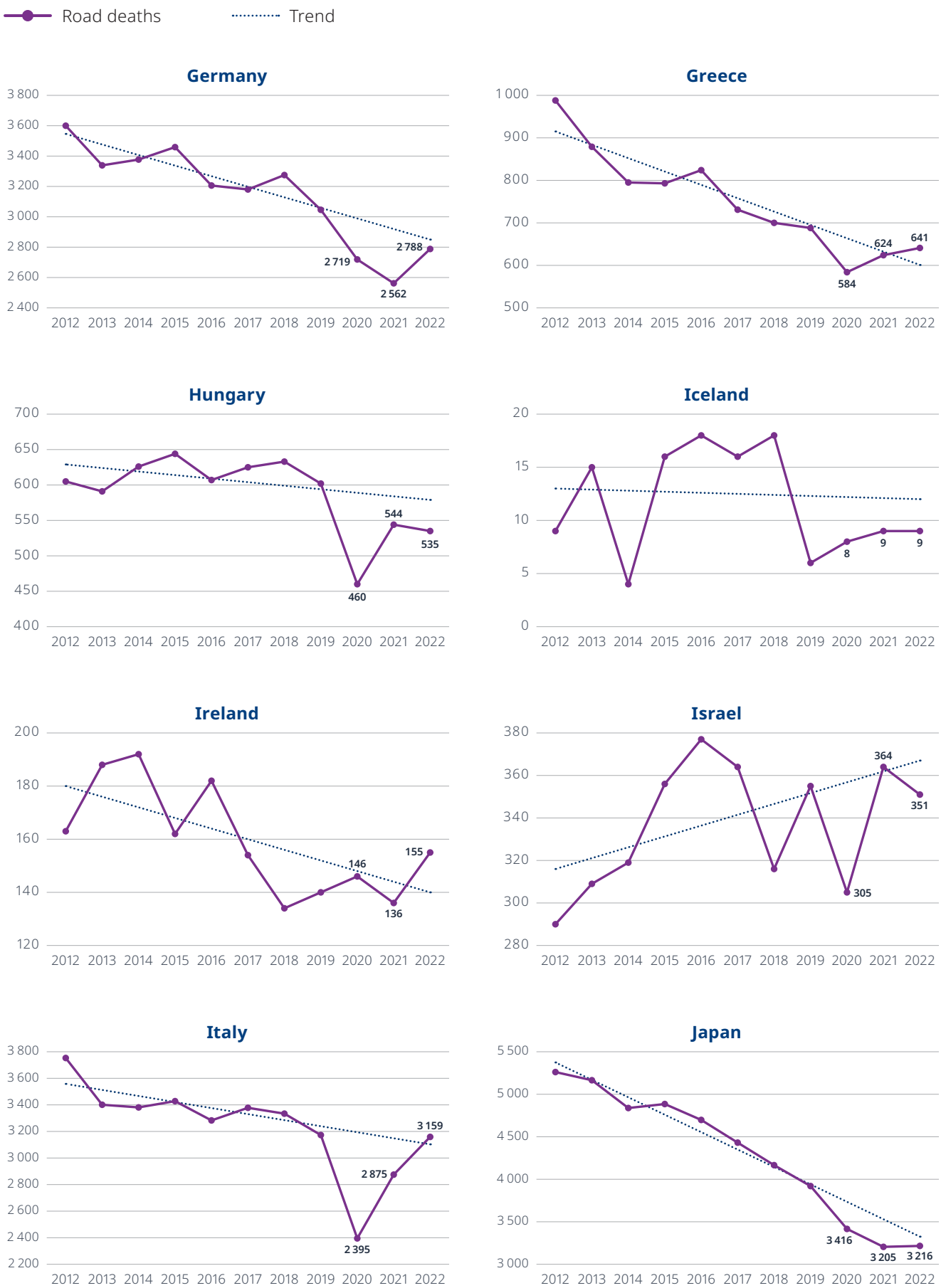
For most of the countries there is some evidence that 2020 and 2021 were exceptional years, with values much lower than the expected trend. For a more in-depth analysis of the reasons for this variation at the country level, see the individual country reports on the ITF website.

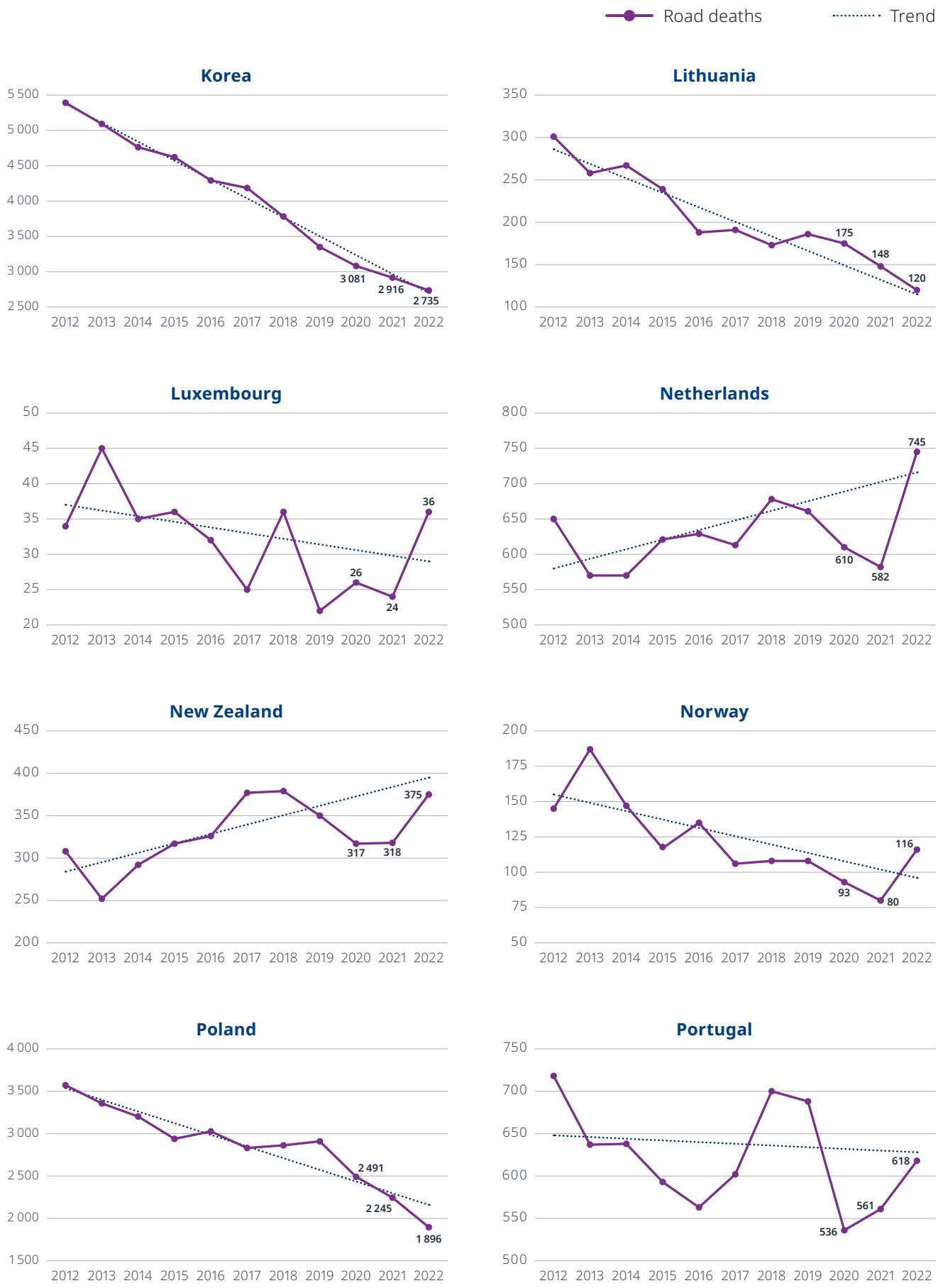
2022 data confirm that 2020 and 2021 were exceptional years.

Figure 11:

Road deaths compared to the linear trend since 2012 (excluding 2020 and 2021)

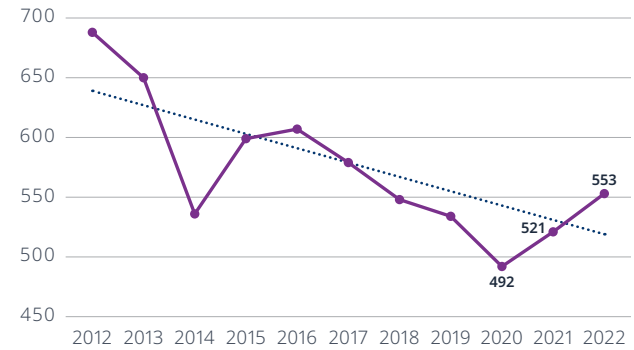

Road deaths
Trend
Canada
2 200
2 100
2 000
1 900
1 800
1 700
1 600
1 934
1 768
1 746
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Chile
2 200
2 100
2 000
1 900
1 800
1 700
2 137
2 052
1 794
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Colombia
8 500
8 000
7 500
7 000
6 500
6 000
5 500
5 000
8 030
7 238
5 447
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Costa Rica
900
850
800
750
700
650
600
550
500
786
707
570
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Czechia
800
750
700
650
600
550
500
450
517
531
527
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Denmark
220
200
180
160
140
120
163
154
130
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Finland
280
260
240
220
200
180
223
225
189
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
France
3 800
3 600
3 400
3 200
3 000
2 800
2 600
2 400
3 267
2 944
2 541
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022


Road deaths
Trend
Germany
3 800
3 600
3 400
3 200
3 000
2 800
2 600
2 400
2 719
2 788
2 562
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Greece
1 000
900
800
700
600
500
624
641
584
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Hungary
700
650
600
550
500
450
400
544
535
460
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Iceland
20
15
10
5
0
8
9
9
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Ireland
200
180
160
140
120
146
155
136
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Israel
380
360
340
320
300
280
364
351
305
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Italy
3 800
3 600
3 400
3 200
3 000
2 800
2 600
2 400
2 200
3 159
2 875
2 395
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Japan
5 500
5 000
4 500
4 000
3 500
3 000
3 416
3 205
3 216
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

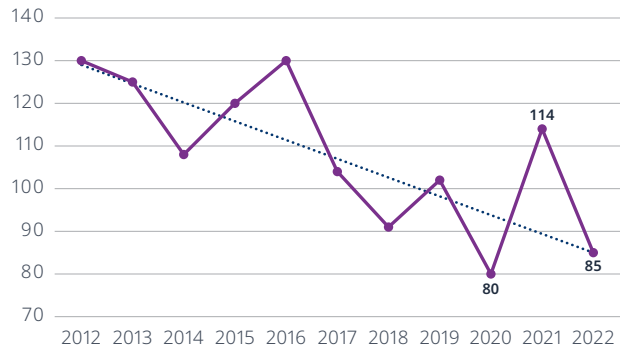

Road deaths
Trend
Korea
5 500
5 000
4 500
4 000
3 500
3 000
2 500
3 081
2 916
2 735
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Lithuania
350
300
250
200
150
100
175
148
120
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Luxembourg
50
45
40
35
30
25
20
36
26
24
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Netherlands
800
750
700
650
600
550
500
745
610
582
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
New Zealand
450
400
350
300
250
200
375
317
318
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Norway
200
175
150
125
100
75
50
116
93
80
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Poland
4 000
3 500
3 000
2 500
2 000
1 500
2 491
2 245
1 896
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Portugal
750
700
650
600
550
500
618
561
536
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Road deaths Trend

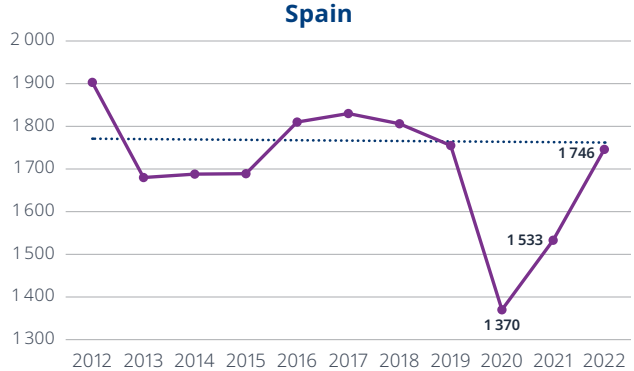
Serbia



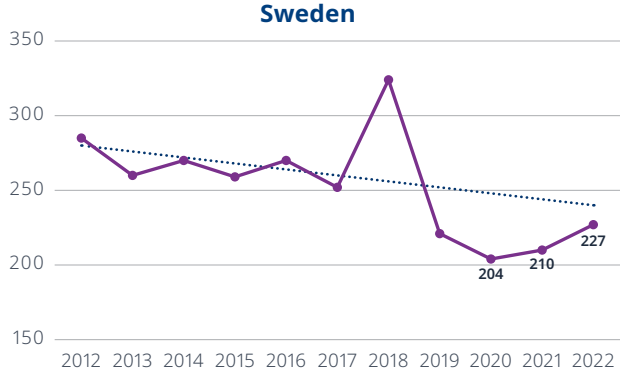
Slovenia



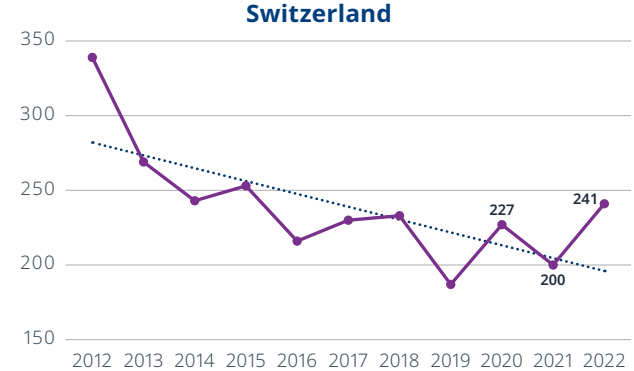
Spain



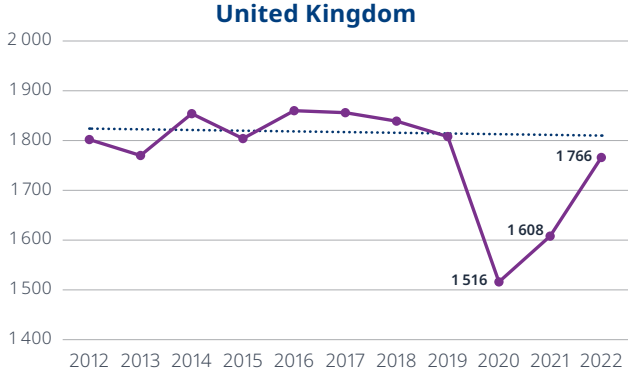
Sweden



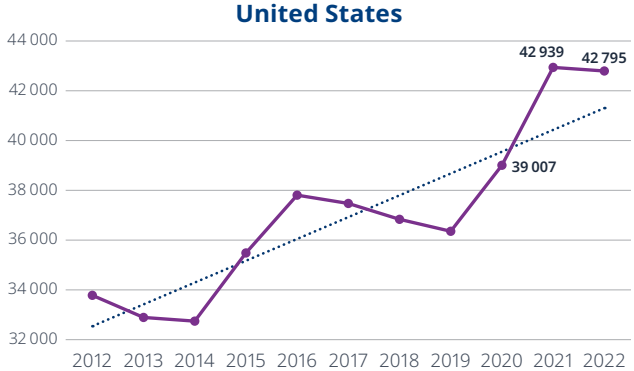
Switzerland



United Kingdom



United States



When looking at the trends for 2012-22, without including 2020 and 2021, the trend in road deaths is going upward in six countries: Colombia, Costa Rica, Israel, the Netherlands, New Zealand and the United States.

In some countries, such as Chile, Spain and the United Kingdom, the trend is plateauing, and except for the two exceptional years in 2020 and 2021, the number of road deaths did not show a clear decrease.

The trend is downward in the rest of the countries, even if few countries reached the target of halving road deaths in the last decade.

In six countries the long-term trend in road deaths is ascending.

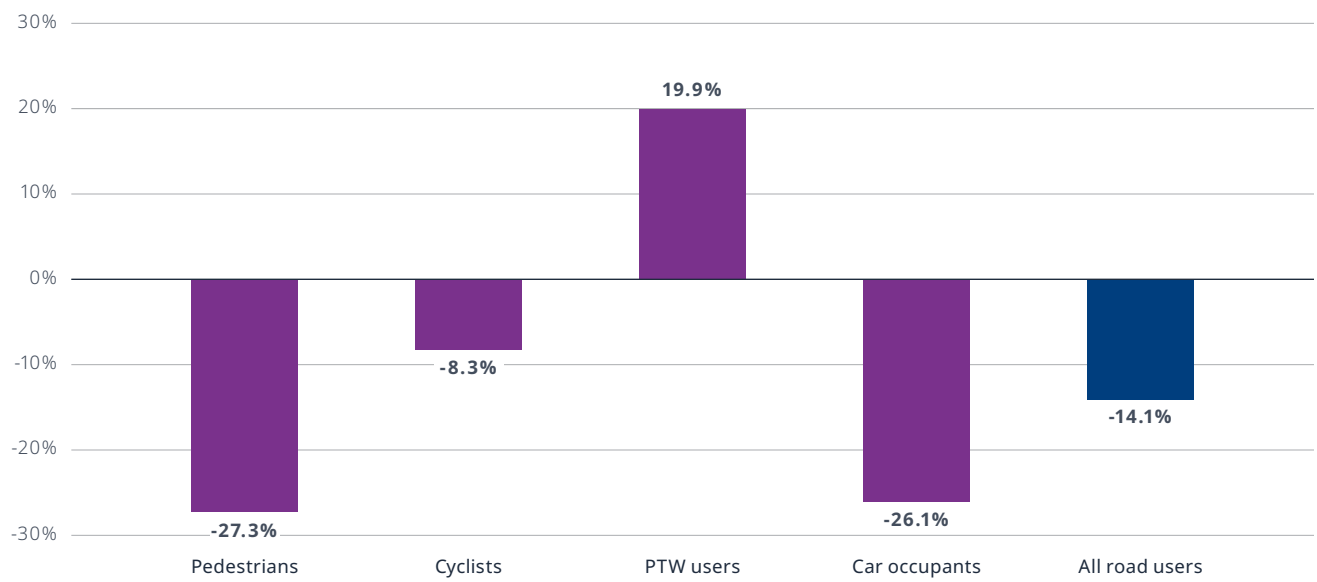
Road deaths by user group

Disaggregated data by user category are available for 32 IRTAD countries (see Figure 12). For these countries, in 2022, road fatalities decreased by 14.1% compared to 2012. When looking at the evolution by user category, passenger car occupants and pedestrians recorded reductions of 26.1% and 27.3%, respectively. Cyclist fatalities decreased by 8.3% in 2022 compared to 2012, while motorcyclist fatalities recorded a strong increase of 19.9%.

In the last 10 years safety for pedestrians improved significantly.

Figure 12:

Evolution in road deaths by user category, 2022 compared to 2012



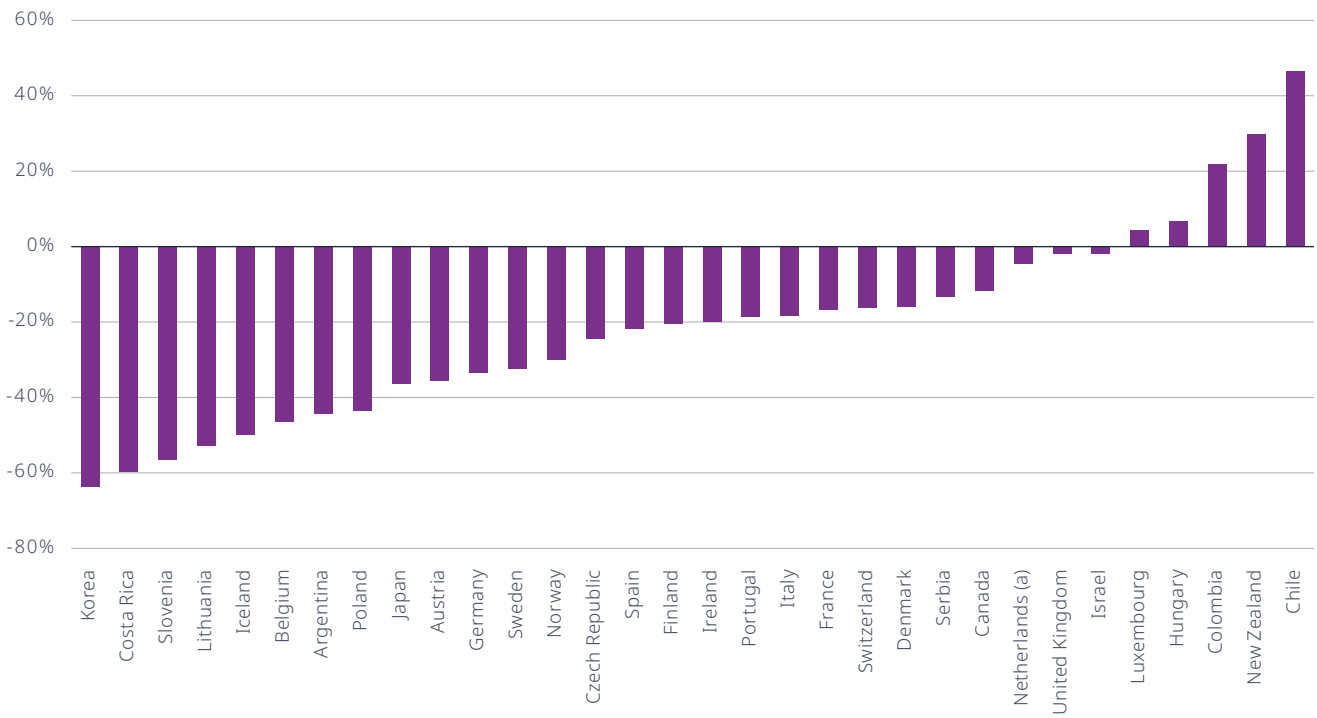
Note: Data include Argentina, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czechia, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

Passenger car occupants

When considering all reporting countries, the number of passenger car occupants killed in road crashes decreased by 26.1% between 2012 and 2022. In four countries, such fatalities decreased by more than 50%: Korea (-63.8%), Costa Rica (-59.8%), Slovenia (-56.5%) and Lithuania (-52.8%) (see Figure 13). However, in five countries, road deaths among passenger car occupants increased. The biggest increase was recorded in Chile (+46.5%), where the safety risk for this group has not improved in recent years.

Figure 13:

Percentage change in the number of passenger car occupants killed, 2010-22



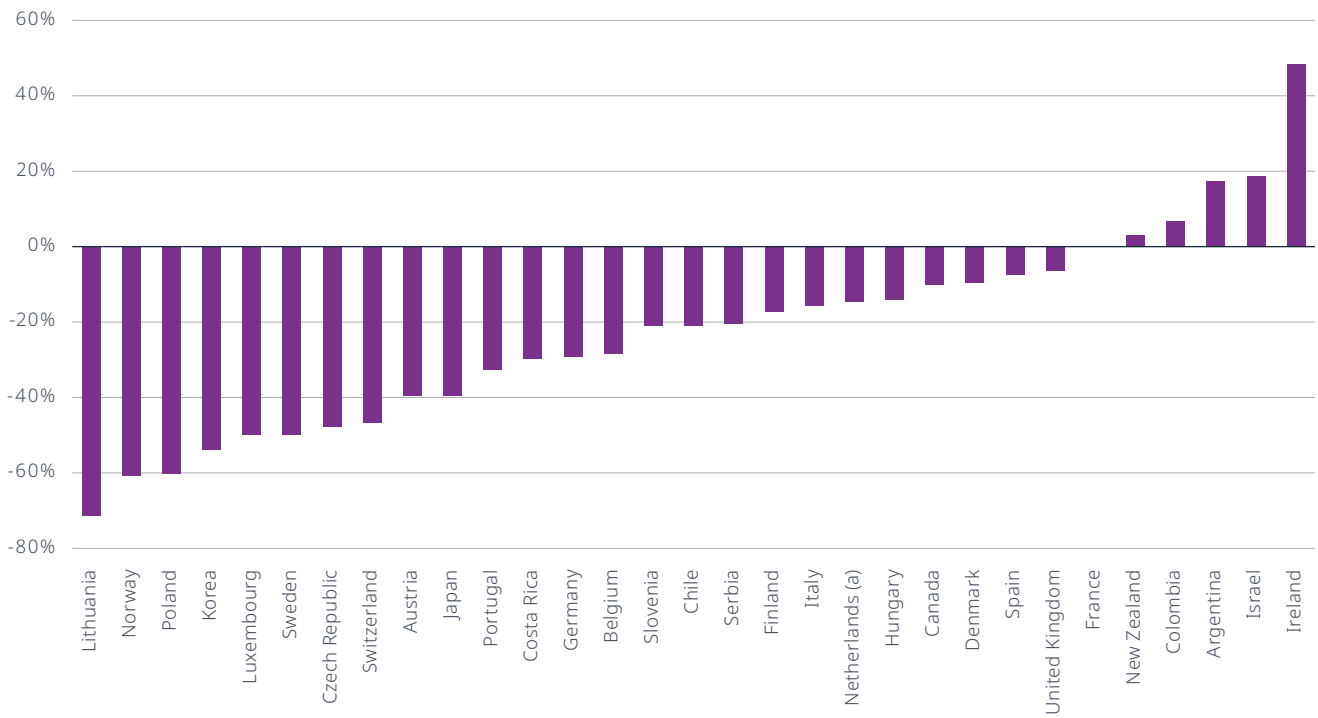
Note: (a) Real data (actual numbers instead of reported numbers by the police).

Pedestrians

The number of pedestrians killed in traffic decreased by 27.3% between 2012 and 2022 for the 32 countries with available data. Four countries recorded a reduction of more than 50%: Lithuania (-71.3%), Norway (-60.9%), Poland (-60.2%) and Korea (-54%) (Figure 14). Pedestrian fatalities increased in four countries, with Ireland recording the largest increase (48.3%), not taking in consideration Luxembourg for which small variations result in big growth rates.

Figure 14:

Percentage change in the number of pedestrians killed, 2010-22



Note: (a) Real data (actual numbers instead of reported numbers by the police).
Data from Iceland are not included in this figure, as percentage changes in small numbers distort trends.

Cyclists

Overall, the number of cyclists killed in traffic decreased by 8.3% in 2022 compared to 2012. In New Zealand, however, fatalities among cyclists more than doubled, from 8 to 19 people killed.

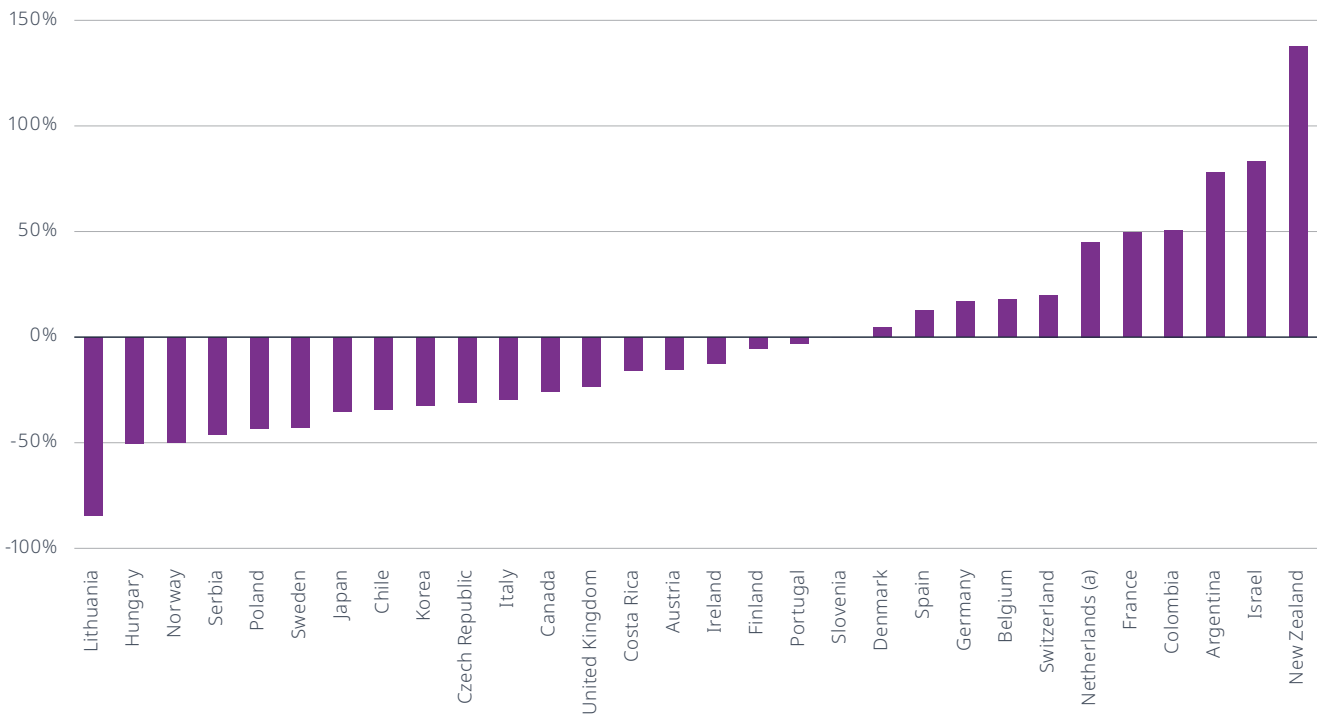
In Colombia, Argentina and Israel, cyclist fatalities increased by more than 50%. In France and the Netherlands, they increased by more than 40%.

The situation is particularly worrying in the Netherlands, where cycling is common. In 2022, cyclists represented 40% of all road fatalities in this country.

Fatalities among cyclists decreased in 19 out of 31 countries. Robust reductions were recorded in Lithuania (-84.4%), Hungary (-50.6%) and Norway (-50%) (see Figure 15).

Figure 15:

Percentage change in the number of cyclists killed, 2010-22



Note: (a) Real data (actual numbers instead of reported numbers by the police).
Data from Iceland and Luxembourg are not included in this figure, as percentage changes in small numbers distort trends.

Motorcyclists

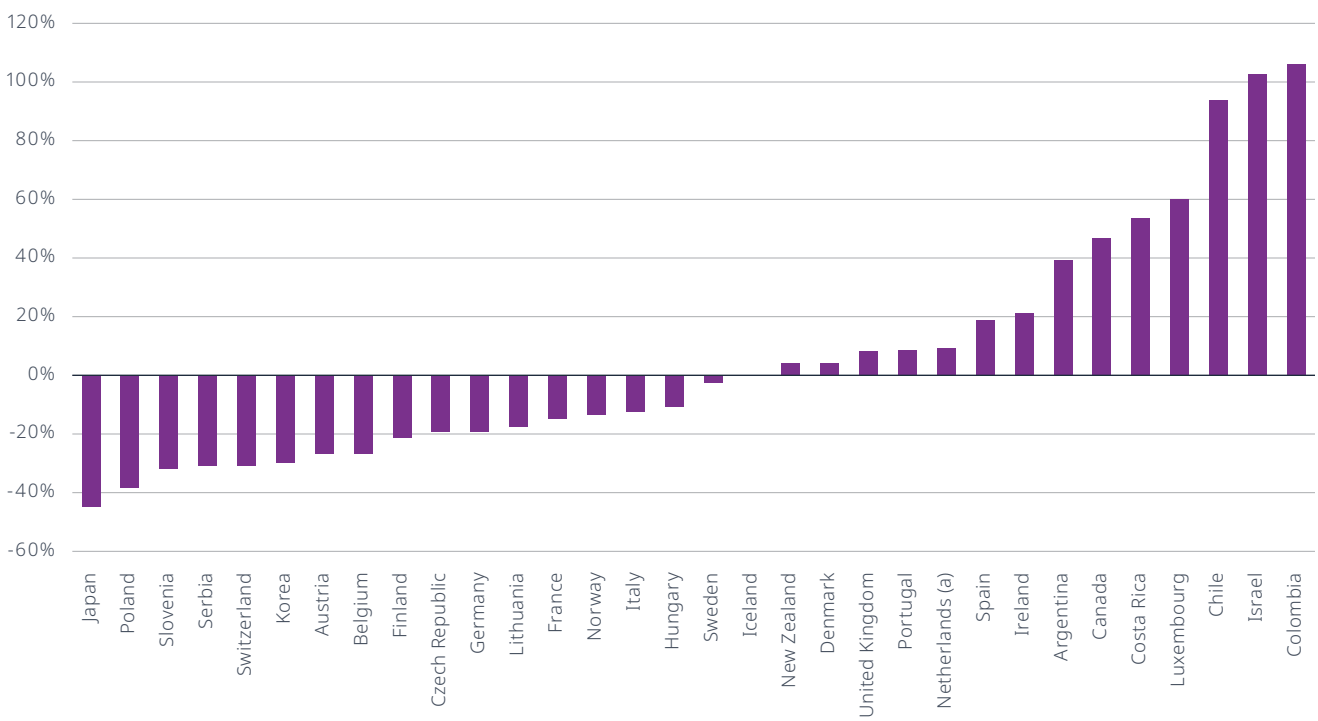
Motorcyclists are the only category of road users which recorded an increase in fatalities between 2012 and 2022. Fatalities among motorcyclists more than doubled in Israel and Colombia.

The data are very concerning, especially in Colombia, where the number of new registrations of motorcycles is constantly increasing. In two other Latin American countries, Costa Rica and Chile, motorcyclist fatalities increased by more than 50%.

The reductions in road fatalities among motorcyclists were smaller than for the other categories. Five countries recorded a decrease of more than 30% between 2012 and 2022: Japan (-44.7%), Poland (-38.5%), Slovenia (-31.8%), Serbia and Switzerland (-30.8%) (see Figure 16).

Figure 16:

Percentage change in the number of PTW killed, 2010-22



Note: (a) Real data (actual numbers instead of reported numbers by the police).

Road deaths by age group

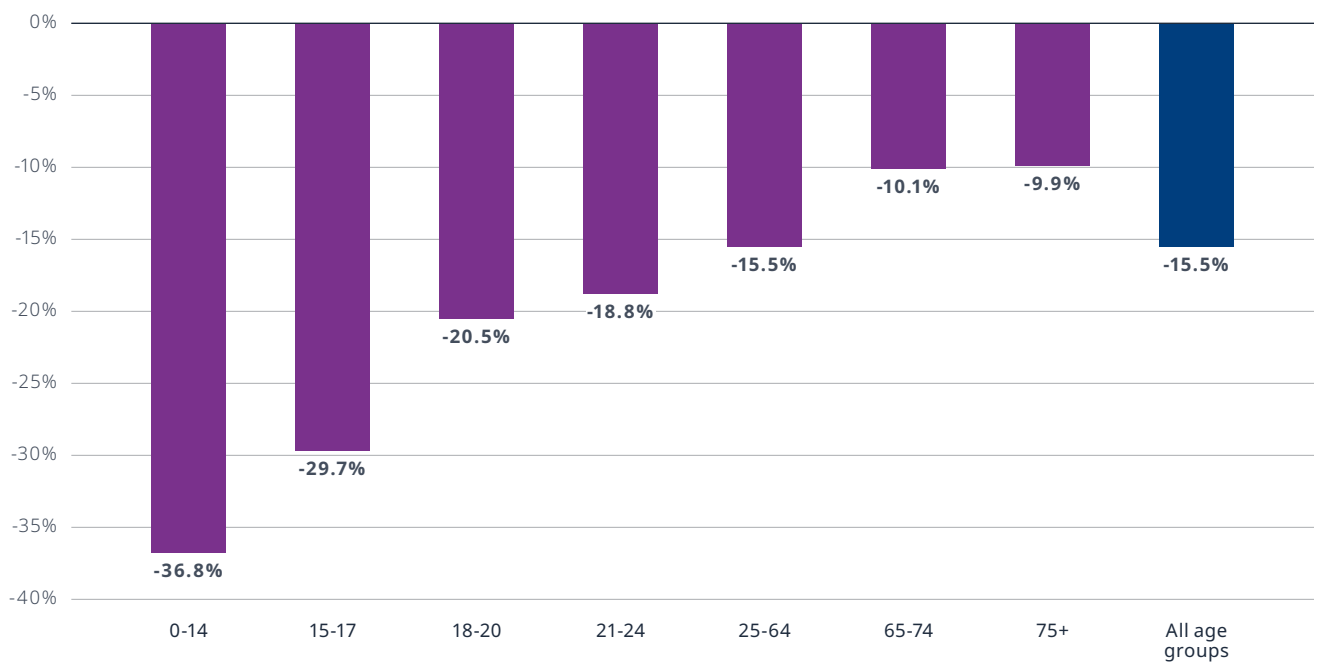
Disaggregated data by age group are available in 29 IRTAD counties. In 2022, road fatalities decreased by 15.5% compared to 2012 (see Figure 17). When looking at age cohorts, road fatalities decreased for all age groups, although at different paces.

The biggest reductions were recorded for children and young people (-36.8% and -29.7%, respectively). Road deaths decreased less for the senior population. People aged between 65 and 74 recorded a decrease of 10.1% between 2012 and 2022, while people over 75 recorded a decrease of 9.9% in road deaths.

In the last ten 10 years, 36% less children died in road crashes.

Figure 17:

Evolution in road deaths by age group, 2022 compared to 2012



Note: Data include Austria, Belgium, Chile, Colombia, Czechia, Denmark, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

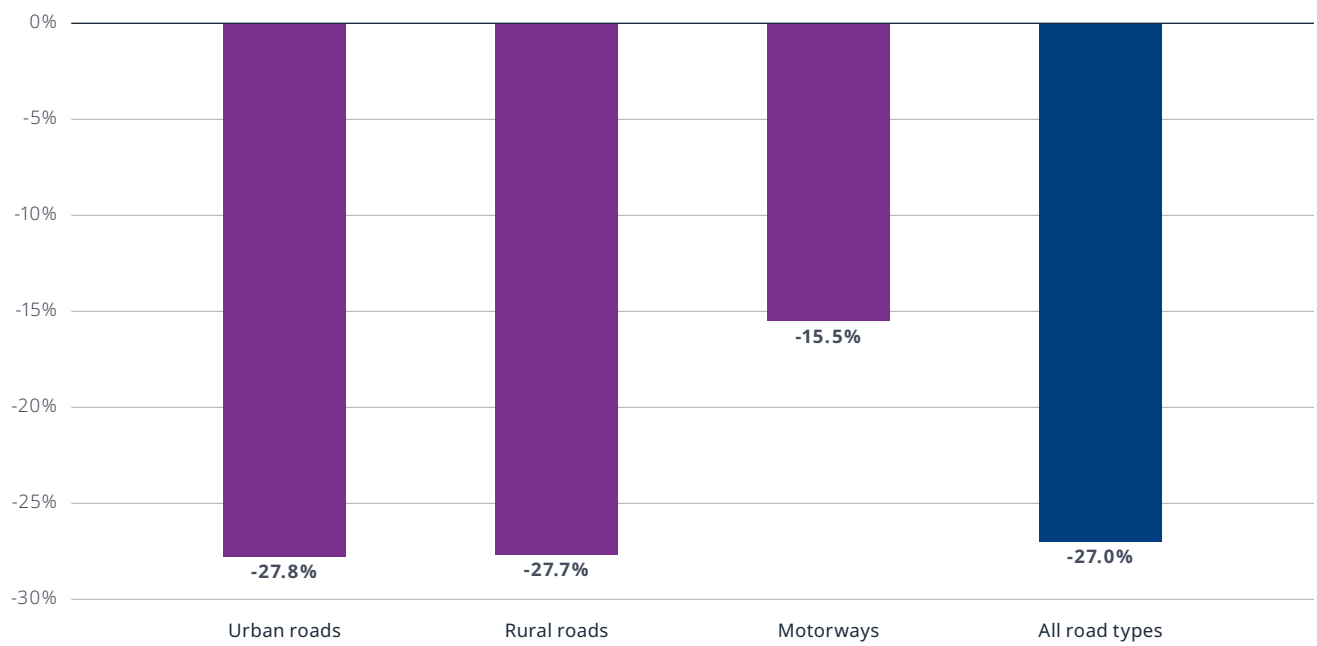
Road deaths by road type

Data disaggregated by road type are available in 23 IRTAD countries. Overall, in 2022, road fatalities decreased by 27% compared to 2012 (see Figure 18). Deaths on urban and rural roads decreased by 27.8% and 27.7%, respectively. The data confirm that rural roads are still the least-safe roads in absolute number. In 2022, road deaths on motorways decreased by 15.5% compared to 2012.

In the last 10 years, deaths on rural roads have decreased, but they are still the most dangerous road type.

Figure 18:

Evolution in road deaths by road type, 2022 compared to 2012



Note: Data include Austria, Belgium, Czechia, Denmark, Finland, France, Germany, Great Britain, Hungary, Ireland, Italy, Japan, Korea, Lithuania, Luxembourg, Netherlands, New Zealand, Poland, Portugal, Serbia, Slovenia, Sweden, Switzerland.

Several countries have recently released new road safety strategies in response to the Global Plan for the Decade of Action for Road Safety 2021-30. The Annex presents the current road safety strategies and targets.

27 countries have either adopted a new strategy for 2030 or are in the process of preparing one. The texts of the national road safety strategies of 29 of the 34 countries surveyed explicitly mention the Safe System approach or Vision Zero.

The ITF has long promoted the Safe System approach as the best way to improve road safety. This approach is based on the ethical perspective that no one should be killed or seriously injured in road traffic. The Safe System approach includes four principles (ITF, 2016), to which a recent ITF Working Group added a fifth (ITF, 2022b). The Safe System approach is also at the core of the Global Plan.

Most countries have adopted targets to reduce the number of road deaths. Among the 34 countries surveyed, 20 have a target aligned with the UN goal to reduce by 50% the number of road deaths by 2030.

The baseline for this target varies. The year 2020 would have been the natural baseline for the 2021-2030 decade. However, due to the Covid-19 pandemic, most countries' road deaths in 2020 were exceptionally low. Using 2020 data as the baseline would therefore make the 2030 target even more challenging.

Most IRTAD countries have chosen either 2019 or the average for 2017-19 as a baseline for their 2030 targets. Several countries have set specific targets for specific road users (focusing, for example, on children, pedestrians or cyclists).

Eight countries (Australia, Belgium, Finland, Ireland, the Netherlands, New Zealand, Norway, and Spain) have explicitly referred to the long-term target of zero road deaths by 2050 in their strategies. In 2020 the European Union adopted its "Road Safety Policy Framework 2021-30" (EC, 2020), which aims to halve the number of fatalities and serious injuries on European roads by 2030. This aim acts as a milestone on the path towards zero fatalities and serious injuries by 2050.

Reducing the number of people seriously injured in road traffic is at the core of the Safe System approach. Among the 34 countries surveyed, 22 have also set a target to reduce the number of people seriously injured in road crashes. This represents significant progress compared to the period coinciding with the First Decade of Action for Road Safety (2011-20), when very few countries addressed the issue of serious injuries.

A total of 14 of the countries surveyed have adopted a target of halving the number of serious injuries by 2030. Four countries have a slightly less ambitious reduction target of 20-40%. Four countries set their targets in absolute numbers.

Azzato, F. et al (2022), "Motorcycles in Latin America: current and recommended best practices for the protection of its users", Inter-American Development Bank, https://publications.iadb.org/en/motorcycles-latin-america-current-and-recommended-best-practices-protection-its-users.

Dablanc, L. et al. (2022a), « Etude 2022 sur les livreurs des plateformes à Paris et en petite couronne » [2022 study on platform delivery people in Paris], Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux, https://hal.science/hal-03903591.

Dablanc, L. et al. (2022b), « Enquête sur les travailleurs nantais des plateformes de livraison instantanée » [Survey of Nantes workers on instant delivery platforms], Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux, https://hal.science/hal-03897757.

EC (2020), "European Union Road Safety Policy Framework 2021-30 – Next steps towards 'Vision Zero'", European Commission, Directorate-General for Mobility and Transport, Brussels, https://data.europa.eu/doi/10.2832/391271.

Institut Paris Région (2022), « Le mass transit à l'heure du télétravail et de la sobriété énergétique » [Mass transit in the era of teleworking and energy sobriety], Note rapide Mobilité, n° 958, 9 October 2022, https://www.institutparisregion.fr/fileadmin/NewEtudes/000pack3/Etude_2844/NR_958_web.pdf.

IRTAD (2023), IRTAD Road Safety Database, OECD Stats, https://stats.oecd.org/Index.aspx?DataSetCode=IRTAD_CASUAL_BY_AGE.

ITF (2022a), Declaration from the 7th IRTAD Conference, "Better Road Safety Data for Better Safety Outcomes", Lyon, 27-28 September 2022, www.itf-oecd.org/7th-irtad-conference-better-road-safety-data-better-safety-outcomes.

ITF (2022b), The Safe System Approach in Action, ITF Research Report, OECD Publishing, Paris, https://doi.org/10.1787/ad5d82f0-en.

ITF (2016), Zero Road Deaths and Serious Injuries: Leading a Paradigm Shift to a Safe System, OECD Publishing, Paris, https://doi.org/10.1787/9789282108055-en.

Rodríguez, D.A., M. Santana and C.F. Pardo (2015), "La motocicleta en América Latina: caracterización de su uso e impactos en la movilidad en cinco ciudades de la región" [The motorcycle in Latin America: Characterisation of its use and impacts on mobility in five cities in the region], Development Bank of Latin America and the Caribbean, Bogotá, https://scioteca.caf.com/handle/123456789/754.

WHO (2021), Global Plan for the Decade of Action for Road Safety 2021-2030, 20 October 2021, www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030.

This section summarises the national data on prevailing speed limits for passenger cars, maximum authorised blood alcohol content levels, and legislation regarding seat belt and helmet use, as well as statistics on their usage. Detailed country profiles with data on deaths and injuries, crash risk exposure and road safety policies are available at www.itf-oecd.org/irtad.

Table 6:

National speed limits on urban roads, rural roads and motorways, 2023 passenger vehicles (km/h)

Country	Urban areas	Rural roads	Motorways
Argentina	40-60 (Buenos Aires City has a range of 20 to 70 km/h)	47	38
Australia	50 (default) 60-80 (arterial roads - increasing use of 40 km/h or lower limits in urban areas with high pedestrian activities)	100, 110	100 km/h default although often set to 110 km/h (130 km/h in the Northern Territory)
Austria	50	11	18
Belgium	30-50 20 for the "living streets" regime	70-90	44
Bosnia and Herzegovina	50	120	55
Cambodia	30-40 (motorcycles, tricycles) 40 (passenger cars, trucks)	60-70 (motorcycles) 90	No motorways
Canada	40-70	13	15
Chile	50 (maximum default limit but can vary according to the type of road) 30 (school zones)	90 (rural buses, trucks and school transport) 100 (cars and interurban buses)	120 (maximum default speed limit but can vary in some sections of the road, according to the type of road can be lowered to 100)
Colombia	50	90	120
Costa Rica	40 (except when there is a 50 sign)	40-100 (60 when there is no signs)	No motorways
Czech Republic	50	90	130
Denmark	50 (sections with 30, 40 or 60)	80 (sections with 60, 70 or 90)	130 (110 for a large part of the motorway network)
Finland	30-60	80, 100	100, 120
France	50 by default 30 (some urban areas) 70 (exceptionally and under certain conditions)	80 or 90 (90 on dedicated passing slots), 110 on dual carriageways	130 (110 in wet weather and for novice drivers)
Germany	50	100	None (130 recommended)
Greece	50	90	130
Hungary	50 (sections with 30, 40, 60 and 70)	90	130 (110 on "motor roads")
Iceland	50	90 (paved roads) 80 (gravel roads)	n.a.
Ireland	<=60 (can be 60 on arterial roads, 30 in built up areas)	80, 100	120
Israel	30- 50 70 (arterial roads)	80, 90	100, 110, 120
Italy	50	70-90 (110 on some main dual carriageways)	130 (110 km/h in wet weather, 100 for novice drivers. Motorway operator may increase speed limit up to 150 if stringent requirements are met)

Country	Urban areas	Rural roads	Motorways
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)
Mexico	10-80 (20 in school zones, 30 on secondary and tertiary streets, 50 on primary avenues without controlled access, 80 in central lanes of controlled access avenues and 50 on state highways within urban areas)	60-110 (60 on collector road, 80 on state highways outside urban areas; 50 within urban areas; 110 on roads and motorways under federal jurisdiction)	110 (110 for car, 95 for buses and 80 for freight transport on roads and highways under federal jurisdiction)
Moldova	50 30 in school zones, near hospitals, parks and historical centre 5 in pedestrian areas	90	No motorways
Morocco	60 (30 in residential area)	70, 80, 90, 100 (depending on vehicle type)	120 (maximum speed, it varies by vehicle type)
Netherlands	30-50	60-80	100 between 6:00 and 19:00 100, 120, or 130 between 19:00 and 06:00
New Zealand	50 (sections may have higher or lower limits)	100 (specific sections may have lower limits)	100 (specific sections may have limits of 110)
Norway	50 (30 on residential streets)	80 (70 on roads with high risk and 90 on roads with very low traffic volumes)	90,100,110
Poland	50	90, 100 (120 on expressways)	140 (120 on expresways)
Portugal	50	90	120
Serbia	50	80, 100	130
Slovenia	50	90	130 (110 on expressways)
South Africa	60	100	120
Spain	20 (streets with a single carriageway and sidewalk platform) 30 (single lane streets in each direction) 50 (streets with two or more lanes in each direction)	90	120
Sweden	30, 40, 50	60,70,80,90,100	110,120
Switzerland	50 (sections with 30)	80	120 (100 on expressways)
United Kingdom	48 (30 mph) (20 mph in Wales)	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)

Table 7:

Maximum authorised blood alcohol content levels, 2023, by country

Country	General BAC level (g/l)	Differentiated BAC level (g/l)
Argentina	0.0	0.0 for professional drivers 0.0 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 (first three years), truck (>7.5 tons) and bus (>9 seats) drivers
Belgium	0.5	0.2 for professional drivers (since January 2015)
Bosnia and 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	-
Costa Rica	0.5	0.2 for novice and professional drivers
Czech Republic	0.0	-
Denmark	0.5	-
Finland	0.5	-
France	0.5	0.2 for bus/coach drivers, novice drivers
Germany	0.5 (Drivers with a BAC between 0.3-0.5 g/l can have their licenses suspended if their driving ability is impaired)	0.0 for drivers under 21 and novice drivers, for professional drivers who transport passengers or hazardous goods
Greece	0.5	0.2 for professional drivers, novice drivers, motorcycles and moped riders
Hungary	0.0	-
Iceland	0.5	-
Ireland	0.5	0.2 for learner, novice and professional drivers
Israel	0.5	0.1 for young (under 24), novice and professional drivers
Italy	0.5	0.0 for young (under 21), novice and professional drivers
Japan	0.3	-
Korea	0.3	-
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	0.5	0.0 for professional drivers 0.2 for motorcycle drivers

Country	General BAC level (g/l)	Differentiated BAC level (g/l)
Moldova	0.3	-
Morocco	0.2	-
Netherlands	0.5 (including cyclists)	0.2 for novice drivers (first five years) and professional drivers
New Zealand	0.5	0.0 for drivers under 20 years
Nigeria	0.5	0.2 for novice and 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 PTW operators
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 0.0 for drivers under 18
Sweden	0.2	-
Switzerland	0.5	0.0 for novice (first three years) and professional drivers
United Kingdom	0.8 (England, Wales, Northern Ireland)	-
United States	0.5 (Scotland)	0.4 for professional drivers 0.0 to 0.2 for drivers < 21

Table 8:

Seat-belt laws and wearing rates in front and rear seats of passenger cars, 2022 or latest available year

Country	Front seats		Rear seats	
	Date of application	Wearing rate (%) in 2022	Date of application	Wearing rate (%) in 2022
Argentina	1995	57 driver (urban areas)	1995	13 (urban areas)
Australia	1970s	97 (2018)	1970s	96 (2019)
Austria	1984	98 drivers, 99 passengers	1990	93
Belgium	1975	94 drivers and 92 passengers	1991	79
Bosnia and Herzegovina	2006		2006	
Cambodia	2007	28 (2016)	Law in preparation	
Canada	1976-1988	97.5 (2017)	1976-1988	95 (2015)
Chile	1985	86 drivers, 72 passengers (2021)	2002 (for vehicles manufactured from 2002)	21 (2021)
Colombia	2002	67 drivers; 49 passengers (2022)	2004	No official data
Costa Rica	2020	71 drivers, 63 passengers (2020, national roads)	2020	36 (2020)
Czechia	1966	94.9 (2023)	1975	87.8 (2023)
Denmark	1970s	98	1980s	93
Finland	1975	97	1987	90
France	1973 (rural), 1975 (urban by night) 1979 (all times)	99.3 outside built up areas 99.4 for small cities, 99.7 for major cities	1991	90
Germany	1976	99 drivers, 98 passengers	1984	95
Greece	1979	72 passengers	1993	56
Hungary	1976	88 drivers, 87 passengers	1993 outside built up areas 2001 inside built up areas	57
Iceland		97 drivers		93
Ireland	1979	99 drivers, 98 passengers (2021)	1992	93 (2021)
Israel	1975	93 drivers, 91 passengers (2019)	1995	71 (2019)
Italy	1988	87.4 drivers, 84 passengers	1994	34.5
Japan	1985	99 drivers, 97 passengers	2008	43
Korea	1990	85 drivers, 86 passengers	2008, on motorways only Since September 2018, on the whole road network	32
Lithuania		98 (2021)		62 (2021)
Luxembourg	1975	90 (2015)	1992	76 (2015)
Malaysia	1978	87 drivers, 74 pass. (2016)	2009	15 (2016)

Country	Front seats		Rear seats	
	Date of application	Wearing rate (%) in 2022	Date of application	Wearing rate (%) in 2022
Mexico	2022 (new law)	79 drivers, 65 general (2017)	2022 (new law)	46 (2017)
Moldova	2009	No official data >90 (estimation)	2009	No official data
Morocco	1977 – rural areas 2005 – urban areas	57 passengers	2005 – rural areas	36 (2018)
Netherlands	1975	95	1992	
New Zealand	1972	97 drivers, 96 passengers (2016)	1979	92 (2014)
Nigeria	1997 (enforced since 2002)	85 (2017)	1997 (enforced since 2016)	3 (2017)
Norway	1975	98.1 drivers in rural areas, 97.7 drivers outside rural areas, 97 passengers in rural areas, 96.6 passengers outside rural areas	1985	96 (2014)
Poland	1983	96	1991	90
Portugal	1978	96 drivers and passengers (2017)	1994	77 (2017)
Serbia	1982	86 drivers, 81 passengers	2009	19
Slovenia	1977	95 drivers, 96 passengers (2018)	1998	78 adults (2018)
South Africa	2005, vehicles registered after 1 January 2006	4.5 drivers, 5 passengers (estimation 2010)	2005, vehicles registered after 1 January 2006	
Spain	1974 outside urban areas 1992 inside urban areas	96 driver, 95.9 passengers (2021)	1992	92.8 (2021)
Sweden	1975	96 drivers (2021)	1986; child restraint since 1988	94 (2017)
Switzerland	1981	95	1994	88
United Kingdom	1983	97 drivers, 97 passengers (2021 for Great Britain)	1989 (children); 1991 (adults)	92 (2021 for Great Britain)
United States	Primary law in 34 states and D.C., secondary law in 15 states. Not mandatory for adults in one state.	92	Varies by State	76 (25-69 year-old)

Table 9:

Helmet laws and wearing rates, 2022 or latest available year

Country	Powered two-wheelers		Cyclists	
	Helmet law	Wearing rate (%) in 2022	Helmet law	Wearing rate (%) in 2022
Argentina	Yes	58 riders, 34 first pass., 18 additional passengers (urban areas)	Yes	8 (2018)
Australia	Yes	99 riders (2018)	Yes	
Austria	Yes	100	Yes, for children to age 12	40 (87 for children)
Belgium	Yes	99.7	No	24.8%
Bosnia and 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	95 riders, 87 passengers (2021)	Yes in urban areas	67.3 (2019)
Colombia	Yes	79.2 motorcycle riders, 52.7 passengers (urban areas)	Yes, for children to age 18	22.4 (urban areas) (2022)
Costa Rica	Yes	97.2 riders, 90.1 passengers (2020)	No	
Czechia	Yes	100 (2023)	Yes, for children to age 18	87.8 (2023)
Denmark	Yes	100 motorcycles 96.6 light mopeds (urban areas)	No	50 (urban areas)
Finland	Yes	99.7 (2019)	No	54
France	Yes, since 1973 for motorcyclists 1976 for moped riders outside built up areas 1980 for moped roders in urban areas	97 outside built up areas 98 in urban areas	Yes, for children under 12	Major cities: 34 weekdays, 33 weekends (2021)
Germany	Yes	98.5 riders, 98.9 passengers (inside urban areas)	No	40.3 (inside urban areas including sport bicycles) 34 (inside urban areas excluding sport bicycles)
Greece	Yes, since 1977	80.3 riders, 65.5 passengers	No	
Hungary	Yes since 1965 for motorcyclists, 1997 for moped riders outside built up areas 1998 for moped riders in urban areas.	99 Budapest area (2019) 97 Rural areas (2019)	No	18 Budapest area (2019) 4.5 Rural areas (2019)
Iceland	Yes	n.a.	Yes, for children to age 14	
Ireland	Yes, since 1978	99.8 (2021)	No	53
Israel	Yes	n.a.	Yes. Mandatory for all ages in non-urban roads. Mandatory for cyclists under 18 years in urban roads	21% (2015 observational survey among cyclists on urban roads)
Italy	Yes, for all since 2000 Since 1986 for motorcyclists and riders of moped under 18	96.5	No	
Japan	Yes	100 (2021)	Yes, since 2023	13.5

Country	Powered two-wheelers		Cyclists	
	Helmet law	Wearing rate (%) in 2022	Helmet law	Wearing rate (%) in 2022
Korea	Yes	93 (2021)	No	94
Lithuania	Yes		Yes, for children to age 18	
Luxembourg	Yes, since 1976	100 (2021e)	No	
Malaysia	Yes, since 1973	c. 77 (2015)	No	
Mexico	Yes	89 riders, 82 passengers (2021)	Yes on federal roads since 2012	11 (2017)
Moldova	Yes	No national data	Yes on road sections with a speed limit above 50 km/h	
Morocco	Yes, since 1976	57 riders, 31 passengers	No	
Netherlands	Yes, motorcycles since 1972; mopeds since 1975. Not compulsory on slow mopeds (max. 25 km/h) until 2022 As of 1 Jan 2023 all riders of slow-mopeds (speed max 25 km./h must wear a helmet	99 mopeds	No	3% bikes, 8% e-bikes
New Zealand	Yes, since 1956 when travelling above 30 mph Since 1973 at all speeds	100 (2021)	Yes, since 1994	94 (2015)
Norway	Yes	100 (2021)	No	67.1 (all age groups) 66.7 (above 12) 74.5 (below 12)
Poland	Yes, since 1997	100	No	25
Portugal	Yes	Motorcyclists: 97.6 riders, 100 passengers Mopeds: 94 riders, 92 passengers (2013)	No	
Serbia	Yes	Motorcyclists: 87.7 riders, 80.3 passengers Mopeds: 69.2 riders, 70.7 passengers	No	3.7
Slovenia	Yes	n.a.	Yes, for children and youngster under 18	21 67 (children) 27 (young) (2022)
Spain	Yes	99.4 riders, 96.2 passengers 99.3 in urban roads (2021) 100 in motorways and rural roads (2021)	Yes. Mandatory on non-urban roads for all. Mandatory on urban rods only for cyclists under 6	33 in urban roads 89.8 in rural roads
Sweden	Yes	98 for mopeds (2021)	Yes, for children to age 15 (since 2015)	46 for all age groups 64 for children 42 for adults
Switzerland	Yes, motorcycles since 1981; mopeds since 1990	100 motorcycles 95 mopeds	No for regular bicycles Yes for e-bikes > 25km/h	56 cyclists 68 e-bikes <25km/h 91 e-bikes >25km/h
United Kingdom	Yes, motorcycles 1973; mopeds since 1977		No	
United States	No national law.18 states, D.C. and PR require helmet use by all, 29 by specific users, 3 have no helmet law.	65 use of DOT-compliant helmets	Age-specific helmet laws in 21 states and D.C.	

This Annex details national road safety strategies (Table A1) and national targets on road deaths and serious injuries (Table A2).

Table A1:

Road safety strategies in IRTAD countries

Country	Strategy
Australia	The **Australian National Road Safety Strategy 2021-30** was adopted in 2021 following consultation and review. The strategy continues Australia's commitment to the Safe System approach. The Australian National Road Safety Action Plan 2023-25 sets out the key actions all governments will undertake to 2025. **Link:** https://www.roadsafety.gov.au/nrss
Austria	The **Austrian Road Safety Strategy 2021-2030** refers to the Safe System. **Link:** https://www.bmk.gv.at/en/topics/transport/roads/safety/vss2030.html
Belgium	Belgium's federal road safety plan, the **Plan Fédéral de Sécurité Routière 2021-25**, is based on Vision Zero. There are also three regional plans and a federal strategy, known as "All for Zero". **Links:** https://all-for-zero.be/storage/minisites/plan-federal-securite-routiere.pdf https://all-for-zero.be/fr/all-for-zero/
Bosnia and Herzegovina	The **Framework Road Safety Strategy Development for Bosnia and Herzegovina (2024-2028)** is under preparation and has not yet been published. The strategy's vision is the **Road To Zero**.
Canada	**Canada's Road Safety Strategy 2025** (RSS 2025) was first published in 2016 and adopts the Safe System approach. Canada also has a long-term vision of zero fatalities and serious injuries on the roads (Vision Zero). **Link:** http://roadsafetystrategy.ca/en/
Chile	Chile's **Estrategia Nacional de Seguridad de Tránsito [National Road Safety Strategy] for 2021-30** was published in December 2020. It specifically refers to the **Safe System** and **Vision Zero** (**"Vision Zero for Chile"**). **Link:** https://conaset.cl/wp-content/uploads/2021/05/Estrategia-Nacional-de-Seguridad-de-Tránsito_2021-2030.pdf
Colombia	Colombia's **National Road Safety Strategy** 2022-31 was adopted in July 2022. It officially adopted the Safe System approach. **Link:** https://www.ansv.gov.co
Czechia	Czechia's national road safety strategy for 2021-30 is titled **Road Safety is Everyone's Right and Responsibility**. Both **Vision Zero** and the **Safe System approach** are at its core. **Link:** https://besip.cz/getattachment/Pro-odborniky/Narodni-strategie-BESIP/Aktualni-strategie/Czech-Road-Traffic-Safety-Strategy-2021-30_11-11.pdf
Denmark	Denmark has adopted the **2021-2030 Action Plan**. The plan does not refer to Vision Zero or the Safe System. The current plan's vision is "Every accident is one too many", which dates back to earlier action plans created by the Commission. **Link:** https://www.faerdselssikkerhedskommissionen.dk/media/eymfxr0n/fsk_resume_handlingsplaneng_2021-2030_final.pdf

Country	Strategy
Finland	Finland's traffic safety strategy for **2022-2026** was published in March 2022 and was accompanied by a government resolution on traffic safety. It refers to both **Vision Zero** and the **Safe System**. **Link:** https://www.fintraffic.fi/en/fintraffic/strategy-2022-2026
France	In France, the road safety strategy is announced with each meeting of the Interministerial Road Safety Committee. The last one was held on 17 July 2023. **Links:** https://www.onisr.securite-routiere.gouv.fr/en/road-safety-policy/interministerial-road-safety-committees
Germany	The German road safety strategy (known as the **Road Safety Pact**) covers the period 2021-30. It refers to **the Safe System**. **Link:** https://www.bmvi.de/SharedDocs/DE/Anlage/StV/road-safety-pact-en.pdf?__blob=publicationFile
Greece	Greece's **National Road Safety Strategic Plan** covers the period 2021-2030. It refers to both the **Safe System approach** and **Vision Zero**. **Links:** https://www.nrso.ntua.gr/nrss2030/?lang=en https://www.nrso.ntua.gr/nrss2030/wp-content/uploads/2022/10/NationalRoadSafetyStrategicPlan-eng.pdf
Hungary	In Hungary, road safety strategies are prepared for three-year periods. The current **Road Safety Action Plan** covers the period 2023-25. It is built on the concept of **Vision Zero** and the **Safe System** approach. **Link:** https://www.kti.hu
Ireland	Ireland's national road safety strategy for 2021-2030, **Our Journey Towards Vision Zero**, refers to both the **Safe System** and **Vision Zero**. The 2021-2030 strategy is supported by a Phase 1 Action Plan for 2021-24. The strategy and action plan focus on seven Safe System priority intervention areas, and commit to achieving Vision Zero in Ireland by 2050. **Links:** https://www.rsa.ie/about/safety-strategy-2021-2030 https://www.rsa.ie/docs/default-source/road-safety/action-plans/rsa_safety_strategy_action_plan_2021_2024_13th_jan2022_final_online.pdf?sfvrsn=67518e36_5
Italy	In April 2022, Italy's Interministerial Committee for Economic Planning and Sustainable Development approved the **National Road Safety Plan 2030**. The plan is based on the **Safe System approach**. **Link:** https://www.mit.gov.it/nfsmitgov/files/media/progetti/2022-09/20220916_Piano%20Nazionale%20Sicurezza%20Stradale_Def.pdf
Japan	The Japanese government released its **11th Traffic Safety Program** in March 2021. It covers the period 2021-25. It does not refer to either the Safe System or Vision Zero. **Link:** https://www8.cao.go.jp/koutu/kihon/keikaku11/index.html
Korea	Korea's **9th National Transport Safety Plan 2022-2026** has been approved by the Ministry of Land, Infrastructure and Transport. The Plan is based on **Vision Zero**. **Link:** http://molit.go.kr/viewer/skin/doc.html?fn=3f774e661393273f795b8c521c83a539&rs=/viewer/result/20220928

Country	Strategy
Luxembourg	Luxembourg has put in place a **National Road Safety Action Plan** for 2019-2023. The plan aims to reduce the large number of serious injuries and fatalities on the roads in pursuit of the long-term goal of **zero deaths and zero serious injuries**. **Link:** https://gouvernement.lu/dam-assets/documents/actualites/2019/05-mai/Plan-d-action-securite-routiere.pdf
Mexico	Mexico published the new Mobility and Road Safety Strategy (ENAMOV) 2023-2042 in June 2023. A new General Law of Mobility and Road Safety was published in the Official Gazette of the Federation on 17 May 2022. Its objective is to establish the basis for guaranteeing the right to safe mobility and inclusive accessibility. The law adopts a **Safe System approach**. **Links:** https://www.dof.gob.mx/nota_detalle.php?codigo=5596042&fecha=02/07/2020 https://www.diputados.gob.mx/LeyesBiblio/pdf/LGMSV.pdf https://www.gob.mx/cms/uploads/attachment/file/848141/ENAMOV_2023-2042.pdf
Moldova	Moldova is currently developing a new road safety strategy to replace the previous strategy covering the period 2011-20. In January 2020, the Moldovan government approved a Road Safety Action Plan for the period 2020-21. The plan referred to **Vision Zero** and the five road safety pillars. **Link:** https://www.legis.md/cautare/getResults?doc_id=120102&lang=ro
Morocco	Morocco's current **national road safety strategy** covers the period **2017-2026**. The strategy refers to the **Safe System** and is based on the five road safety pillars. **Link:** https://www.narsa.ma/fr
Netherlands	The Netherlands' road safety strategy is called **Door to Door Safety (2018-2030)**. The **Road Safety Strategic Plan 2030** is based on a joint vision on the approach to road safety policy. The strategy is based on the **Safe System approach** (named Sustainable Safety in the Netherlands). **Links:** https://www.kennisnetwerkspv.nl/getmedia/ce0099b7-ce77-4ce2-98c8-a7810662ef10/19-093-RO-SPV-Engels_v2.pdf.aspx https://open.overheid.nl/documenten/ronl-d55ff6bc0b5d564c03906bb54019eb485f83842e/pdf
New Zealand	New Zealand's road safety strategy for 2020-30 is titled **Road to Zero** and is based on **Vision Zero** and the **Safe System approach**. **Link:** https://www.transport.govt.nz/assets/Uploads/Report/Road-to-Zero-strategy_final.pdf
Norway	**Vision Zero** was adopted by the Parliament for the first time in 2001 and is the base for all the following Road Safety Strategies. The existing strategy was adopted by the Parliament in 2021 as part of the **National Transport Plan 2022-2033**. The **National Plan of Action for Road Safety 2022-2025** was developed by the Norwegian Public Roads Administration in cooperation with a wide range of other national stakeholders. **Links:** https://www.vegvesen.no/globalassets/fag/fokusomrader/trafikksikkerhet/nasjonal-tiltaksplan-for-trafikksikkerhet-pa-vei-2022-2025.pdf https://www.vegvesen.no/globalassets/fag/fokusomrader/trafikksikkerhet/national-plan-of-action-for-road-safety-2022-2025---short-version-in-english.pdf

Country	Strategy
Poland	Poland published its **National Road Safety Programme 2021-2030** in December 2021. The document refers to both **Vision Zero** and the **Safe System approach**. **Link:** https://www.krbrd.gov.pl/wp-content/uploads/2021/12/Narodowy-Program-Bezpieczenstwa-Ruchu-Drogowego-2021-2030.pdf
Portugal	Portugal's national road safety strategy 2021-30, entitled "Vision Zero to 2030", is currently under development. It refers to **Vision Zero** and the **Safe System approach**. **Link:** https://visaozero2030.pt/en/
Serbia	Serbia adopted the **National Road Safety Strategy 2023-2030** in September 2023, along with the Action Plan 2023-2025. It refers to **Vision Zero** and the **Safe System approach**. **Link:** https://abs.gov.rs/cp/propisi-71/strateski-dokumenti
Slovenia	The new national programme for the period 2023-30 was prepared approved by the National Assembly. It will be based on **Vision Zero** and the **Safe System approach**. **Link:** https://www.avp-rs.si/wp-content/uploads/2023/10/novo1_renpvcp23_30-v01-3-10-2023.pdf
Spain	Spain's Road Safety Strategy 2030 (**Estrategia de Seguridad Vial 2030, ESV 2030**) was published and officially presented by the Minister of the Interior on 9 June 2022. The strategy is based on the **Safe System approach**. The main target is aligned with the WHO Plan for the Decade of Action as well as the European Union Framework 2021-2030, namely: a 50% reduction in deaths and serious injuries for 2030, and a long-term target of **Vision Zero by 2050**. **Links:** https://seguridadvial2030.dgt.es/inicio/ https://seguridadvial2030.dgt.es/export/sites/sv2030/.galleries/descargas/Road_Safety_Strategy_2030_Summary_EN.pdf
Sweden	Sweden released the updated **2022-30 road safety strategy** in 2023. The strategy is based on **Vision Zero**. The Action Plan 2022-2025, developed by the Swedish Transport Administration, also describes commitments from a wide range of stakeholders. **Links:** http://trafikverket.diva-portal.org/smash/record.jsf?pid=diva2%3A1657137&dswid=2597 https://bransch.trafikverket.se/for-dig-i-branschen/samarbete-med-branschen/Samarbeten-for-trafiksakerhet/tillsammans-for-nollvisionen/gemensam-aktionsplan-for-saker-vagtrafik-2022-2025/
Switzerland	In 2016 the Swiss Federal Roads Office (FEDRO) published a strategy that set targets for fatalities and serious injuries on Swiss roads to be met by 2030. The **sub-strategy on road safety, published in 2020**, specifies the need for action and concrete measures. It does not refer either to Vision Zero or the Safe System approach. **Links:** https://www.astra.admin.ch/dam/astra/fr/dokumente/direktion/strategische-ausrichtung.pdf.download.pdf/Orientation%20strat%C3%A9gique%20de%20l'OFROU.pdf- https://www.astra.admin.ch/dam/astra/fr/dokumente/direktion/teilstrategie-verkehrssicherheit.pdf.download.pdf/Strat%C3%A9gie%20partielle%20s%C3%A9curit%C3%A9%20routi%C3%A8re.pdf

Country	Strategy
United Kingdom	The United Kingdom is the process of developing a new Road Safety Strategic Framework (RSSF) which will be published. It is likely to be based on a Safe System approach. **Link:** https://www.gov.uk/government/publications/strategic-framework-for-road-safety
United States	In January 2022, the US Department of Transportation released a **National Roadway Safety Strategy (NRSS)**. At the core of this strategy is a Department-wide adoption of the **Safe System approach**. This is the first step in working towards an ambitious long-term goal of reaching zero roadway fatalities. **Links:** https://www.transportation.gov/NRSS https://www.transportation.gov/sites/dot.gov/files/2022-04/US_DOT_FY2022-26_Strategic_Plan.pdf DOT NRSS Action Tracking Dashboard 2023 Progress Report on the National Roadway Safety Strategy

Table A2:

Targets on road deaths and serious injuries in IRTAD countries

Country	Target	Baseline year(s)
Australia	• Reduce fatalities by 50% by 2030 • Reduce serious injuries by 30% by 2030. As part of demonstrating a commitment to the 2050 Vision Zero target, the strategy will target by 2030: • Zero deaths for children 7 years and under • Zero deaths in city central business district (CBD) areas • Zero deaths on National highways and on high-speed roads covering 80% of travel across the network. There are no interim targets, however, the 2030 Target of a 30 per cent reduction in serious injuries by 2030 will be assessed as part of the mid-term review of the Strategy.	Average for 2018-20 for fatalities. 3-year average of hospital cases for 2017-18 and 2018-19 and estimates for 2019-20, for serious injuries.
Austria	• Reduce road deaths and serious injuries by 50% by 2030. Austria also has a Vision Zero for child fatalities.	Average for 2017-19
Belgium	• Reduce road deaths by 50% by 2030 • Reduce serious injuries, as defined by a maximum abbreviated injury score of three or above (MAIS3+), by 50% by 2030 • Reduce road deaths by 100% by 2050 • Reduce serious injuries (MAIS3+) by 90% by 2050.	2019
Bosnia and Herzegovina	• Reduction of 50% in the number of deaths and serious injuries by 2030.	
Canada	No hard quantitative targets.	
Chile	• Reduce road traffic fatalities by 30% by 2030. There are specific additional targets: • Reduce the share of vulnerable road users in road deaths from 49% to 35% of all deaths • Reduce the mortality rate of young people (15 29) from 2.2 in 2019 to 1.5 deaths per 100 000 inhabitants in 2030. • Reduce the mortality rate of elderly people (+60) from 1.9 in 2019 to 1.3 deaths per 100 000 inhabitants in 2030.	Average for 2011-19
Colombia	• Reduce by 50% the road mortality from 14.6 road deaths per 100 000 population in 2021 to 7.3 in 2030. The strategy also includes three specific targets: • Reduce by 47% (from 4 526 in 2021 to 2 421 in 2030) the number of motorcyclists killed in road crashes • Reduce by 44% (from 1 590 in 2021 to 891 in 2030) the number of pedestrians killed in road crashes • Reduce by 37% (from 483 in 2021 to 302 in 2030) the number of cyclists killed in road crashes.	2021
Czechia	• Reduce road deaths and serious injuries by 50% by 2030.	Average for 2017-19

Country	Target	Baseline year(s)
Denmark	• Reduce the number road deaths to 90 or below (data from policy registry) • Reduce the number of serious injuries to 900 or below (data from the police registry) • Reduce the number of slight injures to 10 000 or below (data from the Danish national patient register). These figures correspond to an approximate 50% reduction of the average for 2017-19, which is 182 killed and 1 813 seriously injured persons per year. There are no specific targets, but five focus areas have been pointed out and will be monitored: single vehicle crashes, head-on collisions, crashes at intersections, vulnerable road users and young car drivers.	
Finland	• Reduce by 50% the number of road deaths and serious injuries by 2030. The long-term vision is zero road deaths in 2050.	2020
France	France endorsed the road safety targets, decided at the European Union level in Valetta in March 2017, to reduce by 50% the number of fatalities and severe injuries on European roads by 2030. France reiterated its commitment at the February 2020 Global Ministerial Meeting on Road Safety in Stockholm, which concluded that these same targets should be achieved globally by 2030. The baseline year is 2019 since the year 2020 cannot be considered as a reference, due to the Covid-19 pandemic. France has also endorsed the concept of zero fatalities on the roads by 2050.	2019
Germany	• Reduce by 40 % the number of road deaths by 2030. • "Significantly" reduce the number of serious injuries by 2030.	2021
Greece	• Reduce by 50% road deaths and serious injuries by 2030. Additional specific targets: • 66% reduction in motorcyclists killed by 2030 • 60% reduction in road fatalities on Greek islands by 2030 • No deaths on motorways by 2030 • 35% reduction in deaths in single vehicles crashes by 2030 • Zero fatalities in 49 cities with a population between 50 000 and 100 000 inhabitants • Being ranked 13th among EU countries regarding deaths per 100 000 population. There is an interim target to reduce by 30% deaths and serious injuries by 2025.	2019
Hungary	Long-term targets: • Reduce by 50% the number of road deaths by 2030 from 460 to 230 • Reduce by 50% the number of serious injuries by 2030 from 4 655 to 2 327 Short-term targets: • Reach the EU average in terms of road fatalities per million inhabitants by 2025 • Proportional reduction of the number of fatalities and serious injuries to reach the 2030 target (345 fatalities and 3 491 seriously injuries by 2025)	2020

Country	Target	Baseline year(s)
Ireland	• Reduce by 50% the number of road deaths by 2030 from 144 to 72 or lower • Reduce by 50% the number of serious injuries by 2030, from 1 259 to 630 or lower. The strategy is divided into three phases (Phase 1 = 2021-24, Phase 2 = 2025-27, Phase 3 = 2028-30) and the targets for the end of Phase 1 are to: • Reduce by 15% the number of road deaths by 2020, from 144 to 122 or lower • Reduce by 10% the number of serious injuries from 1 259 to 1 133 or lower. The strategy commits to achieving Vision Zero in Ireland by 2050.	Average for 2017-19
Italy	• Reduce by 50 % the number of road deaths and serious injuries by 2030. A linear decrease in both deaths and serious injuries is hypothesised over the decade, with interim monitoring in 2024 and 2027. Specific targets in terms of reduction of the total number of fatalities have been set for some road users: children, young drivers, motorcyclists, cyclists, pedestrians and people over 65.	2019
Japan	• Fewer than 2 000 road deaths (within 24 hours) by 2025 (corresponding to a reduction by 30% compared to 2020) • Fewer than 22 000 serious injuries by 2025.	
Korea	• Reach less than 1 800 road deaths, is a 38% reduction from the number in 2021. The target is in line with the United Nations goal to halve road deaths by 2030.	
Luxembourg	• Reduce road fatalities and serious injuries by 50% by 2030. This target follows the objectives of the European Commission's Decade of Action 2021-2030 as well as the United Nations target for the same period.	
Mexico	Not yet defined.	
Moldova	Not yet defined.	
Morocco	• Reduce by 50% road deaths by 2026. There are specific targets for pedestrians, powered two- and three-wheelers, children, single-vehicle crashes and commercial transport.	2015
Netherlands	The 2030 road safety strategy in general aims at zero fatalities and injuries by 2050. At this moment politicians are debating an intermediate goal of a reduction of 50% in serious injuries and fatalities by 2030 as well as the reference year.	
New Zealand	• A 40 % reduction in killed and serious injuries by 2030. The long-term vision of the strategy is to achieve zero deaths and serious injuries on the roads by 2050.	2018
Norway	In 2030, the number of killed or seriously injured in road traffic should be maximum 350, with no more than 50 fatalities. There should be zero fatality from road traffic crashes in 2050.	

Country	Target	Baseline year(s)
Poland	• To reduce by 50% the number of road deaths and serious injuries by 2030. There are specific targets for vulnerable road users (pedestrians, cyclists, moped and motorcyclists riders) and alcohol-related fatalities. There are also interim targets for each year of the programme.	2019
Portugal	• Reduce by 50% the number of road deaths by 2030. • Reduce by 50% the number of MAIS3+ serious injuries by 2030	2019
Serbia	• Reduce by 50% the number of road deaths and serious injuries by 2030. • 0 children killed in traffic from 2030. There are specific targets per pillar, as well as interim targets for specific year before 2030.	2019
Slovenia	• Reduce by 50% the number of road deaths and serious injuries by 2030.	
Spain	• Reduce by 50% the number of road deaths and serious injuries by 2030. There is a long term target of zero road deaths and serious injuries by 2050. No intermediate targets are explicitly set, but a linear reduction up to the final target is implicitly used as reference value for the year to year decrease in the figures. There are specific targets in terms of reduction of the total number of deaths and serious injuries, for the different road users, types of roads, and age groups.	2019
Sweden	• Reduce by 50% the number of road deaths by 2030, with a maximum of 133 road deaths in 2030 • Reduce by 25% the number of serious injuries by 2030. There are some more specific targets: • 25% reduction in seriously injured pedestrians falling (single) by 2030 • 25% reduction in seriously injured cyclists in single crashes by 2030 A quantification of the target to reduce road deaths due to suicides (including jumping from bridges) may come at a later stage.	Average for 2017-19
Switzerland	• Maximum 100 fatalities and 2 500 seriously injured per year by 2030 on Swiss roads. • Maximum 25 fatalities and 500 seriously injured among **human-powered forms of mobility** per year by 2030 on Swiss roads (e.g. pedestrians, bicycles and e-bikes, scooters and e-scooters, inline skates or skateboards).	
United Kingdom	Targets not yet defined.	
United States	The 2022-26 Strategic Plan includes the target to reduce by 66% motor vehicle-related fatalities by 2040 to demonstrate progress to achieve zero roadway fatalities. The national strategy includes a summary of the key actions the Department will take over the next three years to work towards the ambitious long-term goal of reaching zero roadway fatalities. Intermediate targets also exist for 2022 and 2023.	

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More than 80 institutes worldwide are members or observers of the IRTAD Group, representing an extensive range of public and private organisations with a direct interest in road safety.

IRTAD Group Chair: Dominique MIGNOT (France)

Argentina	National Road Safety Agency (ANSV)
Australia	Department of Infrastructure, Transport, Regional Development, Communications and the Arts Australian Road Research Board (ARRB)
Austria	AIT Austrian Institute of Technology GmbH Kuratorium für Verkehrssicherheit (KfV)
Belgium	Vias Institute
Bosnia and Herzegovina	Ministry of Communications and Transport
Cambodia	National Road Safety Committee
Canada	Transport Canada
Chile	Ministry of Transport and Telecommunications, Comisión Nacional de Seguridad de Tránsito
Colombia	National Road Safety Agency (ANSV)
Costa Rica	National Road Safety Council (COSEVI)
Czech Republic	Transport Research Centre (CDV)
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Ireland	Road Safety Authority
Israel	National Road Safety Authority Central Bureau of Statistics
Italy	Centre for Transport and Logistics (CTL) Italian Automobile Club (ACI) Fred Engineering ISTAT
Japan	National Police Agency Institute for Traffic Research and Data Analysis National Research Institute for Police Science Kansai University
Korea	Korea Road Traffic Authority (KoROAD) Korea Expressway Corporation Korea Transportation Safety Authority (KOTSA) Korea Transport Institute (KOTI)
Lithuania	Ministry of Transport and Communications
Luxembourg	STATEC
Mexico	Mexican Institute of Transportation (IMT)
Moldova	Technical University of Moldova
Morocco	National Road Safety Agency (NARSA)
Netherlands	Ministry of Infrastructure and Water Management Institute for Road Safety Research (SWOV) VIA Software
New Zealand	Ministry of Transport
Norway	Norwegian Public Road Administration
Poland	Motor Transport Institute (ITS)
Portugal	National Road Safety Authority (ANSR) National Laboratory for Civil Engineering (LNEC)
Serbia	Road Traffic Safety Agency Motor Vehicle Centre (AMSS)
Slovenia	Slovenian Traffic Safety Agency
South Africa	Road Traffic Management Corporation
Spain	General Traffic Directorate

Sweden	Swedish Transport Agency Swedish Transport Administration Swedish Road and Transport Research Institute (VTI)
Switzerland	Federal Roads Office (FEDRO) Swiss Council for Accident Prevention (BfU)
United Kingdom	Department for Transport Agilysis Transport Research Laboratory
United States	National Highway Traffic Safety Administration
Uruguay	National Road Safety Unit (UNASEV)
International organisations	European Commission European Transport Safety Council (ETSC) Fédération Internationale de l'Automobile (FIA) FIA Foundation International Motorcycle Manufacturers Association (IMMA) The Motorcycle Industry in Europe (ACEM) Towards Zero Foundation World Bank World Health Organisation (WHO)

International Transport Forum

Road Safety
Annual Report 2023

The Road Safety Annual Report 2023 provides an overview of road safety performance for the 42 countries participating in the International Transport Forum's permanent working group on road safety, known as IRTAD. Based on the latest data, the report describes recent road safety developments in these countries and compares their performance against the main road safety indicators.

Online country profiles complement this report: www.itf-oecd.org/irtad.

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