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- If the “CA” model is chosen, completion of the mandatory driving school training (at the earliest from the age of 17 years) and passing of the knowledge test are followed initially by a period of accompanied driving. At least four further sessions of practical driving instruction must be completed with a professional driving instructor before it is possible to take the driving test (at the earliest from the age of 17 years and 6 months).

Under both models, passing of the driving test founds an entitlement to drive solo under protective regulations (at the earliest from the age of 18 years) during a two-year autonomous learning phase. Within this phase, completion of an advanced training course (“driving safety course”) is prescribed for all novice drivers.

## Framework conditions

### Minimum age requirements

The minimum age for commencement of the mandatory driving school training and admission to the knowledge test is 17 years for novice drivers who choose the “AC” model. Training exclusively in a driving school can be commenced at the earliest from the age of 17 years and 6 months. In both cases, the driving test can be taken at the earliest from the age of 17 years and 6 months, although solo driving is not permitted until the novice driver reaches the age of 18 years. A driving licence free of special regulations for novice drivers is granted at the earliest after 24 months of solo driving, i.e. at the earliest from the age of 20 years.

### Proof of fitness to drive

Novice drivers must furnish proof of their health-related fitness to drive (e.g. adequate vision) by way of a medical examination conducted by a doctor accredited by the Ministry of Transport.

### Duration and costs

On average, around four months pass before a novice driver commences solo driving in case of training exclusively in a driving school, compared to around 12 months in the case of participation in the “CA” model. Protective regulations apply during the first 24 months after obtaining a driving licence. The average costs incurred by a novice driver to obtain a driving licence amount to at least 1,000 Euros.

## Curriculum

The applicable road traffic legislation serves as the basis for preparation for the knowledge and driving tests. The corresponding content is structured didactically in a text book (“Code de la Route populaire”); the driving schools usually make use of this text book in their classes and instruction.

## Teaching and learning forms

### Theory classes

It is a mandatory requirement to attend theory classes. A total of 12 course units (of 60 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor. The typically used teaching/learning methods include lecture presentations and class discussions. Text books, real videos and computer-based training programs are the teaching/learning media used.

### Independent theory learning

Novice drivers prepare for the knowledge test not only within the framework of theory classes, but equally by way of independent theory learning. The content serving preparation for the knowledge and driving tests is predefined by the applicable road traffic legislation; corresponding knowledge acquisition is supported by the text book “Code de la Route populaire”, in which the legal foundations are presented in an appropriate didactic form. The test items used in the knowledge test are not publicly accessible, but similar test items are available to aid preparation for the knowledge test.

### Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. In the case of training exclusively in a driving school, at least 16 course units (of 60 minutes each) must be completed. Under the “AC” model, novice drivers are initially only required to complete at least 12 course units; four further course units are then completed at a later date before taking the driving test. Practical driving instruction is offered exclusively by commercial driving schools.

The typically used teaching/learning methods include driving on a practice ground, driving on standard and flexible routes in real traffic, and self-assessments of driving competence by the novice driver. Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls and additional mirrors for the driving instructor, and must furthermore be marked as a learner vehicle. The contents of practical driving instruction are not prescribed, and are instead determined individually by the driving school. The overarching requirement is that the content to be conveyed should cover the demands

of road traffic as fully as possible; this also includes development of an environmentally aware style of driving.

### **Accompanied driving**

Around 20 per cent of novice drivers make use of the opportunity to gain further driving practice under the supervision of an experienced accompanist before their transition to solo driving – at the earliest from the age of 17 years and after successfully completing driving training and a knowledge test (“AC” model).

The accompanist must have held a class B driving licence for at least six years, must be at least 24 years old and must not have committed any serious traffic offences during the previous five years. He must furthermore be a family relative of the novice driver and is required to participate in at least two lessons of the latter's formal practical driving instruction.

Within the framework of accompanied driving, an accompanist must always be present in the front passenger seat, the vehicle must be marked as a learner vehicle, additional insurance cover must be obtained, and the vehicle must be fitted with an additional rear-view mirror for the accompanist. It is not permitted to drive abroad or at night between 11 p.m. and 6 a.m. The novice driver must observe reduced speed limits of 75 km/h on roads outside built-up areas and 90 km/h on motorways, and a lower maximum permissible blood alcohol content of 0.02 per cent applies for both the novice driver and the accompanist.

The novice driver's learning progress must be documented by the accompanist and subsequently communicated to the professional driving instructor. At least four more sessions of practical driving instruction must be completed with the professional driving instructor before taking the driving test.

### **Solo driving under protective regulations**

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. This initial period may be extended by a further 24 months in case of traffic offences. During this phase, novice drivers must observe a lower maximum permissible blood alcohol content of 0.02 cent when driving, and must furthermore attend a driving safety training course (see below). Traffic offences are documented by way of a demerit points system. If a maximum permissible total of 12 penalty points is exceeded, the driving licence is withdrawn for 12 months. The return of a withdrawn licence is subject to completion of an improvement course. It is also possible

to attend voluntary improvement courses as a means to earn reduction of the number of penalty points on record.

### **Advanced training course**

It is a mandatory requirement for all novice drivers to attend at a one-day advanced training course (“driving safety training”) with a scope of seven hours during the autonomous learning phase. The course can be taken at the earliest three months after the commencement of solo driving, but must be completed before the end of the two-year autonomous learning phase. The typically used teaching/learning methods include group discussions, external and self-assessments, and driving demonstrations by the instructor. The participating novice drivers also speak about their own experiences while driving. The advanced training course is realised in the form of group instruction, and is conducted by specially qualified driving instructors (“coaches”) and traffic psychologists. The topics covered during the advanced training include “Self-assessment of driving competence”, “Observation and steering techniques”, “Selection of an appropriate speed”, “Keeping a safe distance”, “Emergency braking”, “Braking and avoiding obstacles on slippery roads” and “Behaviour and consequences of a skidding vehicle”.

In case of driving licence withdrawal after reaching 12 penalty points (see above), completion of a five-day improvement course (“awareness training”) is a prerequisite for lifting of the driving ban. It is also possible to earn a reduction of the number of penalty points on record by attending a voluntary improvement course (so-called “3 points course”).

## **Forms of testing**

### **Knowledge test**

The knowledge test is realised as a computer-based test. To pass, at least 16 of the total of 20 test items (multiple-choice questions, true/false questions, sorting questions, gap-fill questions requiring numerical inputs) must be answered correctly. The candidate is allowed 20 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective.

At the end of the knowledge test, the test result is displayed on the screen and the candidate receives a corresponding written report. This report contains feedback to the novice driver on the test items which were not answered correctly, subject areas in which knowledge deficits were revealed, and the total number of points attained. The pass rate for the knowledge test is 51 per cent. If the

test is not passed, the novice driver must repeat half of the prescribed number of theory classes (six course units).

### **Driving test**

The driving test takes place in real traffic and on a practice ground. The total test duration is around 40 minutes, of which around 30 minutes are assigned to the actual test drive. During the driving test, the driving instructor sits in the front passenger seat and assumes legal responsibility for the vehicle. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, the novice driver must demonstrate correct adjustment of the mirrors and safety belts, the use of electrical vehicle functions (automatic wiper setting, automatic light adjustment, etc.) and the correct procedures when stopping and leaving the vehicle (hand brake, engage gear, steering lock, observing traffic from behind when opening the door).

At least two of the following basic driving manoeuvres are tested either in real traffic or on a practice ground: "Reversing around a corner to the left or right", "Turning to face the other direction using the forward and reverse gears", "Parking (parallel, obliquely or at right angles to the kerb) and leaving a parking space using the forward and reverse gears, both on the flat and uphill or downhill" and "Braking accurately to a stop (optionally with the maximum possible deceleration)".

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner. "Independent driving" to a previously specified destination is similarly a component of the test drive.

For the observation of test performance, a distinction is made between vehicle control and driving in compliance with the road traffic laws. Test performance is assessed by deducting penalty points from an initial credit for any driving errors observed. To pass the driving test, the candidate must retain at least 45 of his original credit of 60 points. Driving errors are weighted according to their severity and lead to the deduction of 3, 5, 10 or 20 penalty points. The test is terminated prematurely and thus deemed failed as soon as any "20-point error" is observed (e.g. failure to observe right-of-way, passing a red traffic light).

At the end of the test drive, a concluding discussion is held only if the candidate was not successful; in addition to communication of the test result, this serves to provide feedback on the incorrect

behaviour observed and to discuss possible explanations for driving errors from the perspective of the novice driver. The novice driver only receives a test report if the test was not passed. In this case, the novice driver must complete at least eight further units of practical driving instruction with a professional driving instructor before a repeat attempt. The pass rate for the driving test is 55 per cent.

## **Quality assurance**

### **Training of driving instructors**

Admission to the profession of driving instructor is subject to a minimum age requirement of 20 years, a certificate of secondary-level school education and possession of a class B driving licence for at least two years. A health examination is prescribed and corresponds to the examination which is also stipulated for novice drivers (see "Proof of fitness to drive" above). Furthermore, there must be no criminal or traffic-related offences on record against the candidate.

Driving instructor training is spread over a period of two years, with around eight hours of training per week. It comprises both theoretical and practical instruction, and is offered both through technical colleges and in specifically approved driving schools. A test must be passed at the end of the training; this test consists of a written theoretical section and a driving test, alongside sample demonstrations of theoretical and practical driving instruction. There is no legally stipulated obligation to attend further training.

### **Auditing of driving schools**

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection. Later, further audits of the classrooms, teaching materials and training vehicles are performed at random intervals.

### **Training of driving test examiners**

The profession of driving test examiner is open to persons from the age of 24 years who have successfully obtained a degree from a technical university, hold a driving licence for all vehicle classes and pass an entry test at the beginning of the training programme. The required knowledge (e.g. on road traffic legislation or vehicle engineering) must be demonstrated in written and oral tests. Driving test examiners must attend further training on at least five days every five years; the actual scope of further training completed over this period usually amounts to 15 days. Approximately equal proportions are devoted to theoretical and practical aspects.

**Quality assurance measures in test organisations**

Knowledge tests and driving tests are conducted by the "Société Nationale de Contrôle Technique" ("S.N.C.T."). New test items for the knowledge test are developed within the framework of a working group, which at the same time carries editorial responsibility of the training text book ("Code de la Route populaire", see above). The quality of the driving test is monitored by way of unannounced internal supervisions and through comparison of the test statistics of individual driving test examiners.

## Malta

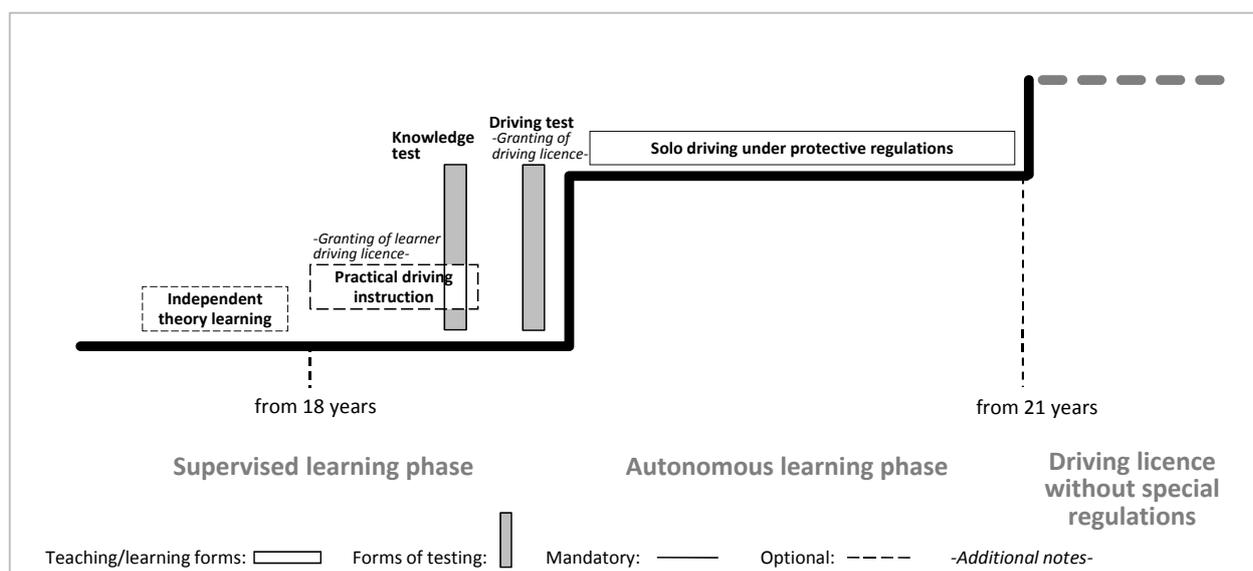


Fig. 26: System of novice driver preparation in Malta

### Overview

Novice drivers must apply for a learner driving licence in order to be able to commence practical driving instruction (at the earliest from the age of 18 years) under the supervision of a professional driving instructor or lay trainer. They prepare for the knowledge test by way of independent theory learning, and subsequently take also a driving test (at the earliest from the age of 18 years). Passing of the driving test founds an entitlement to drive solo, albeit subject to special protective regulations for novice drivers for an initial period of three years.

### Framework conditions

#### Minimum age requirements

The minimum age for the issuing of a learner driving licence and thus the commencement of practical driving instruction is 18 years. The same minimum age requirement applies for admission to the knowledge and driving tests and for the subsequent commencement of solo driving under protective regulations. A driving licence free of special regulations for novice drivers is granted 36 months after taking the driving test, i.e. at the earliest from the age of 21 years.

#### Proof of fitness to drive

Driving licence applicants must undergo a medical examination. In addition, the candidate's eyesight is tested at the beginning of the driving test, by requiring that a number plate be read from a distance of 20 metres.

### Duration and costs

No data were received on the average duration of the supervised learning phase. A learner driving licence is valid for a period of 12 months; it can subsequently be extended for a further 12 months. The transition to solo driving is followed by a 36-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 230 Euros.

### Teaching and learning forms

#### Independent theory learning

Novice drivers prepare for the knowledge test by way of independent theory learning. The teaching/learning media available to novice drivers to support their corresponding knowledge acquisition are the applicable road traffic legislation ("Highway Code") and a CD with the test items of the knowledge test.

#### Practical driving instruction

Holders of a learner driving licence are entitled to commence practical driving instruction under the supervision of either a lay trainer or a professional driving instructor. Training drives are not permitted on Sundays or official public holidays.

In case of training with a professional driving instructor, the training progress and the scope of instruction given must be documented by the driving instructor. The contents of practical driving instruction are based on the learning objectives for

novice drivers which are specified in the accreditation guidelines for driving instructors.

A lay trainer must be at least 25 years old and must have been in possession of a class B driving licence for at least five years. The training vehicle must be marked as a learner vehicle, and a certificate of insurance cover for the novice driver and the accompanist must be carried when driving.

### **Solo driving under protective regulations**

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of three years. During this period, a demerit points system applies for any traffic offences committed. If more than 12 demerit points are accumulated, the provisional driving licence is withdrawn temporarily. Re-issuing is possible at the earliest after three months.

## **Forms of testing**

### **Knowledge test**

The knowledge test is realised as a computer-based test. To pass, at least 30 of the total of 35 test items must be answered correctly. The candidate is allowed 45 minutes to complete the test. At the end of the knowledge test, the novice driver receives a report with the test result. If the knowledge test is not passed, a repeat attempt is permitted at the earliest after three days. The pass rate for the knowledge test is 75 per cent.

### **Driving test**

The driving test takes place exclusively in real traffic. The total duration of the driving test is around 40 minutes, of which between 25 and 30 minutes are assigned to the actual test drive. The driving test examiner takes the front passenger seat, and the driving instructor or lay trainer is also permitted to be present in the vehicle during the driving test.

At the beginning of the driving test, the candidate must read a number plate from a distance of 20 metres as proof of adequate eyesight. Within the framework of technical preparation of the vehicle, the driving test examiner asks two questions on safety checks before getting into the vehicle. One of these questions involves practical demonstration of a certain action ("Show me" question), for example checking the proper functioning of the signal horn or use of the same. The second question requires a verbal explanation ("Tell me" question), which could refer, for example, to the necessary steps to check the tyre tread (it is here expected that the candidate is able to specify the minimum required tread depth, and that he knows that a

visual tyre check must pay attention to signs of cracking). The questions to be answered are selected at random by the driving test examiner.

The novice driver may be asked to perform the following basic driving manoeuvres during the course of the test drive: "Emergency braking", "Leaving a parking space", "Reversing around a corner", "Reversing in a straight line", "Reverse parking (parallel or at an angle to the direction of traffic)" and "Turning in the road to face the other direction".

For the observation and assessment of test performance, the driving test examiner distinguishes between "Driving faults" (i.e. mistakes which are not in themselves potentially dangerous), "Grievous faults" (i.e. situations which are potentially dangerous) and "Perilous faults" (i.e. situations involving actual endangerment of the vehicle occupants or other road users). The test is deemed failed if the candidate commits one "perilous fault", one "grievous fault" or 16 or more "driving faults".

At the end of the test drive, the test result is communicated during a concluding discussion. In addition, the novice driver receives a test report. If the test is not passed, a repeat attempt is possible at the earliest after three weeks. The pass rate for the driving test is 50 per cent.

## **Quality assurance**

### **Training of driving instructors**

Admission to the profession of driving instructor is subject to a minimum age requirement of 19 years and possession of a class B driving licence for at least one year. A certificate of medical fitness must be presented, and there must be no criminal or traffic-related offences on record against the candidate.

Training is not prescribed for prospective driving instructors, but certain tests must be taken. These tests include an oral knowledge test, a driving test and a sample demonstration of practical driving instruction. The driving instructor licence is issued for a period of 10 years.

## Netherlands

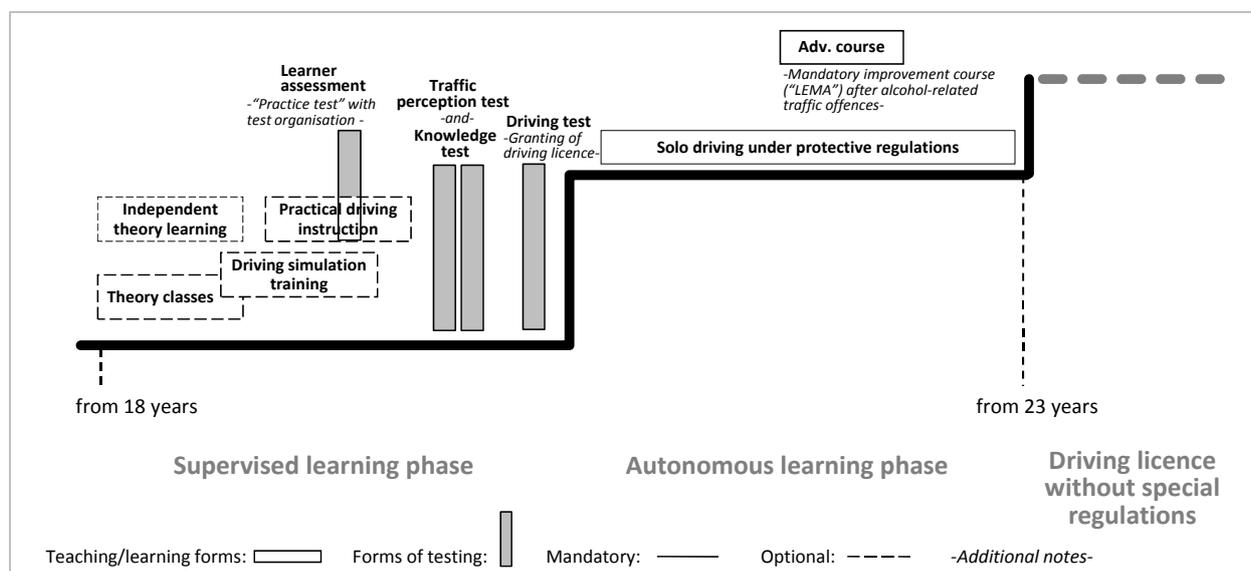


Fig. 27: System of novice driver preparation in the Netherlands

### Overview

During the supervised learning phase, novice drivers attend optional theory classes or else acquire the corresponding knowledge by way of independent theory learning. Professional practical driving instruction (at the earliest from the age of 18 years) is similarly optional, but is de facto the only legally permissible form of driver training in real traffic. It is furthermore possible to make use of driving simulation training. After training, novice drivers must take a knowledge test and finally a driving test (at the earliest from the age of 18 years). In advance of the driving test, novice drivers have the opportunity to complete an optional learner assessment ("practice test"). Passing of the driving test founds an entitlement to drive solo; this solo driving is subject to protective regulations for the first five years. The subsequent driving licence free of special regulations for novice drivers is granted without time limitations, but drivers are recommended to take a voluntary test every ten years to keep their traffic-related knowledge up to date.

### Framework conditions

#### Minimum age requirements

The minimum age for the commencement of practical driving instruction is 18 years. The same minimum age requirement applies for admission to the knowledge and driving tests and for the subsequent commencement of solo driving. A driving licence free of special regulations for novice driv-

ers is granted 60 months after taking the driving test, i.e. at the earliest from the age of 23 years.

#### Proof of fitness to drive

Novice drivers must submit a self-report with written answers to questions relating to their general health status. In addition, the candidate's eyesight is tested within the framework of the driving test, by requiring that a number plate be read from a distance of 25 metres.

#### Duration and costs

On average, around six months pass before novice drivers commence solo driving. Successful completion of the driving test is followed by a 60-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to around 1,800 Euros.

#### Curriculum

No binding, overarching curriculum exists, and thus the training contents are anchored in the teaching plans of the individual driving schools. Course design for practical driving instruction is furthermore a topic in the professional qualification training and tests for driving instructors (see "Training of driving instructors" below).

Within the framework of practical driving instruction, around three per cent of novice drivers make use of the training programme "Driver Training Stepwise" ("Rijopleiding in Stappen" – "RIS"), which divides the learning process into separate modules and provides for continuous evaluation of the driver's learning success. The programme

comprises the following four modules: “Vehicle operation and vehicle control”, “Mastering simple driving manoeuvres and traffic situations”, “Complex vehicle operation and control of complex driving manoeuvres and situations” and “Safe and responsible traffic participation”. Learning is structured and supported by way of written “scripts”, which provide descriptions of the action sequences required to master particular driving tasks. Learning progress is documented and the achievement of learning objectives is tested by the driving instructor upon completion of each module. The test at the end of the third module is conducted by an external driving test examiner (see “Learner assessment” below).

## Teaching and learning forms

### Theory classes

Theory classes are offered by commercial driving schools and given by a professional driving instructor. Attendance is not mandatory. Around 30 per cent of novice drivers choose to attend theory classes on a voluntary basis.

The typically used teaching/learning methods include lecture presentations, written and oral progress assessment, class discussions, the completion of test sheets, demonstrations by the instructor, and the setting of homework. Text books, slides, real videos, virtual driving scenarios, test sheets, models of traffic and road infrastructures, and computer-based and online training programs are the teaching/learning media used.

### Independent theory learning

The media offered to support novice drivers in their independent theory learning include text books and computer-based training programs from commercial publishers, and online training programs from both the test organisation and commercial providers. The test items used in the knowledge test are not publicly accessible.

### Practical driving instruction

Practical driving instruction is offered by commercial driving schools and given by professional driving instructors. Attendance is not mandatory. De facto, however, all novice drivers must make use of the option of voluntary attendance, as there is no legally permissible alternative for practical driving instruction in real traffic. On average, novice drivers take between 40 and 50 driving lessons.

The typically used teaching/learning methods include driving according to instructions given by the driving instructor on standard and flexible routes in real traffic, “commentary driving”, practical demonstrations by the instructor, and driving to a gener-

ally specified destination without detailed instructions from the driving instructor (“independent driving”). Within the framework of the “RIS” training programme, the learning and practising of appropriate action sequences as solutions to different driving tasks is a characteristic teaching/learning method. To this end, “scripts” have been elaborated with explicit descriptions of the required action steps for a total of 39 driving tasks. The programme participants are also able to attend driving safety training on a special practice ground (e.g. driving on slippery roads).

Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual control pedals and additional mirrors for the driving instructor; it must furthermore be marked as a learner vehicle.

### Driving simulation training

Around 15 per cent of novice drivers choose to attend optional driving simulation training. Driving simulation training is offered by commercial driving schools, and is normally arranged before the commencement of practical driving instruction in real traffic. The training is usually realised as a combination of group and individual instruction. The content conveyed covers subject areas such as traffic observation, vehicle operation, the execution of driving manoeuvres, environmentally aware driving, interactions with other road users and the mastering of hazardous situations.

### Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of five years. During this period, they must observe a reduced maximum permissible blood alcohol content of 0.02 per cent when driving. Traffic offences are documented in a demerit points system, in addition to the primary sanctions imposed. A points system exists exclusively for novice drivers, but not for drivers in general. If three penalty points are accumulated, for example due to traffic offences such as tailgating or speeding, the possible measures are licence withdrawal and the obligation to either repeat tests or attend improvement courses.

### Advanced training course

During the five-year autonomous learning phase, conspicuous driving behaviour in connection with alcohol-related offences and a blood alcohol content between 0.05 and 0.08 per cent may result in the novice driver being required to attend a special improvement course (“Light Educational Measure Alcohol and Traffic” – “LEMA”). This improvement course is realised with 8 to 12 participants and lasts a total of 7 hours (divided equally between

two days). Compared to the courses which are prescribed for drivers guilty of repeated alcohol-related behaviour and those stopped with a blood alcohol content above 0.08 per cent (three-day course “Educational Measure Alcohol and Traffic” – “EMA”), this improvement course is both shorter and less confrontive in its content.

## Forms of testing

### Traffic perception test

The first driving licence test for novice drivers is a computer-assisted test comprising firstly a traffic perception test (part 1) and immediately thereafter a knowledge test (part 2; see below).

To pass the first part of the test, at least 12 of the total of 25 test items must be answered correctly. These test items are presented in the form of photographs of traffic situations from the driver's perspective (with information in the mirrors and with turn indicators and speedometer visible.) The candidate is allowed eight seconds to select one of the following three reaction options: “Apply the brakes”, “Take foot off the accelerator” or “Do nothing”. The eight-second time limit applies separately for each individual test item.

### Knowledge test

To pass the second part of the test, 35 of the total of 40 test items (true/false questions, multiple-choice questions, numerical inputs) must be answered correctly; between 8 and 15 seconds are allowed for the answering of each test item, depending on the question format. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

Once both parts of the test (traffic perception test, knowledge test) are completed, the supervisor informs the candidate on the test result; at the same time, the novice driver is given feedback on the subject areas in which knowledge deficits remain, alongside indication of those items from the traffic perception test which were answered incorrectly, too late, or not at all. If the test is not passed, the candidate receives a written report on the test result. The pass rate is 50 per cent.

### Learner assessment

After completing approximately three-quarters of their practical driving instruction, novice drivers can attend a learner assessment in the form of a “practice test”. Around 40 per cent of novice drivers make use of this opportunity. The practice test corresponds to the later actual test in terms of its duration, procedures and content (see below). It serves to provide novice drivers and their driving

instructors with feedback on the learning success achieved to date and any remaining competence deficits; last but not least, it is also an opportunity for the novice driver to reduce possible uncertainties and anxieties with regard to the pending driving test. The learner assessment is realised in the presence of the driving instructor by a driving test examiner, and the novice driver is entitled to ask for the same examiner to be appointed for the actual driving test. If the basic driving manoeuvres are already performed satisfactorily during the practice test, they must not be demonstrated again as part of the final driving test.

### Driving test

The driving test takes place exclusively in real traffic. The total test duration is around 55 minutes, of which at least 35 minutes are assigned to the actual test drive. The driving test examiner sits in the front passenger seat during the driving test; the driving instructor is permitted to be present in the vehicle.

Before the driving test begins, the novice driver must hand a completed and sealed questionnaire to the driving test examiner, by way of which he is requested to assess his own driving competence on a ten-point scale from “poor” (1) to “excellent” (10) in the five categories “Vehicle control”, “Safety”, “Traffic adaptation”, “Social behaviour” and “Environmentally aware driving”. Within the framework of technical preparation of the vehicle, he must furthermore demonstrate the proper functioning of the vehicle lights and turn indicators. In addition, questions referring to the engine, fluid levels, tyres or lights, for example, must be answered orally.

During the test drive, two of the following basic driving manoeuvres must be tested: “Turning the vehicle to face the other way”, “Parking” and “Braking accurately to a stop”. Once the driving test examiner has specified which basic driving manoeuvres is to be demonstrated, the novice driver may himself decide how and where to perform this manoeuvre. In addition, “Driving off uphill” may also be tested.

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner, but must also drive independently of detailed route instructions from the driving test examiner over a period of around 15 to 20 minutes (“independent driving”). This test component involves either driving to a generally known local destination, or following a block of three to five route instructions given by the examiner, or use of a navigation system to drive to a specified destina-

tion. In addition, the driving test examiner is permitted to ask so-called “situational questions” during the test drive. In other words, the novice driver may be asked to park the vehicle, and must then explain their perceptions, decisions and actions relating to a previously experienced traffic situation to the driving test examiner.

For assessment of the test performance, the driving test examiner determines whether the novice driver has reliably mastered the basic driving manoeuvres, and judges the candidate's driving behaviour according to observation categories such as vehicle control, the maintaining of a safe distance and interaction with other road users. The test decision is reached at the end of the driving test on the basis of the examiner's overall impression of the test performance.

At the end of the test drive, the test result is communicated during a concluding discussion; subsequently, the written self-assessment deposited by the novice driver at the beginning of the test is compared with the observations made by the driving test examiner and discussed accordingly. Novice drivers are able to download the test report from the Internet. If the test is not passed, a repeat attempt is possible at the earliest after ten weeks. The pass rate for the driving test is 48 per cent.

## **Quality assurance**

### **Training of driving instructors**

The profession of driving instructor is subject to a minimum age requirement of 18 years and successful completion of secondary school education. Training is not prescribed, but around 98 per cent of all prospective driving instructors make use of optional training offers. Such training is provided by private organisations and comprises 286 hours of theoretical instruction, alongside 14 hours of practical instruction. The concluding professional qualification test consists of a written knowledge test, a driving test and a sample demonstration of practical driving instruction. The test is conducted by state organisations. Driving instructors must attend a total of three days of further training within five years.

### **Auditing of driving schools**

Driving schools are subjected to audits by state-recognised organisations at regular intervals. These audits serve to monitor the pedagogical quality of the practical driving instruction. In addition, average driving test pass rates are published to give an indication of the quality of individual driving schools.

### **Training of driving test examiners**

The profession of driving test examiner is open to persons from the age of 28 years who have held a driving licence for at least ten years and have obtained a certificate of advanced-level school education. Training with a scope of around one year is prescribed; admission to this training is subject to an entry test. A professional qualification test is similarly prescribed. Driving test examiners must attend two days of further training each year.

### **Quality assurance measures in test organisations**

Quality assurance with regard to the knowledge test involves the evaluation of test item statistics. Newly developed test items are also tested and evaluated. With regard to the driving test, internal quality audits are performed annually by the test organisation (“Centraal Bureau Rijvaardigheidsbewijzen” – “CBR”). Test reports from the driving test are also evaluated.

## **Further development**

The authorities in the Netherlands are considering expansion of the system of novice driver preparation to include opportunities for accompanied driving.

## New South Wales

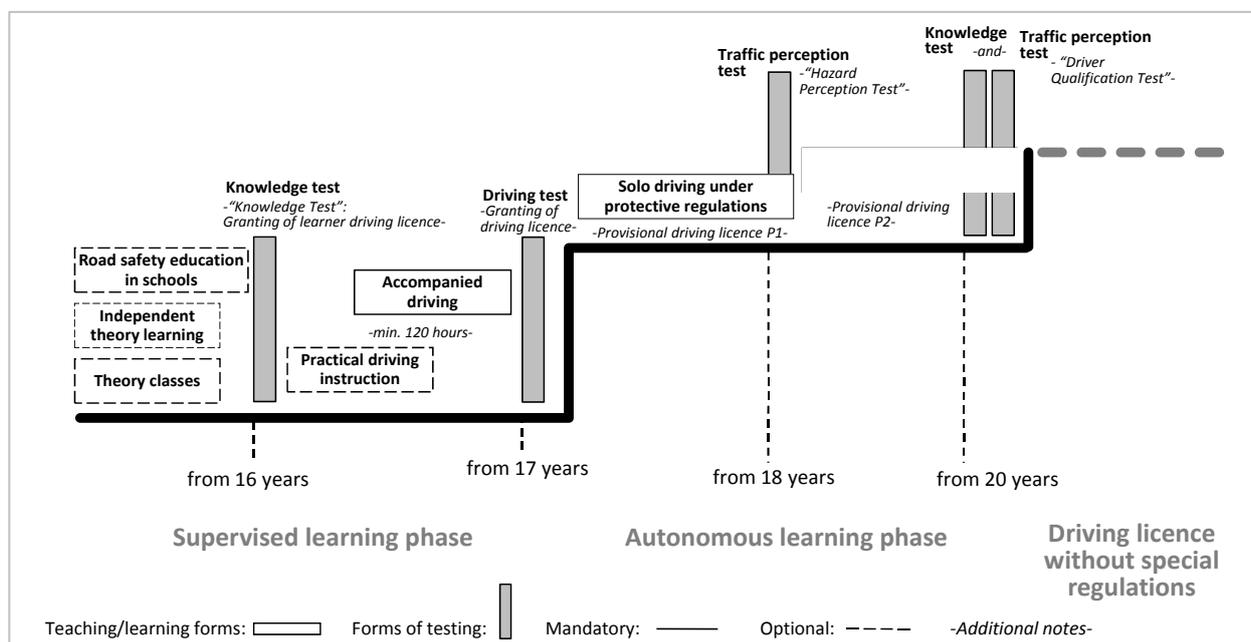


Fig. 28: System of novice driver preparation in the Australian state of New South Wales

### Overview

Novice drivers prepare by way of independent theory learning for a knowledge test, the passing of which leads to the issuing of a learner driving licence (at the earliest from the age of 16 years). With this learner driving licence, the holder is able to commence practical driving instruction with a lay trainer or professional driving instructor and to gain practical driving experience by way of accompanied driving. A driving test must be taken after at least 12 months and up to a maximum of 36 months of accompanied driving (at the earliest from the age of 17 years). Passing of this test entitles the novice driver to progress to solo driving under protective regulations during an autonomous learning phase of at least three years in total. During the autonomous learning phase, a traffic perception test ("Hazard Perception Test") is prescribed at the earliest after 12 months and at the latest after 24 months; if passed, this leads to the lifting of certain protective regulations. After a further 24 months of solo driving under protective regulations, a second knowledge test must be taken in combination with a second traffic perception test ("Driver Qualification Test"). If these combined tests are completed successfully (at the earliest from the age of 20 years), a driving licence free of special regulations for novice drivers is granted.

### Framework conditions

#### Minimum age requirements

The minimum age for admission to take the first knowledge test, and thus for the issuing of a learner driving licence which entitles the holder to commence practical driving instruction with a lay trainer or professional driving instructor and to participate in accompanied driving, is 16 years. The earliest age at which the driving test can be taken is 17 years. The first traffic perception test ("Hazard Perception Test") can be taken at the earliest 12 months after the driving test, i.e. from the age of 18 years. A second knowledge test in combination with a second traffic perception test ("Driver Qualification Test") then follows at the earliest 24 months after the first traffic perception test. A driving licence free of special regulations for novice drivers is granted at the earliest after an autonomous learning phase covering a total period of 36 months, i.e. at the earliest from the age of 20 years.

#### Proof of fitness to drive

An eyesight test is prescribed as a prerequisite for the issuing of a learner driving licence and is conducted within the framework of the first knowledge test. If inadequate vision is revealed, a more intensive eyesight test must be performed by a doctor.

#### Duration and costs

After obtaining a learner driving licence, novice drivers must drive with accompaniment for at least

12 months. On average, however, around 15 months pass before novice drivers take the driving test and commence solo driving. Successful completion of the driving test is followed by an autonomous learning phase lasting at least 36 months. No data were received on the costs incurred to obtain a driving licence.

### Curriculum

The basis for the acquisition of traffic-related knowledge is the "Road Users Handbook", which is published by the test organisation and arranges the required content under the following main headings: "Licences", "Road safety", "Safe driving", "General road rules", "Vehicle registration" and "Penalties". The framework conditions and content demands of the driving test are described in a corresponding manual ("A Guide to the Driving Test"). Similar manuals are also available to support preparation for the further tests during the autonomous learning phase ("Hazard Perception Handbook", "Driver Qualification Handbook").

## Teaching and learning forms

### Theory classes

The attendance at theory classes is not prescribed. Novice drivers acquire traffic-related knowledge within the framework of general school education (see "Road safety education in schools" below) or by way of independent theory learning (see below).

### Road safety education in schools

The general school curriculum specifies classes on road safety for children aged 9-10 years and 11-12 years. In addition, state schools are able to offer voluntary courses in the sense of novice driver preparation, where focus is placed primarily on the acquisition of traffic-related knowledge and the promotion of safety-relevant attitudes. It is similarly possible to offer practical driving instruction in the context of general school education. This instruction may only be given by correspondingly qualified teachers or external professional driving instructors.

### Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. As a basis for successful completion of the first knowledge test, and similarly all subsequent tests, novice drivers are expected to prepare for tests with the aid of printed and electronic learning materials made available by the test organisation. These media serve to facilitate the acquisition of knowledge in overarching subject areas such as "Hazard perception", "Road safety", "Road rules" and "Driving techniques". The test organisation actually points out that it is hardly possible to pass the vari-

ous tests without previously having studied the specified content. The test items used in the knowledge test are not publicly accessible, but similar test items are published as examples to aid preparation.

### Practical driving instruction

Practical driving instruction may be taken either with a lay trainer or with a professional driving instructor. Around 80 per cent of novice drivers make use of offers for professional training – as a supplement to lay training and accompanied driving (see below). Practical driving instruction with a professional driving instructor is offered by commercial driving schools and within the framework of general school education. The teaching/learning methods typically used by professional driving instructors include driving on standard and flexible routes in real traffic, and practical demonstrations by the instructor. The training vehicle must be equipped with dual controls.

Practical driving instruction under the supervision of a lay trainer is subject to the same general conditions as accompanied driving (see below).

### Accompanied driving

It is believed that all novice drivers make use of the possibility to acquire practical driving experience by way of accompanied driving at the earliest from the age of 16 years. The prerequisite is possession of a learner driving licence, which is issued to novice drivers if they have previously passed a knowledge test (see below) and an eyesight test. At least 120 hours of accompanied driving must be recorded over a period of at least 12 months and up to a maximum of 36 months, of which 20 hours must be night-time driving. The practice accumulated by way of accompanied driving must be documented in a logbook, which is in turn a prerequisite for admission to take the driving test and must be presented when registering for the test.

Different persons are permitted to act as accompanist for one and the same novice driver, provided they are at least 21 years of age and have held a class C<sup>8</sup> driving licence for at least three years. During accompanied driving, the vehicle used must be marked as a learner vehicle. Novice drivers must observe an absolute zero-alcohol rule, while a maximum permissible blood alcohol content of 0.05 per cent applies for the accompanist. A speed limit of 80 km/h must be observed, and use of a telephone while driving is forbidden under all circumstances. A local exclusion forbids accompanied driving in Centennial Park in Sydney.

<sup>8</sup> New South Wales uses the class designation "C" for car driving licences.

### Solo driving under protective regulations

After passing the driving test, novice drivers progress to an autonomous learning phase which lasts for at least three years: Initially, a provisional driving licence is granted for a period of at least 12 months and up to a maximum of 18 months ("P1 Licence"). After completion of a traffic perception test ("Hazard Perception Test"), a new provisional licence ("P2 Licence") is issued for a further period of at least 24 months. Over the whole autonomous learning phase of at least three years, novice drivers must observe an absolute zero-alcohol rule and are not permitted to drive particularly powerful vehicles; the vehicle used must furthermore be marked as a novice vehicle. Novice drivers with a "P1 Licence" are subject to stricter protective regulations: They must observe a speed limit of 90 km/h, the use of a mobile telephone is forbidden, even where a hands-free device is available, and trailers may only be towed up to a total weight of 250 kg. In addition, novice drivers under 25 years of age are only permitted to carry one passenger under 25 years when driving between 11 p.m. and 5 a.m.. The protective regulations for novice drivers with a "P2 Licence" are less strict: The permissible speed limit is raised to 100 km/h and a mobile telephone may be used with a hands-free device.

Possible sanctions in case of failure to comply with the protective regulations include driving bans, temporary withdrawal of the driving licence for up to three months, or even complete invalidation of the present driving licence. After a temporary withdrawal, the authorities forbid the carrying of more than one passenger, and the autonomous learning phase is extended by the period of licence withdrawal. Novice drivers are also subject to stricter regulations within the framework of the generally applicable demerit points system: Whereas a full, unrestricted licence is only withdrawn once 12 points have been accumulated, the corresponding threshold is lowered to 7 points for a "P2 Licence" and only 4 points in the case of a "P1 Licence".

## Forms of testing

### Knowledge tests

Two computer-based knowledge tests must be taken within the overall framework of novice driver preparation:

- To pass the first knowledge test at the beginning of the supervised learning phase, at least 41 of the total of 45 test items (multiple-choice questions with three answer options each) must be answered correctly. There is no time limit for completion of the

test, but the test is already terminated prematurely if the maximum permissible number of incorrect answers is exceeded. Graphics are used to visualise traffic situations.

- The second knowledge test at the end of the autonomous learning phase (as a component of the "Driver Qualification Test") consists of 15 test items (multiple-choice questions with four answer options each). This test is not terminated immediately if the maximum permissible number of incorrect answers is exceeded. Graphics and animated dynamic scenarios are used to visualise traffic situations.

At the end of the tests, the results are displayed on the screen. The candidate receives a written report on the test result and the driving test examiner gives general oral feedback on the total points score and subject areas in which knowledge deficits were revealed. The pass rate for the first knowledge test is 65 per cent. The second knowledge test is taken and assessed together with a traffic perception test as a component of the "Driver Qualification Test", for which the pass rate is 67 per cent.

### Traffic perception tests

Two traffic perception tests must be taken during the course of the autonomous learning phase:

- The first traffic perception test ("Hazard Perception Test") is taken at the earliest one year after commencing solo driving. It comprises 15 test items with 30-second real videos. The videos are presented on a touchscreen, and the novice driver is asked to touch the screen to indicate the correct moment at which a certain, previously specified action (e.g. turning at a junction) can be performed safely. The actual test is preceded by two practice questions.
- The second traffic perception test is taken at the end of the autonomous learning phase (within the framework of the "Driver Qualification Test"). It consists of 10 real videos, in which traffic situations are likewise depicted from the driver's perspective. The task for the candidate is similar to that in the first traffic perception test, except that each test item (film clip) may contain more than one situation in which the specified action can be performed.

At the end of the traffic perception test, the result is displayed on the screen. The candidate also receives feedback on the total points score and subject areas in which knowledge deficits were re-

vealed. The pass rate for the first traffic perception test ("Hazard Perception Test") is around 85 per cent. The second traffic perception test is taken and assessed together with a knowledge test as a component of the so-called "Driver Qualification Test", for which the pass rate is 67 per cent.

### **Driving test**

The driving test takes place exclusively in real traffic. It usually lasts up to 45 minutes. No minimum duration is prescribed. Neither the driving instructor/lay trainer nor an accompanist is permitted to be present in the vehicle during the driving test.

The test vehicle must be provided by the candidate. Within the framework of technical preparation of the vehicle, the driving test examiner first checks whether the vehicle is in a safe, roadworthy condition. If this is not the case, the driving test is aborted and deemed failed. Before setting off, the candidate must perform the necessary vehicle adjustments (e.g. setting the seat position, adjusting the safety belt). He must also be able to use all the controls and operating elements of the vehicle safely and confidently.

During the test drive, two of the following three basic driving manoeuvres are selected at random for testing: "Reverse parking parallel or at an angle to the direction of traffic", "Three-point turn" and "Driving off uphill".

The test drive follows a standard route in real traffic. A test route comprises 25 zones which each feature different traffic circumstances and together ensure opportunities to perform a spectrum of driving tasks. The most difficult traffic situations at a particular test location are always incorporated into the test route. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

For the test decision, the driving test examiner assesses the candidate's test performance with regard to "Vehicle control", "Traffic observation", "Speed management", "Road positioning" and "Hazard perception". A total of 19 different categories of driving error are defined as so-called "fail items" and automatically lead to failing of the test, even though the test drive is continued in order to permit a comprehensive assessment of driving competence. In case of particularly dangerous behaviour, the driving test examiner may record an assessment of "immediate fail", with the result that the test is terminated immediately. To pass the driving test, at least 90 per cent of the set test demands must be satisfied.

At the end of the test drive, the test result is communicated during a concluding discussion. This discussion is held in a meeting room and devotes several minutes to an evaluation of the test drive. The novice driver is given primarily general feedback on his test performance, without discussion of specific traffic situations or occurrences during the test. A test report is also handed over. If the test is not passed, a repeat attempt is possible at the earliest after seven days. The pass rate for the driving test is 55 per cent.

## **Quality assurance**

### **Training of driving instructors**

Admission to the profession of driving instructor is subject to a minimum age requirement of 21 years and continuous possession of a full, unrestricted driving licence for at least three years, without any intermediate periods of withdrawal or suspension. Candidates must also attend a medical examination and submit a self-report on their health status.

Theoretical and practical training is prescribed and can only be completed at a state-approved training centre. A test must also be taken, and consists of a written theoretical section (extended "Driver Knowledge Test", comprising 90 test items) and a two-hour practical section. Furthermore, a sample demonstration of driving instruction in the vehicle must be given, serving to permit assessment of the candidate's ability to convey theoretical knowledge and practical driving skills. Driving instructors are subject to continuous monitoring and must repeat the qualification tests every three years.

### **Auditing of driving schools**

When a driving school is opened, the training vehicles are subjected to corresponding inspection. Later, periodic audits are performed to monitor the teaching materials, training vehicles and documentation of the training provided. Furthermore, the pedagogical quality of the driver training is assessed by external experts from the traffic authority and the state department for education and training.

### **Training of driving test examiners**

The profession of driving test examiner is open to persons who hold a full, unrestricted driving licence, which can be obtained at the earliest from the age of 20 years.

Theoretical and practical training is prescribed, with each covering a period of around one week. In addition, it is necessary to take a professional qualification test consisting of a written theory test and a driving test.

**Quality assurance measures in test organisations**

Quality assurance with regard to the knowledge and traffic perception tests involves continuous verification of the compliance with certain quality standards. The quality of the driving test is similarly monitored by way of audits performed periodically or whenever deemed necessary in response to particular circumstances (participation of a supervisor in regular tests). The responsibility for quality assurance tasks rests with internal evaluators of the "Roads And Traffic Authority" (RTA), who work independently of the driving test examiners.

**Further development**

New South Wales is currently testing a programme under which novice drivers attend a series of group discussions with a trained facilitator and subsequently a practical coaching session during the first months of solo driving.

## New Zealand

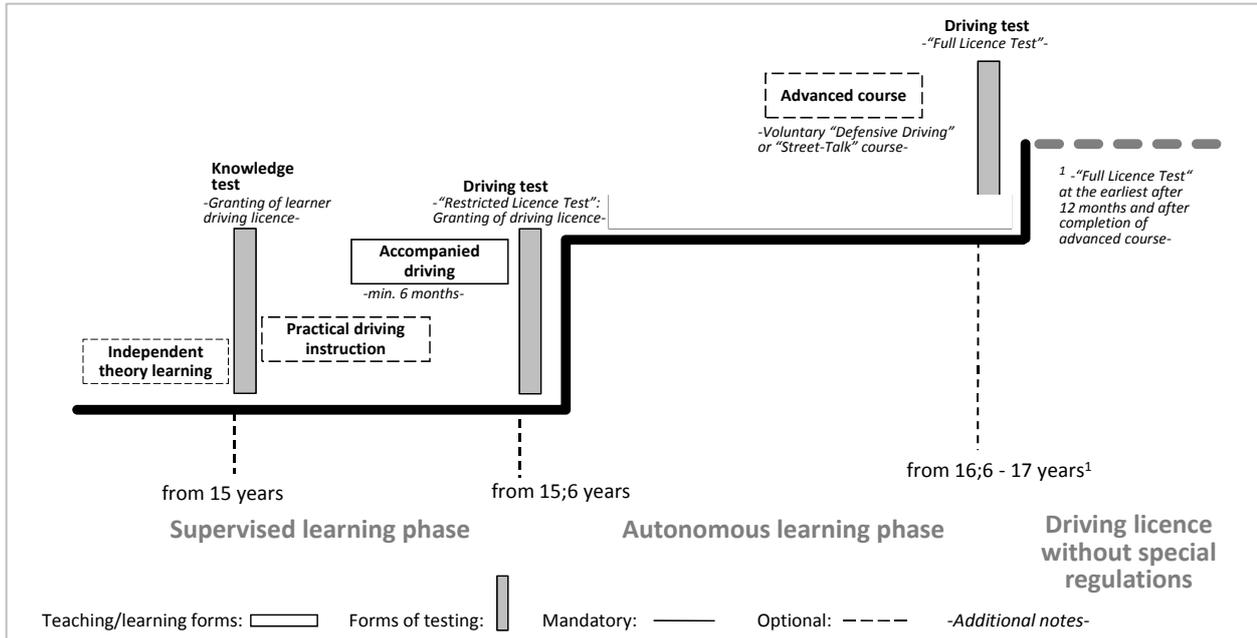


Fig. 29: System of novice driver preparation in New Zealand (model for novice drivers under 25 years)

### Overview

Novice drivers prepare by way of independent theory learning for a knowledge test, the passing of which leads to the issuing of a learner driving licence ("Learner Licence"). The learner driving licence entitles the holder to commence practical driving instruction with a lay trainer or professional driving instructor (at the earliest from the age of 15 years). At the earliest after six months, a first driving test ("Restricted Licence Test") can be taken. After passing this test, novice drivers are permitted to drive solo and gain further driving experience under protective regulations (at the earliest from the age of 15 years and 6 months). This autonomous learning phase is normally intended to last 18 months, but may be shortened to 12 months if the novice driver attends a state-approved advanced training course ("Defensive Driving" or "Street Talk")<sup>9</sup>. Subsequently, a second driving test ("Full Licence Test") must be taken. Passing of the second driving test (at the earliest from the age of 16 years and 6 months) leads to the granting of a driving licence free of special regulations for novice drivers.

<sup>9</sup> For novice drivers over 25 years of age, the initial minimum duration of the autonomous learning phase is 6 months; this may be shortened accordingly to 3 months by attending an advanced driver training course.

### Framework conditions

#### Minimum age requirements

The minimum age for admission to take the knowledge test and for the issuing of a learner driving licence is 15 years. The earliest age at which the first driving test ("Restricted Licence Test") can be taken and thus solo driving under protective regulations can begin is 15 years and 6 months. A driving licence free of special regulations for novice drivers can be issued at the earliest after a further 18 months and after passing a second driving test ("Full Licence Test"), i.e. from the age of 17 years. If the novice driver attends a formal, state-approved training course ("Driver Education"), the second driving test to obtain a full, unrestricted driving licence can already be taken after 12 months, i.e. at the age of 16 years and 6 months.

#### Proof of fitness to drive

An eyesight test is prescribed as a prerequisite for the issuing of a learner driving licence and is conducted within the framework of the knowledge test.

#### Duration and costs

No data were received on the average duration of the supervised learning phase; after receiving a learner driving licence, novice drivers must drive for at least six months with accompaniment. The transition to solo driving is followed by an autonomous learning phase lasting at least 18 months. The average costs incurred by a novice driver to

obtain a driving licence amount to the equivalent of around 230 Euros.

### **Curriculum**

The national road traffic law ("Road Code") serves as a basis for preparation for the knowledge and driving tests. In addition, a framework plan ("Driving Skill Syllabus") is available to support the acquisition of practical driving skills. This syllabus comprises a total of 30 lessons, and its use is recommended in both practical driving instruction with a lay trainer and formal driving school training.

## **Teaching and learning forms**

### **Independent theory learning**

Novice drivers prepare for the knowledge test primarily by way of independent theory learning, for which the test organisation makes available printed and electronic learning materials. The test items used in the knowledge test are publicly accessible and may be used for test preparation. The Transport Agency also offers novice drivers a PC-based driving simulation program ("CD-DRIVES") to help train hazard recognition skills.

### **Practical driving instruction**

Practical driving instruction with a professional driving instructor is not prescribed. It is thus possible to acquire driving skills both under the supervision of a lay trainer and with a professional driving instructor. Professional driving instructors must possess a corresponding permit from the Transport Agency; lay trainers must be at least 19 years of age and must have held a valid driving licence for at least two years.

The contents for practical driving instruction are defined in a framework syllabus (see above). In addition, the Transport Agency offers an Internet platform through which novice drivers and lay trainers are able to call up special learning units to support their acquisition of practical driving experience and as preparation for the driving test. A total of 14 topics are presented (teaching films with explanation of the learning objectives), and the novice driver is then intended to practice the corresponding skills in real traffic after viewing the tips and information given on the Internet platform. A recommended minimum scope of practice in real traffic is also specified for each unit.

### **Accompanied driving**

The prerequisite for participation in accompanied driving is a learner driving licence, which is granted to novice drivers if they have previously passed a knowledge test and an eyesight test. The phase of driving practice exclusively under the supervision of an experienced accompanist must cover a pe-

riod of at least six months. Accompanied driving can be documented by way of a logbook.

Different persons are permitted to act as accompanist for one and the same novice driver, provided they are at least 19 years of age and have held a valid driving licence for at least two years. During accompanied driving, the vehicle used must be marked as a learner vehicle. Novice drivers under the age of 20 years must observe an absolute zero-alcohol rule, and further passengers may only be carried on an accompanied drive with the consent of the accompanist.

### **Solo driving under protective regulations**

After passing the first driving test ("Restricted Licence Test"), novice drivers are initially granted a provisional driving licence for a period of 18 months; this autonomous learning phase may be shortened to 12 months by attending a recognised driver training course. During the autonomous learning phase, night-time driving (between 10 p.m. and 5 a.m.) is not permitted, and a lower maximum permissible blood alcohol content of 0.03 per cent applies when driving. Furthermore, passengers may only be carried if an experienced accompanist who has held a full, unrestricted driving licence for at least two years is also present in the vehicle. Sanctions in case of traffic offences include driving bans of up to three months and confiscation of the vehicle.

### **Advanced training course**

Completion of a state-approved advanced training course ("Defensive Driving" or "Street Talk") after the commencement of solo driving is rewarded with shortening of the 18-month autonomous learning phase by six months. The corresponding voluntary course offers can be taken up at the earliest six months after passing the first driving test ("Restricted Licence Test"). The so-called "Defensive Driving" course (with a total scope of nine hours) conveys strategies to identify, assess and avoid hazardous situations. To this end, four theory classes discuss topics such as the accident risk arising from distraction, emotions, alcohol and drugs, or the influence of passengers ("peer pressure"). A further course unit is devoted to a drive in real traffic, during which the novice driver's driving competence is observed and assessed according to demands and criteria comparable to those which apply in the forthcoming second driving test ("Full Licence Test"; see below). Alternatively, novice drivers may choose a so-called "Street Talk" course, which similarly consists of four theory class units and a session of practical driving in real traffic. Alongside strategies for the handling of hazardous situations, this course also provides an

insight into the demands to be satisfied in the second driving test.

## Forms of testing

### Knowledge test

The knowledge test is realised either as a computer-based test or as a “paper-and-pencil” test. To pass, at least 32 of the total of 35 test items (multiple-choice questions, true/false questions) must be answered correctly. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective. The test contents cover subject areas such as “Parking”, “Emergency situations”, “Road signs and markings”, “Vehicle positioning”, “Behaviour in road traffic” and “Cross-roads/junctions”. At the end of the test, the candidate receives feedback on the total points score. Feedback on whether a particular test item has been answered correctly is given immediately after entering the answer. No information was received on the pass rate for the knowledge test.

### Driving tests

The system of novice driver preparation implemented in New Zealand requires that two driving tests be taken: Passing of the “Restricted Licence Test” founds an entitlement to drive solo under protective regulations, while successful completion of the “Full Licence Test” leads to the granting of a driving licence free of special regulations for novice drivers. Both driving tests take place exclusively in real traffic. An accompanist may take a rear seat in the vehicle during the tests; the driving test examiner sits in the front passenger seat. The test vehicle must be provided by the candidate. Within the framework of technical preparation of the vehicle, the driving test examiner first checks whether the vehicle is in a safe, roadworthy condition. If this is not the case, the driving test is aborted and deemed failed.

- The “Restricted Licence Test” lasts around 30 minutes. The test drive follows a standard route in real traffic, with the test locations along this route being characterised by increasing traffic density and situative demands. The first section of the test drive assesses driving tasks such as driving off, straight driving and turning at junctions on roads with a permissible speed limit of 60 km/h and low traffic density. In the second section of the test, more complex tasks or basic driving manoeuvres are tested at the same locations; this includes, for example, reversing (in connection with a three-point turn, reversing into a driveway or

parking parallel to the direction of traffic), turning (at junctions controlled by a stop sign or traffic lights) and the negotiation of a roundabout. The third section of the test moves to roads with a permissible speed limit of 100 km/h and includes straight driving, the use of multiple lanes, driving through bends and merging into the traffic flow. The driving test examiner observes the candidate's behaviour on the basis of specific observation categories, such as “Use of the mirrors”, “Signalling”, “Braking”, “Speed adaptation” or “Vehicle positioning”. For assessment of the test performance, the driving test examiner uses a test report to note whether particular criteria were met or not. To pass the driving test, at least 80 per cent of all specified criteria must be met. After the test drive, the test result is communicated during a concluding discussion, in which the novice driver also receives feedback on the driving errors observed and areas in which further practice is recommended.

- The total test duration of the “Full Licence Test” is around 60 minutes, of which around 45 minutes are assigned to the actual test drive. This test drive follows a flexible route in real traffic and similarly consists of three sections: The first section involves a variety of simple driving tasks on different types of road with different traffic densities (straight driving, turning left and right at cross-roads/junctions). The second section of the test addresses hazard recognition and the appropriate reaction to hazards in residential areas. Besides assessing the candidate's execution of specified driving tasks, the driving test examiner at some point asks the novice driver to stop the vehicle and to report on the potential hazards (e.g. playing children, pedestrians) encountered so far. The third section serves to test hazard recognition in traffic environments with a permissible speed limit of 70 to 100 km/h. While performing the specified driving tasks (e.g. turning to face the other direction, driving through bends), the candidate must here spot and name potential hazards relating to both other roads users and the particular circumstances of the traffic environment (e.g. junctions, bends) in the sense of “commentary driving”. For assessment of the test performance, the driving test examiner judges both the execution of the required driving tasks and the degree to

which the hazards and situation cues reported by the novice driver coincide with his own observations. At least 80 per cent of the specified criteria must be met in the first section of the test in order to proceed to the remaining two sections. To pass the driving test, at least 80 per cent of the specified criteria must also be met in the second and third test sections.

At the end of the test drive, the test result is communicated during a concluding discussion, in which the novice driver also receives feedback on the driving errors observed.

## **Quality assurance**

### **Training of driving instructors**

The profession of driving instructor is subject to a minimum age requirement of 19 years and possession of a full, unrestricted car driving licence for at least two years. Candidates must not be restricted by any health impairments, and neither criminal nor traffic-related offences must be on record against their person from the past.

Theoretical and practical training is prescribed and covers, among others, the subject areas “Developing and following through on individual training plans”, “Factors affecting people’s learning” and “Observing and analysing a person’s driving”. The regular driving test (see “Full Licence Test” above) must also be renewed if the original test was taken more than five years previously. Furthermore, a sample demonstration of practical driving instruction must be given within the framework of the training.

### **Training of driving test examiners**

The profession of driving test examiner is open to persons from the age of 19 years who have held a full, unrestricted car driving licence for at least two years.

Theoretical and practical training is prescribed and is completed in a test centre under the supervision of an active driving test examiner. Various theoretical and practical tests must also be taken within the framework of the training once the supervising driving test examiner considers the attained learning status to be adequate.

## **Further development**

New Zealand is raising the minimum age for the issuing of a learner driving licence (“Learner Licence”) from 15 years to 16 years; consequently, all further minimum age requirements in connection with driver licensing are also to be increased

by one year. In addition, novice drivers are to be faced with higher test demands in the driving tests.

## North Carolina

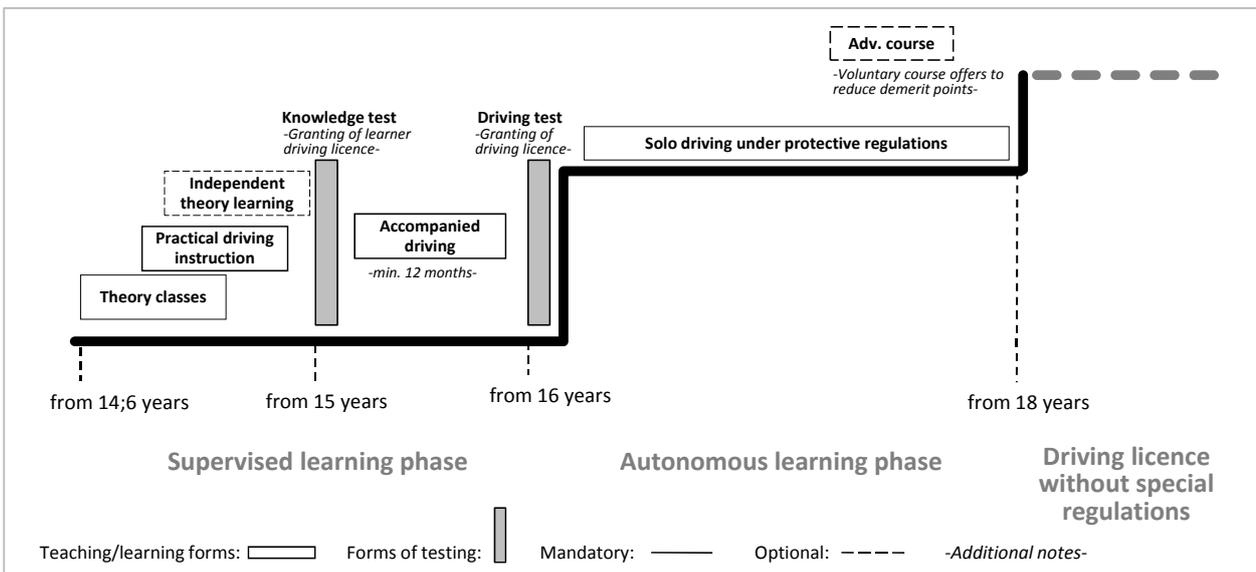


Fig. 30: System of novice driver preparation in the US state of North Carolina (model for novice drivers under 18 years)

### Overview

During the supervised learning phase (commencing at the earliest from the age of 14 years and 6 months), it is a mandatory requirement for novice drivers under the age of 18 years<sup>10</sup> to make use of school-based training offers (“Driver Education Classes”) comprising theory classes and practical driving instruction. It is subsequently necessary to take a knowledge test (at the earliest from the age of 15 years), the passing of which leads to the granting of a learner driving licence (“Limited Learner Permit”). With this learner driving licence, novice drivers are entitled to gain experience through accompanied driving over a period of at least 12 months. If the following driving test is passed (at the earliest from the age of 16 years), a provisional driving licence (“Limited Provisional License”) is issued and the novice driver is permitted to drive solo under protective regulations. A driving licence free of special regulations for novice drivers is granted after an autonomous learning phase of six months or from the age of 18 years.

### Framework conditions

#### Minimum age requirements

The minimum age for attendance at theory classes and the commencement of practical driving instruc-

<sup>10</sup> No formal training (“Driver Education”) is prescribed in advance of the issuing of a learner driving licence for novice drivers over the age of 18 years.

tion (“Driver Education Classes”) is 14 years and 6 months. The knowledge test to obtain a learner driving licence (“Limited Learner Permit”) can be taken from the age of 15 years. The earliest age at which the driving test can be taken and thus solo driving under protective regulations can begin (with a “Limited Provisional License”) is 16 years. Certain protective regulations (e.g. exclusion of night-time driving, passenger restrictions) are lifted at the earliest after six months, and a driving licence free of special regulations for novice drivers can be issued at the earliest from the age of 18 years.

#### Proof of fitness to drive

Novice drivers must pass an eyesight test to receive a learner driving licence.

#### Duration and costs

For novice drivers under 18 years, the supervised learning phase lasts a minimum of 12 months before the driving test can be taken and solo driving under protective regulations may begin. Protective regulations apply for the first six months after the commencement of solo driving or up to the age of 18 years. No data were received on the costs incurred to obtain a driving licence.

### Teaching and learning forms

#### Theory classes

Attendance at theory classes is mandatory for novice drivers under the age of 18 years. At least 30 course units (of 60 minutes each) must be completed. The theory classes are offered in state schools.



















## Teaching and learning forms

### Theory classes

It is a mandatory requirement to attend theory classes. A total of 35 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

The typically used teaching/learning methods include lecture presentations and the completion of test sheets. Text books, slides, real videos, test sheets and technical teaching models are the teaching/learning media used.

### Independent theory learning

Printed and electronic media are offered by commercial publishers to support independent theory learning. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

### Driving simulation training

There is no requirement to attend driving simulation training, but up to five units of the mandatory practical driving instruction may be completed on a driving simulator on a voluntary basis. Around 30 per cent of novice drivers make use of this opportunity.

Driving simulation training is offered by commercial driving schools, and is usually arranged before the commencement of practical driving instruction in real traffic. The training is realised as a combination of individual and group instruction. The driving simulators used generally consist of a steering wheel, a gear stick and a motion system. Simulation training serves to convey skills relating to vehicle operation, the performance of specific driving manoeuvres, compliance with traffic signs and regulations, and the mastering of risk situations.

### Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 41 course units (of 45 minutes each) must be completed. Practical driving instruction is offered exclusively by commercial driving schools.

The typically used teaching/learning methods include driving on standard routes in real traffic and "commentary driving". Practical driving instruction is realised as individual instruction.

### Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this period, any traffic offences are more likely to be sanctioned with a driving ban or withdrawal of the driving licence. The novice driver may be required to either repeat

the driving test or else attend improvement courses in order to regain a withdrawn driving licence.

### Advanced training course

An obligation to attend an advanced training course may be imposed in case of traffic offences.

## Forms of testing

### Knowledge test

The knowledge test is realised as a "paper-and-pencil" test. A total of 27 differently weighted test items (multiple-choice questions) must be answered. To pass the test, it is necessary to score at least 50 of the maximum possible 55 points. The candidate is allowed 20 minutes to complete the test. The test item instructions are in part illustrated with graphics, with traffic situations being depicted from the driver's perspective.

At the end of the test, the novice driver receives verbal feedback on the total score achieved. The pass rate for the knowledge test is 80 per cent.

### Driving test

The driving test takes place on a practice ground and in real traffic. The total test duration is at least 20 minutes. The driving instructor must be present in the vehicle during the driving test. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, it is observed whether the novice driver is able to adjust the head-rests, his seat position and the vehicle mirrors correctly before setting off; in addition, he must check the correct functioning and fitting of the safety belts and that the doors are properly closed. Further vehicle checks which must be demonstrated include, for example, the condition of the tyres, brakes, steering, lights and fluid levels.

During the test drive, the following basic driving manoeuvres may be tested: "Parking (obliquely or parallel to the direction of traffic)", "Turning the vehicle to face the other direction", "Braking accurately to a stop" and "Driving off uphill".

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is mainly given concrete driving instructions by the driving test examiner, though less detailed route specifications are also permissible ("independent driving"). The driving test examiner reaches his test decision on the basis of his overall impression of the candidate's test performance.

A test report is completed during the test drive, but is not handed over to the novice driver. The pass rate for the driving test is 80 per cent.

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## Quality assurance

### Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 25 years, possession of a class B driving licence for at least three years, and the successful completion of higher school education. Candidates must also present a certificate of psychological fitness which was issued no more than three months previously. Furthermore, their personal record must contain no criminal offences and no serious traffic offences within the past three years.

Driving instructors must complete professional qualification training. This training comprises theoretical and practical instruction at a state-recognised training centre, with a total scope of 230 hours spread over a period of three to six months. A professional qualification test is similarly prescribed; this test comprises written and oral theoretical sections, as well as a driving test and sample demonstrations of theoretical and practical instruction. The driving instructor licence is issued for a period of five years, but can be renewed by attending 40 hours of further training and passing the corresponding test.

### Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection by the responsible licensing authority. Later, follow-up audits are performed to monitor the standard of the classrooms, teaching materials and training vehicles, and to verify the compliance with documentation requirements (e.g. documentation of the driver training provided).

### Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 24 years who have held a driving licence for at least three years.

The prospective driving test examiners are at the same time police officers. There is no specific programme of driving test examiner training, but candidates must nevertheless pass a theoretical test. The entitlement to conduct driving licence tests must be renewed every five years.

### Quality assurance measures in test organisations

The knowledge and driving tests are conducted by police officers. The test items for the knowledge test are provided jointly by the Ministry of the Interior and the Ministry of Transport. The realisation of knowledge and driving tests is evaluated at irregular intervals by correspondingly empowered police officers.

## Sweden

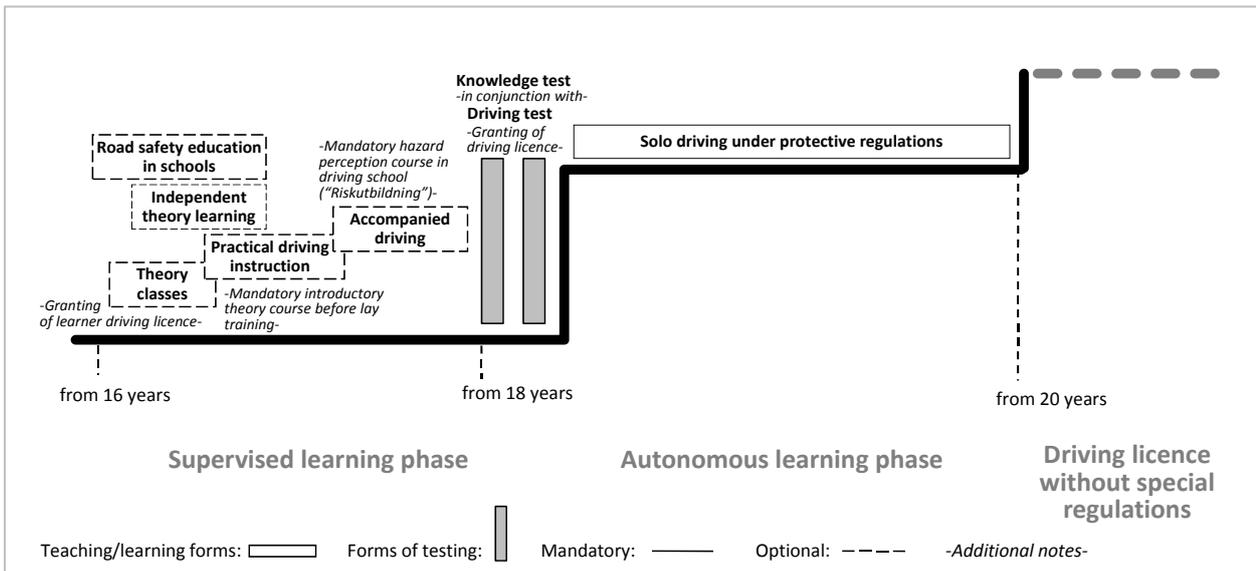


Fig. 34: System of novice driver preparation in Sweden

### Overview

At the beginning of the supervised learning phase, it is first necessary to apply for a learner driving licence. With this licence, novice drivers are permitted to take practical driving instruction under the supervision of a lay trainer or professional driving instructor (at the earliest from the age of 16 years), and to make use of accompanied driving to gain practical driving experience over an extended period. The mandatory prerequisite for the option of lay training is previous completion of an introductory theory course in a driving school. In addition, all novice drivers must attend a special course on hazard avoidance ("Riskutbildning") before taking the driving test and commencing solo driving. It is possible to prepare for the required knowledge test either by way of independent theory learning or by attending optional theory classes. The knowledge test and the subsequent driving test are taken on the same day (or at least within a maximum period of two weeks). Passing of the driving test founds an entitlement to drive solo under protective regulations (at the earliest from the age of 18 years) during a two-year autonomous learning phase.

### Framework conditions

#### Minimum age requirements

The minimum age for the issuing of a learner driving licence and the commencement of practical driving instruction is 16 years. The knowledge and driving tests can be taken from the age of 18 years. A driving licence free of special regulations

for novice drivers is granted 24 months after taking the driving test, i.e. at the earliest from the age of 20 years.

#### Proof of fitness to drive

Novice drivers must attend a medical examination, furnish proof of adequate vision and present a self-report on their health status.

#### Duration and costs

The supervised learning phase covers a period of between three and 24 months. The transition to solo driving is followed by a 24-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 1,350 Euros.

#### Curriculum

The objectives for novice driver preparation are anchored in a national curriculum. This curriculum is binding for all novice drivers, irrespectively of whether they attend a commercial driving school or learn and practice under the supervision of a lay person. The intention is to define common learning objectives and to guarantee comparable training throughout the country; nevertheless, the general formulation of the objectives should at the same time enable the training to be adapted to individual needs of the novice driver. The training curriculum embraces both theoretical and practical content and is structured into four modules: (1) "Manoeuvring, vehicles and the environment", (2) "Driving in different traffic environments", (3) "Driving under special conditions" and (4) "Personal circumstances and goals in life". Each module is supple-

mented and expanded by the associated competence fields “Theory and skills” (with a focus on the theoretical knowledge and practical skills necessary to drive a vehicle) and “Self-assessment” (with a focus on the individual circumstances of the driver). For each module, learning objectives are described to indicate the minimum level to be achieved to obtain a driving licence.

## Teaching and learning forms

### Theory classes

Commercial driving schools offer optional theory classes. Around 90 per cent of novice drivers attend at least one theory class; on average around 11 course units are attended. In addition, classes may be offered within the framework of general school education.

The typically used teaching/learning methods include lecture presentations, written and oral progress assessment, class discussions, demonstrations by the instructor, work in small groups, the integration of external persons into the classes and the completion of test sheets and homework. Text books, slides, real videos, virtual driving scenarios, online training programs and test sheets are the teaching/learning media used.

Attendance at a three-hour introductory theory course with a professional driving instructor is only mandatory for those novice drivers who choose the option of lay training. Three further theoretical course units are prescribed for all novice drivers within the framework of the mandatory hazard avoidance course (“Riskutbildning”; see “Practical driving instruction” below).

### Road safety education in schools

Some secondary schools offer classes relating to road safety and driver training. The decision as to whether such offers for novice driver preparation are included in the school curriculum is left to the individual discretion of schools.

### Independent theory learning

Novice drivers prepare for the knowledge test either within the framework of theory classes or by way of independent theory learning. Commercial publishers support novice drivers in their learning with text books/manuals aligned to the content specifications of the curriculum (see above). Computer-based and online training programs are also offered by commercial publishers. The test items used in the knowledge test are not publicly accessible, but similar test items are available to aid preparation for the knowledge test.

### Practical driving instruction

Practical driving instruction may be taken either with a lay trainer or with a professional driving instructor. Novice drivers are able to choose freely between professional and private instruction; the only prerequisite for the option of lay training is attendance at a three-hour introductory theory course with a professional driving instructor. Approximately 80 per cent of novice drivers combine both forms of training. Only around 10 per cent train exclusively under the supervision of a professional driving instructor.

The teaching/learning methods typically used by professional driving instructors include driving on a practice ground, driving on standard and flexible routes in real traffic, “commentary driving”, practical demonstrations by the instructor, “independent driving” and self-assessments of driving skills by the novice driver himself. Practical driving instruction is usually realised as individual instruction, but on rare occasions also as a combination of individual and group instruction.

The vehicle used for practical driving instruction with a professional driving instructor must be marked as a learner vehicle by way of a red plate or sticker with the text “ÖVNINGSKÖR” (“driving practice”). A corresponding plate or sticker in green is prescribed during any practice under the supervision of a lay person.

Within the supervised learning phase, all novice drivers must complete a three-hour course on hazard avoidance (“Riskutbildning”) with a professional driving instructor. This course should usually be attended towards the end of practical driving instruction or accompanied driving, i.e. shortly before taking the knowledge and driving tests. The typically used teaching/learning methods include group discussions, feedback drives on a practice ground, driving under difficult conditions (e.g. on slippery roads) and practical demonstrations by the instructor. The content conveyed by the course covers topics such as the recognition of hazardous situations, the significance of driver motives and attitudes, the influence of passengers, typical hazardous situations encountered by novice drivers, emergency braking, and the functions of driver assistance systems.

### Accompanied driving

Around 90 per cent of novice drivers make use of the opportunity to drive under the supervision of an experienced accompanist from the age of 16 years. The prerequisite is that the novice driver and his accompanist have together previously completed a mandatory three-hour introductory theory course with a professional driving instructor.

The accompanist must have held a class B driving licence continuously for at least five years and must be at least 24 years old. During accompanied driving, the vehicle used must be marked as a learner vehicle by way of a green plate or sticker with the text "ÖVNINGSKÖR" ("driving practice"); driving abroad is forbidden.

### **Solo driving under protective regulations**

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this period, they must observe a lower maximum permissible blood alcohol content of 0.02 per cent when driving. If the driving licence is withdrawn due to traffic offences, it is necessary to repeat the knowledge and driving tests.

## **Forms of testing**

### **Knowledge test**

The knowledge test is realised as a computer-based test. To pass, at least 52 of the total of 65 test items must be answered correctly. The candidate is allowed 50 minutes to complete the test. Each test also incorporates five "future" test items for purposes of advance evaluation; these test items are not identified as being under trial, and are thus answered by the novice driver in the normal manner, but they are not taken into account in the assessment of test performance. The various test items are presented in the form of true/false questions, multiple-choice questions, sorting questions, cue identification tasks and situation comparisons, though all formats specify answer options in the sense of multiple-choice questions, and only one of these answer options is applicable in each case. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective. The test contents cover the subject areas "Knowledge of the vehicle and its manoeuvring", "Environment", "Road safety", "Traffic rules" and "Personal prerequisites".

The test result appears on the screen at the end of the test, and the test items which were answered incorrectly are also displayed for a few seconds each, albeit without identifying the correct answer options. After the test, the candidate also receives a written report with indication of the total points score and feedback on the subject areas in which knowledge deficits were revealed. The pass rate for the knowledge test is 72 per cent.

### **Driving test**

The driving test takes place in real traffic. The total test duration is around 45 minutes, of which at least 25 minutes are assigned to the actual test

drive. The driving test examiner sits in the front passenger seat during the driving test; the driving instructor or lay trainer is permitted to be present in the vehicle.

Before the driving test begins, the driving test examiner explains the competence categories according to which the test performance is assessed. Within the framework of technical preparation of the vehicle, the candidate must perform a vehicle check, for which the driving test examiner selects one of the following topics: "Lights, turn indicators, reflectors and signals", "Windscreen wipers", "Brakes", "Tyres and wheel rims", "Oil level", "Hazard warning features".

During the test drive, two of the basic driving manoeuvres "Reversing", "Turning to face the other direction", "Parking", "Driving off uphill" and "Braking within a short distance" must be tested; one of the two manoeuvres is always "Reversing".

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner, but must also drive independently to a specified destination ("independent driving"). In addition, the driving test examiner asks oral questions relating to particular driving situations.

By way of the driving test, the novice driver is given the opportunity to demonstrate adequate competence to drive a motor vehicle safely in different traffic situations and in different conditions. For the assessment of test performance, the candidate's behaviour is judged on the basis of the following competence categories: "Speed adaptation", "Vehicle control", "Vehicle positioning", "Traffic behaviour", "Attentiveness" and "Environmentally aware driving". The test decision reflects the driving test examiner's overall impression of the test performance. The test is failed, for example, in case of repeated errors or driving errors which demand the intervention of the driving test examiner.

Directly after the test drive, the test result is communicated during a concluding discussion, and feedback is given on the test performance. In addition, the novice driver receives a test report, irrespective of whether the test was passed or not. The knowledge and driving tests are considered "mutually tied" tests: If one of the two tests is not passed, it must be repeated within two months. The pass rate for the driving test is 61 per cent.

## Quality assurance

### Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 21 years, the successful completion of higher school education and possession of a class B driving licence for at least three years. Candidates must also complete professional qualification training. This training is spread over a period of around 18 months and comprises theoretical and practical training components with a total scope of around 2,520 hours. Tests are integrated into the training and conducted by a state authority ("Swedish Transport Agency").

### Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection, and the professional qualifications of the driving instructors are checked. Later, further audits are performed periodically or whenever deemed necessary in response to particular circumstances; these audits serve to monitor the standard of the training vehicles, the compliance with documentation requirements, the pedagogical quality of the theory classes and practical driving instruction provided, and the qualifications and competence of the driving instructors.

### Training of driving test examiners

The profession of driving test examiner is open to persons who have completed higher school education and have held a driving licence for at least three years. The prescribed professional training is spread over a period of around one year. Before commencing training, candidates must demonstrate adequate practical driving ability by way of an entry test. The training comprises theoretical components with a scope of around 12 weeks and practical components with a scope of around 45 weeks. Mandatory theoretical tests are integrated into the training, and actual tests with driving licence applicants must be conducted under supervision. Driving test examiners must attend at least four days of further training within a period of three

years in order to extend the validity of their licence to conduct tests.

### Quality assurance measures in test organisations

To evaluate the quality of new test items for the knowledge test, they are tested within the framework of regular knowledge tests; the items concerned are not identified as trial items, however, and are also not taken into account in the assessment of the candidate's test performance. Statistical analyses are performed on both current test items and the test items under trial (e.g. with regard to their difficulty and power of discrimination) and judgements are obtained from experts. The test items are replaced at regular intervals so as to avoid undue familiarity among the test candidates. Quality assurance for the driving test involves the supervision of test realisation and evaluations of test statistics.

### Further development

There are discussions in progress on whether to permit also private organisations to conduct knowledge and driving tests.

## Victoria

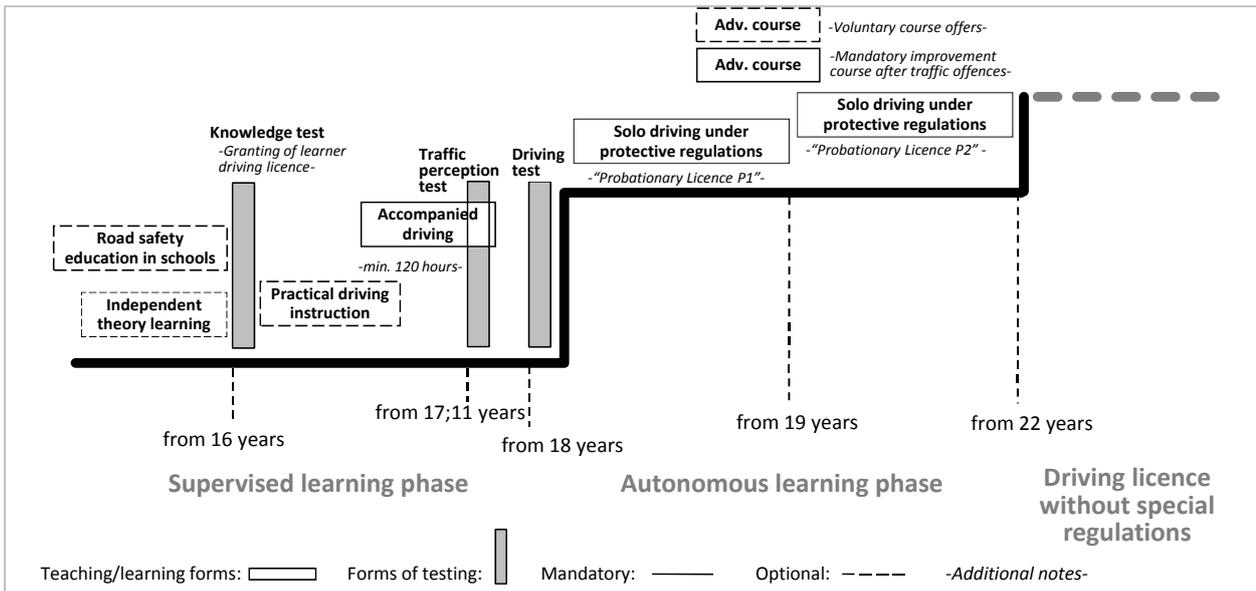


Fig. 35: System of novice driver preparation in the Australian state of Victoria (model for novice drivers under 21 years)

### Overview

Novice drivers usually prepare by way of independent theory learning for a knowledge test ("Learner Permit Test"), the passing of which leads to the issuing of a learner driving licence (at the earliest from the age of 16 years). The learner driving licence entitles the holder to commence practical driving instruction with a lay trainer or professional driving instructor and to participate in accompanied driving; at least 120 hours of driving must be recorded over a period of at least 12 months. After passing a traffic perception test (at the earliest from the age of 17 years and 11 months) and a driving test (at the earliest from the age of 18 years), novice drivers are granted a provisional driving licence ("P1 Probationary Licence"), which permits solo driving under protective regulations. After an autonomous learning phase of at least 12 months, this licence can be exchanged for a second provisional driving licence with extended rights ("P2 Probationary Licence"), provided the novice driver has abided with all special regulations associated with the initial provisional licence. A driving licence free of special regulations for novice drivers is finally granted after a further 36 months of solo driving under protective regulations.

### Framework conditions

#### Minimum age requirements

The minimum age for admission to take the knowledge test ("Learner Permit Test"), for the issuing of

a learner driving licence, and for commencement of practical driving instruction and accompanied driving is 16 years. The traffic perception test can be taken at the earliest from the age of 17 years and 11 months, and the driving test from the age of 18 years. A driving licence free of special regulations for novice drivers is granted at the earliest after an autonomous learning phase covering a total period of 48 months, i.e. at the earliest from the age of 22 years.<sup>11</sup>

#### Proof of fitness to drive

Novice drivers must take an eyesight test immediately before the knowledge test. They are furthermore obliged to report any existing health impairments. Where relevant impairments exist, a medical report must be obtained to clarify the underlying condition.

#### Duration and costs

After obtaining a learner driving licence, novice drivers must drive with accompaniment for at least 12 months. On average, 12 to 18 months pass before the commencement of solo driving. Successful completion of the driving test is followed by an autonomous learning phase lasting at least 48 months (or 36 months for novice drivers over the age of 21 years). The average costs incurred by a

<sup>11</sup> This applies only for novice drivers under the age of 21 years when the first provisional licence is granted. The "P1 Probationary Licence" is not issued to novice drivers over the age of 21 years; they proceed immediately to the three-year "P2 Probationary Licence" phase.

novice driver to obtain a driving licence amount to the equivalent of around 570 Euros.

### **Curriculum**

The required content for the acquisition of theoretical knowledge and practical skills is anchored in the teaching/learning media supporting independent theory learning (see below). A four-stage learning process is defined as a framework for practical driving instruction and accompanied driving. It begins by addressing vehicle control (Stage 1), followed by driving on quiet roads (Stage 2) and in difficult driving situations (Stage 3), and finally the preparation for solo driving (Stage 4). Specific learning objectives are given for each stage. In addition, behaviour recommendations are provided for lay trainers/accompanists, and appropriate practice methods are suggested.

## **Teaching and learning forms**

### **Theory classes**

The attendance at theory classes is voluntary and corresponding offers are used by only a very small proportion of novice drivers. Theoretical components are usually integrated into the practical driving instruction with a driving instructor, and involve discussions in the vehicle and demonstrations by the instructor.

### **Road safety education in schools**

Some secondary schools offer courses relating to novice driver preparation for the 15 to 16-year-old age group. These courses convey exclusively theoretical knowledge and do not include any practical components.

### **Independent theory learning**

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. The test items used in the knowledge test are publicly accessible and may be used for test preparation. The traffic authority makes teaching/learning media available in printed and electronic form. Novice drivers receive a media package ("Learning Kit") comprising a text book, a logbook and a guide for lay trainers and accompanists.

### **Practical driving instruction**

Practical driving instruction in a commercial driving school is not prescribed. Around 50 to 75 per cent of novice drivers make use of offers for professional training with a scope of up to 12 driving lessons (of 45 minutes each).

The teaching/learning methods typically used by professional driving instructors include driving on flexible routes in real traffic, "commentary driving", practical demonstrations by the instructor, "independent driving" and self-assessments of driving

skills by the novice driver himself. Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls.

Practical driving instruction under the supervision of a lay trainer is subject to the same general conditions as accompanied driving (see below).

### **Accompanied driving**

Practically all novice drivers make use of the possibility to gain driving experience under the supervision of a lay person (at the earliest from the age of 16 years). The prerequisite is that the novice driver has previously passed the knowledge test. During accompanied driving, the vehicle used must be marked accordingly as a learner vehicle. The novice driver must observe an absolute zero-alcohol rule, and the use of mobile telephones is similarly forbidden, even if a hands-free device is available. At least 120 hours of accompanied driving must be recorded over a period of at least 12 months, of which at least 10 hours must involve driving in the dark. All practice accumulated within the framework of accompanied driving must be documented in a logbook; in addition to the distance and the number of hours, notes must be made to indicate the types of road used, the traffic density, and the weather and light conditions.

The accompanist must be in possession of an unrestricted driving licence, and a maximum permissible blood alcohol content of 0.05 per cent must be observed. The accompanist is furthermore responsible for confirmation of the entries made in the novice driver's logbook. There is no limitation to a particular accompanist; any person who meets the aforementioned conditions may assume the role of an accompanist.

### **Solo driving under protective regulations**

After passing the driving test, novice drivers are granted a provisional driving licence for a total of four years (three years in the case of novice drivers over the age of 21 years). During this period, they must observe an absolute zero-alcohol rule and are not permitted to drive particularly powerful vehicles. During the first 12 months ("P1 Probationary Licence"; novice drivers under the age of 21 years), no more than one passenger between the ages of 16 and 21 years may be in the vehicle, the vehicle must be marked with "P1" plates, use of a telephone is forbidden, even where a hands-free device is available, and it is not permitted to tow other vehicles. At the earliest after 12 months, this licence can be exchanged for an extended provisional licence with broader driving rights ("P2 Probationary Licence"). For example, holders of an extended provisional licence are permitted to use a

hands-free telephone. During this second autonomous learning phase, the vehicle must be marked accordingly with "P2" plates.

Possible sanctions in response to traffic offences are monetary fines, driving bans, extensions of the probationary period and demerit points on the driver's record (between one and ten points are imposed for each traffic offence, depending on its severity). Holders of a provisional driving licence are subject to stricter regulations within this demerit points system: Five demerit points within a period of 12 months already result in corresponding punishment measures, whereas a limit of 12 points applies for drivers with a full, unrestricted driving licence. If the maximum permissible number of points is exceeded, the licence holder can choose between two options: Firstly, the driving licence could be withdrawn for at least three months (this minimum period is increased by a further month for each point in excess of the 5 or 12-point threshold); alternatively, the driver may choose to retain his driving licence, but then under the condition that no further demerit points are received during the next 12 months (if further traffic offences are recorded during this time, the driving licence is withdrawn for twice the period which would have applied in case of immediate withdrawal). Following withdrawal of the driving licence, the authorities may also require repetition of the knowledge test, a driving test or attendance at a driver education measure, for example. In case of alcohol-related traffic offences, it may be stipulated that an alcohol interlock device be fitted to the ignition of the vehicle used.

### **Advanced training course**

Novice drivers are offered various advanced driving courses on topics such as hazard recognition or emergency braking; relatively little use is made of such offers. Drivers who have lost their driving licence as a result of traffic offences may be required to attend improvement courses as a prerequisite for re-granting of the withdrawn licence.

## **Forms of testing**

### **Knowledge test**

The knowledge test is usually realised as a computer-based test; only a few test locations still use a "paper-and-pencil" test. To pass, at least 25 of the total of 32 test items (multiple-choice questions) must be answered correctly. The candidate is allowed around 20 minutes to complete the test. The test item instructions are in part illustrated with graphics, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

At the end of the test, the candidate receives verbal and written feedback on the test and test result. The total points score is communicated and attention is drawn to subject areas in which test items were not answered correctly. The pass rate for the knowledge test is 90 per cent.

### **Traffic perception test**

At the end of the supervised learning phase, novice drivers must take a traffic perception test. The candidate is shown a total of 28 video sequences of traffic situations and must click with the mouse to indicate when a particular action can be performed. The required driving action (slow down, overtake, turn or move off) is specified explicitly before each video sequence. The pass rate for the traffic perception test is 54 per cent.

### **Driving test**

The driving test takes place in real traffic. The total test duration is 50 minutes, of which at least 30 minutes are assigned to the actual test drive. A professional driving instructor is permitted to be present in the vehicle during the driving test. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, the novice driver must first demonstrate the proper functioning of the turn indicators, brake lights, horn, headlights, windscreen wipers and hand brake. If any of these items is not in proper order, the driving test is not continued. The candidate must also show the control elements for the (rear screen) demister function.

The test drive follows a standardised route in real traffic and comprises two parts: The first part lasts around ten minutes and requires the candidate to perform certain simple driving tasks (on roads with a low to medium traffic density and a speed limit of 60 to 80 km/h), for example turning at junctions, changing lanes, reverse parking parallel to the direction of traffic or a three-point turn. The first part of the test is assessed separately by the driving test examiner, and an adequate test performance is at this point a prerequisite for continuation of the driving test. The subsequent second part involves more complex driving tasks, such as the negotiation of junctions on multiple-lane roads. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

The driving test examiner assesses the candidate's execution of the set driving tasks on the basis of the following observation categories: "Traffic observation", "Signal use", "Gap selection", "Choice of speed", "Following distance", "Lateral position on the road", "Situation awareness when stopping",

“Parking” and “Vehicle control”. Concrete assessment criteria are defined for each of these observation categories; the driving test examiner marks each criterion with “Yes” or “No” to indicate whether the requirements were met or not. The test result is determined by the total number of criteria which are satisfied. In addition, any “Critical” or “Immediate termination” errors are taken into account; the latter always result in immediate failure of the driving test.

Immediately after the test drive, the test result is communicated during a concluding discussion, which also addresses the areas in which further improvement of the candidate’s driving skills is necessary. The novice driver also receives a test report. If the test is unsuccessful, a repeat attempt is possible at the earliest after a number of weeks. The pass rate for the driving test is around 65 per cent.

## **Quality assurance**

### **Training of driving instructors**

Admission to the profession of driving instructor is subject to possession of a full, unrestricted driving licence; this licence can be granted at the earliest from the age of 22 years. A medical examination is prescribed, and there must be no traffic-related or criminal offences on record against the candidate.

The certificate prescribed to be permitted to work as a driving instructor is granted after mandatory professional qualification training with a total scope of 360 hours. Within the framework of this training, the candidate takes written and oral knowledge tests and a practical driving test; he must furthermore give sample demonstrations of theory classes (or theoretical instruction in the vehicle) and practical driving instruction. The driving instructor licence is issued for a limited period only and must be renewed every three years. Further training is not prescribed in this context.

## **Further development**

Possible starting points for long-term further development of the system of novice driver preparation are seen in the elaboration of competence-based approaches, which could permit better assessment and give greater support to driving competence acquisition, rather than assessing competence solely by way of a single driving test.