Activities of the European Commission in rail transport

Submitted by the European Union

This document summarizes developments that took place during 2015 in the European Commission’s work on rail transport.

In January the European Commission adopted an improved set of specifications for ERTMS, the results of two years of cooperation among railway experts. These new technical requirements (Technical Specifications for Interoperability – TSI) have taken effect upon notification to Member States and are applicable as of July 2015 across the whole European railway network.

This Decision contained an improved set of detailed system specifications, recommended by the European Railway Agency, the "ERTMS system authority", which are the results of work that stakeholders committed themselves to do with the European Railway Agency in the Memorandum of Understanding signed between them and the Commission in Copenhagen in 2012 to complete what has been adopted in Decision 2012/696/EU. This Decision also clarifies technical requirements and extends them to the whole railway system in the EU, as this has been the case for the other TSIs (cf. rail news of 18/11/2014).

The Technical Specifications for Interoperability (TSI) are adopted in accordance with the Interoperability rules (Directive 2008/57/EC), and they define the technical and operational standards which must be met in order to ensure that trains can run throughout Europe without technical problems and meet the essential requirements (safety, reliability and availability, health, environmental protection, technical compatibility and accessibility). TSIs cover all aspects of the rail systems, such as infrastructure, energy, rolling stock, signalling, train control, traffic operation and telematics applications for passengers and freight services.

In March a report was issued by the Commission on rail passenger rights.

The report provides a factual overview over the situation of rail passengers’ rights in the EU in the past five years, since the entry into force of the Regulation on 3 December 2009. The projection on the future application of the rules, i.e. the renewal of the exemptions, is based on information provided by Member States and is subject to future changes.
In the past five years, only four Member States have fully applied the Regulation on rail passenger rights, while 22 have granted exemptions to varying degrees. The report also stresses that the extensive exemptions have led to legal insecurity for both passengers and the rail industry. Looking at the future, the report findings show that only one more Member State will fully apply the rules. A level playing field for railway undertakings and a high level of protection for passengers in the EU is therefore still far from a reality.

Rules on rail passengers' rights apply, in principle, to all rail passenger services in the EU. However, the Regulation gives the possibility to Member States to grant exemptions to certain domestic services, either to ease the phasing in of the Regulation or to take into account the specificities of certain services, notably the urban, suburban and regional ones. The rail services that can be exempted are:

1. Domestic services for a maximum period of five years, renewable twice;
2. Urban, suburban and regional services;
3. Services or journeys of which a significant part is operated outside the EU for a maximum period of five years. This exemption may be renewed.

In addition another study was issued during 2015 by the Commission on the cost and contribution of the rail sector.

Purpose of the study

The rail sector makes a substantial contribution to the European Union (EU) economy, directly employing 577,000 people across passenger and freight operations, and the provision of track and station infrastructure. Some estimates suggest that, once the entire supply chain for rail services is taken into account (e.g. including train manufacturing, catering services etc.), the economic footprint of the rail sector in Europe extends to 2.3 million employees and €143 billion of Gross Value Added (some 1.1% of the total). It is also critical to the EU strategy for improving economic and social cohesion and connectivity within and between Member States.

The key findings of the study are as follows:

- Despite an unfavourable economic climate across much of the EU between 2007 and 2012, rail passenger km have grown, although tonne km transported by rail have fallen significantly.
- The overall cost of the rail industry in the EU is €110 billion, 60% of which is covered by passenger and freight revenue, 30% by public subsidy and the remainder by other sources of income.
- Railways in different Member States vary considerably in terms of their national characteristics, and any analysis of their comparative efficiency levels must take account of the impact of geographical, demographic and other external factors.
- Levels of efficiency in the rail sector are also influenced by scale effects – some Member States that appear to be performing less efficiently are actually performing relatively well once the limited size of their networks is taken into account.
- Some Member States, notably Bulgaria, the Czech Republic, Hungary and Romania, nevertheless have substantial scope for improving the total capital productivity of their railways.
- If all Member States were to achieve levels of efficiency equivalent to the highest performing peers in their cluster, the NPV of the resulting increase in direct Gross Value Added (GVA) between 2015 and 2030 could be €32 billion; when including indirect GVA generated by upstream sectors, the benefits would rise to €64 billion.
The increase in rail activity resulting from reinvesting the operating surpluses can generate 1,600 direct jobs and a broadly equivalent number of indirect jobs over the period 2015-2030.

Various deficiencies in the data limit the potential for analysis, and hence the information required to inform policy both at national and EU level.

Shift2Rail

The Shift2Rail Joint Undertaking (S2R JU) is a new public-private partnership in the rail sector, established under Horizon 2020, to provide a platform for coordinating research activities with a view to driving innovation in the rail sector in the years to come. It was established on 7 July 2014, following the entry into force of Council Regulation (EU) No 642/2014 of 16 June 2014 establishing the Shift2Rail Joint Undertaking.

The rationale for setting up a Joint Undertaking is that the pooling and coordination of R&I efforts at EU level stands a better chance of success given the transnational nature of the infrastructure and technologies to be developed in support of the Single European Railway Area, and the need to achieve a sufficient mass of resources.

Rail research conducted within Shift2Rail must contribute to addressing the challenges faced by the rail sector through a comprehensive and coordinated approach to research and innovation focusing on the needs of the rail system and of its users.

The activities of the Shift2Rail Joint Undertaking (S2R JU) are identified in a common, forward-looking strategic Master Plan and are organised around five key "Innovation Programmes": cost-efficient and reliable trains, including High-Speed and high-capacity trains; advanced traffic management & control systems; cost-efficient and reliable high capacity infrastructure; IT Solutions for Attractive Railway Services; Technologies for Sustainable & Attractive European Freight.

The Founding Members of the Joint Undertaking are the European Union plus eight key players from the rail industry, including rail equipment manufacturers Alstom, Ansaldo STS, Bombardier, Construcciones y Auxiliar de Ferrocarriles (CAF), Siemens and Thales, as well as infrastructure managers Network Rail and Trafikverket. These have already committed at least €30 million each to Shift2Rail.

Additional members are being selected through an open call that launched in October 2014, on the basis of an assessment of the contribution they can make to the objectives of S2R, as laid down in the Shift2Rail Regulation and in the Shift2Rail Master Plan. The aim of the open call is to ensure that the railway operating community and other important public and private stakeholders in the railway sector, as well as research organisations, SMEs and actors from outside the sector, are fully represented.

Results and benefits expected

Shift2Rail will contribute to:

- Cutting the life-cycle cost of railway transport (i.e. costs of building, operating, maintaining, renewing and dismantling infrastructure and rolling stock) by as much as 50 %;
- Doubling railway capacity;
- Increasing reliability and punctuality by as much as 50 %.