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## **Experiences concerning the annual inspection of bodies supporting agencies responsible for assessing drivers' aptitude**

Good afternoon, everybody. Thank you all for coming.  
As you know, I want to talk about the subject "Experiences concerning the annual inspection of agencies responsible for assessing drivers' aptitude".

The driving license laws were changed in Germany in 1999. Therewith an accreditation body or an accreditation agency for the agencies responsible for assessing drivers' aptitude was established. Prior to 1999 in Germany there wasn't an agency which controlled in detail the work of the assessment agencies for driving aptitude from the view of experts. The accreditation agency was a new institute without any experiences in this field. New was by the change of the driving license law also the liberalisation of the market. Each organisation could apply for approval as a body supporting assessment agencies for driving aptitude.

So much for the introduction of the subject. Let's look now at the structure of the presentation (Fig. 1).

In the presentation I want to answer the following questions:

1. What happens to drivers in Germany who are not suitable for driving vehicles?
2. How is driving aptitude assessed?
3. Why accreditation?
4. How does the accreditation agency work?
5. What experiences has the accreditation agency made so far?

Fig. 1. Structure of the presentation

At the end of the presentation you will have the opportunity to ask questions. I will try to answer all your questions but please don't be disappointed if I can't answer all of them in proper English.

### **1 What happens to drivers in Germany who are not suitable for driving vehicles?**

As in other countries too, drivers who are guilty of committing serious offences against road traffic regulations have their driving licence taken away. For example, this may occur in the case of driving under the influence of alcohol or drugs or extremely aggressive behaviour on the road.

Naturally motorists who seriously breach traffic regulations are fined or imprisoned in Germany too. In Germany, however, the main idea of taking away the driving licence is to protect the general public from dangerous drivers. It is a fact that motorists who endanger traffic are a potential risk for other motorists. In other words, such motorists are not suitable for driving vehicles.

On the other hand, the idea is not to deprive people of certain parts of society for ever; instead it should be possible to reintegrate them if they show that they have changed their lifestyle, their attitudes and also their state of health.

Assessing a driver's aptitude is therefore based on human considerations. If one were not to assume that an aptitude for driving a vehicle was a changeable characteristic, those affected would never again be allowed to be in possession of a driving licence.

For this reason, those in Germany who are guilty of particularly serious or frequent offences against traffic laws can get their driving licence back again on condition that their suitability for driving a vehicle has been restored. Since traffic authorities do not have the resources to be able to adequately assess such issues, they turn to experts for help. A medical-psychological examination serves the purpose of finding answers to questions drawn up by the authorities and presented by specially-qualified doctors and psychologists. Let me show you a table with examples.

Here you can see various causes for assessment and the questions of the traffic authority used for that purpose.

Cause for assessment	Question of the traffic authority
Offence involving an alcohol level above 1.59 per mill	Must we expect that Mr/Ms ... will once again drive a vehicle when under the influence of alcohol and/or is he/she impaired as a result of an uncontrolled consumption of alcohol, so that we need to question whether he/she can safely drive a vehicle?
Cancellation of a driving license because of (too many) traffic or criminal offences	Must we expect that in future too, Mr/Ms ... will considerably or repeatedly violate traffic laws? or: Must we, despite a record of criminal offences (in connection with road traffic/in connection with an aptitude for driving/on the basis of grounds for a great aggression potential), expect that Mr/Ms ... fulfils the physical and mental requirements for driving a vehicle safely on the road and that he/she will not considerably violate traffic regulations?

Table 1: Example for Cause for assessment and Question

If the cause for assessment of driving aptitude is an alcohol offence with an alcohol level above 1,59 per mill, the Question for the traffic authority is in that case (see table 1).

In the case of revoking a driving license because of too many traffic offences, the question drawn up by the traffic authority is (see table 1).

On the basis of the experts' reports, the authority then decides on a driver's aptitude and hands back his driving licence if he is considered to be suitable for driving.

In actual fact the experts do not make any statement on a driver's aptitude; their report provides the authority with a basis for reaching a decision. The specialist knowledge of the experts enables them to make statements on the likelihood of a repetition of a driver's behaviour. Whether the likelihood of such a repetition is acceptable or not is decided by the traffic authority on behalf of the general society, which means that the term "aptitude" is a legal term and not a psychological one.

In order to give you an idea of the magnitude of the issue at hand: at present, approx. 110,000 motorists are tested every year in respect of their aptitude for driving. For the purpose of comparison: in Germany, of approx. 64 million adult inhabitants, around 50 million persons are in possession of a driving license (Federal Department of Traffic, Construction and Housing, 2004). Hence the annual proportion of those who are subjected to an aptitude' assessment for driving is approx. 0.22%.

The driving aptitude assessments are divided up into various possible issues. Here we have a graph about the possible issues (Fig. 2):

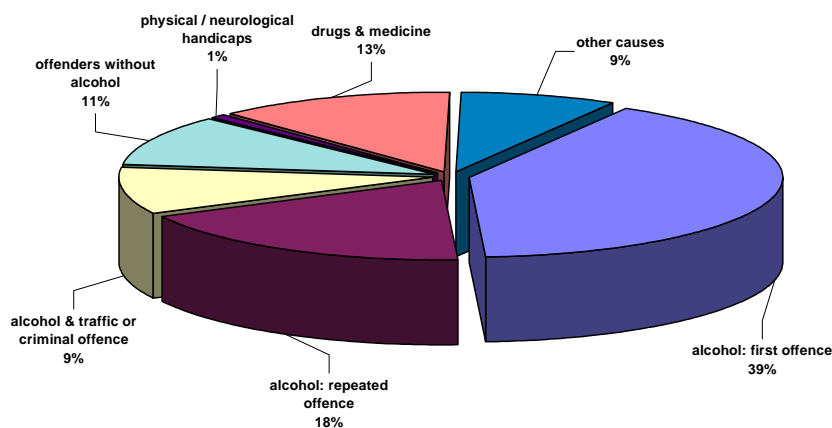


Fig. 2: Distribution of examination groups in 2003 (Knoche, 2004)

Nowadays approx. 57% of the assessments deal with the matter of alcohol, approx. 11% deal with traffic or criminal offences and approx. 13% deal with the question of drugs. The various issues were not always distributed in this manner. When assessments of a driver's aptitude were introduced in Germany during the 50s of the previous century, it was primarily physical issues which were the main focus of attention, due to the large number of war handicapped people. For several years now the question of drugs has gradually become more relevant. The shift in issues reflects a shift in social themes concerning road safety.

## 2 How is driving aptitude assessed?

An assessment is usually made when those involved apply to have their driving license handed back by the traffic authorities responsible. A few assessments are made at the request of courts of law. The applications are checked by the authorities. Should this examination give rise to any doubt that the person in question is not suitable for driving, he will be informed accordingly. He will also be notified that, prior to receiving his driving license back, proof must be provided, in an assessment of his driving aptitude, that he is suitable for driving. The person affected is therefore requested to submit a medical-psychological report, upon which he chooses an agency which provides a service for the "assessment of driving aptitude". He is entitled to make his choice from any provider of this service in Germany.

The person affected then informs the authority of where he wishes to undergo the examination of his suitability for driving. On the basis of this information the traffic authority then sends

the driving license file, containing documents on the traffic history of the person affected, to the chosen assessment agency.

The assessment agency then prepares the assessment. The experts use the driving license file to inform themselves on the respective issues the traffic authority would like to have clarified, the reason for the assessment and the history of the person to be examined.

The assessment of suitability for driving comprises two parts: a medical part and a psychological part. This means that a specially-trained doctor and a specially-trained psychologist carry out the respective parts of the assessment.

The assessment carried out is to be cause-related. An aptitude for driving is only to be assessed in the area in which the person affected gave reason to doubt his suitability for driving. The idea is therefore not to make a general assessment of a person's aptitude for driving (e.g. a physical, mental, character-related and psychophysical aptitude). The assessment of a person's aptitude for driving is hence a so-called exoneration diagnosis. Sufficient argumentation is to be brought forward to prove that doubts concerning an aptitude for driving which arose for a specific reason are no longer founded.

On carrying out his examination, a **doctor** will focus on the reason for the assessment, for example on driving under the influence of alcohol. The person affected will in this case be examined to ensure that there are no longer any shortcomings present under the aspect of "alcohol" which would limit his aptitude. To this purpose his record of illnesses is addressed, taking into particular consideration the aspect of alcohol, i.e. possible alcohol-toxic impairments. The doctor also carries out a physical examination, which includes recording the pulse rate, blood pressure, changes in the liver, changes in the person's skin and his neurological functions. These are all areas in which alcohol-related changes in a person's state of health may occur. What must not be neglected when conducting an examination based on alcohol consumption is testing the blood for changes in enzyme activities, which could be an indication of alcohol-toxic damage to a person's liver.

Drug-related examinations are similar. Instead of a routine blood test, a urine and/or hair test is carried out in order to ascertain the presence of drugs.

The most important methods for the **psychological examination** are exploration and testing.

Exploration is based on the reason for the examination, and the history of the person affected is examined in order to determine whether he has undergone a change in the meantime in respect of the individual factors which gave rise dangerous behaviour on public roads. The person affected is required to provide exonerating evidence that a change has indeed occurred.

For example, this involves discussing the circumstances that lead to the person driving under the influence of alcohol – on the day of the drive and prior to the drive. In addition a discussion on how the person has dealt with the drive, i.e. what he has come to realise, what insights he has subsequently gained and how he may have changed his behaviour. A major part of exploration deals with examining how stable a possible change in behaviour is (e.g. in the case of declared abstinence in respect of alcohol).

No matter what the reason for the examination may be, psychological exploration always attempts to assess the degree of credibility of the person concerned and to what extent the information given can be utilised. Since it is only human nature to be extremely nervous in such a situation and perhaps have unrealistic ideas about an assessment of this kind, he may be given contradicting pieces of information. This gives him the chance to clear up any contradictions which may have arisen. The task of the psychologist in this case is to find the truth and to create an atmosphere of trust in order to gain an adequate database to be able to answer the questions.

A psychological examination invariably comprises a test diagnostic examination in order to check on the psychophysical capabilities of the person concerned. The issue at hand is, for example, whether the person affected, as a result of uncontrolled alcohol consumption, is impaired in such a manner to make safely driving a vehicle questionable, or whether psychophysical requirements for safely driving a vehicle on the road are fulfilled. Here computer-aided tests, which gauge concentration and orientation skills and/or the ability to function under stress, are generally used.

The findings gained and results and certificates supplied by the person concerned are presented in a report and undergo an interdisciplinary appraisal by the doctor and the psychologist, who have so-called examination guidelines (2000) available to help them in their appraisal of the findings gained. The agencies carrying out assessments on driving aptitude must also apply so-called assessment criteria in order to ensure uniform assessment. These assessment criteria are a collection of hypotheses with corresponding criteria which need to be fulfilled for the respective hypothesis to be accepted. This procedure is a significant feature of the scientific nature of the examination. Appraisal of the assessment results leads to the answering of the questions asked by the authorities.

The following overview illustrates all of the possible assessment results with percentage details for 2003 (Table 2).

Cause for assessment	Possible Outcome		
	acceptable	rehabilitation course	unacceptable
<b>alcohol: first offence</b>	43	17	39
<b>alcohol: repeated offence</b>	40	14	46
<b>alcohol and traffic or criminal offence</b>	38	16	46
<b>offenders without alcohol</b>	47	17	36
<b>physical / neurological handicaps</b>	53	-	48
<b>drugs &amp; medicine</b>	49	9	42
<b>total</b>	<b>45</b>	<b>15</b>	<b>40</b>

Table 2: "Assessment of driver aptitude" (percentage) (Knoche, 2004)

Besides a positive or negative outcome to the assessment, it is possible that the report will recommend participation in a "course to restore driving aptitude". In the latter cases the person concerned, at the point in time of the examination, will have been considered unsuitable for driving a vehicle. The experts, however, will have come to the conclusion that participation in such a course would result in restoring an aptitude for driving with the person concerned. The "courses for restoring an aptitude for driving" are specially-evaluated seminars, the effectiveness of which has been scientifically proved, and which have been recognised by the authorities.

### 3 Why accreditation?

Seen from a different point of view, one could in fact say that agencies assessing driving aptitude examine whether the person being examined *conforms* with requirements which drivers need to fulfil in order to be considered suitable for driving.

Here we have a picture about this (Fig. 3).

Conformity assessments are also carried out in other contexts, you see: products, laboratories, quality management systems or people too can be examined in order to determine whether they fulfil specified requirements.

Certification of conformity assessment bodies confirms that the quality of a product or a service fulfils requirements. This is particularly significant in cross-border trade, in which case the focus is on the aspect of the trustworthiness of products. Standard regulations throughout Europe for assessing products and services are the basis of products being mutually recognised by the member states – with the result that respective examinations are only carried out once and not in each individual country in which the product is to be launched.

In order to ensure that conformity assessment bodies (CABs) work properly, accreditation agencies were established.

Accreditation agencies confirm that CABs have the expertise to carry out the conformity assessments.

In this context, the assessment of driving aptitude is considered to be a type of personal certification, with the assessment body being the CAB. The task of the accreditation bodies in the area of driving suitability is to examine the assessment agencies and – if the result of their examination is positive – to verify their competence.

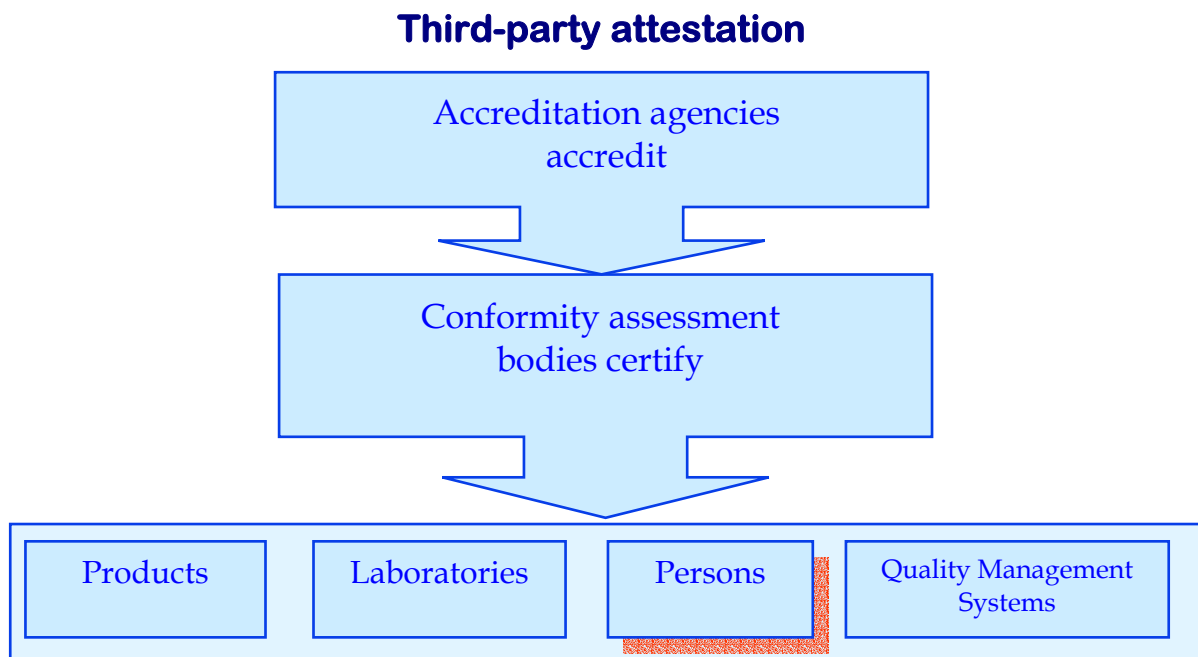


Fig.3: Third-party attestation

What is also to be taken into consideration is the fact that assessments on driving suitability are services of whose quality the individual person concerned can hardly pass judgement –

particularly since these services are not taken up by any individual on such a regular basis that he can get an idea of the quality of such a service on the basis of experience. The supply / demand mechanism can therefore not fulfil a regulating function here.

An expert is hence required to gain an insight and to ascertain whether the quality of the service in question fulfils requirements. The aim of accreditation is therefore to build up trust. The person affected is to be able to trust that the assessment agency fulfils its task properly, i.e. in accordance with the requirements of the accreditation body. On the basis of random checks, the accreditation body checks to ensure that this trust is justified. Checks or accreditations serve the purpose of providing proof of the reliability of a particular service.

In addition, the German accreditation system for driving licenses serves to standardise the assessments of driving aptitude in all of the federal states in Germany, where there are various federal states in whose area of responsibility the official approval of an assessment agency lies. Here those providing an assessment service also utilise accreditation in order to give proof to the respective federal state of the reliability of the service they offer.

In accordance with currently-valid driving license laws, the assessment agencies responsible for driving aptitude are obliged to fulfil their tasks in compliance with the DIN EN 45013 standard as revised in May 1990. The official title of the standard is "general criteria for certification bodies operating certification of personnel."

#### 4 How does the accreditation body work?

On the basis of the DIN EN 45013 (in future: ISO 17024) standard stipulated in driving licence laws, the accreditation body has translated the requirements stipulated in this standard for the application area of "assessment of suitability for driving", with current legal regulations being taken into consideration. The result of these efforts was the "requirements for agencies assessing driving aptitude". These requirements outline which criteria an organisation needs to fulfil in order to be considered competent in the area of assessing driving capability. The requirements have been published in the Internet for the purpose of transparency of the accreditation body.

And now I describe the structure of the accreditation agency (Fig. 4).

The accreditation body is advised by a special committee on stipulating and regularly revising the requirements in question. Besides representatives from the agency providing the service, the committee comprises scientific experts, a lawyer and a representative of the federal states.

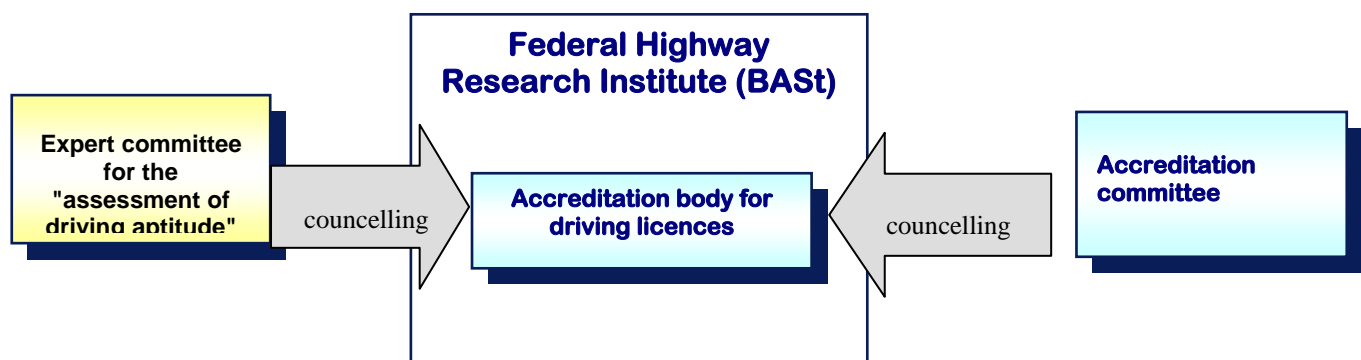


Fig.4: Organisation of the accreditation body for driving licences

Another advising body is the accreditation committee, which advises the accreditation body on all of the accreditation decisions, i.e. not only concerning the approval of accreditation, but also on revoking or recalling approval. The head of the accreditation body is however responsible for decisions taken on these issues.

Accreditation bodies are also required to conduct their work uniformly and to fulfil a standard stipulated in driving licence laws (DIN EN 450 10 "general requirements for the assessment and accreditation of certifying agencies; in future: ISO 17011). These requirements mean that accreditation bodies maintain records of their procedures and how they conduct their work in a quality management system.

Let me turn now to the accreditation procedure (Fig. 5).

The accreditation procedure of the accreditation body for driving licences comprises various sequential stages:

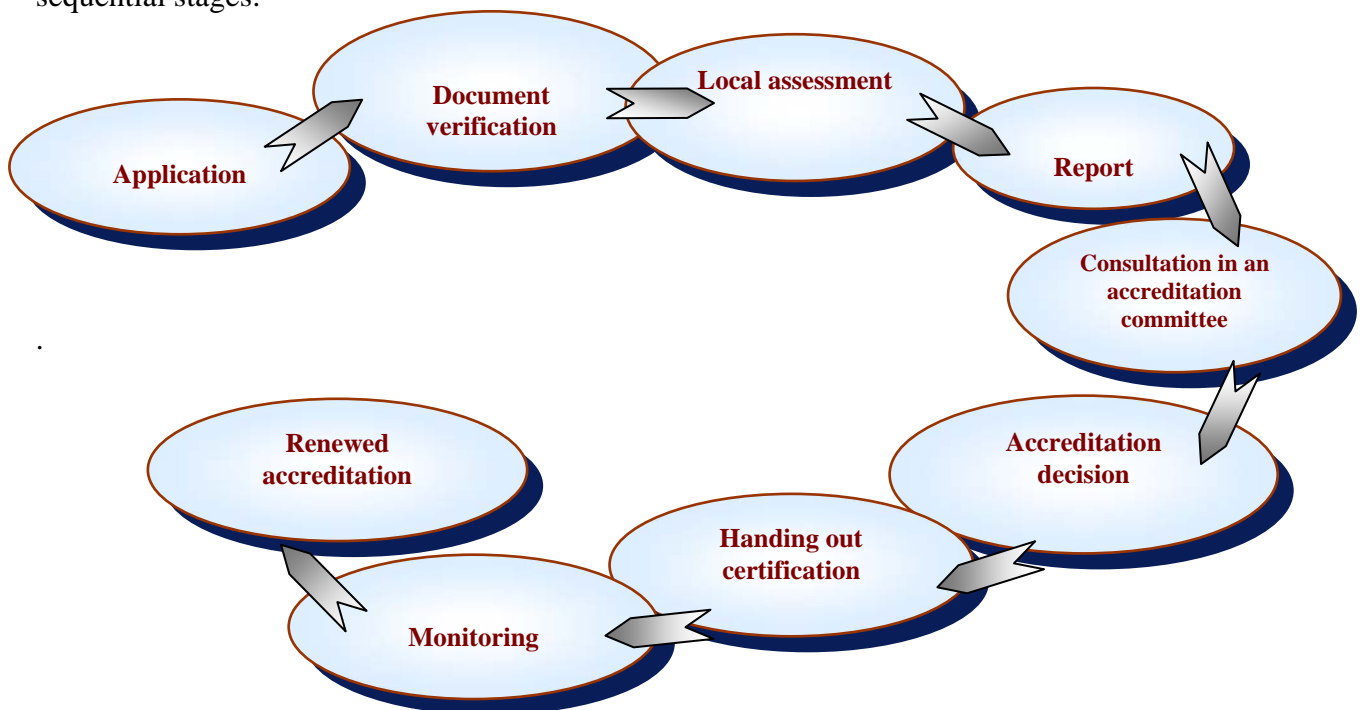


Fig.5: The main steps in the accreditation and monitoring procedure

The procedure commences with **submitting an application**.

If the application is approved, the accreditation body requires from the organisation that the documents to be verified are submitted (including documentation of a quality management system and documentation on the basics of exploration). The actual examination activity of the experts in the accreditation body is principally divided into two steps: "**document verification**" and "**local assessment**".

The issue at hand on verifying documents is whether the procedures documented are in alignment with the requirements of the accreditation body.

The local assessment deals with the question of whether the actual procedure is in alignment with the rules of procedure.

On the basis of the verification of the documents and the local examination, an **assessment report** is drawn up and this report is submitted to an **accreditation committee**, where it is discussed.

A **decision on accreditation** is reached by the accreditation body on the basis of the results of discussion in the accreditation committee.

If the accreditation decision is positive, the organisation receives **certification of accreditation**, which is then submitted to the federal states from which official approval is being sought. The certificate of accreditation is normally valid for a period of five years.

During this period regular **controls** are carried out, and assessment reports are also drawn up on the results of these controls.

Prior to expiry of the validity period for accreditation, a **renewed accreditation** procedure is conducted. In the event of positive re-accreditation, the organisation in question will receive a new accreditation certificate.

In the field of assessment of an aptitude for driving, the idea of setting up a system of accreditation aimed right from the beginning at keeping the number of accreditation agencies low, even after procedures for their approval had been liberalised.

These hopes have, however, not been fulfilled: while in 1998 there were only 12 agencies assessing driving aptitude on the market, in 2003 this figure had risen to more than 20. If one considers that at the same time the number of applications for assessments of driving aptitude has fallen, it is quite conceivable that the economic situation of some of the agencies is critical, and that possibilities for reducing costs are being fully exploited.

The size of the agencies varies greatly. Those who were operating on the market prior to 1998 are generally large organisations with up to 37 assessment agencies. The newcomers on the other hand include very small organisations operating only one or two assessment agencies and with only the required minimum number of staff, namely three psychologists and one doctor, including those involved in administration.

## **5 What experience has the accreditation body made so far?**

The expenses incurred in implementing an accreditation system for driving licences in Germany were considerable – both for the accreditation body and for the respective organisations. There were no previous examples of how the DIN EN 45013 standard could be applied for assessing driving aptitude. With the support of the expert committee, it was possible to draw up a list of requirements which have until now proved to be successful and which have met with wide approval.

It was ascertained that the organisations were making great efforts to reflect on their own activities, to detect weaknesses and to prevent errors from occurring. Individual organisations reported that the process of accreditation and the annual controls have promoted implementation of their own rules of procedure by their employees and have in general resulted in a marked improvement in the quality of services provided.

This can, for example, be perceived by the fact that deviations and shortcomings determined in the supervision measures conducted by the accreditation body are low in number and are not as serious.

After endeavouring for years to improve the quality of psychological diagnoses in respect of driving, the implementation of the accreditation system has triggered impulses in this area.

Accreditation has stimulated ideas for effectively improving assessment. This becomes clear if one considers the instrument of psychological observation of behaviour on the road.

A psychological observation of road behaviour can be used to solve the question of whether a decline in driving-related performance ascertained in an assessment can be compensated for by the driver in question. Observing driving behaviour in real traffic situations enables an ability to compensate to be examined direct. This can serve as a supplementary backup to the results of the assessment (see Weinand, 1997).

The experiences outlined here show that accreditation and ongoing supervision in the field of assessing a driver's suitability have generally resulted in improved, unified quality standards, particularly concerning:

- spatial, functional and staff-related resources
- ensuring the qualifications and vocational training of staff members
- carrying out and providing proof of essential quality tests
- implementing suitable test procedures
- the application and improvement of assessment criteria
- improving the possibility to verify and comprehend the conclusions of the assessment.
- fully dealing with all of the questions.
- taking into consideration latest scientific developments and findings.

Promoting standard procedures and bases for reaching decisions throughout Germany has resulted in the system of accreditation to ensure that all drivers guilty of offences who are assessed have equal chances. More than hitherto, customers can now be sure that all of the organisations responsible for assessing driving capabilities will carry out their assessments in the same manner in respect of quality, procedure and decision-making factors.

For the federal states in Germany responsible for approving assessment agencies and for officially supervising these agencies, accreditation greatly relieves their workload. From the point of view of the federal states, the system of accreditation for driving licenses is a quality assurance instrument "one could hardly do without today" (Eggersmann, 2002).

However, it has recently become increasingly obvious that efforts to enhance quality are declining. This development (known as "saw-tooth quality curve") highlights the necessity of regularly monitoring the organisations through an external body.

The next few years will show whether the considerable effort in respect of quality made by organisations providing driver suitability assessments will be sustained in future, given the fact that competition will increase.

So, I would like now to summarize the main points of the presentation (Fig. 6).

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| <ol style="list-style-type: none"> <li>1. In Germany an unsuitable driver has to do a medical-psychological examination before he gets back his driving license.</li> <li>2. The examination of a drivers' aptitude is carried out by a special trained doctor and a special trained psychologist.</li> <li>3. Accreditation serves the reliability of the service "assessment of driving aptitude".</li> <li>4. The accreditation agency makes annual inspections – e.g. local assessments and a sustain document verification - after handing out the certification of accreditation.</li> <li>5. The assessment agencies for driving aptitude have improved their procedures and also the service "assessment of driving aptitude".</li> </ol> |
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Fig. 6: Main points

A differentiated survey about the improvements used with data is still sustaining. The assessment reports of the accreditation agency are currently evaluated. We expect the results at the end of this year.

The question, whether the assessments of the accreditation agency result in safer driving must be answered in a separate study.

That's the end of my presentation, thanks for listening and drive safe!

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