



European Commission  
Competitive and Sustainable Growth Programme  
Directorate General for Energy and Transport



System for driver Training and Assessment using  
Interactive Evaluation tools and Reliable methodologies

## Survey of existing training methodologies and driving instructors' needs



**GRD1-1999-10024**  
*Deliverable No 1.2*

Issued by: Commission Internationale des Examens de Conduite (CIECA)  
Europäische Fahrlehrer Assoziation (EFA), Aristotle University of Thessaloniki (AUTH)  
Submission date: January 2001  
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Competitive And Sustainable Growth (GROWTH) Programme**

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## List of abbreviations

ADAS	Advanced Driver Assistance Systems (In-Vehicle Telematic Aids)
AIT-FIA	Alliance Internationale de Tourisme-Fédération Internationale de l'Automobile
CIECA	Commission Internationale des Examens de Conduite Automobile
DG TREN	Directorate General for Energy and Transport of the European Commission
EFA	Europäische Fahrlehrer Assoziation
EU	European Union
EC	European Commission
TRAINER	System for driver Training and Assessment using Interactive Evaluation tools and Reliable methodologies

## Preamble

Where in this report is referred to 'he' and 'him', 'she' and 'her' is meant as well.

# Summary

This survey, forming the second deliverable of the TRAINER-Project, being part of the fifth framework programme on competitive and sustainable growth of the European Commission, describes the current driver training systems in a number of countries, including the members of the European Union and some related countries, like for instance most Central European countries, Northern African states and Israel, as well as the wishes of both driver trainers and driving examiners concerning training programs for novice drivers. The survey has been carried out by the International Committee for Driver Testing Authorities (CIECA), and by the European Driving Schools Association (EFA).

The project TRAINER aims at analysing current and developing new methods for driver training, with the use of multimedia and simulator tools. This survey should serve as a basis for the development of multimedia training tools for the theory training and of driving simulator scenarios for the practical training. From the wishes of the driving instructors and the driving examiners, and from an analysis of gaps in the driver training resulting from these wishes, new forms and contents of driver training should be derived and highlighted.

The survey is split into three parts:

The first part describes the current status quo in legislative respect concerning driver training and driver licensing systems in the above-mentioned countries.

Chapter one of part one deals with driver training models as they are in use in a number of countries. The chapter ends with an overview of all existing models and tries to categorize the countries following these models.

Also, it has been tried, using graphics and tables, to present the current contents of driver training in the different countries. These graphics are included as chapter two.

Chapter three of part one describes driver-licensing systems in the above-mentioned countries. In some countries, after having passed the theory and practical driving exams, the driving licence is issued without further restrictions. In other countries there are special requirements for novice drivers, so called post-licensing measures. In some of the countries, where post-licensing measures have been introduced, important parts of these measures concern ongoing training. This is the reason why this chapter is added to the survey. As chapter one, also chapter three ends with an overview of all existing models and tries to categorize the countries following these models.

The second part describes the wishes of driving instructors in respect to new training methods and contents.

Initially, the prerequisites of training are presented as derived by the survey, in terms of required qualifications of the instructors, organisation and structure of theory lessons, required characteristics of driving schools cars.

Next the training practices and tools currently used are described, together with issues like training in private cars, simultaneous training of multiple trainees in one car, etc.

Finally, the driving instructors views on the adequateness of the required theory and practical lessons are provided, together with their opinions on the items that have to be added, emphasised in theoretical and practical training.

In the framework of the TRAINER Project, a workshop has been organized on 22 November 2000 in Brussels, during which the first preliminary results of the project have been presented and the direction of the project, most importantly concerning the multimedia tools and the scenarios for a simulator to be developed by the project, was discussed. In total 55 persons participated to this workshop, representing a number of companies, authorities and institutes that are interested in the development of new and innovative methods for driver training. The proceedings of this workshop, including a list of participants, form part three of this report.

# 1 Introduction

In April 2000, DG TREN of the European Commission decided to grant a project entitled 'System for driver **T**rainin**A**nd **A**ssessment using **I**nteractive **E**valuation tools and **R**eliable methodologies (TRAINER) to an international consortium of 12 partners. The aim of the project was to analyse current and to develop new methods for driver training, especially with the use of multimedia and simulator tools. The 12 partners in this project are:

- Belgian Institute for Road Safety (BIVV), Belgium
- Aristotle University of Thessalonica (AUTH), Greece
- International Committee of Driver Testing Authorities (CIECA), International
- CRF, Italy
- DKH, Belgium
- European Driving Schools Association (EFA), International
- Institut für Arbeitspsychologie der Universität Dortmund (IFADO), Germany
- IAT, Germany
- Dr.Foerst GmbH, Germany
- Rijksuniversiteit Groningen (RUG), Netherlands
- Polytechnic University of Valencia (UPV), (Spain)
- Swedish Traffic Safety Board (VTI), Sweden.

The first task in this project was the analysis of existing driver training methods and programs, as well as driver and driving instructor's needs, in order to enable the partners in the project to develop useful new methods and tools, that serve both the trainee and the trainer well and help to improve road safety in general. This first survey task was allocated to CIECA and EFA, the two international organisations in the field of driver training and testing. The results of this survey are put together in this report.

It is the first time that such a survey has been made by the two leading organisations in the field of driver training and testing. Earlier surveys mostly only describe part of the subjects treated in this report and in general not for the large number of countries that are treated in this survey.<sup>1</sup> It is also for the first time ever that driver training and driver testing authorities cooperated on such a large scale to reach a common goal: safer roads by better trained and better tested novice drivers.

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<sup>1</sup> Cf. List of references at the end of the survey.

## 2 Methodology

The methodology that has been used to come to the information included in this survey has been similar for the two organisations working on it.

Both CIECA and EFA used a questionnaire to gather the information needed for this survey. In the project description a minimum number of 100 questionnaires from at least five different countries was given as criterion. This criterion has been easily met.

As legislation is valid for a whole country, the CIECA questionnaire, dealing with legislative matters concerning driver training, only has been sent to one authority per country. In total, 31 countries received a CIECA questionnaire. 25 of them filled it out and sent it back. The CIECA questionnaire is added to this report as **Annex A**.

The EFA questionnaire, dealing with driver and driving instructor needs, has been spread more widely to a number of driving schools in different countries. In total, 122 driving schools from 8 countries responded to the questionnaire. The EFA questionnaire is added to this report as **Annex B**. It should be noted that within this questionnaire also questions related to exploitation have been included (i.e. market prices of relevant products, price expectations of users). The relevant data are not analysed here, as this will be part of the work of WP8 and will be presented in TRAINER D8.1, 'Cost-Benefit ratio and cost-efficiency of new assessment tools and procedures'.

The information derived from both the CIECA and the EFA questionnaire has been included in an html database as well, adequate for presentation and access through the www, which formed the first deliverable of the TRAINER project (D1.1) and has been presented to DG TREN of the European Commission in December 2000.

Furthermore, a workshop has been jointly organized by CIECA and EFA to discuss the outcome of the surveys and the scope and direction of the remaining of the project. More precisely, during this workshop scenario options for the multimedia training tools and the driving simulator, both to be developed during and by the project, were discussed by a large number of independent participants that are not included in the project as partners. The agenda of the workshop and the list of participants are added to this report as **Annex C**. The results of the workshop, that are included as part three of this report, will serve as a guideline to the project partners that are directly involved in the development of scenarios for both the multimedia and the simulator training tool.

# 3 Part I: Overview of legislative aspects concerning driver training and driver licensing

## 3.1 Chapter 1: Driver Training Models

In Europe and beyond young people of around 18 want to have the opportunity to drive a car or an other motorised vehicle. Normally, these young people first have to learn to handle these vehicles. In the different countries with CIECA members, the training of young students is organised in very different ways.

This chapter describes the possibilities for students to learn how to drive in the different countries. It concludes with an overview of the most common training models.

### 3.1.1 Algeria

In Algeria, a student has two possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 begin the theory and practical training at a driving school, followed by training with a non-professional supervisor (category B only).

For both forms, the student has to take a minimum of 12 hours of theory training and 25 hours of practical training at a driving school.

When training with a non-professional supervisor, the candidate has to keep to certain restrictions:

- he is not allowed to drive on highways
- he is not allowed to drive with a trailer
- he has to meet certain speed limits
- he is subject to a maximum blood alcohol level of 0.0‰.

The non-professional supervisor also has to meet certain conditions:

- have held a category B licence for at least 5 years
- be at least 25 years old
- pass a specific practical test
- pass a medical examination.

### 3.1.2 Austria

In Austria a student has three possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 begin the theory and practical training at a driving school, followed by training with a non-professional supervisory (all categories except category A)
- 3 complete theory and practical training at a driving school, in combination with additional educational driving with a non-professional supervisor (category B only).

The minimum age for starting the driving education of category B in the different systems is as follows:

system 1: 17,5

system 2: 17,5

system 3: 16

In system 1, a student has to follow a minimum of 40 hours of theory training and 20 hours of practical training. On average a student takes only this number of lessons.

To be admitted to the practical test, a student must have passed the theory test and he must be able to show a logbook and proof of having driven on motorways and secondary roads as well as by night.

In system 2, a student has to follow a minimum of 8 hours of theory training and 8 hours of practical training at a driving school before being allowed to drive with his or her non-professional supervisor. The vehicle used in the non-professional drives must have a shield reading 'L Übungsfahrt'.

In system 3, a student has to follow a complete theory and practical course at a driving school, meaning 40 hours of theory training and 20 hours of practical training. These hours are divided into a basic training before starting the additional educational driving, two accompanying hours during the additional educational driving and a training to perfect driving skills after having concluded the additional educational driving.

During the additional educational driving the student is accompanied by a non-professional supervisor. The student has to meet certain speed restrictions: 80 km/h on secondary roads, 100 km/h on highways. In the period of additional educational driving the student has to drive at least 3000 km. To be able to check this, the student has to record his or her drives. The vehicle used in the additional educational driving must have a shield reading 'L17 Ausbildungsfahrt'.

In this system, a student can get his or her driving licence at the age of 17. Until his or her 18th birthday however, a shield reading 'L 17' has to be connected to the vehicle. Also the speed limitation of 80 km/h on secondary roads and 100 km/h on highways must be observed until the age of 18.

Both in system 2 and in system 3 there are some extra conditions for both the trainer and the trainee:

- the supervisor must have had his or her driving licence since at least 7 years
- the supervisor may not have committed any serious traffic offences
- the maximum blood alcohol level for both the supervisor and the student is 0.1‰
- a special permit from the official authorities is necessary
- the student must present a certificate of medical capability
- the vehicles used do not need dual controls.

### 3.1.3 Belgium

In Belgium, a student has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school, followed by an internship of a minimum of three months and a maximum of 12 months.
- 2 theory and practical training with a non-professional supervisor, without the involvement of a driving school.

In system 1 the student is allowed to drive alone during his internship. He or she is not allowed to transport any passengers during his internship. Depending on the number of lessons followed in the driving school, the internship lasts between three and 12 months (more lessons means less internship).

The student is not allowed to drive at night, in weekends, nor on holidays in either system.

In system 2 the training period must last at least 3 months. During the training period, the student is not allowed to transport passengers apart from his or her non-professional supervisor.

Pupils training with a non-professional supervisor (system 2) must meet the following conditions:

- he or she must have passed the theory test
- he or she must have a minimum age of 18 (17 is also allowed for category B, after 14 hours of practical training at a driving school of which 2 must have been taken together with the non-professional supervisor)
- he or she must have a special permit issued by the local authorities, and valid for a period of 6 to 18 months (not extendable)
- he or she must have filled out a declaration on the honour concerning the state of health
- he or she must be accompanied by one of two regular non-professional supervisors.

The non-professional supervisor must also meet certain conditions:

- he or she must have held the driving licence for the category he or she wants to accompany in for at least 6 years (there are also rules concerning the frequency and suspensions of the accompanying driver)
- he or she must be at least 24 years old.

A student in Belgium takes an average of 4 hours of theory training and 10 hours of practical training at a driving school.

Legal responsibility for the vehicle during the training is not settled. Should a conflict arise, only the courts are competent to decide.

### 3.1.4 Bulgaria

In Bulgaria a student can only learn to drive at a driving school. He or she must follow a minimum of 36 hours of theory training and 25 hours of practical training.

### 3.1.5 Croatia

In Croatia, a student can only learn how to drive at a driving school. He or she must follow a minimum of 30 hours of theory training and 30 hours of practical training as well as a first aid course.

### 3.1.6 Denmark

In Denmark, a student can only learn how to drive at a driving school. The student must follow a minimum of 26 hours of theory training and 22 hours of practical training. The training must be spread over at least 14 days. During the training, a logbook must be kept.

It is necessary to indicate that the driver is still learning by displaying a sign with the text 'driving school'.

The driving instructor has legal responsibility for the vehicle during the training.

### 3.1.7 Estonia

In Estonia, a student has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school
- 2 theory and practical training at a driving school combined with training with a non-professional supervisor.

In system 1, a student must follow a minimum of 41 hours of theory training and 40 hours of practical training.

The training course is completed with a theory and a practical test at the driving school. The certificate obtained after passing these tests is needed to be allowed to sit the driving test, which is taken at a state test centre and is needed to obtain a driving licence.

In system 2 the student must always drive with the same non-professional supervisor and report regularly to the driving school. After the training the candidate must pass a theory and a practical test at a driving school upon which the driving school issues a certificate of the driving training. This certificate is needed to be admitted to the state practical test.

The student in system 2 has to meet the following conditions:

- he or she must have a minimum age of 15,5
- he or she must pass a medical examination
- he or she must know the traffic rules
- he or she must possess a provisional driving licence, which is valid until the end of the driver's training.

The non-professional supervisor also has to meet certain conditions:

- he or she must have held a category B driving licence for at least 3 years
- he or she must pass a theory test
- he or she must pass a practical driving test

- he or she must be in the possession of a specific driving instruction certificate, which authorises the training of only one particular person and is issued by the driving school. This certificate is valid for a period of one to two years.

Both students in system 1 and in system 2 have to respect certain restrictions during the training period:

- speed limit of 70 km/h instead of 110 km/h on the highway
- speed limit of 70 km/h instead of 90 km/h on secondary roads
- a maximum blood alcohol level of 0‰.

The driving instructor, respectively the non-professional supervisor, has legal responsibility for the vehicle during the training.

### 3.1.8 Finland

In Finland, a student has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school
- 2 theory and practical training with a non-professional supervisor.

In system 1, a student needs to follow a minimum of 20 hours of theory training and 30 hours of practical training.

In system 2, both the student and the non-professional supervisor have to meet certain restrictions.

The student must:

- follow a minimum of 20 hours of theory training and 30 hours of practical training with his non-professional supervisor
- have a minimum age of 17.5 years
- always drive with the same supervisor
- pass a medical examination
- have a permit issued by the police, which is valid for 9 months.

The non-professional supervisor must:

- have held a driving licence for at least 3 years
- be over 21 years old
- pass a special test, after which a special permit is issued by the police.

Apart from that, the car used for the training in system 2 must be accepted as a special training car. This means it should have a brake pedal and an extra mirror for the teacher.

When driving with a non-professional supervisor, students are prohibited from towing a trailer (when training for category B).

Candidates take an average of 20 hours of theory training and approximately 30 hours of practical training.

The driving instructor, respectively the non-professional supervisor, has legal responsibility for the vehicle during the training.

### 3.1.9 France

In France, a candidate has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school
- 2 theory and practical training at a driving school, followed by a period of training with a non-professional supervisor.

In system 1, no theory training is obligatory. A student has to follow at least 20 hours of practical training.

System 2 consists of two periods:

- A 20 hours of practical training at a driving school during which the candidate must successfully pass a theory test. At the end of this training, he will get a certificate.
- B Training with a non-professional supervisor. This training period must take at least 1 year, but with a maximum of 3 years from the date on the above-mentioned certificate.

During this period at least two meetings must take place between the student, the non-professional supervisor and the driving school, in order to check the candidate's progress and to enhance his knowledge about road safety.

Both the student and the non-professional supervisor must meet some conditions during this second period. The student must:

- drive at least 3,000 km
- have a special insurance.

The student driving with a non-professional supervisor is furthermore subject to the following speed limits:

- 110 km/h on motorways with a maximum speed limit of 130 km/h
- 100 km/h on motorways with a maximum speed limit of 110 km/h
- 80 km/h on secondary roads.

The non-professional supervisor must:

- have a minimum age of 28
- have held a category B driving licence for at least 3 years.

The training vehicle of system 2 has to be equipped with two exterior mirrors. A plate with the letter(s) A or CA (Conduite Accompagnée) on the car indicates that it is being used for training with a non-professional supervisor.

Students in both system 1 and in system 2 need to be in the possession of a logbook to start their driving education. This logbook can be obtained from the age of 16, for any category.

Candidates take an average of 5 hours of theory training and approximately 20 hours of practical training.

During the training the driving instructor, respectively the non-professional supervisor, has legal responsibility for the vehicle. The training in both systems can take place on the entire road network on French territory.

### 3.1.10 Germany

In Germany, a student can only learn how to drive at a driving school. A student must follow at least 28 theory lessons and 36 practical lessons (cat. B) at a driving school. During the practical training, at least 4 hours on the motorway and 3 hours of nighttime driving are obligatory.

After having completed the minimum training hours, the student obtains a certificate of his training from the driving school.

It is not necessary to indicate on the vehicle that the driver is a student. During the training, the instructor has legal responsibility for the vehicle.

### 3.1.11 Great Britain

In Great Britain, a student has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school
- 2 theory and practical training with a non-professional supervisor.

In system 1 and 2, it is also possible to start the theory training at public school or at home. In neither of these systems is a minimum number of lessons (at a driving school or with the non-professional supervisor) obligatory.

In system 2 both the student and the non-professional supervisor must meet certain conditions:

The student must:

- obtain a provisional licence, issued by the Driver and Vehicle Licensing Agency in Swansea, before training with a non-professional supervisor. This licence is valid until his or her 70th birthday (except for categories A1 and A when the licence is only valid for 2 years).

The non-professional supervisor must:

- have held a driving licence for category B for at least 3 years
- be at least 21 years old.

There are also some restrictions during the training with a non-professional supervisor:

- prohibition from towing a trailer (except when training for categories B+E)
- prohibition from driving on the motorway.

The car of a student training with a non-professional supervisor does not need to be equipped with dual controls. However, a student must display an 'L' plate on the vehicle whilst training ('D' plate in Wales), regardless of whether they train at a driving school or with a non-professional supervisor.

Students in both systems take an average of 5-10 hours of theory training and approximately 30-35 hours of practical training. The number of practical lessons varies according to the age of the candidate.

Before riding a moped or motorcycle on the road it is necessary to complete compulsory basic training (CBT), with a DSA approved body. Training includes a combination of theory, practical on-site training and riding, and practical on-road riding. It normally takes about a day to complete.

During the training period both the student and the driving instructor, respectively the non-professional supervisor are responsible for the vehicle.

### 3.1.12 Hungary

In Hungary a student can only learn how to drive at a driving school. A student must follow a minimum of 28 hours of theory training and 29 hours of practical training (cat. B).

Candidates take an average of 30 hours of theory training and an estimated 35 hours of practical training. The training vehicle must have a sign with the letter T (tanuló = learner) on it.

During the training, the driving instructor is legally responsible for the vehicle.

### 3.1.13 Israel

In Israel a student has two possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 theory and practical training at a driving school followed by driving with a non-professional supervisor.

In system 1, a student must follow a minimum of 28 hours of practical training. There is no minimum number of hours of theory training. On average, students take 40 practical lessons at a driving school.

In system 2, there are certain conditions both the student and the non-professional supervisor must meet.

The student must, before being permitted to drive with a non-professional supervisor:

- follow at least 28 hours of practical lessons at a driving school
- pass a theory test
- pass a medical examination.

During the training with the non-professional supervisor, the student must:

- always be accompanied by the same supervisor
- possess a permit from the Ministry of Transport, Dept. of Driving Licences, which has unlimited validity
- possess a special insurance.

The non-professional supervisor must:

- be a relative of the candidate
- have been in possession of a driving licence for category B for at least 3 years
- be at least 21 years old
- take a driving competence test
- be in possession of a special permit
- pass a first aid course
- have no more than 2 students to teach.

During the training a maximum of 1 passenger is allowed.

During the training, students in both system 1 and system 2 must have a logbook. After the training in the driving school the student gets an evaluation from the driving instructor, which he needs to be admitted to the practical test.

The training vehicle of students in system 1 and in system 2 must be marked with an L-sign. Dual controls are compulsory as well.

### 3.1.14 Latvia

In Latvia a student has two possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 theory and practical training with a non-professional supervisor.

The student must follow at least 54 hours of theory training and 12 hours of practical training both in system 1 and in system 2. On the training vehicle it must be indicated that the vehicle is being used as training vehicle.

In system 2, There are certain conditions the student and the non-professional supervisor must meet. The student must:

- be at least 16 years old
- possess a learning permit issued by the Road Traffic Safety Directorate.

The non-professional supervisor must:

- be at least 21 years old
- have held the appropriate category of driving licence for at least 3 years.

The only restriction for the student when driving with a non-professional supervisor is a maximum blood alcohol level of 0.5‰.

It is necessary to indicate with an 'M' plate that the vehicle is being used for training with a non-professional supervisor.

During the training at the driving school, students must have a logbook. After the training the student gets an evaluation form from the driving instructor, respectively the non-professional supervisor, which he needs to be admitted to the practical test.

During the training period, the driving instructor, respectively the non-professional supervisor is legally responsible for the vehicle.

### 3.1.15 Luxembourg

In Luxembourg a student has two possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 theory and practical training at a driving school, followed by training with a non-professional supervisor.

In system 1 students must follow a minimum of 12 hours of theory training and 16 hours of practical training at a driving school.

In system 2, both the student and the non-professional supervisor must meet certain conditions.

The student must:

- have received a minimum of 12 theory lessons
- have received a minimum of 16 practical lessons
- have passed a theory test
- have reached the age of 17
- possess a ‘Certificat d’apprentissage’, which is valid for one year from the date the candidate passed the theory test (not renewable).

The non-professional supervisor must:

- have held a category B driving licence for more than 6 years
- have a special permit (obtained after having followed at least 2 hours of training with the candidate by an approved instructor)
- not have been convicted of any traffic offences
- not have been disqualified from driving during the last 5 years
- be related to the candidate
- possess an identity card issued by the Ministry of Transport which is valid for the whole training period (not renewable).

Some restrictions/conditions apply in Luxembourg when practising with a non-professional supervisor. These restrictions are:

- prohibition from towing a trailer
- speed limit of 75 km/h on secondary roads
- speed limit of 90 km/h on motorways
- prohibition from driving between 23:00 and 06:00 hours.

The supervisor must sit in the front of the car. Training can only take place on the territory of the Grand Duchy of Luxembourg. A red sign with the letter ‘L’ on it in white must be displayed on the vehicle to indicate that the driver of the vehicle is training with a supervisor.

Students take an average of 12 hours of theory training and an estimated 16-20 hours of practical training at a driving school. The practical training can only be started after the second theory lesson and the theory test must be passed before the eleventh practical lesson. A candidate who is learning to drive at a driving school can do a maximum of 4.5 hours per day.

### 3.1.16 Monaco

In Monaco, a student can only learn how to drive at a driving school.

It is not necessary to take a minimum number of lessons to obtain a driving licence. Candidates take an average of 6 hours of theory training and approximately 28 hours of practical training.

### 3.1.17 The Netherlands

In the Netherlands, a student can only learn how to drive at a driving school. Theory training can be done at home as well.

There is no minimum number of lessons in order to be admitted to the driving test. The average number of practical lessons for category B is estimated at 35 hours. To be allowed to sit the practical test, a candidate must have passed the theory test.

The training vehicle from the driving school has to be marked with an 'L' -sign indicating that the driver is still learning.

The driving instructor at the driving school has legal responsibility for the vehicle during training.

### 3.1.18 Northern Ireland

In Northern Ireland a student has three possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 complete theory and practical training with a non-professional supervisor
- 3 combination of training at a driving school and with a non-professional supervisor.

When training with a non-professional supervisor (system 2 and 3), a student has to be in possession of a provisional licence, which is issued by the Driver and Vehicle Licensing Agency of Northern Ireland. This licence is valid for 10 years and can be prolonged unconditionally.

Certain restrictions apply for students during the training period (in all 3 systems):

- prohibition from driving with a trailer
- speed limits of 72 km/h on secondary roads, instead of 96 km/h on single carriage way roads and 112 km/h on dual carriage ways
- prohibition from driving on motorways
- prohibition from towing a trailer
- maximum blood alcohol level of 0,8‰
- display an 'L' plate at the front and rear of the vehicle to indicate that the driver is still learning.

The training vehicle does not have to be equipped with dual controls.

The driving instructor, respectively non-professional supervisor has legal responsibility for the vehicle during training.

### 3.1.19 Norway

In Norway a student has three possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 begin the theory and practical training at a driving school, followed by training with a non-professional supervisor
- 3 combination of training at a driving school and with a non-professional supervisor.

In system 1, a student has to follow 1,5 hours of theory training and 8 hours of practical training. This practical training includes skid training, driving at night and driving in built-up areas, motorways, etc.

On the vehicle used for training at a driving school a plate with 'school' at the front and the rear must be displayed.

To train with a non-professional supervisor (system 2 and 3) both the student and the non-professional supervisor must meet certain conditions.

The student must:

- have reached the minimum age of 16
- have followed at least 1,5 hours of theory training at a driving school
- have followed at least 8 hours of practical training at a driving school.

The non-professional supervisor must:

- have held a category B driving licence for at least 5 years
- be at least 25 years old.

On the vehicle used for training with a non-professional supervisor a sign with the letter 'L' (learning) must be displayed. The car of a student training with a non-professional supervisor does not have to be equipped with dual controls.

The driving instructor, respectively non-professional supervisor has legal responsibility for the vehicle during training.

### **3.1.20 Portugal**

In Portugal a student can only learn how to drive at a driving school. A student has to follow at least 30 hours of theory training and 30 hours of practical training. During the training a logbook is kept. After the training an evaluation form is filled out by the instructor. Both the logbook and the evaluation form must be presented at the practical test.

It is necessary to display a plate inside the vehicle indicating that the driver is still learning.

The driving instructor has legal responsibility for the vehicle during training.

### **3.1.21 Russian Federation**

In the Russian Federation a student has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school
- 2 theory and practical training with a non-professional supervisor.

There is no minimum number of lessons a student must follow during his training.

In system 2, the non-professional supervisor must have held a category B driving licence for at least 3 years. There is only one limitation when driving with a non-professional supervisor: it is prohibited

to drive on highways. A special sign must be displayed on the car indicating that it is being driven by a student training with a non-professional supervisor.

### 3.1.22 Spain

In Spain, a student has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school
- 2 theory and practical training with a non-professional supervisor.

In system 1, there are no restrictions for the student.

A special blue plate with the letter 'L' on it in white must be displayed on the car of the driving school. The car must be equipped with double controls.

No minimum theory or practical training is required in either system 1 or system 2. However, a logbook must be kept.

In system 2, both the student and the non-professional supervisor must meet some conditions.

The student must:

- be at least 18 years old
- pass a medical examination or complete a declaration on the honour
- pass a theory test
- always be accompanied by the same supervisor
- possess a permit, issued by the 'Provincial Traffic Delegations', valid for a maximum of 8 months.

The non-professional supervisor must:

- have held a category B driving licence for at least 5 years
- be in possession of a special permit.

There are certain restrictions when training with a non-professional supervisor:

- prohibition from driving on the highway on the eve of bank holidays and on bank holidays
- prohibition from towing a trailer
- prohibition from driving on motorways on public holidays and the night before
- speed limit of 80 km/h on motorways, instead of 120 km/h
- speed limit of 80 km/h on secondary roads, instead of 90 km/h
- speed limit of 40 km/h inside built-up areas, instead of 50 km/h.

A special red plate with the letter 'L' on it in white must be displayed on the car to indicate that it is being driven by a student training with a non-professional supervisor. The car must also have double commands.

### 3.1.23 Sweden

In Sweden, a student has two possibilities to learn how to drive:

- 1 theory and practical training at a driving school
- 2 theory and practical training with a non-professional supervisor.

A minimum number of theory or practical lessons is not required in either system. However, all students must complete a skid course, which takes about 4 hours. Students take an average of 20 to 25 hours of theory training and approximately 25 to 30 hours of practical training.

In system 2, both the student and the non-professional supervisor must meet certain conditions.

The student must:

- have reached the minimum age to start practical training, depending on the category
- pass a medical examination (group 2) or complete a declaration on the honour (group 1)
- have a training certificate (showing personal and medical fitness).

The non-professional supervisor must:

- have held a driving licence for at least 5 years
- be at least 24 years old
- be in possession of a special learner's permit from the regional authority, connected to the Driving Licence Registry, which has a validity of 48 months. This period of validity cannot be extended or shortened.

There are no restrictions in Sweden when training at a driving school or with a non-professional supervisor. A sign with the words 'Driver Learning' must be displayed on the car. The plate is red if it concerns a driving school and green if it concerns a learner under training with a non-professional supervisor. Double commands are not necessary during the training.

The driving instructor, respectively non-professional supervisor has legal responsibility for the vehicle during training.

Before taking the theory test, the candidate must show a certificate signed by the non-professional supervisor or the driving instructor stating that the candidate has learnt the subjects required by the Swedish curriculum.

### 3.1.24 Switzerland

In Switzerland, a student has two possibilities to learn how to drive:

- 1 complete theory and practical training at a driving school
- 2 theory and practical training at a driving school, followed by training with a non-professional supervisor.

The student has to follow a minimum of 8 theory and approximately 25 practical lessons both in system 1 and in system 2. The aim of the theory lessons is to motivate applicants to adopt a defensive and responsible driving manner by teaching them sound driving sense and drawing their attention to the hazards of road use.

The student must possess a provisional licence, which is valid for a limited period in both system 1 and 2. This provisional licence authorises the holder to take driving lessons under the supervision of a driving instructor or a non-professional supervisor.

Every motor vehicle that is driven by a driving-student must be equipped with an 'L'-sign (white L on blue ground). The visibility of that sign must be guaranteed.

In system 2, the non-professional supervisor must meet some conditions:

- be at least 23 years old
- have held a driving licence in the category concerned for a period of at least three years.

### 3.1.25 Tunisia

In Tunisia, a student can only learn how to drive at a driving school. There is no required minimum number of lessons that must be taken in order to obtain a driving licence (theory and practical). Students take an average of 10 hours of theory training and approximately 25 hours of practical training.

A driving school has to indicate with a plate on top of the car that the driver of the car is still learning. Apart from that, some technical requirements must be met.

The driving instructor has legal responsibility for the vehicle during training.

### 3.1.26 Overview

In overview, the descriptions of the training possibilities in the different countries lead to the extraction of six different training models. It is possible that countries apply more than one model. In that case, a student usually has free choice between the models and chooses the most appropriate one for his personal situation.

#### **Model 1 Theory and practical training at a driving school is compulsory**

In this model, all students have to take a minimum number of theory and practical lessons at a driving school. The compulsory number of theory lessons varies from 1,5 up to 54. The compulsory number of practical lessons varies from 8 up to 40. In general, the compulsory and the average number of lessons taken is the same.

The majority of the countries described here know this model. In alphabetical order: Algeria, Austria, Bulgaria, Croatia, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Luxembourg, Norway, Portugal and Switzerland.

In France and in Israel only practical training is compulsory.

In Bulgaria, Croatia, Denmark, Germany, Hungary and Portugal, this model is the only way to learn how to drive. In these countries, no other training models exist.

#### **Model 2 Theory and practical training possible at a driving school, without obligations**

In this model, a student can learn to drive at a driving school. However, there is no obligation to take a minimum number of theory or practical lessons. The average number of theory lessons taken varies from 5 to 25 hours. The average number of practical lessons varies from 25 to 35 hours.

This model exists in the following countries:

Great Britain, Monaco, the Netherlands, Northern Ireland, the Russian Federation, Spain, Sweden and Tunisia.

In Monaco, the Netherlands and Tunisia, this model is the only way to learn how to drive. In these countries, no other training model exists.

**Model 3 Theory and practical training must begin at a driving school, followed by training with a non-professional supervisor**

In this model, a student starts his or her theory and practical driver training at a driving school, taking a minimum number of theory and practical lessons. After having completed the minimum number of lessons, the student continues his or her driver training with a non-professional supervisor. The minimum number of lessons generally corresponds to the minimum number of lessons that are compulsory for students doing their full education in a driving school (model 1).

In most countries that apply this model, both the student and the non-professional supervisor must meet certain conditions, varying from having reached a minimum age up to some form of extra training for the supervisor. In many countries, a special permit for such training is necessary. In several countries certain restrictions exist for the student training with a non-professional supervisor: speed limitations, prohibition from driving at night, in weekends or with passengers, etc.

This model exists in following countries:

Algeria, Austria, Israel, Luxembourg, Norway and Switzerland.

**Model 4 Theory and practical training must begin at a driving school, followed by training with a non-professional supervisor; obligation to report regularly to the driving school**

In this model, a student has to start his or her theory and practical driving tuition at a driving school. After having completed a compulsory minimum number of theory and practical lessons, he or she continues the training with a non-professional supervisor. During this second stage, the student has to report regularly to the driving school, sometimes with the non-professional supervisor. The minimum number of lessons generally corresponds to the minimum number of lessons required for students doing their full education at a driving school (model 1).

In most countries both the student and the non-professional supervisor have to meet some conditions, like a minimum age, the possession of a special permit or insurance, etc. to be allowed to train with a non-professional supervisor. In many cases, there are also some restrictions for the student training with a non-professional supervisor, like speed limitations, prohibition from driving at night, in weekends or with passengers, etc.

This model exists in the following countries:

Austria, Estonia and France.

**Model 5 Training with a non-professional supervisor, without the involvement of a driving school**

In this model, a student can do his or her complete (theory and) practical training with a non-professional supervisor. A driving school is not involved in the training.

In some of the countries using this model, there are however some conditions, which both the student and the non-professional supervisor have to meet: a minimum age, a special permit or insurance, a minimum number of lessons or training kilometres, etc. Often, the non-professional supervisor has to be a relative of the student.

This model exists in the following countries:

Belgium, Finland, Great Britain, Latvia, Northern Ireland, the Russian Federation, Spain and Sweden.

**Model 6 Training at a driving school or with a non-professional supervisor, followed by a non-accompanied internship**

In this system, a student starts his or her theory and practical driver training at a driving school. There is no obligation to follow a minimum number of theory or practical lessons at the driving school.

After having finished the initial training, the student has to do an internship of a fixed time period, during which he or she is allowed to drive alone.

During this period of internship there are some restrictions, like prohibition from driving at night, with passengers, in weekends, etc.

This model only exists in Belgium.

Country	Training Model 1	Training Model 2	Training Model 3	Training Model 4	Training Model 5	Training Model 6
A	x		x	x		
ALG	x		x			
B					x	x
BUL	x					
CH	x		x			
D	x					
DK	x					
E		x			x	
EST	x			x		
F				x		
FIN	x				x	
GB		x			x	
H	x					
HR	x					
IL			x			
L	x		x			
LV	x				x	
MC		x				
N	x		x			
NI		x			x	
NL		x				
P	x					
RUS		x			x	
S		x			x	
TUN		x				

## 3.2 Chapter 2: Contents of the driver training

On the following pages, the contents of the driver training - theory and practical- will be shown in tables for a number of countries. The contents are based upon the list of driving skills as defined in the revised Annex II of the European Directive on Driving Licences, nr. 91/439/EEC.

For some members, it was not possible to fill out all questions. In these cases, the answer boxes remain empty.

Consequently, following tables will be shown:

- 1 compulsory number of hours spent on theory training per item
- 2 average number of hours spent on theory training per item
- 3 wishes of the CIECA-members concerning the theory training
- 4 compulsory number of hours spent in different traffic areas during practical training
- 5 average number of hours spent in different traffic areas during practical training
- 6 items treated in the practical training per category (2 tables)
- 7 compulsory special items and courses (skid course, night time driving)
- 8 wishes of the CIECA-members concerning the practical training.

### 3.2.1 Compulsory number of hours spent on theory training per item

Country	Traffic regulations	The Driver	The Road	Behaviour towards others	Documents	Vehicle equipment	Vehicle technique	Environment friendly driving	Drugs, medicine, alcohol	First aid	Emergency handling	Loading	Bad weather conditions
A	4	2	4	4	1	1	4	2	2		1	3	2
ALG													
B													
CH		*100	*100	*100		*100	*100	*100	*100	10		*100	*100
D	9	1.5	1	3	1	1.5	2	1	2		1	1.5	1.5
DK													
E													
EST	12	7	4	4	1	1	3	2	1		2	1	2
F													
FIN	5	1	2	2	1	1	1	1	1	1	1	1	2
GB													
GR	2		3	2.5	0.5	2	5	0.5	1	1	1.5		1
H	10	2	2	3	0.5	2	4	1	0.5	0.5	0.5		1
HR	11	1	2	4		1	1	3	1	1	1	1	2
IL													
LV	44	1	1	1.5	0.5	0.5	2	0.5	1	15	0.5	0.5	0.5
MAR													
N													
NI													
P	*100	*100	*100	*100	*100			*100	*100			*100	*100
TUN													

\*100 means that the subject is treated on a compulsory base, but that the exact number of hours spent on this subject is not known

3.2.2 Average number of hours spent on theory training per item

Country	Traffic regulations	The Driver	The Road	Behaviour towards others	Documents	Vehicle equipment	Vehicle technique	Environment friendly driving	Drugs, medicine, alcohol	First aid	Emergency handling	Loading	Bad weather conditions
A	4	2	4	4	1	1	4	2	2		1	3	2
ALG													
B													
CH		*100	*100	*100		*100	*100	*100	*100	10		*100	*100
D	9	1.5	1	3	1	1.5	2	1	2		1	1.5	1.5
DK													
E													
EST	12	7	4	4	1	1	3	2	1		2	1	2
F													
FIN	5	1	2	2	1	1	1	1	1	1	1	1	2
GB													
GR	2		3	2.5	0.5	2	5	0.5	1	1	1.5		1
H	10	2	2	3	0.5	2	4	1	0.5	0.5	0.5		1
HR	11	1	2	4		1	1	3	1	1	1	1	2
IL													
LV	44	1	1	1.5	0.5	0.5	0.5	0.5	0.5	15	0.5	0.5	1
MAR													
N													
NI													
P	*100	*100	*100	*100	*100			*100	*100			*100	*100
TUN													

\*100 means that the subject is treated on a compulsory base, but that the exact number of hours spent on this subject is not known

### 3.2.3 Wishes of the driving examiners concerning the theory training

Country	Wishes and Remarks on theory training
A	
ALG	
B	Theory training should be compulsory
CH	Theory training should be more connected to practical training
D	Total amount of hours should be prescribed, not the contents
DK	Theory training should be more connected to practical training
E	A minimum compulsory theory training is planned
EST	
F	Theory training is too commercial with too little content
FIN	
GB	
GR	
H	
HR	Increase the educational level of the teacher
IL	
LV	
MAR	No national training programme, low level of trainers
N	
NI	99% of the candidates are satisfied
P	Driving schools lack quality training programmes
TUN	Modification of exam support and content is planned

### 3.2.4 Compulsory number of hours spent in different traffic areas during practical training

Country	Residential areas	Inside built-up areas	Outside built-up areas	Motorways	Other locations
A					
ALG		5	5		*100
B					
CH					
D	4	10	5	4	3
DK					
E					
EST	3	8	4		
F					
FIN				4	
GB					
GR	6	6		3	
H	1	13	4	*100	
HR	4	10	4	2	2
IL		*100	*100	*100	
LV		4.5	2		
MAR					
N	*100	*100	*100	*100	*100
NI					
P	*100	*100	*100	*100	*100
TUN					

\*100 means that the subject is treated on a compulsory base, but that the exact number of hours spent on this subject is not known

### 3.2.5 Average number of hours spent in different traffic areas during practical training

Country	Residential areas	Inside built-up areas	Outside built-up areas	Motorways	Other locations
A					
ALG		5	5		*100
B					
CH		*100	*100	*100	*100
D	4	10	6	4	3
DK					
E					
EST	5	10	6		
F					
FIN	6	6	1	4	4
GB					
GR	6	6		3	
H	1	13	4	*100	
HR	4	10	4	2	2
IL		*100	*100	*100	
LV		13	3		
MAR					
N	*100	*100	*100	*100	*100
NI					
P	*100	*100	*100	*100	*100
TUN					

3.2.6 Items treated in the practical training per category (2 tables)

Country	Safety check car	Driving away	Driving on straight roads	Driving on bands	Crossroads	Changing direction	Approach or exit of motorways	Overtaking or passing	Special parts of the road	Behaviour at traffic signs	Reversing	Parking	U-turns	Driving
A	B	A en B	A en B	A en B	A en B	A en B	B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
ALG	A en B	A en B	A en B	A en B	A en B	A en B		A en B	B	A en B	B	B	B	
B														
CH														
D	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
DK	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
E	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	B	B	A	A en B
EST	A en B	A en B	A en B	A en B	A en B	A en B		A en B	A en B	A en B	A en B	A en B	A en B	A en B
F	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
FIN	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
GB	A en B	A en B	A en B	A en B	A en B	A en B		A en B		A en B	A en B	B	A	A en B
GR	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B		A en B	B	B	B	A en B
H	A en B	A en B	A en B	A en B	A en B	A en B		A en B	A en B	A en B	A en B	A en B	A en B	A en B
HR	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	B	A en B	A en B	A en B
IL	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
LV	A en B	A en B	A en B	A en B	A en B	A en B		A en B	A en B	A en B	B		A en B	A en B
MAR	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	B	B		
N	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
NI	A en B	A en B	A en B	A en B	A en B	A en B		A en B	A en B	A en B	B	A en B	A	A en B
P	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B
TUN	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	A en B	B	A en B	A	A en B

Country	Other compulsory items	Other voluntary items in practical training	Additional items in your country
A	Vision, Keeping distance		
ALG			First aid, vehicle technique
B			
CH	Braking under difficult conditions, slalom, acceleration	Building speed	Behaviour in accidents
D	Environment friendly driving		
DK	Speed in driving straight forward, night time driving		
E	Night time driving, driving under bad condition		
EST			
F		Skid course	Night time driving
FIN	Night time driving, driving under bad conditions		
GB	Angle start		The revised practical test is being evaluated
GR	Emergency stop		Behaviour towards other users of the road
H	Left and right parking on a slope, sudden stop	Manoeuvres under bad conditions	
HR			Special terrains to simulate bad weather condition
IL	Loading		Skid course
LV		Skid course	
MAR			Driving on highways and in tunnels
N			
NI	Emergency stop		Night time driving
P			
TUN			Night time driving, emergency stop, simulator driving

### 3.2.7 Compulsory special items and courses (skid course, night time driving) shown in number of hours

Country	Night time driving	Skid course
A		
ALG	*100	*100
B		
**CH	*100	
D	3	
DK		
E		
EST	2	
F		
FIN	2	2
GB		
GR	3	
H	2	
HR	2	
IL	*100	
LV	2	
MAR		
N	1.5	3
NI		
P	*100	
TUN		

\*100 means that the subject is treated on a compulsory base, but that the exact number of hours spent on this subject is not known

\*\*CH In Switzerland night time driving is not compulsory; however, it is mostly treated in the education

### 3.2.8 Wishes of the driving examiners concerning the practical training

Country	Wishes and Remarks
A	
ALG	
B	A basic practical training should be compulsory
CH	Training should be spread over a longer period
D	Second training phase within current training
DK	
E	Driving training on toll-highways is hindered
EST	
F	Focus is too much on passing the driving exam
FIN	
GB	
GR	Focus is too much on passing the driving exam
H	
HR	Gross training should last 60' instead of 45'
IL	
LV	
MAR	
N	
NI	
P	Lack of defensive driving training
TUN	Trainee follow-up document feasibility study

## 3.3 Chapter 3: Driver Licensing Systems

In the countries that are the subject of this analysis study several systems exist concerning the issue of driving licenses. In some countries after having passed a theory and a practical test the driving licence is issued without further restrictions. In other countries there are special requirements for novice drivers, so called post-licensing measures<sup>2</sup>.

This chapter describes the driving licensing systems in the different countries and concludes with an overview of the most common systems. The description includes only legally compulsory measures.

### 3.3.1 Algeria

In Algeria, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.2 Austria

In Austria, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18. Students who learn how to drive at a driving school combined with additional educational driving (system 3, see above) can obtain a driving licence at the age of 17. When obtaining a driving licence at the age of 17, a shield with 'L 17' on it has to be connected to the vehicle until the 18th birthday. The speed limitation of 80 km/h on secondary roads and 100 km/h on highways must also be observed until the age of 18.

The first two years after having obtained the driving licence, all novice drivers in Austria are subject to a probationary licensing system. During this period novice drivers have to observe a maximum blood alcohol level of 0.1‰.

If a novice driver exceeds the 0,1‰ blood alcohol level or commits other specific traffic offences, he or she is forced to participate in a psychological driver improvement course and the probationary period is prolonged by one year. The probationary period can be prolonged three times as a result of traffic offences or exceeding the maximum blood alcohol level. If the novice driver offends a fourth time, the licence can be withdrawn.

The fact that the novice driver is in possession of a driving licence on probation is not marked on the driving licence document. Only the date of issue of the document indicates that the novice driver is still on probation. In case of extension of the probationary period the licence is marked with a stamp. It is not necessary to indicate on the vehicle that the driver is in possession of a probationary licence. Without serious traffic or alcohol offences the probationary period ends automatically after two years. After the end of the probationary period no new licence is issued. The original licence is then valid without restrictions.

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<sup>2</sup> For an extensive description and evaluation of different post licensing measures, see G. Bartl (ed.), *DAN-Report. Results of EU-Project: Description and Analysis of Post Licensing Measures for Novice Drivers*. Kuratorium für Verkehrssicherheit, Vienna 2000.

### 3.3.3 Belgium

In Belgium, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.4 Bulgaria

In Bulgaria, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.5 Croatia

In Croatia, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.6 Denmark

In Denmark, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.7 Estonia

In Estonia, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18. After having obtained a driving licence a novice driver in Estonia is subject to a probationary licensing system, which lasts for two years.

During the probationary period there are some restrictions for a novice driver:

- prohibition from towing a trailer
- speed limit of 70 km/h on secondary roads and motorways
- maximum blood alcohol limit of 0‰
- a sign indicating that the driver is driving with a probationary licence must be attached to the vehicle.

During the probationary period, the novice driver must follow a course of driving at night and a skid course.

At the end of the probationary period of two years, the novice driver must pass another driving test, after which he obtains a new licence.

The authorities have the possibility to extend the probationary period by two years if:

- the driver ignores or violates the traffic rules
- the driver cannot prove the participation in the course of driving at night and the skid course after the probationary period.

Besides this system of driving licences on probation, a penalty point system exists in Estonia for all driving licence categories. The penalty point system applies to all licence holders, irrespective of age or how long they have held the licence.

### 3.3.8 Finland

In Finland, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained a driving licence a novice driver in Finland is subject to a probationary licensing system, which lasts for two years. During the probationary period, after the first 6 months but before the end of the probationary time, a novice driver has to follow a second phase training course at a driving school. This second phase training consists of 4 theory and 8 practical lessons, including 1 theory and 2 practical lessons in nighttime driving and a skid course.

The probationary period can be extended if:

- the driver has not completed the obligatory retraining
- the licence holder has committed 2 traffic offences in the first year or 3 traffic offences in 2 years.

The driver is legally not obliged to indicate on his car that he or she is driving with a probationary licence.

Apart from this probationary licensing system, a follow up of drivers' traffic violations exist. In periods of two years, the traffic violations of a driver are followed up. The limit for a driver is three offences in one year or four offences in two years. If a driver commits more violations in the set period of time, the driving licence can be withdrawn. This system counts for the entire Finnish driving population.

### 3.3.9 France

In France, a student must pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained a driving licence, there are some restrictions for the novice driver during the first two years. Driving licence holders, who have their licence for less than two years, are not allowed to exceed the following speed limits:

- 110 km/hour on motorways, where the maximum speed limit is 130 km/hour
- 100 km/hour on motorways, where the maximum speed limit is 110 km/hour
- 80 km/hour on secondary roads.

The candidate must indicate on the back of the car through a sign with the letter A, that he or she is a novice driver.

After the two years, the licence is automatically changed into a regular driving licence.

Apart from the restrictions during the first two years after having obtained a driving licence, a penalty point system exists in France, which counts for all driving licence holders, independent of age or how long they have held their driving licence. The licence holder initially has 12 points on his licence. If a driver violates the traffic rules he or she loses a certain number of points. The licence holder can regain these points by following a specific course.

### 3.3.10 Germany

In Germany a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained a driving licence in Germany a novice driver is subject to a probationary licensing system, which lasts for two years. After two years, the licence will be converted automatically into a 'full' licence. The date of expiry of the probationary period is mentioned on the driving licence. However, the licence does not have to be renewed after this period has ended.

If a novice driver commits one serious or two less serious traffic violations within the probationary period, he or she may be subject to corrective or selective measures imposed by the local competent administrative authority. These measures may consist of driver improvement courses or a written warning, up to the withdrawal of the licence and medical and psychological reports. If any of these measures are applied, the probationary period is automatically extended by two years.

Apart from the licence on probation for novice drivers during the first two years after having obtained the driving licence, a penalty point system exists for all holders of a German driving licence, irrespective of age or how long the driver has held the licence. Depending on the traffic offence a certain number of penalty points is given.

If a driver reaches between 8 and 13 penalty points within a certain set period of time, the offender will receive a written warning. In this case the driver can get a penalty point discount of 2 to 4 points if he or she participates in a driver improvement course.

If the driver reaches within the set period of time between 14 and 17 penalty points, he or she will be forced to participate in a driver improvement course. If he or she undergoes a voluntary traffic psychological consultation he or she will receive a penalty point discount of 2 points.

If a driver reaches 18 penalty points within the set period of time, the licence will be withdrawn.

### 3.3.11 Great Britain

In Great Britain, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 17.

After having obtained the driving licence, the novice driver is subject to a probationary driving licence system, which lasts for two years. This system is combined with a penalty point system. During the probationary period a novice driver is not allowed to have more than 6 penalty points. If the driver

exceeds the maximum number of 6 penalty points within the first two years after having obtained the driving licence, the licence will be withdrawn. He or she is returned to learner status, where he or she must once again apply for a provisional licence, is subject to the restrictions applicable to learner drivers and must pass the theory and the practical test again.

### 3.3.12 Hungary

In Hungary, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained a driving licence, the novice driver is subject to a probationary licensing system, which last for two years. During the first two years after having obtained a driving licence, a novice driver is not allowed to tow a trailer.

After two years, the licence automatically turns into a full licence. However, if the driving licence holder commits a serious traffic offence during his or her probationary period, this period can be prolonged for one year. Such a prolongation can be done twice. In case of a third offence the probationary licence will be withdrawn and the holder must follow compulsory new training and pass all required tests.

### 3.3.13 Ireland

In Ireland, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 17. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.14 Israel

In Israel, a student must pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 17.

After having obtained a driving licence, the novice driver is subject to a probationary licensing system, which lasts for two years. A sign on the car indicates that the driver is driving with a probationary licence. During the first two to six months of the probationary period, a person who has held a driving licence for at least 5 years must accompany the novice driver. During the entire probationary period the novice driver risks more severe punishments when violating the traffic rules.

After the two probationary years, the novice driver must pass a refresher course at a driving school.

If the authorities find reason for it the probationary period can be prolonged.

Apart from the probationary licensing system during the first two years after having obtained a driving licence, a penalty point system exists for all driving licence holders irrespective of age or how long they have held a driving licence.

### 3.3.15 Latvia

In Latvia, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained a driving licence, a novice driver is subject to a speed limit of 80 km/h during the first two years. After these two years, the licence automatically turns into a 'full' licence.

### 3.3.16 Luxembourg

In Luxembourg, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained the driving licence, the novice driver is subject to a probationary licensing system, which lasts for two years.

During the probationary period, between the 6th and the 24th month after having obtained the driving licence, all novice drivers (cat. A and B) must participate in a one-day training course at a special training centre. The training consists of a theory and a practical part, in which a skid course is included.

During the two-year probationary period, there are some restrictions for the novice driver:

- speed limit of 75 km/h on secondary roads (until a special course is completed)
- speed limit of 90 km/h on motorways (until a special course is completed)
- display a blue sign with a white 'L' on it on the car to indicate that it is being driven by a probationary licence holder (sign may be removed after having taken part in the one-day training course)
- be able to present proof of participation in training courses.

At the end of the probationary period the novice driver has to apply for a new driving licence document. This document will only be issued if he can present the participation certificate of the one-day training course.

### 3.3.17 Monaco

In Monaco, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.18 The Netherlands

In the Netherlands, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### 3.3.19 Northern Ireland

In Northern Ireland a student must pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 17.

After having obtained the driving licence, the novice driver is subject to a probationary driving licence system, which lasts for two years. This system is combined with a penalty point system. During the probationary period a novice driver is not allowed to reach more than 6 penalty points. If the driver exceeds the maximum number of 6 penalty points within the first two years after having obtained the driving licence, the licence will be withdrawn. He or she is returned to learner status, and must once again apply for a provisional licence, is subject to the restrictions applicable to learner drivers and must pass the theory and the practical test again.

On top of this, during the first twelve months after having obtained a driving licence, there are some restrictions for the novice driver:

- speed limitation of 72 km/h on all road types
- maximum blood alcohol level of 0.8‰
- indicate with an 'R' plate on the car that the driver of the vehicle has a probationary licence.

Once the twelve months have passed, the driving licence is converted automatically into a permanent one, keeping in mind the two-year probationary penalty point period.

### 3.3.20 Norway

In Norway a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained the driving licence, the novice driver is subject to a probationary licensing system, which lasts for two years. If during the two-year probationary period the novice driver commits a serious traffic offence, the licence will be withdrawn. To regain the driving licence, it is necessary to pass another theory and practical test. The probationary period will then be extended for another two years.

It is not necessary to indicate on the vehicle that the driver is driving with a probationary licence.

### 3.3.21 Portugal

In Portugal a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving licence is 18.

After having obtained a driving licence, the novice driver is subject to a probationary licensing system, which lasts for two years. If during these two years the novice driver commits a serious traffic offence, the licence can be withdrawn. To regain the driving licence, the driver has to pass the theory and the practical test again. This system is applied only in a limited number of cases.

After the two-year probationary period the driving licence is automatically converted into a permanent licence.

There are no restrictions when driving with a probationary licence.

It is not necessary to indicate on the car that the driver of the vehicle has a probationary licence.

### **3.3.22 Russian Federation**

In the Russian Federation, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### **3.3.23 Spain**

In Spain, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18.

During the first year after having obtained a driving licence, holders of all categories must obey a speed limit of 80 km/hour on motorways and secondary roads. During this first year it is necessary to indicate with an 'L' plate (white on green) on the car that the driver of the vehicle is a novice driver.

### **3.3.24 Sweden**

In Sweden, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18.

After having obtained the first driving licence, the novice driver is subject to a probationary licensing system for a period of two years. After these two years the probationary licence is automatically converted into a permanent licence.

The holder of a probationary licence must pass new theory and practical tests if the licence is withdrawn, even if only for a short time.

It is not necessary to indicate on the car that a probationary licence holder is driving.

### **3.3.25 Switzerland**

In Switzerland, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18. There are no restrictions or special requirements for novice drivers once they have obtained a driving licence.

### **3.3.26 Tunisia**

In Tunisia, a student has to pass a theory and a practical test to obtain a driving licence. The minimum age to obtain a driving license is 18.

After having obtained the first driving licence, the novice driver is subject to a probationary licensing system, which lasts for two years. During this two-year period, the novice driver is restricted to a maximum speed of 80 km/h on the motorways and outside built-up areas.

It is necessary to attach a white disk with the number 80 in black to the left side of the back window and the right-hand corner of the front window to indicate that the driver is driving with a probationary licence.

### 3.3.27 Overview

In overview, the descriptions of the driver licensing systems in the different countries lead to four different licensing models.

#### **Model 1 Single Phase licensing system**

In this model, a student takes his or her training at a driving school, in private or by combining the two. After having completed the training, the theory and the practical driving test is passed. This results in the acquisition of a driving licence.

After the acquisition of the driving licence there are no further restrictions or other measures for the novice driver. The driving licence is immediately a 'full', 'permanent' driving licence.

This system is in use in Algeria, Belgium, Bulgaria, Croatia, Denmark, Ireland, Monaco, the Netherlands, the Russian Federation and Switzerland.

#### **Model 2 Two-phase licensing system with second phase training and/or testing**

In this model, a student takes his or her training at a driving school, with a non-professional supervisor or by combining the two. After having completed the training, the theory and the practical driving test is passed. This leads to the acquisition of a driving licence.

Within a certain period after having obtained the driving licence, the student has to follow a second phase training. This training can consist of various elements: skid training, nighttime driving, evaluation of the driving, etc. The following of the training is the precondition for obtaining a 'full' licence, after a certain period of time (usually two years).

This system is in use in Estonia, Finland and Luxembourg.

#### **Model 3 Two-phase licensing system with a probationary licence without restrictions**

In this model, a student takes his or her training at a driving school, with a non-professional supervisor or by combining the two. After having completed the training, the student has to pass a theory and a practical driving test, which leads to the acquisition of a driving licence.

For a certain period of time immediately following obtaining the driving licence (in most cases two years), the driving licence is a probationary licence without restrictions. This means that during the probationary period the student is subject to a number of special, generally stricter measures in case

of violation of the traffic regulations. In some countries this is done in the form of penalty point systems, giving points to or taking them away from the driver when he or she commits a traffic offence. If too many traffic offences are committed within certain periods of time, the driver may be forced to follow extra training.

This system is in use in Germany, Great Britain, Norway, Portugal and Sweden.

**Model 4 Two-phase licensing system with a probationary licence with restrictions**

In this model, a student takes his or her training at a driving school, with a non-professional supervisor or by combining the two. After having completed the training, the theory and the practical test is passed, which leads to the acquisition of the driving licence.

For a certain period of time immediately after the driving licence has been obtained (in most cases two years), the driving licence is a probationary licence. During this probationary period, the driver is subject to certain restrictions, like speed limitations, stricter maximum blood alcohol levels, etc.

Apart from these restrictions, other measures may apply to the novice driver when violating the traffic regulations. In some countries this is done in the form of penalty point systems, giving points to or taking points away from the driver when committing a traffic offence. When too many traffic offences have been committed within certain period of time, the novice driver may be forced to follow extra training.

This system is in use in Austria, France, Hungary, Israel, Latvia, Northern Ireland, Spain and Tunisia.

Country	Licensing Model 1	Licensing Model 2	Licensing Model 3	Licensing Model 4
A				x
ALG	x			
B	x			
BUL	x			
CH	x			
D			x	
DK	x			
E				x
EST		x		
F				x
FIN		x		
GB			x	
H				x
HR	x			
IL				x
IRL	x			
L		x		
LV				x
MC	x			
N			x	
NI				x
NL	x			
P			x	
RUS	x			
S			x	
TUN				x



# 4 Part II: Driver and Driving Instructors' Needs

## 4.1 Chapter 1: Pre-requisites of training

### 4.1.1 France

In France the teacher of theory and practice must have a diploma of professional qualification (B.E.P.E.C.A.S.E.R.) for all categories. The responsible department of the Ministry of Transport provides this diploma.

In the majority of driving schools (75% of those surveyed) the theoretical lessons are organized as fixed packages but without specific curricula. However, for those trainees that start training from 16 years, the theoretical lessons are always fixed packages. There is a fixed schedule/time plan of lessons, but the authorities do not control this plan.

The lessons are given in special classrooms, for which there exist specific requirements regarding minimum surface. Departmental commissions, the gendarmerie and the fire brigade inspect the classrooms. The maximum number of trainees in one classroom depends on the classroom surface. For example, if the classroom is 25 m<sup>2</sup>, then the relevant number is 20 trainees.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- 4 doors (if they are to be used for simultaneous training of more than 1 person)
- box indicating corrections by the supervisor (light signals)
- special sign 'Auto – Ecole' on the car roof.

The age limit of such cars is 6 years.

The cars used for practical training privately must have:

- dual controls
- interior and exterior rear view mirror.

### 4.1.2 Belgium

In Belgium the teacher of theory must have a diploma of professional qualification of level III for theoretical driver training. The responsible department of the Ministry of Transport and Infrastructure provides this diploma.

The theoretical lessons are organized as fixed packages. However, theory lessons are not compulsory, except from trainees starting training from 17 years and in case the candidate has failed two times in

the tests. Driving schools have specific curricula for theoretical lessons. There is a fixed schedule/time plan of lessons, which is controlled by the inspection service of the Ministry of Transport and Infrastructure.

The theoretical lessons are given in special classrooms, for which there exist specific requirements regarding minimum surface, didactics, chairs and tables, toilets. They must be exclusively used by the driving school for training and must have a separate entrance, if it is in a private building. The classrooms are inspected by the Ministry of Transport and Infrastructure and by the fire brigade. The maximum number of trainees in one classroom depends on the classroom surface. For example, if the classroom is 25 m<sup>2</sup>, then the relevant number is 20 trainees.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- special sign ‘rijkschool’, ‘auto-ecole’ or ‘Fahrschule’ (the dimensions and text characteristics are legally prescribed)
- licence number of the school (eventually)
- box indicating corrections by the supervisor (light signals).

The age limit of such cars is 10 years.

The cars used for practical training privately must have:

- sign ‘L’
- second interior mirror
- handbrake in the middle.

### 4.1.3 Germany

In Germany the teacher of theory and practice must have a diploma of professional qualification, which is provided by the responsible department of the Ministry of Transport.

All driving schools participating in the survey answered that the theoretical lessons are organized as fixed packages with specific curricula. There is a fixed schedule/time plan of lessons, which is controlled by the Ministry of Transport.

The lessons are given in special classrooms, for which there exist specific requirements, regarding minimum surface and didactics. There is a specific legislation for driving schools requirements. The maximum number of trainees in one classroom depends on the classroom surface. For example, if the classroom is 25 m<sup>2</sup>, then the relevant number is 20 trainees.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- special sign ‘Fahrschule’ (but not during the driving examination)
- box indicating corrections by the supervisor (light signals)
- 4 places
- maximum speed of at least 130 km/h.

There is no age limit for such cars.

#### 4.1.4 The Netherlands

In the Netherlands there is no specific qualification required for teaching theory, however for practical training the teacher must have a diploma of professional qualification, which is provided by a state delegation, INOVAM.

All driving schools surveyed mention that the theoretical lessons are not organized as fixed packages and have no specific curricula.

There is also no specific requirement for provision of theoretical lessons in special classrooms. In case theory lessons are organised by driving schools, there are special classrooms. However only a few schools give theory lessons. There is also no fixed schedule of theory lessons.

As a results, there are no are specific requirements regarding such classrooms. Also, there are no regulations regarding maximum number of trainees in one classroom.

The cars used for practical training in the driving schools must have:

- dual controls
- special sign ‘L’.

There is no age limit for such cars.

#### 4.1.5 Portugal

In Portugal there is no specific qualification required for the theory teacher. The teacher of practice must have a diploma of professional qualification, which is provided by the General Directory of Traffic of the Ministry of Transport.

The theoretical lessons are organized as fixed packages with specific curricula. There is a fixed schedule/time plan of lessons, which is controlled by the Ministry of Transport.

The lessons are given in special classrooms, for which there exist specific requirements. The minimum surface is 25 m<sup>2</sup>. If there are two classrooms at the same school they must be at minimum 15 m<sup>2</sup> each. There are also specific requirements regarding didactics. The relevant department of the Ministry of Transport inspects the classrooms. The maximum number of trainees in one classroom depends on the classroom surface. For example, if the classroom is 25 m<sup>2</sup>, then the relevant number is 20 trainees.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- special sign ‘Autoscuola’ with the name of the city.

There is no age limit for such cars.

#### 4.1.6 Luxembourg

In Luxembourg the teacher of theory and practice must have a diploma of professional qualification (Brevet de Maîtrise). The Examination Committee of the 'Federation des Artisans' provides this diploma.

The theoretical lessons are organized as fixed packages with specific curricula. There is also a fixed schedule/time plan of lessons, which is controlled by examiners.

The lessons are given in special classrooms, for which there exist specific requirements regarding minimum surface. The maximum number of trainees in one classroom depends on the classroom surface. For example, if the classroom is 25 m<sup>2</sup>, then the relevant number is 20 trainees.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- 4 doors
- box indicating corrections by the supervisor (light signals)
- special sign 'Auto – Ecole' on the car roof
- boot
- minimum length of 4 meters.

There is no age limit for such cars.

#### 4.1.7 Sweden

In Sweden there is no special qualification required for the theory teacher. The practice teacher must have a diploma of professional qualification, which is provided by Special Institutes.

The theoretical lessons are organized as fixed packages with specific curricula. There is a fixed schedule/time plan of lessons, which is controlled by the Ministry of Transport.

The lessons are given in special classrooms, for which there exist specific requirements regarding minimum surface and didactics. Health authorities and the fire brigade inspect the classrooms. The maximum number of trainees in one classroom depends on the classroom surface. For example, if the classroom is 25 m<sup>2</sup>, the relevant number is 20 trainees.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- special sign.

There is no age limit for such cars.

The cars used for practical training privately must have:

- special sign 'L'.

#### 4.1.8 Austria

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- special sign ‘Fahrschule’.

There is no age limit for such cars.

#### 4.1.9 Spain

In Spain there is no special qualification required for the theory teacher. The practice teacher must have a diploma of professional qualification.

The theoretical lessons are organized as fixed packages with specific curricula. There is a fixed schedule/time plan of lessons, which is controlled by the General Directory of the Ministry of Transport.

The lessons are given in special classrooms. No data on specific requirements have been given. The maximum number of trainees in one classroom depends on the classroom surface, however there is a global maximum of trainees in all cases.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- box indicating corrections by the supervisor (light signals)
- special sign ‘Autoescuela’.

There is no age limit for such cars.

#### 4.1.10 Greece

In Greece the teacher of theory and practice must have a diploma of professional qualification, which is provided special training institutes.

The theoretical lessons are organized as fixed packages with specific curricula. There is a fixed schedule/time plan of lessons, which is controlled by the Ministry of Transport.

The lessons are given in special classrooms, for which there exist specific requirements regarding didactics (audiovisual equipment, car body profile, tables). The maximum number of trainees in one classroom depends on the classroom surface. For example, if the classroom is over 12 m<sup>2</sup>, then the relevant number is 15 trainees.

The cars used for practical training in the driving schools must have:

- dual controls
- interior and exterior rear view mirror
- special sign
- air conditioning system

There is no age limit for such cars.

#### 4.1.11 Overview

In 5 out of 9 countries surveyed there is a requirement for professional diploma for the theory teacher, while in the rest 4 there is no requirement.

Country	Requirement for theory teacher	Diploma provided by
Belgium	Diploma of professional qualification	Public Authority
Germany	Diploma of professional qualification	Public Authority
Spain	No special qualification	
France	Diploma of professional qualification	Public Authority
Greece	Diploma of professional qualification	Special Training Institute
Luxembourg	Diploma of professional qualification	Examination Committee of the 'Federation des Artisans'
Netherlands	No special qualification	
Portugal	No special qualification	
Sweden	No special qualification	

However, in all 9 countries the practice teacher must have a diploma of professional qualification. This is provided by either public (in most cases) or private organisations (in two countries).

Country	Diploma provided by
Belgium	Public Authority
Germany	Public Authority
France	Public Authority
Greece	Special Training Institute
Luxembourg	Examination Committee of the 'Federation des Artisans'
Netherlands	INOVAM (state delegation)
Portugal	General Directory of Traffic (governmental)
Sweden	Special Institute

In 8 out of 9 countries the theory lessons are organised as fixed packages (except in the Netherlands), while in 7 out of 9 there are also specific curricula. Again in all 8 countries (except the Netherlands) there is a specific schedule / time plan of theory lessons, which is controlled by the relevant department of the Ministry of Transport.

Country	Fixed packages	Specific curricula
Belgium	Yes, but not compulsory	Yes
Germany	Yes	Yes
Spain	Yes	Yes
France	Yes	No
Greece	Yes	Yes
Luxembourg	Yes	Yes
Netherlands	No	No
Portugal	Yes	Yes
Sweden	Yes	Yes

In all countries special classrooms are required for theory lessons. Special requirements for the classrooms mainly refer to surface and didactics.

Country	Are special classrooms required?	Are there special requirements for classrooms?
Belgium	Yes	Yes, Surface, Didactics, Chairs and tables, Toilets, Exclusive use, Separate entrance (Inspection by ministry and fire brigade)
Germany	Yes	Yes, Surface, Didactics, Specific legislation
Spain	Yes	
France	Yes	Yes, Surface, (Inspection by departmental commission, police, fire brigade)
Greece	Yes	Yes, Surface (audiovisual equipment, car profile, tables)
Luxembourg	Yes	Yes, Surface
Netherlands	Yes (not fixed, but when theory is organised by driving schools)	No
Portugal	Yes	Yes, Surface, Didactics (Inspection by ministry)
Sweden	Yes	Yes, Surface, Didactics (Inspection by health authorities and fire brigade)

The required characteristics of the driving schools cars are presented below.

Country	Dual controls	Rear view mirror inside and outside	4 doors	Special sign	Correcting box	Other
Austria	X	X		X		
Belgium	X	X		X	X	Age limit: 10 years, Special license number
Germany	X	X		X	X	4 seats, minimum 130 km/h
Spain	X	X		X	X	
France	X	X	X	X	X	Age limit: 6 years
Greece	X	X		X		Air conditioning system
Luxembourg	X	X	X	X	X	Minimum 4 m, boot
Netherlands	X			X		
Portugal	X	X		X		
Sweden	X	X		X		

## 4.2 Chapter 2: Training practices and tools

### 4.2.1 France

There are no official books for theoretical training. However, there are various books in the market, which are used as well as various videotapes from National Road Safety Campaigns, but also from firms and car manufacturers.

The practical training is composed of: introduction, actual lesson and evaluation. Its total duration is 60 min, while the duration of the actual lesson is 45-50 min.

It is allowed to train more than one person simultaneously in the same car (up to 3 persons), however only a few schools follow this practice.

Practical training in a private car is allowed, but it is very exceptional. French driving instructors estimate that only around 0.01% of practical training happens this way.

Trainees may have 2 hours of 50 min training without interruption. Practical training is also allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor must fill-in a lesson report after each practical lesson.

Two out of 18 schools in the survey claimed that they are using driving simulators for control and evaluation of practical training, while 14 out of 18 use a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- defensive driving techniques
- high speed driving
- use of car lights.

If a candidate fails the theory tests one can not pass the test for the second time before 14 days as a minimum.

A driver may be obliged to undergo a theory course in case of relevant judgment or invalidation (penalty points).

### 4.2.2 Belgium

There are no official books for theoretical training. However, there are various books in the market, which are used. Several schools have developed their own transparencies, which focus on local situations. They also use various videotapes from National Road Safety Campaigns, but also from firms and car manufacturers.

The duration of the practical training is 60 min and this is controlled by the Ministry of Transport and Infrastructure.

It is not allowed to train more than one person simultaneously in the same car.

Practical training in a private car is allowed. Belgian driving instructors estimate that around 40% of practical training is done this way.

Trainees may have 2 hours of 60 min training without interruption. Practical training is also allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor must fill-in a lesson report after each practical lesson.

No driving school in the survey uses driving simulators for practical training, while almost all, 31 out of 32, use a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- defensive driving techniques
- use of car lights.

If a candidate has not followed a complete course at a driving school and fails twice at the tests, one has to follow it before passing the test again.

A driver may be obliged to undergo a theory course in case of relevant judgment.

### 4.2.3 Germany

There are no official books for theoretical training. However, there are various books in the market, which are used as well as various videotapes from National Road Safety Campaigns, but also from firms and car manufacturers. The use of special training CDs is also mentioned by the participating in the survey driving schools.

The average duration of a practical lesson is 45 min.

It is not allowed to train more than one person simultaneously in the same car.

Practical training in a private car is not allowed.

Trainees may have 4 hours of 45 min training without interruption. Practical training is not allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor must fill-in a lesson report after each practical lesson.

No driving school of those questioned (26 in total) is using a driving simulator for practical training, while all 26 of them use a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- defensive driving techniques
- high speed driving
- use of car lights.

There are no specific obligations before a candidate can pass the exam for the second time, after a failure.

#### 4.2.4 The Netherlands

There are no official books for theoretical training. However, there are various books in the market which are used as well as slides/transparencies, special videotapes or videotapes from National Road Safety Campaigns, CD-ROMs with special training software.

The practical training lasts 50-60 min.

It is allowed to train more than one person simultaneously in the same car (up to 3 persons). In most driving schools the relevant practice hours are not calculated in the total hours of training. However, in the 'ANWB' schools they are calculated.

Practical training in a private car is allowed, but it is not at all common.

Practical training is allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor is not obliged to fill-in a lesson report after each practical lesson.

Only 1 out of 18 school in the survey is using a driving simulator for practical training while 6 out of 18 use a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- defensive driving techniques
- high speed driving
- use of car lights.

There are no specific obligations before a candidate can pass the exam for the second time, after a failure.

A driver may be obliged to undergo a theory course in case of relevant judgment.

#### 4.2.5 Portugal

There are no official books for theoretical training. However, there are various books in the market, which are used. The use of slides is compulsory. Various videotapes from National Road Safety Campaigns, but also from firms and car manufacturers are also used, as well as training CD-ROMs.

The practical training lasts 50 min. It is allowed to train more than one person simultaneously in the same car (up to 3 persons). These hours however are not calculated in the total hours of training.

Practical training in a private car is not allowed.

Practical training is not allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor must fill-in a lesson report after each practical lesson.

1 out of 12 school in the survey is using a driving simulator for practical training, while 11 out of 12 use a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- defensive driving techniques
- use of car lights.

If a candidate fails the theory tests, the relevant theory lessons must be re-taken. The driving school receives an evaluation report from the examination centre, indicating the failure parts.

A driver may be obliged to undergo a theory course in case there are doubts about his/her physical, mental or psychological aptitude. The competent authority can then decide that the driver must undergo medical inspection, psychological tests, and theoretical and/or practical examinations.

#### 4.2.6 Luxembourg

There are no official books for theoretical training. However, there are various books in the market which are used (driving code, priority documentation, etc.) as well as transparencies/slides. Some schools have developed their own videotapes, with emphasis on local situations.

The practical training lasts 60 min.

It is not allowed to train more than one person simultaneously in the same car.

Practical training in a private car is not allowed.

Trainees may have 4.5 hours of 60 min training without interruption. Practical training is also allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor is not obliged to fill-in a lesson report after each practical lesson.

One out of 2 schools questioned is using a driving simulator, while both are using a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- skid control
- defensive driving techniques
- high speed driving
- use of car lights.

If a candidate fails the theory test, one has to re-follow 50% of the already followed hours.

Currently, there is no case where a driver is obliged to undergo a theory course. However this will be realised in the future within the frame of penalty points licenses.

#### **4.2.7 Sweden**

There are no official books for theoretical training. However, there is a book in the market, which is used as well as slides, governmental and private videotapes, training software.

The practical training lasts 40 min.

It is not allowed to train more than one person simultaneously in the same car.

Practical training in a private car is allowed. Swedish driving instructors questioned estimate that around 24% of practical training happens this way.

Practical training is also allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor must fill-in a lesson report after each practical lesson.

None of the 2 driving schools in the survey is using a driving simulator for practical training or a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- skid control
- defensive driving techniques
- high speed driving
- use of car lights.

There are no specific obligations before a candidate can pass the exam for the second time, after a failure.

A driver may be obliged to undergo a theory course in case of relevant judgment.

#### **4.2.8 Austria**

The duration of a practical lesson is 50 min.

It is allowed to train more than one person simultaneously in the same car (up to 3 persons), but only for long distance driving in rural areas and for night driving.

Practical training in a private car is not allowed.

Trainees may have 2 hours of 50 min practical training without interruption. Practical training is not allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor must fill-in a lesson report after each practical lesson.

#### **4.2.9 Spain**

There are no official books for theoretical training. However, there are various manuals in the market, which are used, as well as videotapes and training CD-ROMs.

The minimum duration of a practical lesson is 45 min.

It is not allowed to train more than one person simultaneously in the same car.

Practical training in a private car is allowed, but it is very exceptional. Spanish driving instructors mentioned that no candidates are trained this way.

Trainees may have 2 hours of 45 min training without interruption. Practical training is not allowed on Sundays and holidays.

A trainee may switch driving school during the tuition.

The instructor must fill-in a lesson report after each practical lesson.

Spanish driving instructors estimate that a few schools are using driving simulators for practical training, while all of 10 questioned use a car chassis.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- defensive driving techniques
- use of car lights.

There are no specific obligations before a candidate can pass the exam for the second time, after a failure.

Currently, there is no case where a driver is obliged to undergo a theory course. This subject is under study.

#### 4.2.10 Greece

For theory training the official book of the Ministry of Transport is being used. There is also a relevant CD-ROM for the theory test, produced under the auspices of the Ministry of Transport. Currently, this is being used under probation in a few test centres. Various schools have also developed and are using slides and videotapes, as well as training software.

The duration of the practical lesson is 45 min.

It is not allowed to train more than one person simultaneously in the same car.

Practical training in a private car is not allowed.

Practical training is also allowed on Sundays and holidays.

The instructor is not obliged to fill-in a lesson report after each practical lesson.

No driving school in the survey is using a driving simulator. All schools are obliged to have a car chassis, to display to the trainees the various subsystems of the car.

Additional items trained during practical training include:

- how to get in the car
- adjustment of chair position
- highway driving
- use of car lights
- changing tyres
- changing bulbs.

If a candidate fails the theory tests, one must re-follow 6 theory lessons.

A driver may be obliged to undergo a theory course in case of invalidation (penalty points).

#### 4.2.11 Overview

There are no official books used for theory training, except in Greece, where there is an official book and a CD-Rom (under probation) by the Ministry of Transport. Tools used for theoretical training are:

Country	Market books	Slides	Videotapes	CD-Rom's
Belgium	Yes	Own material of schools	Yes	Yes
Germany	Yes		Yes	Yes
Spain	Yes		Yes	Yes
France	Yes		Yes	Yes
Greece	Yes (state book)			Yes (state CD-Rom)
Luxembourg	Yes	Yes	Own videos of some schools	
Netherlands	Yes	Yes	Yes	Yes
Portugal	Yes	Yes, compulsory	Yes	Yes
Sweden	Yes	Yes	Yes, governmental and private tapes	Yes

The duration of practical lesson in various countries is presented below.

Country	Duration of practical lesson
Austria	50 min
Belgium	60 min
Germany	45 min
Spain	minimum 45 min
France	60 min
Greece	45 min
Luxembourg	60 min
Netherlands	60 min
Portugal	50 min
Sweden	40 min

In 4 out of 10 countries simultaneous training of more than one person in the same car is allowed, while in the rest 6 not allowed.

Country	Is it allowed to instruct more than one person at a time in the same car?
Austria	Yes, only for long and night driving
Belgium	No
Germany	No
Spain	No
France	Yes, but only a few schools do it
Greece	No
Luxembourg	No
Netherlands	Yes
Portugal	Yes
Sweden	No

Private training is allowed in 5 out of 10 countries surveyed, as presented below.

Country	Is private training allowed?	Required characteristics of such cars
Austria	No	
Belgium	Yes, 40% of training happens like this	'L' sign and second interior mirror, Handbrake in the middle
Germany	No	
Spain	Yes, but it is very rare	
France	It is exceptional, only 0.01% of practical training happens like this	Dual controls, rear view mirrors inside and outside
Greece	No	
Luxembourg	No	
Netherlands	Yes, but it is very rare	
Portugal	No	
Sweden	Yes, 20% of training happens like this	'L' sign

Regarding training on holidays and obligation of instructor to complete a report after each practical lesson, the situation is rather diverse, as presented below.

Country	Is practical training also allowed on holidays?	Is the instructor obliged to fill-in lesson report?
Austria	No	Yes
Belgium	Yes	Yes
Germany	No	Yes
Spain	No	Yes
France	Yes	Yes
Greece	Yes	No
Luxembourg	Yes	No
Netherlands	Yes	No
Portugal	No	Yes
Sweden	Yes	Yes

The following items are additional treated in the practical training in the various countries.

Country	Car entrance	Chair position	Highway driving	Skid control	Defensive driving	High speed driving	Use of lights	Changing tyres	Changing bulbs
Belgium	X	X	X		X		X		
Germany	X	X	X		X	X	X		
Spain	X	X	X		X		X		
France	X	X	X		X	X	X		
Greece	X	X	X				X	X	X
Luxembourg	X	X	X	X	X	X	X		
Netherlands	X	X	X		X	X	X		
Portugal	X	X	X		X		X		
Sweden	X	X	X	X	X	X	X		

## 4.3 Chapter 3: Driving instructors' needs and wishes

### 4.3.1 France

French driving instructors mention that the hours for driver's theoretical training are rather few, while for practical training they think the hours are enough.

They would like the following additional items introduced in theoretical training:

- road behaviour
- first aid provision
- necessity and meaning of documents on board.

Regarding practical training they propose to include also training in:

- skidding
- emergency braking
- obstacle avoidance.

### 4.3.2 Belgium

Belgian driving instructors mention that the hours for driver's theoretical training are too few, while for practical training they think the hours are rather few.

They would like the following additional items introduced in theoretical training:

- differences in legislation and highway code with other countries
- necessity and meaning of documents on board
- dashboard symbols.

As a general remark they mention that theoretical courses at driving schools must become compulsory for all candidates.

Regarding practical training they propose to include also training in:

- skidding
- emergency braking
- driving in motorways
- convoy driving.

### 4.3.3 Germany

German driving instructors questioned mention that the hours for driver's theoretical and practical training are adequate.

They have no specific proposal for additional items to be introduced in theoretical or practical training.

#### 4.3.4 The Netherlands

The driving instructors questioned feel that the hours for driver's theoretical training are 'Too few', 'Rather Few' or 'Adequate', while for practical training they think the hours are 'Rather Few' or 'Adequate'.

They would like the following additional items introduced in theoretical training:

- legislation and driving rules in other countries (i.e. convoys, speed limits)
- effects of alcohol/drugs use.

Regarding practical training they propose to emphasise the training in:

- defensive driving techniques.

#### 4.3.5 Portugal

The driving instructors questioned think that the hours for driver's theoretical training are too few, while the hours for practical training are enough.

They would like the following additional items introduced in theoretical training:

- first aid provision.

Regarding practical training they propose to include also training in:

- emergency braking
- driving in specific situations, i.e. driving in darkness, driving on wet roads.

#### 4.3.6 Luxembourg

The questioned driving instructors mention that the hours for driver's theoretical training are too few, while for practical training they think the hours are rather few.

They have no specific proposal for additional items introduced in theoretical or practical training.

#### 4.3.7 Sweden

Swedish driving instructors mention that the hours for driver's theoretical and practical training are rather few.

They have no specific proposal for additional items introduced in theoretical or practical training.

#### 4.3.8 Spain

Spanish driving instructors questioned have no specific proposal for additional items introduced in theoretical or practical training.

### 4.3.9 Greece

The driving instructors questioned think that the hours for driver’s theoretical training are too few, while the hours for practical training are rather few.

They would like the following additional items introduced in theoretical training:

- international driving legislation.

Regarding practical training they propose to include also training in:

- obstacle avoidance
- proper drivers behaviour, towards other road participants
- highway driving
- high speed driving.

### 4.3.10 Overview

In most cases driving instructors feel that the hours of theoretical or practical training are not adequate (rather few or too few).

Country	The hours of theoretical training are	The hours of practical training are
Belgium	Too few	Rather few
Germany	Adequate	Adequate
France	Rather few	Adequate
Greece	Too few	Rather few
Luxembourg	Too few	Rather few
Netherlands	Rather few	Rather few
Portugal	Too few	Adequate
Sweden	Raher few	Rather few

They would like the following additional items to be introduced in theoretical training:

Country	International legislation	Board documents explanation	Dashboard symbols	First aid	Road behaviour	Alcohol and drugs
Belgium	X	X	X			
Germany						
Spain						
France		X		X	X	
Greece	X					
Luxembourg						
Netherlands	X					X
Portugal				X		
Sweden						

Regarding practical training they propose to include/emphasise training in:

<b>Country</b>	<b>Additional items to be introduced/emphasised in practical training</b>
<b>Belgium</b>	Skidding, Emergency braking, Motorways, Convoy driving
<b>France</b>	Skidding, Urgency break, Obstacle avoidance
<b>Greece</b>	Obstacle avoidance, Drivers' proper behaviour
<b>Netherlands</b>	Defensive driving
<b>Portugal</b>	Driving in specific situations, Emergency braking, Driving in darkness, Driving on wet roads

# 5 Part III: Proceedings of the TRAINER Workshop on 22 November 2000

## 5.1 Introduction

The TRAINER pan-European Workshop was held on Wednesday, 22.11.2000, in Hotel Albert Premier in Brussels, Belgium, within the framework of TRAINER project.

The workshop was organised by CIECA and EFA, Partners of TRAINER Consortium, with the kind support of AIT-FIA.

In the TRAINER workshop participated key organisations and experts of the transportation area, as well as representatives of ministries and relevant authorities. In total, 41 external experts and 19 Consortium members participated in the workshop.

This chapter presents the minutes and the results of the TRAINER workshop Round Table and Plenary discussions.

## 5.2 Question 1: On what points does the driver training of candidates need additional elements, and what role can the simulator play in this?

### 5.2.1 Question 1 answers synthesis

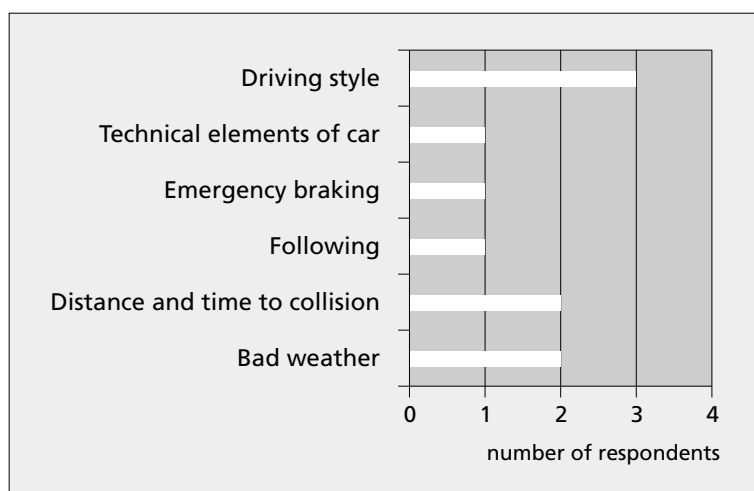


Figure 1 Tasks requiring further training but without simulators

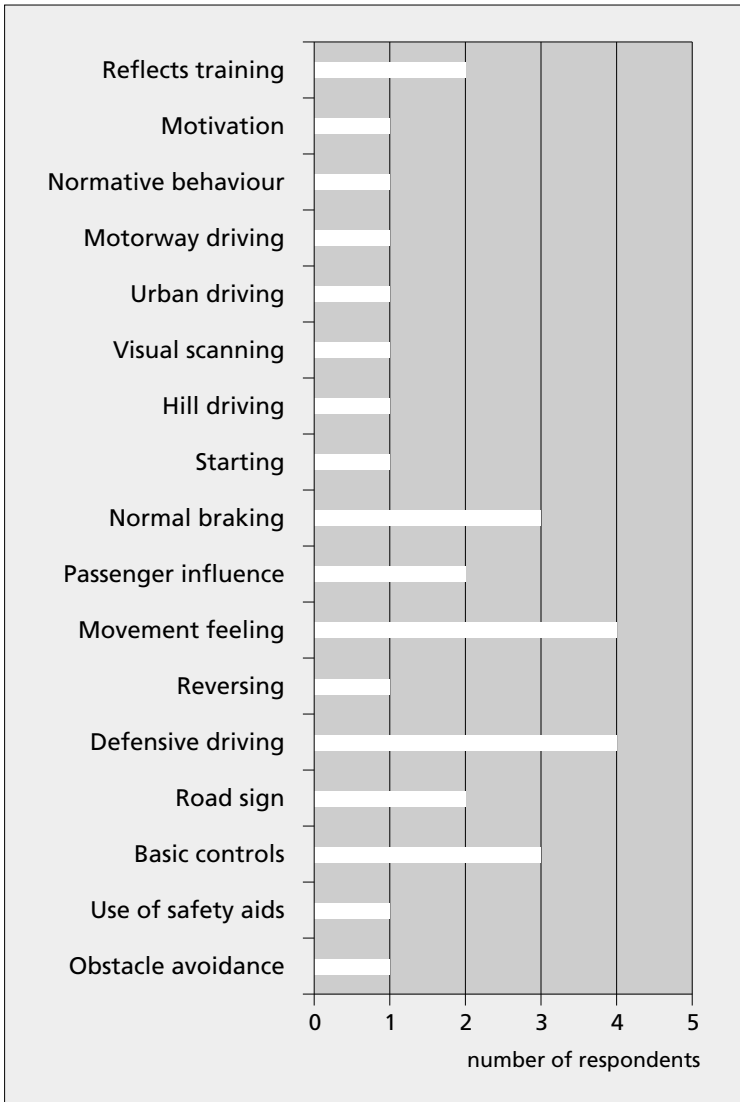


Figure 2 Tasks requiring further training, for which simulator is proposed to be used

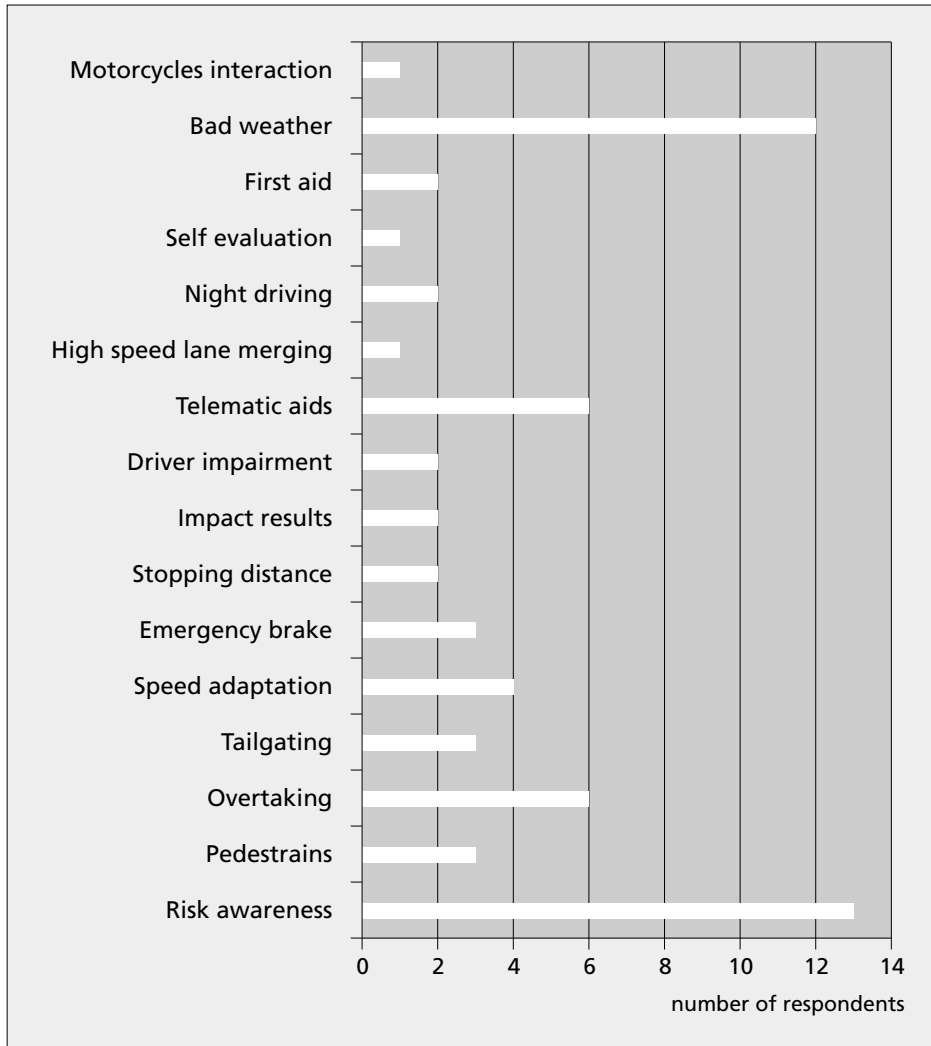


Figure 3 Tasks requiring further training, for which simulator is proposed to be used (cont.)

### 5.2.2 Comments on Question 1

Simulators should be used primarily when real car training is not feasible (i.e. for hazard perception).

They can also be used to practice safer and in more detail selected reflex and control tasks.

The issue of motion sickness that can be felt due to the simulator should be carefully analysed and tested before the prototype simulator is finalised.

Simulators should be equipped with sufficient trainee monitoring, evaluation and feedback tools, to guarantee a minimum trainer independent knowledge acquisition.

It could be useful to train different trainees in different tasks in the simulator, according to each trainee’s weaknesses (parametric training).

Multimedia simulation tools as well as simulators could be used to improve past accident responsibilities and activities training, for which trainees are currently very weakly trained.

Simulators might be useful to offer an overview to the trainee of different car capabilities (i.e. front versus rear wheel driving). This might be interesting, since currently all trainees learn at the driving school car and may find some difficulties to transfer their knowledge to other car types.

Whatever the selected driving task to be learned using multimedia tools and simulators, their value will be determined by their feedback.

The distraction capabilities of external signals (i.e. from mobile telephone but even from an ambulance) could be also highlighted using simulators. Trainees could be trained on how to process signals without shifting their concentration from the main driving task. Distraction training cannot be performed on road.

Regarding ADAS, simulators can be used for training users on their user interface as well as to let them understand their limitations.

Good audio cues could be supported in order to provide a good vehicle feeling.

Truck overtaking in particular is important to be trained in simulators, including low speed overtaking in city environment.

Post-training group discussions are important when using simulators, to understand what went wrong, gain expertise through other trainee's errors and enhance self-awareness.

Car malfunctions and their impact to the vehicle control could be also explained with the help of the simulator.

Training emphasis on simulator scenarios should be on braking distance instead of emergency braking and handling.

The different point of view of other road users (i.e. truck driver, taxi driver, bicyclist, motorcyclist) should also form a part of the training.

## 5.3 Question 2: For which learning tasks should we not use the simulator?

### 5.3.1 Question 2 answers synthesis

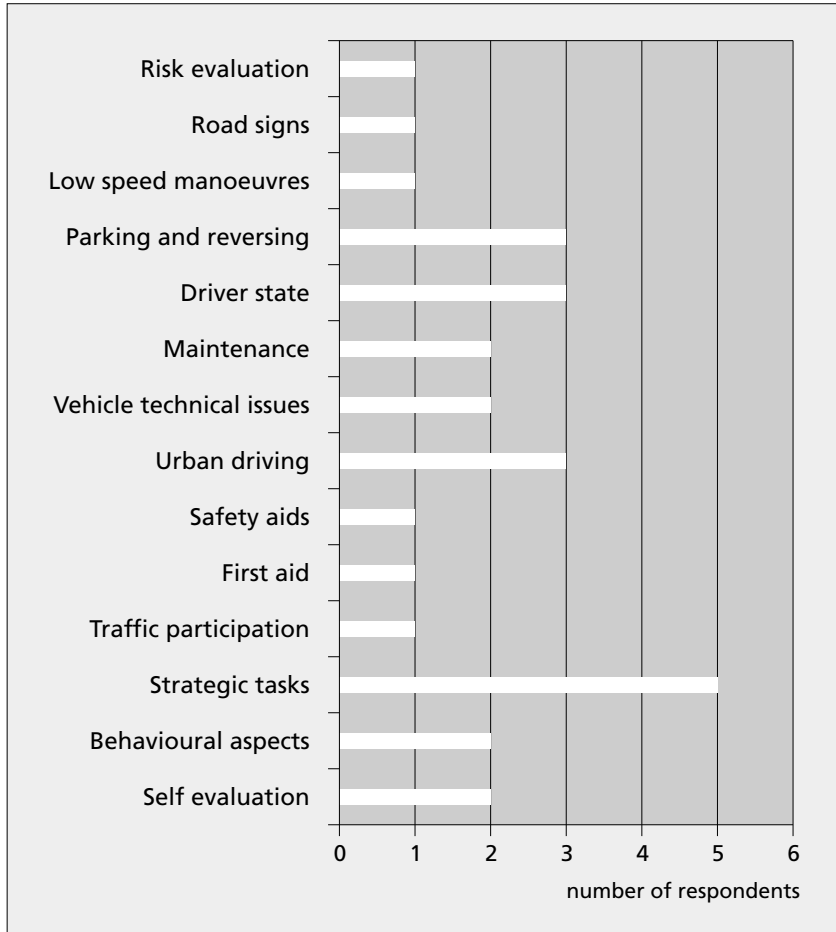


Figure 4 Tasks for which simulators should not be used

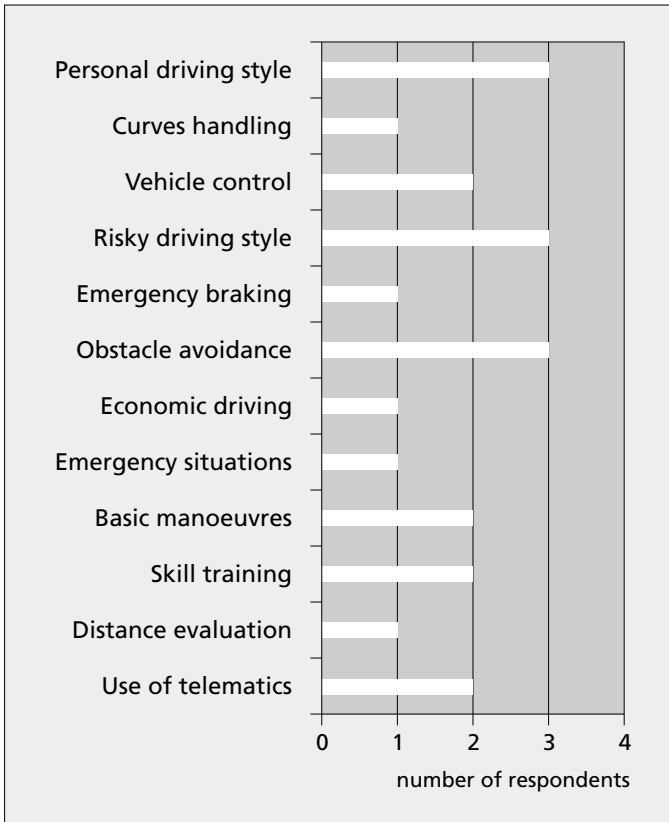


Figure 5 Tasks for which simulators should not be used (cont.)

### 5.3.2 Comments on Question 2

Risky situations should not be used too often, in order not to create to the trainee the feeling of an unnatural environment.

Simulator training should be always monitored by an instructor and preceded or followed by relevant actual car training sessions.

Simulators should be used only for limited hours, as driving should not be trained on them. The trainee should learn ‘car feeling’ by driving an actual car.

Very complex scenarios, involving many cars, may not be well represented in simulators and therefore should be avoided.

Risk awareness should be trained in simulators but not risk handling.

## 5.4 Question 3: What is the additional value of multimedia training tools for the theoretical driver training?

### 5.4.1 Question 3 answers synthesis

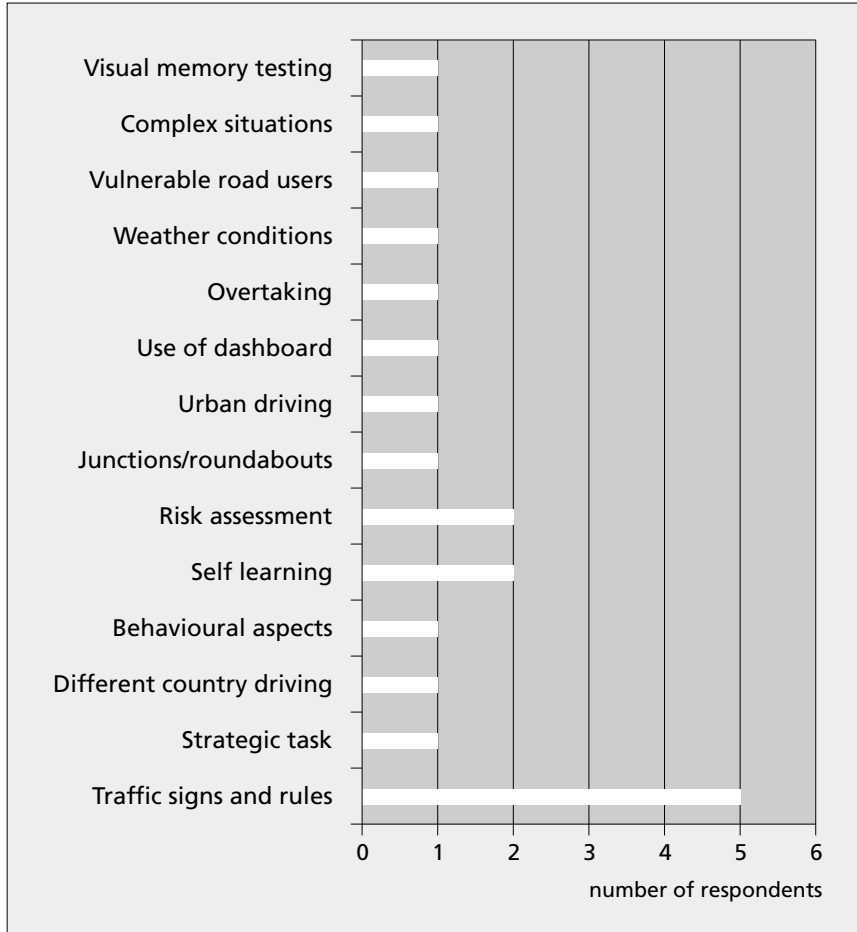


Figure 6 Tasks for which MMT is proposed to be used

### 5.4.2 Comments on Question 3

Such a tool could be used in secondary school education (as a new lesson on traffic behaviour and safety), thus enhancing the relevant knowledge of all trainees before starting the actual training in the driving school.

Driving instructors on the other hand believed that proper training using the multimedia tool should be only performed in driving school training centres, under driving instructors supervision, to avoid misconceptions and errors in understanding.

Older novice drivers could have difficulties to use modern, PC-based tools. Therefore, it should be supportive and not obligatory.

As reasons for the potential success of such a tool, the following were mentioned:

- it is more instructive and realistic
- it is more fun to learn using such a tool
- the use of videos and pictures simplifies learning
- young people are attracted by multimedia applications
- all sensory channels of the trainee would be activated
- a good multimedia presentation might be more convincing than a trainer (which could be eventually also not a very good one)
- training could be supported everywhere (at school, at home, etc.), at least for repetitions
- better training overview
- much more scenarios can be economically supported than in a simulator
- better feedback on errors is provided to the trainee
- the trainee can experience more complex situations using such a tool than the trainer could describe
- lessons can be easier standardized (with guaranteed minimum quality)
- it can support distance learning
- it supports interactive education, that is optimal
- it would be less boring
- students will be more involved in the lessons
- it would support objective trainee assessment
- training can be self-paced
- much more training scenarios can be supported
- everyone has a PC, thus can self-use it, thus reduce training cost through self-training
- tailored training to trainees with particular problems can be supported
- the trainer would be guided and supported in his/her task
- appropriate emphasis to most important issues is guaranteed.

The requests from such a tool, in order to be successful were:

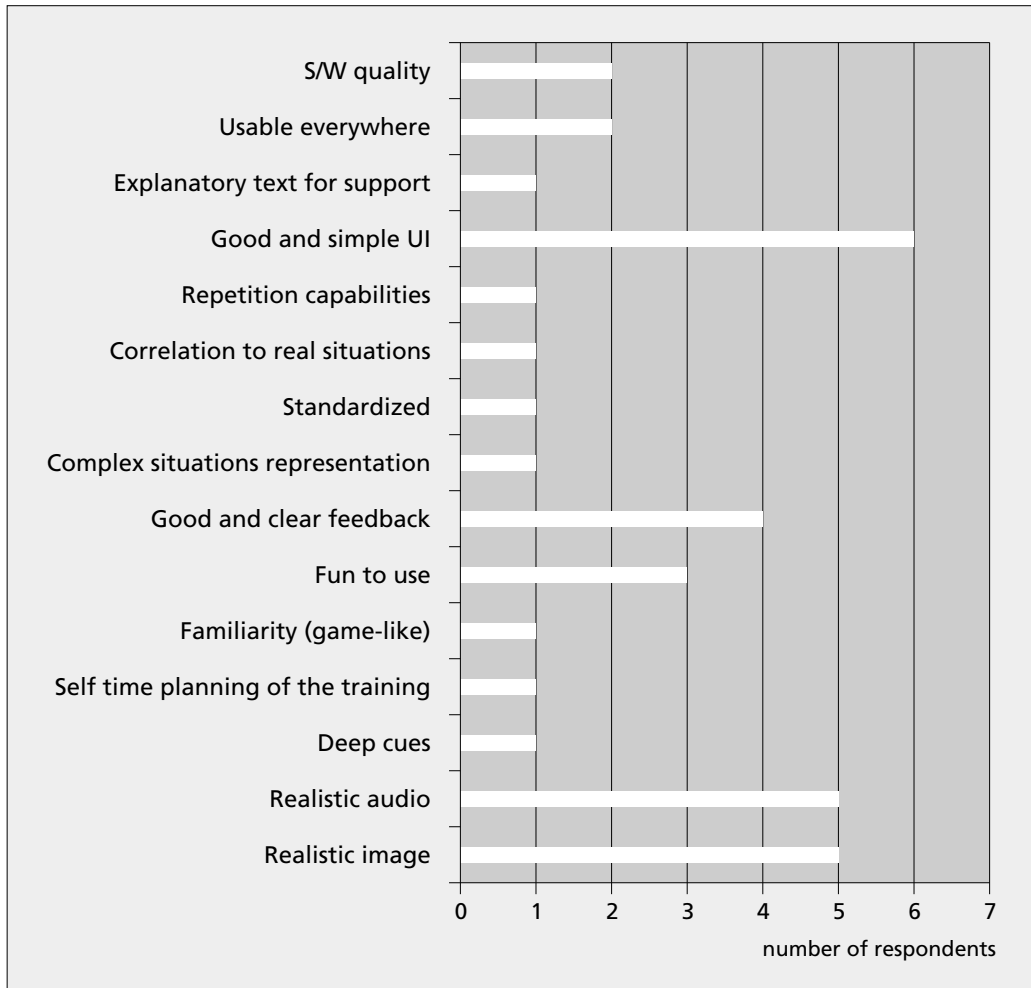


Figure 7 MMT requirements to be successful

## 5.5 Question 4: Do you think that a simulator as presented to you here could have a realistic chance on the market and why?

### 5.5.1 Question 4 answers synthesis

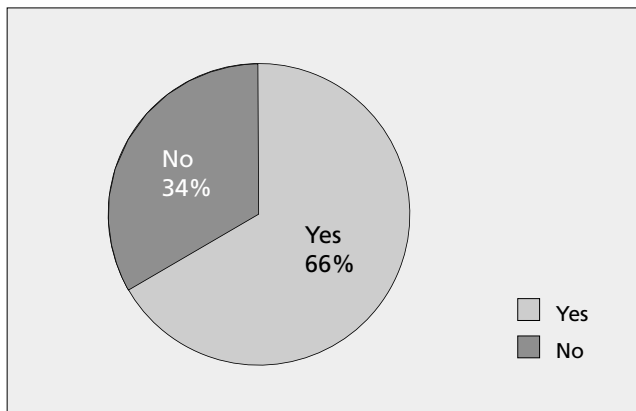


Figure 8 Stated positive vs. negative chances of simulator market success

### 5.5.2 Comments on Question 4

Those that stated that such a simulator would have a good chance on the Market commented that:

- there is already such an established Market of some hundreds of simulators Europe-wide
- big driving schools and/or driving school agglomerations (i.e. ‘Theory Centres’ in Greece) will be able to easily afford them
- the existence of national s/w versions will significantly enhance its marketability
- alternative purchase schemes (i.e. leasing, pay per use, etc.) would greatly enhance its Market
- market success largely depends upon the possibility to achieve universally accepted standards for such tools Europe-wide
- would reduce training cost
- would reduce 20%-40% the driving school cars usage (cheaper for the school, environmental gains)
- would simplify the initial practical training phase.

Those that believed that such a simulator would not find its place in the Market commented that:

- trainers will not promote it out of fear that it would reduce the training time (as 20 minutes in the simulator may equal some hours of experience in vehicle driving for some driving tasks)
- some trainers are not well educated to understand the benefits and operate such a tool
- only through supportive legislation or other economical incentives would economically hard-pressed driving schools decide to use such tools
- difficult for small driving schools
- low-cost simulators (static) would be boring and unnatural.

The success rate was mentioned that it would depend upon:

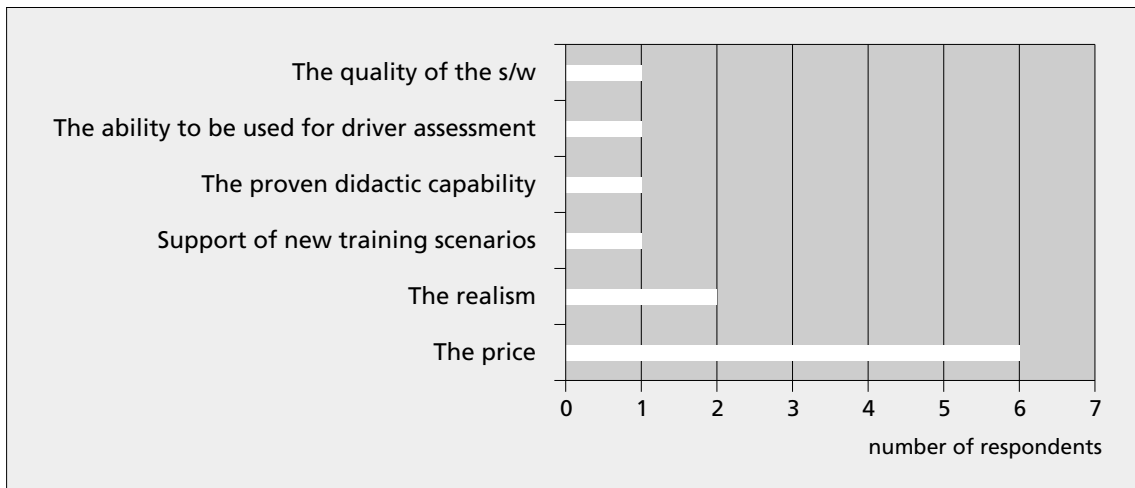


Figure 9 Simulator requirements for Market success

The multimedia tool and the simulators should have a very good user interface, to allow trainees without good PC knowledge to use them.

## 5.6 Question 5: How much do you think a driving school would pay for the simulator and how much for the multimedia s/w tool?

### 5.6.1 Question 5 answers synthesis

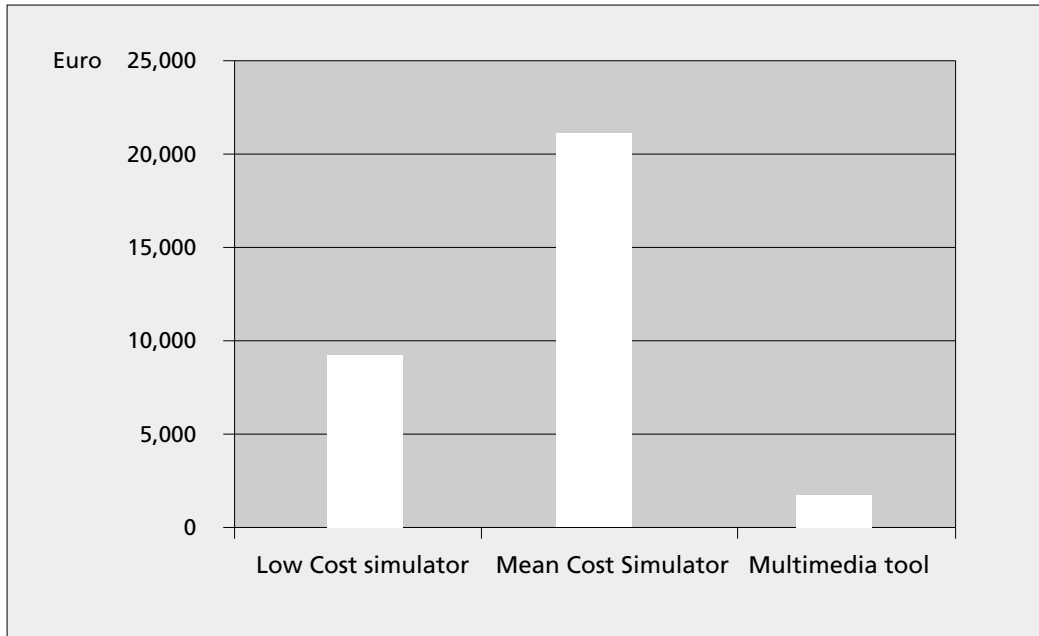


Figure 10 Suggested price margins for TRAINER tools to be successful in the Market

### 5.6.2 Comments on Question 5

The alternative approach to sell licenses for multimedia tools, per ‘time of use’ (i.e. 100 Euro per trainee or training session) instead of purchase licenses should be carefully evaluated. Such licenses ‘per use’ can be easier sold and is simpler to correlate them to existing training costs.

The mean simulators should be made mobile, so that different driving schools can use them collectively.

Both the driving simulator and the multimedia tool should be marketed as modular products, supporting also separately specific training packages (i.e. one package on risk awareness, another on ecological/economical driving, etc.).

The cost of the simulators should always remain at a fraction of a full vehicle cost, depending of course upon its functionalities.

## 5.7 General (Discussion points)

1

**Driver state** (i.e. fatigue, alcohol) related **scenarios** are not adequate for training in the simulator, as young drivers are not convinced by demos, unless they experience them.

To solve this problem in USA an experiment has been performed, where novice drivers were allowed to drink one glass of alcohol, under medical supervision. Then they drove a simulator and were exposed to traffic risks. It seems that this experience influenced them, as during a year of driving after it, they did not combine driving and drinking (reported through self evaluation and absence of accident data).

The implication for TRAINER would be to present theoretical data on driver's state effect using the multimedia tool and to consider in the simulators training curricula drink and drive session.

2

All **driving simulators** (even the most advanced research ones) **are good for training on how to avoid dangerous situations but not on how to handle them**. Simulator technical limitations in low speed manoeuvring would not allow such tools to be used for teaching for example obstacle avoidance manoeuvres.

The implication for TRAINER is to avoid implementing emergency negotiation scenarios and hypothesise that an accident has occurred in any case that the driver is involved in a high-risk situation (not allow avoidance manoeuvres to be simulated and undertaken).

3

In USA driving **simulators** are used also to **recognise the driver's driving style and even to influence/change it**. Algorithms on driver style extraction from combined simulator and real car data exist but are not commercially available.

TRAINER Consortium will undertake further contact with Carnegie Mellon Institute in USA to get more information on this subject.

4

The **simulator** should not be used for a complete driver training but **only for specific tasks**, in order to avoid learning and automating skills in an artificial environment.

The implication for TRAINER is to devise specific simulator scenarios and integrate them into the training curricula, combining them with actual car driving in between.

5

**Car control** would be interesting to be exercised also using the simulator, especially in **high traffic density** (where actual driving, without good control skills, could pause accident danger or influence the traffic flow).

The implication for TRAINER is to add one or more high traffic density scenarios in its control scenarios group.

## 6

**Different countries have different lane markings** and sometimes even **differences in traffic signs**. One further example of such problems is, the different law on using fog lights between neighbouring countries, such as Belgium, France and the Netherlands.

The implication for TRAINER is not to restrict the tool and simulator s/w translation to only the language, but also replace some videos, pictures and even surrounding traffic participants' behaviour in accordance to national practices.

## 7

During actual training, **some trainees go too slowly and avoid overtaking**. That is even more evident during their on-road evaluation. The simulator should allow them to expose themselves in higher speeds.

The implication for TRAINER is to devise some scenarios, in which the trainee is requested to reach and maintain a certain speed (i.e. 30, 50, 70, 90 km/h) and to include into the evaluation criteria one for the trainees mean speed (should be above a certain minimum).

## 8

The **marketing of TRAINER tools** should take into account different business models (i.e. leasing, pay per time of use, pay per client) and not only purchase schemes. Also economies of scale should be taken into consideration. Anyway, even today a relevant market seems to exist, since only one producer (FAROS) stated to have sold 400-500 driving simulators so far in UK and France (mainly).

The implication for TRAINER is to consider different business models in its marketing strategy.

## 9

The idea of **part-task training simulators** was presented, where different simulators are used to train different driving functions and/or tasks.

The implication for TRAINER is to follow modular design, considering that different simulator versions might be used for training different tasks.

## 10

The issue of **simulator motion sickness** was discussed. Interesting data seem to exist from USA (for further details contact gmeyer@dtsi.org). Such motion sickness is more often met in women and elderly (over 50) people. However, sometimes it is more related to simulator operators' errors (inappropriate scenarios and unnatural situations) than to the simulator technical capabilities.

The implication to TRAINER is to extensively test an early simulator prototype against motion sickness, before developing the final prototype (both static and dynamic).

## 11

A **driving simulator developed by a Dutch Consortium, with the cooperation of ANWB**, was presented. The first prototype will be installed within two weeks in a driving school and will be tested for six months. It is a static one, consisting of three beamers and half a VW. The relevant project is called INTRASIM (Intelligent Training Simulation). 55 different scenarios are supported and the aimed price is around 15.000 Euro.

**12**

Driving instructors in the discussion panel and simulator providers agreed that **the trainer education to use a simulator** is today between 0,5 to 4 hours, depending upon simulator complexity but also trainers knowledge on PC operation (Windows, etc.)

The implication for TRAINER is to consider producing a good manual both for the multimedia s/w and the simulators and devise a training procedure for them.

**13**

The current **price for using a simulator in a driving school** is around the standard on-road training hour ( $\pm 10\%$ ). In many cases the trainees use the simulator alone and ask help from the trainer, if needed. Thus, one trainer can oversee more trainees, if more than one simulator exist. The ratio of one instructor per 8-12 trainees had been recommended both for the multimedia tool and the simulator and an organised training centre approach was suggested.

The implication for TRAINER is to put emphasis on the developed database for automatic storage of trainee data, to allow trainers to evaluate trainees behaviour after the training session automatically and thus support one trainer in instructing more than one trainees simultaneously.

**14**

It has been underlined that more than the creation of adequate scenarios it would be interesting to **develop an open s/w architecture, where the trainer may add/ change scenarios, videos or tests.**

The implication for TRAINER is to consider better the s/w architecture of the multimedia and the simulator s/w and evaluate the feasibility of supporting such functionality.

**15**

It has been suggested that **the involvement of insurance companies and ministries** should be targeted, in order to secure additional direct or indirect funding for the market introduction of such aids. It was proposed to offer to driving schools that are equipped with such tools a special status.

The implication for TRAINER is to plan further contacts with insurance companies and ministries and try to propose legal/insurance schemes that would provide further incentives to driving schools to use such tools.

## 5.8 Results comparison and decisions

The suggestions of the discussion groups were matched to the initial scenario selection by TRAINER Consortium. In the following Tables, the TRAINER Consortium initial proposals are denoted by bullets and the round table proposals by crosses at the same driving task Table.

VEHICLE CONTROL TASKS	Theory	Multimedia	Simulator	Practical
<b>Knowledge and skills</b>				
Starting			•	x
Shifting gears	x		x	x
Accelerating/decelerating			x	x
Steering / lane following			x	x
Speed control		•	•	x
Braking/stopping		•	•	x
Use of new cars control aids (ABS, ACC, etc)		•	•	
Using the dashboard		x		
<b>Risk increasing factors</b>				
Insufficient skills and incomplete automation		•	•	
<b>Self-evaluation</b>				
Realistic self-evaluation		•	•	

MANOEUVRING TASKS	Theory	Multimedia	Simulator	Practical
<b>Knowledge and skills</b>				
Following		•	•	x
Overtaking		•	•	x
Entering and leaving the traffic			x	x
Tailgating			•	
Lane changing		•	•	x
Scanning the road (eye cues)	x	•	•	
Reacting to other vehicles	x	•	•	x
Reacting to pedestrians	x	•	•	x
Parking	x			x
Negotiating intersections		•	•	x
Negotiating hills/slopes			x	x
Negotiating curves		x	•	x
Road surface			•	x
Approach/ exit of motorways			•	
Railroad crossings, bridges, tunnels	x			
Reacting to traffic signs and traffic lights	x	x	•	x
Reacting to direction signs (inc. in-car devices)	x		•	x
Emergency break		•	•	
Obstacle avoidance technique			•	
Urban driving		x	•	x
Rural driving			•	x
Convoy driving			•	
Motorway driving			•	
Weather conditions (fog, rain, snow)	x	•	•	
Night driving	x		•	
<b>Risk increasing factors</b>				
Insufficient skills and incompletely automation		•	•	
Information overload			x	
Insufficient anticipating skills and wrong expectations		•	•	
Risky driving style		x	•	
<b>Self-evaluation</b>				
Realistic self-evaluation		•	•	
Awareness of personal driving style	x		•	

<b>STRATEGIC TASKS</b>	<b>Theory</b>	<b>Multimedia</b>	<b>Simulator</b>	<b>Practical</b>
<b>Knowledge and skills</b>				
Determination of trip goals, route and modal choice		•	•	
Preparation and technical check	x	x		
Safety issues	x	•		
Maintenance tasks		x		
Economic driving	x	x	•	
<b>Risk-increasing factors</b>				
Driver's condition (stress, mood, fatigue)	x	•	•	
Motives for driving				
<b>Self-evaluation</b>				
Awareness of personal planning skills				
Awareness of typical driving goals and risky driving motives				

<b>BEHAVIOURAL ASPECTS</b>	<b>Theory</b>	<b>Multimedia</b>	<b>Simulator</b>	<b>Practical</b>
<b>Knowledge and skills</b>				
Knowing about the general relations between lifestyle/age/gender and driving style				
Knowing the influence of personal values and social background				
Knowing about the influence of passengers			•	
International legislation				
First aid			x	
Safety belts			•	
Alcohol consumption, drugs, fatigue	x	•	•	
<b>Risk-increasing factors</b>				
High level of sensation seeking		•	•	
Consequences of social pressure, use of alcohol and drugs		•	•	
<b>Self-evaluation</b>				
Awareness of own personal tendencies (risky habits, safety-negative motives)				

It is remarkable that the two groups coincide to really a great extent (over 75%). Furthermore, some of the differences can be explained by different task definitions. Still, some decisions for changes in the selected scenarios are being considered within TRAINER, based upon the areas where differences are noted. As examples, the following three are offered:

- ‘Obstacle avoidance techniques’ scenarios were planned for the simulator. After the workshop discussions it has been agreed that simulators are not appropriate for such manoeuvres and such scenarios will be abandoned or transferred to the multimedia tool.
- ‘Driver’s condition’ and ‘alcohol/fatigue/drugs’ related scenarios will not be sufficient to be explained by short videos at the multimedia tool level or demos of the problem with the simulators, but may require the support of limited ‘drunk/fatigued driving’ sessions in the simulator.
- Simulator control tasks should be enlarged, to include gearshift, accelerating and lane change tasks. Also traffic entering/leaving scenarios should be added. In contrast, railroad crossing, bridges and tunnel scenarios seemed not to be prioritised by the Consortium nor the experts and as a consequence will not be among the initial scenario choices.

# 6 Conclusions

Based on the survey results presented in the previous chapters, the following main results can be derived:

There are 6 different models of driver training in the various European countries, which vary from ‘Compulsory theoretical and practical training in a driving school’ to ‘Training with a non-professional supervisor’.

There is a complete absence of harmonisation in Europe regarding structure of driving schools, programmes, requirements for cars, classrooms, exams, and training of teachers.

The wishes of assessment centres, driving instructors and experts (who participated in the TRAINER workshop) regarding what has to be added / emphasised in the theoretical and practical training are presented below.

Task	Assessment authorities	Driving instructors	Experts in the workshop
Defensive driving	X		
Accident analysis/ Accidentology	X		
Legislation issues	X	X	
Geography	X		
Vehicle technique	X		
Emergency handling	X		
Airbag system	X		
First aid	X	X	X
On board documents explanation		X	
Dashboard symbols/ Use of new ADAS		X	X
Road behaviour		X	X
Road scanning			X
Effect of driver' condition (alcohol/drugs/stress/fatigue)		X	X

Table 1 Tasks to emphasise/include in theoretical training

Task	Assessment authorities	Driving instructors	Experts in the workshop
First aid	X		X
Explanation of vehicle subsystems functionalities	X		
Behaviour in case of accident	X		
Night time driving	X		
Behaviour towards other road users	X	X	X
Bad weather conditions	X	X	X
Skid course	X	X	
Highway driving	X	X	X
Tunnel driving			X
Night time driving	X	X	X
Emergency stop	X	X	X
Convoy driving		X	
Obstacle avoidance		X	
Defensive driving		X	
Overtaking			X

Table 2 Tasks to emphasise/include in practical training

Besides the above, the experts participating in the workshop have also suggested the possible use of new tools (driving simulator, multimedia tool) to emphasise/substitute practical and theoretical training of more common tasks, i.e. simple vehicle control tasks, for economical reasons.

It will be the future work of TRAINER to implement the above tasks and expert recommendations in its new training methodologies and tools.

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# ANNEX A: CIECA Questionnaire

CIECA Questionnaire on behalf of the TRAINER Project  
 April 2000

## I Training of Candidates

### A Theory Training

- 1 Is theory training in a driving school compulsory in your country?
- yes
  - no
  - partially, namely .....

- 2 How many theory lessons must be taken, and what is the average number of lessons a candidate takes? If there is no compulsory training, please indicate the average number of lessons taken.

Category	No of lessons	No of lessons	Category	No of lessons	No of lessons
	Compulsory	Average		Compulsory	Average
Moped			C1+E		
A1			C		
A			C+E		
B1			D1		
B			D1+E		
B+E			D		
C1			D+E		

- 3 Are the theory test questions public, i.e. is it possible for a candidate to practise the test questions either in private or in a driving school?
- yes, he can practise them in a driving school
  - yes, he can practise them in private
  - yes, he can practise them both in a driving school and in private
  - no, they are not public
- 4 Please indicate the compulsory and average number of theory lessons taken per item.  
 If there is no compulsory training, please indicate the average number of theory lessons taken per item:

		road traffic regulations	the driver	the road (condition/types)	behaviour towards other road users	documents	clothing	vehicle equipment	vehicle technique	environmentally friendly driving	drugs, medicine, alcohol	first aid	emergency handling	loading	bad weather conditions
Moped	compulsory														
	average														
A1	compulsory														
	average														
A	compulsory														
	average														
B1	compulsory														
	average														
B	compulsory														
	average														
B+E	compulsory														
	average														
C1	compulsory														
	average														
C1+E	compulsory														
	average														
C	compulsory														
	average														
C+E	compulsory														
	average														
D1	compulsory														
	average														
D1+E	compulsory														
	average														
D	compulsory														
	average														
D+E	compulsory														
	average														

5 What other compulsory items are dealt with in the theory training?

.....  
.....  
.....  
.....  
.....

6 What other items are dealt with on a voluntary basis in the theory training?

.....  
.....  
.....  
.....  
.....

7 In what form is the theory training in a driving school given?

- individually
- in groups, ..... students in one group
- both individually and in groups
- other, namely .....

8 What means are used in your country for the theory training?

- video
- book
- CD-ROM
- teacher
- other, namely .....

9 What would you like to see added to the theory training in your country (additional items, change of form, etc.)?

.....  
.....  
.....  
.....  
.....

10 Do you have any remarks on the theory training in your country?

.....  
.....  
.....  
.....  
.....

## B Practical Training

1 Is practical training in a driving school compulsory in your country?

- yes, always Categories .....  
 yes, if ..... Categories .....  
 no Categories .....

2 How many practical lessons must be taken in a driving school, and what is the average number of lessons a candidate takes? If there is no compulsory training, please indicate the average number of lessons taken.

Category	No of lessons	No of lessons	Category	No of lessons	No of lessons
	Compulsory	Average		Compulsory	Average
Moped			C1+E		
A1			C		
A			C+E		
B1			D1		
B			D1+E		
B+E			D		
C1			D+E		

3 Please indicate the compulsory and /or average number of lessons taken in a driving school per item. If there is no compulsory training in a driving school, please indicate the average number of lessons taken.

		residential areas	inside built-up areas	outside built-up areas	motorways	other locations	manoeuvres	night time driving	skid course
Moped	compulsory								
	average								
A1	compulsory								
	average								
A	compulsory								
	average								
B1	compulsory								
	average								
B	compulsory								
	average								
B+E	compulsory								
	average								
C1	compulsory								
	average								
C1+E	compulsory								
	average								
C	compulsory								
	average								
C+E	compulsory								
	average								
D1	compulsory								
	average								
D1+E	compulsory								
	average								
D	compulsory								
	average								
D+E	compulsory								
	average								

4 Which driving tasks are treated during the training?

- |   |                  |
|---|------------------|
| <input type="checkbox"/> safety check of the car    | Categories ..... |
| <input type="checkbox"/> driving away               | Categories ..... |
| <input type="checkbox"/> driving on straight roads  | Categories ..... |
| <input type="checkbox"/> driving in bends           | Categories ..... |
| <input type="checkbox"/> crossroads                 | Categories ..... |
| <input type="checkbox"/> changing direction         | Categories ..... |
| <input type="checkbox"/> approach/exit of motorways | Categories ..... |
| <input type="checkbox"/> overtaking/passing         | Categories ..... |
| <input type="checkbox"/> special parts of the road  | Categories ..... |
| <input type="checkbox"/> behaviour at traffic signs | Categories ..... |
| <input type="checkbox"/> reversing                  | Categories ..... |
| <input type="checkbox"/> parking                    | Categories ..... |
| <input type="checkbox"/> u-turns                    | Categories ..... |
| <input type="checkbox"/> driving on a slope         | Categories ..... |
| <input type="checkbox"/> tunnel driving             | Categories ..... |
| <input type="checkbox"/> other, namely .....        | Categories ..... |
| .....   |                  |

5 What other compulsory items are dealt with in the practical training?

.....

.....

.....

.....

6 What other items are dealt with on a voluntary basis in the practical training?

.....

.....

.....

.....

7 What would you like to see added to the practical training in your country (additional items, change of form, etc.)?

.....

.....

.....

.....

8 Do you have any remarks on the practical training in your country?

.....

.....

.....

.....

## II Training of the Professional Instructor

- 1 What are the requirements in your country to become a professional driving instructor?
  - minimum school education:
    - secondary school up to 16 years
    - secondary school up to 18 years
    - university degree in .....
    - other .....
  - possession of a driving licence:
    - category B
    - all categories
    - categories .....
  - minimum age: ..... years
  - minimum driving experience: ..... years
  - other, namely .....
  - no requirements
  
- 2 Is there a special training for future driving instructors in your country?
  - yes, compulsory
  - yes, voluntarily
  - no. Go to question 20
  
- 3 If future driving instructors need to follow a compulsory special training, who organises it?
  - your organisation
  - a special institute, namely .....
  - other, namely .....
  
- 4 Are there different trainings (and different certificates), giving the right to train different sectors (for instance for giving theory training, practical training, training for disabled, etc.)?
  - yes, namely .....
  - no, only one training for all kinds of instructors
  
- 5 If the instructors training has to be followed at a special institute, is this institute certified?
 

If yes, by whom?

  - yes, certified by .....
  - no
  
- 6 What are the subjects of the training to become a professional driving instructor?
 

Theory:

  - management
  - bookkeeping
  - traffic rules
  - vehicle and technique
  - pedagogics
  - psychology
  - social skills
  - first aid
  - other, namely .....

Praxis:

  - perfection of driving
  - giving training under supervision (apprenticeship)
  - other, namely .....

7 How long does this training take?

Theory: ..... weeks/months/years  
 Praxis: ..... weeks/months/years  
 Total: ..... weeks/months/years

8 Is this training fulltime or parttime?

- fulltime only
- parttime only
- the future instructors have the choice between fulltime or parttime

9 Is a future driving instructor trained for all categories or is category B the basis and are there further training courses for the other categories?

- every instructor is trained for all categories. Go to question 11
- an instructor is first trained for category B only. Further training per category takes:
  - A: ..... weeks
  - C: ..... weeks
  - D: ..... weeks
- other, namely .....

10 If the training for categories A, C and D is supplementary to category B, what subjects are treated in this supplementary education?

Category A .....

.....

Category C .....

.....

Category D .....

.....

11 Is there a test at the end of the training to become an instructor?

- yes, only theory
- yes, only praxis
- yes, both theory and praxis
- no. Go to question 14

12 Who organises the test at the end of the training?

- the same institute that also organises the training
- your organisation
- ministry of transport
- other, namely .....

13 What are the subjects of the test at the end of the training?

- |         |  |  |
|---------|--|--|
| Theory: | <input type="checkbox"/> management            | <input type="checkbox"/> psychology    |
|         | <input type="checkbox"/> bookkeeping           | <input type="checkbox"/> social skills |
|         | <input type="checkbox"/> traffic rules         | <input type="checkbox"/> first aid     |
|         | <input type="checkbox"/> vehicle and technique | <input type="checkbox"/> other, namely |
|         | <input type="checkbox"/> pedagogics            |  |
| Praxis: | <input type="checkbox"/> driving behaviour     |  |
|         | <input type="checkbox"/> giving training       |  |
|         | <input type="checkbox"/> other, namely         |  |

- 14 Do the instructors get a diploma or a certificate after having passed the test or after having finished the training?
- yes
  - no. Go to question 17
- 15 Is the instructors' certificate valid for a limited period only?
- yes, ..... years
  - yes, until the instructor has reached the age of ..... years
  - yes, in line with the validity of the driving licence
  - no. Go to question 17
- 16 If there is a maximum validity of the certificate, what are the requirements to prolong the validity?
- medical check
  - special test, namely .....
  - continuous training courses, namely
  - only administrative procedure
  - other, namely .....
  - no possibility to prolong, if .....
- 17 Are there continuous training courses for instructors?
- yes, compulsory ..... days per ..... year(s)
  - yes, voluntarily
  - no. Go to question 20
- 18 If there are continuous training courses, who is responsible for these courses?
- your organisation
  - a specific institute, namely .....
  - other, namely .....
- 19 What subjects are treated during continuous training courses?
- same as in the basic training
  - new traffic rules
  - new vehicle techniques
  - new training methods
  - practice driving
  - other, namely .....
- 20 What are the requirements for a person to open a driving school?
- one must be a driving instructor since ..... years
  - other (additional) training, namely .....
  - other (additional) test, namely .....
  - other, namely .....
  - no requirements

- 21 What facilities do driving schools need according to national law in your country to teach applicants? (apart from training vehicles)
  - administrative rooms
  - theory room, requirements: .....
  - special area for training the special manoeuvres, requirements: .....
  - other, namely .....
  - no requirements
  
- 22 What are the requirements for training vehicles of driving schools in your country?
  - dual controls Categories .....
  - double system of mirrors Categories .....
  - proper seat for instructor Categories .....
  - four doors Categories .....
  - a special sign, namely Categories .....
  - other, namely Categories .....
  - no requirements
  
- 23 Are there any special insurances for training vehicles of driving schools in your country?
  - yes, namely .....
  - no
  
- 24 How many driving schools exist in your country?  
.....
  
- 25 What is the latest relevant legislation for driving education and driving instructors and from what year is it?  
.....

# ANNEX B: TRAINER Driving schools Questionnaire

Dear Sir(s),

The TRAINER project, co-funded by DG TREN of EU, aims to develop new tools and methodologies to improve and standardize the drivers training in Europe. The Consortium strives to balance between innovative technological support means (i.e. multimedia training s/w, various types of driving simulators and a concise database storing the errors of the trainee) and cost-effective solutions, that will be viable in the real market on short to mid-term basis. TRAINER Consortium hopes that the final results will be practicable and usable, as it encompasses key user organizations, such as CIECA and EFA. Drivers training in this questionnaire stands for private car driver's training (Category B), unless specifically mentioned otherwise.

Please complete the following questionnaire and return it to: EFA, Mr. G. Van Aerschot, Henry Dunantlaan 40/1, 1140, Evere, Belgium, Tel: + 32-2-7050575, Fax: + 32-2-7050577, E-mail: Georges.Vanaerschot@yucom.be. **The relevant data will be used anonymously for statistical purposes and will not be available to any authority. No opinion stated in this questionnaire will be used in correlation to you.**

We thank you for your kind cooperation.

G. Van Aerschot  
EFA President

## TRAINER Driving schools questionnaire

Organisation/Company: .....  
 Country: .....  
 City/Local Area: .....  
 Contact phone (if you wish): .....  
 Contact E-mail (if you wish): .....  
 Date: .....

**A Theory Courses**

**A1 Theory/Practical training in your country/area is given according to which of the following schemes:**

Category of Driving License	Qualifications/ Diplomas required for the instructor for theory training	Qualifications/ Diplomas required for the instructor for practical training	Institute that provides instructors diplomas for theoretical training	Institute that provides instructors diplomas for practical training
A1				
A				
B1				
B				
B+E				
C1				
C1+E				
C				
C+E				
D1				
D1+E				
D				
D+E				

**A2 Are the theoretical lessons organized as fixed packages and with specific curricula?**

Yes  No

**A3 Are the lessons given in a special classroom?**

Yes  No

**A3.1 If yes, are there special requirements for the classroom?**

Yes  No

If yes, which? .....

**A3.2 How many trainees can be as a maximum in one classroom?**

.....

**A4 Is there a fixed schedule/ timeplan of theory lessons that the school has to respect?**

**(i.e. that every Monday from 13:00 to 15:00 you have to teach a specific chapter of theory?)**

Yes  No  Yes, but the plan is limited only to .....  
*(i.e. the time, not the particular subject)*

**A4.1 If yes, is this plan controlled by authorities?**

Yes  No

If yes, by which authorities? .....

A5 What percentage of your theoretical training is dedicated to teaching the official curriculum (if there is no official curriculum state 0%)? .....%

A6 Which additional items should be introduced in the theoretical or practical training of drivers, that do not exist today in the official curriculum (if any) or are not commonly taught (if no official curriculum exists)?  
 (for example for theory: international driving legislation and differences for tourist drivers, for example for practice: fixation of the eyes while driving, techniques for obstacle avoidance or hill/mountain driving)

Item/issue	For Theory <i>(put an 'x')</i>	For practice <i>(put an 'x')</i>	Other suggestions

A7 Which of the following tools do you use (or do you know of) for the theoretical training of novice drivers?

- A7a Book published from the Ministry of Transport or other relevant authority. It is used for around ..... hours of teaching
- A7b Other books from the market (*please mention some*)

Book Title	Author(s)	Publisher	Indicative cost in Euro	For how many hours of the theoretical training is it used?	Your rating of them <sup>3</sup>

<sup>3</sup> Rate with one of the following marks: 1 (Poor), 2 (Rather poor), 3 (Neither poor nor good), 4 (Rather good), 5 (Good)

☐ A7c Transparencies or slides

Name of provider	Name of developer	Telephone	Contact person	Indicative cost in Euro	For how many hours of the theoretical training is it used?	Your rating of them <sup>4</sup>

☐ A7d Videotapes

Product Name (if any)	Name of provider	Name of developer	Telephone	Contact person	Indicative cost in Euro	For how many hours of the theoretical training is it used?	Your rating of them <sup>4</sup>

☐ A7e CD-Roms

CD-Rom Name (if any)	Name of provider	Name of developer	Telephone	Contact person	Indicative cost in Euro	For how many hours of the theoretical training is it used?	Your rating of them <sup>4</sup>

☐ A7f Other (please specify)

Product Name (if any)	Name of provider	Name of developer	Telephone	Contact person	Indicative cost in Euro	For how many hours of the theoretical training is it used?	Your rating of them <sup>4</sup>

<sup>4</sup> Rate with one of the following marks: 1 (Poor), 2 (Rather poor), 3 (OK), 4 (Very good), 5 (Excellent)

**A8** If the candidate fails the theory test, are there some obligations before passing the test for the second time?

- Yes    No

A8.1 If yes, what obligations?

.....  
.....

**A9** In what cases a driver (holder of a license) can be obliged to follow a theory course?

**B Practice**

**B1** How long does a practical lesson effectively last?

.....  
.....

**B2** Is it allowed to instruct more than one person at a time, within the same car?

- Yes    No

B2.1 If yes, how many is the maximum? .....

B2.2 If yes, are their hours calculated in their total hours of training?

- Yes    No    Only partly (*please specify*) .....

**B3** Which are the legal requirements regarding interior and exterior equipment of driving school cars?

.....  
.....  
.....  
.....

**B4** If private training is allowed, what are the requirements regarding interior and exterior of the private car?

.....  
.....  
.....  
.....

**B5** What is the age limit for the cars of driving schools?

.....

**B6** What are eventually other requirements for the driving school car (during the training and/or the practical test)

.....  
 .....

**B7** How many hours of practice are learners allowed to take without an intervening rest break?

.....  
 .....

**B8** Is practical tuition also allowed on Sundays or Holidays?

Yes  No

**B9** Are there some places (towns, cities, streets) where practical training is not allowed?

Yes  No

If yes, which streets? .....

**B10** Can a trainee switch driving schools during his/her tuition?

Yes  No

If yes, on what conditions can he/she change school (if any)?

.....

**B11** Is the instructor obliged to fill-in a lesson report?

Yes  No

**B12** Which of the following tools do you use (or do you know of) for the practical training of novice drivers?

12a Driving simulators

Name of product	Name of developer	Telephone	Contact person	Indicative cost in Euro	Movements of freedom	Screen width/ angle of vision	Hours of teaching used for	Your rating of them <sup>5</sup>

<sup>5</sup> Rate with one of the following marks: 1 (Poor), 2 (Rather poor), 3 (OK), 4 (Very good), 5 (Excellent)

12b Car chassis/bodies (for basic engineering lessons)

Name of product	Name of developer	Telephone	Contact person	Indicative cost in Euro	Movements of freedom	Screen width/ angle of vision	Hours of teaching used for	Your rating of them <sup>5</sup>

12c Other, i.e. obstacles, skid car, Eco-driving, Rollover simulator, etc. (*please specify*)

Name of product	Name of developer	Telephone	Contact person	Indicative cost in Euro	Movements of freedom	Screen width/ angle of vision	Hours of teaching used for	Your rating of them <sup>5</sup>

**B13 Are all candidates trained on the following items?**

- How to get in the car  Yes  No
- Chair position  Yes  No
- Overtaking  Yes  No
- Driving on Motorways  Yes  No
- Driving on Highways  Yes  No
- Starting on a gradient  Yes  No
- Dealing with bents  Yes  No
- Skid control  Yes  No
- Defensive driving techniques  Yes  No
- Driving at high speed  Yes  No
- Parking  Yes  No
- Use of the lights  Yes  No
- Changing tyres  Yes  No
- Changing bulbs  Yes  No

**B14 How many times can a candidate retake the exam without having to take supplementary driving lessons?**

.....

**C Economies of teaching**

**C1 What is the mean cost of a driver’s training lesson in Euro in your country/area?**

For theory: .....Euro

For practice: .....Euro

**C2 Can you please break-down approximately the following items as parts of your teaching (business) annual cost?**

Item	Cost %
Purchase of cars (car renewal)	
Car maintenance (including insurance)	
Fuel	
Rent of buildings/offices/training tracks	
Purchase of standard teaching equipment (PC, Projectors, blackboards, etc.)	
Purchase of innovative teaching equipment (CD-ROMs, videotapes, simulators, car bodies, etc. – if any)	
Trainers salary	
Administrative staff salary	
Other (please specify) .....	

**C3 I’d like to use new teaching tools for self-teaching to reduce the training cost**

- Not at all    
  Probably not    
  Not sure    
  Probably yes    
  Surely yes

**C4 What is your level of knowledge on the following items?**

- Windows                      version ..... (i.e. 3.11, 95, 98, 2000, etc.)  
 Microsoft Office              version ..... (i.e. 6, 7, 2000, etc.)

**C5 Approximately, what is the rate of your annual gross gain divided by your total income?**

- 0-5%    
  5-10%    
  10-15%    
  15-20%    
  20-30%    
  30-50%    
  50-75%    
  75-100%    
  over 100%

**C6 The maximum investment I could/would afford for purchasing new training tools for the next three years would be of the level of: ..... Euros**



C7 I'd accept a new training tool (i.e. software tools, driving simulators) if I can learn to use it in

- No time at all    
  Less than 15 min    
  Less than 30 min    
  Less than 1 hour    
  Less than a day    
  Less than a week    
  Other (please specify) .....

C8 The price for the benefit

C8a I'd accept to pay up to ..... Euro for a new interactive s/w tool and a driving simulator that would help me train the driver in the following tasks.

Driving Task	Indicative price I'd pay (in Euros)	Relevant Importance Not important at all = 1 <-> Very important = 5
Learn how to start-stop the car		
Braking		
Negotiating curves		
Parking		
City driving		
Rural areas driving		
Highway driving		
Driving under adverse weather conditions (fog, rain, etc.)		
Simulated alcohol/drugs/fatigue related driver behaviour		
Learning the traffic signs		
Avoiding vulnerable road users		
Simulated incidents and accidents behaviour (before, during, after)		
Other (please specify) (i.e. vehicle dynamics, ..... Hazard perception) .....		

C9 The current problem

Please rate the following hypotheses:

C9a Currently the (compulsory or mean) hours for driver's **theoretical** training in my country are:

- Too few    
  Rather few    
  OK    
  Rather many    
  Too many

C9b Currently the (compulsory or mean) hours for driver’s **practical** training in my country are:

Too few     
  Rather few     
  OK     
  Rather many     
  Too many

C9c The tools I have to realize the theoretical training are:

Too few     
  Rather few     
  OK     
  Rather many     
  Too many

C9d The tools I have to realize the practical training are:

Too few     
  Rather few     
  OK     
  Rather many     
  Too many

C9e The cost of a training session in driving schools in my area/country is approximately:

About the same for all schools     
  ±5%<     
  ±10%<     
  ±15%<     
  ±20%<     
  ±50%<     
  ±100%<     
  Over 100% difference

C9f The following reasons are not important at all (level 1) to extremely important (level 5) for choosing a driving school in my area/country:

Reason to choose a driving school	Rate (1-low/5-high)
It is cheap	
It has good tools, cars, ...	
It has good teachers	
It is near the learner’s home	
It has a high success rate	
Suggestions by friends / relatives	
Other (please specify) .....	

# ANNEX C: Agenda and list of participants to the TRAINER Workshop on 22 November 2000

## Agenda of the TRAINER Workshop, 22nd of November 2000, Hotel Albert Premier, Brussels

- 09.00-09.15 Presentation of the TRAINER project  
*Mr. G. Baten, TRAINER Coordinator, CARA*
- 09.15-09.30 'Overview of driver training curricula in Europe and driving instructor needs'  
*Mr. D. Vandenberghe, CIECA*
- 09.30-09.45 'Inventory of drivers training needs from the literature'  
*Mr. A. Hoeschen, IfADo*
- 09.45-10.00 'Drivers training needs and relevant gaps from driving instructors perspective'  
*Mr. G. Van Aerschot, EFA*
- 10.00-10.15 Introduction to discussion rounds and questions.  
*Dr. E. Bekiaris, TRAINER Technical Manager, AUTH*
- 10.15-10.30 Presentation of TRAINER simulator functionalities and plans  
*Dr. R. Foerst, Foerst GmbH*
- 10.15-10.45 'Multimedia tools in driver's education – the Club's perspective'  
*Mr. J. Monclús, AIT&FIA*
- 10.45-11.00 Coffee break
- 11.00-12.15 Round table discussion in groups
- 12.15-13.45 Lunch
- 13.45-14.45 Presentation of round table results and plenary discussion  
*Dr. E. Bekiaris, TRAINER Technical Manager, AUTH*
- 14.45-15.00 Conclusions and recommendations  
*Mr. G. Baten, TRAINER Coordinator, CARA*

## TRAINER Workshop, List of participants

Mr.	M.	Ambrose	Driving Standards Agency	United Kingdom
Mr.	J.	Asbreuk	Asbreuk & Partners Consultants	The Netherlands
Mrs.	M.	Athousaki	SIEM Ltd	Greece
Mr.	G.	Auwaerts	Ministerie van Verkeer en Infrastructuur	Belgium
Mr.	J.M.	Baez Calvo	CNAE	Spain
Dr.	G.	Bartl	Austrian Road Safety Board	Austria
Mr.	G.	Baten	BIVV-CARA	Belgium
Mr.	M.	Beirinckx	Katholieke Universiteit Leuven	Belgium
Dr.	E.	Bekiaris	AUTH	Greece
Mr.	J.	Castellanos Garcia	CNAE	Spain
Mr.	R.	Chabot	FAROS	France
Dr.	A.	Coda	CRF	Italy
Mr.	J.	Conde Regueira	CNAE	Spain
Mrs.	R.	De Geyter	BIVV-CARA	Belgium
Mr.	A-C	Ernst	Jan De Rijk	The Netherlands
Dr.	R.	Foerst	Dr.-Ing.Reiner Foerst GmbH	Germany
Mr.	K.	Foerst	Dr.-Ing.Reiner Foerst GmbH	Germany
Mr.	J-P.	Fougère	Ministère des Transports, DSCR / CIECA	France
Mr.	T.	Gieseler	BIVV-CARA	Belgium
Mr.	M.	Goepf	Codes Rousseau	France
Mr.	N.	Gregersen	VTI	Sweden
Mrs.	H.	Groot	CIECA	The Netherlands
Mr.	M.	Hansen	Autosim AS	Norway
Mrs.	M.	Heggdal	Norwegian Public Roads Administration	Norway
Dr.	J.	Heinrich	CDV Transport Research Centre	Czech Republic
Mrs.	M.	Hendrix	CIECA	The Netherlands
Mr.	D.	Herregods	DKH/PpM	Belgium
Mr.	A.	Hoeschen	IfADo	Germany
Mr.	M.	Iltanen	Tampere Virtual Reality Center	Finland
Mr.	J.E.	Isachsen	Norwegian Public Roads Administration	Norway
Mr.	C.	Jansen	Jan De Rijk	The Netherlands
Mr.	F.	Jost	The European Commission	Belgium
Mr.	P.	Kantelberg	Veka Best	The Netherlands
Dr.	M.	Kopf	BMW AG	Germany

Mr.	K.	Mavrakis	POEEOA	Greece
Mr.	G.	Meyer	Carnegie Mellon	USA
Mr.	K.	Michailidis	POEEOA	Greece
Mr.	J.	Monclús	AIT&FIA/RACE	Spain
Mr.	J-M.	Nevens	Ministerie van Verkeer en Infrastructuur	Belgium
Mr.	H.	Nowé	DKH/PpM	Belgium
Mr.	P.	Oonimcx	Jan De Rijk	The Netherlands
Mr.	J.	Pardo	UPV	Spain
Mr.	A.	Parkes	TRL Limited	United Kingdom
Prof. Dr.	J.	Pauwels	Katholieke Universiteit Leuven	Belgium
Mr.	J.	Pour	Traffic Academy of Bohemia	Czech Republic
Mr.	P.	Printant	FAROS	France
Mr.	A.D.	Rozendom	VVCR Mobiel	The Netherlands
Mr.	H.	Ruyters	The European Commission	Belgium
Mr.	R.	Scheuchenpflug	University of Regensburg	Germany
Dr.	K.	Schmeidler	CDV Transport Research Centre	Czech Republic
Dr.	V.C.	Theodorou	EFTHITA	Greece
Mr.	U.	Theoharis	Continental Management SPRL	Belgium
Mr.	E.	Uneken	RUG	The Netherlands
Mr.	G.	Van Aerschot	EFA	Belgium
Dr.	J.	Van Kempen	ANWB	The Netherlands
Mr.	T.	Van Weers	CBR	The Netherlands
Mr.	D.	Vandenberghe	CIECA	Belgium
Dr.	W.	Verwey	IfADo	Germany
Mr.	G.	Von Bressendorf	Bundesvereinigung der Fahrlehrerverbände e.V.	Germany
Mr.	H.	Wäcken	Sintro Electronics AG	Switzerland
Mr.	H.	Westerveld	CIECA	The Netherlands