Working Party on Transport Statistics

Sixty-sixth session
Item 3 (b) of the provisional agenda
Data collection, methodological development and harmonization of transport statistics

(Rail) line kilometres in official transport statistics

Proposal by ERA on changes to Glossary on transport statistics

I. Background

In early spring 2015, one National Safety Authority for railways submitted an enquiry to ERA about the correct interpretation of definition and reporting of the length or railway network to European Authorities. There were notably diverging views between the national statistical office and the national (rail) safety authority partly stemming from the application of two different legal frameworks for the reporting of rail transport statistics.

The issue in question is whether under the length of the railway network measured as line-km, only the geometrical distances between origins and destinations should be counted as opposed to the view that tracks departing from the main lines that are used for running trains should also be included.

Statistics on the length of railway were introduced in the Annex I to RSD with the sole objective to be used as a normalizer in the numerical expression of risk (notably those defined under the common safety targets). Since the rail accidents are defined as accidents involving running trains, it was straightforward to delimit the length of tracks (lines) to those used by trains.

Statistics under the Reg. 91/2003 have, on the other hand, multiple purposes, ranging from safety to economy, with the “railway network” concept at its heart, leading to a prevalent understanding of the geometrical measurement of that network, rather than that of the infrastructure itself.

II. Problem description

The issue arises with the line-km only, not with the track-km where the interpretation of the Regulation 91/2003 and of the Railway Safety Directive (49/2004/EC) is the same.
Track kilometres means the length of all the running tracks + the length of the sidings at stations which are used for train operations managed by the infrastructure manager + tracks of the marshalling yard used for train operations. Private sidings + tracks at warehouses/depots/workshops + tracks of the marshalling yard not used for train operations are excluded. (Ref. definitions A.I-01+A.I-03+A.I-04 in the Glossary).

For line kilometres, the definition in the Glossary A.I-06 rather suggest that only the route between origin and destination is meant, i.e. excluding all sidings, marshalling yards, … Basically all tracks running out of the main (continuous) line are to be excluded. The Annex I (RSD) definitions suggest that the only difference in length between line-km and line-km should be the number of tracks, while both likely being restricted to the network (as in A.I-06).

Unfortunately, the 91/2003 does not contain the definition of the line (track) -km, and the only reference that remains is the Glossary of transport statistics. Moreover the Glossary leaves some open space for the interpretation of terms track, main-track, line, etc.

III. Analysis

Railway network and its length are important statistics used to describe the basic characteristics of national railway systems, notably its density and extent. However not suitable definition is provided in neither EU legislation nor in the Glossary.

The length of track (line) kilometres describe the physical inventory of assets, thus including each section or tracks used for running trains. The length of all line kilometres would therefore be superior to the length of the railway network since additional tracks needed for operational purposes would be included.

IV. Conclusion

Definition of the national length of track/lines/railway network may need to be introduced either in the EU legislation, or in the Glossary, to provide necessary reference for national statistical authorities that nowadays struggle to understand the principles and nuances of the concepts applied.

The WP.6 of the UNECE may be the most appropriate forum to discuss the issue and ultimately adopt more straightforward definitions of terms that would be aligned with the legally binding terms used in Annex I (RSD).

V. Proposal

It is proposed to amend the Glossary as follows:

Black: Old definition

Italic underlined: New parts.

A.I-03 Running track

A track providing end-to-end line continuity designed for trains between stations or places indicated in tariffs as independent points of departure or arrival for the conveyance of passengers or goods.
Tracks at warehouses/depots/workshops should be excluded. The boundary of the workshop/warehouse/depot is the point at which the railway vehicle leaving the depot/warehouse/depot cannot pass without having an authorization to access the mainline or other similar line. This point is usually identified by a signal.

The length of tracks (and lines) refers to the number of running tracks used for train operation.

A.I-06 Line

One or more adjacent running tracks forming a route between two points. Where a section of network comprises two or more lines running alongside one another, there are as many lines as routes to which tracks are allotted exclusively.

Line length of lines refers to line consisting of one or more running tracks which are used for train operations.

A.I-17 Railway network

All railway lines in a given area.

The length of the railway network is the cumulative length of all lines.

This does not include stretches of road or waterways even if rolling stock is conveyed over such routes, e.g. by trailers or ferries.

Lines solely used for operating touristic trains and heritage trains are excluded as are railways constructed solely to serve mines, forests or other industrial or agricultural installations and which are not open to public traffic.