



Ing. Jaroslav Kocourek, Ph.D.

**Interoperabilita evropského železničního systému
Interoperability of the trans-European railway system**

The principal European legislation relating to the first and second railway packages and in particular to the interoperability of trans-European railway system. Technical specifications for interoperability and their applications concerning assessment of conformity process. The importance of ERTMS in the control-command and signalling subsystem and overall objectives of the interoperability applications are stressed.

Ing. Miroslav Stehlík - Ing. Martin Vošta

**Interoperabilita a legislativa ČR
Interoperability and legislation in CR**

Interoperability is the essential assumption of the railway transport development in the European Union. Within the framework of transport policy the European Commission took steps towards the full implementation of interoperability, which resulted in the adoption of directives on interoperability relating to conventional and high speed system. Based on these Directives which need to be transposed into the Czech rule of law the CR Parliament adopted the amendment to the Railway Act and other implementing regulations are amended or drafted, as well.

The objective of the Czech Republic is to implement all appropriate directives in the shortest time and to allow that all railway entities will implement the interoperability scheme. The key benefit will be undoubtedly the Government regulation which is now in preparation and will deal in full detail with the issue of placing on the market of components, parts and subsystems of interoperability and related activities.

The European Commission issues the set of directly applicable regulations determining technical requirements for individual subsystems. In the Czech Republic the valid technical specifications for interoperability will be published in the Official Journal of the European Union and will not be directly incorporated in any Czech legal regulation.

The interoperability of railway system must be approached from the point of view of the long-term process.



Ing. Radek Čech

**Výbor pro interoperabilitu a bezpečnost
The Interoperability and Safety Committee**

Brief information about activity of the Interoperability and Safety Committee. Current status of the Technical Specifications for Interoperability which are currently under negotiation (TSIs). Further development of the TSIs implementation is outlined.

Ing. Zdeněk Lenc

**Činnost koordinační a systémové skupiny AEIF
The activity of the European Association for Railway Interoperability (AEIF)**

The article gives information on the European Association for Railway Interoperability (AEIF) activity in drafting the technical specifications for interoperability (TSIs) at the turn of the years 2004/2005. Currently, it mentions the role of the newly established European Railway Agency (ERA) based at Valenciennes / Lille (France). The Agency should fully operate its activity in May 2006 focused on the railway interoperability and safety in Europe. The Agency should carry on the existing works of AEIF concerning the drafting of TSIs.

Ing. Libor Lochman, Ph.D.

**VÚŽ na cestě k notifikaci
VÚŽ on the way to notification**

VÚŽ (Railway Research Institute) – Approval of interoperability directives became an assumption for notification of bodies authorized to assess conformity of products in compliance with applicable Technical Specification for Interoperability. According to the Amendment to the Railway Act in the Czech Republic only Authorized persons can become notified bodies by course of Act No. 22/1997. The applicant's eligibility for giving status of Authorized person is examined by the Czech Office for Standards, Metrology and Testing (ÚNMZ). VÚŽ - Railway Research Institute has been preparing for this status since early 2004 with a view to completing this process by 2005. Review of eligibility and procedures required for status of Authorized person is given in the paper.



Ing. Jiří Bulis - Ing. Miloš Hrdina

Projekt PHARE CZ 02-03-01
Project PHARE CZ 02-03-01

Brief information about tender conditions for the project PHARE CZ 02.03.01 „Application of the Directive 2001/16/EC on the Interoperability of Railways“ and about technical aid, organization and solution approach. Drawing up of technical specifications (terms) for interoperability. Short conclusions of the project concerning the transition period and draft of the strategic investment plan for implementation of the technical specifications for interoperability.

Ing. Libor Lochman, Ph.D.

Technické specifikace pro interoperabilitu subsystému „Řízení a zabezpečení“
Technical specifications for Control-Command and signalling systems

TSIs – In 1996 and 2001 the European Commission issued directives concerning the interoperability of the European high-speed rail system and consequently of the trans-European conventional rail system. In connection with these Directives the technical specifications for interoperability (TSIs) were developed including specifications for Control-Command and signalling systems. In this field the basic element of the interoperability is the European Railway Traffic Management System (ERTMS). As regards conventional lines the requirements substantially go beyond the framework of the ERTMS specifications to maintain and to ensure a perspective seamless vehicle and track compatibility. Problems of the TSIs application are discussed in the paper.

Ing. Petr Jindra

Technické specifikace pro interoperabilitu subsystému „Telematické aplikace v nákladní přepravě“
Technical specifications for Interoperability, Subsystem Telematic Applications for Freight (TAF TSI)

The paper gives brief information on the origin process of the Technical Specification for Interoperability, Subsystem Telematic Applications for Freight (TAF TSI). It considers the impact of their release in the form of the European Commission's regulation on all participants in the international rail freight service. It also reminds of the legal basis of these specifications and their assumed demanding and expensive implementation.



Ing. Jan Hlaváček

**Technické specifikace pro interoperabilitu subsystému „Hluk“
Technical specifications for interoperability of the subsystem „Noise“**

The article is about TSI for the subsystem „Noise“. It briefly describes not only the contents of the above mentioned TSIs, but also political background with emphasis on sustainable development and environmental friendliness. It forecasts potential problems in relation implementation of the directive in the Czech Republic and it also shows how to meet its requirements.

Ing. Jan Matějka

**Interoperabilita z pohledu elektrické trakce
Interoperability of stable electric traction devices**

The basic explanation of the term Interoperability in connection with the new situation in the European Union, which implies the gradual integrating national railway networks. Requirements for interoperability of stable electric traction devices and its cooperation with pantographs of electric power cars in accordance with the recommendations of the High Speed TSIs for subsystem Energy. Defined conditions of specifications for junction lines included in the afore-mentioned TSIs will be the basis of the Conventional TSIs for Energy, which are currently being developed. The present situation of ČD, a.s. and progress in this field.

Ing. Jan Větrovský

**Technické specifikace pro interoperabilitu subsystému
„Kolejová vozidla – nákladní vozy“
Technical specifications for interoperability of subsystem „Rolling stock“**

Information about legislation development leading to the emergence of TSIs for freight wagons and the impact on the legislation in the Czech Republic. A brief outline indicating how these changes will affect further development of freight rolling stock in the Czech Republic, what requirements will have to be satisfied and related risks.



Ing. Vincent Madurkay

**Sběr výchozích údajů pro založení registru vozidel podle TSI
Data collection for foundation the registers of vehicles**

The issue of vehicle registers and data collection for these registers. In future the vehicle registers will be the significant source of information about technical design of vehicles and about their current construction and technical conditions. The purpose of vehicle registers is to provide rail operators and customers with all substantial data both about characteristics of series and about specific vehicles. Consequently, the adequate and update data gathering for vehicle registers is a very responsible and important task.

PhDr. Stanislav Dekoj - Ing. Jakub Pěchouček

**Vlakový personál a interoperabilita
Train personnel and interoperability**

Train personnel interoperability requires above all the drawing up and adoption of TSIs for traffic operation and management, which in the chapter „Safety“ include the conditions such as: „specification of drivers and on-board staff qualification ... to ensure safe operation“ and in the chapter „Reliability and Availability“: „training and qualifications of the maintenance control centers staff, ... must ensure the high level of reliability and availability of rail systems“.

PhDr. Zuzana Michálková

**Interoperabilita – přehled základních dokumentů a adres
Interoperability – a review of basic documents and addresses**

In 90s of the last century a need to solve matters of a technical interoperability started to be reflected in the European Union legislation. Firstly, the attention was paid to the high speed interoperability in the context of the trans-European high speed networks development and than, based on the gained experience, the conventional interoperability began to be the subject of the EU legislation, as well. Technical issues of the standardization are solved in so called technical specifications for interoperability. The availability of unofficial and official translations of the EU legislation in a paper form and on the Internet.