

**16522R**

## HARMONISED REGISTER OF TRAIN DRIVERS

# Final Report

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# **1. Executive summary**

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## **1.1 This document**

This document represents the Final Report in accordance with the requirements of contract TREN/05/ST/S07.55554; a study entitled "Harmonised Register of Train Drivers". The report describes the work carried out by the contractor in accordance with the requirements set out in Annexe I of the contract (which defines the work required). (see Appendix E).

## **1.2 Inventory of existing systems**

Questionnaires were sent to all railway organisations likely to be involved with the Licence and Certification system. Replies were received from the vast majority of EU states. The detail of the replies varied but enough detail was available to be able to draw out common strands.

Every state which replied had a system at least to ensure medical examinations were held and their results recorded. Every employer likewise had a system to ensure basic staff records were held, names, date of birth, home address etc. Most employers, but not all, kept records of traction and infrastructure knowledge. In some cases the lack of records simply pointed to the fact that their traction is so standardised that every driver is competent on all the rolling stock. Most railway undertakings kept medical records separate from competence records, although a few regarded vision and hearing as being essential to the driver management system itself.

Bigger railways tended to have comprehensive personnel management systems, the smaller railways bespoke systems, sometimes at depot level, to manage drivers.

There was clear evidence that the task of managing and recording staff competence was taken very seriously and clear evidence that whilst no state or railway completely fulfilled the requirements of the Directive, none were very far away from it.

## **1.3 Identification of best practice**

The questionnaires were valuable in identifying areas in which the detail of the data presents an issue (in how much detail to hold data for example) and in indicating the areas in which it is difficult to keep records up to date. Additional remarks helpfully volunteered by respondents also indicated areas of particular difficulty (with the initial creation of the data registers for example). However, since no single state or railway undertaking had a register which fully complied with the Directive, the design of the register also had to rely on the consultants making a fundamental analysis of the requirements of the Directive.

In addition the consultants asked representative groups from the rail industry for their views and spoke to organisations operating registers for other modes. The consultants took account of suggestions and advice from these organisations when producing the technical and functional specifications and in their recommendations on system parameters.

The consultants therefore drafted out principles for the design of the system partly based on the questionnaire responses and partly based on first principles. These design

principles were then presented to stakeholder groups for discussion.

Two workshops were held to discuss the design of the system. The first of these, on 7 July 2006, considered the outline parameters of the system, and the second on 23 October 2006 was intended to agree issues in more detail. The design of the system therefore derives from three sources, the requirements of stakeholders set down in their replies to the questionnaires, discussion of the principles of the system in the workshops and the analytical work of the consultants. Section 6 of this report sets down the reasons for the design in some detail.

## **1.4 Identifying the basic parameters**

Design parameters for the new harmonised system have been identified and recommendations made. Existing registers provided useful pointers for such issues as field size and coding structures but given that only a very limited number of existing registers are designed to reflect the Directive, existing systems were not found to be particularly valuable for the preparation of design parameters. Notwithstanding this, a number of stakeholders made useful suggestions and coupled with these and the feedback from the questionnaires and the two workshops, design parameters have been drawn up directly from the definitions in the Directive.

## **1.5 Functional and Technical Specifications**

The results of the questionnaires and the first workshop have been combined with the Directive mandates to produce functional and technical specifications for the new system. The second workshop allowed two draft specifications to be discussed and agreed. The specifications are now finalised, (see Appendices F & G, bound separately)

## **2. Introduction**

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This final report describes the work undertaken by the contractors in accordance with the Invitation to Tender issued by the Commission for the Study (Contract TREN/E2/37-2005).

### **2.1 Existing registers**

This report includes the descriptions of existing systems which hold details of train driver competence in Europe, thus responding to the requirement to undertake an inventory of the existing train drivers registers.

In accordance with the requirements of the study, the description of existing systems describes the way in which the registers are compiled; who does what, how and for what purpose? It covers all EU Member States and also includes Romania, Bulgaria, Norway and Switzerland. The purpose of these registers, their validity, their scope, their content, the tools they use (or the database they use) are described. The results have been compared with the requirements of the draft Directive following the adoption of a political agreement by Council on 5 December 2005 and any important difference identified.

States are listed in English alphabetical order and within each state the systems in use are described. As far as possible a common format has been adopted.

The description of the data held in the various registers is drawn up in terms of the requirements of the draft Directive. Data elements which match the requirements of the register are mentioned. Data elements which may have a relevance but which are not required by the Directive (such as employer details, place of employment, a driver's disciplinary record or telephone contact number for the driver), in general are not mentioned.

### **2.2 Development of the design for the registers**

Given that a requirement of the new system is to avoid wholesale rewriting of existing systems, the descriptions of data that is already held are useful in helping to define data formats for future systems. Nevertheless existing systems were not found to be particularly useful in suggesting a logic for the future system since very few existing systems had been designed with the draft Directive in mind, very few, for example, took issues such as mobility of labour into account. The parameters for the design of the system in section 6 have therefore largely been generated from consideration of the Directive itself coupled with comments on the principles made by the stakeholders in the questionnaire and workshop.

In addition, the results of the work, the conclusions reached, and recommendations made are described. Brief summaries of the two workshops held in Brussels are also included.

A number of appendices form part of this report: -

- A- Copy of the questionnaire (railway undertaking version)
- B –Organisations to which a questionnaire was sent
- C –Existing registers

- D- Workshop notes for first workshop
- E - Annexe I of the contract
- F -Functional Specification for the Licence and Certificate systems (bound separately)
- G -Technical Specification for the Licence and Certificate systems (bound separately)

### **2.3 Acknowledgements**

The consultants would like to express their thanks to all of the participants in the study but they would particularly like to acknowledge the help provided by Farha Sheikh, the Commission's case officer.

### 3. Methodology

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The contract required an inventory of existing train drivers' registers to be prepared.

From previous work, the consultants were aware that a number of systems for the management of train drivers were in use by various European railway undertakings and infrastructure managers.

An investigation of these systems was undertaken mainly by means of questionnaires. Separate but similar questionnaires were prepared for four groups of stakeholders: national governments and safety authorities; infrastructure managers as such; employers of drivers, both railway undertakings and infrastructure managers and third parties such as trade bodies and representatives of employees.

The questionnaires were designed to fulfil a number of objectives: -

- Obtain views from all the stakeholders on the principles of the proposed system
- Determine the size of files and volume of transactions from employers of drivers, details of the content of existing registers from safety authorities and employers of drivers
- Invite stakeholders to provide constructive suggestions on the design of the system.

The responses to the questionnaires were then analysed and the results tabulated and summarised. There was much commonality in the data recorded in the various systems which were studied, and also clear matches to the data elements mandated in the Directive. In many cases however the format and length of data elements differed between the systems.

The analysis of the questionnaires gave rise to a number of questions and issues. A discussion paper was therefore produced and discussed at the first workshop on 7<sup>th</sup> July 2006.

Appendix A contains a blank copy of the basic questionnaire, the one sent to the employers of drivers (the questionnaire is the most detailed of the four variants). Appendix B contains details of the organisations to which questionnaires were sent. A full statement of the replies to the questionnaires, in English, is available as a set of Excel spreadsheets. The spreadsheets are too large to be offered in a form suitable for printing.

In addition to the questionnaires, the consultants made visits to organisations already operating IT systems for the management of train drivers, visits to railway representative bodies and visits to UK organisations involved in licence management for other modes, the UK Civil Aviation Authority, (for pilots licences), and the UK Driver and Vehicle Licensing Authority (for vehicle driver licences). In addition, the consultants visited the European Railway Agency, the body charged with overseeing implementation of the Directive, and made requests for comments and information from other, non-European organisations.

In addition to the questionnaires, two workshops were held to discuss the design of the system. The first of these, on 7 July 2006, considered the outline parameters of the system, and the second on 23 October 2006 was intended to agree issues in more detail. The design of the system therefore derives from three sources, the requirements of

stakeholders set down in their replies to the questionnaires, discussion of the principles of the system in the workshops and the analytical work of the consultants. Section 6 of this report sets down the reasons for the design in some detail.

## 4. Examination of existing registers

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### 4.1 Summary of existing registers

This section summarises the descriptions of the various data registers already in use in the target states as described in the questionnaires and during visits to railway organisations. It should be noted that not all the registers were based on an IT system, some used punch cards, others paper documents. A few were well-established IT systems of some complexity. The detailed country-by-country reports are included as Appendix C. The original data is available as a spread sheet.

#### 4.1.1 Personal details

All registers held family and first name(s) and date of birth. Most, but not all, had place of birth. Maiden name was held by a little more than half of the systems although a number of respondents (such as MAV) specifically said that it would be added if/when they employed female drivers. Data formats for names varied, the longest being 50 characters for each name. Coding likewise varied, Varchar<sup>1</sup> and Unicode being specifically mentioned. Coding does not necessarily have to be the same in all national systems but appropriate conversion arrangements will have to be instituted if data is to be exchanged between them. In a few cases the data was validated, (manually), against other identity documents.

#### 4.1.2 Photograph and signature

Competent authorities had quite mixed practices for photographs, both in whether they kept them at all and in what form. Those that held photographs had policies for updating them but at different frequencies. Most employers held photographs, not always in an electronic format. Only one employer (CD) specifically provided for updating the photograph. Formats for photos varied from 4 – 50 kb, always jpeg. In no case did any respondent mention updating because of a change in appearance (beard, for example). Competent authorities varied in whether they held signatures, most did not. Signatures were likewise not held on electronic files by employers. A certain amount of harmonisation in this area is clearly needed.

#### 4.1.3 Address

Only two competent authorities (Denmark and Estonia) hold address details, where competent authorities do not hold address details (Czech Republic, Latvia, Netherlands, Portugal, Switzerland), they are obliged to work through the driver's employer to contact him and issue him with a licence. Indeed the EBA specifically recommended that the competent authority sent licences to the railway undertaking for distribution, rather than distribute them itself direct to driver's home addresses. Whether or not competent authorities hold addresses is more than simply a detail, it affects how the system can work. Where the driver's address is not held, a competent authority is obliged to work through a railway undertaking (and hold details of that undertaking); it is also required to find some way to take account of individual applicants. Not surprisingly, all the employers hold address details. Format in one case was 5 lines each of 50 char. Employers said

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<sup>1</sup>The term varchar specifically refers to a data type of a field (or column) in a database management system. Varchar data types are common amongst all popular database management systems

that addresses were updated when drivers told them they had moved.

#### **4.1.4 Additional information**

Most employers said that they provided for additional information at this level (although see below). ’

#### **4.1.5 Basic education**

Most employers held this information as part of their employee files although some employers and most of the states, regarded it as redundant because it was a pre-requirement of being a driver.

#### **4.1.6 Basic training**

Most employers held this information as part of their employee files although some employers and most of the states, regarded it as redundant because it was a pre-requirement of being a driver.

#### **4.1.7 Having had a medical examination and the results**

All the employers held the fact that a medical examination had been done. Whilst many held details of the results on systems managed by their medical departments, in only four cases was any data held on the driver competence file, and then not normally in detail. Two competent authorities held the expiry date of the medical certificate and one suggested that that information might have been desirable as a mandatory field in the Directive. There was strong support in the responses to the questionnaire for medical data not to be included in the registers; states and competent authorities were 8:2 in favour of not holding medical data of this type in the registers, employers were likewise against (11:2). Their justification was on two grounds, one of logic, drivers were either fit or not and secondly of confidentiality. It was thought inappropriate to hold medical data in this type of register. The consultants therefore propose simply to record the results of each of the medical tests.

#### **4.1.8 Driving category**

Competent authorities’ files all held details of the categories for which drivers are approved. The categories were not always the same as those in the proposed Directive, sometimes more detailed, sometimes less. Employers again held this data in every case but it was not always clear that the classification was that of the Directive. Harmonisation will be needed. In the workshop on 23 October 2006, the suggestion was made that since driving techniques are different for various types of train, the category “B” should be expanded to cover (at least) passenger and freight. That is clearly an issue to consider in the future, perhaps in the code of practice.

#### **4.1.9 Rolling stock which the driver is authorised to drive**

All employers held details of the rolling stock which drivers were authorised to drive. It appeared that each used his own coding system for the equipment. This data was kept at local level by some employers and not held on a central database; it is probable that in this case local shorthand is used. Some, but less than half, the competent authorities also kept data. The data which is kept at present is therefore appropriate for local competence management but may not be appropriate to be shown on documentation used internationally. This issue is treated in more detail in section 6.

#### **4.1.10 Infrastructure on which the driver is authorised to drive**

All but one employer (BDZ) held details of the infrastructure which drivers were authorised to drive over. In discussions with stakeholders, different approaches to infrastructure knowledge were identified. For most organisations, authorisation to drive on a particular infrastructure meant being familiar with the operating rules and therefore authorisation was readily given for a network. For a few, a detailed knowledge of the infrastructure itself was expected and infrastructure knowledge was therefore highly specific (SNCF, for example, which specified knowledge of depots). Whilst railway undertakings did not give specific examples of their infrastructure descriptions, it is likely that the descriptions, particularly of infrastructure in other countries, are ad hoc rather than co-ordinated. Only one state (Estonia) held any sort of infrastructure knowledge data. This issue is treated in more detail in section 6.

#### **4.1.11 Additional information**

Few railway undertakings provided for additional information.

#### **4.1.12 Language skills**

Most employers said they held language competence data. Their coding structures varied, but were not that of the Directive. Safety bodies however did not hold the data.

#### **4.1.13 Existing licence registers**

A few states have started issuing licences already, notable amongst these are the Czech Republic, Germany, Latvia and Switzerland. The Czech Republic, Germany and Latvia have two part systems which closely align to the requirements of the Directive. In the Czech Republic and Latvia the two parts are independent whereas in Germany the railway undertaking issues both the licence and the complementary certificate. Switzerland's solution by contrast is a single level system complemented by driver training and examination being contracted out. Denmark is to start in 2006 with a system aligned to that required by the Directive.

#### **4.1.14 Existing systems**

Bigger railways tended to have comprehensive personnel management systems, notable were the systems of Deutsche Bahn (Peoplesoft), NS (SAP) and SNCF (Sit@r). These systems hold comprehensive staff details for all staff and are interfaced with medical data. They are not specifically designed for drivers but hold details of all staff and any safety related parameters (training courses, tests passed, medical exams, etc.) By contrast smaller railways often had bespoke systems, sometimes at depot level, to manage drivers. These depot level systems cannot be candidates for becoming the systems for the complementary certificates but must not be disparaged; they represent appropriate technology at an appropriate level for managing competence in the field.

#### **4.1.15 Summary**

The analyses of national systems above provide very clear evidence that the task of managing and recording staff competence is taken very seriously and clear evidence that whilst no state or railway completely fulfils the requirements of the Directive, a number come very close to meeting all the requirements. In addition many systems provide much valuable information in other, linked, areas (such as contact telephone number for the driver).

## 5. Identifying best practice

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### 5.1.1 General issues

In addition to asking railway undertakings and infrastructure managers for input, the consultants visited railway trade associations and also visited organisations operating licensing systems for other modes.

The visits were of great value to the consultants in determining best practice in the development and operation of licence systems.

### 5.1.2 The approach of other railway organisations

In addition to speaking to the CER, EIM and UIC the consultants collected comments from railway organisations overseas. The Association of American Railroads supported the concept of making the railway undertaking the key player and said that in the US the operating companies issued licences of behalf of the Federal Government.

Comments were also received from a number of third parties including the CER, UIC and the European Transport Workers Federation.

### 5.1.3 Other modes

The consultants also spoke to the competent authorities responsible for other modes in that they visited the UK Civil Aviation Authority and the UK Driver and Vehicle Licensing Authority.

The air mode showed great similarities with rail; a controlled environment with a defined skill set. The road environment however was much less similar and much of their system was in effect bound up with law-enforcement activities (withdrawal of licences following offences, etc.)

Significant points which emerged from the interviews were that:

For air, the initial licence was awarded by an independent assessor accredited by the competent authority. Renewals and re-assessments were made by employer's examiners. Despite the air licence (like the rail) being valid for all Member States, in fact there was some pressure from employers for staff to hold "local" licences. The incidence of enquiries being made on entitlements was very low, so low in fact that there was no international procedure for it. This may have implications for the design of the rail system. The air system provides for faxed licence copies to be sent to pilots whose licence is lost or stolen overseas. It may be sensible to plan for something similar for rail.

For road: the volume of the databases used for road drivers' licences dwarf the proposed rail registers both in terms of numbers of drivers and the data content for each. It was clear that their design was very much more constrained by legal criteria (particularly from the criminal justice system) than any for the rail environment might be. The Agency however warned the consultants to expect data quality to be a continuous challenge, addresses are a particular problem.

## 6. Parameters for the design of the system

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In deciding on the parameters for the design of the new system the consultants recognised that the requirements defined in the Directive must take precedence, indeed, in effect they formed the “Business Requirements” for the system.

### 6.1 Directive requirements

The prime constraint the consultants identified in the Directive was the requirement in Paragraphs 20 and 21 of the Preamble to the Directive that the new system should not impose any unnecessary administrative and financial burdens: -

*(20) Unnecessary administrative and financial burdens should be avoided when replacing authorisations to drive which were issued to drivers before the application of the relevant provisions of this Directive with certificates and licences which are in conformity with this Directive. Therefore, entitlements to drive previously granted to the driver should be safeguarded, to the extent possible. The qualifications and experience of each driver, or group of drivers, should be taken into account by the issuing bodies when these authorisations have to be replaced. The issuing body should decide, on the basis of qualifications and/or experience, whether it is necessary for a driver or a group of drivers to undergo any additional examination and/or training before they can receive their licences and certificates. Therefore, it is possible for the issuing body to decide that the qualifications*

*and/or experience suffice for the delivery of the required licences and certificates, without there being a need for any further examination or training.*

*(21) Unnecessary administrative and financial burdens should be avoided when train drivers change employer. The new railway undertaking employing the driver should take into account the competencies acquired earlier and should prevent the necessity of additional examinations and training to the extent possible.*

The consultants took this to mean that a wholesale rewriting of any existing systems was to be avoided if at all possible, and in addition, when implementing the new systems, the rights of existing drivers were to be protected by not imposing the various medical and other tests as validations before the new driver licences and certificates could be issued to them. Any new or modified systems must be able to accept existing drivers and their data and issue licences and certificates to them.

### 6.2 Drafting the specifications

Given that a prime constraint of the new system is not to require wholesale rewriting of existing systems, the descriptions of data that is already held in national systems in the sections above are useful in helping to define data formats for future systems. In this way such issues as the length of name and address fields can be defined. Nevertheless existing systems were not found to be particularly useful in suggesting a logic for the future system since very few had been designed with the draft Directive in mind. On reflection that is not surprising. The railway undertakings’ systems were designed to facilitate train operation and manage competence rather than for regulatory purposes. Only four states’ competent authorities (Czech Republic, Estonia, Latvia and Portugal) themselves had registers. Very few national arrangements are designed to accommodate two level registers, only in the Czech Republic and Latvia was the existing system anything like that which is proposed. None of the existing systems contains all the fields required by the Directive and therefore none has addressed all the issues of data transfer,

coding, data integrity, etc. that the future system will have to face. Even where data fields are the same, in some cases existing uses (to record infrastructure knowledge, for example) use company systems and may well be unsuitable for a wider international use. Accordingly, in no case was there a model which could be directly mapped to the future registers. Nevertheless, a number of respondents did kindly point out lessons which they had learned from their attempts to set up registers.

With the Directive in mind, and with the results of the questionnaires analysed, the basic parameters were able to be determined in broad outline. The parameters and data elements for the new system were now known in sufficient detail for draft Functional and Technical specifications to be started. However, a number of issues had arisen with coding, especially traction and infrastructure coding which needed iteration. These issues were therefore placed for discussion at the first workshop in Brussels on 7<sup>th</sup> July 2006, (see Appendix D).

The parameters for the design of the system in this section have therefore largely been generated by responses to the questionnaire, from issues raised in the first workshop or which follow from consideration of the requirements of the Directive. This section sets down the consultants' recommendations for the system.

Following the first workshop, the consultants were able to produce the draft Functional and Technical specifications, and to submit these to the Commission and place them for discussion at a second workshop. In addition they were then able to prepare and send their first and interim report to the Commission. This was submitted to EC DG TREN on the 9<sup>th</sup> November 2006.

The functional specification is cross-referenced to the Directive functional mandates.

There are no Directive mandates for the technical specification and characteristics of the harmonised system.

## **6.3 Summary of issues and recommendations**

### **General issues**

A number of respondents made practical suggestions for the design and operation of the system based on their own experience. Switzerland provided a full data specification of its national system which was very useful in prompting consideration of how data fitted together and whether any additional fields were unavoidable. These suggestions were greatly appreciated by the consultants.

Questionnaire respondents and the representatives the consultants talked with in their visits emphasised the need to avoid over-regulation and complication, remembering that the safety management system had to be considered in its entirety and a number of other components helped to ensure driver safety;

- They encouraged the consultants to think through how the system would be populated when first set up;
- They encouraged the consultants to expect problems with data quality, in particular in such areas as driver's address.
- They encouraged the consultants to ensure the system did not make excess (and costly) demands on railway undertakings;
- They encouraged the consultants to design the system to facilitate railway

- undertakings doing as much of the work as possible;
- They absolutely insisted on all interfaces being electronic.

The consultants therefore recommend that existing systems be used as the basis for the new system as far as possible, and that validations and checks are not duplicated.

### **Alphabets and languages**

The enlargement of the EU means that three distinct alphabets will be in use with effect from 2007 (Roman, Greek, Cyrillic). At the workshop on 23 October 2006, it was noted that documents will be produced in the language of the state of issue; the fact that their formats will be standard and that material data on the certificate will be subject to a right of veto, should mean that there will be no problems with acceptance. This approach was endorsed.

### **Code of practice**

Whilst the Directive prescribes the legal framework and requirements for the licensing system, the consultants have identified (below) additional data items which they believe will make the various national systems more effective. These additional items cannot be mandatory but will only deliver full value if all Member States adopt them. There will likewise inevitably be further issues which competent authorities want to harmonise. A suitable mechanism is defined in Article 32 of the Directive in which the Agency is required to organise meetings to co-ordinate implementation between competent authorities. It might be desirable for an outcome of these implementation meetings to be a code of practice in which competent authorities agree such issues as precise definitions of data elements (route sections, for example), correspondence of names on licences with identity documents, the arrangements for exchanging data between themselves, the need for any further harmonised fields in the licence registers, frequency of updating photographs and signatures, etc. The concept of a code of practice was supported by the participants in the workshop on 7 July 2006.

It would seem appropriate to recommend therefore that a code of practice be drawn up under the auspices of the ERA as part of the Article 32 work. Given that the various national systems will be individually designed, albeit to common standards, the code of practice cannot be an instruction book or a user guide to any specific system, rather it will define concepts and set down principles for the whole system to work properly. The code of practice would only have suasive force.

The first issues to be included might be an agreement to adopt the four extra data areas recommended below by the consultants, the code of practice might also define exactly how international exchange of information is to be co-ordinated. It might likewise be appropriate for the Agency to make use of a code of practice to assist it to collect the information required of it under Article 31.

### **Supply and management of data**

Although personal applications by individuals are not precluded by the Directive, (and training schools in Germany and Switzerland specifically encourage unsponsored students) it is to be expected personal applications will be rare. If a personal application by a driver is regarded as the exception, then it would be right to regard the employers of drivers (railway undertakings and infrastructure managers) as the key players in the system. The railway undertaking holds all the data and is directly responsible for managing key elements (the medical examinations for example). It is therefore logical to

regard the railway undertaking as the key entity. Given the clear need for interfaces to be electronic and the context of the whole process as being within a safety management system, it is not unreasonable to set up systems to allow the competent authority to accept data direct from the railway undertaking. This approach is implicit in existing systems used by those competent authorities which do not hold drivers addresses (see section 4.1.3. above). It received quite specific endorsement from railway undertakings, Deutsche Bahn saying for example that "all tasks as far as possible must remain with the railway undertaking" and the Swiss Federal Office for Transport saying that already SBB and BLS provide data direct to the Federal Authorities.

The interface between the railway undertaking and the competent authority is defined in the Technical Specification but it is clear that it must be robust in information technology terms and in particular ensure that access and input is properly controlled.

The consultants therefore propose that the default option is for railway undertakings to be able to feed data directly into the competent authority's system and thus to initiate new licences, renew existing licences, and amend details on licences. It is clear that this approach would have to be fully reflected in the safety management process of the railway undertaking and approved as appropriate by the competent authority. The interface between railway undertaking and competent authority will need password protection and data will need to be encrypted in transmission. It would also be desirable to provide for graduated access, so that for example, a railway undertaking might be given permission only to renew licences but not initiate new ones. In accordance with normal good practice in this area, the opportunity to "blacklist" a railway undertaking and prevent it adding or updating information directly must be provided. A manual process (checking of documentation and input by the competent authority) would act as a fall back and provide for drivers without current employers. This logic seems to the consultants to provide an appropriate mix of efficient processing and security.

There is a question of the responsibility for the accuracy of the data supplied in this way. The licence is an official document and there may be sensitivity about the data being supplied directly by a commercial organisation. The solution to this is to provide for "system audits", checks (probably in the audit of the safety management system) that the data handling processes are robust rather than to provide for "transaction audits", checking of individual transactions. Where there is particular concern, the procedure outlined above of restricting railway undertakings to "safe" transactions could be used. This approach was endorsed at the workshop on 23 October 2006.

Of course a competent authority could decide that its duties require it to examine all the original paperwork even that from licensed railway undertakings before issuing a licence. The system proposed by the consultants will permit that – it simply means extending the "individual driver" procedure to all drivers. This course of action would however present both railway undertakings and competent authorities with significant extra work. It is the view of the consultants that there would not be commensurate safety benefits.

Article 15 of the Directive requires the driver's employer to indicate a driver leaving employment. There is no parallel obligation to indicate a driver taking up employment. The logic of holding employer information in the licence database is that it facilitates a competent authority's asking for details of the information held on the certificate record (Article 20). Without knowing the employer, the competent authority would find it difficult to find the certificate record of an individual driver. In addition if a driver-employer link is

set up in the register, then this can be used as a key to allow the authorisation of railway undertakings to update the details of “their” drivers but prevent them from accessing details of other drivers. This will provide a secure means of allowing authorised updates efficiently.

As an aside, the relevant criterion is not the driver’s employment status, but rather his duties. The relevant facts are therefore the dates he takes up and relinquishes driving duties. Ill health may prevent his driving but may permit him to continue in some other role. This may need to be addressed in the code of practice.

In their initial analysis the consultants saw value in holding employer details. The consultants therefore asked for respondents’ views in the questionnaire. Governments are broadly in favour of holding employer details on the register (8 for, 3 against). Those against suggest there can be other keys to interrogate files to get driver details although it is not clear how those would work in practice. Drivers’ employers are 12:1 in favour of holding employer details and other stakeholders are also in favour. The consultants therefore have designed the registers to incorporate employer details.

Provision must be made for more than one employer. Following the conclusions of the July workshop discussion, in the case of agency drivers, the safety responsibilities and therefore the licence and certificate responsibilities fall to the operator of the train rather than the agency.

Issue of the complementary certificate by the railway undertaking would (with one exception) rely entirely on data already in the hands of the railway undertaking. This one exception is the licence number and the consultants propose that the licence number is supplied in the response to the railway undertaking when the railway undertaking sends valid data to indicate he has employed the driver. The employing railway undertaking(s) would then use the licence number in their own systems and print it on the complementary certificate.

The consultants propose to provide for the complementary certificates to be printed locally (central printing is not ruled out but raises issues of controlled distribution), authenticated locally and issued. This allows replacement certificates (to cover new skills, etc.) to be printed flexibly. Local issue of certificates may require details of the driver’s depot to be held in the register to provide a control. The consultants propose that the certificate is derivative rather than the original; that the register, updated by examiners’ entries, forms the definitive record and that the certificate is merely a printed copy of it. This approach was endorsed 10:0 by railway undertakings in the questionnaire.

The consultants would prefer to see photographs and signatures recorded electronically. This provides both for more security and more flexibility. An update frequency of ten years is thought appropriate but this might be a suitable subject to be discussed by the ERA. This marks a change with current practice which is very varied. Competent authorities have quite mixed practices for photographs, both in whether they keep them at all and in what form. Those that hold photographs have policies for updating them but at different frequencies. Most employers hold photographs, not always in an electronic format. Only one employer specifically provides for updating the photograph. Formats for photos vary from 4 – 50 kb, always jpeg. Competent authorities vary in whether they hold signatures, most do not. Signatures are likewise not currently held on electronic files by employers. The workshop on 7 July 2006 agreed that new photographs should be

recommended, but not mandated, on renewal of licences every ten years. There was general support for electronic capture of signatures and photographs.

The consultants therefore recommend that the employers of drivers play a major role in the supply and management of data for the licences.

### **Additional data fields**

The consultants believe that adding certain additional fields to the registers would be desirable, (these are data fields that are not defined in the Directive). Since these fields will not be part of the secondary legislation, they cannot be obligatory but the consultants believe they add value.

Accordingly the consultants propose the following additional fields:

- Sex of driver. This is a fundamental item. It relates to and supports identity data. Title might be an alternative.
- Driver starting employment – employer, start date, employer contact details as appropriate, etc. Provision must be made for more than one employer for each driver. (The need for this field is covered above, in supply and management of data.)
- Driver family name at birth. Family name at birth is necessary to be able to trace a driver by name through his or her career. In the consultants' view an enquiry by name only is an implicit requirement of Article 20 (2). More than half the railway undertakings replying to the questionnaire already hold maiden name for women; others said they would if they in fact employed female drivers. To allow for both female and male name changes, the consultants propose, family name at birth, if different, rather than maiden name.
- Recording recovery of a lost or stolen licence. This provides an audit trail to allow licences which cannot be accounted for to be identified. It is an important part of the audit process.

The consultants considered adding driver's social security numbers to records (and presume that many personnel records already hold them) but concluded that the variety of formats would make it difficult to support drivers not living in the country of licence issue.

The recommendations for these fields were generally supported at the workshop on 7 July 2006.

### **Data definitions**

A number of fields require careful definition and could be included in the proposed code of practice. Pre-eminent among these is driver name.

The consultants recommend that 'driver name' is defined as the name shown on official identity documents, and that the national rules on updating names on official documents also apply to the drivers' licence documents.

This was agreed at the workshop on 7 July 2006.

### **Coding questions**

This section essentially deals with coding questions. Although coding issues may at first sight seem peripheral, the choice of coding structure can make the difference between a system which works and one which does not, a system which adds value and one that

only adds cost. The consultants make no apology therefore for dealing with these issues.

### Coding of traction types

The Directive, in describing the contents of the Certificate in Annex I, Para 3, states in sub-para.11, – “the type or types of rolling stock the holder is entitled to drive “. There is clearly a need for this to be shown in a consistent way on certificates. Railway undertakings do not necessarily all have to use the same conventions but the conventions adopted must all be meaningful to competent safety authorities and those with a duty of audit.

There are a number of approaches to showing the rolling stock types which drivers are entitled to drive. Large railways classify their traction types (class XXX etc) and as the locomotive and rolling stock industry reorganises into larger groups it may be expected that increasingly locomotive types will become standard across Europe (electric locomotives made by Siemens and diesel locomotives made by General Motors come to mind). All too frequently however sub-classes are introduced with different power units, transmissions and particularly bespoke signalling interfaces. The question arises of how detailed the coding of traction types should be. If it is too detailed then there is a risk of confusion between traction types and certainly more work in keeping certificates up to date.

EBA’s comment in the workshop that practical experience of the German system found that defining locomotive class was too restrictive (German policy has actually changed in response to experience) may also have wider lessons. This is an essentially practical question, where locomotive controls are standard and driving techniques very similar, a reference to “electric locomotives” may be entirely adequate. It is noticeable that a number of states (including the Czech Republic, Estonia and Latvia) have adopted a simple classification (diesel, electric, etc).

The consultants consider that the traction types should be coded using a coding structure designed by the railway undertaking. The railway undertaking alone has first hand knowledge of the traction and every interest in devising a sensible coding structure to indicate competence on the certificate. There is, of course, an issue of regulatory approval of the structure used, bearing in mind that the certificate is intended to provide evidence of competence in states other than the home state. Likewise some coherence between the codes used by various undertakings is desirable. Co-ordination of coding structures is not an absolute (or only a European wide coding structure could be adopted) but the coding structure must be clear and unambiguous wherever it is used.

The consultants recommend that this is an issue to be left to individual Member States and their railways to find an appropriate, but safe, solution subject to review by the Agency, in cases where the railway undertaking operates in two or more Member States. Some states and railway undertakings may choose (as SNCF and RENFE do now) to use class numbers, others (as German and Latvian undertakings do) may choose to use more general descriptions. The consultants therefore propose that the various railway undertakings devise the codes they propose to use (perhaps agreeing them in national carriers’ associations) and then submit them to the regulatory bodies of the states in which they operate. Each regulatory body would be allowed to object on reasonable grounds and the ERA might exercise a mediating role where necessary. Individual regulatory bodies might well decide not to become involved or to delegate the issue to the national

infrastructure manager.

The consultants propose to design the system to accommodate free form fields which can be used either for a precise or a more general categorisation. This approach was confirmed in the workshop on 26 October 2006.

### Coding of infrastructure

The Directive, in describing the contents of the Certificate in Annex I, Para 3, states in sub-para.12, – “the infrastructures on which the holder is authorised to drive“. It soon became clear in the first workshop that ‘infrastructures’ is interpreted in one of two ways. One interpretation is that it is competency in the rules and type of signalling in use on the specified infrastructure for all lines, the other interpretation is that it is the description of the individual routes and lines on the infrastructure that the driver is authorised to drive along, thus assuming the rules and signalling knowledge. This latter interpretation is the one adopted in section 3 of Annex VII.

There are two approaches to the coding of infrastructure. The one (the approach adopted in Germany) is to regard infrastructure knowledge as being knowledge of the rules and regulations that apply on that infrastructure, (the distinction between permissive and absolute signalling for example). In accordance with this view of infrastructure knowledge a “complete network” authorisation may readily be given. The complete network authorisation may of course be qualified, allowing the driver to work on only on lines equipped with particular (signalling) systems. The alternative view of infrastructure is typified by the British approach in which train crews are authorised to work over specific sections of line. The definitions of the sections may be quite detailed, SNCF referred to knowledge of individual depots.

These two views have implications for the design of the complementary certificate. A complete network authorisation is simple to code and to show on a certificate, even if it has to be qualified by type of signalling. By contrast showing the routes for which a driver is authorised in detail is daunting. Lines will have to be shown in detail and in a manner which is intelligible in the state in question. Both the volume of data and the content present particular problems. Nevertheless it was this approach which was confirmed in the workshop on 7 July 2006.

There are line coding structures in place in a number of countries (Belgium, for example, where the structure is deeply imbedded) but a coding structure cannot be relied on (or may not be appropriate for this purpose). The alternative to a coding structure is meaningful text. Given the need to show what might be a significant amount of detail; abbreviated text is likely to be essential. Notwithstanding this caveat, the consultants recommend that whilst the railway undertaking should be free to use its own system for describing infrastructure competence, it would be beneficial for the railway undertakings to involve the infrastructure managers and decide on a common standard. In the workshop of 23 October 2006, it was agreed that the railway undertaking should use its own system to describe infrastructure, perhaps adopting the infrastructure manager’s system. The system may use clear text, abbreviated text or codes. In extremis, the consultants believe the competent authority of the state in question has a right and duty to insist on a formulation which is clear, so use of the railway undertakings’ systems is subject to the competent authority of the state in which the infrastructure is situated being able to object.

For the time being, the consultants have designed this certificate field to accommodate plain text, (i.e. uncoded). This approach was confirmed in the workshop on 26 October

2006.

### Linguistic knowledge

Annex VII, Paragraph 8 defines the language competencies for drivers, and states that drivers must be able to communicate at Level 3 of the language table in this paragraph. This implies that the both the language and skill level are to be shown on the certificate (item 14 in the list in Annex I).

The consultants propose therefore to show both ratings using the language codes in ISO 639 and the skill levels as shown in Annex VII.

This approach was confirmed in the workshop on 26 October 2006.

### Driver and licence numbers

The Directive requires that the licence number giving access to the register data appears on the licence document, and also that this number appears on the certificates held by the driver. A driver can certainly hold certificates issued by different railway undertakings, and indeed it is possible that a driver might concurrently hold certificates issued by railway undertakings based in different Member States.

There are two issues to be addressed here, the licence number itself, and ensuring the uniqueness of an individual licence within the EU, bearing in mind that each Member State will be operating its own licence system.

The draft Directive requires licences to be numbered and that the licence carry “the number of the licence giving access to data in the national register” (Annex I). There is therefore solely a requirement to cross reference the physical document with the underlying data relating to its holder.

There is a further issue. The complementary certificate is to “contain the number of the licence” (Annex I). Railway undertakings made it very clear that they did not want to change or amend certificates simply because of reissue of a licence. The obligatory reissue of a certificate simply because the licence number had been changed following renewal or reissue (following loss for example) would involve cost without providing benefit. It would also be difficult to manage in a practical sense.

This leads the consultants to propose that the optimum solution is to regard a “licence” as an entitlement rather than a document; the licence number for any driver would therefore remain constant and would have a fixed relationship to the record number in the national register. Evidence of the licence would be provided by the document defined in Annex I. Each renewal of the document defined in Annex I would carry the same number. This would make a licence not unlike a credit card, always the same number although the card itself is periodically renewed. The relationship “number on document” to “record in national register” and “number on complementary certificate” to “number of licence” would thus be constant and simple. This, in the view of the consultants, would be the most effective and the simplest system.

The consultants therefore propose to design the system to base the system on driver records, they propose that driver licence numbers are allocated in a consistent way throughout the EU and that licence number is then used throughout the career of that driver. The licence number format proposed by the consultants is a 10-character code as follows: -

- two letters to indicate the issuing state (EU code)
- date of birth (ddmmyy)
- four digits for an individual driver number within date of birth. Including leading zeroes if necessary.

This approach was endorsed at the workshop on 23 October 2006.

There may be a practical requirement to identify documents that have been reissued following theft. The consultants propose that national competent authorities simply mark them “reissued following theft of original”. Alternatively competent authorities may decide to give individual licences an issue number to provide an individual document reference (for use, for example, in the case of loss or theft).

### **System set up**

Useful comments were made by Switzerland on the approach to setting up the system. The Swiss Federal Office for Transport specifically commented that manual input of data to populate the new system should be avoided at all costs. File transfer was their preferred method.

The consultants have therefore defined an initialisation function using electronic data transfers for the Licence system. An initialisation function has not been specified for the certificates system because it is likely that those railway undertakings with a large driver population will modify their existing systems thus requiring no initialisation, whilst the smaller railway undertakings with few will not need such a function.

### **Enquiry procedures**

The consultants were informed during their visit to the Civil Aviation Authority that the UK pilots licensing system gave rise to very few international enquiries; a level of one or two a year was mentioned. It might be appropriate therefore not to spend much time or money designing in a sophisticated solution for the requirement to exchange information set out in Article 20. It may be that an entirely manual system using e-mail and fax would be appropriate. This is probably an issue for the proposed code of practice. This approach was endorsed at the workshop on 23 October 2006.

### **Abuse**

Two issues of potential concern were identified, the problem of forgery of the physical documents, and the problem of unsatisfactory drivers obtaining new documentation in other Member States.

Airline experience is that there is little problem with licence forgery. A physical licence is only one element in the process of recruitment, references etc. provide additional safeguards. Accordingly the level of anti-forgery sophistication referred to in Article 4bis needs to take this into account. Article 4bis of the Directive mandates anti-fraud measures without defining these in much detail. The consultants have made recommendations on anti-forgery techniques and technologies for the licences and certificates and on security access and update rights for the registers in the Technical Specification.

There is no legal bar to a driver applying for and obtaining several licences, one for each Member State of application. This also implies that the system provides no protection

against a driver whose licence has been suspended or withdrawn obtaining a licence in another Member State, unless measures are introduced to prevent this.

The system provides no protection against a driver whose licence has been suspended or withdrawn getting a licence in another Member State. The consultants therefore recommend that it might be appropriate, perhaps as part of a code of practice, for competent authorities to circulate details of drivers whose licences are withdrawn. Given that date of birth and family name at birth are both held on file this should make it extremely difficult for an application for a second licence to go undetected.

This approach was endorsed at the workshop on 23 October 2006.

### **Identification and resolution of unsatisfactory training**

It is desirable that some independent means are provided to identify staff whose training and certification have been done by bodies whose training or testing arrangements are subsequently found to be inadequate. These staff must then be re-checked to ensure that their skills are in fact up to the level required. It is clearly inappropriate to ask a training organisation whose training is found to be inadequate to supply a list of staff whose training may be suspect, some independent means is desirable. It did not seem appropriate to the consultants to add "training provider" to the licence or certificate record, but back-up records in another form are desirable, (see Article 24 of the Directive.).

In the same way, some identification of the medical staff making assessments is desirable so that any misunderstanding or bias can be investigated and appropriate follow up action taken. Authority making the medical assessment is however proposed to be held on file.

### **Archiving and record deletion**

A number of states have statutory criteria for retention of data. Given the size of the registers, (small, in modern IT terms), there is unlikely to be any pressure on register controllers to delete data to make way for other data. Pressure for data deletion is only likely to come if the system is so restructured that data requires to be amended to comply. This lies well into the future.

The consultants therefore make no recommendations on data retention and archiving.

In the same category comes data retention in the event of bankruptcy of an employer of drivers in accordance with Article 20 (3). The only logical repository of data in these cases is the competent authority.

The consultants therefore recommend that the competent authority be given powers at a national level to seize the driver records of undertakings which become bankrupt. This might be a subject for the code of practice.

## **7. Functional & Technical Specifications**

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### **7.1 Functional Specification**

A draft functional specification for the licence and certificate systems was produced taking the Directive as the core requirements of the system, plus input from the results of the questionnaires, and the results of the first workshop.

Each function has been cross referenced to the appropriate Directive text which mandates, or implies the need for, the function. In addition, the individual data elements to be recorded in each register are defined.

An early draft of the specification was submitted to the Agency for comment, and a meeting held with them in Valenciennes on the 20<sup>th</sup> October 2006. A number of comments were made by the Agency and incorporated into the document.

The draft was also presented for discussion and validation at the second workshop held in Brussels on 23<sup>rd</sup> October 2006. In general, the draft was accepted as a suitable basis for system development with a number of comments. A function for renewal of certificates was requested and agreed.

### **7.2 Technical Specification**

The contract tasks the consultants with identifying three technical architectures for enabling the specifications to be met and also to evaluate the economic impact of these on the various players.

The Directive itself contains no specifications for IT equipment and hardware and software platforms, in fact no mention is made of IT technologies other than the potential for using a Smart Card for holding Licence and Certificate data on the one document (see Preamble Paragraph 15).

Member States are therefore free to choose whatever technologies they consider suitable for developing their system to support a licence register and for issuing licence documents, and the same applies to the organisations required to issue certificates. There is, however, encouragement to make developments around a common framework of interoperability (See Preamble Paragraph 1). In addition, in Preamble Para 11, it is stated that staff competencies and health and safety conditions are being developed in the context of interoperability directives, in particular as part of the “traffic management and operations” TSI. However the consultants consider this contradicts the requirement to ensure systems put in place are cost effective. In particular, if existing systems in use by for driver management are to be used as the basis for systems, this assumes the technology is already in place.

Our Technical Specification does not therefore mandate particular technologies and platforms, being rather a consideration of certain options with the views of our technical consultant on the benefits of each option.

The Directive is prescriptive of the licence both in terms of the data which appears on it, and its physical characteristics; these have to be in conformity with ISO standards 7810, and 7816-1, (standards for identification cards). Therefore there is no need for any consideration of the physical licence document; system developers must be able to issue

licences to the Directive mandates.

On the other hand, the certificate is only mandated as far as the data which must appear upon it. The consultants are mindful that the Directive has been issued with interoperability and harmonisation as its guiding principles, and have therefore prepared a draft layout for a harmonised certificate containing all the mandated data. This has been attached to the Technical Specification.

## 8. Workshops

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The contract required that two workshops be organised in Brussels; the first workshop to validate the proposed specifications, and the second to discuss recommendations. Due to the number of issues the consultants had identified during their examination of the existing registers, they did not consider that discussion on detailed draft specifications were possible at the first workshop. Instead the consultants considered the issues they had identified from the questionnaires needed discussion and agreement, following which draft technical and functional specifications could be produced for subsequent approval. This change was accepted by the Commission case officer, and the first workshop held on this basis. A discussion paper containing the issues was produced and circulated prior to the first workshop.

After the workshop, the notes of the workshop containing the details of the discussion and the decisions taken were circulated to the attendees.

The second workshop presented, discussed, and agreed the draft functional and technical specifications.

Both workshops were held in Brussels attended by representatives of European railway organisations. Attendance by railway undertakings generally was disappointing there being only one at the first workshop, (SNCB), and four, (DB, RENFE, CFR and Eurostar) at the second. Attendance was, in fact, mainly from the organisations likely to be charged with developing and managing the licence register and issuing systems, or with an interest in them.

### 8.1 First Workshop

The workshop was held at the offices of the DG Energy & Transport on the 7<sup>th</sup> July 2006 for a whole day. Attendance at this workshop was disappointing in terms of numbers, with only 10 delegates attending, but the quality of the debate was high. A number of crucial issues were clarified.

Name	Representing
Linda Gailite	Latvian State Railway Technical Inspectorate
Tereza Vasiljeva	Latvian State Railway Technical Inspectorate
Corinna Salander	European Railway Agency
Anna Patacchini	European Railway Agency
Karen Davies	Dept of Transport UK
Hugo Raddoux	SNCB
Bernd Sengespeick	Eisenbahn Bundesamt
Heiko Heid	Eisenbahn Bundesamt
Andres Wedzinga	IVW (NSA)
Trine Corneliussen	Norwegian Railway Inspectorate
Farha Sheikh	DG TREN (European Commission)
Mick Haynes	Atos Origin (the consultants)
Fraser Mitchell	Atos Origin (the consultants)
Chris Dugdale	Atos Origin (the consultants)
Peter Beevers	Atos Origin (the consultants)

The Commission representative explained the background to the Directive, and the reasons it was to be introduced, and then updated the delegates on the current situation with the Directive, and the proposed timescale for its introduction in Member States.

The consultants outlined the work they had completed so far, and presented a Discussion Paper, which had been previously circulated to the delegates.

Despite the low attendance, a lively discussion ensued on the issues raised in the Discussion Paper.

The main points to emerge from this workshop were: -

- Confirmation that a driver could use his licence anywhere in the EU, (this is the intention of the Directive, although not specifically stated).
- Despite the licence being EU-wide, there was no legal bar to a driver applying for second and subsequent licences in other Member States.
- Common format of the licence number was agreed, this to include EU Country Code as the first and second characters.
- Both the licence and the certificate needed to be harmonised for content and format to ease the task of those who had to inspect certificates, bearing in mind the large number of combinations of railway undertakings and states.
- Coding of traction was a difficult issue which the consultants agreed to study further and suggest a coding structure which was unambiguous and also practical.
- There was disagreement on the meaning of the term 'infrastructures' in the Directive in terms of what should appear on the certificate. Again, the consultants agreed to study the issue further and make recommendations on what the certificate register should contain, and what should appear on the certificate.

Notes of the workshop were produced and circulated to the participants (see Appendix D).

## 8.2 Second Workshop

This workshop was of shorter duration than the first, being held in the afternoon at Centre Borchette on 23<sup>rd</sup> October 2006. Attendance at this workshop was higher and also more representative of the European rail industry, there being attendance by delegates from a number of railway undertakings.

Name	Representing
Ian Verrinder	Eurostar UK
Michael Mastier	FR Ministère des Transports
Berta Barrero	RENFE
Costel Radu	CFR
Mihai Manole	CFR
Karen Davies	UK DfT
Alan Bell	UK ORR
Sabine Trier	ETF
Trine Lise Corneliussen	NO Rly Inspectorate
Dieter Meisner	DB
Bernd Sengespeick	EBA

Tereza Vasiljeva	LV Rly Tech Insp
Andres Wedzinga	NL IVW
Anna Patacchini	ERA
Claudio Bargilli	RFI
Farha Sheikh	DG TREN (European Commission)
Mick Haynes	Atos Origin (the consultants)
Fraser Mitchell	Atos Origin (the consultants)
Chris Dugdale	Atos Origin (the consultants)
Peter Beevers	Atos Origin (the consultants)

The Commission representative announced that the final version of the Directive had been agreed, and the European Parliament decision approving the Directive, (Decision P6\_TC1-COD(2004)0048 of 28<sup>th</sup> September 2005) had now been published in the European Journal Issue C227 E/465 of 21<sup>st</sup> September 2006. It was pointed out that at this stage, the content of the Directive was fixed and could not now be changed; issues arising from the Directive requirements could not be discussed; we were now in the implementation stage, and only the work of the consultants and their draft specifications was for discussion.<sup>2</sup>

The Consultants then gave a brief recapitulation of the Directive, and the aims of the study they had been engaged upon for the benefit of the new delegates, and then reported on the work completed to date. The Consultants then presented the draft Functional and Technical specifications they had developed both from their own work and including the results of the first workshop. A number of comments and suggestions were made, and the consultants agreed to edit the documents to reflect these.

It was agreed that following circulation of the workshop notes, and the revised specifications, time would be allowed for comments. Following a final updating of the documents following receipt of comments, the documents would then be submitted to the Commission. The target for receipt of the final versions of the documents was end of November 2006.

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<sup>2</sup> The COMMON POSITION (EC) No 21/2006 was adopted by the Council on 14 September 2006 and promulgated in the European Journal C289/42 of 28<sup>th</sup> November 2006

## 9. Conclusions

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### 9.1 Interoperability

The First and Second Railway Packages have promoted liberalisation and interoperability of railways within the European Union, and the Third Railway Package does likewise. The consultants have therefore considered how interoperability is to be maintained in the context of the Directive.

In terms of the licence document itself, the Directive mandates a common standard. A licence issued in a Member State will be valid throughout the European Union, therefore a common standard, (an "interoperable" licence) is essential. For the certificate, the Directive only mandates content, but the consultants consider that the interoperable requirements are the same, because whilst a certificate by its nature is not valid throughout the European Union, it is valid over the infrastructures listed upon it, and these could lie in two or more Member States. Therefore the certificate format should also be to a common ("interoperable"), standard for ease of inspection and use.

In terms of registration systems, it is clear that several already exist which could, with suitable modifications, be used as the basis for both licence and certificate registration and issuing systems. This implies that there will be no common 'interoperable' model for such systems, as there is great pressure amongst the organizations affected by the Directive to avoid unnecessary expenditure. In addition, each Member State is free to buy in whatever hardware and firmware it requires to meet the Directive mandates, and can develop existing systems if it wishes. However it is the view of the consultants that it is not the systems that matter here; interoperability in this context means interoperability of data to ensure that the physical licences and certificates can follow the common formats outlined above.

The consultants therefore are clear that the systems that Member States design and implement to meet the Directive requirements must be built around a common set of data elements, both in terms of meaning, and of length and format for at least the data which appears on the physical documents. In addition, in order to support the Directive requirements, each licence and certificate system must contain a common set of basic functions. The Functional Specification that has been prepared must therefore be followed by system developers whatever platform has been chosen and irrespective of whether the system is new or a development of an existing system. Developers would be free to add additional functions, for example a Member State could decide to link the licence and certificate systems operated in that state.

Whilst there is a requirement to exchange licence data between the competent authorities, the consultants conclude that based on licence registers in other industries, there is likely to be very little data exchange activity, and what there is does not need to be built in to the licence systems, but could be a later development once the Directive has been implemented and experience of its operation has built up.

### 9.2 Code of Practice

It became clear to the consultants that whilst there are a set of mandates in the Directive, there are many other considerations in the Directive that require the parties to act in a common way. In other industries regulated by central bodies or governments, these issues are normally handled by a Code of Practice, which is essentially a set of

recommendations developed by the central body in consultation with the players, which, if followed, demonstrate their adherence to standards and a common way of working.

It is the view of the consultants that the European Railway Agency is the body best placed to produce and issue such an entity, and assess compliance by the railway organizations in each Member State. The consultants have made a number of suggestions to the Agency on content.

### 9.3 Implementation of the Directive

Implementation is a matter for each Member State to arrange, but the Directive charges, the European Railway Agency with the task of evaluating the implementation, and reporting to the Commission (see Article 31). This report is required to contain, where appropriate: -

- Improvements the Agency consider are needed to the system regarding procedures for issuing licences and certificates
- Details of accreditation of training centres and assessors
- The quality systems that have been put in place by the various competent authorities
- Mutual recognition of certificates
- Adequacy of the training requirements specified in Annexes V, VI, and VII of the Directive in relation to the market structure and the categories mentioned in Article 4.2 (a)
- Interconnection of registers
- Mobility of the driver employment market following implementation of the Directive

In addition to the above, the Agency may, if they consider it appropriate, recommend measures regarding the theoretical and practical examination of the professional knowledge of applicants for certificates.

The work outlined above must now be taken forward by the Agency. The report to the Commission must be submitted within 4 years of adoption of the Directive. The consultants have made two visits to the ERA to hand over their conclusions and discuss any additional information that the ERA representatives need which will help them in these tasks.

The consultants consider that the main immediate tasks for the Agency are: -

- Drafting a Community Certification model and classifying the licence types  
*The basis for this is in the report*
- Drafting basic parameters for licence registers, ensuring their interoperability  
*This has been fully considered and only formal adoption and coding issues remain*
- Ensuring protection of data privacy for the registers  
*This has been reviewed and discussed and recommendations made*
- Ensuring compatibility of training objectives with TSIs and other Agency's proposals

*Not covered in the study*

- Development of Community criteria for the choice of examiners and examinations  
*Not covered in the study*
- Certification of other staff on the locomotive or train that perform safety-critical tasks  
*Not covered in the study, but many of the issues are the same*
- Evaluation of the development of certification and submission of a report containing, where appropriate, improvements  
*Not covered in the study*
- Assess the potential for use of ‘smartcards’ in place of separate licence and certificate documents  
*Not covered in the study but born in mind when setting parameters, (see also Para. 15 of the Preamble to the Directive)*
- Setting up a “Network of Driver Certification Bodies”  
*Not covered in the study*
- Cost-Benefit-Analysis on checks for drivers not holding licences or certificates  
*Cost-benefit considerations underpinned all of the designs and specifications.*

## Appendix A - Questionnaires

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The questionnaires are designed to be similar. Each has an almost identical introduction, part 1 of each, to get details of the respondent, is the same. Part 2, to scope the register by finding out the number of drivers and the volatility of their circumstances, is only asked of safety authorities and employers of drivers. Part 3, to collect views on the principles of the system as a whole is asked of all parties. Part 4, on the content of existing registers, is only asked of safety authorities and employers of drivers. Part 5, seeking general comments is asked of all stakeholders.

To save space, only a copy of the questionnaire for the employers of drivers, which is the most detailed, has been included in this report.

## **Questionnaire on train drivers' registers**

### **Briefing for railway undertakings and infrastructure managers employing drivers**

Atos Origin and Europe Rail Consultancy have been invited by the Directorate General for Energy and Transport of the European Commission to mount a study into the creation of data registers to hold details of train driver certification. This work follows from proposals to create a standard driver licensing system initially made as part of the Third Railway Package (Commission document COM(2004) 142 final). The most recent version of the draft Directive is contained in Council document 5160/1/06 of 19 January 2006 which has been attached.

The objective of the consultants' work is to produce a specification for the registers which will hold the data. The Commission have particularly asked for this to be done with the co-operation of the railway industry so that existing databases and the expertise of specialists may be taken into account. The consultants intend to produce specifications which will respect international standards but also reflect existing practice in railway safety bodies, railway undertakings and infrastructure manager's organisations. It is therefore in the interests of all these organisations to provide as much information as possible so that the final specification reflects as many national and organisational features as possible.

A questionnaire has been attached to this briefing note, the questionnaire is split into five parts, the first asks respondents to confirm their contact details and preferred language, the second part asks for outline details of the number of drivers and staff mobility, etc., the third part asks for views on the general parameters of the drivers' registers, the fourth part asks for technical details where the consultee already holds driver data in an electronic form and the last part just asks for any further remarks.

The questionnaire may be answered in English, French or German. The questionnaire has been designed to be filled in electronically

Separate questionnaires have been prepared for

1. national governments and safety authorities
2. infrastructure managers (in respect of the safe management of infrastructure)
3. railway undertakings and infrastructure managers employing drivers (in respect of the employment of drivers) (this one)
4. other parties, such as trades unions, representative associations, etc.

After the questionnaires have been returned, the consultants propose to visit a strictly limited number of respondents to discuss options for the data registers with them in greater detail.

After the consultants have analysed the results of the questionnaires, a workshop will be held in Brussels to examine the initial conclusions and develop the proposals further. These workshops are likely to identify further requirements and constraints to be taken into account in the design of the system.

Also attached to this e-mail is a copy of a letter of introduction from the Commission.

We would be delighted to answer any questions you may have, questions may be put in English, French or German and should be sent to:

Chris Dugdale of Europe Rail Consultancy  
Telephone: ++ 44 1273 845583  
Fax ++ 44 1273 845645  
e-mail [chris.dugdale@europerrailconsultancy.com](mailto:chris.dugdale@europerrailconsultancy.com)

When complete please return your questionnaire to the same contact, preferably by e-mail.

## Questionnaire on train drivers' registers

### Introduction

This version of the questionnaire has been designed to be completed by railway undertakings and infrastructure managers as employers of train drivers. It deals with the principle of the system but also asks for details of the structures of any computer based systems for holding driver details.

A second copy has been sent to infrastructure managers to cover their responsibility for the safe management of the infrastructure.

Your name has been provided as a contact and the study team hope you will be able to help it by completing the attached questionnaire. We understand that in many cases functions are divided, and that colleagues may have to be consulted but we hope it will be possible to give a full response within a reasonable time. Our cut-off date for the receipt of returned questionnaires is 21 April 2006.

Please consult the notes which are attached. They explain the background and the purpose of the questionnaire.

We would be delighted to answer any questions you may have, questions may be put in English, French or German and should be sent to:

Chris Dugdale of Europe Rail Consultancy  
Telephone: ++ 44 1273 845583  
Fax ++ 44 1273 845645  
e-mail [chris.dugdale@europerrailconsultancy.com](mailto:chris.dugdale@europerrailconsultancy.com)

When complete please return your questionnaire to the same contact, preferably by e-mail.

### A brief summary of the requirements of the Directive

Train drivers will be required to hold licences which will be issued by or on behalf of national competent bodies to drivers who are able to demonstrate their basic fitness and competence.

Drivers will also hold complementary certificates which will show their competence for sections of infrastructure and types of equipment.

A register is required to be held for the licence data at national level and for the complementary certificate data by the driver's employer. Full details of the proposals are contained in the attached draft Directive.

## Questionnaire on train drivers' registers

### Section 1 - Your details

Please provide your name in the form: first name, family name.	
What is your preferred language (in case we have to contact you)? Please indicate English, French or German.	<p>English</p> <p>French</p> <p>German</p>
Your telephone and fax number, indicating switchboard and extension numbers where appropriate. Please give your number in the "international" form ++ - country code - city code - number.	++ -
Your e-mail address	
Your job title	
Name of your organisation	
Address of your organisation	

## Questionnaire on train drivers' registers

### Section 2 - Scoping the system

1. Approximately how many train drivers are employed by your company?	No.
2. How many new drivers do you have each year? It would be particularly helpful if you were able to distinguish between experienced drivers that you recruit from other companies and drivers that you train yourself.	Total Experienced New
3. How many staff change their names or addresses annually?	Name change  Address change
4. What evidence of fraud, impersonation and similar problems is there to your knowledge?	

## Questionnaire on train drivers' registers

### Section 3 – System parameters

This section of the questionnaire seeks views on the outline design of the system. The consultants have briefly reviewed the requirements of the system and identified some key parameters. The questions below are intended to help them move forward in system design. Please tick the boxes yes or no and give as much justification as possible. The more justification is provided, the more logical the system is likely to be!

Replies may be in English, French or German.

Issue		
<p>1. Either the driver or his employer may apply for a licence. If the driver lives in a different state to that in which his employer is based, do you think that the issuing state should be that of the employer or that in which the driver lives?</p> <p>Should the applicant have a choice to apply to either his state of employment or his state of residence?</p>		
<p>2. Do you agree that the right to apply for a licence also implies that the driver may apply for it to be renewed or amended?</p>	yes	no
<p>3. Where a driver changes his employer to one based in another state, do you think he should be required to exchange his licence? Please give reasons for your view.</p>		
<p>4. Where a driver changes name, for example on marriage, do you think that that a new licence is required? Please give reasons for your view.</p>		

Issue	yes	no
<p>5. In order for the safety authority to be able to interrogate registers held by railway undertakings (and infrastructure managers), it will need to know who employs each driver. Do you agree that “employer” should be held on the safety authority register? If you disagree, please give reasons for your view.</p>		
<p>6. There are a number of ways of numbering the licence and the complementary certificate. It seems to the consultants that the most promising is to use a number that identifies a driver throughout his career and which he carries through all his employers in every state. Do you accept this logic? If you disagree, please give reasons for your view. Alternative suggestions are most welcome.</p>		
<p>7. If you accept the logic of a permanent “driver number”, do you agree that the most promising structure for a driver number is to use the code for the state which first issues a licence to the driver plus a serial number allocated by that state? That “driver number” might be qualified by a code for the state which issues the current licence to give a licence number. Do you accept this logic; do you have an alternative logic? If you disagree, or have alternative suggestions please give reasons for your view.</p>		

Issue		
<p>8. Complementary certificates are issued by railway undertakings. It would be possible for them to be manually created by physical entries on a card or produced by computer from the data register. There are advantages and disadvantages in both. What views do you have about computer or manually produced complementary certificates?</p>		
<p>9. Can the expiry date of the complementary certificate merely be the last date shown on the certificate amongst a set of certificated competences (route, equipment, medical, etc.)?</p>	yes	no
<p>10. Drivers must meet a number of medical requirements. Do you think these need to be distinguished in the data register (for example, a separate entry for hearing and eyesight)? Please give reasons for your view.</p>		
<p>11. Drivers must meet a number of medical requirements. Do you think "scores" for each (for example, quality of vision) need be kept, or is just "pass" or "fail" sufficient? Please give reasons for your view.</p>		

## Questionnaire on train drivers' registers

### Section 4 – Existing databases

This section of the questionnaire asks for details of the databases that you already hold, so that the data registers required by the draft Directive can be designed around existing practice (as far as possible).

Q 1. Do you as an employer of drivers keep systematic records of driver competences?

Q 2. How do you manage driver competences currently (in outline)? (For example by a card based system held at depot level, by a computer based system managed centrally, etc.)

Q 3. Which department manages it?

If you already use data registers, we would be grateful if you were able to answer some general questions on your data registers. We would be grateful for an indication of how they are structured, how data input is managed and the standards used to design them.

Q 4. How is the data in your registers held? (For example, by depot, by region, centrally.

Q 5. How are the interfaces managed?)

Q 6. How is the data in your registers captured and maintained?

Q 7. How long is the data kept? What criteria determine this period?

Q 8. How is each data element used (in outline)?

Q 9. What logical connections there are between the data elements? (For example links between items of data to ensure they are consistent).

Q 10. What information is already given to other bodies?

The consultants will design registers to meet Community standards for data confidentiality.

Q 11. Are there further national standards in your state?

Please also confirm which of the following items of data are held in your records. If your records are electronic, it would be helpful to know the data formats and validation controls

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which you use for each of them. Alternatively, a copy of the full data specification and the outline logic for the system would be especially welcome.

Where you do not have records just for driver competence, details of the data specifications for general personnel systems are just as relevant.

Data item	Held/not held (please use a tick (ü) for held and a cross (û) for not held)	Format (no of characters and acceptable characters). Please quote any international standard that dictates format.	Validation that the data is acceptable	Remarks
The family name of the driver				Is maiden name also held for women?
Other name(s) of the driver				
The date and place of birth of the driver				Is province and country of birth also held?

Data item	Held/not held (please use a tick (ü) for held and a cross (û) for not held)	Format (no of characters and acceptable characters). Please quote any international standard that dictates format.	Validation that the data is acceptable	Remarks
The reference number assigned to the employee by the employer				What is the basis of this number? Is it structured?
A photograph of the holder		If electronic, what is the data format and max size?		How often is this renewed?
The signature of the holder		If electronic, what is the data format and max size?		How often is this renewed?
The permanent place of residence or postal address of the holder				How is this updated?
Additional information, or medical restrictions for use imposed by a competent authority				Is this information coded? If so, please provide details of the coding structure.

Data item	Held/not held (please use a tick (ü) for held and a cross (û) for not held)	Format (no of characters and acceptable characters). Please quote any international standard that dictates format.	Validation that the data is acceptable	Remarks
Having completed nine years education				
Having had basic training				
Having had a medical examination, including				
General medical condition				How is this coded? What information is held?
Eyesight				How is this coded? What information is held?
Hearing and speaking				How is this coded? What information is held?
Pregnancy				How is this coded? What information is held?

Data item	Held/not held (please use a tick (ü) for held and a cross (û) for not held)	Format (no of characters and acceptable characters). Please quote any international standard that dictates format.	Validation that the data is acceptable	Remarks
Blood and urine tests				How is this coded? What information is held?
Electro-cardiogram				How is this coded? What information is held?
Drugs and alcohol				How is this coded? What information is held?
Cognitive tests				How is this coded? What information is held?
Communication				How is this coded? What information is held?
Psychomotor				How is this coded? What information is held?

Data item	Held/not held (please use a tick (ü) for held and a cross (û) for not held)	Format (no of characters and acceptable characters). Please quote any international standard that dictates format.	Validation that the data is acceptable	Remarks
The category in which the holder is entitled to drive				(A shunting, B main-line)
The type or types of rolling stock which the holder is authorised to drive				Is this coded, if so how? Please give details. How is this information updated?
The infrastructures on which the holder is authorised to drive				Is this coded or text, specific or general? Please give as much detail as possible. How is this information updated?
Any additional information or restrictions				How is this information updated?
Language skills				How are skills measured? Is this information coded?

## Questionnaire on train drivers' registers

### Section 5 – Other remarks

And lastly, is there anything which we have left out of this questionnaire or which your experience to date suggests is important, that you would like to point out? Comments may be in English, French or German.

Thank you for your help!

## Appendix B - Addressees of questionnaires

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The following received a questionnaire:

Austria	Bundesministerium für Verkehr, Innovation und Technologie ÖBB Austrian Federal Railway
Belgium	Ministry of Mobility SNCB Belgian National Railways Dillen Lejeune Cargo Thalys
Czech Republic	Ministry of Transport Dražní úřad Rail Authority CD Czech State Railway Viamont
Denmark	Ministry of Transport and Energy National Rail Authority Danish National Railway Agency DSB Danish State Railway Arriva Danmark
Estonia	Ministry of Transport Railway Inspectorate EVR Estonian Railways
Finland	Ministry of Transport RHK Finnish Infrastructure Manager VR Finnish Railways
France	Ministry of Transport RFF French Infrastructure Manager SNCF French Railways
Germany	Federal Ministry of Transport etc EBA Federal Railway Office DB German Federal Railway Rail4Chem HGK Cargo VDV German Transport Operators Association

Greece	OSE Greek State Railway
Hungary	Ministry of Transport VPE Hungarian Infrastructure Manager MAV Hungarian State Railway GySEV Gyor Sopron Ebenfurth Railway
Ireland	Ministry of Transport Railway Safety Commission IE Irish Rail
Italy	Ministry of Transport and Infrastructure RFI Italian Infrastructure Manager Trenitalia Italian (state) operating company FNM North Milan Railway
Latvia	Ministry of Transport Railway Inspectorate LDZ Latvian State Railway
Lithuania	Ministry of Transport LG Lithuanian Railways
Luxembourg	Ministry of Transport CFL Luxembourg Railways
Netherlands	Ministry of Transport IVW Transport and Water Management Inspectorate Prorail Netherlands Infrastructure Manager NS Netherlands Railways Railion Nederland
Poland	UTK Rail Transport Office PKP Polish State Railways CTL Logistics
Portugal	INTF the Portuguese Rail Regulator CP Portuguese Railways
Slovakia	Railway Regulatory Authority ZS Cargo ZSSK Slovak Railways

Slovenia	AZP Agency for Rail Transport SZ Slovenian Railways
Spain	Ministry of Development ADIF Spanish Infrastructure Manager RENFE Spanish National Railways
Sweden	Industry Ministry Banverket Swedish Infrastructure Manager SJ Swedish State Railways Green Cargo
United Kingdom	Department for Transport Office of Rail Regulation Network Rail Association of Train Operating Companies Eurostar UK Ltd.
Bulgaria	Ministry of Transport BDZ Bulgarian State Railway
Norway	Norwegian Railway Inspectorate NSB Norwegian State Railway Cargonet
Romania	CFR Infrastructure CFR Marfa CFR Calatori
Switzerland	Federal Office of Transport Swiss Federal Railway BLS Lötschbergbahn
Other bodies	European Railway Agency Community of European Railways and Infra-managers International Union of Railways European Rail Infrastructure Managers Association European Rail Freight Association European Transport Workers Federation OSJD Organisation for the Co-operation of Railways Association of American Railroads

## Appendix C - Summary of existing registers

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### C1 Austria

No information was received from Austria.

However, section 1.4.1 of Appendix 1 to the “Atkins report” defined Austrian requirements as follows:

*“All aspects of the licensing for driving trains on the Austrian infrastructure are governed by the Ministry of Science and Transport in the Ordinance for Train Drivers /1/ and specific Service Regulations.*

*The train driver licence permits a train driver to operate specific trains/locomotives on the Austrian infrastructure. All train drivers including drivers from other Rail Companies in Austria (see §§ 9 and 24 of the Directive /1/) and from international Rail Companies (see § 26 of the Ordinance, exceptions §24 /1/) must attain this licence before driving on the Austrian infrastructure with the exception of the short distances to the border stations where locomotives and/or train crews are exchanged.”*

No further details of the licence registers were available. The Ordinance itself defines the criteria and examination process but does not refer to any recording process.

### C2 Belgium

The Belgian National Railway (SNCB) is overwhelmingly the largest railway undertaking in Belgium. It was separated institutionally from the Belgian infrastructure manager (Infrabel) in 2005 and the two are now both part of a group with a holding company. SNCB has a register of the competencies of its staff. The register holds details of drivers' knowledge of the infrastructure and of rolling stock. It also holds the date of the last medical exam and the last check of knowledge.

Drivers hold a certificate which has two appendices, one for knowledge of rolling stock and one for knowledge of infrastructure. The certificate is issued by the infrastructure manager but the appendices by the railway undertaking. In this respect the Belgian system approximates closely to that required by the proposed Directive. The “Trains Direction” manages the register and the data is held by region (Cellule Technique des Conducteurs CTC). Data input is manual. The data is held until the driver leaves the employment of SNCB. Competent authorities have access to the data in the register.

The following data is held in the register:

#### Personal data:

- The family name of the driver (including maiden name for women);
- other name(s) of the driver;
- the date and place (including country and province) of birth of the driver.

#### Characteristics:

- The reference number assigned to the employee by the employer;
- a photograph of the holder (which is stored as a JPEG file of 4kb);
- the permanent place of residence or postal address of the holder. The address of the

holder is updated by the relevant CTC.

Competence data:

- Date of last medical exam;
- the category in which the holder is entitled to drive;
- the type or types of rolling stock which the holder is authorised to drive;
- the infrastructures on which the holder is authorised to drive (but no details of coding were available);
- language skills.

Rolling stock, infrastructure and language skills are updated by the relevant CTC.

General: All validation is human and the data is held on file in the varchar format. Note: the varchar format does not fix the lengths of fields in records but rather provides for the end of one field and the start of another to be indicated by a special marker. In this way, blank spaces which would have been present in fixed length fields are avoided.

### **C3 Czech Republic**

Czech Railways (• D) is overwhelmingly the largest railway undertaking in the Czech Republic.

Replies were received from the Czech Rail Authority and from CD.

The Czech Rail Authority explained that they held data in a central computer-based system. The following data is held:

Personal data:

- The family name of the driver (but not maiden name for women) (30 chars.);
- other name(s) of the driver (30 ch);
- the date (8 chars.) and place of birth of the driver (30 chars.).

Characteristics:

- A photograph of the holder as an electronic image. It is updated every ten years.
- The holder's signature as an electronic image. It is updated every ten years.
- The permanent place of residence or postal address of the holder is not held.

Competence data:

- Medical data itself is not held, but date of the last medical exam is held;
- the category in which the holder is entitled to drive (20 chars. and coded);
- the type or types of rolling stock which the holder is authorised to drive (held as basic types rather than classes).

Education and basic training are implicit and not held on file.

• D holds details of its drivers' competence as text on card files which are held at depot level and managed by the traction department. The data is maintained manually by a designated staff member within the depot and used to manage staff competence. In particular, periodic checks of staff competence in accordance with CD's own internal instructions are managed. Data is archived for thirty years. There are no arrangements for sharing data with the competent authority but data is made available as necessary (in

the event of an accident for example).

The following data is held:

Personal data:

- The family name of the driver (including maiden name for women);
- other name(s) of the driver;
- the date and place (including country and province) of birth of the driver.

Characteristics:

- The reference number assigned to the employee by the employer;
- a photograph of the holder (which is a physical photo 45 x 35mm);
- the permanent place of residence or postal address of the holder. The address of the holder is updated by the relevant depot as required.

Competence data:

- Education: Having completed 13 years education;
- having had basic training;
- medical data itself is not held, but date of the last medical exam is held.
- the category in which the holder is entitled to drive;
- the type or types of rolling stock which the holder is authorised to drive;
- the infrastructures on which the holder is authorised to drive;
- language skills. Language skills are held as text and are measured using • D's internal criteria.

Rolling stock, infrastructure and language skills are updated by the relevant depot.

General: All validation is human and the data is held on the cards as text.

The two level system adopted in the Czech Republic is very close to that required by the Directive. Residential address is collected but not held on file by the Rail Authority, that will clearly require to be reviewed.

In their reply, the Czech Rail Authority kindly sent a specimen copy of the application form and of the licence itself. These are shown below.

**Příloha • 1 Drážní úřad**  
*(Annex No. 1)* **Wilsonova 80**  
**121 06 Praha 2**

**Žádost** ( a p p l i c a t i o n )

**o ov•ení odborné zp•obilosti k řízení drážních vozidel**  
**podle § 45 zákona • . 266/1994 Sb., o dráhách, ve zn• ní pozd• jších p•edpis•**  
**a vyhlášky Ministerstva dopravy • . 101/1995 Sb., ve zn• ní pozd• jších p•edpis•**  
*(for examination of professional competence for driving rail vehicles according to Section 45 Act No.266/94 Coll and Regulation No. 101/95 Coll.)*

**Osobní údaje žadatele:** *(Personal data of applicant)*

**Jméno a příjmení:** (First name and family name).  
**Datum narození:** (Date of birth)... **Místo narození:** (Place of birth)  
**Státní příslušnost:** (Nationality)... **číslo OP\* nebo cestovního pasu\*:** (Number of ID card)  
**Adresa bydliště:** (Domicile)..... **PS\* :** (Postcode).  
**Telefon:** (Phone number)..... **E-mail:** .....  
**Dosažené vzdělání\*\*:** **X základní \* - střední s výučním listem střední maturitní zkouškou\* x)**  
**Zaměstání vzdělání\*\*:** **X strojní\* - elektrotechnické\* - stavební\* - dopravní\* - jiné\***  
**Evid. číslo pro kazu způsobilosti k řízení\*\*\* :** ..... **Vydaný dne\*\*\*:** .....  
 (Number of driving licence\*\*\*) (Day of issue\*\*\*)  
**Název a adresa zaměstnavatele:** (Name and address of employer).....  
**PS\* :** (Postcode)..  
**Telefon:** (Phone number).....**E-mail:** .....

**Pracovní zařazení:** (Job title).....

**Zkouška: XX**  
**z odborných teoretických a praktických znalostí\* - doplňková\* - rozdílová\* - opravná\***

**Druh hnacího vozidla: XXX**  
**elektrická hnací vozidla stejnosměrné soustavy (E1)\***  
**elektrická hnací vozidla střídavé soustavy (E2)\***  
**vícesoustavová elektrická hnací vozidla (E3)\***  
**motorová hnací vozidla (M)\***  
**parní hnací vozidla (P)\***  
**speciální hnací vozidla s provozní rychlostí do 40 km.h<sup>-1</sup> (SV1)\***  
**speciální hnací vozidla s provozní rychlostí nad 40km.h<sup>-1</sup> (SV2)\***

**Kategorie železniční dráhy: XXXX**  
**dráha celostátní, regionální a vlečka (C)\***  
**vlečka (VL)\***

**Datum:** (Date of application)..... **podpis žadatele** (signature of applicant)  
 (podpis bude skenován)

\*) nehodící se škrtněte (delete as appropriate)  
 \*\*) u doplňkové a rozdílové zkoušky se nevyplňuje (don't fill in for additional and distance examination)  
 \*\*\*) vyplňuje se pouze u doplňkové a rozdílové zkoušky (fill in only for additional and distance examination)

**X)**

**Dosažené vzdělání\*\*:** základní \* - střední s výučním listem\* - střední s maturitní zkouškou\* x)  
**Zaměstání vzdělání\*\*:** strojní\* - elektrotechnické\* - stavební\* - dopravní\* - jiné\*

(Attained education\*\* : elementary school\* - secondary school\*)

(Scope of education\*\* : machine-tool\* - electrotechnics\* - construction\* - transportation\* - other\*)

**XX)**

**Zkouška Examination**

*z odborných teoretických a praktických znalostí\* - dopl•ková\* - rozdílová\* - opravná\**

(professional knowledge examination\* - additional examination\* - distance examination\*- second examination\*)

**XXX)**

**Druh hnacího vozidla: (Sort of driving vehicle)**

- 1 *elektrická hnací vozidla stejnosměrné soustavy (E1)\**
- 2 *elektrická hnací vozidla střídavé soustavy (E2)\**
- 3 *vícenosustavová elektrická hnací vozidla (E3)\**
- 4 *motorová hnací vozidla (M)\**
- 5 *parní hnací vozidla (P)\**
- 6 *speciální hnací vozidla s provozní rychlostí do 40 km.h<sup>-1</sup> (SV1)\**
- 7 *speciální hnací vozidla s provozní rychlostí nad 40km.h<sup>-1</sup> (SV2)\**

1. *electric driving vehicles for DC system (E1)\**
2. *electric driving vehicles for AC system (E2)\**
3. *multisystem electric driving vehicles (E3)\**
4. *diesel driving vehicles (M)\**
5. *steam driving vehicles (P)\**
6. *special driving vehicles with operational speed lower than 40 km per hour (SV1)\**
7. *special driving vehicles with operational speed higher than 40 km per hour (SV2)\**

**XXXX)**

**Kategorie železniční dráhy: (Category of infrastructure)**

- 1 *dráha celostátní, regionální a vle•ka (C)\**
- 2 *vle•ka (VL)\**

1. *countrywide, regional and branch lines.(C)\**
2. *branch lines(VL)\**

Česká republika

# Průkaz způsobilosti k řízení drážního vozidla

Evidenční číslo: **Number of driving licence**

Příjmení: **Family name**

Jméno: **First name**

Datum narození: **Date of birth**

Místo narození: **Place of birth**

Druh hnacího vozidla: **Sort of driving vehicle**

Kategorie žel. dráhy: **Category of infrastructure**

Datum vydání: **Date of issue**

Platnost do: **Expiry date**

**Signature of the holder**  
Podpis držitele

**Vydal : Drážní úřad, Wilsonova 80, Praha 2**

**Signature of issuing person**

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**podpis oprávněné osoby**

**Vysvětlivky:**

**Druh hnacího vozidla : Explanatory text: Sort of driving vehicle**

E1 - elektrická hnací vozidla **stejnospěrné soustavy**

E2 - elektrická hnací vozidla **střídavé soustavy**

E3 - vícesoustavová elektrická **hnací vozidla**

M - motorová hnací vozidla

P - parní hnací vozidla

SV1 - speciální hnací vozidla s provozní rychlostí do 40 km/h

SV2 - speciální hnací vozidla s provozní rychlostí nad 40 km/h

**Category of infrastructure**

**Kategorie železniční dráhy :**

C - dráha celostátní, dráha regionální a vlečka

VL - vlečka

#### **C4 Denmark**

Whilst the Danish State Railway (DSB) is the largest carrier, a significant number of passenger services have always been provided by independent carriers. The process of liberalising the provision of services has been continued by awarding franchises for the provision of regional passenger services. The largest freight carrier is Railion Denmark and the traffic is overwhelmingly transit traffic.

A reply was received from the Danish National Rail Authority.

The National Rail Authority is setting up its own system and starting to issue licences in 2006. The register contains basic information such as name, place of birth, age, licence issuing date, expiry date (licence is valid for 10 years), as well as information on health and the status of the person's criminal background ("cleared"). Health information is held separately and the drivers register contains no health details; health however is a precondition of licence issue. Detailed driver competencies are recorded by the railway undertaking. They will be certificated by a paper certificate to a common format. This structure of course is that required by the proposed Directive.

The Danish system provides for railway undertakings notifying the competent authority that a particular driver may not drive for a particular reason, medical or other. Data is archived during the validity of the licence; no decisions have been made about the long-term.

The following data is held:

Personal data:

- The family name of the driver (as 50ch Unicode<sup>3</sup>) (but not maiden name for women);
- other name(s) of the driver (as 50ch Unicode);
- the date and place (including country) of birth of the driver.

Characteristics:

- A photograph of the holder is to be held (although the format has not yet been decided), the photograph will be renewed every ten years;
- the permanent place of residence or postal address of the holder, this is held as five lines each of 50 characters, country and post code make up two of these lines. It is to be noted that address is validated against national registration records.

Competence data:

- Having had a basic education;
- having had a medical exam and being medically fit to be a driver;
- being able to drive mainline trains (the Danish register only covers mainline drivers – in that respect it does not fully comply with the draft Directive).

To comply fully with the Directive, the register will need to include traction types and route sections on which the driver is authorised to drive.

## **C5 Estonia**

Whilst the safety challenges facing Estonia's railways are much the same as those facing other railways, they are set against a backdrop of an operating environment different to that of most West European railways, not only a different gauge but different rolling stock standards, a different signalling tradition, etc. Estonia has been at the forefront of railway liberalisation and a significant proportion of the former state railway is now independent. The heaviest traffics are transit traffics from the CIS.

A reply was received from the Estonian Railway Inspectorate.

The Estonian Inspectorate has a card-based system and a computer database which are both held centrally (Vital characteristics are held in both, other information such as train drivers' photographs and education certificates are held only in paper form). The paper forms are held in the Inspectorate and the digital registry is held in the servers of the Ministry of Economic Affairs and Communications.

The data for the digital database is collected from applications on paper that in turn form the physical part of the register. The applications are filled when a potential train driver applies for a licence or needs to renew it. The only data that is collected outside of these applications are the medical certificates which are updated upon expiry by the employers or by the train drivers themselves.

The paper forms are kept for 10 years according to Governmental decree No 74 of 18.03.2004. The data in a computer database has no set date of expiry so in theory it is

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<sup>3</sup> Unicode is an industry standard coding system for text which allows characters in a variety of scripts to be recognised and processed consistently.

kept indefinitely. The data is validated manually.

The following data is held:

Personal data:

- The family name of the driver (but not maiden name for women);
- other name(s) of the driver;
- the date and place of birth of the driver.

Characteristics:

- The holder's signature;
- a photograph of the holder is held in the paper files, both signature and photograph are renewed on renewal of the licence or if a duplicate licence is to be issued;
- the permanent place of residence or postal address of the holder, this is updated when details of a new address is received from a driver.

Competence data:

- Having had nine years education;
- having had a basic training are held on the paper (but not electronic files);
- having had a medical exam and being medically fit to be a driver is held but the only information held is the date of the examination, date of expiry of the certificate and the name, code and signature and seal of the doctor;
- category of the licence is held but unlike the Directive requirement, the criterion is being able to drive on the public railway or not. A distinction is made between public and private railways. The information is held on paper form and in the "remarks" section in the digital database. If the train driver has originally applied for private railways only, then there is a need to re-apply and to pass an exam to drive on a public railway, but the licence to drive on public railways allows driving on private railways also. It is updated when the driver applies.
- Type of rolling stock is also held in the Estonian system, it is divided into 5 categories, from A to D (A-diesel powered locomotive; B-diesel powered train; C-electric locomotive; D-electric train; E-steam locomotive). Under the provisions of the Directive, this information would be held at railway undertaking (certificate) level.

## **C6 Finland**

Finnish Railways (VR) are still the major carrier in Finland. Transit traffic to the CIS comprises a substantial part of freight volumes.

A reply was received from the Finnish Rail Administration (which became the Finnish Rail Agency on 1 September 2006).

Under Finnish law (the Competency Act 1167/2004), railway undertakings are required to keep records of staff performing safety critical tasks. These records are normally held as computer records. Records of medical assessments and training are required. The Rail Agency has the right to inspect and audit records.

This data is required to be archived for at least ten years after validity.

Appendix1 to the "Atkins report" referred to selection criteria and methods used in Finland

(para 4.2) but gave no details of any records which are kept.

## **C7 France**

France has a large, technically sophisticated rail network. The vast majority of traffic is handled by the incumbent railway undertaking, SNCF. Other operators are starting to compete for freight traffic; competition to operate local passenger services on behalf of regional councils is also starting to emerge.

A reply was received from SNCF.

SNCF holds a centralised database of drivers' skills in the Sit@r database. Although centralised, the database is driven by local "Unités de Production" feeding in data from PCs or Psion equipment. Data is held until drivers stop driving. The data is used for operational purposes and competence management. The Sit@r system has links to other SNCF databases (training, for example) to ensure the data is coherent and to allow greater added value to be extracted from the system.

The following data is held in the register:

### Personal data:

- The family name of the driver (but not maiden name for women);
- one other name of the driver;
- the date but not the place of birth of the driver.

### Characteristics:

- The driver's SNCF staff number is held (provided by the SNCF social security system);
- a photograph of the holder and his signature are on the driver's own document but not held in the central files;
- the permanent place of residence or postal address of the driver;
- additional information.

### Competence data:

- Having had a basic education is held on file;
- having had a medical exam;
- medical details themselves are not on this database but held in the staff member's medical file which is only accessible to medical staff;
- categories of rolling stock are held as series numbers of traction units;
- the infrastructure over which staff are permitted to drive is held as sets of abbreviations in some detail. These last two fields are updated by local management. Continuous development training is also recorded.

## **C8 Germany**

Germany has more drivers than any other state. The large number of small private railways and active competition in the freight market has led to the development of driver hire activities. Likewise independent training schemes are also being set up (one by the VDV (see below). Nevertheless, DB, the incumbent, and its various subsidiaries still have the majority of the business.

There is an existing licensing system in Germany. The system is an industry-designed and industry-run system. It was drawn up by industry specialists under the independent

chairmanship of the Verband Deutscher Verkehrsunternehmen (VDV) [Association of German Transport Undertakings]. The objective of the system was as much to get consistency of training and examination as to record competence. The system is recognised by Federal and Land authorities.

Like the system required by the draft Directive, the German system is two-part, a basic licence and an accompanying certificate. Both are issued by the employer. The basic licence lends itself to be issued as a tamperproof card. The complementary certificate by contrast is a document designed to carry original signatures. The differences by comparison with the EU system are however instructive. The basic licence rather than the complementary certificate gives the category in which the driver is entitled to drive. The complementary certificate however categorises infrastructure knowledge not in terms of individual lines but as types of line: single track, not DB; double track, DB etc. Also shown on the complementary certificate is knowledge of various standard German signalling systems, knowledge of traction types (see below). The complementary certificate also shows the railway undertaking on which the driver is authorised to operate. The German authorities have negotiated mutual recognition of their documentation with the Austrian and Dutch authorities. This is manifested by the certificate being over-stamped.

Since its first introduction in August 2002, the system has been modified as a function of experience and the changes are perhaps an indication of issues the new, Community, system must take into account.

Firstly there were problems with the coding of traction types, the use of class indicators (class 123, etc) was found to be too prescriptive when essentially identical locomotives had different class numbers and too limiting when sub-variants had new class numbers, it was impractical to call in all the certificates for re-endorsement. Accordingly the coding was changed so that only types of traction, i.e. electric, diesel, steam, etc are coded.

Copies of the basic licence and the complementary certificate are shown below. Note that on the complementary certificate, the remark that “the holder has been examined for the following sections (class 2)” has been replaced by the heading “restrictions”.

The German licence

<p>Firmenlogo</p>	<p>Passbild</p>	<p><b>Führerschein Nr. 0000000</b></p>
<p>Ausgebende Stelle</p>	<p>gemäß VDV-Schrift 753 zum Führen von Eisenbahnfahrzeugen auf Schienenwegen öffentlicher Eisenbahninfrastrukturunternehmen</p>	
<p>Name des Betriebsleiters oder der von ihm beauftragten Person</p>	<p><b>Klasse 3</b></p>	
<p>Ort, Datum</p>	<p><b>Mathias Mustermann</b></p>	<p>Vor- und Zuname</p>
<p>Unterschrift des Betriebsleiters oder der von ihm beauftragten Person</p>	<p>Geb. am <b>17.09.1979</b></p>	
<p>Unterschrift des Inhabers</p>	<p><b>Gültig nur in Verbindung mit Beiblatt</b></p>	



The principle adopted by the Commission for infrastructure knowledge is however knowledge of individual line sections and so it is clear the ground breaking German system will have to be appropriately amended. Likewise the issuing process for the licence may have to be reviewed (Article 17 allows the issue to be delegated but not the maintenance of the register). (This may of course merely require formal arrangements to supply driver data to the competent authority and then maintain it.)

Replies were received from DB and the Eisenbahn Bundesamt (the Federal Railway Office). The consultants also visited the VDV who were responsible for chairing the group which drew up the specification for the existing, railway undertaking issued documentation. No replies, unfortunately, were received from any independent operator.

The Federal Railway Office explained that it kept no registers, but regarded that as the task of the railway undertakings. The proposed Directive of course will require a register at national level.

DB explained that it had a multitude of systems for ensuring staff were competent. The majority of these systems are managed locally but overseen centrally. The prime system is their centralised personnel system "Modul für human resources" developed specially for them by PeopleSoft. This system is a comprehensive staff system which holds comprehensive personnel information (personal data, training, function, etc.) and DB expects that it will require little enhancement to be able to accommodate driver certification. Issue of driver certificates in conjunction with local operations management is expected for example. Appropriate security controls are ensured within the system and data is archived indefinitely. There are no arrangements currently to provide data for audit or regulatory purposes to other bodies.

DB did not provide details of the data held, but indicated that the data in their files would be adequate for the purposes of the register. Understandably they emphasised that they would not want to set up additional registers just to hold details of driver competences. It is nevertheless clear that some form of marshalling data to support the differentiated licence and certificate issue processes will have to be found.

DB specifically asked for driver number fields not to exceed 6 characters so as to be accommodated by their existing tachograph equipment.

DB also made a number of very helpful points. In particular they were concerned about the costs of regulation and suggested that any licensing systems should be designed to allow railway undertakings to provide and amend data. This in turn would allow them to supply data direct from their own systems.

## **C9 Greece**

Liberalisation has not advanced so far in Greece as in other member states. Greek Railways (OSE) remain the principal carrier.

No reply was received from Greece.

## C10 Hungary

In addition to the State Railway (MAV), there has always been a second mainline railway in Hungary (GySEV), both use similar signalling and operational systems.

A reply was received from the Hungarian State Railway (MAV).

MAV use a card based system at depot level to manage driver competence. Competence itself is assessed biennially by an exam on basic principles, traction knowledge and infrastructure knowledge. The examiner then updates the record. The system is used both as an audit of competence and a practical everyday staff deployment tool. Data is held as long as the driver is employed. A basic education and basic knowledge of driving is a prerequisite for a job as a driver and is not therefore held on file. Hungarian drivers are all qualified for mainline driving, so no driving category is held on file. Likewise Hungarian rail staff all have to pass medical exams so medical information is not held in the driver card index file. The medical staff assess whether drivers are fit or not, no details are held except in medical files.

The card system contains the following information:

### Personal data:

- The family name of the driver (maiden name will be held if ever it is required);
- other name(s) of the driver;
- the date and place (including country) of birth of the driver.

### Characteristics:

- The driver's staff number is held;
- the permanent place of residence or postal address of the holder, which the driver is required to keep updated.

### Competence data:

- Traction knowledge;
- infrastructure knowledge is held on the card file;
- language knowledge is shown together with infrastructure knowledge. Language knowledge itself is independently assessed by state accredited schools.

No coding system is used for these skills but the consultants would be tempted to assume that since it is a localised system, local abbreviations are used.

## C11 Ireland

Whilst a number of railway undertakings with common ancestry have very similar operating practices, Ireland and Northern Ireland have consciously adopted common operating standards and procedures.

A reply was received from the Railway Safety Commission.

The Railway Safety Commission did not provide any details of existing data registers in use in Ireland.

## **C12 Italy**

There have always been small independent railways in Italy. Liberalisation has allowed these railways to develop additional services, in particular freight services towards Germany and freight services to deep sea ports.

A reply was received from Ferrovie Nord Milano one such railway which has developed additional services from its base as a suburban passenger operator.

FNM holds its data in a centralised computerised system managed by the traction department. The following data is held:

### Personal data:

- The family name of the driver;
- FNM did not indicate positively that other name(s) of the driver were held;
- the date and place of birth including province of the driver.

### Characteristics:

- The driver's staff number is held;
- signature;
- photograph. The signature and photograph are not ever renewed.
- The permanent place of residence or postal address of the driver, this is renewed when the driver notifies a change of address;
- "additional information" is also held.

### Competence data:

- Having had a basic education;
- having had a basic driver's training is held;
- having had a medical exam and being medically fit to be a driver;
- the category of driver;
- the types of rolling stock he is authorised to drive;
- the infrastructure on which he is authorised to drive;
- the FNM system also holds "any additional information".

FNM substantially possess the information required to issue their own complementary certificates and to feed data to the licensing authority.

Appendix 1 to the "Atkins report" (para 7.4.1) refers to a licence and a databank run by the infrastructure manager, RFI, but it is not clear if this databank devolves from the former FS and therefore applies only to Trenitalia staff.

## **C13 Latvia**

The railways of Latvia (together with Estonia and Lithuania) have a different operational and technical background to those in some other parts of Europe. This is not only a function of track gauge but also of different signalling and operating backgrounds. As for the other Baltic states, a significant proportion of the traffic is transit traffic to and from Russia.

A reply was received from the State Railway Technical Inspectorate.

The current Latvian system is closely aligned to the requirements of the Directive. The competent authority (the State Railway Technical Inspectorate) maintains the register as a computer system centrally. The system is integrated with a national system to check professional knowledge every six years. This is paralleled by a system run by railway undertakings at depot level (and held at depot level on card files) to test infrastructure and traction knowledge every three years. This framework corresponds closely to the requirements of the Directive.

Data is captured from documentation supplied by the driver and held indefinitely. The data held on the licence registers includes:

Personal data:

- National Identity No. (in Latvia);
- family name, maiden name for women is not however held;
- other name(s);
- a photograph of the holder (50kb), the photograph is renewed every six years;

Characteristics:

- Date driver's record first created;
- the place of employment;
- having had a basic education;
- having had a basic training;
- having had a medical examination;
- has or has not a medical contra-indication;

Competence data:

- Means of traction (diesel locomotive, steam locomotive, diesel multiple unit, electric multiple unit, rail motor);
- Train driver's history (if driver changes the place of employment, means of traction or the type of the licence (train driver, train driver – instructor or train driver's assistant));
- Licence/licences cancelled;
- The data of each examination;
- The protocol of each examination (there is an information on each question what had been included into examination, right answers and answered answers, result of examination – the examination is passed or not).

The licence document itself shows the following information

1. The licence number (LV-0001);
2. The type of the licence;
3. Means of traction;
4. The first name of the holder;
5. The family name of the holder;
6. National Identity No. of the holder;
7. The name of the issuing authority;
8. The data of issue of the licence;
9. The data of expiry of the licence;
10. The signature and stamp of the issuing authority;
11. A photograph of the holder.

The detailed content of the card files held by the railway undertakings and in particular the format for traction and infrastructure knowledge was not however available.

## **C14 Lithuania**

The railways of Lithuania (together with Estonia and Latvia) have a different operational and technical background to those in some other parts of Europe. This is not only a function of track gauge but also of different signalling and operating backgrounds. As for the other Baltic states, a significant proportion of the traffic is transit traffic to and from Russia.

A reply was received from JSC "Lithuanian Railways".

Lithuanian railways use a card file system based at locomotive depots to manage their drivers' competence. The data has not been transferred to a computer system.

The following data is held on the card file system:

### Personal data:

- The family name of the driver (but not maiden name for women);
- other name(s) of the driver;
- the date and place (including country) of birth of the driver.
- The data above is validated from national identity documents.

### Characteristics:

- The driver's staff number;
- a photograph of the driver;
- the signature of the driver (not updated);
- the permanent place of residence or postal address of the holder;

### Competence data:

- Having had basic training;
- limitations placed on the driver (which are coded in accordance with requirements of the Ministry of Health);
- having had a medical exam and being medically fit to be a driver;
- eyesight (one of the few examples in Europe of medical data on the competence file);
- category in which the driver is entitled to drive;
- traction types the driver is entitled to drive;
- infrastructure over which the driver may drive;
- additional information;
- language skills.

No details of the coding structure for infrastructure knowledge or traction types were available. Lithuanian Railways have the essential data to be able to migrate to a data register, although a change to a centralised data register may represent significant and potentially costly work.

## **C15 Luxembourg**

Luxembourg's railways are some of the smallest in the EU. The operating traditions are very much those of France and Belgium, possibly influenced by the ownership of the principle railway undertaking, CFL, by the French and Belgian governments. Apart from

significant steel traffic, traffic is overwhelmingly transit traffic.

No reply was received from any Luxembourg organisation.

Appendix 1 to the "Atkins report" (para 8.4.1) very briefly describes the competence evaluation and certification system on CFL.

## **C16 Netherlands**

The Netherlands have been in the forefront of liberalisation. Operations and infrastructure have been separate for some years and numerous contracts for local passenger services have been awarded to new operators. The incumbent passenger operator, Nederlandse Spoorwegen (NS), however still retains the majority of the services. Apart from heavy freight traffic to and from Rotterdam, the traffic is almost all passenger traffic, but services are amongst the most dense in Europe.

Replies were received from the Netherlands Railway Inspectorate and Nederlandse Spoorwegen (NS).

The Netherlands Railway Inspectorate explained that there was no existing central register of drivers' competences but that there is an independent national foundation in the Netherlands which is in charge of first-time driver examinations. These examinations cover the basis training requirement (and thus probably satisfying the requirement for basic training in the Directive). The basic training of course must be complemented by training on specific traction types and specific infrastructure.

NS said they used a centralised SAP system to record medical exams and general staff competence. The system is fed by inputting information from paper records created locally (the paper records are retained locally). Training is likewise recorded in the system. The system is managed by the HR department. Data is held as long as the driver is employed.

The following data is held:

### Personal data:

- The family name of the driver (including maiden name for women);
- other name(s) of the driver;
- the date and place (including country) of birth of the driver.
- The data above is validated from national identity documents.

### Characteristics:

- The driver's staff number (which has a check digit);
- a photograph of the driver is not held in this system but can be accessed from it, the photograph is updated every five years;
- the permanent place of residence or postal address of the holder;

### Competence data:

- Having had basic training;
- having had a medical exam and being medically fit to be a driver,
- category in which the driver is entitled to drive;
- traction types the driver is entitled to drive;

- infrastructure over which the driver may drive;
- language skills.

It is not known how traction type and infrastructure is coded. It is clear however that NS has the basic elements available to prepare its own complementary certificates and to provide data for the issue of licences

### **C17 Poland**

Poland has a large rail network and significant levels of traffic, both passenger and freight. Liberalisation has started to have an impact. Operating practices are similar to those of other Central European railways.

No reply was received from any organisation in Poland.

Appendix 1 to the “Atkins report” however (para 15.4.1) refers to drivers being issued with permits at a local level after having passed the examination. Local rather than national records are therefore implied.

### **C18 Portugal**

Portugal has invested in its rail network and there are significant plans for infrastructure improvement. Traffic levels are not high and in common with Spain, potential international traffic is discouraged by break of gauge issues.

A reply was received from the Portuguese Rail Regulator.

The Portuguese Rail Regulator explained that records for the incumbent (state) railway staff and the infrastructure manager’s staff are held by those organisations. The Portuguese Rail Regulator however holds records for drivers employed by private railways and contractors. The regulator’s records are held in a system comprising paper records and a simple computer system. The data is captured on paper and held centrally. The data is used to issue authorisations to drive and for enquiries in the case of incidents. The archive period hasn’t yet been defined.

The following data is held:

#### Personal data:

- The family name of the driver (but not maiden name for women);
- other name(s) of the driver.

#### Characteristics:

Additional information or medical restrictions.

#### Competence data:

- Having had basic training;
- having had a medical exam and being medically fit to be a driver;
- having passed cognitive tests;
- category in which the driver is entitled to drive;
- traction types the driver is entitled to drive;
- infrastructure over which the driver may drive;
- additional information or restrictions.

It is not known how traction type and infrastructure is coded.

### **C19 Slovakia**

Slovakia has made progress in liberalising the rail industry and separation of infrastructure and operations has already been achieved. As might be expected, Slovak operating arrangements are very similar to Czech arrangements.

A reply was received from ZSSK, the incumbent railway undertaking.

They did not however provide any details of existing databases.

### **C20 Slovenia**

In their operating arrangements, Slovenian railways are very similar to other railways in Central Europe. The network has a significant level of freight traffic. In many respects less progress has been made in liberalisation in Slovenia than in other countries.

No reply was received from any organisation in Slovenia.

### **C21 Spain**

Spanish (and Portuguese) railway's traffic with the rest of Europe suffers from a break of gauge. At one time their operational practices were also more insular but Spanish railways are now amongst the most advanced technically in Europe. The principal carrier remains the incumbent, RENFE.

A reply was received from RENFE, the incumbent railway undertaking.

RENFE manages driver competences by a computer system managed centrally. The system is managed by the Driver Safety Department. The data is assembled from records of training and medical examinations from the geographical regions. The data is held as long as drivers remain employed. The General Direction of Railways audits the system.

The following data is held:

#### Personal data:

- The family name of the driver (but not maiden name for women) (note however that Spanish family name conventions can indicate family connections);
- other name(s) of the driver;
- the date and place (including country and province) of birth of the driver.

#### Characteristics:

- The driver's staff number (seven digits);
- neither photograph nor signature are held;
- the permanent place of residence or postal address of the holder;

#### Competence data:

- Having had a basic education;
- having had basic training;
- having had a medical exam and being medically fit to be a driver,
- general medical condition (including weight, height and blood pressure)
- medical data mostly just in terms of "pass" or "fail";

- category in which the driver is entitled to drive;
- traction types the driver is entitled to drive (in terms of the rolling stock code);
- infrastructure over which the driver may drive (individual sections shown as text);
- language skills (coded).

To comply with the Directive some means of capturing photograph and signature will be needed, otherwise RENFE is well on the way to meeting the requirements of the Directive.

## **C22 Sweden**

Sweden was the first state to separate train operations from infrastructure management and there is significant private operation, particularly of passenger services.

A reply was received from Banverket, the Swedish infrastructure manager.

Banverket does not have an existing system but is developing a competence management system for all its employees.

The system will provide for the following data:

### Personal data:

- The family name of the driver;
- other name(s) of the driver;
- the date but not place of birth of the driver.

### Characteristics:

- The driver's staff number;
- a photograph of the staff member (but the form this will be held as, is not clear);
- The permanent place of residence or postal address of the holder;

### Competence date:

- Having had a medical exam and being medically fit to be a driver,
- category in which the driver is entitled to drive;
- traction types the driver is entitled to drive;
- infrastructure over which the driver may drive is not part of Banverket's database;

Banverket's register presumably acts as an "employers of drivers" register. In this case the absence of infrastructure is clearly an area that will need attention to comply with the Directive.

## **C23 United Kingdom**

The United Kingdom has comprehensively liberalised its rail industry and there is now no "incumbent carrier".

Replies were received from the Department of Transport and Network Rail. Neither of these runs a driver's register. Although no railway undertaking replied, the consultants supply driver management systems to a number of British railway undertakings and details of the system, Crewplan, are provided instead.

Driver competence management is wholly the responsibility of the railway undertakings. The competent authority has no role in managing or measuring competence and does not

issue licences.

Whilst no British railway undertaking replied, informal comments from staff with experience of the operation of a liberalised railway said that systems should allow potential employers to recognise applications for employment from drivers with a less than perfect driving history.

Crewplan is essentially a rostering and route and traction knowledge management tool. It monitors staff knowledge of routes and traction ensuring that knowledge is current by flagging up knowledge which is about to expire. It operates in conjunction with personnel management systems and holds staff details in line with those systems. The route and traction knowledge fields are plain text with codes which are validated but no national system of codes exists.

## **C24 Bulgaria**

The Bulgarian Government has a policy of liberalising rail services and a number of private companies have already been established.

A reply was received from the Bulgarian National Rail Infrastructure Company and from the incumbent operator, BDZ.

The NRIC does not have its own records of driver competence. BDZ however said that it held details of driver competence on card files managed locally by region and in the depots. The card files are aligned with data held in the staff personal records. The following data is held:

### Personal data:

- The family name of the driver (including maiden name for women);
- other name(s) of the driver,
- the date and place (including country and province) of birth of the driver.

### Characteristics:

- The driver's staff number;
- a photograph of the driver;
- the signature of the driver;
- the permanent place of residence or postal address of the holder;
- additional information;

### Competence data:

- Having had an education exceeding the basic level;
- having had basic training;
- having had a medical exam and being medically fit to be a driver,
- general medical condition
- medical data – limited medical data including vision is held;
- category in which the driver is entitled to drive;
- traction types the driver is entitled to drive;
- infrastructure over which the driver may drive is not held;
- additional information;
- languages.

The absence of infrastructure is clearly an area that will need attention to comply with the Directive, but otherwise the railway undertaking is well placed to issue its own complementary certificates and supply the necessary information to the licensing authority.

## **C25 Norway**

Norwegian traffic potential limits the scope for competitive services despite a liberal tradition.

A reply was received from the Norwegian Infrastructure Manager, and the Norwegian Railway Inspectorate but unfortunately neither provided details of registers in use.

## **C26 Romania**

Despite a low population density, Romania has a quite significant level of traffic. A start has been made on liberalisation.

A reply was received from CFR Marfa, the incumbent freight operator.

Marfa hold driver records at depot level, without the use of cards.

The following data is held:

### Personal data:

- The family name of the driver (including maiden name for women);
- other name(s) of the driver,
- the date and place (including country and province) of birth of the driver.

### Characteristics:

- The driver's staff number;
- a photograph of the driver as a 15 kb jpg file;
- the signature of the driver (as an original);
- the permanent place of residence or postal address of the holder;
- additional information.

### Competence data:

- Having had a basic education;
- having had basic training;
- having had a medical exam and being medically fit to be a driver,
- general medical condition;
- medical data;
- category in which the driver is entitled to drive;
- traction types the driver is entitled to drive;
- infrastructure over which the driver may drive (it was not clear if or how this is coded);
- additional information.

The railway undertaking has a good basis to issue its own complementary certificates and to pass necessary information to the licensing authority.

## C27 Switzerland

Switzerland has a tradition of cross-frontier operation and has likewise had a tradition of the staff of one railway running trains over the tracks of others. Unsurprisingly therefore, the Swiss already have a licensing system run by the Federal Office of Transport. Given the Swiss interest in common training standards, it may also be significant that the Swiss railway undertakings have set up an independent (but in effect joint) driver training school. It is also significant that this school will accept unsponsored drivers.

Replies were received from the Federal Office for Transport and the Swiss Federal Railway.

Swiss Federal Railways explained that training of Swiss drivers had been centralised and was now undertaken by an independent organisation, Login (Login is in fact owned by a consortium of interested parties). Login undertakes all training and examination, even that of experienced staff. SBB does not therefore hold data on staff competences, that data, although collected by the SBB and Login, is held by the Federal Office in the register referred to below. In their reply, SBB kindly sent a copy of the application form for the licence. This is shown below.

The register held by the Federal Office of Transport is centralised and holds personal details keyed by licence. Drivers are re-examined every five years and their licences renewed. Data is captured from application forms and manually input, but management of the system is contracted out. The Federal Office reported however that two railway undertakings provided information electronically. Data is held until drivers reach 70 and then archived. In their reply the FOT kindly sent a copy of their internal instructions for making entries to the register.

The Federal Office made a number of helpful comments, they said that setting up the registers required a great deal of work, very much more than simply maintaining them and that system design should take account of that. Secondly they said that the process of withdrawing a licence was extremely difficult. SBB expressed a preference for a single European model and themselves preferred a solution based on SAP software.

Data held, format and other remarks on the content of the register. The following data is held:

### Personal data:

- The family name of the driver (including maiden name for women) (up to 30 ch);
- other name(s) of the driver (up to 30 ch);
- the date and place of birth of the driver, place names are restricted to 30 ch;

### Characteristics:

- The driver's staff number (seven digits);
- a photograph is not held;
- a signature is held and renewed every five years with the licence;
- the permanent place of residence or postal address of the holder (up to 4 lines each of 30 ch);
- additional information (up to 80 ch);

### Competence data:

- having had a medical exam and being medically fit to be a driver,
- general medical condition (including having no vision or hearing defects)
- medical data is not held in the “licence” file but in a separate medical file;
- category in which the driver is entitled to drive (a distinction is made between standard and narrow gauge (narrow gauge lines do cross the frontier));
- traction types the driver is entitled to drive are not held in the licence register;
- infrastructure over which the driver may drive is not held in the licence register;
- language skills;
- additional information.

Basic education and training are not held but are a fundamental requirement of becoming a driver;

To comply with the Directive railway undertakings will need to be able to produce certificates with traction and infrastructure knowledge.

The application form for a Swiss licence is shown below

## Angaben für den Ausbildungs- und Ausweis Antrag Données pour la demande de formation ou de permis Dati per la richiesta di formazione e di licenza

### 1. Einleitung / Introduction / Introduzione

Das Antragformular enthält alle Angaben, die für einen Ausbildungs- und Ausweis Antrag sowie für die Datenerfassung (Art. 92 und 93 VTE) erforderlich sind. Das BAV erfasst die Daten für die Ausweisausstellung und bestätigt bei einem Ausbildungsantrag den Ausbildungsnachweis oder lehnt ihn ab (Art. 27 und 49 VTE). In der nachfolgenden Liste sind nähere Hinweise über den Verwendungszweck aufgeführt.

Le formulaire contient toutes les indications nécessaires pour une demande de formation ou de permis et pour la saisie dans la base de données (art. 92 et 93 OCVM). L'OFT saisi les données pour l'établissement du permis et approuve ou refuse le certificat de formation, s'il s'agit d'une demande de formation (art. 27 et 49 OCVM). La liste ci-dessous donne de plus amples renseignements concernant l'utilité des données.

Il modulo contiene tutti i dati necessari per una richiesta di formazione o di licenza e per l'alimentazione della banca dati (art. 92 e 93 OVf). L'UFT rileva i dati per il rilascio della licenza e, nel caso di una richiesta di formazione, approva o respinge il certificato di formazione (art. 27 e 49 OVT). La lista seguente fornisce ulteriori informazioni sull'utilizzazione dei dati.

#### Erklärung Farbe Eingabefeld / Signification couleur champ de saisie / Significato colore campo d'immissione

<input type="text"/>	Erstdaten Données de base Dati di base	<input type="text"/>	Angaben Ausbildungsnachweis Données du certificat de formation Dati certificato di formazione	<input type="text"/>	Ergänzungsdaten Données complémentaires Dati complementari
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**TIP** Damit nicht jedes Mal die gesamten Daten neu eingegeben werden müssen, allgemeine Daten eingeben und Datei speichern.

**Astuce** Afin d'éviter de devoir saisir l'ensemble des données à chaque fois, introduire les données générales et sauvegarder le fichier.

**Consiglio** Per non dover iscrivere ogni volta tutti i dati, inserire i dati generali e salvare il documento

<input type="text"/>	Ausbildungsantrag Demande de formation Richiesta di formazione	<input type="text"/>	Datum Ausbildungsbeginn Date début formation Data inizio formazione	<input type="text"/>	Ausbildungsnachweis gültig bis Certificat de formation valable jusqu'au Certificato di formazione valevole fino al
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<input type="text"/>	Ausweis Antrag Demande de permis Richiesta di licenza	<input type="text"/>	Ausweis-Nr (wird vom BAV mitgeteilt) N° permis (sera communiqué par l'OFT) N° licenza (sarà comunicato dall'UFT)
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### 2. Persönliche Angaben / Données personnelles / Donnata personali

<input type="checkbox"/>	Herr Monsieur Signor	<input type="checkbox"/>	Frau Madame Signora
<input type="text"/>	Name Nom Cognome	<input type="text"/>	Vorname Prénom Nome
<input type="text"/>	Sprache Langue Lingua	<input type="text"/>	Strasse, Nr Rue, n° Via, no
<input type="text"/>	PLZ NP NPA	<input type="text"/>	Ort Lieu Località
<input type="text"/>	Geburtsdatum Date de naissance Data di nascita	<input type="text"/>	Nationalität Nationalité Nazionalità
<input type="text"/>	Telefon Nr. (falkultativ) N° téléphone (facultatif) N° telefono (facoltativo)	<input type="text"/>	Handy (falkultativ) Portable (facultatif) Cellulare (facoltativo)

### 3. Ausbildungs- oder Ausweisart / Genre de formation ou de permis / Tipo di formazione o di licenza

Sprachkenntnisse Connaissances linguistiques Conoscenze linguistiche	<input type="checkbox"/> d	<input type="checkbox"/> f	<input type="checkbox"/> i	<input type="checkbox"/> e
Fachanforderungen gemäss Art. 22 <sup>2</sup> für Kat. C Normalspur erfüllt: Répond aux exigences professionnelles selon art. 22 <sup>2</sup> pour la cat. C: voie normale Rispetta i requisiti tecnici di cui all'art. 22 <sup>2</sup> per la cat. C scartamento normale	<input type="checkbox"/>	Matura Maturité Maturità	<input type="checkbox"/>	3-jähr. Berufslehre Formation prof. de 3 ans Tirocinio prof. di 3 anni
	<input type="checkbox"/>		<input type="checkbox"/>	>1 Jahr gleiche EVU >1 an dans l'entreprise ferroviaire >1 anno nell'impresa ferroviaria
Fachanforderungen gemäss Art. 22 <sup>2</sup> für Kat. D Normal- und Schmalspur erfüllt: Répond aux exigences professionnelles selon art. 22 <sup>2</sup> pour la cat. D voie normale et voie étroite Rispetta i requisiti tecnici di cui all'art. 22 <sup>2</sup> per la cat. D scartamento normale e ridotto	<input type="checkbox"/>	Matura Maturité Maturità	<input type="checkbox"/>	3-jähr. Berufslehre Formation prof. de 3 ans Tirocinio prof. di 3 anni
	<input type="checkbox"/>		<input type="checkbox"/>	>3 Jahre TI Kat. A, B, C >3 ans CVM cat. A, B, C >3 anni CVM cat. A, B, C
Keine Eintragungen im schweizerischen Zentralstrafregister vorhanden (Art. 25). Falls falsch, Auszug aus Strafregister beilegen. Pas d'inscriptions au casier judiciaire central suisse (art. 25). Si faux, joindre un extrait du casier judiciaire. Nessuna iscrizione nel casellario giudiziale centrale svizzero (art. 25). Se figura l'indicazione "errato", allegare un estratto del casellario giudiziale.	<input type="checkbox"/>	richtig juste giusto	<input type="checkbox"/>	falsch faux errato
Angaben gemäss Art. 27 <sup>4</sup> (Leumund) Renseignements selon art. 27 <sup>4</sup> (réputation) Dati di cui all'art. 27 <sup>4</sup> (reputazione)	<input type="text"/>			
Einschränkungen des Geltungsbereichs gemäss Art. 33 <sup>3</sup> u. Art. 58 <sup>4</sup> Restrictions de validité selon art. 33 <sup>3</sup> et art. 58 <sup>4</sup> Limitazioni di validità secondo gli art. 33 <sup>3</sup> e 58 <sup>4</sup>	<input type="text"/>			

<b>Bahnsystem Kategorie</b> Système ferroviaire Sistema ferroviario	<b>Erweiterungen zum Standard</b> Extensions par rapport au standard Estensioni rispetto allo standard	<b>Einschränkungen zum Standard</b> Restrictions par rapport au standard Limitazioni rispetto allo standard
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<input type="checkbox"/>	Normalspur A Voie normale A Scartamento normale A	ZV	F	O	N	AV <sup>1</sup>	P	G	N		
<input type="checkbox"/>	Normalspur B Voie normale B Scartamento normale B										
<input type="checkbox"/>	Normalspur C Voie normale C Scartamento normale C										
<input type="checkbox"/>	Normalspur D Voie normale D Scartamento normale D										
<input type="checkbox"/>	Spezialkategorie Catégorie spéciale Categoria speciale	Bezeichnung Dénomination Indicazione									
<input type="checkbox"/>	Praktische Einschränkungen zum Standard Restrictions pratiques par rapport au standard Limitazioni pratica rispetto allo standard	Max. xx km/h Max. xx km/h Mass. xx km/h							Max. xx km Strecke Max. xx km ligne Mass. xx km di tratti		
<input type="checkbox"/>	Schmalspur A Voie étroite A Scartamento ridotto A	ZV	ZS	O	AV <sup>1</sup>	Pe	Br1	Br2	ZS	D	V
<input type="checkbox"/>	Schmalspur B Voie étroite B Scartamento ridotto B										
<input type="checkbox"/>	Schmalspur C Voie étroite C Scartamento ridotto C										
<input type="checkbox"/>	Schmalspur D Voie étroite D Scartamento ridotto D										
<input type="checkbox"/>	Spezialkategorie Catégorie spéciale Categoria speciale	Bezeichnung Dénomination Indicazione									
<input type="checkbox"/>	Praktische Einschränkungen zum Standard Restrictions pratiques par rapport au standard Limitazioni pratica rispetto allo standard	Max. xx km/h Max. xx km/h Mass. xx km/h							Max. xx km Strecke Max. xx km ligne Mass. xx km di tratti		
<input type="checkbox"/>	Zahnrad A Crémaillère A Cremagliera A	M			AV <sup>1</sup>	E					
<input type="checkbox"/>	Zahnrad D Crémaillère D Cremagliera D										
<input type="checkbox"/>	Spezialkategorie Catégorie spéciale Categoria speciale	Bezeichnung Dénomination Indicazione									
<input type="checkbox"/>	Strassenbahn Tramway Tram	Kategorie Catégorie Categoria									
1)	Bezeichnung AV-Modul Dénomination des modules AV Indicazione dei moduli AV										
	Datum der letzten Prüfung Date du dernier examen Data dell'ultimo esame			Prüfungsart (Fähigkeits-, periodische Prüfung, usw.) Genre d'examen (capacité, périodique, etc.) Tipo di esame (di capacità, periodico, ecc.)							
	Prüfungsexperte der letzten Prüfung Expert du dernier examen Perito esaminatore dell'ultimo esame										
	Bewertung der letzten Prüfung Evaluation du dernier examen Valutazione dell'ultimo esame	<input type="checkbox"/>	genügend suffisant sufficiente	<input type="checkbox"/>	genügend-gut suffisant-bien sufficiente-buono	<input type="checkbox"/>	gut bien buono	<input type="checkbox"/>	sehr gut très bien ottimo		
	Medizinische Tauglichkeitsuntersuchung Examen d'aptitude médicale Esame medico di idoneità	<input type="checkbox"/>	Stufe 1 degré 1 livello 1	<input type="checkbox"/>	Stufe 2 degré 2 livello 2	<input type="checkbox"/>	periodische périodique periodico				

Zustelladresse / Adresse d'envoi / Indirizzo per l'invio

**BUNDESAMT FÜR VERKEHR**  
**OFFICE FÉDÉRAL DES TRANSPORTS**  
**UFFICIO FEDERALE DIE TRASPORTI**  
**Sektion öV-Personal**  
**Bollwerk 27**  
**3003 Bern**

## **Appendix A - Workshop Notes 7 July 2006**

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# **Workshop Notes**

## **EU Train Driver Licence**

### **Brussels 7th July 2006**

*Notes prepared by:  
Fraser Mitchell*

16522R

**Version: 1**

**Distribution:**

Those present at the meeting (see the introduction, below) plus Patrizio Grillo. The Commission will also arrange for those invited to the meeting to receive a copy for comment.

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## Introduction

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These are the notes of the Workshop held at the DG Energy & Transport, European Commission in Brussels on the 7<sup>th</sup> July 2006.

Those present at the workshop were:

Name	Representing	Contact details
Farha Sheikh	European Commission	farha.sheikh@cec.eu.int
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Trine Corneliussen	Norwegian Railway Inspectorate	<a href="mailto:tc@sjt.no">tc@sjt.no</a>

## Notes

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### Agenda

1. Welcome and introductions
2. Summary on the content of the draft Directive and the current status of the legislative process.
3. Brief statement of the study objectives, the study contractors, timescales, and the working methodology adopted.
4. Feedback from the questionnaires on licensing
5. Presentation of the outline parameters of the register
  - Discussion
6. Presentation of the options for the format and data content of the complementary certificates
  - Discussion
7. Summary of the functions of the various bodies
  - a. Railway Undertakings
  - b. Infrastructure Managers
  - c. Member States
  - d. National Safety Authorities
  - e. The European Railway Agency
8. Summary and next steps

### Welcome and Introductions

Ms Farha Sheikh (FS) of the European Commission welcomed the delegates to the workshop.

She apologised for the absence of Patrizio Grillo who hoped to join the meeting later during the day if it would be possible.

## Summary of the draft Directive & legislative status

FS explained the background to the draft Directive for a European Train Driver Licence mandated in the Directive, and its main elements.

The objectives underpinning the new Directive are

- Maintaining or improving the rail safety level across the Community taking account of the evolving context
- Increased interoperability and shorter certification procedures for railway undertakings (thus decreasing production costs)
- More transparent staff certification, thus increased public confidence in the rail system
- More flexible labour market
- Towards a new EU rail culture
- Towards a single EU rail system

The scope is:

- The Directive would affect any staff involved in train driving for a railway undertaking needing a safety certificate under the terms of the Safety Directive (see Safety Directive - Articles 10 and 11)
- It affects both domestic and cross-border routes
- Number of train drivers affected: at least 120.000 in EU15, around 200.000 in EU25
- The Directive would not affect urban/local/heritage railways

The Competent Authority:

- Issues the EU Drivers Licence and maintains its national register
- Can delegate certain tasks under conditions
- Cooperates with other Member States
- Cooperates with the ERA

The Directive mandates certain education and training and examination and re-examination requirements.

Timescales based on adoption in 2006:

- Beginning of 2007: adoption of register specifications
- 2007-2008: registers to be put in place
- from 2008: EU certification of cross-border drivers (or cabotage or driving in at least two MS)
- 2010: Agency report on implementation and feasibility of smart cards
- From 2010: EU certification of all drivers
- Transition period for existing certificates/training schemes until 2015

An input for the Directive was the results of a study carried out by W S Atkins, which can be found on the DG TREN web-site. Member States will be required to create and maintain a register of train driver licences, to issue individual licences to drivers, and to provide an enquiry facility on the register.

In addition to the licensing requirement, railway undertakings will be required to keep a register of the competency of the drivers in their employ, and issue a certificate to the driver with the details of his competencies on infrastructure and rolling stock. Therefore in order to drive trains within the EU, a driver will have to be in possession of both his licence and his competency certificate.

The draft Directive requires the Agency to develop draft basic parameters for these registers.

The Commission's presentation is enclosed with these notes.

The Commission engaged specialist consultants to propose the basic parameters and systems requirements for the registers in order to enable the Agency to rapidly develop draft parameters, in line with the provisions of the draft Directive..

Delegates supported the concept of structuring the registers both for the licence and certificate in an identical way. The consultants will therefore provide a specification for the common core for the registers together with outline logic of how it could work. Member States will be free to add additional national functionality or to develop their own logic to fulfil the requirements of the Directive. Likewise railway undertakings will be free to enhance the common core for their own purposes.

## **Brief statement of the study objectives, the study contractors, timescales, and the working methodology adopted.**

Chris Dugdale of Atos Origin, the contractors to the European Commission, explained what work the contractors were undertaking, and the need for this workshop. The study had been contracted by the EC to investigate current practices for the keeping of train

driver records in the various Member States, and to produce the functional and technical specifications for IT systems to support train driver licences, and competency certificates. The following work had been completed to date: -

- Questionnaire to European railway organisations – governments, safety authorities, employers of drivers (in the main railway undertakings), infrastructure managers (as such), and other rail-related organisations (such as representative associations and trades unions). Four different questionnaires had been distributed, one for each stakeholder group. The objectives of the questionnaires had been to scope the system, by assembling figures on the number of drivers and the rate of staff turnover, to get views on the principles which should underlie the systems, and to ask for details on systems already in use so that any new requirements can be aligned to what already exists. This last objective also included assembling information on field sizes and data definitions of existing systems.
- Visits to organisations operating similar record-keeping facilities, e.g aviation authorities for pilot's licences,
- Visits to railway undertakings with an IT-based driver records system

## **Feedback from the questionnaires on licensing**

The document containing the results of the questionnaire was made available to the delegates.

There was then discussion on the accessibility rights to the licence registers; the contractors wished to know whether the principle was that anybody could make a query on any register.

FS said that the registers will all be national registers, but that the draft Directive requires Competent Authorities to cooperate with the Agency in order to ensure that the registers are 'interoperable'; hence data sharing between each register may be permitted. There is no 'open to all' implication in the Directive; the data is only intended to be 'interoperable' between state registers.

CD pointed out that the Directive does not specify three things: -

- Firstly, whilst there was an obligation for employers to indicate that a driver had left employment, there was no obligation to say he had started employment nor to hold details of his employer.
- Secondly there was no provision for change of family name and therefore no opportunity to follow the career of a driver if family name was changed for any reason. A lifetime driver number could be a partial solution to that issue.
- Thirdly the Directive did not specify if drivers could apply to any safety authority for their licence, or if, bearing in mind the need for audit of safety management systems, there was a requirement to apply to the authority which supervised his employer.]

The consultants believed that resolution of these issues (amongst others) required a Code of Practice which might be managed by the ERA and accepted by all the safety authorities. The Code of Practice would require all the participants – safety authorities, employers and drivers themselves to apply common standards. Whilst outside the structure of the Directive, the Code of Practice would bind those states that chose to accept it.

The consultants said that many of the issues to be raised derived directly from the need to support an enquiry system. The enquiry system required traceability and therefore the ability to find drivers in the registers.

## Overview

CD summarised the findings of the consultants as: -

- For the licence, the Directive defined the data required for the licence, but questions remained on how the data was to be delivered to the safety authorities for recording and the issuing of a licence.
- For the certificate, it was clear where the data was to come from, it could only come from the driver's employer (in the main railway undertakings). The exact content and data formats were in need of clarification and harmonisation, as concepts and coding systems in the Member States differed. The questionnaires and site visits had shown wide variations in the concepts and coding systems adopted in the various Member States..

## Presentation of the outline parameters of the licence register

A number of licence items required decisions. These had been itemised in the paper issued to delegates.

### Maiden name

CD said that this had been identified as important in the context of enquiries as providing the ability to trace records if names are changed, (female train drivers on marriage).

After discussion, Michael (Mick) Haynes (MH) of Atos Origin said there are essentially two options: -

1. Use maiden name
2. provision of a unique identifier of some sort, specific to the issuing country

**It was agreed to provide for an indicator, which might be maiden name or a social security number, etc. to allow career-long tracing of a driver. The mechanics would be considered further and a recommendation included in the report to the next workshop. Use of this field might be an issue for the proposed Code of Practice.**

## **Employer**

CD considered that the licence record must contain the current employer in order that the complementary certificate can be referenced to facilitate the enquiry system.

EBA pointed out that there needed to be records for several employers at the same time, because drivers could drive for several employers during the week, e.g. driver agencies providing drivers to a number of railway undertakings or museum lines at weekends, and each would issue a certificate. There was a general discussion on the identity of "the employer" where drivers were supplied by an agency.

**It was concluded that the only logical interpretation was the railway undertaking to which the driver was supplied rather than the agency which paid the driver. The railway undertaking to which the driver was supplied was responsible under its safety management system for ensuring his competence and was therefore the organisation that would issue his complementary certificate.**

**It was thought appropriate to provide for ten employers in the licence register. Mandating of the supply of employer information might be a code of practice issue.**

## **Employer contact details**

There was disagreement on the need for this. Where employers and the safety authority issuing the licence were in the same state, it was thought that the information would not be necessary. By contrast where the employer was in a different state the information might be valuable.

**It was finally decided to provide for the information in the data definition but to leave each licence issuing authority to decide under what conditions they would make use of it.**

## **Photograph & signature**

CD pointed out that the assumption of the consultants was that photograph and signature would both be supplied and recorded electronically where the licence application or renewal came via the driver's employer.

It was agreed that electronic provision of photographs should be the norm, but there was no common view on the need for an electronic signature. It was concluded that the signature should be either electronic or the licence should be signed by the driver on issue like a normal credit card.

CD requested views on the frequency of photograph updates. After discussion, it was agreed that new photographs should be recommended at the 10 year renewal, but not mandated.

There were no recommendations on signature updates, but if a card was normally signed by the driver, new issues would always get the current signature of the driver.

**The consultants will therefore plan for electronic supply of photographs via employers but leave the option open for direct application using hard copy (for example for applications by drivers themselves). Photographs are assumed to be printed onto licences from the electronic image. Provision will also be made for signatures to be provided electronically or by hard copy and printed on the licence**

**or for licences to be signed in the original by drivers on receipt. Safety Authorities in the Member States will then have a choice of which system they will use.**

### **Name and address**

CD advised the meeting that the consultants were studying international standards for addresses and typical data element sizes on similar documents such as credit cards.

There were particular problems with countries such as Spain, where names could be very long, but the credit card systems seemed able to handle this.

**Delegates agreed that the physical licence could possibly have a 'short' name, with both this, and the full driver name being contained on the licence register record.**

### **Alphabets**

CD pointed out that with the current EU, and the imminent accession of Bulgaria, the following alphabet standards will need to be supported by an IT system and the physical licence issue: -

- Roman
- Greek
- Cyrillic

**Delegates considered that the licence should be issued in the language of the issuing state.**

**No decision was made on how and which language conversions should be available for an enquiry facility, which could come from a state with a different alphabet. The consultants will make recommendations for further review.**

### **Driver number and licence number**

The consultants had proposed a lifetime driver number in the questionnaire and this had generally been positively received. The driver number, to be incorporated into the licence number (or identity) would then facilitate enquiries and traceability. The number might consist of up to 9 numeric, plus a 2 character EU Country Code, e.g. UK

Ms Karen Davies of the DfT UK, (KD) questioned why a licence number was necessary in addition to the driver number. CD replied that a driver could move country and would require a licence to be issued to reflect his new country of residence.

Delegates did not think that change of country required a change of licence; the licence would be valid in all EU Member States without restriction. In discussion it was agreed that a single career-long driver number might be desirable if a Europe-wide register was to be developed but that as an EU register is not proposed by the Directive then perhaps the driver number is not required. There was therefore no need for two identities, driver, and licence. Delegates therefore rejected the concept of a career-long driver number; they thought that only a licence number needed to be held in the system.

FS emphasised the key safety role of the driver, and that railway undertakings may wish to be able to trace licence issues and the consultants agreed as part of their final report, to comment on the desirability of being able to trace drivers through their careers and to suggest how that might be done. CD pointed out that this was why the concept of a driver number had been suggested by the consultants.

It was agreed that the licence should have a number, allocated by the issuing state and containing the EU Country Code. The consultants pointed out that in order to get career-long traceability of drivers, either the licence number would need to be structured to incorporate a driver number or all the numbers of licences held by an individual driver would need to be held on file.

EBA put forward the concept of a 'virtual register' to link the national registers together. This is already being suggested for the European rolling stock register under the CEN Working Agreement, and driver licences will be similar with individual state registers.

**The consultants will therefore design the system to allow Member States to allocate individual licence numbers. Licence numbers will be a common format, but the structure of the number, if any, will be left to the Member State. Provision will be made for a driver record holding permanent details of the driver and the numbers of the licences he has held.**

**The consultants will recommend a solution consistent with Art 20 but sufficient to permit efficient data exchange.**

### **Applying for licences**

Delegates decided that the state where the driver originally made an application for a licence would remain the issuing authority for the licence and manage it during the driver's career. The vast majority of drivers do not move state of residence during their careers. There is no bar in the Directive to a driver applying for a new licence in a new state after a change in the state of residence. In this case, the issuing authority would have the facility to enquire about the previous licence issues. There was nothing, in theory, that prevented a driver from holding more than one licence.

### **Change of address**

Address was not mandated by the Directive, it was up to individual states to decide whether to make it a mandatory entry. Delegates agreed that any authority mandating the address of the driver, must also mandate recording changes of that address. The consultants recognised however, that the reality would often be that address changes would only be made on renewal of the licence.

### **Change of name**

It was agreed that Member States should be free to follow their own practice (for example taking the same approach as updating the name in a passport). Accordingly reporting change of name and replacing the licence would not be a mandatory requirement. This decision followed earlier discussion on name changes.

**The consultants will provide for the notification of change of name initiating a replacement licence and also for the option to notify change of name and address**

on renewal of the licence.

### **Supply of data to create new licences, and amend/renew existing licences**

On the wider question of delegation of the management of licences, FS advised that the Directive allows all activities except three (suspension and withdrawal of licences, provision of the registers/monitoring of the certification process) to be delegated to third parties. It was agreed that it was up to Member States to decide whether, and how, to delegate licensing activities.

**Recognising that employers hold all the details of the driver and have an interest in supplying it from their own records, the consultants propose to provide the option for Member States to allow approved employers of drivers to enter data direct to the licence register. This would provide for increased data quality and a reduction in costs. Member States will be under no obligation to use that option and the consultants will therefore also provide for safety authorities to input data themselves. Input by the safety authority will also provide for individual applications.**

### **Change of issuing state**

Since delegates had rejected any obligation to apply to a particular state for a licence, there was no requirement for any decisions on changing issuing state, noting that a licence-holding driver could always apply to another Member State for a new licence. The consultants pointed out that airline practice pointed to employers frequently requiring employees to hold a licence issued by their own supervisory authority despite these licences being valid throughout Europe.

### **Renewals**

**The renewal proposals proposed by the consultants were agreed.**

### **Change of employer and addition of another employer**

**It was agreed as a matter for a Code of Practice, that a new employer would inform the licence issuing authority when the driver took up his employment.**

### **Lost licence**

The delegates agreed that provision should be made for reports of recovery of a lost or stolen licence to be submitted to the issuing authority, but this would not be mandatory.

## **Complementary certificate**

### **Form of the certificate document**

CD said that the consultants were of the view that there was some value in harmonising the form and layout of the certificate, but needed the views of the delegates. The consultants believed that the most sensible option was to allow for local printing of documents based on the data held in the register. This would help to ensure that the register was always up to date and the register and the paper certificate were always aligned. Dependent on national practices, depot stamps and original signatures could be put on the certificates. As appropriate, special paper could be used for printing the

certificates.

Andres Wedzinga of IVW (AW) argued that the question of who needed to view the certificate was very important in deciding on its content; the issuing railway undertaking had no need to view it as they had their own systems and records.

**Following discussion it was agreed that harmonisation of content and format would help those who had to inspect certificates understand their content, bearing in mind the large number of combinations of railway undertaking and state.**

FS pointed out that the data to be displayed on the certificate was mandated in the Directive, the only argument was how this was to be done, and the document layout. In addition, it had to be noted that the certificate would not contain all the data held by the RU about the driver.

### **Coding issues**

#### Rolling stock

There was much discussion on this issue, it being pointed out by delegates that an identical locomotive was coded differently in neighbouring states, an example of locos used in both Germany and Switzerland was cited by EBA. Such locos could pass between countries but the certificates might only permit driving on the one country's locomotives.

The consultants' preference was for coding defined by the employing railway undertaking and prefixed by that railway undertaking's initials (for example "SNCF locos diesel" or "DB BR 103" to the degree of detail which the railway undertaking thought appropriate.

**It was agreed that the consultants would study the subject further and suggest a possible code structure which would be as unambiguous as reasonably practicable.**

#### Issuing authority (= railway undertaking)

MH pointed out that a standard for railway undertaking coding had been developed by a CEN Working Party and a draft CEN Working Agreement had been produced. This code is essentially the same as the RICS code, (a 4-numeric code). IVW pointed out that another code, to be placed on the vehicle side was also available, the Vehicle Keeper Marking, 1-5 characters e.g DB, VT etc. This was easier to understand on something like a printed certificate as it generally needed no translation to a description unlike the RICS code which was unstructured.

**It was agreed that for the printed certificates, railway undertakings would have the option to use: -**

- **RICS code**
- **VKM**
- **Full name of the railway undertaking**

**with the proviso that the entry had to be meaningful. Safety authorities of all the countries for which the certificate was valid would retain a veto in the cases in**

**which the description was ambiguous or potentially misleading. (This is a potential issue for the Code of Practice).**

### Infrastructure

To introduce the issue, there was a discussion of what was meant by infrastructure knowledge. Was it knowledge of individual routes or rather more general knowledge of the body of rules that applied on a particular infrastructure? To the EBA understanding of 'infrastructure' was knowledge of the rules and regulations for the infrastructure; knowledge of routes was a separate issue. It was pointed out that the Directive mandated knowledge of routes. If route knowledge was to be obtained and recorded by the railway undertaking, then knowledge of operating rules etc could be assumed on the certificate, because the route knowledge could not be obtained without the rules knowledge.

There was much discussion on the coding of route knowledge and how it could be shown on the certificate, as there would not be enough space for drivers with wide route knowledge, and the wording and description had to be meaningful to any person reading the certificate.

The consultants had initially suggested that infrastructure coding should be defined by the infrastructure manager. The meeting however decided that infrastructure coding could be decided by the railway undertaking after having circulated his coding proposals to the IM and the Safety Authority of the host Member State for approval. These would then be made available to the railway industry for use by other railway undertakings and infrastructure managers.

The coding might be based on routes defined in the Network Statement of the infrastructure managers covering the routes concerned.

**It was agreed that the consultants study the issues and make recommendations on the data held on the certificate register, and what should appear on the printed certificate.**

### Language competency

**The consultants pointed out that the OPE-TSI describes levels of language competency, with Level 3 mandated for interoperability. This was recommended for use by the certificate, and the language coded using the ISO code standard. This was agreed as the most suitable method.**

## **General issues**

### Retention of data

**The consultants will recommend a suitable harmonised standard for retention of data, as retention until retirement may not be sufficient as some drivers work part-time on heritage railways.**

It was pointed out that some Member States have statutory periods.

### Enquiries

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The consultants requested some feedback on the likely volume of enquiries to the licence register. Experience of the airline industry was that it was very low.

## Role of players

The delegates agreed on the following definitions of role

### Railway Undertakings

Train and employ drivers – issue the complementary certificates

### Infrastructure Managers

Propose and agree route coding standards

### National Safety Authorities

Issue licence documents to drivers. Keep and maintain register of licences and associated data.

### Member States

Implement the Directive legislation

### European Rail Agency

Act as advisers and the recommending body to the Commission,

## Summary & next steps

The consultants summarised the discussions and thanked the delegates for their participation. The next steps were to prepare draft functional and technical specifications, and discuss these at a second workshop. It was agreed that this workshop should take place either in the last week of September or the first week in October 2006.

It was agreed that a 'sounding' board' to answer and questions the consultants had, and to review and discuss the work should be formed. The following delegates agreed to take on this role: -

ERA - Corinna Salander

EBA Heiko Heid

SNCB Hugo Craddoux

IVW A.A. Wedzinga

FS thanked everyone for their contributions to the workshop and wished them a safe journey home.



## Appendix B - Notes of workshop 23<sup>rd</sup>

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## Introduction

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These are the notes of the Workshop held at Centre Borchette in Brussels on the 23<sup>rd</sup> Oct2006.

Those present at the workshop were: -

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## Agenda

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1. Welcome and introductions
2. Summary of the current status of the legislative process.
3. Recapitulation of the study objectives, the study contractors, timescales, and the working methodology adopted.
4. Presentation of the draft Functional Specification  
Discussion of points of principle
5. Presentation of the draft Technical Specification  
Discussion of points of principle
6. Summary and next steps

## Notes

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### Welcome and Introductions

Ms Farha Sheikh (FS) of the European Commission welcomed the delegates to the workshop.

All delegates then introduced themselves. Delegates were present from railway undertakings, infrastructure providers and from national safety and regulatory bodies (see list of delegates).

FS then explained that two system specifications prepared by the consultants were being presented. These arose from the requirements mandated in the Directive, the investigative work undertaken by the consultants, and input from the previous workshop of the 7<sup>th</sup> July. Following agreement on these specifications, the European Railway Agency will be responsible for taking the work forward to implementation of the Directive in Member States, and development of the required systems to support the Directive. The systems need to follow as soon as possible in each Member State after their adoption of the Directive.

FS advised delegates that this, the final workshop, was the opportunity to raise questions and issues regarding the work of the consultants. Issues arising from the Directive requirements could not be discussed at this workshop.

### Summary of the current status of the legislative process

FS advised that the final version of the Directive had now been agreed. The European Parliament had approved the Directive in September 2005, and this decision had now been published in the European Journal on 21st September.

### Recapitulation of the study objectives, contractors, timescales, and the working methodology adopted

Mr Dugdale (CD) for the consultants gave a brief overview of the Directive and the objectives of their study.

The Directive formed part of the 3<sup>rd</sup> Railway Package for implementation in the next few years.

The stated objective of the Directive is to provide “common rules ... on certification of train drivers to facilitate their interoperability and improve management.” This principle has been accepted by the Council and the Parliament, and discussion of the legislative text is currently in hand.

A two level system is proposed in the Directive : -

- a licence issued by the Member State

- a complementary certificate issued by the employer

The two key messages that the consultants had received from the railway undertakings during their study were: -

- the need to control and minimise the costs of introducing the Directive and the systems to support it
- the railway undertakings should play the main role in providing the data and issuing both the licences and the certificates.

The investigatory work, and the results of the questionnaire showed that there were a number of systems already in use by various railway undertakings which supported driver records for competence and suitability. It was clear to the consultants that these systems could form the basis for the complementary certificates, and which also held most, if not all of, the data needed to establish the national register of driver licences in each Member State, and the issue of licences to drivers. Many railway undertakings were of the opinion that they could undertake licence issue on behalf of the Competent Authority and sought systems that would enable this, and the consultants were generally in agreement with this view

Eisenbahn Bundesamt and others, questioned the proposed major role of Railway Undertakings in the operation of the licence system. The question was what checking the Competent Authority, a state authority, should do before accepting and using third party data; after all the licence is a state document with all the legal implications of that and the responsibility of the CA to ensure accuracy and correctness of licences. There was a need for clarity in the role of the safety authority when RUs provided all the data for a licence issue. *(see also post-meeting comments from IVW, (NL) in Appendix A)*

In reply, CD said that even if checked by the CA, inevitably the data would come from the RUs anyway, and only they had systems in place to generate the data and a clear interest in the data being correct. Under the proposal, audit control of driver licence data would be at a system rather than transaction level, i.e. the competent authority would check that the processes in the railway undertakings are adequate to deliver accurate data, not the licence applications and their data submitted by RUs. Therefore the competent authority would not check individual data items supplied by railway undertakings. However, applications for licences from individual drivers not in the employ of an RU, (or persons wishing to become drivers), would, however, be checked 100% because there was no RU system process to be relied upon in this case. In such cases, the licence application would also need to be authorised by the CA before a licence was issued to the driver.

Essentially the proposed licence system allows the competent authority to select the level of trust to be placed in railway undertakings, the competent authority may therefore set parameters (for example) to accept renewal data direct from a railway undertaking but insist on entering the first application data itself. Not all RUs in a Member State may have systems suitable for supporting licence applications; Such RUs would have to submit them to the CA for the CA to process as individual applications. The key point to make was that Competent Authorities would inspect and audit an RU before allowing it to make trusted

licence applications.

FS said that the responsibility of the CAs to check and guarantee correctness of licence data be flagged as an issue. This will need to be checked and progressed by the ERA.

CD then outlined the results of the previous workshop. These were: -

- Traceability of driver data was needed – this implied links between the certificate and licence systems
- Employer(s) of a driver need to be included on the licence register
- Contact details must be left flexible
- Storage of photographic images of drivers needs to be allowed for
- An optional 'short' name needs to be provided for the licence and certificate documents in cases where the full name is too lengthy for the documents.
- The language issues need to be simplified
- Licence Number to be recommended consistent with Art 20
- Authorised RUs to provide driver details for the licence and register
- The need for proposals for Traction and Infrastructure coding which recognise regional coding
- Need to recommend a data retention standard

In terms of traceability, the consultants were of the opinion that a single driver licence record number, to appear on the licence and the certificate, was the only possible option. This number, valid for the driver for the whole time the licence was held allowed each system to operate and exchange data on drivers. Each certificate had to have the licence number upon it, therefore if this number was subject to change at each renewal, or re-issue, every complementary certificate supporting the licence would have to be re-issued. Again, each railway undertaking employing the driver needed to be listed in the licence record, together with the date of starting and terminating employment.

A question was raised on what protection the system gave against re-applications for licences in other Member States for a driver whose licence had been withdrawn. CD replied that the system provided no such protection, in fact there was nothing to legally prevent a driver holding more than one licence provided they were for different Member States, the Directive had no bar on multiple licences for a single driver. The consultants recommended that the proposed Code of Practice cover this subject; a list of withdrawn licences could be circulated between the CAs for instance. This list could be incorporated into systems for checking against licence applications.

RENFE asked if multiple employers, some in different Member States was handled by the system. CD stated that the system allowed for this, although employers outside the licencing state would be unlikely to be provided with an automatic interface, as the system is specific to each Member State.

EBA raised the relationship between the licence and certificate system and other safety systems used for driver competency. After discussion it was agreed that the licence and certificate systems were for providing evidence of skills, but did not, (for instance) authorise the use of traction.

## Presentation of the draft Functional Specification

Fraser Mitchell (FM) of the consultancy team then explained the background to the draft functional specification, and the functions identified as necessary for the two systems. Normally a functional specification was preceded by a business requirements specification. In this case the Directive represented the 'business' requirements, but as an essentially legal document, it had been more difficult to establish the functions of the systems, in fact the consultants had placed additional elements into the two systems to allow them to work better together.

The main point was that the Directive mandates had to be provided, therefore each function was cross-referenced to the Directive. The only function not in the Directive was that of archiving/storage of records for drivers who had retired or who were deceased. This was suggested as an option, but clearly the legal requirements of Member States took preference.

FM then described the various functions assisted by a Powerpoint presentation (see *appendix B*). The key principle was to allow the new system to be introduced without excessive cost, and to protect the rights of the existing driver population of the EU. Therefore an initialisation function had been defined to allow systems to be populated quickly with data provided by the RUs. Licences would be issued once the data was complete and validated, except that the suitability test results would be optional, it being assumed that as the drivers were currently driving trains, they were proven suitable to drive trains.

Eisenbahn Bundesamt queried whether only a court of law could request withdrawal of a licence. FM said that the CA would always have the power to withdraw even if there had been no legal proceedings, but in addition, EU courts of law would also have the right to request a CA to withdraw a licence

RFL asked what expiry date would appear on a certified copy of a certificate given to the driver on leaving employment. FM replied that he would not expect this to have such a date as the certificate would be considered to be cancelled as far as the RU was concerned. The certificate needs to be suitably marked as a certified copy as evidence to a new employer of previous competencies, but it did not guarantee these; the new employer still has a duty to check the driver for suitability for employment. CD said that the document could be a special version of the normal certificate with a date printed on which the copy was valid, plus the date of leaving employment. The easiest solution would be to let the driver keep his certificate but stamp it 'Certified Copy'.

This question gave rise to further discussion, because competencies for traction and infrastructure were normally time limited, and if one of those on the certificate expired the certificate would have to be re-issued. This problem needed further discussion and iteration.

The question of what the register would contain in relation to driver suitability data; medical and other assessments was raised. Some delegates considered that the full medical report results including the testing organisation should be recorded. In reply, CD

said that Article 14(20) is clear that only the result in terms of 'pass' or 'fail' is to be recorded, together with the date of the test. He also pointed out that the questionnaire responses indicated there was a preference for holding medical data in a specific medical file. Therefore the consultants has not included medical information in the proposed system.

UK Department for Transport said that it needs to be clear what the CA can delegate and what it cannot. FM replied that the Directive stated that only a CA can suspend or withdraw a licence; all other functions can be delegated.

FM pointed out to the delegates that he had not proposed a specific 'Renew Certificate' function, although this was present in the licence system. He had omitted this because in his view, with the continual changes to driver competencies and expiry of competencies, the certificates would be subject to continual re-issue, unlike the licence with its 10 year validity. However, if delegates wished this could be included as a function. It was then agreed that this function be included in the final draft, because the certificate was defined in the Directive as having an expiry date, implying the need for renewal.

Much discussion took place on the coding of infrastructure and traction. CD explained that it was proposed that the RUs use their current coding system with the CA having the right to challenge and veto its use. In fact the description could be free-form text or coded.

The 'Additional Information' section on the certificate was discussed. The consultants agreed to add a field to show the type(s) of additional information.

IVW queried the Driving Category field. The Directive referred to Categories A and B but for B it referred to carriage of passengers and/or goods. The competency requirements were very different for the two classes, but the certificate did not provide any means of distinguishing between the two. In reply, the consultants stated that they had to follow what the Directive required, and that was to show a driver in either Category A or B, or in both

Other points raised were: -

- the need for a driver e-mail address for individual applications made via web-pages
- to provide for safeguarding of certificate data in case of bankruptcy of the RU
- provision for licence printing by an RU on the basis of extracting the appropriate certified record from the CA register.
- Explanation of 'cancelled' certificate. FM explained that cancellation was a matter for the RU, but would occur on leaving employment, or if the driver became unsuitable for driving.
- UK Network Rail pointed out that 7.1.1 (para 4) refers to infrastructure managers be delegated to issue and manage traction codes, and pointed out that this was incorrect.
- IVW considered the involvement of the IMs in infrastructure codes was incorrect. MH agreed that as a compromise, the RU could propose a coding possibly in agreement with the IM or by re-using an IM proposal. In all cases

the CA would have the right of veto.

- Eisenbahn Bundesamt asked why Vehicle Keeper Marking could not be used as the employer short name, (or code) on the certificate. MH said this will be considered.
- Finland asked about obtaining licence data from a CA in another Member State. MH said there was a requirement for CAs to exchange data but not how this was to be achieved. He expected that a request would have to be made to the CA concerned. For regular cross-border drivers, the relevant RUs could possibly arrange view access to the register.
- Both Finland and the UK said that cross validation with Part B of the safety certificate under the Safety Directive was necessary. MH agreed this would be specifically mentioned as a systems requirement.

## **Presentation of the draft Technical Specification**

Peter Beevers provided an explanation of the technical specification using a Powerpoint presentation. Eisenbahn Bundesamt asked if the expression MQ series was referring to the IBM product or was meant generically. PB replied that it was generic, i.e. asynchronous messaging was an option for data exchange.

The suggestion of the standards to be applied when developing the systems came under notice with Eisenbahn Bundesamt considering that EN50128 was not necessary. Mick Haynes for the consultants agreed to clarify the matter in the documents

## **Summary and next steps**

It was agreed that: -

- ATOS will produce notes of the workshop, summarising the comments made and identifying any amendments to the technical and functional specifications
- These notes will be circulated to the workshop attendees; they will be given ONE WEEK to make comments
- The technical and functional specifications will be updated and circulated to the workshop attendees ONE WEEK after the workshop notes have been sent out
- TWO WEEKS will be allowed for comments. After this time, the documents will be updated by ATOS in line with any comments and then finally submitted to the Commission.

This ensures the final versions of the specifications will be available to the Commission by the end of November.

Finally FS thanked everyone for their contributions to the workshop and wished them a safe journey home.

## Legal Issues from IVW, Netherlands

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*Comments post-meeting by e-mail from Andres Vedzinga*

### **Legal issues**

The licence is described in the Directive as a document issued by a CA. The CA is part of the MS Government, and the Transport Minister bears full political responsibility for each licence issued - noting that per country there can be different rules regarding responsibilities of independent authorities. A MS will implement the Directive in a legal structure that satisfies this responsibility, according to its national practices.

Generally, rules of government administration require a government (or authority) decision - such as issuing a licence - to be based on adequately proof that the relevant requirements are fulfilled. So the issuing organisation must avail of such proof, like statements on test results, to support each licence it issues. Just the single fact that a RU or IM providing information holds a safety certificate does not satisfy this. Additional legal safeguards will be required. The issue of reliable identification and linking to national population registers is just one of issues here.

The responsibility of the CA does not reduce the possibility for a CA to delegate part of its tasks, as described in the Directive. Such a delegation must fit into the legal structure of the MS. This may, depending on its legislative practice, require that each individual RU (or other organisation) to which this task is delegated must be mandated through a formal decision of the MS. The holder of such mandate must, like the CA itself, collect and store the proof of eligibility for a licence. Also strict control measures linked to the mandate may be necessary.

"Collecting the evidence" does not rule out electronic exchange of information. Electronic signatures linked to an electronic statement or "protected" files (pdf's?) can well serve this purpose. Also when a RU has direct input access to the register, the evidence must still be provided. Whatever the choice of the MS/CA, there must be adequate regulation of the providers of the information - not provided or described in the Directive, but to be set up under national law - to satisfy the needs of government responsibility.

## Appendix C - Contract requirements

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The contract defines the work the contractor is required to undertake in Annexe I to the contract. The appropriate sections of this annexe are shown below: -

### 2.2. Tasks to be performed under this procurement contract

The purpose of this study is to draw up a set of technical and functional specifications (basic parameters) which can meet the requirements of the proposed directive. Basically, this means defining at least the following parameters: data to be recorded, their format and the data exchange protocol, access rights, data management (i.e. how will the data in the register be organised and managed - and who will be responsible for it), data security (i.e. to ensure that the data within the register is resilient to both software/ hardware corruption and intentional/unintentional human corruption), the duration of data retention, the procedures to be followed in case of bankruptcy. One of the main difficulties concerns the management of access rights, as the register must be available to various players: the competent authority, the railway undertaking, the infrastructure manager (where appropriate) and, possibly, third parties. Another major difficulty is linking the different registers, whether between the authorities of the Member States or within a Member State between the competent authority and the railway undertakings.

In order to achieve this objective, the following tasks are planned:

- (1) examining existing registers;

The study shall undertake an inventory of the existing train drivers registers and describe precisely the way in which they are produced; who does what, how and for what purpose? From a geographical point-of-view, all EU Member States including Romania and Bulgaria shall be covered; in addition, Norway and Switzerland shall also be covered. The purpose of these registers, their validity, their scope, their content, the tool they use (or the database they use) shall be described. The results shall be compared with the requirements of the latest version of the future Directive (Common Position of the Council, EP 2nd reading report, ...) and any important difference identified.

- (2) identifying best practice, if possible in line with the proposed certification scheme in which two players are involved: the competent authority and the railway undertaking (or, as appropriate, the infrastructure manager);

- (3) identifying the basic parameters for which functional and technical specifications will need to be drawn up;

- (4) drawing up the functional and technical specifications of the proposed register;

- (5) organising a workshop with the players in order to validate the proposed specifications;

The workshop will be organized in Brussels by the Consultant and will host an attendance of typically 120 persons. The list of invited bodies/ experts will be submitted for approval to the Desk Officer, as well as the invitation letter.

- (6) identifying three technical architectures which will enable the specifications to be met and evaluating the economic impact of these architectures for the various players;

- (7) making recommendations on the most appropriate architectures;

- (8) organising a final workshop with the players in order to discuss the recommendations;
- (9) finalising the final report.

### **3. REPORTS AND DOCUMENTS TO BE SUBMITTED**

#### **3.1. Kick-off meeting**

The work shall start from the signature of the contract.

Shortly after the signature of the contract a kick-off meeting will be held in (Brussels) in order to settle all the details of the study, report, etc to be undertaken.

#### **3.2. Interim reports**

Interim reports have to be submitted the Commission at the end of tasks 3, 5 and 7 identified here-above in section 2.2. The interim reports explain the results achieved in the previous tasks; they shall be submitted preferably in English and may be sent by email, except for the interim reports linked to payments that need to be sent by mail in paper format, as well as by email.

Within 20 days (40 days if the interim report is not in English or French) after the submission of the interim reports the Commission will provide the contractor with its comments; the date of a meeting in Brussels will be agreed in order to discuss the Commission's comments and/or the corrective actions proposed by the Contractor.

#### **3.3. Final Report**

Not later than 8 months after the signature of the contract the draft final report is to be submitted to the Commission; it shall be submitted preferably in English and by mail in paper format (three copies), as well as by email.

Within 20 days (40 days if the interim report is not in English or French) after the submission of this draft final report the Commission will provide the contractor with its comments on the draft final report; the date of a meeting in Brussels will be agreed in order to discuss the Commission's comments and/or the corrective actions proposed by the Contractor.

After this meeting, the Contractor shall have 20 days in which to submit additional information or a new report.

Once agreed, 8 copies of the final reports shall be supplied on paper form and one copy in electronic form, in MS Word and in PDF format.

The Commission may publish the results of the study. For this purpose, the tenderer must ensure that there are no restrictions based on confidentiality and/or intellectual property rights are expected from third parties. Should he intend to use the study data, which cannot be published, this must be explicitly mentioned in the offer.

## **Appendix D - Functional Specification**

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This appendix is bound separately.

## **Appendix E - Technical Specification**

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This appendix is bound separately.