



# **TWIST Project**

## **Volume 2**

**Training of defined groups of drivers**

**Sanction and motivation system**

**Education of young people in road traffic safety**

**Education of the population in first aid provision**

(compiled within the framework of the project "Sound and Comprehensive Driver Training System and Motivators for Observance of Motor Vehicle Regulations, sponsored by the Ministry of Transport of the Czech Republic")

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**TWIST Project, volume 2, 1<sup>st</sup> edition**

Training of defined groups of drivers, Sanction and motivation system, Education of young people in road traffic safety, Education of the population in first aid provision

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While the first part of the TWIST PROJECT sponsored by the Ministry of Transport of the Czech Republic deals with the issues related to education of learner drivers, their final testing and (so called) probationary driving licence in the Czech Republic, this part (abridged and concentrated, compared with the original Czech version) adds the issues associated with education of specific groups of drivers, provides principles for update of the sanction and motivation system, education of young people in road traffic and education of drivers (and, in fact, the whole population) in first aid provision.

We believe the second part will provide an appropriate complement of the first part with focus on a comprehensive solution for the issues of road traffic safety in the Czech Republic.

Authors

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## **Driver training**

### **Legal provision(s) dealing with the issues of the project**

Basically, there are two options of implementation of the requirements into the Czech laws (both of them by way of enactment): to amend the existing Driving School Act or to adopt a new act related, exclusively, to the Regulation No. 2003/59/EC (hereinafter: the Directive). Both options have specific pros and cons.

If we elect to amend the existing laws, our objective, will be, most likely, preservation of the existing state, where the driver training is the domain of driving schools, with qualified driving instructors - which, of course, is not required in the Regulation. Otherwise, a highly inconsistent, overcomplicated and chaotic law would be created and its intrinsic logical design would be affected. The act is aimed at specification of the procedure for obtaining driving licence in specific category, regardless whether or not the new driver will be active in any of the categories covered by the EC Directive.

Reversely, if the focus will be put on comprehensive and harmonic implementation of the Directive, a new act will have to be adopted to cover all relevant issues and create required internal logical links. Naturally, there exist logical interconnection between the contents of education programmes and driver training for obtaining driving licence C or D and education and training for obtaining driving qualification in accordance with the EC Directive, however, there should not be any redundancy in topics covered in the training course for professional drivers, incl. driving tests (ideally, the education and training system of new drivers and some categories of professional drives should be organized in coherent modules, avoiding redundancy of covered topics (where possible) and, thus, guaranteeing maximum efficiency of the education process with minimum costs and minimum level of formalism. This should be the essential guidance for the procedure of amendment of existing legislation, avoiding any impairment of the necessary coherence. At the same time, training of drivers in accordance with the Directive should be considered a kind of specific superstructure of their driving licence. This is in line with our opinion, i.e. the issues related to periodic training of drivers should be covered in a separate act.

Considering the conclusions above, and also the some factors related to specific contents of both sectors (i.e. education of new drivers and education of drivers in specific categories as defined in the EC Directive), we recommend assigning both sectors into the scope of competence of a single ministry, probably the Ministry of Transport.

In order to assure comprehensive and adequate coverage of the issues associated with training of professional drivers and also drivers with high annual mileage, in line with sustainable high traffic safety on Czech roads, the new act should not only regulate the qualification of drivers in specific categories (in compliance with the provisions of the Directive) but persons

- driving motor vehicles fitted with special warning signal device (blue light beacon),
- driving vehicles used for road tests within the framework of research and development of motor vehicles, repair, maintenance of new or tuned cars that have not yet been approved for standard road traffic,
- driving motor vehicles transporting materials/equipment to be used by the driver for performance of his/her job ( if driving alone is not the primary job of the person driving the motor vehicle),
- driving so called “vans“ (typically, these drivers have “B“ category driving licences).

Another group of drivers that should complete periodic training includes

- persons which core job activity is driving motor vehicles ( or one of core job activities),
- persons involved in shared use of company cars (driving is not his/he principal activity, however, *sine qua non* of job performance).

The system described above would provide for logical separation of education of new drivers and professional drivers who need initial and/or periodic training for performance for his/her (full-time or part-time) jobs.

Consequently, we recommend adopting a new act which content would be in the scope of competence of the Ministry of Transport of the Czech Republic.

## **Organisation of compulsory post-education of professional drivers in specific categories**

### **Training contents**

In the following section, for the purpose of clear understanding, we will deal, solely, with training of drivers and periodic training as defined in the Directive (the requirements specified herein fully correspond with those set forth in the Directive).

### **MINIMUM QUALIFICATION AND TRAINING**

The extent of minimum knowledge that will have to be included in the scope of initial driver training and periodic training by the member states is set forth in this chapter.

The **drivers** who have passed relevant training must **reach the level of knowledge and hands-on skills necessary for safe driving of all vehicles of the relevant category.** The Directive shall provide the base of the following list of skills and knowledge necessary for every new driver. The items specified in the Directive are given in original Czech text. They have not been listed here, but we have included **some other items which – in our opinion – should be complements of topics covered in the course of training (highlighted in bold).**

### **CHAPTER 1**

#### **Sector no. 1**

#### **Advanced training in rational driving, based on safety regulations**

All categories of certificates (licences)

**1.1.** Objective: to know the main features of the transmission system in order to make the best possible use of it.

**1.2.** Objective: to know technical characteristics and operation of safety controls in order to control the vehicle, minimise wear and tear and prevent dysfunction:

- **dual and more-circuit brake systems with pneumatic boosters, limits of use of the brake system and retarder, optimum relation between driving speed and gear.**

**1.3.** Objective: ability to optimise fuel consumption.

### **Licence C, C+E, C1, C1+E**

**1.4. Objective:** ability to load the cargo, with due regard of safety rules and proper vehicle use:

- **ability to load the vehicle in a safe manner, in compliance with all relevant safety regulations and to use the vehicles correctly, including calculation of vehicle's/ truck train's fuel consumption, ability to pack the cargo, knowledge of most essential cargo categories requiring utmost care, use of packaging technology, placing and removal of tarpaulins.**

### **Licence D, D+E, D1, D1+E**

**1.5. Objective:** ability to ensure passenger comfort and safety:

- **ability to provide for safety and driving comfort of passengers, incl. dealing with transport situations respectfully and with due regard of the passengers, correct road sharing, definition of priorities in terms of safe driving and meeting other requirements.**

**1.6. Objective:** ability to load the cargo, with due regard of safety rules and proper vehicle use:

- **ability to assure safe getting on/off passengers, observance of relevant regulations and appropriate use of vehicle's properties, calculation of vehicle's/ truck train's fuel consumption.**

## **Sector no. 2**

### **Application of regulations**

All licences

**2.1. Objective:** to know social and legislative environment of road transport and relevant rules:

- **familiarity with generally-applicable social and legal conditions and regulations for passenger and goods transport.**

### **Licences C, C+E, C1, C1+E**

**2.2. Objective:** to know the regulations governing carriage of goods:

- **knowledge of all regulations applicable for goods transport, e.g. transport operating licences, obligations under standard contracts for the carriage of goods, docu-**

**ments associated with contracts of transport, obligations under CMR contracts, sales representatives in the road transport of goods.**

**Licences D, D+E, D1, D1+E**

**2.3.** Objective: to know the regulations governing the carriage of passengers.

**Sector no. 3**

**Health, road and environmental safety, service, logistics**

All licences

**3.1.** Objective: to make drivers aware of the risks associated with traffic accidents and injuries at work:

- **developing the sense of risks in road transport and injuries at work.**

**3.2.** Objective: ability to prevent criminality and trafficking in illegal immigrants:

- **readiness to prevent criminality associated with facilitating traffic of illegal immigrants into the country.**

**3.3.** Objective: ability to prevent physical risks:

- **readiness to prevent damage to health.**

**3.4.** Objective: awareness of the importance of physical and mental ability:

- **importance of good physical and mental condition.**

**3.5.** Objective: ability to assess emergency situations.

**3.6.** Objective: ability to adopt behaviour improving the image of the company:

- **diverse roles of a driver, various partners from driver's point of view, vehicle waiting time.**

**Licences C, C+E, C1, C1+E**

**3.7.** Objective: to know the economic environment of road haulage and the organisation of the market.

## **Licences D, D+E, D1, D1+E**

**3.8.** Objective: to know the economic environment related to carriage of passengers by road and organisation of the market:

- **knowledge of the social environment (from the point of view of passenger transport), with due regard of the market needs.**

However, it should be pointed out that the Directive allows the alternative, according to which any future driver assigned to one of above mentioned categories requiring obligatory training will be admitted to the final test after completion of training, without having passed necessary theoretical and practical education. However, the final test, in this case, will be much more exacting than that after completion of the training course. The Directive allows this option, because - among other things - the compulsory driving school attendance is not required for obtaining a driving licence in some of European countries and, consequently, these countries are lacking any tradition in organization of professional driver training measures. Naturally, a question emerges, whether or not this option should be incorporated into the Czech laws: in any case, this provision would not impair road traffic safety; on the contrary, it would allow preparation of drivers who graduated from professional schools (specialized in road traffic) for the tests on individual basis. **Pursuant to article 3 of the Directive, member states should have a choice between two options, namely: attendance of driving courses, with following completion of the final test, and completion of the final test without driving course attendance. In some countries, introduction of both options was taken into consideration, however, the Commission has adopted the position, according to which only one of the options above should be implemented. In our opinion, the benefits associated with attendance of the training accomplished by the final test will prevail over the “test-only“ alternative.**

Topics have been defined that must be covered in the training course, however, the duration of the compulsory course should be specified according to driver's age.

Pursuant to **article 5 paragraph 1 of the Directive**, „**the initial qualification should not be conditioned on prior obtaining of appropriate driving**“. This provision may lead to the conclusion, a person can obtain CPC without being holder of (any) relevant driving licence. However, the comments on the Directive provided by the Commission and available to us indicate in further text that the Directive „allows commencement of professional education

prior to obtaining driving licence (i.e. parallelly with the preparation for obtaining driving licence)<sup>6</sup>. Further comments are not available and the provisions mentioned above allow to conclude this option is at sole discretion of particular member state. In this material, we have considered this option (e.g. in the section covering qualification of the driving instructor). At the same time, we are convinced this option should be utilized exclusively for the needs of professional schools in which obtaining of driving licence in relevant category is integral component of the education, with CPC being a complement thereof. Nevertheless, a trainee should have obtained relevant driving licence prior to start driving test – as recommended in other section of this material. Otherwise, the concept on which the Directive has been based (i.e. the preparation resulting in obtaining relevant driving licence) would be entirely negated.

### **Initial qualification**

The initial qualification shall include education on all topics listed in chapter 1. **The duration of this initial qualification must be 280 hours.** Each trainee **must drive for at least 20 hours individually** in a vehicle of the category concerned which meets at least the requirements specified for test vehicles as defined in other legislation.

When driving individually, the trainee must be accompanied by the instructor, employed in an approved training centre (the instructor does not need have instructor licence). Each driver may complete eight of the 20 hours of individual driving on special surface or on a top-of-the-range simulator thus allowing assessment of his/her training in rational driving, in compliance with rules of safety, with particular regard to handling the vehicle in different road conditions and their changing in different atmospheric conditions and the time (day or night).

For the drivers referred to in Article 5(5) - drivers undertaking carriage of goods who broaden or modify their activities in order to carry passengers, or vice versa - the length of the initial qualification must be 70 hours, including five hours of individual driving.

#### This alternative applies to following groups of drivers:

- truck drivers aged 18 and more driving vehicles requiring C and C+E driving licence
- passenger transport drivers aged 21 and more driving vehicles requiring D and D+E driving licence.

## **Accelerated initial qualification**

Accelerated initial qualification shall include education in all subjects in the list included in section 1. **The duration of the accelerated initial qualification must be 140 hours.**

Each trainee must drive for at least 10 hours individually in a vehicle of the category concerned which meets at least the requirements for test vehicles, as defined in relevant legislation.

When driving individually, each trainee driver must be accompanied by an instructor (we suggest the term “teacher”) , employed by a certified training centre ( the instructor does not need have the instructor licence). Each driver may complete eight of the 20 hours of individual driving on special surface or on a top-of-the-range simulator thus allowing assessment of his/her training in rational driving, in compliance with rules of safety, with particular regard to handling the vehicle in different road conditions and their changing in different atmospheric conditions and the time (day or night).

For the drivers referred to in Article 5(5) the length of the accelerated initial qualification must be 35 hours, including two-and-half hours of individual driving. (These are drivers undertaking carriage of goods who broaden or modify their activities in order to carry passengers, or vice versa).

This alternative applies to drivers in following categories:

- truck drivers aged 18 and more driving vehicles requiring C1 and C1+E C driving licences
  
- truck drivers aged 21 and more driving vehicles requiring C and C+E driving licences
  
- passenger transport drivers aged 21 and more driving vehicles requiring D and D+E driving licences for passenger transport (regular line service, line distance not exceeding 50 km) and vehicles requiring D1 and D1+E driving licences
  
- passenger transport drivers aged 23 and more driving vehicles requiring D and D+E driving licences

**Pursuant to article 5 paragraph 3 of the Directive, there can be different provisions in terms of age, however, considering Czech legislation specifying minimum age of 24 for any D driving licence holder, there will be little sense in following this alternative any further (mentioned only for completeness' sake).**

## **Drivers subject to compulsory training**

*In the course of implementation of the 2003/59/EC Directive in our legislation, the following should be considered:*

### **The Directive should apply to driving who are**

- (a) citizens of the relevant member state and
  - (b) citizens of a third country, employed or used by an undertaking established in a Member State;
- referred hereinafter as 'drivers' and involved in road transport within the Community and using:
- vehicles for which driving licence of category C1, C1+E, C or C+E or an equivalent driving licence is required.

*This applies (generally) to individuals undergoing compulsory training. However, the Directive allows exemptions, i.e. drivers to whom the provisions of the Directive do not apply (see the text of the Directive).*

This specification suggests the provisions of the Directive related to driver training should not apply to some categories of drivers trained in compliance with the applicable Driving School Act. These are primarily:

- drivers of motor vehicles fitted with special warning signal device (blue light beacon),
- taxi drivers,

i.e. drivers who do not need driving licences of categories. C, C1, D, D1.

The provision in the section 5 of the Driving School Act has been fairly rare in Europe (and also worldwide); in continued long-time practice of compulsory periodic training of specific categories of drivers that had been introduced in early 1970s. It is a question whether to leave these groups of drivers outside of any (or, at least, periodic) training because of low risk potential of this group (in most cases, these drivers have an extensive annual mileage). **As al-**

**ready indicated at the beginning, these drivers should not remain outside, on the contrary, they should be focused when defining periodic training courses in each year.**

As already said, professional driver training has been highly sophisticated and comprehensive in our country, compared with other European countries. In our opinion, the provisions of the Directive should be regarded on from the position of a citizen of the EU member state who, in fact, is confronted with a comprehensive professional driver education for the first time (in this respect, we have found some fairly strange – at least, for us - provisions in the Directive; on the other hand the translation from English into Czech seems to be inadequate, in some respects, and there can be some misunderstandings, therefore, the original English version of the Directive should be preferably used ).

In order to provide a picture and comprehensive information on the concept pursued in the Directive, we have depicted the situation in training of various categories of drivers in the mid-2010s in individual EU countries.

### **Entities liable for driver training**

The training of professional drivers should be organized by their employer (in compliance with applicable labour right laws and regulations), self-employed persons should be liable for own training. The other persons shall pay for his/her driver training (can also be covered within the framework or requalification schemes).

### **Obligation to complete the final test**

The Directive specifies the obligation to complete the final qualification test prior to obtaining driving licence.

Generally, there are two ways of qualification:

- attending basic or accelerated qualification courses, followed by relevant test (applies also to drivers undertaking carriage of goods who broaden or modify their activities in order to carry passengers, or vice versa):

Any driver must pass **written or oral test** before the relevant authorities of the member state or any other authorized entity. The test must include at least one question about each of the objectives listed in section 1 (see above).

The procedure of the final test has not been specified. As indicated in the Directive, the test will be performed on theoretical level. See relevant section describing the test procedure for further details.

- Preparation for the final test without attending driver training course (mentioned for completeness' sake; as already mentioned, this option is not suitable for the Czech Republic)

The test shall be both theoretical and practical. As in the preceding case, the theoretical test shall be aimed at checking whether the driver has the required knowledge in matters and objectives listed in section 1.

***The theoretical test shall consist of at least two parts:***

- (i) questions including multiple-choice questions, questions requiring direct answer, or a combination of both;
- (ii) case studies.

The minimum duration of the theoretical test must be four hours.

***The practical test shall consist of two parts:***

**1. Driving test** aimed at assessment of the completed training in rational driving in compliance with safety regulations. The test must take place, whenever possible, on roads outside built-up areas, on fast-traffic roads and motorways (or similar), and on various urban roads of different types to make the trainee familiar with various traffic difficulties that he/she can encounter.

Where possible, the test should take place under various conditions of traffic density. The driving time on the road must be used optimally so that the candidate's ability to manage various traffic and driving conditions can be assessed. The minimum duration of this test must be 90 minutes.

**2. Practical test** covering at least points 1.4, 1.5, 1.6, 3.2, 3.3 and 3.5 (see section 1)

The minimum duration of this test must be 30 minutes.

The vehicle used for the practical test must meet at least the requirements for test vehicles as defined in applicable legislation.

In addition to the driving test, a third test on special road (surface) or on a top-of-the-range simulator must be performed to assess driver's ability to drive rationally and in compliance with safety regulations, with particular regard to vehicle handling in different road conditions and the way they change with different atmospheric conditions and the time (day and night).

The duration of this optional test has not been specified. It can be derived from the driving test (90 minutes, see above), however, the duration can be 30 minutes or less.

For drivers defined in art. 5 (5), i.e. those undertaking carriage of goods who broaden or modify their activities in order to carry passengers, or vice versa, the theoretical test shall be limited to topics listed in section 1 relevant for driving vehicles of the new initial qualification, however, these drivers must pass the entire practical test.

## **Training provider**

Generally, **only persons meeting the criteria defined in relevant laws and regulations shall be allowed access to the market**, i.e. not only limited number of defined subjects with national-wide competence. The licence for training will be given after a detailed analysis of the background of individual applicants. Also, the practice, according to which only a limited number of licences for limited territory will be issued – in fact, a concession – must be avoided. A practice like this would not only support corruption (and, finally, reduce the quality of training), but also impair the market.

The licenses should be issued by relevant transport authority (liable, among other things, for issuing licences for establishment and operation of driving school).

In connection with incorporation of the Directive into the Czech legislation, the **establishment of a particular trade** should be considered, since:

- the existing „Driving School“ trade differs from the activity of service provider as defined in the Directive, and also from the periodic professional driver training both in terms of its content and nature,
- specification of other trades (e.g. “Organisation of professional courses and other education, incl. instructor activity“) is rather general and does not reflect specific features of professional driver training (among other things, due to extensive requirements towards

availability of technical facilities and professional qualification of the provider - see below).

### **Instructor (trainer)**

According to common practice adopted in the Czech Republic, professional drivers had not had any follow-up training after obtaining driving licence (except periodic refreshment training in traffic rules, i.e. in topics different from standard traffic rules, as covered by the Directive). The liability for this follow-up training rested with their employers. On the other hand, every professional driver was supervised by medium-level managers in big haulage companies (ČSAD, state transport enterprises) in the time prior to 'velvet revolution' in 1989 from the very beginning of his professional career. Professional drivers in international transport were selected among skilled professionals with long-year driving experience, since this was a prestigious job in that time and personal experience and skills were highly appreciated. In smaller transport organisations, truck drivers were regularly briefed on how to cope with everyday traffic issues. As a matter of course, such training/briefing was made before start of the driving carrier as well. Now, the situation has changed largely: thousands of small transport companies have emerged, which management, as a rule, is not able to provide necessary instructions, on the contrary, it is the management that urgently needs instructions of this kind. Many novice drivers become involved in international haulage without adequate driving experience and background.

From the very beginning, driver training has been organised in driving schools (formerly, established by Svazarm Association; after 1990, more than one thousand of private driving schools have been established). However, the approach to driver training has not changed: in driving lessons, the trainees are informed on traffic rules, without adequate coverage of other legal aspect of the driver job; in many cases, the instructor are not able to provide adequate information on recent vehicle technology development, actual conditions of haulage/passenger transport etc. due to lacking competence, hands-on experience and, last but not least, teaching skills. In some organisations - typically, ČSAD and companies involved in cargo transport - the training was made by experienced professional drivers, consequently, it always has been appropriate.

The fact above suggests, the instructors (teachers) and trainers must have other - and more extensive - knowledge and skills than the instructors in today's driving schools.

Most probably, a new profession (professional driver instructor) will emerge. This instructor will not need have the licence (as provided by the Driving School Act), since he/she will be involved in teaching other subjects than those currently covered in driving courses for obtaining driving licence of C and D/(E) categories.

In the light of the facts above, the decision on whether to include (leave) professional driver training as required by the Directive in the scope of application of the act governing the issues related to obtaining and improving ability to drive. We consider separation of both areas from the very beginning as desirable.

As far as the qualification of instructors involved in initial and follow-up training of drivers according to the Directive is concerned, particular issues should be dealt with on as-necessary basis, taking into account mandatory subjects of education - see below.

Generally, these instructors should be individuals with adequate education background (at least A levels), capable of conducting the lessons systematically, and with adequate communication skills. Preliminary testing of teaching skills of the instructors will be essential. This testing will not necessarily be associated with the obligation to complete qualification training course. The subjects to be tested will correspond with practical requirements towards instructors, consequently, any instructor preparing individually shall not only pass the final test but also (or most importantly) be successful in the practice.

Basically, the candidates wishing to qualify for obtaining the instructor licence will be allowed to prepare for the tests individually, based on the requirements stipulated for the qualification test. However, the topics are fairly extensive and specific, so that relevant aids (text-books, PP presentations and more) will have to be utilized in the course of preparation. In the light of these facts, compulsory preparation will be required, however – considering expected (and appreciated) prior experience of the candidates – individual distance education can be accepted (which seems to prevail over full-time education). Considering complexity of the issues and expected distance education system, e-learning will be highly recommended.

The education will cover several basic complexes of different content. Consequently, the instructors need not to have full-scope qualification. Instead, a multi-level qualification system will have to be established, i.e. several instructors with different specialisations will be involved in training of any driver, thus increasing the training quality.

Optimally, the instructor should be aged minimum 25, graduated from high school or university, holder of driving licence (category C+E or D+E or both), have completed specified (distance) training course and passed the final examination.

The same criteria are recommended for trainers of drivers in other categories not covered by the Directive. Instructors of drivers having B or -exceptionally - A category driving licence should have driving licence of the same category.

### **Programmes for instructor education**

The programme of qualification courses organized for driver instructors must include specialized subjects (in line with the Directive) and general subjects necessary for teaching performance.

#### General subjects necessary for teaching performance

- pedagogy and special pedagogy (adult education, with focus on personal patterns of professional driver), up to date teaching methods, incl. e-learning
- traffic psychology with focus on road and city traffic
- basic education in human biology (physiology, pharmacology, typical driver diseases and their influence on driving motor vehicles)
- basic speech education, correct presentation ability with focus on utilization of computer technology in the education process

#### Specialized subjects related to driving motor vehicles

We recommend taking into account the system as set forth in the Directive (see above).

General requirements towards all teachers have been set down hereinabove (with proposed exemptions related to sector no. 4). At the same time, the applicant should satisfy specific criteria related to issues specific for the particular sector:

### **Sector no. 1 – *Advanced training in rational driving in compliance with safety regulations***

As these activities are directly associated with the driver job (driving licence in categories C1, C1+E, C, C+E, D1, D1+E, D, D+E), the instructor must have adequate practical experience in driving motor vehicles. Considering the subjects of education as specified hereinabove, the instructor may be any person able to document his/her performance as transport manager or in similar job position (provided he/she has the driving licence of the relevant category). The minimum required practice shall be set down individually (obviously, more skilled individuals will be able to cope with the issues more quickly, therefore, it would not be appropriate to insist on a long practical experience). Prior experience as driving school instructor will be advantage (practical subjects will be dealt with in qualification courses).

**We suggest documentation of an experience of minimum 1 year within the last 10 years. The instructor will be licenced for subsectors no. 1 and 1b or both, depending on documented experience, the licence for subsector no. 1o would be issued automatically (subject to prior examination).**

### **Sector no. 2 – *Application of regulations***

This sector is focused on explanation of relevant legal provisions. It is a question whether or not the instructor must have a driving licence – in our opinion, the focus in this sector will be placed on familiarity with the explained subjects (complex, difficult to explain, frequently amended).

**In our opinion, the instructor selection should be based, exclusively, on general criteria (as already mentioned), with relevant knowledge being obtained in the qualification course. At the same time, an exacting explanation of these topics in the qualification course (with adequate final testing) will be required ( admission to the preparatory course will not automatically guarantee success at the final test).**

### **Sector no. 3 - *Health, road and environmental safety, service, logistics***

**This sector includes several subsectors:**

- subsector 3.1 deals with causes and statistics of traffic accidents and their societal impact,

- subsector 3.2 deals with prevention of criminality and trafficking in illegal immigrants, the matter will be covered generally and specifically (i.e. driver obligations and activities in this respect),
- subsector 3.3 – 3.5 deals with ergonomics, healthful way of life, alcohol and drugs, first aid, technical assistance and driver behaviour in traffic accident,
- subsector 3.6 deals with driver behaviour in respect of his company image; the issues will be covered generally, incl. economic and financial implications of collisions with customers,
- subsectors 3.7 and 3.8 deal with transport company organisation and interconnection with other modes of transport.

Obviously, the matter indicated in sector no. 3 cannot be appropriately covered by one instructor, due to their complexity. We recommend defining qualification of specialised instructors in line with the following subsectors and the candidates will have to comply with generally applicable admission criteria, as specified above. We do not recommend insisting on prior experience of the instructor in relevant fields, since the subjects to be covered in driver training are extremely specific. Hence, prior experience should not be required and perfect professional preparation of the instructors in qualification courses should rather be emphasized and exacting final testing implemented. This is why the sector no. 3 has been split into five subsectors that can be covered by specialized instructors (universal qualification of instructors for this sector would necessarily result in superficial and formal education):

- qualification 3a – applies to subsector no. 3.1
- qualification 3b - applies to subsector no. 3.2
- qualification 3c - applies to subsector no. 3.3 – 3.5

We strongly recommend that the instructors of first aid are specialized professionals licensed for education of these topics (e.g. Red Cross members), able to explain the subject on high professional level, thanks to their ongoing experience and periodic refresher training. The instructor may be any individual, however, he/she must comply with an exacting professional preparation and requirement of compulsory attendance of periodic workshops and courses.

- Qualification 3d – applies to subsector no. 3.6

- Qualification 3e - applies to subsector no. 3.7
- Qualification 3 f – applies to subsector no. 3.8

We anticipate there will be many instructors who, gradually, acquire more than one qualification in the 3rd sector and few instructors qualified for all sectors. This system will promote qualification of instructors and their ability to cope with everyday challenges – above all, in periodic training sessions, where experienced professional drivers will often ask questions that cannot be answered without in-dept knowledge of the relevant field and profound insight of the instructor.

**As already said, the sector no. 3 cannot be covered – in adequate quality – by a single instructor, since it requires wide professional knowledge. The matter explained during driver training courses, as provided by the Directive, is extremely specific and insisting on any prior experience of the instructor would be contraproductive. Therefore, we recommend not to insist on prior experience and, instead, to put emphasis on perfect professional training of the instructors in qualification courses, with exacting and in-depth final tests.**

#### **Sector no. 4 – *Individual driving of motor vehicles in the relevant category.***

The Directive stipulates the obligation of every driver to have driven required number of hours (20, 10 or 5) in a vehicle of the relevant category. During this time, the driver must be attended by the **instructor** (this term is used in the Directive ) **employed in a certified training centre** (in part, the individual driving must be on special surface or on a top-of-the-range simulator ). It is strange that the Directive requires the driving instructor to be employed by the training centre, while the other sectors may be covered by instructors who are not.

Basically, the instructor may be any individual, whether or not he/she has a driving licence of the relevant category (this provision does not apply to teachers in the driving school). At the same time, an individual having no driving licence so far, may be admitted to the qualification training course; in this event, he/she must be attended by the instructor having driving licence of the relevant category (further in this text, we propose steps to avoid this situation).

Hence, any instructor qualified for this sector (i.e. driving instructor) should comply with general conditions, as specified hereinabove. It should be emphasized that driver training according to the Directive means preparation of a professional driver. Therefore, the primary focus in driving lessons should not be put on handling motor vehicle, but rather on more advanced driving techniques, i.e. practical implementation of theoretical knowledge provided in sectors 1– 3. Any attendee of training courses - and holder of driving licence in the relevant category - shall be fully liable for handling the vehicle and consequences of damage caused to property or health of any third persons (incl. offences with less severe consequences), nevertheless, the driving instructor will have to be trained to cope with critical situations that can occur during driving lessons.

If individuals having not yet acquired driving licence will be involved in driver training (such as students of upper secondary schools specialized in transport), they should be allowed to drive vehicles during the lessons after obtaining relevant driving licence. Otherwise, driving lessons, as provided in the Directive, will substitute regular driving school training and, consequently, the anticipated effect will not come.

On the other hand, any instructor qualified for individual driving lessons (according to the Directive) may not be graduate from an upper secondary school with leaving exam since driving instructor does not need have A levels education. Moreover, the instructors will be, in many cases, individuals in age of approx. 50, with long-time vehicle driving experience. We support the system in which the instructors will have – at least – vocational certificate, ideally in transport or related sectors (machinery, electrical engineering).

It should be pointed out that – according to generally applicable labour and management principles - employee's qualification should correspond with his/her job. The other extreme, i.e. situation where employee's qualification exceeds the level required for his/her job - in most cases, causes troubles, rather than bringing benefit (dissatisfaction with the job position, impaired working performance, fluctuation etc.). On the other hand – as documented by the results of studies made by transport psychologists among drivers - the individuals who received qualification in machinery, transport and/or electrical engineering in mid-1960s through mid 1980s meet the standards applicable to today's graduates from upper secondary – a fact that should raise concerns in our countries.

As driving instructors will have to cope with risks caused by other drivers in the traffic (and also those caused by trainees), they should comply with relevant criteria e.g. completion of detailed medical examination and psychological tests.

We recommend that every individual wishing to become instructor in sector no. 4 should have, at least, professional qualification in machinery, transport and/or electrical engineering (in case of graduates from upper secondary schools and universities; we do not recommend placing focus on specific specialization), thus meeting the entry-level criteria for driving instructors, as specified in relevant laws and regulations applicable to driver training (detailed medical examination and psychological tests), experience in driving motor vehicles of relevant category (minimum 2 years within recent 10 years, with no driving ban and/or penalty points exceeding critical level in recent 3 years). Naturally, most of instructors will have driving licences of categories C and/or C+E, fewer instructors in categories D and/or D+E (in Czechia, major part of the latter will be able to train drivers in categories C and/or C+E).

Pursuant to art. 5 of the Directive, „truck drivers broadening or modifying their activities in order to carry passengers, or vice versa , who are holders of CPC as provided in Article 6, shall not be required to repeat general parts of the initial qualification, but only the parts specific to the new qualification“.

Our proposal allows meeting this requirement without any complication that might occur in case of so called “minor law amendment“.

For instructors involved in periodic periodical driver training not covered in the Directive, a similar procedure should be implemented, i.e. briefing in *teaching activities* (pedagogy and special pedagogy with particular focus on adult education and professional drivers), modern teaching procedures, incl. e-learning, transport psychology with due regard of road and city transport, basic education in human biology (physiology, pharmacology, typical driver diseases and their influence on driving, speech, correct presentation ability with focus on utilization of computer technology in the education process and, additionally, the topics mentioned in sectors 1 – 3. Since these drivers will not have to participate in initial qualification but „only“ in periodic training – 7 hours in a year - their instructors should not be required to meet qualification criteria – unlike those covered by the Directive. In this case, the qualifica-

tion criteria will be met by way of briefing these instructors on technical issues during their qualification courses.

## **Provider of instructor training**

Like in preparation of driving school instructors, the education of the instructors should be provided by specific organisation. In our view, the second potential provider should be the testing organisation, if the instructor trainer will not be able (or willing) to provide adequate preparation for the qualification text. The preparation should be provided for by way of full-time and/or distant study (like at universities).

The organisation liable for the final tests should specify the content of the test and, ideally, issue necessary education materials. Modern education procedures, incl. e-learning, are highly recommended.

## **Final qualification test of the instructors**

### **Organizations liable for final testing of instructors**

We recommend that the qualification tests are organized by specific testing organisation (regional subsidiary). In fact, this is the only option, because the Ministry of Transport will not be able to organize this activity and provide necessary facilities (classrooms, testing vehicles etc.). On the other hand, final tests organized by any local testing centre are inconsistent with the provision according to which this centre can be one of providers of training for the qualification tests.

The examination board will consist of professionals and officers of the regional subsidiary of the testing organisation and, as the case may be, representatives of the Ministry of Transport of the Czech Republic and the organisation liable for the tests (as with driving schools, we expect foundation of minimum one association of training organisations in this sector).

The test should consist of three parts:

- initial test corresponding with the final test to be made by all drivers covered by the Directive,
- oral test – the tested person will randomly draw several (as a rule, three) questions related to the field of his/her qualification and answer to these question before the testing board,

after being granted time for preparation, to evidence his/her in-depth knowledge and skills in context with road transport and overall situation, with following discussion with the members of the testing board,

- sample teaching performance of the instructor, depending on his/her specialization, in the classroom or in vehicle).

If the tested person fails in the first part of the test, he/she will not be admitted to the subsequent part of the test, if he/she fails in the second part, he/she could be granted two correction attempts that will take place within 30 days after preceding failure. In case of failure, the candidate shall repeat the entire training course, and then, he/she will have 3 attempts again (1 regular and 2 corrections).

We recommend that any candidate disapproving the decision made by the testing board will be allowed to file an appeal to the Ministry of Transport.

### **Final driver qualification tests**

The proposed system of driver preparation implies final testing only in theory, using multiple-choice questions test. The test should be made using PC, where the questions will be generated randomly and the answers evaluated automatically, with following 'passed' or 'failed' decision. Hence, the examiner will not have to be present in the test room all the time.

We recommend

- to set appropriate time limit of the test,
- to start testing of drivers in set times,
- to open the test by a qualified examiner who will provide basic information and answer questions (if any),
- to monitor the classroom to avoid cribbing, prompting etc.,
- that assistants are present at the test and liable for relevant records,
- that the final test protocol is signed by the examiner,
- that the examiner responds to all comments by the tested persons, related to test failure (professional answering of questions, failure analysis for individual tests etc.).

**This design (i.e. shortest possible presence of the examiner) will promote efficiency, since the examiner will be involved exclusively in the testing procedure and routine administration will be performed by relevant workforce.**

We anticipate that individual testing centres will be managed using up to date management and marketing procedures, consequently, the tests can be organized early in the morning or afternoon, on weekends etc. Should there be higher demand on examiners in some regions, the testing organisation could respond quickly (since the examiner will be employee of the testing organisation, not a central office, and will be able to be transferred promptly), the same applies to cases of persisting disproportion between offered capacity of the testing centres and numbers of candidates. We will not deal with these issues in more detail, because specific management procedures will have to be implemented; we only point out the importance of professional and managerial competence of testing organisation managers (unlike recruitment of officers in the public administration, with notorious problems of this sector).

## **Periodic driver testing**

### **Organisations involved in periodic driver testing**

Basically, final tests should be organized by a single certified organisation having necessary technology and personnel. Final tests of new drivers should be performed by a certified body having necessary technology and personnel. For reasons above (and also considering cost efficiency, because both areas have much in common), these activities could be combined in one (testing) organisation.

### **Examiner**

The drivers of particular categories will have to pass the final test prior to performance of his/her jobs. There are two options of the final test design:

- theoretical test
- theoretical test + practical test

Relevant option depends on type of individual preparation for the final test (attendance/nonattendance of theoretical/practical training).

The option without attendance of the training seems to be less appropriate, considering most exacting tests, nevertheless, it should be allowed for. The test will be extremely demanding, both for the examiner and the driver. Considering the requirements associated with the final test as set forth in the Directive, the examiner will have to have in-depth theoretical and practical experience. As a result, specific category of examiners for final tests will emerge. An examiner qualified in all relevant fields and having adequate experience will be rather a fiction, considering complexity of the final test. Most probably, the examiner qualification will have to combine several sub-qualifications and external experts for specific activities (e.g. paper evaluation) will be hired.

The option providing compulsory attendance of the training, according to the Directive, would be much easier, both for the examiner and the trainee. Also, the final test could be designed as a set of questions that will be combined in the final tests, thus allowing the test to be performed on PC, with automatic evaluation. In this event, the (formal) extension of qualification of the examiners authorized for performance of final tests in a testing organisation would be adequate, with at least a minimum training of the examiners in required techniques. Of course, this is the extreme (and rather formal) final test alternative, leading to transformation of professional driver training to pure memorization of test questions (and correct answers). We are afraid, these will be the factors that will find many supporters of this alternative in the Czech Republic.

### **Basic qualification of examiners**

Even if the test will be made in writing (on PC), the examiner will have to be briefed on the subjects of the training. In any case, the examiner must be more experienced than the trainee. otherwise, the test would be inappropriate.

The examiner must be licenced for the particular category (CE, DE, or both), then he/she must be trained for the required specialization to become familiar with all subjects relevant for the final test.

Considering the extent of the matter, and, also expected professional experience of trainees, professional qualification of examiners should be in line with accelerated qualification of

drivers, incl. test drives (i.e. 70+10 hours); training programme (or rather the explanation method) should be adjusted according to need of the examiners.

Also, the examiners must be familiar with everyday operation of the testing organisation. That is why we recommend covering areas, such as:

- special pedagogy and psychology with focus on adult education and transport
- relevant legal issues
- basic management principles
- communication with public and PR of the organisation in public sector (incl. crisis communication) .

Optimally, new examiners should be periodically prepared in one centre in Czechia, depending on demand. The advantage of this method will be concentration of human potential (experienced lecturers will always be scarce) and material resources (up to date audiovisual teaching aids, classroom equipment, availability of vehicles for testing and more).

## **Driver testing principles**

### **Performance of tests, test procedure for drivers of various categories**

As already said, the alternative of compulsory training attendance + final test should be preferred. In this case, driving test will not be necessary. According to the Directive, the final test should include at least one question in any of the objectives listed in section no. 1 (the list see above). The test will be either oral or in writing.

The test in writing should be preferred. Naturally, the oral test would be more sophisticated option, however

- there would be room for bribes,
- the trainees could challenge the test results,
- since the examiners will not be familiar with current practice in detail, it could be difficult for them to evaluate details in answers of the trainees and carry out the final test,
- on the other hand, individual examiners could prefer specific subjects and, thus, put excessive requirements towards the trainees in specific fields,
- also, the effective test performance should be monitored (compliance with set time limits),

- last but not least, tests based on answering questions (sometimes, without presence of the teacher, only the assistants are present) and made using PC become increasingly common even at universities, with automatic and unbiased test evaluation and immediate announcement of test results.

For tests in writing, the following options seem to be appropriate:

- a) test in writing, open questions. The trainee must formulate the correct answer (as a rule, within preset time limit),
- b) test in writing, multiple-choice questions. The trainee must select the correct answer among proposed alternatives, the test will be performed on PC. A time limit will be set for answering the questions,
- c) test in writing, combining both procedures defined hereinabove, i.e. some questions will be answered on PC, the other by way of direct answers.

The total number of objectives is 16, consequently, the test will include minimum 16 questions. (According to the Directive, every objective shall be covered at least with one question). For a test with open questions, this number is extremely high, putting under enormous load the trainees (due to expected problems associated with correct phrasing of answers - grammar, style, vocabulary) and also the examiner (evaluation of answers). Linguistic problems of trainees, undoubtedly, will influence formulation of the answers: the examiner, in many cases, will be in dilemma how to assess particular answer (correct answer in terms of content, however chaotic and inconsistent formulation). The examiner preferring correct phrasing would give a lower rating, while another examiner would be satisfied (not to speak about potential corruption).

**Therefore, alternative a) should be abandoned.**

**The same applies to alternative c), consequently, it should be abandoned as well.**

**We recommend implementation of alternative b).** The minimum number of question in the final test should be considered as guidance only, with possible extension, allowing covering all relevant subjects. The questions can be rather sophisticated, minor amount of calculations will be possible (in order to identify the correct value among quoted options).

**Recommendations:**

- tests on PPS should be implemented,
- each of the 16 sectors should be covered with several (3-5 ) questions, some of them requiring minor amount of calculation and/or making logical conclusions,
- we strongly recommend the principle “only one correct answer“, the number of quoted answers should range 3 – 5,
- the test should be split into 6 subsectors (corresponding with the objectives, as defined in the Directive) – thus allowing any driver, who failed at the final test, to repeat only the sector he/she failed to complete.

Certainly, these proposals will not be accepted by everyone, arguing, for instance, not every professional driver will have adequate PC skills. In our opinion, this argument is irrelevant at the beginning of the 21st century, since

- the technology implemented in the final tests will be simple and easy to operate,
- every trainee will be given opportunity to become familiar with the technology in the course of training,
- the whole complex of questions (several hundred) incl. correct answers will be public domain (to be defined in relevant regulation),
- basic PC skills have been developed starting from the very beginning of school education and also those who finished education before 1989 have been granted opportunity to become familiar with PC,
- those ,who are not able to work on PC, hardly will be able to drive contemporary vehicles as professional drivers, since digital technology has been widely implemented in motor vehicles (on-board computers, GPS and more.).

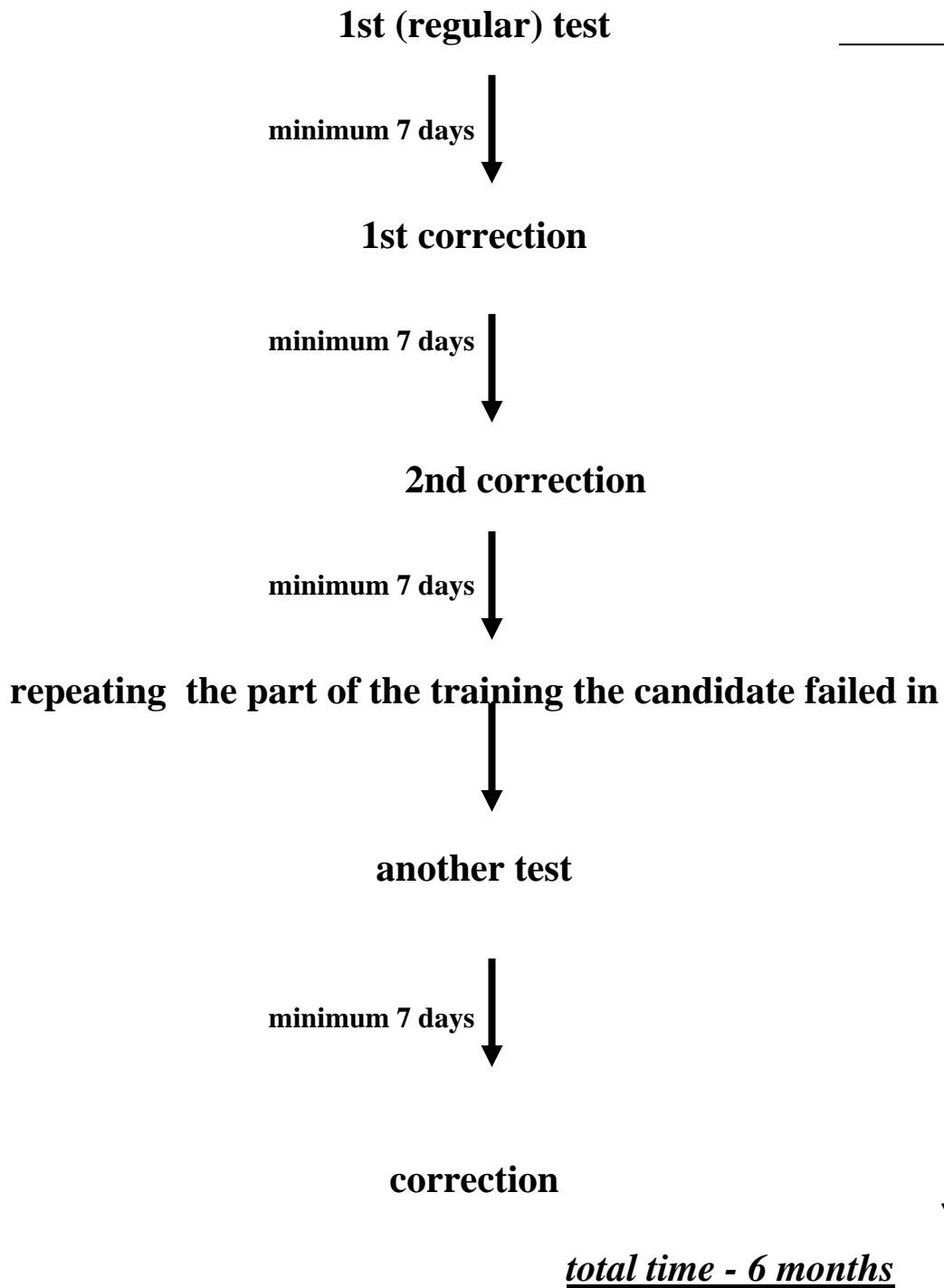
**Test evaluation**

As mentioned hereinabove,we recommend implementation of computing technology in final testing of drivers, with automatic evaluation of test results.

We recommend setting lower limit for each of the 6 covered subsectors, each of 3 – 5 questions being scored corresponding to the relevance of the subject.

This system would provide for identification whether a driver has acquired maximum possible score in the entire test and, at least, the lower limit in each section. The drivers who failed would be required to repeat relevant sections of the test.

In our opinion, every driver should be allowed to repeat the final test twice, without being required to repeat the whole training course. Thus, every driver would have one regular and two correction attempts. In order to allow the unsuccessful candidate to learn the relevant subject of training again and prepare for the test, the interval between the attempts should be minimum 7 days. On the other hand, the maximum interval between the 1st (regular) attempt and the last (successful) attempt should be defined (we recommend 6 months), thus moderating potential extraordinary personal obstacles of a trainee (e.g. disease, long business trip and alike). After expiration of the allowed period of time, the trainee will be required to attend the whole training again. In case of trainee's failure in the correction test made during the 6-months' time, as suggested hereinabove, he/she will have to repeat only the part of the training associated with the questions he/she failed to answer. Then, he/she will be granted two correction attempts, with following attendance of the relevant part of training. After expiration of 6 months, the candidate will have to make the whole training again.



The transport authority territorially competent for driver's permanent place of residence will issue the Certificate of Professional Competence (hereinafter: CPC), based on the certificate of successful test (in predefined format), received from the testing organisation. Ideally, the central driver data base should be maintained, containing all relevant driver's data (date of issue/withdrawal of the driving licence, penalty points, CPC issue date, successful periodic training and more). The access into the data base should be allowed for relevant transport

authorities of the Czech Republic, Czech Police, incl. traffic police patrols. With time, a common driver data base of all EU member states would be established.

## **Periodic training**

Pursuant to art. 7 of the Directive, “ Periodic training shall consist of training to enable holders of a CPC ... to update the knowledge which is essential for their work, with emphasis on road safety and rationalisation of fuel consumption“. At the same time, the training should extend and update the knowledge of the subjects covered in initial training. The length of the periodic training must be 35 hours every 5 years and provided via courses which length will be minimum 7 hours.

We recommend stipulation of the obligation to complete a 7-hours-training for relevant categories of drivers every year in the Czech legislation, the programme to be covered at this training will be set down by the Czech Ministry of Transport ( considering relevance of individual training subjects for the society). A certain portion of this will be allowed for topics of regional relevance and significance/particular activity of employers of trainees (e.g. city transport, special transport etc.).

Optimally, the proportion of both sections above should be 1:1 or so.

## **Specific features of the training provided for other groups of drivers and the population**

The issues associated with foreign residents are widely covered in the Directive as well as those related to army and police; handicapped persons are considered equal to other drivers, in terms of requirements of professional driver training.

Nevertheless, it should be pointed out (as already mentioned hereinabove) that the Directive does not stipulate training of some groups of drivers who will be trained in accordance with the Driving School Act ( **primarily drivers of motor vehicles fitted with special warning signal device (blue light beacon) as well as taxi drivers**). As these drivers constitute potential risk groups, with extensive annual number of covered kilometres, in our opinion, they should be included in periodic training and be educated in topics defined by the Ministry of Transport the Ministry of the Czech Republic for the relevant year.

These categories of drivers should not be required to attend an initial training (basic qualification). Every driver should participate in the first periodic training (7 hours/year, as proposed), prior to start his/her driving activity. The Ministry of Transport should define compulsory topics to be covered in the training (depending on their relevance for the society), with a portion of the training being allowed for topics of regional relevance and/ or as required by the training provider (proportion of both training sections being 1:1 or so).

**We also recommend consideration of drivers of motor vehicles fitted with special warning signal device (blue light beacon): While the drivers trained in accordance with the Directive (and also taxi drivers), follow the rule the speed is secondary (the primary task is transporting the cargo/passengers, the transport time may depend on wheater, traffic density and alike) the drivers of cars fitted with blue light beacons must perform the tasks in the shortest possible time, even under extreme conditions. Hence, we recommend consideration of the performance of compulsory training of these drivers in more demanding conditions, under supervision of experienced instructors and in special training facilities. Every potential driver of this category should attend compulsory initial training (2 - 3 days), which, beside the driving test, should include basic theory, but also basic methods of how to cope with psychic stress, observe healthy living rules for drivers, relevant techniques of traffic safety under extreme driving conditions etc. The training should be finalized with special test. We also recommend periodic training in this sector (1 day, every 2 - 3 years).**

Certainly, compulsory final tests at testing tracks will be problem, among other things, due to lack of these facilities and their size. **The training of these drivers on testing tracks will have positive impact on traffic safety. Driving tests should be made, partially, on a track closed for everyday road traffic.** (i.e. testing area). We anticipate, that each district will have such facility within several years and, undoubtedly, at least one testing track (with parameters allowing driving tests of drivers in cars fitted with special warning signal device (blue light beacon) can be built. As far as sanctions and incentives are concerned, **we recommend influencing drivers to be aware of his/her responsibility for handling motor vehicle – undoubtedly, many non-professional drivers will also be using these tracks.** Last but not least, the testing tracks can be utilized for (periodic) **training of drivers of special categories, as defined in the Directive.**

### *Other driver categories*

So far, the drivers of cars fitted with warning device ( blue beacon) and taxi drivers have been discussed. **The Directive specifically provides that the drivers of vehicles used and/or controlled by the army will be exempt of the Directive.** We recommend discussing this issue with the Ministry of Defence, since the Czech Army (hereinafter: „CA“) is member of NATO, and, consequently, it is bound on specific requirements ensuing from the rules applicable to the members of the North Atlantic Treaty Organisation.

Basically,

- this issue can remain in the scope of responsibility of the CA, or
- compulsory minimum annual number of hours for periodic training of drivers can be specified, the content of training being the responsibility of the Ministry of Defence

**Since CA belongs to the organisations bound on many specific regulations, including those related to safe driving of motor vehicles, we recommend leaving army drivers out of the new legislation.**

**Moreover, the Directive shall not be applied to drivers of test vehicles used for R&D, repair/maintenance/ reconstruction of vehicles not yet approved for road traffic and drivers of vehicles transporting materials or equipment necessary for performance of driver's primary job.** In our opinion, these drivers constitute comparatively big risk for the traffic safety, due to - among other things - specific features of their vehicles (rather frequently, these vehicles are tested under (deliberately generated) extreme conditions; for instance, autocrane drivers do not cover many kilometres every year, yet, they sometimes provide traffic obstacles, while working with the crane, dimensions of their vehicles are rather long and their low speed impairs traffic fluency and safety. Hence, these drivers should not be obliged to attend basic qualification, however, they should attend periodic training (7 hours) with the same programme as that of the drivers covered by the provisions of the Directive (see above).

**Van drivers**, typically, have driving licence of B category. As a rule, they lack driving experience, in many cases, they are juveniles with corresponding behaviour patterns in road traffic. We suggest they should be subject to the same rules as the taxi drivers (see above). At the same time, we recommend **applying the same rules to periodic training of all**

**drivers (irrespective of driving licence category) whose primary/one of primary job activities is driving.**

As far as the **persons sharing company cars** are concerned (driving does not belong to the scope of their core job activities), applicable laws and regulations do not stipulate the extent in which they should be subject to periodic training, its content and, most importantly, the instructors who are authorized to conduct the training. In fact, these issues are within the scope of employer's liability. The experience acquired in some organisations show these drivers have not been updated on applicable laws and regulations and briefed on relevant traffic issues and related topics (e.g. first aid, occupational health and safety, environmental protection, driver psychology and more) despite their everyday driving and extensive annual number of covered kilometres (tens of thousands). We recommend applying the rules specified for taxi drivers to the persons sharing company cars as well.

## Sanctions and incentives

### Main causes of serious traffic accidents in 2006

The road traffic legislation is aimed, primarily, at avoiding traffic accidents – above all, those with the most serious consequences (fatal, severe bodily harms, material damage). Within the recent 3 years, the number of traffic accidents has been decreasing dramatically, the lowest number of lethal and severe injuries was in 2006 (this could be attributed, primarily, to legislation changes applicable from 1 July 2006). Nevertheless, the Czech Republic continues to be among EU countries with above-average numbers of traffic accident, and also those with fatal consequences.

Most of traffic accidents were caused by drivers (855 fatalities, of which 603 caused by car drivers, 122 caused by truck drivers, 80 caused by motorcycle drivers), followed by pedestrians (44 persons) and bikers (43 persons). The number of injuries caused by motorcycle drivers is extremely alarming.

In this section, we will focus on main causes of serious traffic accidents, particularly those with severe consequence.

### Speed exceeding safe conditions

Undoubtedly, this is the most frequent cause and, obviously, it influences many other causes, particularly those registered as driving in contra-flow-lane etc. Speeding exceeding safe condition also dominates in the fatalities per 1 000 accidents (16.2), followed by incorrect overtaking (9,4), failure to give way (3,4) incorrect way of driving (2,6).

**The number of fatalities in traffic accidents caused by the speed exceeding safe conditions has been rising from 2004** (approximately 42 % of all fatalities in 2004, over 47 % in 2005 and 49,1 % in 2006).

### Alcohol and/or drugs

Another cause of traffic accidents is abuse of alcohol and drugs, which caused 6 807 traffic accidents in 2006 ( i.e. 1 385 (16.6%) less than in 2005), with 42 fatalities and 2 881 injuries, all these accidents were caused by drivers.

Obviously, the majority of accidents caused by abuse of alcohol and drugs occurred on weekends and holidays: on Saturdays, these accidents account for 7.9 % and on Sundays for 8.0 % of all traffic accidents, compared with 3.1 % on Fridays (on other days, the accidents caused by alcohol and/or drugs account for less than 3.0 % of all accidents). In most cases, the accidents of this kind occur at return home from discos, music bars and similar venues. On the other hand, this problem is not peculiar for the Czech Republic, but also for all European countries.

Eighty per cent of traffic accidents caused by alcohol/drugs are accounted for by car drivers and 7 % by bikers. The number of fatalities was lower than in 2005 (by 17, i.e. 28.8 %), the number of injuries falls as well (by 612, i.e. 17.6 %). In 2006, the accidents caused by alcohol accounted for 3.8 % of all traffic accidents. The number of fatalities in accidents caused by alcohol has been the lowest over the recent 27 and the number of this kind of accidents has been the lowest since 1991. The cases of alcohol abuse have fallen by almost 50 per cent against 2005.

In 2006, 64 traffic accidents were caused by drug abuse vs. 51 accidents in 2005 and 37 in 2003. In 2004, 3 persons were killed in traffic accidents caused by drug abuse. 47 driving licences have been withdrawn due to drunk driving by the Czech police.

### **Retaining systems**

As documented by statistical surveys of fatal traffic accidents in 2006, 116 drivers and 60 front seat passengers did not fastened their seatbelts (vs 1 141 in 2005, i.e. 85 % less), 38 passengers on rear seats (vs. 1 649 passengers in 2005, i.e. almost 98 % less). Totally, 14 children passenger died in traffic accidents in 2006, 7 of them being not seated in the child seat (in 2005, 811 children did not used any retaining system (seat belts or child seat)

### **Pedestrians, bikers**

Of 173 pedestrians, who died in collisions with a motor vehicle, 44 were killed in accidents caused by himself/herself (25 %). The most common cause was sudden or unexpected entering into the driveway from pavement/verge or incorrect evaluation of the traffic situation. Ninety per cent of collisions with pedestrians occurred in urban areas, two thirds of these collisions in daytime. 171 (11.4 %) pedestrians who caused an accident were drunken.

Compared with 2005, the number of pedestrians killed in collisions with motor vehicles in the night fell by 43 ( 49.4 %), particularly in urban areas. One of the reasons may be rising number of illuminated and/or well-arranged pedestrian crossings, which were increasingly in focus in 2006. In 2006, 816 traffic accidents occurred at pedestrian crossings. 16 pedestrians were killed, 197 heavily injured and 639 slightly injured in accidents caused by driver's failure to give way to a pedestrian at the crossing.

### **Mechanical failures**

In 2006, 1 271 accidents were attributed to mechanical failures (1 388 in 2005), i.e. 0.7 % of total number of traffic accidents investigated by the Czech police in 2006. 1 person died and 190 were injured. The most common cause was incorrect placing of cargo.

Slightly above 26 per cent of the accidents occurred out of urban areas, however, they accounted for 61.7 % of the total number of fatalities and 47.7 % of the total number of severe injuries. Undoubtedly, unfavourable ratios like these can be attributed to the driving speed, as already mentioned . Most fatalities occurred on primary roads (377 persons), secondary roads (212 persons) and tertiary roads (157 persons), 31 persons died on motorways.

An extremely serious issue are hit-and-run traffic accidents: 17 898 in 2006 (on average, 49 accidents every day), with 27 fatalities (i.e. almost 3 % of all fatalities) and another 934 injuries. The number of hit-and-run traffic accidents is very high, compared with 2005; it has even risen by approx. 5% (17 111 cases in 2005). The offenders were found only in 1 664 cases, i.e. approximately 9 %. In 1 775 cases the driver has fled, the vehicle stayed at the place of accident.

## **Evaluation of the Road Traffic Safety and Fluency Action Plan for 2006, drawn by the Ministry of Interior**

The following text is based on the report "Evaluation of the Road Traffic Safety and Fluency Action Plan for 2006". The text has been abbreviated, amended and our comments have been added. The proposals can be found at the end of this section.

In order to implement appropriate strategic tools, the Ministry of Interior has drawn up the Road Traffic Safety and Fluency Action Plan for 2006 (hereinafter referred to as „MAP“).

The Government of the Czech Republic will be informed on implementation of measures set forth in the Strategy and Priorities in the Road Traffic Safety for the relevant year on 30th April of the next year. This information will be prepared by the ministries of interior and transport. The Plan will be evaluated and updated annually. The failures and conclusions will be implemented in the measures for the next year.

Unfortunately, the inter-ministerial working group (sponsored by the Ministry of Transport) was not convened to deal with correctness and appropriateness of the tools defined in the national traffic safety strategy (BESIP), despite several reminders. **Considering the relevance of adjustments being implemented, we regard this fact extremely alarming and the Ministry of Transport should appoint the persons to participate in the inter-ministerial working group as soon as possible.** We recommend establishing a representative yet compact group of specialists (5 – 7 members) to design road traffic safety concepts. This group should be directly responsible to the Government of the Czech Republic, owing to multi-disciplinary character of these issues.

The group should include specialists from following sectors:

- transport psychology and adult education (or special pedagogy),
- public administration (public administration theory and control),
- law theory, administrative law, transport law,
- PR (with focus on powers in communication between public authorities and the public),
- the group should include one representative of the Ministry of Transport experienced in driver training issues, incl. final qualification tests.

The group should be entitled to invite relevant specialists for dealing with ad-hoc issues. This would allow the group to work efficiently and be able to address wide range of specific tasks.

Also, we recommend that the scope of responsibility of the driver in terms of motor vehicle use be defined.

As for the Road Traffic Offence Act, the discussion about options how to define various offences has been going on in recent time, with exact specification of sanctions related to individual offences (penalty catalogue). We endorse this plan, however, a highly professional

approach (and also extensive time) will be needed for finalization of the catalogue, without gaps allowing to avoid sanctions.

The Czech Police - in spite of its efforts towards safety and fluency of road traffic - cannot reduce the number of traffic accidents to zero because of multiple factors, e.g. technical conditions of roads, vehicles and behaviour of road traffic participants (human factor) and, last but not least, applicable legislation and mass media. In the light of these factors, the responsibility of drivers and pedestrians, road administrators, Vehicle Testing Stations, municipal authorities, municipal (city) police and other entities will be essential.

Relevant municipal authorities and municipal and city police should provide reports on the results of its activities, incl. detailed evaluation of the activities pursued in the preceding period (year) and implementation plan of operative measures for the forthcoming year on regular basis. This activity needs central coordination: in our opinion, this role should be performed by the Ministry of Transport of the Czech Republic.

In following, we would like to deal with the information obtained from the Police of the Czech Republic about traffic offences and the measures aimed at avoiding existing ills and causes of traffic accidents with severe consequences.

### **Driving speed**

The share of investigated cases of exceeded speed limit in the total number of traffic offences investigated in national-wide traffic safety campaigns fell from 41 % to 35 %. As follows from investigations of the Prague Police, the speed limit was exceeded by less than 20 km/h in 73 % of all cases, by 21–30 km/h in 25 % of cases and by more than 40 km/h in 2 % of cases. These results correspond with the situation in other European countries.

### **Alcohol and drugs**

In 2006, the Czech Police checked 815 348 drivers for alcohol impairment, 91 % of them in motor vehicles; 8 259 driver were found alcohol-impaired, which is 6 818 persons less (almost one half!) than in 2005. 2 841 driving licences have been suspended by the Czech Police in 2006 due to alcohol impairment. During regular checks and road traffic safety monitoring campaigns, the bikers are increasingly on focus.

An obvious drawback is the fact, the current legislation still does not accept records of calibrated and certified devices as relevant evidence in administrative and criminal proceedings, despite the fact, an expert study comparing the results obtained with most common alcohol breath testers, used by the Czech Police, and laboratory alcohol blood level measurements, made in medical centres, has found both methods equal.

### **Traffic safety monitoring**

The road traffic safety checks are made at places where - according to analyses and topologic surveys – the numbers of traffic accidents are extremely high, taking into account traffic fluency and police staff safety. Traffic safety campaigns involve participation of various police departments (public order, alien, border, criminal and investigation police departments) and also customs officers, regional and municipal authorities. This has both positive and negative implications:

#### **a) positive implications:**

- owing to rising number of police staff, the monitoring of road traffic safety and fluency continues to improve; in national-wide traffic safety campaigns made in 2006, 17 % of all traffic offences were found ( both in national, regional and district traffic safety campaigns and occasional road checks),
- in road checks, the police also pays attention to other issues within the scope of its responsibility,
- during longer traffic safety campaigns – such as (so called) Kryštof – stolen cars, criminals, wanted and missing persons are found and during widely-based traffic safety checks, other criminal activities can be discovered (certain types of criminal activities decrease in the whole Czech Republic,
- higher emphasis on alcohol impairment of drivers in regional-wide campaigns, coupled with new legislation, has resulted in dramatic reduction in the number of offence,
- rising number ( by 9 %) of offences settled via on-spot fines in cash

#### **b) negative implications:**

- traffic safety campaigns involve extensive police staff and resources that could be utilized in other sectors (traffic accident investigation, public order monitoring etc.). The required number of traffic police staff is replenished by police officers from other departments, particularly public order police; in part, this – negative - implication is compen-

sated by reduction of criminal activities in other sectors during traffic safety campaigns, which, as a rule, involve several days (as suggested hereinabove),

- when organizing traffic safety campaigns, in many cases, financial and personal potential of police departments are not taken into account, particularly in cases, where the relevant police department is involved in other activities of local relevance, which could not be anticipated in good time ahead,
- many traffic safety campaigns are organized at the expense of current traffic monitoring activity. In 2005, widely-based traffic safety campaigns, in fact, were part of current police activity, because adequate number of policemen were not available for frequently repeating traffic safety campaigns. For this reason, the number of such campaigns set forth in the BESIP Action Plan for 2006 has been reduced.

**In our opinion, the negative implications indicated above can be attributed to inadequate performance of the Czech Police top management and public authorities. We will deal with these issues in the section containing proposals and recommendations.**

Where possible, observance of the right of way at crossings is monitored by the police, particularly in the cities, where this type of traffic offence is rather common, with focus on locations, where nonobservance of this rule could cause many traffic accidents. In the period under consideration, the Czech Police had been dealing with 9 950 give-way offences, imposing on-spot fines totalling 7 994 150 Czech crowns. 7 451 offences were referred to relevant municipal authorities for handling. In 2006, 31 376 traffic accidents were caused by non-observance of the right of way. The number of traffic accidents caused by failure to give way at overtaking has increased, however, the number of those caused by nonobservance of the right of way on places with „Give Way“ signs has fallen.

Where possible, digital recording cameras are preferably used for traffic monitoring (allowing instant record of the event for potential subsequent evidencing procedure in court proceeding against the offender and, last but not least, the record is relevant for on-spot payment of fine). According to information available, the introduction of new stationary monitoring devices (exceeding speed limit, red light cameras) continued to be slow in 2006. These devices have been implemented only in big cities and, with some exceptions, they are sponsored by municipal authorities. These devices are highly efficient in permanent operation (in Prague, for instance, the relation between the number of speed limit exceeding events taken

by digital cameras and that taken by hand radar units is 19:1). Installation of new devices is limited, among other things, by lack of municipal funds and lacking ability of public authorities to deal with offences in administrative proceedings.

**In our opinion, the use of stationary recording devices has enormous preventive potential (above all, exceeding speed limit and red light running), as documented by the situation in France. We will deal with these issues in the section containing proposals and recommendations (see below).**

In 2006, many checks of traffic rules observance by the policemen were performed. As documented by the results of these checks, these activities – along with new legislation – have had positive impact on increasing use of seat belts in police cars (in 2005, seat belts not fastened accounted for 59 % of all offences investigated, in 2006, this percentage was below 5). On the other hand, the number of incorrect parking and exceeding speed limit events has increased (incorrect parking - 35 % in 2005, 60 % in 2006, exceeding speed limit - 2 % in 2005, 8 % in 2006). Two policemen and one civil employee of the Czech Police were found alcohol-impaired while driving.

In our opinion, particular attention of police patrols should be paid to obvious traffic offences. Almost every day, police patrols wink at incorrectly parking vehicles, jeopardizing persons on pedestrian crossings and more. It is the consequent and painstaking activity of rank and file police officers that, in our view, raises respect to traffic rules, particularly by individuals constituting higher risk for the society.

### **Retaining systems**

According to common practice, use of retaining systems (seat belts and child seats) is monitored at each police check of a stopped car. In 2006, one national-wide traffic safety campaign was focused on this type of offence. Nonobservance of this obligation was found in 12662 cases and penalized by fines totalling 3 344 150 Czech crowns. 72 cases were referred to administrative authorities (approximately 3 per cent less than in 2005). 272 fines totalling 113 450 CZK were given for failure to use child seats in national-wide traffic safety campaigns (slight decrease compared with 2005).

**In the opinion of the Czech Police, new legislation has provided for increased use of car retaining systems (particularly, seat belts on driver and front passenger seats) and, thus, reduced the number of fatalities in traffic accidents. This corresponds with the conclusions of a long-term research and experience (use of seat belts reduces impacts of collisions by one quality degree, e.g. minor injury instead of severe one). Correct use of specified retaining systems has a significant economic effect.**

### **Pedestrians and bikers**

Two national-wide traffic safety campaigns were focused, particularly, on pedestrian safety on zebra crossings, organized at the start and end of the school year in 2006. 454 checks focused, among other, on pedestrians were made in districts. Where possible, pedestrians are on focus of everyday traffic safety and fluency monitoring at places of frequently occurring collisions of cars with pedestrians, especially children. Pedestrian protection in road traffic is addressed by municipal and metropolitan police as well. In 2006, the Czech Police investigated 5 840 offences committed by pedestrians, 5 804 of which were fined on spot and 36 were referred to relevant administrative authorities.

As for bikers, the Czech Police investigated 3 553 offences committed by bikers (3 432 offences were settled via on spot fines totalling 890 250 CZK and 121 were referred to relevant administrative authorities). Apart from traffic safety monitoring, the Police of the Czech Republic is monitoring technical conditions of bikes used in road traffic, within the framework of the National Biking Development Programme.

It is obvious that any person riding a bike without specified lights constitutes significant risk for all road users. Traffic accidents involving collisions with bikers riding without lights, as a rule, are considered caused by the driver (driving speed exceeding safe conditions). It would be helpful if the laws and regulations to come prevent riding a bicycle without specified lights.

### **Technical condition of motor vehicles used in road traffic**

As documented by the results of monitoring performed by the Police of the Czech Republic CR in national-wide traffic safety campaigns in 2006, the offences related to technical condition of motor vehicles used in road traffic accounted for 16.26 % (16.4 % in 2005) of all offences investigated in these campaigns. However, this number seems to be only a small

fraction of all motor vehicles with unacceptable technical condition used on Czech roads. Unacceptable car modifications and changes to car identification data discovered in the course of car theft investigations or road checks are indicators of poor quality of technical inspections in Vehicle Testing Stations and gaps in checking procedures. The Czech Police monitors technical condition of motor vehicles – to a limited extent – within the scope of general traffic monitoring activity. It should be pointed out that the primary and essential liability for checking technical condition of motor vehicles used in the Czech Republic lies with Vehicle Testing Stations that are fitted with relevant facilities and instruments, allowing detailed inspection of all vehicle components. Moreover, the Police of the Czech Republic has not necessary technical preconditions for appropriate checking technical condition of motor vehicles.

The issues associated with unacceptable technical condition of motor vehicles used on our roads have been widely discussed. The report issued by the Czech Police emphasizes poor performance of Vehicle Testing Stations (and the report is true, indeed), on the other hand, the police does not perform as it should, above all, at everyday monitoring of road transport: rather frequently, police patrols in cars disregard cars without licence numbers driving or parking (for a long time) on roads and more. We believe the changes to this practice will give significant positive signals towards the public and, particularly to the offenders.

In 2006, as in previous years, the national-wide campaign “Clean Roads“ focused on traffic signs was organized by the Czech Police. Many road administrators were notified on traffic sign failures, poor visibility of traffic sign road surface, but also on road sections where the speed limit could be increased. This activity of the Czech Police has found positive response by the municipalities, however, many defects on roads have not been remedied in specified time and, generally, the surface of roads (particularly secondary and tertiary ones) continues to deteriorate, above all, due to lacking funds. The experience of the Czech Police and also the inputs received from the population allow to conclude, road administration authorities in some regions do not consequently check implementation of their decisions on placing traffic signs and the conditions of traffic sign installation. In 2006, the number of traffic accidents due to technical failure of the road rose by 56 % vs 2005.

As before, the surface of roads in the Czech Republic does not improve. This can be attributed, mainly, to indifference of wide public, on the other hand, the Czech Police is not willing

to indicate road surface as the primary or secondary cause of a traffic accident, with all consequences.

In 2006, two traffic safety campaigns were organized with focus on railway crossings. Road traffic on railway crossing was paid increased attention because of rising number of traffic accidents on railway crossings (262 car collisions with train in 2006, which is 12 more than in 2005). The main causes of the accidents on railway crossings was nonobservance of light and sound signals by drivers. During traffic safety campaigns in 2006, 367 offences were investigated (compared with 2 172 offences in 2005), of which 329 were settled on spot via fines totalling 77 000 CZK and 38 referred to relevant administrative authorities.

Even though more traffic accidents on railway crossings occurred in 2006 (compared with 200), less traffic offences on railway crossings were investigated in the same year.

### **Legislation**

On 1 July 2006, the amendment of the Road Traffic Act entered into legal force, introducing substantial changes in road traffic. The new penalty points system and higher fines introduced by the amendment have been highly appreciated by the Czech police. These measures have had positive impact on observance of traffic rules by most of road users, with dramatic decrease of fatalities in traffic accidents, and also traffic accidents in 2006.

Another positive improvements (in opinion of Czech police):

- medial campaign organized before the effective date of the amendment and highly positive attitude of politicians, mayors and other experts towards traffic safety issues; the campaign was aimed at reduction of traffic accidents and fatalities in road traffic,
- overall traffic tranquillisation and driving speed reduction in urban areas,
- compulsory use of retaining systems in urban areas,
- all-season lighting, thus better visibility of driving vehicles,
- extended biker protection,
- possibility of on-spot driving license suspension in case of the most severe traffic offences,
- preventing drivers/vehicles constituting significant risk from driving.

Unfortunately, it was not possible to compare the number of traffic accidents in the first half of 2007 with relevant period of the preceding year, due to lacking system approach in this sector. Also, we are not sure about efficiency and success of the medial campaign focused on road traffic safety (so far, central authorities have not learned how to use techniques necessary for organising medial campaigns).

### **Traffic offences, law enforcement**

Totally, **657 498 traffic offences** (offences involving traffic accidents not included) in 2006, 948 991 offences in 2005 and 982 338 offences in 2004, of which **80,3 % were settled via on-spot fines** (versus 84 % in 2005 and 2004; the decrease can be attributed to legislative changes). **19.7 % of offences have been referred to relevant administrative authorities.** In the course of traffic safety campaigns, the number of fines imposed on spot was higher (in 2006 9 % more). After amendment of the Road Traffic Act, some offences (that, until that moment, had been settled via fines on spot), have been referred to the scope of responsibility of administrative authorities, consequently, the number of this type of offences has increased. Increased number of offences (3.7 % more) referred to relevant authorities means additional administrative burden for the police. After implementation of the **ZIS 2000** information system (allowing electronic transmission of reports on offences with imposition of on spot fines to relevant municipal authorities) and its sub-system (**BODYS**), the administrative procedure of offence evaluation and transfer to relevant municipality has been simplified and accelerated in some regions. Apart from that, the **ZIS 2000** system does not allow any change to the data related to the offence committed. In 2006, **electronic on-spot processing of traffic offence was implemented only in case of traffic accidents** via Lotus Notes (partially digitalized accident record).

**The cashless fine collection system** has been finalized, however, it has not met the expectations: low interest of drivers in cashless payment of fines and, consequently, implementation costs too high. The operation of terminals has many deficiencies. (excessive costs of the cashless fine collection system, additional administrative work for the police due to accounting and checking fine payments, terminal immobility, i.e. it must be permanently connected to a power supply and more). Currently, the operation of payment terminals, most likely, would only be possible in traffic offence departments of the Czech Police, not in road checks.

In most cases, the drivers refuse cashless payments of fines on the spot: they lack motivation and, besides, they have a good chance of their offence not being dealt with in legally specified term. Therefore, we recommend implementation of the procedure existing in other countries, i.e. discounts for cashless fine payment on the spot (about 30 % of the basic fine amount).

The number of traffic offences referred to relevant administrative authorities because of offender's refusal to pay the fine on the spot rose in 2006. The sanctions (if any) implemented by the administrative authorities do not have the expected prevention effect, due to long interval between the offence and imposition of the sanction. Therefore, the ways how to collect imposed fine on the spot – where possible, without undue delay and in the most efficient manner - should be sought. Also, the number of petitions for review of sanction continues to rise.

Again, we recommend using of long-time and positive experience obtained in other countries, i.e. surcharges (amounting tens of per cents) on the fine, if the case will have to be referred to relevant administrative authority instead of settled on spot.

### **Measures to prevent corruption**

There is a high corruption potential in various traffic police departments (road traffic monitoring, motorway traffic monitoring, licensing authorities), particularly in terms of traffic offences associated with traffic safety and fluency and penalty point system. There are various options for corruption: collecting fines without receipt, collecting fines in foreign currency, issuing records on simulated traffic accidents and more. In order to foster measures preventing corruption in the Czech Police, consequent random checks of police officers in departments with high corruption potential were made in 2006, with primary focus on current traffic safety monitoring, fine payment receipts and corresponding cash accounting and balance remaining with police officers. Also, the records and data in digital alcohol breath tester and radar memory were compared with the results of police checks and contents of traffic accident records with the relevant photodocumentation. The officers in licensing authorities and motorway traffic departments who have received digital voice recorders are encouraged to use these devices consequently. Chief officers have been authorized to monitor the use of these devices, store the data and deal with problems, if any.

The Czech Republic is one of the countries with high corruption level indicators. Undoubtedly, the measures above are commendable, nevertheless, the situation requires a system-based approach. We will deal with these issues in the next section.

### General proposals and recommendations

While the first section of this material provides comprehensive and detailed initial information on current issues associated with the road traffic safety, the second section contains detailed recommendations and proposals concerning the sanction and motivation system in road traffic in the Czech Republic.

**A)** In order to assure adequate level of road traffic safety, relevant generally-applicable rules have been set for all traffic participants. These rules have been published in defined format. Observance of these rules can be enforced by relevant authorities under sanctions imposed against those who do not observe these rules.



**B)** Has a procedure to identify the offences been defined



**C)** Mechanisms have been implemented to identify the offenders directly (as a rule, at the place of offence) or indirectly (as a rule, by way of car identification registered at the place of offence, with subsequent identification of the offender)



**D)** Assessment of the sanction, based on formal and material nature of the offence



**E)** Imposition of the sanction



**F)** Enforcement of the sanction if it has not been complied with

There is a widespread belief that the laws related to road traffic safety are difficult to enforce. In our opinion, this is not true. The laws cover all issues associated with behaviour of road users, technical parameters of motor vehicles and roads and have been improving since long time and the Czech Republic, undoubtedly, belongs to countries following new approaches designed for dealing with these issues. Naturally, there is room for further improvement, e.g. some provisions of the current sanction and motivation system – see our proposals further in this text – nevertheless, the substance of these problems lies elsewhere: in public power implementation mechanism.

The management system of the public administration in the Czech Republic is obsolete. Unfortunately, the public seems to have accepted these deficiencies (even if the changes are desirable). From the very beginning of the existence of the Czech Republic, representatives of the government and opposition parties emphasize need of fundamental changes, however, nothing has happened so far.

Naturally, this material is not aimed at dealing with these fundamental issues, since they are extremely complex and exceed the scope of the traffic safety. Generally, modern management processes must be consequently implemented in the development of the society, as is the case, for instance, in EU 15's. To achieve this objective, professionally qualified and experienced managers should carry out management functions in central authorities. However, this requires improvement of the image of public administration in the public and, primarily, adequate salary of relevant officers (as was the case with Czech judiciary sector and, particularly, the judges). Provided necessary support by the Czech Parliament and adequate powers, public administration managers will be able to establish fundamental principles of the whole society and individual fields of activity. Then, higher and medium-level managerial posts can be assigned to managers with necessary knowledge and skills, able to manage public affairs appropriately.

However, the managers of required competence and experience, in most cases, change to private sector and are replaced by less experienced and capable ones. This, in turn, leads to assignment of lower posts to officers with similar qualities. To summarize, only the engagement of the whole society can bring about necessary fundamental changes.

Our conclusions have been supported by many provisions of the Public Administration Reform Project issued in April 1999, however, still not implemented, due to the reasons mentioned hereinabove. In following, we would like to present some basic approaches and ideas allowing to deal with these issues:

**One of the crucial problems is comparatively low level of public administration management and outdated management methods in the Czech Republic, associated with comparatively low professionalism of the public administration staff,** leading to arrogance of the officers both in public administration and local government. Apart from this, **high centralism** (at the ministerial level) **causes predominantly operational character of activity of the authorities.** This is widely reflected by the organisational structure of the ministries and their personnel. The core tasks of the central government – strategy, legislation, methodology and co-ordination - are not in focus of central authorities. One of the biggest weaknesses of the central government is the low level of horizontal co-ordination of individual subjects.

**The management is one of the most neglected areas of the public administration sector.** Compared with the trends in the European Union, the management still uses forms, tools and methods established before 1950s. Moreover, the professional bureaucratic practice and techniques have disappeared, primarily, due to politicization and ideologization of public administration and local government authorities and their staff. This was the case not only in the period 1948 – 1989, but also from 1990 until now. This development has generated many problems in staff structure and destabilisation of public administration management.

**The absence of human resources management in the public administration is another key-issue in this sector. Underestimation of the public administration relevance has been demonstrated. among other things, by lacking personnel education system.** Miscellaneous training measures are organized ad hoc and their quality varies significantly. Thus, the education - if we dare to use this term - of the public administration staff is organized by various subjects lacking experienced trainers and the education programmes are largely based on trainer's level of knowledge rather than necessary job profile of the trainees. Case-by-case staff selection, absence of regular evaluation of work performance of the staff and, thus, staff turnover are some of the greatest deficiencies of the HR sector. Staff turnover causes, an also results in failure to define the status of the public administration officer on

local and, particularly, central level, his/her obligations and rights. There are many calls to adopt a legislation that would regulate this sector.

**Currently, a lot of public administration officers study in universities. However, the motivation for their studies is, almost exclusively, higher salary and/or compliance with level of qualification required for relevant job position. This practice results in studying subjects/programmes that are less demanding, lacking inter-connection between study content and actual needs of the relevant sector/job position. An approach like this would be unacceptable in the private sector. We recommend the government to review the approach to salaries of public administration personnel, i.e. not insisting on a strictly defined level of education in connection with performance of a job (and, thus, salary), but rather on specific professional abilities and skills. In this respect, the private sector should be the model to follow.**

On the other hand, comparatively **low level of citizen awareness** – every citizen expects public administration authorities to fulfil his/her wishes and demands citizen and any limitation in this respect is regarded as encroachment of his/her rights - causes problems in discussions in central authorities when discussing new legislation. The people should be aware of the fact that the whole public administration system is based on the principle citizen's freedom ends at the point, where it begins to threaten other citizen's freedom. This state, however, will not be achieved without adequate education and personal maturity of responsible officers.

Now, we will deal with individual issues in more detail (points A) - F) .

#### **A) Definition of generally applicable rules for all road traffic participants**

**The first task in the sanction and motivation system is development of generally applicable rules for all road traffic participants (and their publication in relevant format) enforcement of their observance and application of relevant sanctions against offenders of these rules.**

Naturally, we cannot deal with every particular standard associated with road traffic safety in this study. On the other hand, the quality of legislation is not the primary cause of the gloomy situation existing on our roads, as we have suggested at the beginning of this section. Generally, the quality of preparation of new laws and regulations depends on many fac-

tors, primarily, quality of relevant central public administration authorities, but also level of citizen awareness (more specifically, various stakeholders, professional associations etc.), as already mentioned above. The issues associated with applicable sanctions are rather complex and they will be dealt with separately in this study.

## **B) Traffic offence identification procedures**

Essentially, there are two basic procedures how to identify offenders of traffic rules: on spot (a vehicle is stopped and the offender identified by the police) or using automatic recording device (registration of the vehicle which driver committed an offence – typically, exceeding driving speed limit or red light running).

The automatic registration devices will be dealt with in section C). As far as on-spot offence detection is concerned, it is essential that a competent policeman to deal with the offence is present on the place of offence. Many of conclusions related to the management level of the public administration sector are relevant for the police, too, nevertheless, some problems that are specific for the Police of the Czech Republic should be mentioned here.

Prior to address key-problems encountered by the Police of the Czech Republic ČR in present time (as put forward by relevant specialists and experts), we would like to refer to the issue related to number of policemen in uniform. After foundation of the Czech Republic in 1918, there were 14 000 gendarmes and 7 000 policemen in charge. Before 1990, there were roughly 20 000 policemen in charge. In both periods above, the police could be seen in the public (this is particularly true for the period before November 1989). As far as road safety is concerned, every walk or car patrol was dealing with registered offences promptly. In the time of gendarmes (as indicated, for instance, by Jakub Novotný in his article published in MF DNES on 10 March 2007), any gendarme could not return home 'empty-handed', i.e. he had to provide evidence he had solved at least a minor case during his patrol (actually, the gendarmes were in close contact with everyday problems: there were 14 000 gendarmes in 2 777 stations). Presently, there are approx. 46 000 policemen in charge in 617 police districts and 17 railway police districts (as at 31 Dec. 2006) plus almost 8 000 metropolitan and municipal policemen plus several thousands secret police (BIS department) and private security services. They all are performing almost 'invisible' and, at the same time, criticized – in many case, rightfully – police work ( According to public opinion polls on public confidence in police, full or at least certain level of confidence was indicated by 52 % of respondents

in 1998, 60 % in 1990, 66 % in 2003, however, as little as 47 % in 2006 ). In these opinion polls, the most frequent complaints are about too little policemen on the streets and/or in the vicinity of respondents' places of residence. Moreover, the policemen on patrols, allegedly, do not adequately communicate with the public (among other things, due to lack of specialists for communication with the public in the Czech Police, who could – at least partially - improve the image of police before the public, and also absence of the “**Community Policing**“). Consequently, the issue seems to be in inefficiency of the system and organization of everyday police activity.

Undoubtedly, police needs to be reformed 'from scratch' to comply with the requirements put forward by its “customers“, i.e. the public. **The crucial focus should be on territorial organisation of the Czech Police.** The issue may be the fact the territorial organisation reflects territorial division of our country in regions formed in 1960. Therefore, not every regional police director has the relevant regional commissioner as his opposite number, which, naturally, can have negative impact on mutual communication and close cooperation. In this respect, an expert study with relevant proposals and projects has been prepared and we hope it will be accepted by relevant authorities.

**As far as monitoring road traffic safety and fluency is concerned,** optimally, it should be performed by relevant units assigned to basic departments of (category I or II), with the traffic accident investigation unit being formed at the higher organisational level. Certainly, the motorway police department will be structured on other than territorial basis, due to specific tasks.

**As far as the municipal police is concerned** (existing from 1992), unfortunately, not any legislation has been adopted to provide the base for cooperation between municipal police and the Police of the Czech Republic. Since 1992, the powers assigned to municipal police staff have been gradually extended, however, municipal policeman qualification profile and its verification processes correspond with the level of 1996. Should the municipal police continue to exist, the essential preconditions (starting from selection up to verification of professional qualification before the board of examiners set up by the Ministry of Interior) should become more stringent. Parallely, this Ministry should be granted adequate tools for more efficient supervision of the municipal police. **As far as the municipal police and traffic safety are concerned,** in our view, the municipal police should be focused, primarily, on

monitoring public order in relevant locations. And this is not the case, as the practice shows. According to available data for 2005, 79 % of the municipal policemen investigated 1 521 403 traffic safety and fluency offences (of which 885 482 were settled via on-spot fines) and “only“ 370 354 other offences (of which 150 984 settled via fines). Similar situation was in the next year (according to data submitted by 74 % of municipal police departments): 1 391 371 traffic safety and fluency offences investigated (of which 808 147 settled via fines on the spot) and 384 334 all other offences (of which 149 264 settled via fines on the spot). In many cases, the reasons are of purely financial nature, i.e. raising funds for development of the municipal police, on the other hand, according to available information, the on-spot fines account for as low as 1/10 of the funds necessary for operation of municipal police. **However, the primary criterion for monitoring road traffic by municipal police hardly will be reduction of traffic accidents and their consequences but rather financial profit for the municipality, which is in blatant contradiction with the general concept.**

As documented by results of research carried out by GfK Agency in 2006, **the police has been regarded as the second most corruptive environment in the Czech Republic (by 13 % of respondents)**, compared with similar researches in other countries in which police corruption was regarded as a problem by much lesser respondents (4 % of respondents in Western Europe and 8 % in other Visegrad countries). **According to the research, the most corruptive entities are Czech authorities (21 %), a fact that confirms our conclusions stated hereinabove. These two findings are extremely alarming ( to put it euphemistically).** The internal and external police checkout system has been criticized by many non-governmental organisations and also by wide public since long and the results of its inspection activity show lacking ability to discover more severe criminal acts committed by police staff. Moreover, the inspectors in individual police departments are accountable to department directors who, naturally, are prone to hide failures of their staff members, thus keeping the image of their departments unblemished. It is not only lacking support from the management but also unpopular measures within police departments (identification and investigation of colleagues ) and salary reduction that lead to charging staff members with lower qualification and experience to investigate such cases which, in turn, deteriorate the situation. A significant problem is also absence of procedures to deal with complaints about policemen behaviour and practices. **Relevant suggestions and proposals to improve the situation have been put forward and we recommend its approval as soon as possible.**

**As far as police staff education level is concerned, the situation is far from being good.** According to data as at January 2006, 8 303 of 9 654 job positions where professional secondary education was required were staffed with officers having lower education than required, 5 621 of 10 117 job positions with bachelor-level education were staffed with officers with lower education and 2 884 of 5 684 job positions with magisterial-level education were staffed with officers with lower education. **Totally, the required qualification level (post-secondary education) was not met by 66 per cent of the staff in January 2006.** Moreover, many of those who have met specified qualification criteria have obtained their education formally (to meet required qualification level), regardless whether or not the achieved qualification will be actually utilized (as already emphasized in the section dealing with public administration). **The main cause is lacking system of HR planning for medium and high-level management** as well as insufficient utilization of personal development of the police staff (language skills and more). Last but not least, HR departments, typically, are not staffed with creative professionals and specialists but rather persons able to perform formal and routine administrative work, neglecting development concepts of the Czech Police. It is not easy (but essential) to recruit skilled and experienced professionals for the police. **According to police specialists, the recruitment of such professionals could be facilitated by way of side entries (in cases justifying this procedure) into the police hierarchy, accelerated career options, instead on insisting on physical fitness tests in case of recruiting experts skilled in computer, language, law, natural science, education and other fields.**

Also, there are too many managerial posts within the structure of the Czech Police, consequently, responsibility structures are extremely complex and the responsible manager, as a rule, can hardly be defined. The findings specified hereinabove can be attributed, largely, to lack of strategic management. As a result, top managers, in many cases, must deal with current problems, which should be assigned to lower levels – provided, however, **top managers are able to assign problems to lower levels and these are capable of solving them.** At the same time, commitment and invention of lower police officers should be encouraged instead of strict obedience of instructions and provisions stipulated in extremely extensive internal regulations. According to experts in this sector, there are more than one thousand of applicable regulations (frequently overlapping each other) issued by the Police President, regional, district and also other police departments which must be observed by the police-

men in service. ( the Police President, alone, has issued more than 450 applicable regulations).

### **C) Traffic offender identification**

There exist procedures to identify offenders of traffic rules: **direct identification (as a rule, on the spot ) or indirect identification (as a rule, based on vehicle identification and subsequent investigation of its driver).**

The issues associated with direct identification of the offender have been discussed in the preceding section. Now, we would like to dwell on indirect identification of the offender (based on car identification using automatic recording devices.).

Immediate car identification and the following investigation have been implemented in the Czech Republic since comparatively recent time. **When dealing with this problem, two basic questions must be answered: has monitoring of road traffic any measurable positive effect and how to enforce fulfilment of sanctions imposed in connection with the offence.**

As far as monitoring traffic safety with cameras is concerned, the European Transport Safety Council (ETSC) claims in its Traffic Law Enforcement across the EU increased observation of applicable traffic rules by road users resulting from higher activity of police and public administration can save 14 000 human lives in EU15 member states annually and prevent approximately 680 000 casualties which equals 0.44 % of the gross domestic product (the annual number of fatalities has been stated more precisely; 5 800 fewer fatalities, owing to lower number of cases of exceeding speed limit, 3 900 fewer fatalities owing to reduction of alcohol driver impairments and up to 4 300 fewer fatalities owing to consequent fastening seat belts. (Three above-mentioned fatality causes are sometimes referred to as the“ Big Three“).

**The entire camera monitoring system must remain in the scope of liability of the public administration, any commercial participation of private subjects is unacceptable. Non-observance of this principle will result in focus on financial effect of collecting fines instead on rising traffic safety.**

Another (more extensive) study issued in the Czech Republic has been focused on changes in this sector in France in 2003 - 2004. We recommend implementation of the French approach in this sector because the issues in our country were the same as in France at the start of this decade and the legal practice currently applicable in the Czech Republic leads to abuse of the "Close Person" legal institute, as pointed out in the Evaluation of the Road Traffic Safety and Fluency Action Plan for 2006 (issued by the Ministry of Interior of the Czech Republic) mentioned hereinabove. According to the Evaluation, the number of offences which investigation had to be suspended due to offender's reference to Close Person (driving the car) varies in regions (30 % in Prague). In opinion of courts, this situation can be attributed, largely, to passivity of public administration authorities failing to evidence the contrary, i.e. the vehicle could not have been driven by any person close to the offender, but rather by its owner. A consequent implementation of the procedure above would lead to dramatic increase of agenda and, consequently, to further reduction in actual law enforceability and lower respect towards relevant authorities and applicable laws.

Finally, we recommend police cars be fitted with necessary monitoring and recording systems for monitoring behaviour of drivers. Many traffic accidents were not caused by exceeding speed limit and/or red light running, but also when overtaking, at pedestrian crossings, overtaking of bikers and more. We also believe the funds necessary for the monitoring activity could be raised by collecting fines, not speaking about the leverage effect resulting from reduction of severe traffic accidents and their consequences.

#### **D) Assessment of sanctions based on formal and material nature of the offence**

Undoubtedly, not only formal but also material nature of the offence must be considered when assessing the sanction. and only an approach like this can guarantee imposition of sanctions corresponding with the relevance and/or danger of the offence for the entire society. The existing system enables the offender to challenge material nature of the delict and if he/she fails to do so, this can be attributed, as a rule, to offender's unfamiliarity with the Czech laws system (and the same is true for relevant authorities); on the other hand, similar behaviour is pretty normal in other countries, too. We are going to deal with assessment of sanctions for traffic rules offences further in this text.

On the other hand, the traffic rules seem to be extremely complex, not well-arranged and incoherent, which, in turn, creates obstacles in general understanding of traffic rules by wide public, to put it euphemistically. The “motorway“ as key-word can be found in 1 170 legal materials, “road traffic“ in 428 regulations, which is in contrast with high level of harmonisation of truck transport rules (undoubtedly, this can be attributed to implementation of relevant EU directives and international conventions and, at the same time, this shows that the problem can be solved). In our opinion, the time has come to consider implementation of a particular sector of law– transport law – and, in this context, the Road Code, including specific proceedings, which is different from the administrative procedure code (quite common in the public administration, e.g. in tax and fee procedures).

Considering the most common road traffic offences in truck and bus traffic, implementation of sanctions against companies should be considered (see the following proposals for more details).

### **E) Imposition of sanctions**

In our view, the currently applicable administration procedure code as well as relevant provisions of the Act no. 361/2000 Coll. as amended provide appropriate tools for enforcement of imposed sanctions. These tools should also include the option to provide different financial amounts of fines, depending on whether paid on spot, subsequently (within specified period of time) or failed to be paid at all. The following options can be considered:

- fine paid on spot (in cash or with credit card) –basic amount reduced by 30 %,
- fine paid subsequently, in specified period of time (within 15 days) – basic amount ,
- fine not paid in specified period of time (within 15 days) – basic amount plus 50 %,
- a fine (basic amount plus 50 %) not paid within 30 days after being imposed (date of delict)– starting a procedure to enforce the fine according to the administrative procedure code.

At the same time, we recommend allowing cashless (credit card) payment of fines, thus facilitating the payment procedure and also preventing corruption.

In the perspective, setting fines depending of offender’s income (above all, for severe delicts) could be considered.

One of the options how to guarantee collection of fines (if not paid on spot) is the bailment for the case of filing an appeal. This can bring dramatic reduction of appeals (mainly deliberate ones) as well as reduction of cases with no sanctions imposed (as having been implemented in Italy since mid- 2003).

Another motivation factor for application of sanctions and avoiding offences can be conditional suspension (withdrawal) of the driving licence: having committed the first severe traffic offence, a driver will be allowed to keep his/her driving licence and regarded as being “clean“, provided he/she has paid the fine as assessed in specified time and not having committed another offence of the relevant category within specified time (typically, three years, as mandated in some European countries). In other countries, e.g. Denmark, driving licence will be conditioned on successful driver test, after expiration of three years without another traffic offence, however, we do not recommend this practice.

A strong motivation factor would be confiscation of the motor vehicle in case of severe delict (drunk driving, culpability of a traffic accident, hit-and-run accident etc.). The motor vehicle would be confiscated by the state. In case of a company vehicle, its actual value will be assessed by a sworn expert and the driver will pay specified amount (this practice has been recently introduced in Poland). Another option is temporary confiscation of the motor vehicle for a specified period of time (this practice has been introduced in the Netherlands).

In case of foreign citizens, a bailment should be insisted on, as currently applied. Should the offender fail to pay the fine, his/her motor vehicle will be parked on a special parking area and withheld by the state, unless the fine has been paid in due time.

If the motor vehicle has not the valid certificate of technical inspection, other relevant documents or if the third-party liability insurance has not been paid, motor vehicle immobilization should be considered.

In case of a serious delict, the driver could be invited to an interview to investigate the cause of the delict, with subsequent warning, fine etc. This would be a strong motivation.

In many cases, the drivers do not know whether they have received penalty points. In fact, this can be attributed to ignorance of relevant laws and regulations, because many drivers, being

stopped by a policeman and fined on the place of offence, consider the matter settled. They do not realize a report on offence has been written and sent to relevant authority to decide on assignation of penalty points depending on nature of the offence. For instance, in United Kingdom, any driver who committed a traffic offence that is subject to reporting, must hand over his/her driving licence to the policemen against temporary fine receipt and he/she must appear at the police station within 7 days. If, after assignment of points depending on nature of the offence, the total number of points does not exceed 12, the temporary fine will be changed into definitive, the number of penalty points will be registered in the data base and the driving licence will be returned to the driver. The penalty may be paid immediately or registered as imposed. We consider this practice as the extreme option.

**F) If imposed sanction has not been appropriately settled , a mechanism of enforcement is provided for**

As we have already said, our legislation allows efficient enforcement of imposed sanctions. More likely, the problems (if any) lie with the authorities which, due to lacking knowledge and personnel motivation, perform not as appropriate. The reasons of problems in the public administration sector and police in our country have already been described in detail: we believe that a dramatic improvement will not come before reorganisation of this sector after.

One remark in conclusion: A lot of traffic accidents have not only direct economic consequences but also indirect ones (obstruction of public transport, blocked motorways, railway tracks etc.) We recommend consequent enforcement of compensations of damage caused by drivers and/or their employers. This will be an important warning signal both for the public and business sector.

So far, we have been dealing with the issues of procedural nature, in following, we would like to propose recommendations for solution of the essential problems associated with road traffic safety. The following recommendations are new, not included in the already-mentioned national traffic safety strategy.

## **Recommendations related to essential problems in road traffic safety**

### *General, campaigns*

Periodic public opinion polls related to road traffic safety, public opinion on issues that should be dealt with. Comparison of the conclusions with those achieved in other countries (e.g. within the SARTRE Programme).

The Road Traffic Safety Council of the Government of the Czech Republic should be convened on regular basis, update of Council's members to allow regular essential and fundamental decisions being made on regular basis, aimed at increasing road traffic safety.

As far as road checks are concerned, relevant findings, conclusions from traffic accident investigations and the data should be rather disclosed (including names of severe offenders, e.g. drunk drivers) than kept secret and/or disparaged. Unlike current practice, i.e. influencing individual anonymous offenders, the proposed measure should influence wide public. Development of negative attitude of the society towards the offenders.

Consider disclosure of the names of those who have committed severe delicts (such as drunk driving, hit and run driving) on web sites open to public (in the USA, for instance, this measure has obviously positive impact on wide public).

Regular public opinion polls related to road traffic issues, particularly, road traffic safety, active utilization of the results.

### *Road traffic participant behaviour*

The following should be on focus:

- organisation of information and education courses for drivers who have committed offences to influence their approach to road traffic safety in an appropriate way,
- preparation of instructors, defining programmes of preparatory courses,
- introduction of traffic psychology tests for drivers who often offend traffic rules seriously and/or whose numbers of penalty points exceed set limit and examination whether or not their qualities are compatible with driving motor vehicles,

- development of principles for organisation of training courses, utilization of mass media, internet and other suitable tools (TV, broadcasting, outdoor),
- detailed familiarization of relevant authorities and officers with marketing approach to road traffic safety,
- increasing public awareness on the road traffic safety as one of human rights, thus influencing public administration and relevant stakeholders (e.g. motor vehicle manufacturers) towards investments into road traffic safety as one of the factors promoting economic development (cost – benefits),
- evaluation of the children and young people preparation system with focus on its suitability, appropriateness and consistency with modern principles as accepted within EU countries having low numbers of traffic casualties and fatalities <sup>z</sup>.

### *Vehicles*

The following should be on focus:

- awareness of freight carriers of direct relation between technical condition of vehicles and road traffic safety,
- increasing visibility of bikers (appropriate lights, reflector clothing), by way of information campaigns organised in regions with busy biker traffic,
- efficient monitoring of vehicle testing station performance by relevant authorities, severe sanctions for gross traffic rule offences.

### *Road network*

The following should be on focus:

- considering road traffic safety as crucial economic development factor when drawing national, regional and local road network development plans,
- increasing visibility of pedestrians by way of appropriate illumination of the places with busy pedestrian traffic, on pedestrian crossings etc.,
- consistent signage of places under technical maintenance and construction on the roads, using applicable legislation,
- plausibility of traffic signs for all road users, considering foreign drivers who do not speak Czech (e.g. more pictures on information plates instead of letterings etc.),
- utilization of all legislation tools to influence road owners and administrators to maintain the road network (e.g. using provisions of the Act no. 13/1997 Coll. as amended),

- transport engineering measures (traffic signs, road surface arrangements, e.g. transversal slow-down stripes at selected locations (near schools, pedestrian crossings) and, on the other hand, increasing speed limits (where possible), thus accelerating traffic fluency, increasing observance of the relevant regulations by drivers and public acceptance of sanctions imposed on traffic rule offenders,
- obligation of road administrators to restore original road condition after traffic accidents and emergency situations as soon as possible.

### *Legislation*

The following should be on focus (among other things):

- increasing responsible approach of physicians to prescription of drugs impairing the ability to drive motor vehicles,
- more intensive monitoring of road users, particularly from midnight to early morning (with focus on Saturdays and Sundays),
- establishment of traffic authorities (described in the section of this project dealing with final driver tests) and transfer of the agenda related to road safety to these authorities (this measure should be given absolute priority),
- considering measures aimed at increasing responsibility of legal entities for technical condition of their fleets.

Another areas of relevance:

#### **Seat belts and retaining systems**

Promotion of use of retaining systems and seat belts via promotion campaigns, stringent road checks and, last but not least, development of tools allowing to transfer the costs of medical care, in case of injury, to drivers/passengers not observing the compulsory use of specified retaining systems, even if the injured person has not directly caused the accident.

#### **Driving speed**

The following measures are recommended to increase observance of speed limits by the drivers:

- utilization of devices allowing automatic detection of drivers exceeding speed limits, accelerated administration procedure aimed at preclusion of car owner's right to conceal identity of the traffic offender,

- systematic monitoring of road sections allowing speed limit exceeding and places with increased risk of traffic accidents due to driving speed exceeding safe conditions by the Police of the Czech Republic and municipal (metropolitan) police (and elimination of speed monitoring at places where this risk is low – typically, such monitoring is aimed, primarily, at providing evidence of police activity and raising money by collection of fines),
- utilization of tachographs for monitoring speed limit observance, possibility of ex-post sanctions.

### **Alcohol**

According to the Evaluation of the Road Traffic Safety and Fluency Action Plan for 2006 issued by the Ministry of Interior of the Czech Republic, current legislation still does not accept records of calibrated and certified devices as relevant evidence in administrative and criminal proceedings, despite the fact, the expert study has proved the results of measurements made using most common alcohol breath testers used by the Czech Police and relevant alcohol blood level measurements made in medical centres were almost identical. In many European countries, these devices are accepted as relevant evidence and alcohol blood level measurements in medical centres is not necessary. We recommend performance of an expert study into this field and to implement these devices as soon as possible, if the study results will be positive.

Also, the police should be allowed to implement coercive measures against drivers defying alcohol/drug blood measurement.

The European Commission and European Council recommends setting the maximum alcohol blood level for drivers (0.5 per mille) and even more stringent limit (maximum 0.2 per mille) for specific risk groups of drivers (typically, novice drivers). Of course, this recommendation does not mean that countries that have already implemented more stringent values than recommended 0.5 per mille should mitigate their stringent limits: on the contrary, relevant authorities of Western EU member states appreciate our country (and almost all new EU members) have already implemented zero tolerance of alcohol while driving. On the other hand, relevant sources claim blood ethanol level  $0.003 \text{ g}\cdot\text{kg}^{-1}$  in individuals who have not consumed alcohol. Also, traces of alcohol can be found in various drinks and /or food, consequently, normal physiological alcohol blood level in human body ranges  $0.03 - 0.05 \text{ g}\cdot\text{kg}^{-1}$ .

As far as alcohol blood level identification accuracy of current laboratory methods is concerned, Forensic Medicine (published by Grada) claims alcohol blood levels below 0.2 per mille cannot be conclusively evidenced using gas chromatography, not speaking about possible measuring error and so called safety factor (the same publication suggests alcohol blood level of 0.3 per mille is irrelevant for driving safety). Consequently, if alcohol concentration in blood will be found at the road check using alcohol breath tester, the driver will be taken to laboratory blood test which, naturally, will be negative, given low level of alcohol concentration. The costs of laboratory blood test (amounting hundreds of Czech crowns) will be borne by the state, not speaking about time spent by the driver, policemen and laboratory staff. In order to increase significance of measures to avoid drunk driving, we recommend the maximum alcohol blood level of 0.2 per mille. **Considering all facts, we propose the following gradation:**

alcohol blood level (per mille)	Sanction
0.0 – 0.2	allowed limit (for all driver categories)
exceeding 0.2 – 0.5	high financial sanction + penalty points
exceeding 0.5 – 1.0	high financial sanction + penalty points + ban on driving
exceeding 1.0	criminal prosecution

We definitively do not recommend allowing higher blood alcohol level: As we have already documented (when speaking about the results of SARTRE 3 Programme) in the countries allowing higher alcohol blood level more drivers admit alcohol-impaired driving. Moreover, the Czech Republic even now ranks among the countries with the highest alcohol consumption per capita both in Europe and worldwide (not speaking about the fact, a large part of the Czech population does not regard beer drinking as consumption of alcoholics).

### *Sanctions for delicts*

The representatives of the Czech Republic participate in international (European) discussions aimed at development of binding principles for penalisation of offences caused by drivers abroad.

Utilization of the penalty point system for influencing drivers who were withdrawn their driving licences because of exceeding penalty point limit.

According to the Evaluation of the Road Traffic Safety and Fluency Action Plan for 2006<sup>44</sup>, issued by the Ministry of Interior of the Czech Republic, the most serious deficiencies of the new Road Traffic Act (in terms of wording and application) are as follows:

- failure of evidence in cases, where the driver – in accordance with applicable legislation - refuses to provide explanation (i.e. indicate identity of the offender),
- proportional relation between the sanction and level of danger for the society (both issues are discussed in the section of this material containing the proposals),
- ambiguous provisions in terms of ban on anti-radar use in road traffic.

### *First aid provision*

The following should be on focus (among other things):

- fundamental review of measures aimed at education of the population on first aid provision,
- development of the system informing traffic accident victims and their relatives on the options of social and professional reintegration.

### *Professional drivers*

The following should be on focus (among other things):

- systematic monitoring of observance of mandated rest times during truck and bus driving (connected with maximum acceleration of construction of truck lay-by areas),
- systematic monitoring of observance of the provision stipulated in the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), including correct vehicle identification.

## **Proposals for severe traffic offences**

In the preceding sections of this project, we were dealing with proposals related to legal institutes associated with the sanction and motivation system in road traffic safety. Recently, there have been attempts to change definitions of individual offences and relevant sanction. These changes were aimed at substantial improvement of public attitude to driving on motorways. Although we have repeatedly emphasized a complex approach to these issues as the only way to improve the situation on our roads in long-term perspective and, in conclu-

sion, we would like address the changes to specification of offences and relevant sanctions.

Additional information for those readers who are not familiar with the section of this material dealing with so called probationary driving licence: Before a person becomes a “regular“, driver, he/she will have to pass through several filters to exclude individuals constituting risk from driving:

### **Filing application for admission to driving school training**

Based on data in applicant’s medical record, the relevant physician will decide whether the applicant is able of driving (additional documentation may be sought) . For details please refer to the section describing novice driver training). At this stage, obviously unable individuals will be eliminated.



### **Training**

Sooner or later, any individual constituting risk will terminate the training prior to final test. At this stage, the individuals intellectually below the lower limit, with insufficient moral and volitional qualities will be eliminated (it is not impossible that later on, when personally mature, these persons may be admitted to training and tests)



### **Final test**

Repeated failure at the final test will lead to elimination of the person who failed from the scope of those eligible for receiving driving licence (or category). These issues were discussed in the section dealing with novice driver training. Frequently, the persons of (at least) average intellectual level, however lacking motoric ability of driving and unable to cope with current traffic situations under psychic stress will fail at this stage.



### **Probation period after receiving of the first driving licence (category A, B) – so called probationary driving licence**

As a rule, these persons will be able to complete specified training and the final test, however, predetermined by their nature, for committing delicts incompatible with driving career

(even if such person will hold back in the presence of the driving instructor and/or examiner). It should be pointed out that – if the driving licence a novice driver will be suspended due to his/her offence(s) of law during the probationary period – this cannot be attributed to ignorance of relevant traffic rules, but rather to personal problem of his/her own.



**Permanent and efficient surveillance over traffic safety and observance or relevant laws and regulations**

will be the last (and permanent) filter. If the driving licence will be withdrawn at this stage, this must be attributed to personal problems (gross negligence of applicable legislation or basic knowledge of driving a motor vehicle can hardly be anticipated) or unilateral event (traffic accident)

**It follows, that any person who has been withdrawn his/her driving licence must appear to an interview with a psychologist, insisting on attendance of re-training in traffic rules alone is not efficient. As a rule, received penalty points will be deleted periodically – not only in the Czech Republic (err is human, any personally mature driver will be able to redeem oneself – which confirms the saying “time heals all“). Apart from this, any person eligible for obtaining the driving licence and successful passing through the probationary period will be able to recognize his/her driving competence (knowledge of relevant laws and regulations, driving ability etc.) are not as good as required and, consequently, he/she will seek re-training (as a rule, in a certified driving school meeting necessary standards). We strongly disapprove any obligation (and even possibility) to attend re-training in the driving school, after which specific number penalty points received for offence of traffic rules would be deleted, since this practice leads to issuing certificates for those who, actually, have not attended re-training (as documented by our experience in compulsory professional driver training).**

We would like to emphasize that penalty points are given, in most cases, to drivers exceeding speed limits, failing to switch on the lights, not using seat belts, using cell telephones while driving (not applicable for hands free sets), consume alcohol before driving, i.e. commit offences they are fully aware of. Therefore, they do not need attend re-training courses in driving schools and similar establishments because they must have been aware of the delict being committed. **The only efficient solution would be obligation of the offenders to undergo**

**psychological examination and interview with a psychologist (ideally one relevant for traffic issues), thus preventing individuals with inappropriate personal patterns from driving and/or initiating relevant therapy for those with diagnosed diseases.**

**To summarize, it is essential to insist on psychological examination and (where necessary) on psychotherapeutical interview to decide upon further proceeding.** The results can be as follows

- mentally able individual obliged to undergo examination within one year,
- mentally unable to drive vehicles of some categories ( D, C, E) or conditionally able (e.g. for inland transport only), recommended to undergo the examination within set period of time, if he/she will regain the driving licence (e.g. after three-years' time ),
- mentally unable to drive vehicles of all categories, recommended to undergo the examination, if he/she will regain the driving licence (e.g. after three-years' time).

In case of a negative conclusion, the time could be reduced:

- by training in a transport therapeutic group, with following examination by psychologist specialised in road traffic.

As mentioned above, it is not impossible that later on, when personally mature and having undergone specified psychologic tests, a person will be able to drive motor vehicles of specific category. In this event, the person would have to complete the full-scope final test, without attending a new training (the reason is - in this particular case – the interruption in driving (minimum three years); the completion of the test will only confirm person's ability to drive). We do not consider appropriate to mandate compulsory training in an accredited driving school prior to the test above, on the other hand, the law must allow theoretical or practical training as mentioned in the preceding sentence, upon individual request. After passing the test, a new probationary period will start.

Relevant traffic authority should be responsible for administration processes related to training.

Drivers with driving ban should undergo examination by traffic psychologist after expiration of the probationary period in the following cases:

- alcohol blood level has been exceeded (above 1 per mille),
- drug impairment (the relevant drugs and their blood concentration will have to be specified),
- refusal to undergo alcohol/drug blood level examination by the driver,
- driving without driving licence of appropriate category (primarily, in the event of an obvious discrepancy between the relevant driving licence category and the motor vehicle),
- traffic accident involving heavy/fatal injury,
- reaching the number of penalty points for imposing ban on driving,
- ban on driving imposed by the court (in this case, the obligation to undergo a psychological test could be considered),
- danger to traffic (not only road traffic, but also railway or other) as a result of severe traffic offence and reckless behaviour (however, we strongly recommend **distinguishing these offences from cases of common negligence attributable to physical capacities and/or density of today's traffic**).

**Furthermore, we recommend tougher sanctions for following offences :**

Imposition of penalty points for:

- Inappropriate driving speed at roads with warning signs and/or places constituting obvious risk, at reduced visibility (visible field shorter than 50 m), reduced road holding of tires, nonobservance of adequate distance from the vehicle in front, if shorter than 0.5 of the value indicated on speedometer in km/h: This is a common evil on Czech roads and we recommend that it is sanctioned more consequently, yet objectively ( the proposed value has been taken over from German legislation). Obviously, the minimum distance as proposed hereinabove is not too stringent and we believe the enactment of this limit will increase the attention of drivers in this respect.
- Not permitted overtaking in right-hand lane, particularly outside urban areas or on motorways. A comparatively common however fairly dangerous delict.
- Overtaking at a speed not substantially higher than that of the overtaken vehicle (taken over from German penalty catalogue). A big problem, particularly on Czech motorways. The minimum speed difference of both vehicles should be 5 km/h.

- Danger to the motor vehicle with right of way. A comparatively common delict, particularly in urban areas.
- Danger to passengers getting off from means of public transport and/or standing on signed stops, inappropriate seating/fixing of load involving danger to other traffic participants.
- Danger to pedestrians in housing area/ pedestrian zones.
- Road works carried out without permission and/or failure to comply with the restrictions defined in the permission. Pretty normal on Czech roads, inappropriate signage of the place of construction works is the least evil.
- Nonobservance of specified vehicle tests (sanctions against driver/vehicle owner), parking vehicles out of operation or without licence plate on roads.
- Danger to traffic (not only road traffic, but also railway or other) as a result of severe traffic offence and reckless behaviour (we recommend sanctions incl. imposing ban on driving in this case).

#### *Sanctions against freight carriers*

Unfortunately, professional drivers (in most cases, truck and bus drivers) are often urged to commit severe offences by the employer, with the driver being indicated as the offender in case of detection. Of course, the driver is in subordinated position and in case of protest he would be dismissed. We propose motivation of the employers to participate in settlement of the fine in such case (see below). (The amount of the fine to be paid by the driver and by the employer should be defined in relevant regulations). Parallely, the criteria for professional driver selection by the employers should be more tough which, undoubtedly, would eliminate individuals constituting risk and to increase road traffic safety. The same principles have been implemented in Germany.

Traffic offences with employer's participation in settlement of imposed sanctions:

- permission or order to drive in spite of driver's inability to drive the motor vehicle independently/ the vehicle was in bad technical condition (obviously constituting danger to other traffic participants),
- lack of vehicle/driver documentation or third-party liability insurance,
- violation of internationally applicable rules (allowed motor vehicle length, mandated rest times etc.),

- violation of provisions related to minimum driver's age,
- failures in vehicle operation records, incl. records on driving and rest time,
- violation of the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

This specification constitutes an entirely new approach to these issues in the Czech Republic. The offences with employer's participation in settlement of imposed sanctions as specified hereinabove are for guidance only. In case of enactment, these issues will be dealt with in more detail.

**On the contrary, we recommend mitigation of the sanctions imposed for the following offences:**

- exceeding speed limit (indicated on traffic sign or defined in relevant law) by maximum 10 km/h (we recommend only financial sanction, no penalty points or ban on driving – see relevant text on vehicle speed not exceeding safe conditions for more details),
- alcohol blood level not exceeding 0.2 per mille (considering impossibility of objective evidence of alcohol blood level below 0.2 per mille, we recommend imposition of no sanctions, on the other hand, we strongly recommend a national-wide campaign explaining this measure if this proposal will be enacted; it should not be construed as increased tolerance of alcohol-impaired driving,
- failure to switch on dimension, dipped and/or day lights while driving, if fitted on the motor vehicle (so called day light, as specified in § 32 section 1 of the Act o. 361/2000 Coll. as amended) – we recommend only financial sanction.

**Closing remarks**

We recommend reviewing the maximum duration of the ban on driving as specified in the Act above. In recent time, the countries with positive development in transport accidents and their consequences tend to shortening of this ban.. The shorter ban on driving will be a high motivation factor for new drivers and will not have adverse impact on their lives and /or professional careers. Typically, this time should range 1 – 6 months. The authors of this project endorse and recommends implementation of this provision in our country.

Time and again, imposing penalty points for holding in hand a cell telephone or other voice recording device while driving has been discussed. It should be pointed out that it is not holding in hand or operation of these device while driving that constitutes the biggest hazard, but rather concentration of the driver on the conversation instead on driving, irrespective the hands free set is fitted in the vehicle or not (according to a British study, telephoning while driving will increase traffic accident risk four times). Hence, we do not recommend mitigation of sanctions for using of the devices above while driving, on the contrary, use of hands free set should be denounced as necessary evil.

The text of the Road Traffic Act does not contain definition of the term “fog“. According to the definition of the Czech Hydrometeorological Institute (as taken over from the World Meteorological Organisation in Geneva), **“the fog means circumstances where the visibility will be reduced to a distance of less than 1 km, due to presence of water spray“**. The situation, where the visibility ranges 1 – 10 km is termed “haze“ and the visibility exceeding 10 km, is termed “mist“. Of course, this definition is not appropriate for traffic safety purposes, therefore, we suggest to define the “fog“ as a distance of visibility shorter than 50 meters.

Another issue is the radar detector and the sanctions associated with its use in motor vehicles. Generally, the attitude to use of radar detectors is extremely negative in Europe (these devices must not be fitted and used in motor vehicles, the reasons are clear). The Czech legislation should adopt the same position.

Many drivers do not know they have been imposed penalty points, typically on road checks, where the offence is discussed between the police and the driver and recognized as committed, however, the driver is not aware of the fact he/she has been given penalty points, in addition to the fine. Of course, any driver should know relevant laws and, consequently, ignorance of a law is not an apology. On the other hand, the Czech system of law is extremely extensive and fragmented and subject to ongoing changes. Consequently, it is difficult to understand it even for professional lawyers. We recommend implementation of measures allowing any driver to receive information on his/her penalty points. There are various options how to do it: sending a warning letter, as in many European countries (see the section dealing with motivation and sanctions in EU15 countries), which would have both informative and preventive effect. Another option would be on-spot acceptance of the sanction by the

driver and issuing the information on imposed penalty points in writing. (This information will be a simple operation and can be performed by any police officer). This procedure would have both informative and education effect because the sanction will be imposed immediately after the offence, with extremely low administrative costs.

In our opinion, the preceding subparagraph provides solutions for another pressing problem, easy and instant access of every driver to his/her penalty score. If the driver will be informed on the offences he/she committed and the number of penalty points on the spot (and/or after effective date of the decision, if the offence has been referred to relevant transport authority), the access into the data base will not be necessary. However, this procedure can arouse some problems, e.g. ongoing data base update as well as potential hacker attacks.

To summarize, we recommend consideration of the issues associated with current penalty point system (increased limit for withdrawal of driving licence to 18 points, reduction of penalty point number – if no traffic offence was committed in the relevant year – from 4 to 6 points).

## **Education of children and young people for road traffic safety in the Czech Republic (in European context )**

Despite long-term efforts implemented by central authorities of the Czech Republic, the number of traffic accidents and their consequences (fatalities and casualties) is too high, compared with EU 15, and so is the material damage resulting from traffic accidents (approx. 1.7 billion EUR in 2004).

The research study Sustainable Comprehensive Driver Training System and Motivators of Road Traffic Regulations (known abroad as the TWIST Project (Transport with Sense and Tact, [www.project-twist.cz](http://www.project-twist.cz)) sponsored by the Ministry of Transport of the Czech Republic in 2005 – 2007 is aimed at development of an entirely new long-term principles providing base for initial training of new drivers and periodic (refreshment) training of specific categories of professional drivers in a new economic and social environment after 1989. Within the framework of this project, the situation in training and education of drivers is analysed and compared with existing sanction and general prevention systems in EU 15 to obtain new and objective results.

The primary result of the project will be the concept of driver training system in the Czech Republic in compliance with recent development trends in the most advanced EU member states. The secondary result will be a detailed (not existing so far) overview of driver training systems in EU countries, periodic training of specific categories of professional drivers, sanction systems, public administration systems and national prevention programmes. Another secondary result will be identification of the connection between individual sanction and prevention systems and detailed road accident statistical analyses (so far, these analyses have not been made in EU).

Undoubtedly, general prevention (focused, primarily, on children and young people) is essential for traffic safety. The objective of the following overview is to become familiar with key-points and general principles of the prevention activities and current situation in various EU countries. At the end, we are giving essential recommendations (based on ROSE-25 study) for development of the relevant model.

## **RSE responsibility on the central level**

Currently, the RSE (Road Safety Education targeted at Young People) is within the scope of responsibility of the Ministry of Transport of the Czech Republic, assigning relevant tasks to regional and local authorities within the public administration sector.

The direct responsibility for RSE in regions lies with BESIP officers (BESIP is one of the departments of the Ministry of Transport and is responsible for prevention in the area of road traffic safety. BESIP department pursues prevention activities focused on wide public, by way of national-wide campaigns, education and dissipation of information on good practices in this sector. BESIP department cooperates closely with other central authorities in public administration sector in transport accident prevention, organizing prevention actions in regions, districts and municipalities through regional officers). The officers are liable for education activities at schools within relevant regions. Their position is rather “schizophrenic“ since, in terms of methodology, they are accountable to the MINISTRY OF TRANSPORT, however, their labour law position is not clearly defined and, consequently, their position when negotiating with schools and authorities within relevant region is somewhat difficult.

### *Basically, there are two options:*

Maintain regional officers, with focus on cooperation with schools and young people. However, the optimal solution would be their incorporation into the education sector (Ministry of Education) and regional education authorities, thus guaranteeing relevant competences of the BESIP officers. The whole BESIP agenda should be transferred to the Ministry of Education which would exert its influence on schools via regional authorities and BESIP officers. The influence would be increased by binding and efficient education programmes that must be developed (set number of hours per year in elementary and secondary schools, nursery schools, all based on relevant legislations and obligatory education in RSE).

The other option is to extend the competence of existing regional BESIP officers. They would be charged with monitoring tasks related to traffic safety, number of accidents in the region and they will put forward solutions (current road condition, road construction plans, transport sign installation, transport schemes) in cooperation with police and transport authorities. They will also cooperate with driving schools, major freight carriers (participation in training in connection with incorporation of the Directive 2003/59/EC of European Parliament and

Council in Czech law), with primary focus on RSE issues. According to this option, they should be accountable to the Ministry of Transport, however, their labour position remains to be a question (employees of the MINISTRY OF TRANSPORT operating in individual regions or accountable to departments of transport of the relevant Regional Authority. Another organisation is purely speculative.

### **Entities liable for education programmes**

Currently, the Ministry of Transport, in future, it would depend on the subject to which RSE sector will be assigned (Ministry of Transport or Ministry of Education).

### **Scope of education (preschool, elementary schools, secondary schools)**

Currently, all three types of schools are involved. Stronger focus should be on nursery schools, second stages of elementary schools and, primarily, on secondary schools (as already mentioned, the position of RSE within the education system should be stipulated by law, minimum education programmes and compulsory number of hours of education should be specified after this decision).

### **Teachers**

The education is performed, primarily, by the teachers of relevant specializations (this practice is OK). It should be specified who will be eligible to teach and also the level of teacher's qualification; school management and the teachers should be aware of the importance of RSE. In this context, the role of the regional BESIP officer is essential, the police, trade unions and municipal transport departments should be appropriately involved in the education process. The participation of driving schools seems not to be adequate and, in near future, it is a question whether it would be a plus. The considerations above suggest incorporation of the RSE into the education sector (Ministry of Education).

### **Teacher qualification&preparation**

Optimally, the preparation for education in RSE should be incorporated in study programmes of pedagogic schools and faculties, however, this option seems to be highly improbable. The RSE teachers at schools should be selected depending on their ability and interest in this sector; regional BESIP officers should be involved in the teacher selection process.

The selected teacher will complete initial training and regular periodic training session (in cooperation with regional BESIP officer).

It is not clear who will be responsible for qualification of regional BESIP officer: obviously, the officer of the relevant ministry in charge for methodology.

### **Theoretical and practical education (traffic education playgrounds)**

It is essential to review the existing education programmes and recommendations (update, approximation of the programmes closer to actual needs). Theoretical a practical education must be balanced, however, practical training should be preferred (this is particularly true for younger children), no unnecessary academization. Adequate audiovisual means are essential for theoretical education, practical education should take place on traffic education playgrounds (property rights related to these fields should be clearly regulated - regional authorities?), who will be liable for their maintenance (special administrator?), management (regional BESIP officer). Apart from these facilities, everyday road traffic situations should be utilized for education of children on correct behaviour (nursery walks, class excursions and more) instead on passive training on traffic education playgrounds).

### **Number of traffic education hours (monthly, annually)**

In no European country, the number of traffic education hours is sufficient (optimally, 10 – 20 hours/year). The question remains, whether the RSE should be separate subject of education or incorporated in other subject (then, specialist trained in RSE would not be necessary at schools). We recommend allocation of constant annual amount of hours for individual classes of age, extended ad hoc to deal with current issues..

### **Teaching aids, programmes**

There are many options of illustration of RSE issues today. RSE should be explained in and interesting way, using multimedia and suitable software ( PC games). Special websites (administered by the Ministry of Education could be established.

### **Development and distribution of teaching aids**

There are many authors and potential producers of teaching aids in the Czech Republic, it is necessary to make appropriate selection (based on experience available ). Small teaching aids

should be utilized nationwide (based on binding programmes - this is the only way how to provide for quality and low costs in the – comparatively small – Czech market). A central authority should be appointed to place the orders and to negotiate with partners. This authority will be liable for evaluation of teaching aid compliance with the concept and RSE education programmes implemented at schools. The education should also cover regional issues, including relevant teaching aids and the teachers should be allowed to use specific aids, based on his/her professional consideration.

## **Funding**

The only sustainable (in long-term perspective) financing option for the entire system are central funds. Optimally, the necessary funds should be earmarked specifically for this purpose (instead of redistribution of funds allocated for the whole sector). This method will prevent any deterioration or impairment of the RSE education system. Naturally, sponsoring by entrepreneurs will also be of assistance (on regional and/or central level, via direct funding, provision of time in broadcasting, TV and more).

## **Parent involvement**

So far, the emphasis in RSE sector has been put on central role of schools, however, the role of parents should not be underestimated. There is a huge potential in this area and the influence of parents could dramatically reduce traffic accidents involving children and young people. Also, the parents can assume the role of teachers. The parents can be influenced by well-focused nationwide actions (promotion campaigns, education materials distributed to scholars (e.g. to abecedarians)). Everyday cooperation within regions and schools would be ideal (direct focus, no anonymity). These issues are fairly extensive and have not be addressed nationwide. In near future, they should be dealt with in more detail.

## **Participation of other organisations (police, local authorities, sponsors etc.)**

The teachers (and the scholars) should be primarily on focus, when dealing with RSE issues, however, other entities should not be neglected, because they, too, can improve and animate the education (e.g. local traffic and municipal police departments, transport authorities, red Cross, freight carriers, public passenger transport providers, importers, car and truck dealers

and more). Apart from the effects above, the involvement of these entities would increase significance of RSE and facilitate contacts within the region.

## **Mass media, programmes**

The cooperation with mass media should be based on new marketing approaches. Central authorities should be liable for presentation in central media, regional and district authorities should be liable for medialization in their territories. There are many suitable media and also topics to medialize. Current situation in this sector in the Czech Republic features high level of fragmentation and lack of competence. The central authorities should seek cooperation with appropriate consulting companies, at least at the initial stage of medialization.

## **Key- recommendations for all EU member states:**

- focus on parents of pupils and on teenagers,
- training and education of the teaching staff,
- ongoing improvement of already introduced essential activities,
- stronger involvement of the authorities,
- holistic approach to the issues,
- respect towards other people, the community and environment when dealing with RSE issues,
- higher financial support of school-based and after-school RSE activities, allocation of funds for RSE needs (and also road traffic safety).

## **The most successful (ideal) RSE model in the Czech Republic:**

- the road traffic safety policy should be defined by the Ministry of Transport (Ministry of Interior), education programmes will be prepared by the Ministry of Education,
- relevant officer of regional school authority shall be liable for school-based activities, relevant officer of the regional transport authority shall be liable for road traffic safety issues,
- in the national budget, an amount for RSE supporting activities at schools as well as for after-school activities should be set aside,
- specification of RSE scope and volume at different types of schools (nursery, elementary, secondary), periodic tests of children and young people in road traffic safety,
- facilities necessary for RSE theory and practice (traffic education playgrounds etc.),

- adequately trained instructors at schools, involvement of traffic police and transport authority officers trained in teaching methods,
- participation of other organisations (Red Cross, autoclubs, car importers) in after-school activities, coordinated by traffic authority officer in charge for road traffic safety and representative of the regional education authority in charge for road traffic safety,
- parent involvement and participation,
- availability of modern education materials (incl. multi media programmes) and web sites,
- extensive participation of the major media (cooperation with the ministry responsible for traffic safety) cooperation of media, transport authorities and schools on local level .

# **Proposal of new principles for preparing the population in the area of providing first aid**

## **Introduction**

The inadequacy of the Czech population's present orientation in the fundamentals of providing first aid is no secret. There is no uniform conception of instruction in this area, right from the training of elementary school pupils. The rapid technological development of our society, the increased volume of traffic both on highways and for other modes of transportation, the real increase of the threat of a major industrial disaster and, last but not least, international political events (the threat of terrorist attacks) necessarily require the incorporation in the near future of first aid for laypersons in school curricula. It is furthermore necessary to ensure the familiarity of the adult population or of certain specific groups of that population with appropriate principles, and at the same time it is necessary to ensure the real preparedness of the population also to deal with the broader emergency circumstances that may occur in connection with crisis situations.

If we consider the target group of the population on which the development of a conception for education in the area of providing of first aid by laypersons focuses, we conclude that this typically involves individuals aged 18 and up (in exceptional cases, ages 15 to 17 in connection with obtaining a driver's license for certain categories of motorcycles and tractors).

## **The Present Situation**

It can be asserted without any doubt that the level of knowledge and skill of the Czech population is totally inadequate among those who have not had professional medical training (and by no means is even that any guarantee that first aid at the scene of an accident will be administered effectively). It was stated in the introduction that with the development of modern technology, there is an ever increasing danger of major accidents connected with a large number of injuries (or even deaths). Furthermore, in connection with international political events, the real threat is growing that our region may be subject to terrorist attacks. Last but not least, many persons are injured or killed each year in connection with the performance of their jobs, leisure activities and, of course, in transportation accidents, especially on highways.

For example, in 2002 in the Czech Republic ca. 34 500 people suffered more or less serious injuries in traffic accidents, while during the same year, the number of newly reported cases

of incapacity to work because of work-related injuries was ca. 91 000, with other injuries numbering ca. 165 000, for a total of ca. 256 000 injured persons out of a grand total of ca. 4 500 000 insured individuals. If we double the figure for the total number of injuries reported for the purpose of work disability claims, we would arrive at a ratio of 34 500 persons injured in traffic accidents per 512 000 total injured persons out of a population of ca. 10 million (the entire population of the Czech Republic). Traffic injuries thus account for ca. 7 % of the total number of injuries reported for work disability claims. In spite of the oversimplified calculations and a certain degree of irrelevance of the input data, the stated conclusions are confirmed by the notorious fact that the application of the principles of first aid by laypersons tends to occur within the circles of closely related persons or at the workplace. We should note that the ratio of administering of first aid by laypersons for incidents other than traffic accidents would be even greater if we were to include acute, life-threatening conditions not caused by an injury mechanism (acute cardiovascular events, poisoning in the household etc.).

If we consider the annual economic impact of highway traffic accidents, as an illustration it is sufficient to state that the direct and indirect costs connected with the killing of an individual are in the millions<sup>3</sup> (the indirect cost given by the loss of production of the killed person is ca. CZK 8 700 000 estimated on the basis of data from CDV Brno). If we assume that each year on Czech highways there are ca. 1 000 deaths and if we accept the opinion of certain experts that effective first aid administered by laypersons could save up to 30 % of those lives, the expected savings for society as a whole could be as high as 2.6 billion crowns.

In 2005 the Czech Republic had ca. 10 251 000 registered residents, ca. 1 501 000 of whom were ages 0 to 14, and in the same year there were 6 432 502 registered drivers in the Czech Republic. Therefore, ca. 1.5 million individuals (i.e. ca. 1/7 of the population) are of an age when they are attending organized, mostly required schooling (except for the youngest group aged 0 to 3, but including the majority of those aged 4 to 6), so it is possible to educate them in this matter at a certain level appropriate to their age.

Of the remaining ca. 8.7 million people, ca. 6.4 million (or nearly 75 % of the population aged 15 and up) have some sort of driver's license – at first glance, it is obvious that if a person preparing for a driver's test is required to prepare in the area of providing first aid as a layperson, such training could be conceived not only for treating injuries on highways, but could also be an opportunity to train a large portion of the population to provide emergency assis-

tance at any time and anywhere that an emergency of any kind threatens lives and health. As has been envisioned in the previous text, the widespread training of the population in the principles of the effective provision of first aid as laypersons is justifiable.

## **The Proposed Concept**

In case of the realization of the aforementioned concept, three possible methods of first aid training for laypersons may be defined:

- a) **elementary school pupils** – required training provided during a single school year (perhaps years 5 through 7, since a certain minimum level of personal maturity is needed). The fundamentals will be the ability to recognize basic, life-threatening conditions, to secure the basic life functions and to call for professional assistance or at least the help of an adult. By inclusion in the curriculum of elementary schools, basically 100 % of the population will be familiarized with the material.
- b) **driving school students** – in view of what has been stated above, this would actually involve a sort of basic course provided to the **general public**, in light of the fact that the participants will be from all possible social classes of the population (and since driving school students will be involved, the minimum required level of intellectual, volitive maturity will be assured), the contents and length of the course will have to be chosen so as to attain the goal and purpose of providing the course, while providing skills that are really useful (this may not involve highly sophisticated knowledge, since for most individuals it would make the course basically incomprehensible, and the result would tend to be demotivational).
- c) **certain professions** that involve the increased likelihood of the need to provide or organize first aid by laypersons (e.g. the Police of the Czech Republic, municipal police forces, firefighters, railway employees, workers in dangerous facilities) – this involves a certain extension of the framework in comparison with point b).

In view of the topic dealt with by our project, we are working on breaking down the problems for the area of training the population within the framework of their completion of preparations for earning a driver's license:

1. Selection of the Expert Guarantor of Healthcare Training.
2. Revision of Old and Proposal of New Content of Training.
3. Change of the Scope of Training.

4. Proposal of a More Appropriate and Effective Method of Training.
5. Setting of Clear Criteria for Completion of Healthcare Training.
6. Proposal for the New Contents of Automobile First Aid Kits.

## **Selection of the Expert Guarantor of Healthcare Training**

Since this involves a course provided to the present or future pupils of driving schools, participation will be paid for by the individual (i.e. the purpose of the payment will be to cover costs for providing the course, not for generating profits; this would apparently be handled on a basis similar to a nonprofit organization). The majority of the population (nearly 75 %, as stated above) would thereby receive training for the reasons stated above, and at the same time, payment would be voluntary (the question would not arise as to why to pay individually for something that is actually in the interest of all of society). Then, of course, it need not be a problem to determine an appropriate service provider, since the activities would not be paid for from its (generally fixed and usually limited) budget, and to the contrary would at least recover the bare costs.

Next to consider is who would be an appropriate service provider both for expertise and for organizational matters.

Possible solutions:

- Leave organization of instruction up to driving schools using external teachers from regional Emergency Medical Services (EMS).  
In view of the purpose of the training, it definitely should not be left up to the driving schools (driving school instructors lack personal expert qualifications, and everything would slide back into being a traditional formality, often even with undisguised cheating).
- Leave all organization of instruction and the instruction itself up to regional EMS.  
One possible solution, but its weakness is the fact that the number of individuals who could serve as training instructors is very limited, and this could be a threat to the quality of the service provided.
- Create another organization, e.g. "Instruction Center for Driver School Healthcare Training," which would use EMS personnel as external instructors and would itself organize the training.

In view of what has been stated above, this would instead be a Instruction Center for Healthcare Training (and not just for driving schools). In view of the expected number of students per year, this solution is one of the favorites for further consideration.

- Leave organization up to the Czech Red Cross (CzRC), which would use EMS workers as external instructors. It can be asserted that this could be the ideal solution (that organization has long-term experience with the activity in question, and it could be the guarantor of training at schools in accordance with point a) above. Last but not least, for the training under point c), CzRC could not only secure the relevant training, but also provide long-term monitoring of the effectiveness of the services provided and initiate proposals for changes, if any, to the methods, contents, hours of instruction and personnel.

If we consider how realistic it would be to secure organization of the relevant training of driver's license applicants, we come to the following conclusion:

For 2005, ca. 46 500 new driver's license applicants were tested, of whom ca. 41 500 would be under consideration annually for basic first aid training (pupils in courses for expansion of driver's license authorization are not being considered. The assumption is that if a pupil will be expanding his/her driver's license authorization, previous training will be valid for a period of 5 years). Thus:

41 500 persons = ca. 4 000 groups of 10 – 15 pupils.

1 group = 8 hours of instruction, so  $4\,000 \times 8 = 32\,000$  total hours of instruction.

1 full-time worker working ca. 168 hours/month x 10.5 months/year (12 months - 4 weeks of holiday leave - 1 week of state holidays - 1 week of sick leave) = ca. 1 750 hours/year.

Total number of needed full-time workers =  $32\,000/1\,750 = 19$  individuals for the entire Czech Republic (i.e. 14 regions), or ca. 1.5 workers per region – **it can be asserted that the proposed method of providing training for driver's license courses is realistic.**

As far as financial and material support are concerned, it should be added that the driving school pupils will pay for the entire training themselves, so there arises no need for state financing or subsidies (during the introductory stage, it would be possible to use the existing aids owned by CzRC centers, as well as existing CzRC facilities).

## **Revision of Old and Proposal of New Content of Training**

The currently valid version of Transportation Ministry Decree No. 167 establishes in §4 the contents and scope of training for obtaining a driver's license. It covers the following topics:

- prevention of traffic accidents caused by health reasons,
- general principles of action in case of traffic accidents,
- principles of first aid and providing first aid for individual injured persons,
- conditions immediately endangering life,
- possibilities and methods of using individual medical aids in vehicle first aid kits.

We propose the following topics:

- car accidents, vehicular speed and seriousness of injury, most common mechanisms of injuries, importance of using safety belts, general principles of action in case of traffic accidents,
- principles of first aid, communication with EMS dispatchers, safety for the rescuer and rescued person, freeing an injured person from a vehicle, positioning the injured person and evacuation,
- stopping of bleeding, pressure points, pressure bandage, tourniquet. Shock in its most basic form and principles of treatment,
- fractures, symptoms, moving injured persons, using improvised splints,
- basic life functions, their evaluation and cardiopulmonary resuscitation when functions fail. Selected life-threatening conditions,
- possibilities and methods of using individual medical aids in vehicle first aid kits.

## **Change of the Scope of Training**

The decree sets the scope of training at 2 hours of theory and 4 hours of practical training. We propose expanding the total time of training to 8 hours, with a majority of practical training, i.e. 3 hours of theory and 5 hours of practical training.

## **Proposal of a More Appropriate and Effective Method of Training**

During training, emphasize practical knowledge and skill. If a driver is supposed to deal with the situation of saving a life, during training he/she must master the principles of moving injured persons, freeing them from an automobile, the principles of clearing the breathing pas-

sages, treating of life-threatening bleeding, principles and actual experience at cardiopulmonary resuscitation and use of the automobile first aid kit.

## **Setting of Clear Criteria for Completion of Healthcare Training**

Theoretical knowledge can be tested by a written examination. Create clear criteria for evaluation. Practical skill should be tested for each individual. To complete the course successfully, the pupil must pass both parts of the exam. Upon successful completion of the course, issue a graduation certificate valid for 5 years – that period of validity would apply for applicants training to earn expanded driver's license authorization – if the individual in question were to undergo a further test (1<sup>st</sup> testing) after more than 5 years since having successfully completed a first aid training course, he/she would be required to take a supplementary training course with a proposed duration of 4 hours (2 hours of theory + 2 hours of practical training). At the same time, the five-year term corresponds to the term for periodic training of certain groups of drivers in accordance with Directive 2003/59/EC of the European Parliament and Council on the initial qualification and periodic training of drivers.

## **Proposal for the New Contents of Automobile First Aid Kits**

Above all, automobile first aid kits must contain a sufficient quantity of high-quality dressing material for the stopping of bleeding, especially for making a pressure bandage (including a triangular bandage), a functional tourniquet of sufficient width, a good pair of scissors (for cutting strips), a good-quality resuscitation tube, rubber gloves, an adhesive plaster, a safety pin and a simple, comprehensible and long-lasting users' manual – ideally in the form of pictures with brief captions. The inclusion of a PVC tube for treating a collapsed lung in the required contents of an automobile first aid kit is controversial (in principle we do not recommend this, since laypersons have difficulty recognizing a collapsed lung).

We would add that the contents of the first aid kits are not subject to any binding international norms or agreements, so their contents can be determined pragmatically on the basis of long-term observations in practice.

## **Conclusion**

In conclusion it is necessary to state that the proposed plan would allow for the training of the majority of the population in the principles of providing first aid in a scope and manner ap-

appropriate for the lay public, while at the same time permitting effective treatment at the site of a life-threatening medical emergency until the arrival of professional medical assistance. The entire proposal is guided by an attempt to achieve the maximum results by the most efficient, economic means. Implementation of the plan would not cost the state anything, while on the other hand one may expect an annual positive economic impact on the order of at least a billion crowns. It should be added that the stated plan would be unique worldwide.

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