



# ANALYSIS OF THE SYSTEM OF DRIVING SCHOOLS IN SELECTED EU COUNTRIES AND THE SLOVAK REPUBLIC

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**Abstract** *According to data provided by the European Commission, more than 20,000 people die on the road in the European Union each year. (Press release European Commission, 2021). In 2019, the EU average of road accidents was 51 deaths per million inhabitants, with significant differences between low and high accident rates. In the Slovak Republic, drivers with a driving experience of up to 5 years (approximately 25%) cause fatal accidents every year, while drivers who belong to this group make up only 11.6% of all drivers (Statistical overviews of the agenda of traffic accident in the Slovak Republic and complete statistics Ministry of the Interior of the Slovak Republic, 2022). One of the causes of this condition can also be found directly in driving schools. The main goal of the article is to analyse the system of driving schools in selected thirteen EU countries (Bulgaria, Czech Republic, Denmark, Finland, the Netherlands, Croatia, Lithuania, Latvia, Germany, Poland, Romania, Slovenia and Sweden) according to selected criteria, which show differences in fatality and compare them with the system of driving schools in the Slovak Republic. The paper also looks for a link between the number of fatal traffic accidents in a given country and the driving school system.*

**Keywords** *driving schools, road safety, accident rates, fatal traffic accidents, drivers with short driving experience, road transport*

## 1 INTRODUCTION

At present, driving licenses are an integral part of our lives, which is accompanied by an increase in the number of license holders. At the same time, the number of registered vehicles is constantly increasing, the intensity of traffic is increasing, and more and more people are behind the wheel, and thus they are becoming direct participants in road traffic. However, this is closely related to the increased risk of traffic accidents, and unfortunately also those resulting in death. Traffic accidents are therefore a serious societal problem with a huge impact on people's lives and property and therefore require a high level of attention (Tvorík a Tvoríková, 2020 and National Plan of the Slovak Republic for BECEP 2021-2030, 2020).

In this context, the accident rate of drivers with a short driving experience has become a significant problem. According to statistics published by the Presidium of the Police Force of the Slovak Republic, in the comparison of drivers according to length of practice, fatal traffic accidents are significantly caused by drivers who have held a driving license for less than five years, therefore driving school graduates.

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Driving schools therefore play a key role in the education and training of new drivers and should provide them with the necessary skills to drive safely. They should also provide adequate training and best prepare novice drivers for the pitfalls that may occur in traffic (Rečičárová, 2021).

Given that there is no European legislation in the field of driving schools, each EU Member State sets its own conditions for setting up driving schools, instructors and driving training. Therefore, certain differences could be expected between the individual driving school systems of the EU countries, which could theoretically also affect the quality of training in driving schools and thus, ultimately, the traffic accident rate in the given countries.

## **2 PROBLEMS OF TRAINING IN DRIVING SCHOOLS IN THE CONTEXT OF WORLD LITERATURE**

The training of new drivers can have a significant impact on road safety. After obtaining a driving license, beginners do not yet have sufficient experience in driving a motor vehicle and are therefore the most risky groups in traffic. Statistics show that drivers who have held a driving license for less than 5 years mainly cause most accidents (Hudec et al., 2021). As a rule, young people will learn the theory and skills to drive only in order to obtain a driving license, but they are not particularly motivated to learn the technique of safe driving. Then, despite the lack of driving experience, they overestimate their own abilities and underestimate the potential risks on the road (Gribanov et al., 2019). One possible measure could be to change the curriculum, with a special focus on teaching and training in the areas where the most common causes of accidents occur (Akhmetshin et al. 2018). Driver training could be improved even if attention is focused not only on the knowledge of key theoretical driving skills, but also on solving urgent problems in emergency situations. Studies have shown that most driver training courses focus on students' basic skills, maneuvering and handling driving situations (Boccaro et al. 2011). An opportunity to improve the teaching process could be for students to self-assess, which would help them to identify possible difficulties in dealing with certain situations during the training, thus giving them the opportunity to solve the problems with the instructor (Kohut et al., 2020).

## **3 COMPARISON AND ANALYSIS OF THE SYSTEM OF DRIVING SCHOOLS IN SELECTED EU COUNTRIES AND THE SLOVAK REPUBLIC**

In the following sections, an analysis of the driving school system in selected EU countries and the Slovak Republic will be performed on the basis of selected criteria and documents obtained from foreign authorities in 2019. Thirteen countries will be compared, namely Bulgaria, the Czechia, Denmark, Finland, the Netherlands, Croatia, Lithuania, Latvia, Germany, Poland, Romania, Slovenia and Sweden. The selected criteria were the number of driving schools, the conditions for the establishment of a driving school, the equipment of the technical base, the conditions for obtaining an instructor license, the number of instructors, theory teaching and practical training of driving course participants, registration of driving course participants, examination of professional competence to obtain a driving license for driving a motor vehicle, penalties and prices for driving courses and tests.

The compared data are recorded in graphs and tables, and the tables use symbols that mean the following: "YES" – mandatory, "\*" – optional and "n / a" - not applicable (not available).

### **3.1 Comparison of the number of driving schools, conditions for the establishment of driving schools and the equipment of the technical base**

The following graph (Fig. 1) shows a comparison of the number of driving schools per 100,000 inhabitants of a given state.

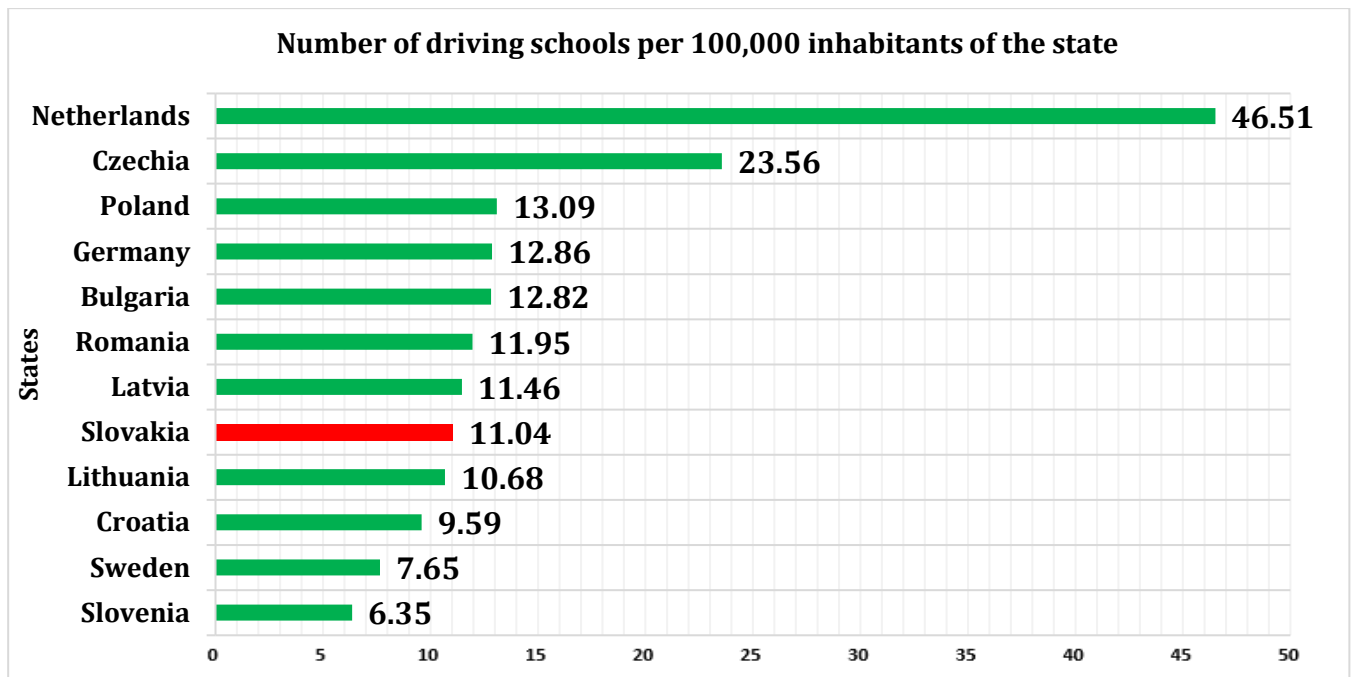


Fig. 1 Graph of the number of driving schools per 100 000 inhabitants in individual states in 2019; source: authors based on documents provided by the States concerned and Ministry of Transport and Construction of the Slovak Republic

The graph shows that the highest number of driving schools per 100 000 inhabitants was in the Netherlands and the least in Slovenia. With 11, 04 driving schools in Slovakia, it is in 8th place out of 12, ranked from the largest.

As for the conditions for the establishment of a driving school, in most of the countries being compared, the driving school must have a business permit or license issued. The following two tables show what technical base the country must have at its disposal (Table 1) and what legal relationship it must have with the driving school operator (Table 2).

Tab. 1: Equipment of the technical base of driving schools in the given states; source: authors based on documents provided by the States concerned

States	Office	Classroom	Teaching aids	Training vehicle	Simulator	Car training ground
Bulgaria	YES	YES	*	YES	*	YES
Czechia	*	YES	YES	YES	*	YES
Denmark	*	*	*	YES	*	*
Finland	n/a	n/a	n/a	YES	*	n/a
Netherlands	*	*	*	YES	*	*
Croatia	YES	YES	YES	YES	*	YES
Lithuania	YES	YES	YES	YES	*	YES
Latvia	*	YES	*	YES	*	YES
Germany	*	YES	YES	YES	*	*
Poland	YES	YES	YES	YES	*	YES
Romania	YES	YES	*	YES	*	*
Slovakia	YES	YES	YES	YES	*	YES
Slovenia	YES	YES	*	YES	*	YES
Sweden	*	YES	YES	YES	*	*

Tab. 2: Legal relationship of the driving school to the technical base;  
source: authors based on documents provided by the States concerned

States	Ownership	Co-ownership	Rent	Financial leasing
<b>Bulgaria</b>	*	*	*	*
<b>Czechia</b>	n/a	n/a	n/a	n/a
<b>Denmark</b>	*	*	*	*
<b>Finland</b>	n/a	n/a	n/a	n/a
<b>Netherlands</b>	*	*	*	*
<b>Croatia</b>	*	*	*	*
<b>Lithuania</b>	*	*	*	*
<b>Latvia</b>	*	*	*	*
<b>Germany</b>	n/a	n/a	n/a	n/a
<b>Poland</b>	n/a	n/a	n/a	n/a
<b>Romania</b>	*	*	*	*
<b>Slovakia</b>	*	*	*	*
<b>Slovenia</b>	n/a	n/a	n/a	n/a
<b>Sweden</b>	*	*	*	*

The data show that Denmark and the Netherlands have the most benevolent conditions for setting up driving schools, as there are no specific requirements for setting up a driving school in those countries and it is only necessary that they have a training vehicle.

The next two tables list the requirements for the equipment of the training vehicle (Tab. 3) and its designation (Tab. 4).

Tab. 3: Driving school training vehicle equipment;  
source: authors based on documents provided by the States concerned

States	Double service brake pedal control	Double clutch pedal control	Double accelerator pedal control	Interior rear-view mirror	Exterior rear-view mirrors	Limiting the maximum age of the vehicle
<b>Bulgaria</b>	YES	YES	*	YES	YES	n/a
<b>Czechia</b>	YES	YES	*	YES	*	n/a
<b>Denmark</b>	YES	YES	*	YES	*	n/a
<b>Finland</b>	YES	YES	*	YES	*	n/a
<b>Netherlands</b>	YES	YES	*	YES	*	none
<b>Croatia</b>	YES	YES	*	YES	YES	n/a
<b>Lithuania</b>	YES	YES	*	YES	YES	n/a
<b>Latvia</b>	YES	YES	*	YES	YES	n/a
<b>Germany</b>	YES	YES	*	YES	YES	none
<b>Poland</b>	YES	*	*	*	YES	n/a
<b>Romania</b>	YES	YES	*	YES	YES	n/a
<b>Slovakia</b>	YES	YES	*	*	*	none*)
<b>Slovenia</b>	YES	YES	*	n/a	n/a	n/a
<b>Sweden</b>	YES	YES	*	*	YES	none

\*) from 23.05.2023 all training vehicles of categories C and D used in driving schools in the Slovak Republic will have to meet at least the EURO 3 emission standard

Tab. 4: Driving school training vehicle identification;  
source: authors based on documents provided by the States concerned

State	Inscription	Execution
Bulgaria	y	white font on a blue background
Czechia	DRIVING SCHOOL, L	blue font on a white background, L white font on a blue background
Denmark	SCHOOL	*
Finland	none	white triangle at the back of the vehicle
Netherlands	L	white font on a blue background
Croatia	DRIVING SCHOOL, L	black font on a yellow background, L white font on a blue background
Lithuania	M	white triangle with red border and black lettering in the middle
Latvia	L	*
Germany	FAHRSCHULE	red font on a white background
Poland	L	white font on a blue background
Romania	SCOAL	table orange - yellow colour
Slovakia	DRIVING SCHOOL	red font on a white background
Slovenia	ŠOLA VOŽNJE L	black font on a yellow background
Sweden	EXAMPLES	white font on a red background

Based on the above data, it can be stated that each compared country must have a vehicle mandatorily equipped with a device for dual control of the service brake pedal, dual control of other pedals are used either compulsorily or voluntarily depending on the country.

Compared to other countries, driving schools in Slovakia are equipped with everything that has been ascertained. Only training vehicles in the Slovak Republic do not have to be equipped with an interior and exterior rear-view mirror, which is mandatory for training vehicles in almost all countries compared.

### 3.2 Comparison of conditions for obtaining an instructor's license

Each country has its own conditions for obtaining an instructor's license and these requirements are compared in the following table (Table 5).

Tab. 5: Comparison of the conditions for obtaining an instructor's license;  
source: authors based on documents provided by the States concerned

State	Required age	Requirement to be a holder of a given DL group	Required education	Validity of the instructor's card	Extension of validity	Obtaining an instructor's license
Bulgaria	23 years	YES	bachelor's or master's degree resp. professional qualification	n / a	training every 4 years	undergo training
Czechia	24 years	at least 3 years	high school graduate resp. vocational high school	for an unknown period of time	is not performed	complete basic training and take an exam
Denmark	24 years	YES	n / a	5 years	health certificate	on the
Finland	23 years	at least 3 years	n / a	n / a	n / a	attend a vocational school for one and a half years
Netherlands	18 years	YES	n / a	5 years	further training course	take the test
Croatia	24 years	at least 3 years	n / a	10 years	renewal on request	complete the course

<b>Lithuania</b>	n / a	at least 3 years	higher vocational education	5 years	training and examination	complete the course
<b>Latvia</b>	n / a	at least 3 years	n / a	5 years	pass a theoretical test	complete the course
<b>Germany</b>	21 years	yes + at least 3 years for group B	Professional training resp. equivalent education	for an unknown period of time	regular further training	take a course and take an exam
<b>Poland</b>	n / a	at least 2 years	n / a	n / a	annual professional seminars	take a course and take an exam
<b>Romania</b>	25 years	at least 5 years	high school graduate resp. vocational education	n / a	n / a	take a course and take an exam
<b>Slovakia</b>	it's not	at least 3 years	quite medium general resp. vocational education	10 years	retraining course every 2 years	take a course and take an exam
<b>Slovenia</b>	n / a	at least 5 years	high school resp. vocational education	5 years	n / a	undergo training and take an examination
<b>Sweden</b>	21 years	at least 3 years	n / a	for an unknown period of time	is not performed	take a course and take an exam

It follows that, given the age of the instructor, Romania has the strictest requirements and the lowest age is in the Netherlands. The Czechia and Sweden have the easiest requirements in terms of renewal of the instructor card. Slovakia did not deviate in any way from the other EU states with formal requirements for obtaining an instructor's license.

The following graph (Fig. 2) shows a comparison of the total number of instructors per 100 000 inhabitants of a given country.

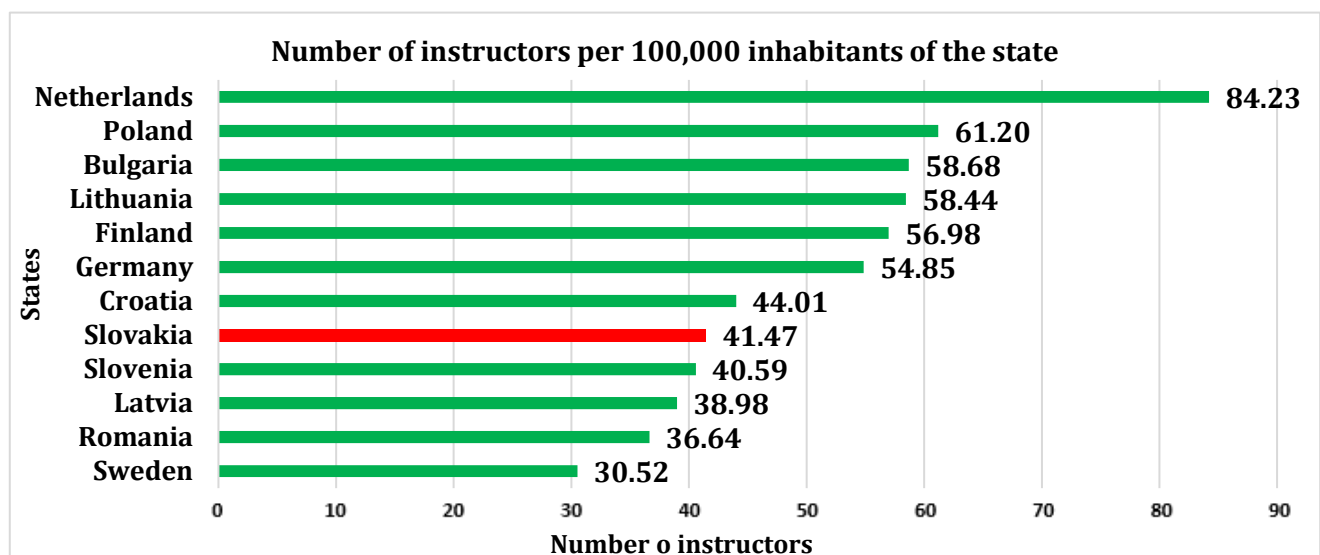


Fig. 2 Graph of the ratio of the number of instructors in 2019; source: authors based on documents provided by the States concerned and Ministry of Transport and Construction of the Slovak Republic

It can be seen from the graph that the most instructors per 100 000 inhabitants were in the Netherlands and the least in Sweden. With a number of 41, 47 the Slovak Republic is in 8th place out of 12, ranked from the largest.

### 3.3 Comparison of theory teaching and practical training of driving course participants

A comparison of the number of hours of theoretical and practical training was performed for driving license groups A motorcycle, B (passenger car), C (truck), D (bus) and T (tractor) in graphical terms. The graph assumes that one lesson lasts 45 minutes, as most countries use such lessons. Countries that have different teaching hours are also converted to 45 minutes. The following graph shows a graphical comparison of the number of teaching hours of theoretical teaching in driving schools for selected groups of driving licenses and EU countries (Fig. 3). The minimum values for the group of driving licenses are marked in red and the maximum values in green.

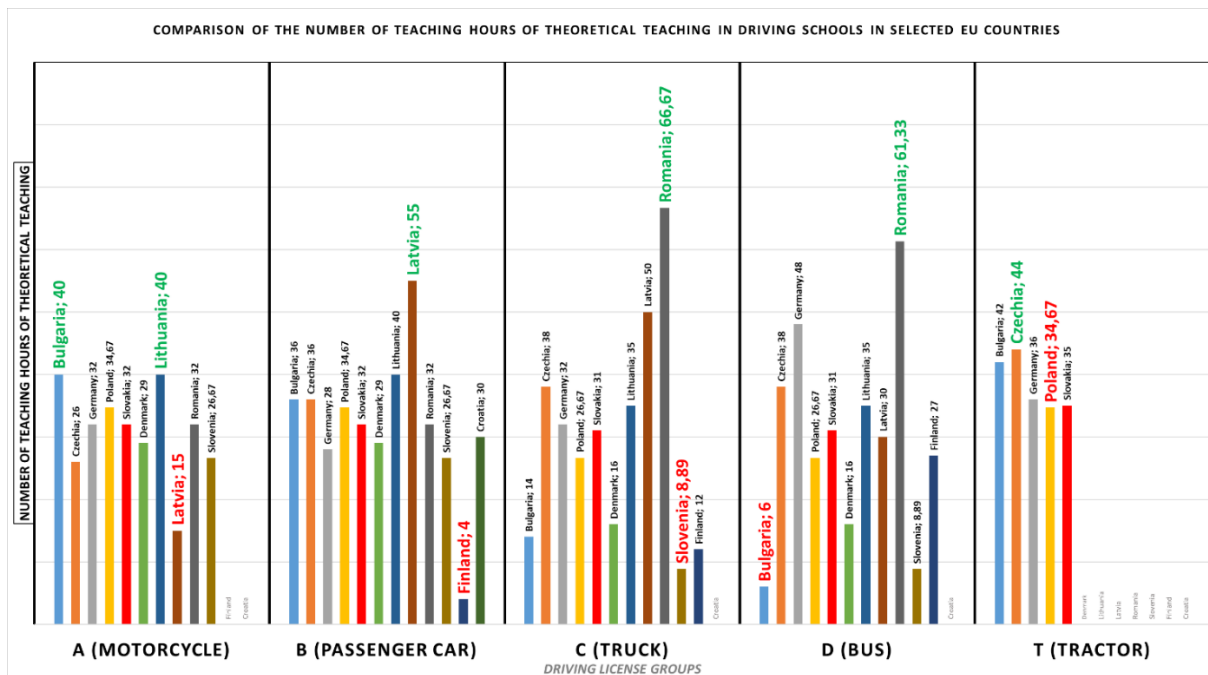


Fig. 3 Graph of the number of hours of theoretical teaching for selected groups of driving licenses and EU source: authors based on documents provided by the States concerned

The following graph shows a graphical representation of the number of practical training lessons in driving schools for selected groups of driving licenses and EU countries (Fig. 4).

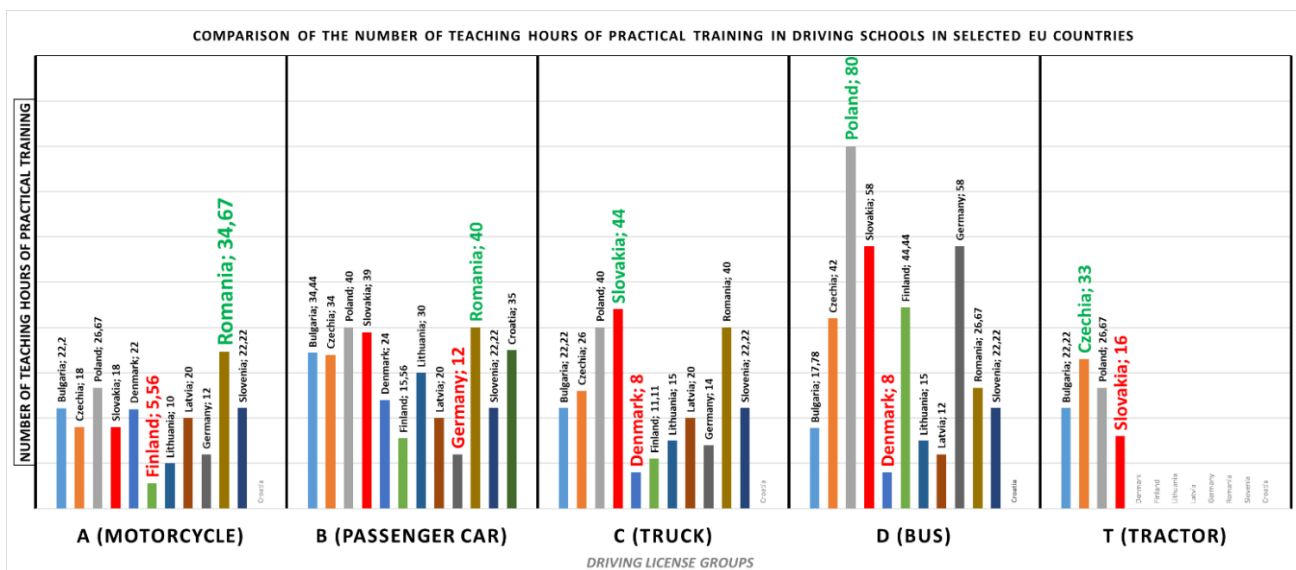


Fig. 4 Graph of the number of hours of practical training for selected groups of driving licenses and EU countries; source: authors based on documents provided by the States concerned

It can be seen from the graphs that Latvia has the least compulsory theoretical teaching hours for group A, Finland for group B, Slovenia for group C, Bulgaria for group D and Poland for group T. The most participants in the course have to complete the most teaching hours for group A in Bulgaria and Lithuania, for group B in Latvia, for groups C and D in Romania and for group T in the Czechia (Fig. 3).

In practical training, there are at least practical training hours for group A in Finland, for group B in Germany, for groups C and D in Denmark and for group T in Slovakia. The course participants must complete the most practical training hours for groups A and B in Romania, for group C in Slovakia, for group D in Poland and for group T in the Czechia (Fig. 4).

When comparing theoretical teaching and practical training from all compared countries, Slovakia achieves only one extreme value, namely the highest number of teaching hours of practical training for group C driving license.

The following table shows the duration of teaching hours in the countries being compared, indicating the maximum number of teaching hours per driving course participant (Table 6) and the graph shows the total number of teaching hours that driving participants can complete per day (Fig. 5), recalculated for 45 minutes of lessons and ranked from lowest to highest.

Tab. 5: Duration of one lesson (minutes) and maximum number of lessons per participant in one day; source: authors based on documents provided by the States concerned

State	Duration of lessons (min)		Maximum number of teaching hours per day		
	Theory	Practical training	Theory	Practical training	Together
<b>Bulgaria</b>	45	50	6	2	8
<b>Czechia</b>	45	45	n / a	2	2
<b>Denmark</b>	45	45	4	2	6
<b>Finland</b>	45	50	none	none	none*
<b>Netherlands</b>	none	none	none	none	none
<b>Croatia</b>	45	45	n / a	2	2
<b>Lithuania</b>	45	45	n / a	3	3
<b>Latvia</b>	45	45	1	1	2
<b>Germany</b>	90	45	none	none	none
<b>Poland</b>	60	60	n / a	2	2
<b>Romania</b>	60	60	5	2	7
<b>Slovakia</b>	45	45	6	3	9
<b>Slovenia</b>	50	50	none	none	none
<b>Sweden</b>	none	none	none	none	none

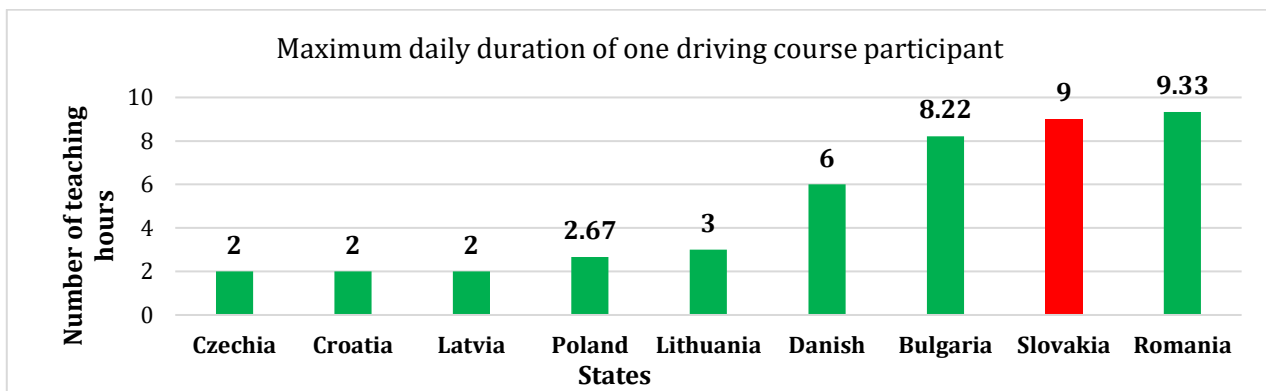


Fig. 5 Graph of the maximum duration of teaching per day; source: authors based on documents provided by the States concerned



In the Slovak Republic, it is stipulated that a course participant can start practical training only after completing part of the theoretical training (driving theory and at least half of the training of road traffic rules and the basics of safe driving) and training on a simulator or training ground (Decree no. 45/2016 Coll and Driving Course Curriculum in the Slovak Republic, 2020). The same is true in Lithuania. In Bulgaria, Poland and Romania, the candidate can start in-service training after completing the required theory classes. In the Czechia and Germany, the condition is that the training must follow the theoretical teaching. In Croatia and Slovenia, practical training can only start after passing a theoretical test. In Finland, the Netherlands and Sweden, there are no requirements for the number of hours or how the training is to take place.

### **3.4 Comparison of registration of participants of driving courses**

The course of individual courses in the Slovak Republic is recorded in electronic form. An electronic register book is kept, in which the basic data about the course participants are entered. All records of practical training in traffic, on the simulator and at the training ground are recorded in the electronic class book, where participation is automatically recorded from the identification devices. An electronic report shall be kept of the operation of each training vehicle and of the practical training, containing data on the operation of the vehicles recorded by the instructor and on the course participants, which shall be recorded automatically. Furthermore, an electronic exercise book is kept, in which there are data on the practical training of students on the simulator, and an electronic exercise book, in which the course of the participant's training at the training centre is recorded. Participation information is recorded directly from vehicle identification devices, classrooms and simulators (Decree no. 45/2016 Coll., 2016).

None of the countries compared uses the national electronic information system of records as in the Slovak Republic (Act no. 387/2015 Coll., 2015). Only in Romania are driving schools obliged to record the entire course of training using a computer application that generates daily records of participants' training. Thus, driving schools in other countries do not have to be equipped with devices that automatically send pupil participation information to the information system. Most states use a paper or record book for theory and practical training records, where they record the necessary information and confirm it with a signature. Some also use electronic forms in the form of various diaries or applications.

### **3.5 Comparison of driving test conditions**

In each of the countries being compared, the theoretical part of the test is performed first and then the practical part. In some countries, such as Finland and Germany, it is possible to carry out the theoretical part separately at a different time before the practical part. In Croatia and Slovenia, it is necessary to take a theory test before the start of practical training at the driving school. In Lithuania, specific conditions are set, under which the applicant for the final exam must first take a theoretical and practical test at a driving school.

There is only one exam in the Slovak Republic, which consists of a theoretical and a practical part (Act no. 8/2009 Coll. and Decree no. 9/2009 Coll, Slovak Republic, 2009). Of the Ministry of the Interior of the Slovak Republic). After an unsuccessful theoretical test, the practical test is not performed. The disadvantage of the current system of examinations in the Slovak Republic is that the same tests with the same questions, which the photocopies of the driving school distribute to the participants of the driving courses with the correct answers, have been used for the theoretical examination without change. Theoretical driving instruction then focuses on mechanically learning the correct answers to the test questions, often without the drivers understanding them. The drop in examinations from the theoretical and practical part in 2019 was a total of 18, 58 %, in 2020 it was 17, 77 % and in 2021 it was 16, 73 %. (Documents provided by the Ministry of Transport and Construction of the Slovak Republic, 2022). Another negative factor that affects the result of examinations in the Slovak Republic is the sending of the same examiners for examinations to the same driving schools and the related level of corruption, which is

deeply rooted in the given area. The Police of the Slovak Republic is trying to solve the situation in such a way that from 2023 separate districts should be created at each district traffic inspectorate to perform the theoretical part of the test with computer equipment, where the test will generate a separate set of test questions with regrouped answers from a database of 1 600 questions.

The following graph (Fig. 6) shows a comparison of the total number of issued driving licenses in 2019 per 100 000 inhabitants of a given state.

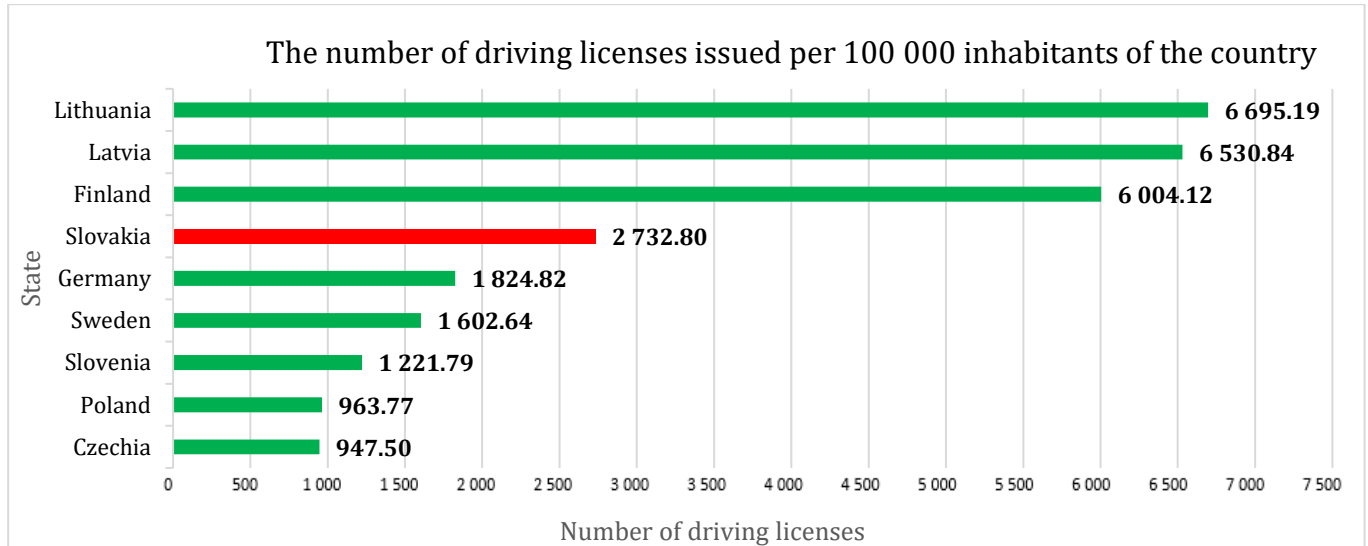


Fig. 6 Graph of the ratio of the number of issued driving licenses in 2019; source: authors based on the basis of documents provided by the States concerned and Statistical overviews of the agenda of drivers and driving licenses in Slovak Republic)

It can be seen from the graph that the most issued driving licenses per 100 000 inhabitants were issued in Lithuania and the least in the Czech Republic. With the number of 2,732.80, the Slovak Republic is in 4th place out of 9, ranked from the largest. In 2019 a total of 149 322 driving licenses were issued in the Slovak Republic.

### 3.6 Comparison of sanctions for violations in the activities of driving schools

The following table shows the minimum and maximum possible financial penalties that the authorities of a given state may impose on a driving school for violating the law. Lithuania has the lowest maximum level of sanctions and the Czech Republic has the highest.

Tab. 7: Minimum and maximum levels of sanctions; source: source: authors based on the basis of documents provided by the States concerned and the law on driving schools in the Slovak Republic

State	Penalties in €	
	At a minimum	Maximum
<b>Bulgaria</b>	255, 65	3 579, 10
<b>Czechia</b>	n / a	38 333, 27
<b>Denmark</b>	n / a	n / a
<b>Finland</b>	n / a	n / a
<b>Netherlands</b>	none	none
<b>Croatia</b>	132, 34	1 985, 05
<b>Lithuania</b>	120, 00	860, 00
<b>Latvia</b>	none	none
<b>Germany</b>	1 000, 00	5 000, 00
<b>Poland</b>	none	none

<b>Romania</b>	52,00	2 462, 00
<b>Slovakia</b>	50,00	10 000,00
<b>Slovenia</b>	160,00	4 000,00
<b>Sweden</b>	74,74	19 931,63

The biggest problem in the Slovak Republic, detected by the Ministry of Transport and Construction of the Slovak Republic inspections in driving schools, is the absence of participants in driving courses in teaching, training, and misleading identification. For example, in 2019, the Ministry of Transport and Construction of the Slovak Republic checked the participation of drivers in courses at randomly selected eighteen driving schools, and it was found that no one was present at all in the fifteen classrooms. More specifically, out of the 169 identified driving course participants who were to undergo driving lessons during the inspections, 160 were not present. In 2020, the situation was slightly "better", when the presence of 137 identified participants in driving courses was checked in sixteen driving schools, during which the absence of 67 of them was found (Hudec 2019, 2020). The instructor's license for these violations will be revoked and the registration of the driving school will be revoked if the driving school issues a certificate of completion of the course to a participant in the driving course who does not undergo full training in the driving school.

### 3.7 Comparison of prices of instructor courses, driving courses and exams

The price of instructor courses was published by only two countries (the Czech Republic 1 000 € and Slovenia 1 600 €) and Slovakia is among them at a price of 1 500 €.

Driving course prices are compared for groups A, B, C, D, while the average monthly salaries of a given country are also monitored. The graphical and tabular display is shown in the following figure (Fig. 7).

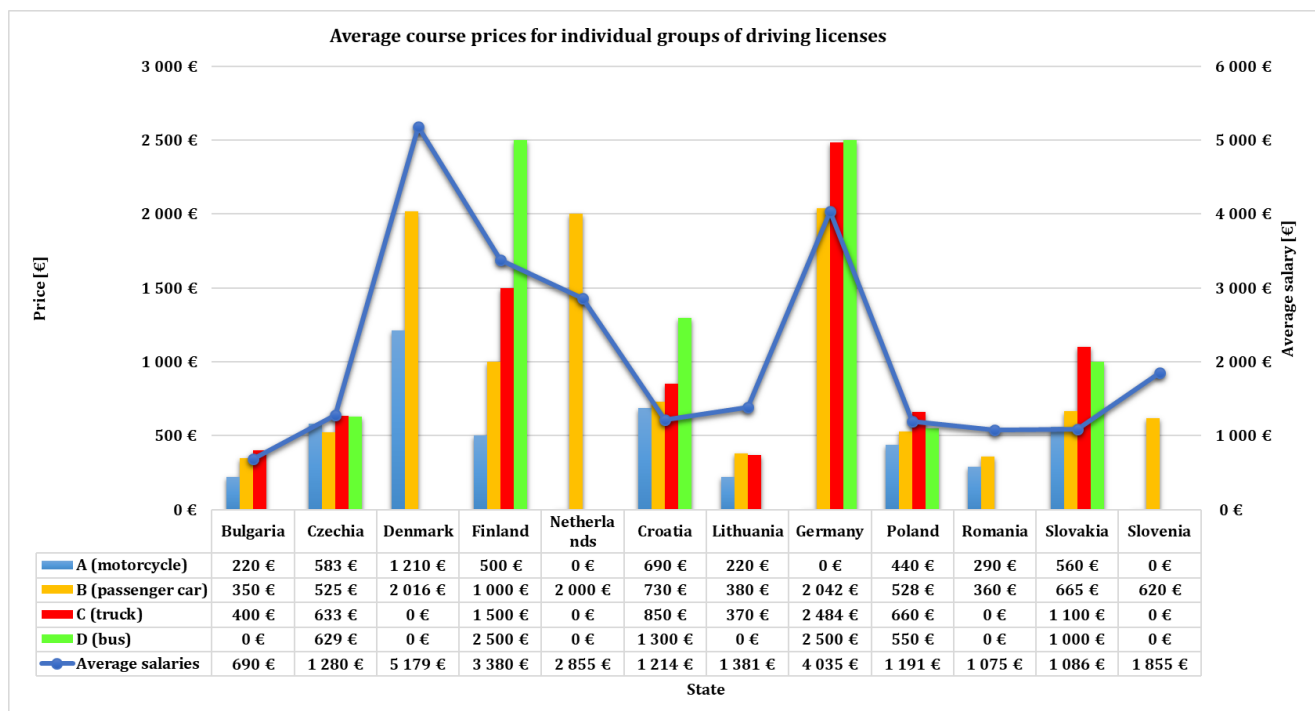


Fig. 7 Graph of average prices of exchange rates of individual groups of driving licenses in comparison with the average wage of a given state in 2019; source: authors based on the basis of documents provided by the States concerned

The graph shows that the lowest exchange rate prices are in Bulgaria, Romania and Lithuania, while Bulgaria also has the lowest average wages. On the contrary, the highest exchange rates are in Germany, Denmark and the Netherlands, but in these countries there are also high average wages and therefore exchange rates are reasonably priced for them.

The highest ratio of exchange rate to average salary per group A was in Croatia and the lowest in Finland, Slovakia is in this statement in the 2nd highest place out of 9. For group B was the highest ratio of exchange rate to average salary in the Netherlands and the lowest in Lithuania. In this statement, Slovakia is in the 2nd highest place out of 12. The highest ratio of the price of the course to the average salary for group C was in Slovakia, which means that in this statement it is ranked 1st out of 8th and lowest in Lithuania. Group D had the highest ratio of exchange rate to average salary in Croatia and the lowest in Poland, Slovakia is in this statement in 2nd place out of 6.

The prices for the final exam are given in the following table, which shows that the prices for the first test are high in the Netherlands, Sweden, Denmark and Germany (Tab. 8).

Tab. 8: Prices of the final exam on the first try; source: authors based on source: authors based on the basis of documents provided by the States concerned and Act of the National Council of the Slovak Republic on Administrative Fees

State	Price for the first test in €				
	Theoretical part	Practical part for groups			
		A (motorcycle)	B (personal vehicle)	C (lorry)	D (the bus)
<b>Czechia</b>			26.83		
<b>Denmark</b>			80.65		
<b>Finland</b>	35, 00		65.00 -110.00		
<b>Netherlands</b>	37, 00	191, 00	120, 00	233, 15	233, 15
<b>Croatia</b>	n / a	n / a	31, 26	n / a	n / a
<b>Lithuania</b>	10, 14	53, 90	31, 00	61, 80	n / a
<b>Latvia</b>	12, 63	n / a	38, 52	n / a	n / a
<b>Germany</b>	18, 90	102, 00	77, 10	127, 00	127, 00
<b>Poland</b>	n / a	46, 00	37, 00	51, 00	51, 00
<b>Slovakia</b>	<b>none</b>	<b>16, 50</b>	<b>33, 00</b>	<b>66, 00</b>	<b>66, 00</b>
<b>Slovenia</b>	42, 10	46, 50	37, 50	46, 50	89, 50
<b>Sweden</b>	32, 39	164, 43	79, 72	79, 72	79, 72

#### 4 POSSIBLE IMPACT OF DRIVING SCHOOL TRAINING ON FATAL ACCIDENTS IN SELECTED EU COUNTRIES

Based on the analysed data of this article and the data published by the European Road Safety Commission on the number of people killed per million inhabitants of the country (European Commission, Press release, 2021 and Hudec, J. et al., 2021), possible links between the number of people killed and the system of driving schools in the country were sought. Only those EU countries that have been developed in this article were selected for analysis.

The compared data showed that the three EU countries with the lowest number of fatal traffic accidents per 1 million inhabitants in 2019, from which the analysed data on driving schools also come, were Sweden, Denmark and the Netherlands. In Sweden, the driving school must have the appropriate facilities needed to provide theoretical instruction and have vehicles equipped with dual controls and rear-view mirrors. There are 7, 65 driving schools per 100 000 inhabitants and therefore ranked 11th out of 12. Sweden has no regulations governing the allocation of hours in driving schools, and applicants for a driving license with a special permit are learning to drive with their parents, but must have completed at least 3 hours with an instructor who must be at least 21 years old. There are no special requirements for setting up a driving school in Denmark or the Netherlands, and the training vehicle must be equipped with dual controls and additional rear-view mirrors. In Denmark, an applicant for a driving license must complete

29 hours of theory and 24 hours of practical driving for group B and the instructor must be at least 24 years old. In the Netherlands, there are no mandatory hours for applicants for a driving license and the instructor must be at least 18 years old. The Netherlands ranks first with 46, 51 driving schools per 100 000 inhabitants. On the other hand, the three EU countries with the highest number of fatal road accidents per 1 million inhabitants in 2019 were Romania, Bulgaria and Poland. In those countries, driving schools must have a driving license and a certain technical base, vehicles must be equipped with double equipment and rear-view mirrors. There are 11, 95 driving schools per 100 000 inhabitants in Romania and therefore it is in 6th place. The applicant for a driving license must complete 32 hours of theory and 40 hours of practical driving for group B, the instructor must be at least 25 years old and the maximum amount of penalties for infringements is 2 462 €. Bulgaria is in 5th place with 12, 82 driving schools. The applicant for a driving license must complete 36 hours of theory and 34, 44 hours of practical training for group B, the instructor must be at least 23 years old and the maximum amount of penalties for infringements is 3 579, 10 €. In Poland, a driver's license must complete 34, 67 hours of theory and 40 hours of practical driving in Group B, there are 13, 09 driving schools per 100 000 inhabitants, so he is placed in 3rd place and there are no financial penalties for violations.

Given that, according to statistics, most accidents were caused by passenger cars requiring a group B driving license, the following graph has been drawn up, linking the number of people killed per million inhabitants in a given accident and the minimum numbers hours of theoretical instruction and practical training to be completed for group B driving licenses at national driving schools (Figure 8).

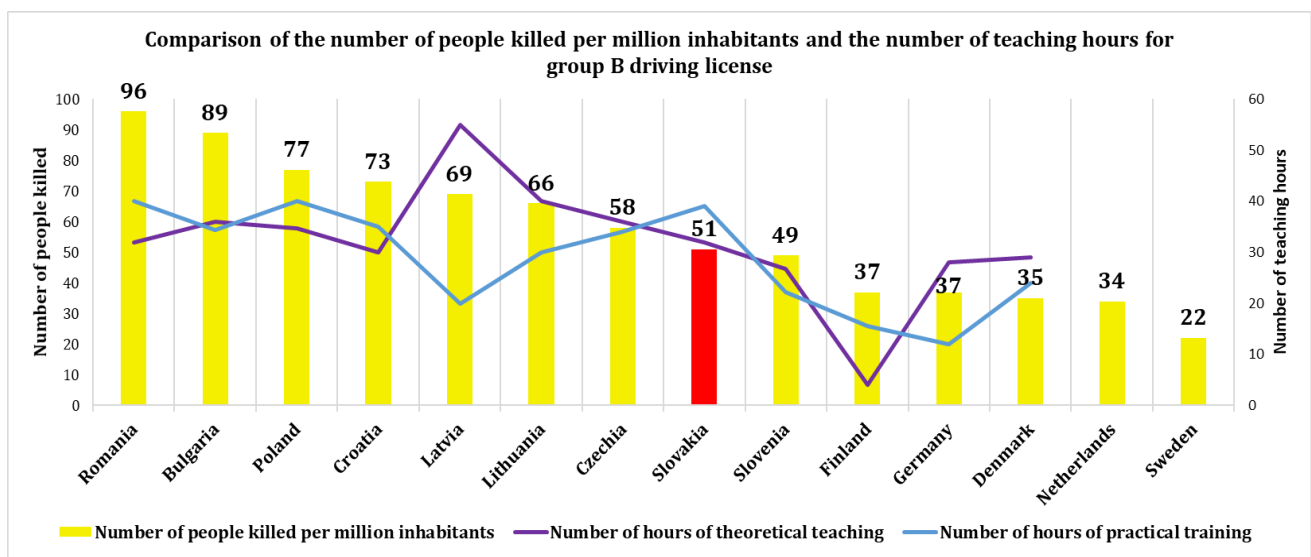


Fig. 8 Graph of the number of people killed per million inhabitants in 2019 and the number of teaching hours for group B driving license; source: authors based on the source Press release European Commission, 2021

The graph (Fig. 8) shows that in Romania, where the highest number of people killed per 1 million inhabitants was in 2019, they have set the highest number of practical training hours for group B driving licenses. In second place with the highest accident rate is Bulgaria, where there was also a higher number of compulsory driving school hours. By contrast, practical training hours are low in Germany and Finland, but these countries also have lower fatalities. Similarly, the Netherlands and Sweden had a low number of fatal road accidents in 2019, and at the same time, there was no minimum number of teaching hours at a driving school in these countries. In particular, the Netherlands has almost no training and instructor requirements and the focus of the driving license process is mainly on examinations.

Therefore, it was not possible to find common characteristics of the so-called the ideal system of driving schools in countries that have had a low number of fatal accidents and vice versa. States with a high number of fatal accidents do not have formally established benevolent requirements for the establishment

of driving schools or for the number of training hours. With a higher number of training hours in the driving schools of a given state, the number of fatal traffic accidents of that state did not decrease and with a lower number of training hours, the accident rate did not increase. However, for a more thorough analysis, it would also be useful to use data on accidents caused by drivers with short driving experience in individual EU countries and over a longer period, to analyse in more detail the system of driving training of driving schools in selected EU countries and driving licenses define driving school and training quality criteria (Rečičárová, 2021).

## 5 CONCLUSION

The aim of this paper was to analyse the system of driving schools in selected EU countries and compare them with the system of driving schools in the Slovak Republic. These selected countries included 13 countries, namely Bulgaria, the Czech Republic, Denmark, Finland, the Netherlands, Croatia, Lithuania, Latvia, Germany, Poland, Romania, Slovenia and Sweden.

The paper analysed the conditions for the establishment of a driving school, the equipment of the technical base, the designation of the training vehicle, as well as the number of driving schools in individual countries on the basis of documents provided by foreign authorities in the field of driving schools. Furthermore, the requirements for obtaining instructor's license and the number of instructors were compared. The number of teaching hours for the theory and practical training of driving course participants, the registration of driving course participants, the driving license test, driving penalties for driving school infringements were also analysed, and the average prices of driving courses for driving schools were analysed individual driving license groups also in relation to average salaries as well as administrative test fees.

The analysis showed that due to the minimum age of the instructor, Romania has the strictest requirements (25 years) and the lowest required age is in the Netherlands (18 years). Unlike other countries, Slovakia does not have a set minimum age of instructor, but only a requirement of 3 years of experience (to be a holder of a given group of driving licenses). An analysis of the number of teaching hours of theory and practical training to obtain a driving license for each group showed that the lowest number of teaching hours of theoretical instruction for the most common driving license group B (passenger car) is in Finland (4 teaching hours) and the highest number is in Latvia (55 teaching hours). In practical training for the above group of driving licenses, they have the lowest number of teaching hours in Germany (12 teaching hours) and the highest in Romania (40 teaching hours). Of all the countries compared, the Slovak Republic has the most teaching hours for practical training in group C (truck - 44 teaching hours). Furthermore, the conditions for examinations of professional competence to obtain a driving license for driving a motor vehicle and the number of issued driving licenses per 100 000 inhabitants were compared, of which the most were issued in Lithuania and the least in the Czech Republic. The article also lists sanctions for possible violations in the activities of driving schools, the prices of exams and driving courses with the average monthly salaries of the country. In absolute terms, the lowest costs for a Group B driving course are in Romania and, conversely, the highest in Germany. In relation to the average salaries of the given countries for group B, the most expensive driving course is in the Netherlands and the cheapest in Lithuania. According to this criterion, the second most expensive driving course for Slovakia is the second most expensive driving license for group B driving license and the most expensive course for group C driving license. This is also due to the fact that in the Slovak Republic it is necessary to complete the most teaching hours of practical training. Finally, a comparison was made of the possible impact of driving school training (number of teaching hours of theoretical and practical teaching) on the accident rate of selected countries. The analysed data did not reveal a clear impact of the training system in driving schools in selected EU countries on the number of fatal accidents in those countries, nor was it possible to set clear criteria for the so-called ideal driving school system.

Defining the quality of training is complicated because even in the context of the analysis performed in this paper, quality is difficult to measure. However, its assumptions can be determined. One of them is the strict legislative requirements of the state for the establishment of driving schools and the conditions for their operation, as well as an effective control and sanction mechanism that eliminates widespread fraud in driving schools that affect road safety (misleading identification and fictitious reporting of attendance) and training of participants in driving courses, etc.) (Hudec, J., 2019, 2020). However, strict requirements for the instructors themselves (level of education and examinations) as a basic building block of the driving school are an important prerequisite for the quality of training in driving schools, because participants in driving courses learn most parents about road traffic rules from driving school instructors (Kalašová et al., 2020). Equally important is the effort of driving school operators to prepare quality drivers who will not cause increased accidents. Only after meeting these basic preconditions for the quality of driving schools can the driver's training itself be improved by changing curricula, correcting the number of teaching hours, teaching and training process, etc., which can have a positive effect on reducing fatal traffic accidents caused by driving school graduates. In any case, the number of fatalities is also affected by a number of other factors, and reducing them is a major challenge for EU governments.

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- Ministry of Infrastructure and Water Management (Netherlands),
- Ministry of Transport and Communications - Lietuvos Republics susisiekimo ministerija (Lithuania),
- Ministry of Transport Republic of Latvia (Latvia),
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