

## Broad-gauge infrastructure in northern & eastern Europe

### A particular part of the European railway system

The majority of the trans-European railway network was built with a 1.435 mm track gauge. Due to historical reasons and in particular the vicinity to Russia, Belarus and Ukraine, some European railway networks differ in terms of technical parameters and operational aspects:



- **Finland** (1.524 mm broad-gauge network)
- **Estonia, Latvia and Lithuania** (1.520 mm broad-gauge networks)
- **Poland and Slovakia** (1.520 mm broad-gauge lines)

The differences between the 1.435, 1.520 and 1.524 railway systems are not limited to the track gauge, but include a wide range of aspects of both the infrastructure and rolling stock. This CER Fact Sheet highlights the differences of the broad-gauge systems and showcases their specific needs in light of the 4<sup>th</sup> Railway Package's Technical Pillar.

### Technical Specifications for Interoperability (TSI)

Technical Specifications for Interoperability (TSI) are specifications drafted by the European Railway Agency and adopted by the European Commission to ensure the interoperability of the trans-European rail system. The specific requirements of the broad-gauge networks were included in these specifications, ensuring a common European legal framework. To be more precise, some requirements of the TSIs do not apply to the broad-gauge networks (e.g. for 1.520 freight wagons), some exceptions were made and the Noise TSI exceptionally does not apply.

A huge number of freight vehicles coming from third countries (e.g. the Russian Federation) are operated on the broad-gauge networks in Europe, serving the needs of industry and business. For the countries concerned, the profitability of their railway

networks depends on their third-country neighbours. The specific needs of these countries and their networks need to be respected so as to allow the railway sector to keep its competitiveness.

### The particular situation in the different countries

#### Finland

In general the Finnish 1.524 rail system is different from the 1.520 networks. The only parameters coinciding with the 1.520 system are the broad track gauge and structural gauge.



The railway system on the Finnish territory and the domestic rolling stock is TSI compliant. EU legislation is fully applied for the management of Finnish rail infrastructure, Finnish rolling stock and rail operations.

Export and import traffic to and from Russia as well as transit uses third-country, i.e. mainly Russian wagons. Wagons built according to third countries' standards are operated on the Finnish territory solely in Finnish-Russian traffic. Finnish-Russian rail traffic and usage of third-country wagons are based on bilateral governmental agreements. All rolling stock coming from Russia, even if it is actually from another country participating in the common 1.520 fleet (Commonwealth of Independent States (CIS) and Baltic countries), is treated under the provisions of these agreements.

#### Estonia, Latvia and Lithuania

The railway networks of these three countries are in many aspects integrated in the whole 1.520 rail network. The freight wagons are operated jointly with the railways of the CIS countries. In addition, there is transit traffic to the Kaliningrad region through the territory of Lithuania.



The common operation of freight wagons with the railway companies of the CIS is the main activity for the railway transport sector of the Baltic States.

This issue is very sensitive; and the underlying common technical requirements are the basis for the existing regional interoperability.

Baltic wagons may be and actually are exploited on the whole 1.520 network, even for services between other countries. Any wagon from this common fleet may enter into the Baltic territory. All wagons are registered in a common automated database shared

by the “railway administrations” of the CIS and Baltic countries. This register uses an 8-digit numbering system and is accessible to all the participants online at all times.

It is important to note that all the infrastructure maintenance and all costs related to it are mainly financed from the freight transit revenues. So far there is no state funding available for the maintenance.

In addition, there is no freight transit to the 1.435 mm systems, solely to the 1.520 mm systems. Lithuania does reload the 1.520 mm network wagons onto the 1.435 mm network wagons, however this does not account for much of its trade on rail. What is more, Estonia and Latvia are only part of the OSJD freight corridors and not part of any EU freight corridor (Lithuania is part of freight corridor No. 8). Thus it is of utmost importance not to hinder the freight traffic on the 1.520 mm systems by any requirements that do not bring economic benefit to the systems.

#### Broad-gauge lines in Eastern Europe - not an integral part of the European railway system or the domestic rail network in Poland and Slovakia

The 1.520 system is not the main one in these countries. Broad gauge is only used on some lines coming from the border (these lines are not interconnected). The technical and operation rules for these lines are mainly the same as for the 1.435 ones, except for what is strictly necessary for the compatibility with rolling stock from third countries.



#### CER recommendations for the 4<sup>th</sup> Railway Package's Technical Pillar

- A clear distinction is needed between the **broad-gauge networks in Europe** (in particular Finland and the Baltic States)
- The **agreement on the common usage of the fleet of 1.520 freight wagons needs to be fully respected**. Vehicles exclusively coming from or going to third countries where the track gauge is different from that of the main rail network within the Union will never be used for interoperable trans-European rail services. Not applying TSIs, or parts of them, is therefore appropriate.
- **Rolling stock entering the European Union from third countries** should not have to be re-authorised either by the European Railway Agency or by the National Safety Authorities.
- **Initial authorisation for third-country rolling stock entering Finland** should be done in the

country of origin (Russia), and subsequent authorisation on the Finnish network should be done according to national rules as well as mutually-agreed rules based on bilateral governmental agreements.

- TSIs should not be applied for 1.520 networks if the requirements of **Article 7 of the Interoperability Directive** are fulfilled.
- **New, renewed or upgraded broad-gauge locomotives, passenger coaches and infrastructure** should be authorised by the National Safety Authority in charge.
- **Polish and Slovakian broad-gauge lines** (not constituting a network) connected to third-country broad-gauge networks should not be subject to detailed EU legislation as they are neither an integral part of the EU rail system nor of the domestic network(s). Special exemptions in the 4<sup>th</sup> Railway Package should be foreseen for such lines.
- **Collaboration with the Organisation for Co-operation between Railways (OSJD)** on the analysis of the common 1.520 specifications is ongoing. The results of this task may be used for the preparation of a common EU 1.520 specification in the future.

The exchange of vehicles with third countries is of high importance for the broad-gauge networks in northern and eastern Europe as their rail transit on the 1.520 mm network.

The bilateral agreements with the CIS States for vehicle exchange need to be respected in terms of safety and interoperability as well as a distinction made between TSI application in Finland and the Baltic countries (where TSIs are applied alongside notified national rules plus third-country standards).

CER recommends taking the above-listed bullet points into account when shaping the requirements for the broad-gauge networks in Europe.