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EUROPEAN DRIVER LICENSING SYSTEM AND POSITION OF THE REPUBLIC OF CROATIA IN THIS SYSTEM

SAŽETAK

EUROPSKI SUSTAV OSPOSOBLJAVANJA OSOBA ZA VOZAČE VOZILA NA MOTORNI POGON I MJESTO REPUBLIKE HRVATSKE U TOM SUSTAVU

Analitički podaci o stanju sigurnosti cestovnog prometa u 1995. godini u Republici Hrvatskoj u odnosu na 1994. godinu pokazuju blago smanjenje broja poginulih i ozlijeđenih osoba u prometnim nezgodama, broja nezgoda s ozlijeđenim osobama te broja prometnih nezgoda uopće i pored toga što je zabilježeno povećanje potrošnje goriva te aktivnog uključivanja u promet značajnog dijela cestovne mreže u Republici Hrvatskoj.

Bez obzira na uzroke nastanka prometnih nezgoda, čimbenike koji uvjetuju njihov nastanak, vrste prometnih nezgoda, mjesto nastanka nezgode, strukturu vozila i njihovu tehničku ispravnost, uvjete u kojima su se nezgode dogodile, neosporno je da vozački staž, odnosno iskustvo (ili bolje rečeno neiskustvo) vozača značajno utječe na broj prometnih nezgoda. Od ukupno 62 120 prometnih nezgoda u 1994. godini 44,4% nezgoda kojima je uzrok greška vozača, izazivaju vozači s vozačkim stažom do tri godine, odnosno 42,9% svih nezgoda.

Ta je činjenica posve logična i poznata, ne samo u Republici Hrvatskoj već i u većini europskih zemalja. Metode i aktivnosti kojima se utječe na te brojke (njihovo smanjenje) razlikuju se.

1. INTRODUCTION

The process of driver licensing in driving schools precedes the examination and formal right of being issued a driver's license i.e. the right of operation of a motor vehicle in road traffic.

In the Republic of Croatia there exists no regulation stating as to how many kilometers a driver candidate has to cover in the course of instruction in order to become entitled to taking his driving examination. Several initial hours of instruction are spent with the candidate on the driving grounds, i.e. the appropriate area, while after his

acquisition of the basic skills in starting the vehicle, straight driving, shanging gears, driving forwards and backwards, etc., the driver candidate is taken to a public road. Hence, it is rather difficult to obtain the exact figures as to how many kilometers the driver candidate covers in the course of instruction. Some knowledge and estimates speak of the average of 200-300 km covered in the course of the prescribed 30 hours of instruction (as depending upon the traffic and other conditions of provision of instruction).

It is absolutely true that the coverage of 200-300 km in the course of a 30-hour instruction period (or less) is rather insufficient for the candidate to become a secure road user. Safe driving is based upon the acquired knowledge, level of acquired skills and habits and adopted positive attitudes on traffic, driver's characteristics, his experience and possibilities of anticipation and good estimate of all situations in traffic.

With such scarce hours of instruction and kilometers covered over the period, the candidate will perhaps acquire some of the skills needed for the operation of the vehicle in traffic and pass the examination, yet surely he will not get the required driving experience or at least not to the extent required. According to some foreign experiences, it takes 2,000-3,000 km for a driver to acquire fundamental independence in traffic, accommodate to traffic conditions and acquire self-confidence. This fact refers us to the consequential result that in the Republic of Croatia in 1994 drivers with one year experience in traffic account for 25% of errors committed in driving, while almost 40% of errors were made by drivers with one to three years of driving experience (driving experience here means the years of holding a driver's license).

Beyond any doubt, a driver candidate well-qualified in the driving school (expert instruction and a lot of practice), a candidate with adopted positive attitudes in traffic, the one showing in the driving examination his capability of independent and safe operation of a motor vehicle in traffic, is less exposed to the risk of road traf-

fic accidents; because, regardless of his insufficient driving experience in all driving conditions he shall for reasons of his behavior in traffic less often find himself in the position of committer of a road traffic accident.

For all this, in the Republic of Croatia a number of measures must be taken by all parties of influence upon the system of driver licencing (Department of Education and Sport, Police Department, Croatian Auto Club, driving schools, secondary schools of road traffic) in order to do everything in their power on reducing the absolute figures regarding the participation in road traffic accidents of young drivers and drivers with short driving experience.

The proposal of efficient measures in the system of driver licencing may be furnished upon the completion of a comparative analysis of the licencing system in some European countries and in the Republic of Croatia.

2. EUROPEAN DRIVER LICENSING SYSTEM

The system of driver licencing in European countries is not uniform. In order to as completely as possible understand the differences and similarities of individual systems, as well as the position of the Republic of Croatia in this, we shall try by using the European research results to analyze the manner of qualifying for a driver's license for vehicle category B in 29 European countries and in the Republic of Croatia.

In an effort to establish the comparative indices for individual countries, the following aspects shall be analyzed:

- the conditions and procedure to be completed for the issuance of a driver's license
- instruction of driver candidates in the course Traffic and Safety Regulations
- instruction of driver candidates in the course Operation of a Motor Vehicle
- training of driver candidates by non-professional instructors
- training of driving instructors and their qualifications structure
- supervision of the activity of driver licencing, and
- organization of driving examinations.

2.1. Conditions to be met for the issuance of a driver's license and issuance procedure

In all European countries subject to the comparison as well as in the Republic of Croatia, special conditions and prerequisites should be met in order for a person to qualify for a driver of category B motor vehicles. This principally refers to the candidate's age, health status and proof of no criminal record, while in some countries this also involves receiving instruction in the course First Aid to persons injured in a road accident.

In most European countries (for ex.: Austria, Belgium, Denmark, France, Germany, the Netherlands, Spain and Switzerland) the age margin for issuance of a driver's license is 18 years of age. In Great Britain, Iceland, Ireland, Poland and Hungary a driver's license can be issued to a person 17 years old.

The Republic of Croatia deals with this issue like most European countries - the license can be obtained with 18 years of age, while the instruction of a driver candidate can start three months before his reaching the licencing age. By exception, this rule does not apply to the full-time students of traffic schools trained for professional drivers of motor vehicles.

Of 29 countries 14 require submittal of proof of no criminal record for the issuance of a driver's license. In

Table 1. European countries covered in the analysis

COUNTRY	REGISTRATION PLATE
Austria	A
Belgium	B
Byelorussia	BY
Denmark	DK
Estonia	EST
Finland	FIN
France	F
Greece	GR
Croatia	HR
Ireland	IRL
Iceland	IS
Italy	I
Latvia	LV
Lithuania	LT
Luxembourg	L
Hungary	H
Moldavia	MOL
the Netherlands	NL
Germany	D
Norway	N
Poland	PL
Portugal	P
the Czech Republic	CZ
Romania	R
Russia	RUS
the Slovak Republic	SK
Spain	E
Sweden	S
Switzerland	CH
Great Britain	GB

other 15 countries as well as in the Republic of Croatia this certificate is not required.

Submittal of the proof of the health status as a prerequisite for the issuance of a driver's license is required in all European countries and in the Republic of Croatia, where the certificate of mental and physical capacity for the operation of motor vehicles dating maximum one year back is required. Detailed medical data is required in 19 countries. In some countries a medical check-up is required only in border cases.

Of interest is the example of Great Britain, where no obligatory medical examination of driver candidates is required; the candidates themselves apply to the Central State Board submitting the opinion of their family doctor (general physician), while the Board states the obligation of taking a medical check-up with authorized physicians only for a certain number of applicants. No obligatory medical examination is required in the countries of Central Europe, while the candidates themselves have to obtain the report on their medical status in 12 European countries. Vision and hearing tests are mainly obligatory.

2.2. Instruction of driver candidates in the course Traffic and Safety Regulations

There exists no uniform attitude in Europe that the instruction of driver candidates in the course Traffic and Safety Regulations (as called with us) should be obliga-

tory, although it is obligatory in most European countries. In France, Great Britain, Greece, Ireland, the Netherlands, Russia, Belgium, Italy and Iceland, no theoretical training is required, however in Belgium, France, Italy, Iceland and Switzerland the requirements of showing knowledge of traffic and safety regulations in driving examinations are of the nature making the candidates attend the classes although not obligatory.

In most European countries classes are held in private driving schools. In Belgium, Great Britain, Italy, Ireland, and Sweden classes are privately organized as a rule, while private instruction is available also in Estonia, Finland, France, Ireland, Iceland, Norway, Russia, Switzerland and the Czech Republic.

In most European countries, driver licensing is also provided in the Army (22 countries) i.e. in the Police (12 countries). In most countries of Eastern Europe and in Switzerland, the instruction for licensing purposes is completed in some schools and universities. State driving schools exist in Byelorussia, Estonia, Finland, Lithuania, Latvia, Moldavia, Romania, and Russia, while in Latvia one meets both state and private driving schools.

The minimum number of hours of theoretical training (1 hour = 60 minutes) is reported for Norway involving 6 hours, and 6.6 hours for Austria and Switzerland. In the countries of Eastern Europe this number of hours is rather high; 142-190 hrs in Byelorussia, 157 hrs in

Table 2. Minimum obligatory number of hours of theoretical instruction

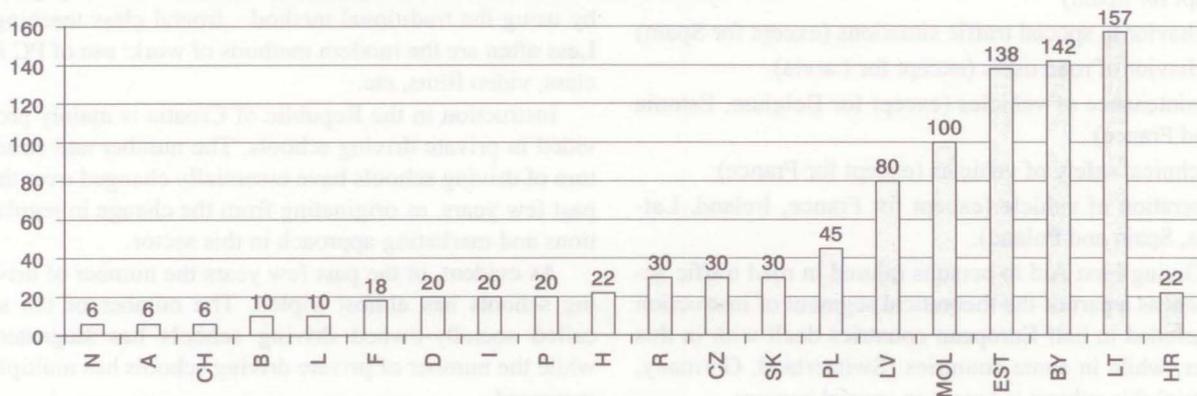
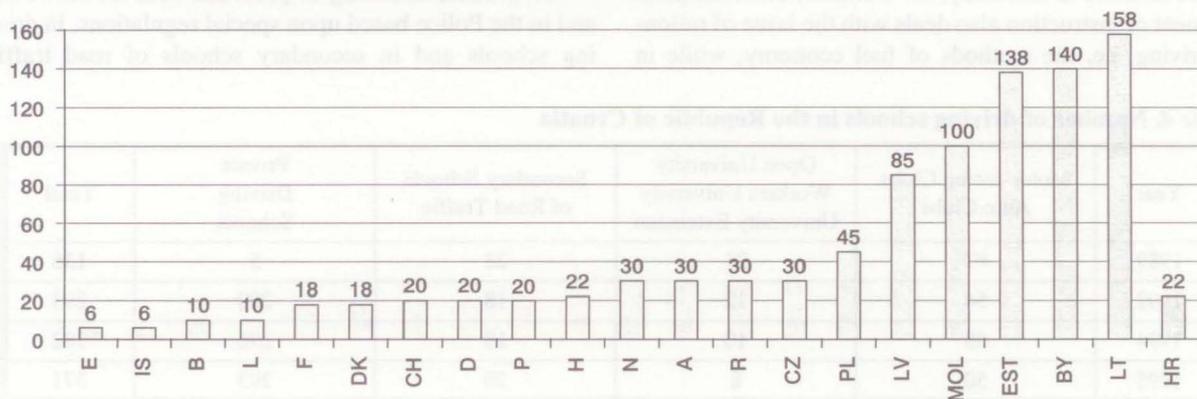


Table 3. The actual number of hours of theoretical instruction



Lithuania, 138 hrs in Estonia. Otherwise, the number of hours of theoretical instruction in all countries involved in the comparison mostly ranges between 12 and 45 hrs (1 hour = 60 minutes).

Regarding the theoretical segment of instruction, the minimum number of obligatory hours and actually performed hours of instruction is identical in most European countries, except for Austria, Switzerland and Norway, where the number of the actually performed hours is largely higher than the prescribed minimum.

Regarding the contents of the theoretical segment of instruction, in some countries as for instance in Great Britain, Greece, Ireland, and the Netherlands, the matter is not prescribed, while the data on other countries indicates several areas being studied as part of the theoretical segment of instruction. Traffic rules and Regulations make part of the theoretical segment of instruction in all European countries and refer to the basis of theoretical instruction (except for Latvia and Russia).

Of interest, in Portugal the Insurance Act is dealt with as an additional part of the theoretical segment of instruction. The Insurance Act is also obligatory for studying in half European countries included in this analysis.

Otherwise, in most European countries the following issues are dealt with within the scope of theoretical segment of instruction:

- knowledge of motor vehicles (except for Latvia)
- identification of hazardous situations in traffic (except for Spain)
- behavior in special traffic situations (except for Spain)
- behavior of road users (except for Latvia)
- maintenance of vehicles (except for Belgium, Estonia and France)
- technical safety of vehicles (except for France)
- operation of vehicle (except for France, Ireland, Latvia, Spain and Poland).

Giving First Aid to persons injured in road traffic accidents as a part of the theoretical segment of instruction is included in half European countries dealt with in this paper, while in some countries (Switzerland, Germany, Austria) this subject is taught in special courses.

Of interest, in Germany, for instance, the theoretical segment of instruction also deals with the issue of rational driving, i.e. the methods of fuel economy, while in

Denmark the theoretical segment also includes traffic psychology, risk factors related to the characteristics of vehicles, traffic as a community issue and maneuvers of different vehicles in traffic.

Theoretical instruction is mainly provided in a traditional manner - frontal class teaching (except for Switzerland, Great Britain and Ireland). Modern teaching methods are rare, however present.

Discussion classes are common in 18 countries (except for Belgium, Denmark, Great Britain, Greece, Ireland, Italy, Latvia, the Netherlands, Norway, Portugal and Spain); in some countries training is provided in smaller groups (group work), while in Hungary and Germany the teaching method of allocation of roles is applied.

Instruction in all countries is mainly geared to the examination tests ('target instruction').

2.2.1. Theoretical segment of instruction in the Republic of Croatia (instruction in the course Traffic and Safety Regulations)

In the Republic of Croatia the theoretical segment of instruction i.e. instruction in the course Traffic and Safety Regulations is obligatory and includes 30 45-minute teaching periods i.e. 22.5 hours (if translated into the European standard of 1 hour = 60 minutes), in the process of driver licensing for category B motor vehicles, meaning that the Republic of Croatia is somewhere in the bottom segment of the European average.

Classes in the Republic of Croatia are mostly given by using the traditional method - frontal class teaching. Less often are the modern methods of work: use of PC in class, video films, etc.

Instruction in the Republic of Croatia is mainly provided in private driving schools. The number and structure of driving schools have essentially changed over the past few years, as originating from the change in regulations and marketing approach in this sector.

As evident, in the past few years the number of driving schools has almost tripled. The number of the so called socially-owned driving schools has stagnated, while the number of private driving schools has multiply increased.

In Croatia, licensing is provided both in the Army and in the Police based upon special regulations, in driving schools and in secondary schools of road traffic

Table 4. Number of driving schools in the Republic of Croatia

Year	Motor-racing Clubs Auto Clubs	Open University Workers University University Extension	Secondary Schools of Road Traffic	Private Driving Schools	Total
1989	87	21	23	5	136
1992	54	12	18	209	293
1994	58	10	18	296	382
1995	50	8	20	293	371

within the scope of training of professional drivers of motor vehicles.

The actually performed hours of theoretical instruction in the Republic of Croatia should be identical with the prescribed number of hours of instruction, however in some schools classes are not held in conformance with the prescribed Licensing Plan and Program of instruction.

In conformance with regulations, the theoretical segment of instruction can be provided by driving instructors and persons with college and university qualifications in legal, traffic engineering and teaching profession.

The matter covered in the theoretical segment of instruction of driver candidates for category B motor vehicles in the Republic of Croatia refers to:

- basic regulations of traffic safety
- traffic signs and other signalling in road traffic
- traffic rules
- factors affecting safe vehicle operation
- responsibilities in case of a road traffic accident, and
- basic parts, devices and equipment of a motor vehicle from the aspect of traffic safety.

In the Republic of Croatia the course First Aid given to persons injured in road traffic accidents makes an obligatory subject of the theoretical part of training for a license lasting 10 teaching hours i.e. 7.5 60-minute periods.

2.3. Practical training - Driving lessons (instruction in the course Operation of a Motor Vehicle)

In Europe there exists no uniform approach regarding the obligatory nature of practical training, i.e. driving lessons. The attitude of individual countries towards practical training is similar to that adopted for the theoretical part of instruction. However, it could be stated that there exists obligatory practical training for a license in most European countries dealt with in this paper.

The minimum number of driving lessons (for category B) is lesser than the minimum number of hours of the

theoretical part of instruction for licensing purposes. It ranges between 6 and 30 hours.

Driving lessons in all European countries include basic driver's tasks as for instance, vehicle starting, gear changing, driving backwards, working inclines, parking, turning, etc.

Driving while taking account of traffic rules (rule of precedence, correct direction) also makes part of driving lessons in almost all European countries as well as the obligation of adjusted driving in populated areas and differing levels of busy traffic.

Using highways, night-time and out-of-town driving regarded as special driving lessons in Germany, make part of regular training in most European countries: using highways in 19 countries, night-time driving in 23 countries and out-of-town driving in 26 countries. More hazardous vehicle maneuvers as for instance, abrupt braking and driving on a slippery roadway are being taught in less than half countries.

Only the countries of Eastern Europe (Byelorussia, Hungary, Lithuania, Moldavia, Romania) and Denmark have prescribed the minimum number of kilometers to be travelled by the candidate.

As for the methods of practical training in most European countries there exists the possibility of having the initial driving lessons on the driving grounds, followed by driving lessons in actual traffic as exercised by all European countries.

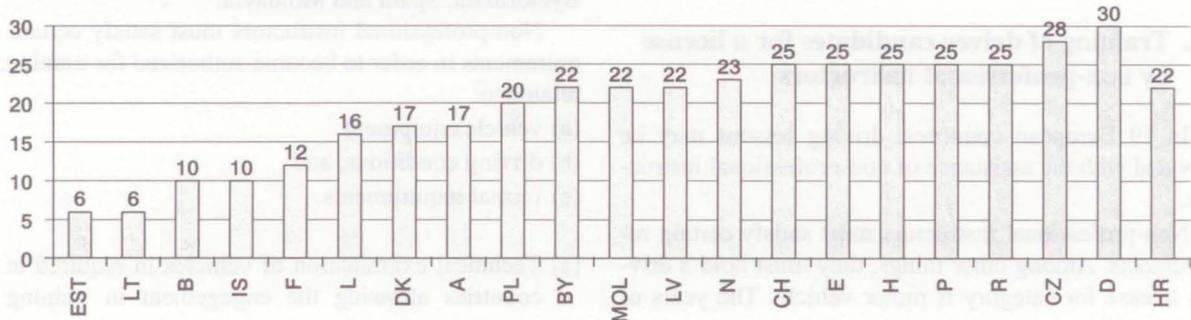
The examination route is as a rule determined (except for Belgium, Germany, Denmark, Great Britain, Greece, Portugal and Switzerland).

The method of conversation in driving, when the candidates communicate their impressions, experience and feelings at the time of driving, is practiced in 16 countries. The method of demonstration is exercised by instructors in driving in 9 countries (Lithuania, Norway, Moldavia, Romania, Switzerland, Hungary, Germany, Finland and Byelorussia).

Instruction in the course Operation of a Motor Vehicle is performed in all European countries in vehicles fitted with duplicate controls.

Driving simulators are used in Byelorussia, the Czech Republic, Ireland, Lithuania, Latvia, Romania, Russia and the Slovak Republic.

Table 5. Minimum number of hours of driving lessons



2.3.1. Driving lessons in the Republic of Croatia (instruction in the course Operation of a Motor Vehicle)

In the Republic of Croatia, driving lessons are obligatory for the period of 30 teaching hours i.e. 22.5 60-minute periods, being nominal in the upper half of the obligatory driving hours of the European average.

It is difficult to establish the actual number of driving lessons in the Republic of Croatia, for although a certain number of candidates spend more than 30 hours driving prior to taking their driving examination, a certain number of younger, skilled and to a degree already experienced candidates take less than 30 hours of driving lessons, while their driving card or record is neatly filled out; such deviations are difficult to expose.

Driving lessons in the Republic of Croatia include basic driver's tasks/operations as in other European countries.

Using highways, night-time and out-of-town driving are not common lessons in the Republic of Croatia contrary to what is practiced in most European countries - this is more the matter of affinity of individual driving instructors than the stated program and teaching obligation.

In the Republic of Croatia the driving grounds are rather rare - most driving schools have the so called adequate area, mostly used for the initial driving lessons. We have available a few simulators yet they are outdated, providing shadow and not film projections. We do not have available driving grounds for practicing hazardous maneuvers (braking, driving on a slippery roadway and the like).

In Croatia, no minimum number of kilometers the candidate has to travel driving is prescribed, while according to some approximations, in the course of licensing for category B vehicles a relatively small number of kilometers is covered in one teaching hour on the average, i.e. up to 300 kilometers in 30 teaching periods, depending upon where the lesson is given and upon traffic conditions.

Regarding the teaching methods of driving lessons, they are on the level with the European methods applied. In the process of training of driver candidates for category B, C and D motor vehicles, exclusive use is made of vehicles with duplicate controls.

2.4. Training of driver candidates for a license by non-professional instructors

In 19 European countries, driving lessons may be provided with the assistance of non-professional instructors.

Non-professional instructors must satisfy certain requirements. Among other things, they must hold a driver's license for category B motor vehicle. The years of

Table 7. Review of European countries regarding the possibility of engagement of professional and non-professional instructors

allowed	A, B, BY, CH, CZ, E, EST, F, GB, I, IRL, IS, LT, LV, MOL, N, RUS, S, FIN
not allowed	D, DK, GR, H, L, NL, P, PL, R, SK, HR

holding a driver's license for non-professional instructors is differently regulated in different countries.

In most countries, a non-professional instructor must possess his driver's license over the preceding period of three years. In Spain, Iceland and Sweden, this involves a period of 5 years, in Belgium of 6 years, in Austria of minimum 7 years, and in Italy of 10 years. The mandatory minimum years of age of non-professional instructors also vary: in Great Britain, Estonia, Finland, Italy, Lithuania, Latvia, Moldavia and Norway the minimum age is 21 years, in Belgium, Iceland and Switzerland 25 years, in the Czech Republic 25 years, and in Italy 28 years. No mandatory age of non-professional instructors is determined in Austria, Byelorussia, Spain, France, Ireland and Russia. Certain personality characteristics are also required for non-professional instructors in Belgium, Iceland, France, Austria, Sweden, Spain and the Czech Republic; non-professional instructors should have no previous criminal record or the record of any graver traffic offense.

In addition, non-professional instructors in Italy, Spain and Finland must be related to the candidate.

The candidates must satisfy certain conditions if they want to be trained by non-professional instructors. The minimum age is between 15.5 years (in Estonia) and 18 years, 16 years in Latvia, Lithuania, Moldavia, Russia and Sweden; 16.5 years in Ireland, Norway and Austria; 17.5 years in Spain, the Czech Republic, Italy and Byelorussia.

Additional conditions for candidates training by non-professional instructors are requested only in some states. In Austria and Norway this refers to 8 hours of theory (20 in Italy) and 8-11 hours of driving lessons. In Belgium they have different types of driving lessons. Depending upon the type of a driving lesson, some 10-20 hours of driving are required. If driving lessons are provided by non-professional instructors the candidates must pass special 'intermediate' tests in Belgium, Byelorussia, Spain and Moldavia.

Non-professional instructors must satisfy certain requirements in order to become authorized for training, as related to:

- (a) vehicle equipment
- (b) driving conditions, and
- (c) formal requirements.

- (a) Technical examination of vehicles is required in all countries allowing the engagement in training of

non-professional instructors (except for Estonia, France, Moldavia, Norway). Easy access to the hand brake is often the prescribed condition in a number of countries.

Duplicate mirrors (rear-view mirrors) are required in Belgium, Byelorussia, Spain, Moldavia, Norway, Russia and Finland. In Spain and Finland, training provided by non-professional instructors is allowed only in vehicles fitted with duplicate controls.

- (b) In most countries absolute prohibition of consumption of alcoholic beverages applies to all candidates. In most countries the candidates are not permitted to operate the vehicle on certain traffic routes and abroad.

Speed limits are less common. If determined, they usually refer to 70-90 km/h (70 km/h in Estonia and Lithuania, 90 km/h in France, 40-80 km/h in Spain). In the period of being trained by non-professional instructors the candidates are not permitted to undertake longer journeys (as in Belgium, for instance).

- (c) There exist some formal requirements to be satisfied by non-professional instructors. Only four countries require carrying a special permit (Austria, Estonia, Iceland, Finland) or an additional insurance policy (France, Ireland, Iceland, Spain). Keeping a driving log is required only in France.

In the Republic of Croatia we report no accepted practice of driver candidate training by the so called non-professional driving instructors.

3. ORGANIZATION AND COMPLETION OF DRIVING EXAMINATIONS

Driving examinations are common in all European countries, mainly involving the theoretical and practical segment. In the countries of the European Union and in countries with no previous accepted practice, the obligatory theoretical and practical examinations have been effective since 1 July 1996.

However, specific differences are reported in this area from country to country. For instance, in Germany the tests include the questions related to fuel economy and ecology making integral part of the examination; in Great Britain, the theoretical and practical exam segments are combined in the driving examination, while in Latvia the theoretical part is not prescribed.

Examinations are usually held by state examination boards; in Belgium, Germany, Ireland, Estonia, the Netherlands, and Poland examinations are held by professional organizations authorized by the state, while in Portugal both ways of examination are reported.

Persons authorized to hold examinations in European countries are mainly officials or officially listed specialists. In Belgium, Byelorussia, the Czech Republic, Den-

mark, Iceland, Lithuania, Moldavia, Romania, Russia, and the Slovak Republic, police officers can also give the licensing tests.

Driving instructors may hold examinations only in Byelorussia and Iceland. Of interest, in Iceland and Sweden teachers, pedagogues and psychologists are solely authorized in special cases to pass decision on whether somebody is qualified for operating a motor vehicle.

In all European countries, the authorized examiners must satisfy certain conditions and in most countries this means they have to pass special courses in order to get qualified for the job.

Regarding the duration of the theoretical and practical part of a driving examination, in European countries this takes between ten minutes and one hour. The shortest theoretical segment of examination carried by means of a test is reported for Ireland, taking 10 minutes. In Byelorussia, Lithuania, Latvia, Moldavia, and Russia, these examinations are only a little longer and last 15 minutes, while in 18 European countries they last 30 minutes or less.

Longer theoretical segments of examination (tests) lasting 43 minutes to one hour are required in Switzerland, France, Hungary, Iceland, Norway, the Netherlands, Sweden and Finland.

Practical driving examinations last in Europe between 15 minutes and one hour. In almost 1/3 of the European countries dealt with in this paper the practical part of driving examinations takes between 45 minutes and one hour (Switzerland, Denmark, Germany, Hungary, Iceland, Norway, the Netherlands and Poland). Relatively short practical examinations of 15-22 minutes are reported in Austria, France, Spain, the Czech Republic, Estonia, Latvia, Lithuania, Moldavia and Russia.

Regarding the level of being difficult of the examination tests in individual European countries, if we consider the extent, i.e. the number of questions in the test (theoretical part of examination), considerable differences are noted, making it hard to decide on their true level of being difficult. In the Netherlands they have a particularly large number of questions (70). For the appraisal of the level of being difficult of an individual test, of importance is the number of allowed incorrect answers. In Sweden, the examinees may fail 25% of questions and pass the examination, while in Greece the requirements are higher and the candidates are not allowed more than 4% of wrong answers. In Germany the tests are also rather requiring, with 8% of (allowed) incorrect answers, and similar is the situation in Byelorussia, Lithuania, Latvia, the Netherlands, and Russia, where 10% of mistakes are allowed.

In most European countries the candidates have better results in the theoretical part of the examination than in the practical part (except for Italy, Iceland, Belgium, the Czech Republic, Portugal and Sweden). The average percentage rate of failures in the theoretical part of ex-

amination (at first try) is 33.5%, and about 37.5% in the practical part of examination. The percentage of failures in the theoretical part is particularly high in the countries of Eastern Europe, 80% in Estonia, 60% in Poland, and 56% in Hungary, however in Luxembourg, the Netherlands, and Spain the percentage of failures in the theoretical part exceeds 50%. In Finland, Latvia, Moldavia, Russia, the Slovak Republic, Switzerland and Norway less than 20% of candidates fail the theoretical part of examination. In the practical part of examination a high percentage of failures is reported in Estonia (80%), and between 69 and 83% in Hungary. Also, highly above the average are the failure rates in practical examination in Belgium (63%), Poland (52%), and Luxembourg (48%). Countries reporting low failure rates in the practical part of driving examinations are Norway and Iceland, with less than 20% of failed candidates at first attempt.

3.1. Driving examinations in the Republic of Croatia

Since 1992 in the Republic of Croatia driving examinations have been held by the Croatian Auto Club, a competent organization authorized by the state. The theoretical and practical parts are separated.

The theoretical part of examination is carried out by way of tests including 30 different point-assigning questions, lasting 60 minutes, while the passing grade of 90 points should be reached. The practical part of examination lasts nominally 30 minutes, yet actually takes 12-15 minutes.

The examinations in theory and practice, are held by authorized persons from the Croatian Auto Club.

The average rate of passing the theoretical and practical segment of examination in the Republic of Croatia over the past few years is given in a separate table.

Table 7. Average rate of passing driving examinations in the Republic of Croatia at first attempt

Year	REPUBLIC OF CROATIA	
	Theoretical part	Practical part
1992	51%	63%
1993	43%	59%
1994	43%	58%
1995	44%	55%

4. BEGINNER DRIVERS

Beginner drivers, i.e. young drivers (18-25 years of age) belong to a more sensitive category of drivers, because if viewed in percentage relations they account for a higher number of road traffic accidents than other driv-

er categories. Different European countries treat this group in different ways.

There exist no special conditions for beginner drivers after their examination in 13 European countries (Belgium, Switzerland, the Czech Republic, Denmark, France, Great Britain, Greece, Hungary, Ireland, Italy, the Netherlands, Poland and Finland).

In 10 states the beginner drivers must over the 12-24 month period abide to the requirement of speed limitation. Eight countries require visible identification of a beginner driver by way of vehicle markings.

Absolute prohibition of consumption of alcoholic beverages for beginner drivers is introduced in a few European countries. The trial driving period is set as a requirement for beginners in Germany, Iceland, Norway, Portugal and Sweden.

In some European countries sometimes they have additional requirements for beginners effective over the initial 24 month period, as for instance:

- forbidden operation of trailers in Latvia
- keeping a driving log in Luxembourg, and
- forbidden operation of a motor vehicle on international roads in Romania.

In the case of a traffic offense Austria and Germany have anticipated the program of additional subsequent training.

In the Republic of Croatia no special conditions for beginner drivers have been anticipated. Drivers committing a certain number of offences within a given period can in the Republic of Croatia be required to attend the lectures on the consequences of traffic accidents, i.e. be called for a check up of traffic rules.

5. TRAINING OF DRIVING INSTRUCTORS AND THEIR QUALIFICATIONS STRUCTURE

The quality of driver training for licensing purposes depends upon the instructor. This notorious fact is taken account of in almost all European countries, by setting up special requirements for driving instructors (except in Ireland). Standard conditions refer to age, education, professional training or minimum driving experience. Special training for instructors is required in most European countries. However, the answer to the question on "How the driving instructors acquire their skills" clearly shows that except for Greece where the required knowledge is acquired through individually geared education, this often involves special training courses. The duration of this training involves a period of less than a month in Byelorussia, France, Hungary, Latvia, Moldavia, Portugal and Poland, of up to 10 months and more in Denmark, Norway, Sweden and Finland. In Great Britain and Estonia the duration of this training is not determined.

In the Republic of Croatia the programs of professional training for the acquisition of professional qualifications of driving instructors lasting 8-10 months are organized in secondary schools of road traffic. The sector of driver licensing mainly employs two types of instructors: those having the former Level V. professional qualifications and the older members qualified for instructors per requirements of former regulations, having longer years of service and driving experience.

6. SUPERVISION OR INSPECTION OF THE ACTIVITY OF DRIVER LICENSING

Most European countries have a control system for the activity of driver licensing. This system does not exist in Denmark, Greece, Ireland and the Netherlands.

Most European countries having this system also have available different aspects of control. Most countries supervise the theoretical classes (except for Great Britain, Portugal and Spain). Practical training is also being controlled in all European countries dealt with in this paper, except for Italy, Portugal and Spain, while in some countries they even have the categorization list of driving instructors as a result of this control.

The working conditions of driving schools, their equipment, vehicle pool and lecture room status are regularly checked in most European countries (except for Denmark and Great Britain).

In the Republic of Croatia, the professional control of the activities of driver licensing is assigned to a professional organization - the Croatian Auto Club, while the Department of Education and Sport has the executive control.

The Croatian Auto Club is also responsible for the professional specialization of the members of personnel of driving schools and authorized examiners as well as for their professional qualifications.

The work of driving instructors and examiners is subject to control and testing (in different ways) in other European countries as well.

7. PROPOSAL OF MEASURES IN THE SYSTEM OF DRIVER LICENSING

Based upon the analysis of the system, work experience, immediate control of the work of driving schools, comparative review of the system of training for a license in different European countries and follow-up of the results of driving examinations in the Republic of Croatia, it is our opinion that significant improvements of the system of driver licensing have become possible. Hence, the system should be committed to certain changes.

7.1. Proposal of the necessary measures to be taken for the validation of driver's licence issued by the Republic of Croatia in Europe, i.e. necessary for incorporation in the Basic Measures of the Road Traffic Safety Act

1. Coordinate the categorization of vehicles in the Republic of Croatia with the guidelines of the EEC regulations (91/439/EEC) effective in the European Union since 1996.
2. Incorporate in Article 206 of the Road Traffic Safety Act (Program of Driver Licensing) the issues being at the same time the issues of the program of driver licensing exercised in European countries.
3. Rescind Article 323 of the Road Traffic Safety Act.

7.2. Proposal of measures to be incorporated into the sublegal documents of driving schools

1. Revise, modernize and precisely outline for each category and type of a motor vehicle the plans and programs of driver licensing.
2. Elaborate the program of instruction in driving schools and secondary schools of road traffic according to the importance of issues with respect to the statistical data on road traffic accidents. (More lessons should be dedicated to speed in traffic, speed limits and adjustments, driving technique at higher speeds, intoxicated driving, urban driving, driving in intersections, behavior in conformance with traffic lights, issues of ecology and environmental protection, rational operation, fuel economy, etc.)
3. Incorporate in Licensing Plans and Program the issues concerning driving techniques. (Amateur drivers have no knowledge of the driving technique and effects of forces upon a vehicle in motion. This matter is studied only in programs of professional specialization of driving instructors.) Incorporate in Driver Licensing Plans and Programs for category B motor vehicles the issues concerning the fundamentals of transport of hazardous matter and of transport of small quantities of hazardous matter.
4. Tighten the conditions for the opening of new driving schools. (Obtaining the opinion of the Association of Driving Schools, requesting college or university qualifications for the managers of driving schools, requiring that instruction in the course Traffic and Safety Regulations for driver licensing purposes be provided only by a person with college or university qualifications in traffic engineering, legal or teaching profession; reviewing the work of driving schools with respect to the location of driving grounds, age of motor pool used for licensing purposes.)

5. Encourage driving schools to introduce and utilize modern teaching aids and equipment in the process of driver licensing.
6. A driving lesson (a teaching period) in the course of instruction in the operation of a motor vehicle must last 60 minutes, including control and filling out of teaching records, introductory part of a lesson, conclusion part of a lesson, while the actual instruction must take minimum 45 minutes. (Thus, the duration of a lesson would be equal to the usual extent of the teaching period or hour in most European countries.)
7. Revise, modernize and supplement the Driver Licensing Plans and Programs of instruction to include the issues of intense braking, defensive driving, using highways (taking account of concrete traffic conditions) and night-time driving.
8. Modernize the records and documentation regarding driver candidate training in driving schools (by introduction of the applied method memo for use by driving instructors; of the booklet record for the candidate to be able by aid of his driving instructor to follow his own progress in instruction; and of the follow-up entry of the kilometers travelled during instruction in the candidate's personal card or driving record.)
9. Introduce instruction for groups of 2-3 candidates (commenting upon their driving) and cancel the block-period if more candidates participate in the lesson.
10. Change the regulations dealing with the instruction of candidates for a license for motorized bicycles and motorcycles, and obligatorily introduce the use of radio communication between the candidates and their instructor during instruction. Driving lessons and taking of driving examinations should be identical to licensing for category A vehicles.
11. Introduce a minimum number of instruction periods or hours for a single vehicle category with the driving instructor determining and confirming by his signature that the candidate is ready and prepared for taking his driving examination, i.e. that he has completed all the matter prescribed by the Program of Instruction.
12. Enable that together with the legal entities (driving schools) in driver training for licensing purposes physical entities also take part in instruction in the course Operation of a Motor Vehicle under certain conditions.
13. Establish the required minimum of the number of professional and other members of personnel in driving schools (legal entities).
14. Enable the registration of driver candidates in to the licensing process or program 15 months prior to the required licensing age for a certain category (this includes taking the driving examination after the completion of the training process of approximately three months in a driving school, issuance of a temporary license by the Croatian Auto Club, driving lessons with non-professional instructors, and issuance of a driver's license based upon the requirements prescribed by regulations.
15. Enable the engagement of non-professional instructors under conditions common in Europe.
16. A driver candidate should enclose at the time of registration in the driving school the proof of no criminal record for certain types of penal offences.
17. Introduce the possibility of driving schools to refer a driver candidate in the course of his training for a license to a repeated medical examination.
18. The process of licensing may take maximum two years, i.e. the candidate has to pass his driving examination within two years from the date of registration in the driving school.
19. The examination in the course First Aid given to persons injured in road traffic accidents should be the requirement for taking the examination in the course Operation of a Motor Vehicle.
20. Although the driving school (legal entity) does not execute all training programs, it should engage at least one driving instructor trained and qualified in all instructor categories. (This instructor could be the expert head of the driving school, as recommended by the Swedish experimental group.)
21. The expert head of the driving school should have a special recommendation of the Association of Driving Schools prior to his appointment in the driving school.
22. Those driving schools continually reporting poor results of operation and substantially different results from the examination passing average in the activity of training for licensing purposes and execution of driving examinations should be subject to a special analysis of operations and supervision and if required their further work should be discontinued.
23. Professional personnel in a driving school continually reporting poor work results and essentially different results from the examination passing average in the activity of training for licensing purposes and execution of driving examinations should be subject to a special checking of their professional qualifications and if required their engagement should be discontinued.
24. The approval for the teaching materials used in driver licensing should be provided solely by the Department of Education through a team of specially assigned experts.
25. Introduce the category of pre-examinations being already employed in some European countries, yielding most satisfactory results and knowledge testing results.

7.3. Proposal of measures to be incorporated into the general documents of the Croatian Auto Club, and professional organizations from Article 208 of the Road Traffic Safety Act

1. Include in the examination in the course Operation of a Motor Vehicle a momentary test of one aspect of the psychophysical capacity (eye test) prior to the start of the examination, as practiced in some European countries.
2. Introduce different fees for driving examinations for individual vehicle categories.
3. Change the existing examination driving list. It would further be necessary to give this list to the candidate at the beginning of his training for licensing purposes for him to be able to see from this examination list what the driving instructor must teach him in the course of training in order to be successful in his examination.
4. The driver candidate may take his driving examination when granted the approval signature by his driving instructor.
5. Prolong the duration of the driving examination (depending upon the respective vehicle category) and prescribe the number of kilometers to be travelled at the time of examination and tighten the criteria of driving examination.

7.4. Other measures

1. Prepare the analysis of the existing tests and elaborate the new more appropriate tests, the tests with a multiple choice of answers involving several correct answers. Elaborate the test for each category or type of vehicles separately and supplement the tests with the issues of traffic culture, vehicle maintenance, ecology/environmental protection, rational operation, fuel economy and issues of general traffic safety.
2. Highten the criteria for test marking. For instance, if the candidate fails the driving examination for reasons of his disregard of the rule of precedence at the intersection the same principle could apply in the process of completion of the test(s) - meaning, the candidate must not provide an incorrect answer to the question asking about the precedence of way.
3. Request of the competent educational bodies to define the Plan and Program of Instruction for the secondary schools of road traffic for the professional specialization of the members of personnel immediately affecting the level of road traffic safety (driving instructor, supervisor at the technical inspection of vehicles, driver in international passenger transport), in the same manner as Article 206 of the law defines

the fundamentals of the program of driver licensing in driving schools.

4. Enable the acceptance in the profession of other persons having 4-year secondary school qualifications, as for instance high school educational background.

8. CONCLUSION

It is certain that the European models of driver licensing should not be literally copied, yet it is indisputable that in the Republic of Croatia in this segment we shall have to adopt those standards representing the minimum of the international standards if we wish to achieve the aspired-to objective: verification of the Croatian Driver's License in the countries of the European Union. For the time being, the international organisations CIECA, IVV and EFA request only in the form of recommendations uniform requirements for driver licensing.

By acceptance of the proposed measures Croatia would certainly catch pace with other European countries in formal and legal terms and in an indirect manner advance the licensing quality of the individuals who upon the completion of the licensing process join the drivers' club and become by their behavior in traffic the subjects of road traffic safety.

SUMMARY

The analytical data on the status of road traffic safety in the Republic of Croatia in 1995 as compared to the year 1994 indicates a slight decrease in the number of injuries and fatal injuries sustained in road traffic accidents, in the incidence of accidents with injuries and incidence of accidents in general, despite the reported increase in motor fuel sales and active integration of a substantial segment of the road system in the Republic of Croatia.

Regardless of the causes of road traffic accidents, relevant factors of influence, types of road traffic accidents, locations, vehicle structure and technical functioning status, and circumstances of accidents, it is indisputable that the years of service i.e. experience (or better, non-experience) of drivers appear to be of major impact upon the number of accidents. Of 62,120 road traffic accidents in 1994, 44.4% of accidents resulting from driver error were caused by drivers having up to three years of driving experience, making 42.9% of all accidents.

This fact is both logical and notorious, applying not only to the Republic of Croatia but to most European countries. The methods and activities taken to change these figures (effect their decrease) differ.

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2. CONCLUSION

It is certain that the European model of driver licensing should not be blindly copied, yet it is indisputable that in the Republic of Croatia in the region we still have to adjust these standards representing the best of the international standards. It was wish to achieve the agreed-to objectives, revision of the Croatian driver's license in the context of the European Union for the time being, the international system from CIECA IVV and BPA report only in the form of recommendations without requirements for driver licensing.

By acceptance of the proposed measures Croatia would certainly catch pace with other European states in formal and legal terms and in an indirect manner increase the quantity of the individuals who upon the completion of the licensing process pass the drivers' tests and become by their behavior in traffic the support of road traffic safety.

SUMMARY

The objective of this paper is to analyze the position of Croatia in EEC in comparison to the year 1994. It is shown that in the number of applicants and drivers a significant increase is noted. In the number of accidents and deaths a significant decrease is noted. It is concluded that the proposed measures in driver licensing will lead to a significant reduction of the road deaths in the Republic of Croatia.

Keywords of the paper: road traffic accidents, revision of driver's license, road traffic accidents, formal and legal terms, international standards, European Union, CIECA IVV and BPA report, driver licensing, road deaths, road traffic safety.

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7.4. Other measures

- 1. Prepare the analysis of the existing tests and check the new tests regarding their the way with a multiple choice of answers involving several correct answers. Evaluate the test for each category of type of vehicle separately and separate the test with the least of traffic control, vehicle maintenance, ecological/environmental protection, national spots, road economy and issues of general traffic rules.
- 2. Highlight the criteria for test marking. The number of the candidate fails the driving examination for the sake of his danger to the safe of pedestrians at the intersection the same principle could apply in the process of completion of the work - marking the candidate pass and provide an incorrect answer to the question asked about the procedure of work.
- 3. Report of the competent educational bodies to the law for the law and program of instruction for the ordinary schools of road traffic for the professional specialization of the number of personnel issued only affecting the level of road traffic safety training network, especially at the technical education of vehicle driver in international passenger transport, in the same manner as Article 108 of the law defines