UIRR INTERNATIONAL UNION FOR ROAD-RAIL COMBINED TRANSPORT

POSITION PAPER

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TSI Telematics: Intensified and Improved Data Sharing as the Path to Increased Competitiveness of Road-Rail Combined Transport

UIRR welcomes the European Commission's non-paper on TSI Telematics which mandates the sharing of high-quality and interoperable data pursuant to the Data Act - Regulation (EU) 2023/2854. UIRR also welcomes the removal of barriers to the sharing of data between the relevant stakeholders, including intermodal operators and terminal operators by respecting the so-called Rotterdam Clause of the Ministerial Declaration on Rail Freight Corridors to boost international rail freight (TEN-T Days 2016)[1].

The TSI Telematics is essential for door-to-door intermodal freight transport, bringing together several intermodal stakeholders and different transport modes in a productive and efficient way, to perform a single cargo movement typically over longer distances. Today, intermodal freight transport represents about 50% of the total freight transported on rail.

Why sharing relevant data in combined transport is so vital

Although intermodal rail freight has significant energy and GHG efficiency advantages when compared to unimodal road transport, some potential shippers and logistics service providers do not yet shift their transport assignments to intermodal rail freight. The lack of information and service quality are a twin challenge for the competitiveness and the attractiveness of intermodal rail freight services.

The need for consistent and complete digital information exchange at an affordable cost across the entire supply chain is a key prerequisite for improving data quality and subsequently overall service quality. The CEF-funded EDICT project[2] addresses this vicious or virtuous circle (see Figure 1) by improving the availability and quality of intermodal rail freight transport-related data aiming to increase the transparency of information for all intermodal stakeholders. The project has identified several serious hurdles to improve the information flow in the road-rail sector.

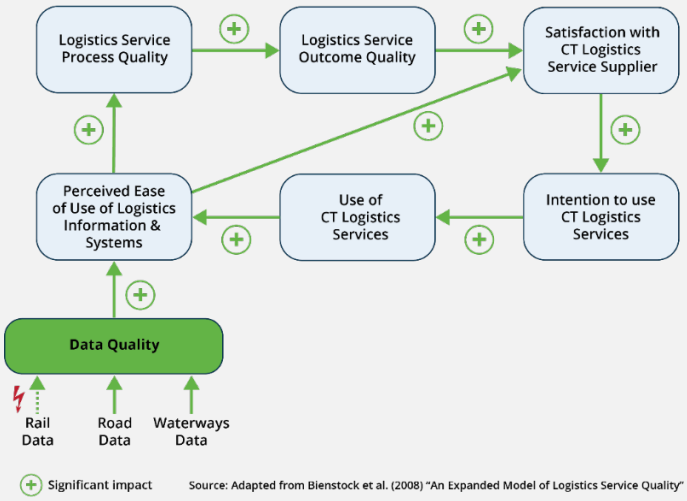

Figure 1 - Impact of high-quality date sharing on the competitiveness of intermodal freight transport

[1] https://www.uirr.com/en/component/downloads/downloads/1170.html
[2] https://edict-project.eu/

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In comparison with other transport modes, rail freight is more restrictive in its data sharing practice, it sometimes lacks capabilities and consequently fewer data are shared and exchanged[3]. This puts potential intermodal freight transport customers at a disadvantage, as they are not able to receive and process high-quality interoperable data on the rail freight portions of intermodal transport chains. The lack of transparency in the flow of goods increases the risk of complaints and penalties with little possibility to derive preventive actions. This situation greatly reduces the willingness to trust the intermodal transport ecosystem when it includes rail freight, in terms of important KPIs such as reliability and timeliness. These shortcomings lead to additional stress for the customer and reduce its inclination to choose intermodal rail freight as their preferred transport solution.

Current hurdles to data sharing in Combined Transport

The missing international freight train identification numbering, as well as various regulatory, legal and contractual barriers to access rail freight-related data, despite the Rotterdam Clause, and certain data gaps are important obstacles for rail freight compared to other transport modes where data sharing practice is more advanced. Combined Transport stakeholders encounter excessive manual work, data access formalities, and heuristics to close the data gaps to provide acceptable data quality to end-customers. In addition, standard data quality service level agreements (SLAs) are not established and used within rail freight transport.

Costly data exchange infrastructure relative to the value of the data is another hurdle for terminals managed by small and medium size enterprises (SMEs), which cannot afford expensive and proprietary interface technologies such as the current TAF TSI Common Interface, which they would need to build themselves, nor can they afford to pay the fees of IT service providers. As highlighted in Figure 2, the 85% of intermodal terminals are SMEs with limited financial resources and IT capabilities for data sharing activities.

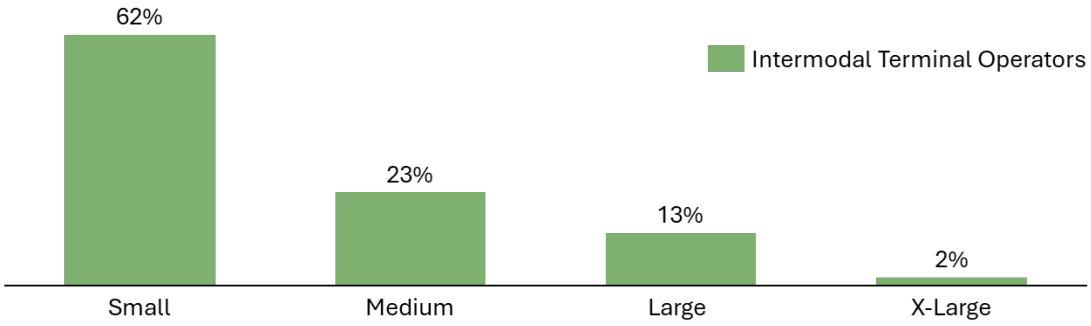

Figure 2 – Overview of UIRR terminal member sizes

Data sharing for better business is the motto of numerous initiatives such as CDQ[4] and it is what intermodal rail freight would need too. **Data sharing in this context entails the exchange of master and dynamic transactional data between business and public stakeholders**. It has three prerequisites:

1) **Willingness to share data**: addresses the mutual benefits of sharing for both the data holder and the receiver to increase efficiency and avoid trouble shooting caused by lacking, inconsistent or wrong data.

2) **Capabilities to share**: ability to share master, reference and transactional data (e.g. train traffic data and location status of containers) enabled by adequate IT capabilities, use of applicable standards and IT systems.

3) **Monitoring of data sharing and improvement**: the capability to monitor the current data quality, to identify gaps and irregularities, as well as to solve them to improve data quality, that can lead to better service quality and in the end improved customer satisfaction, and ultimately more business for combined transport to enable the greening of freight.

The understanding of data sharing as outlined above is not the only measure to increase competitiveness, but it is also an important prerequisite to increase the degree of digitalisation for a seamlessly integrated combined transport in the European freight logistics.

[3] Karam, A et al (2023) "Analysis of the barriers to multimodal freight transport and their mitigation strategies", In European Transport Research
[4] The company CDQ focuses on data quality improvements with collaborative elements (https://www.cdq.com/)

The way forward

A more standardised and interoperable exchange of high-quality data would be a major step towards higher competitiveness for intermodal rail freight and door-to-door Combined Transport as well. Improved data sharing with supply chain partners upstream and downstream (LSPs and consignors and consignees) can foster the willingness of customers to shift freight more easily to Combined Transport with the aim of improving their greening targets but also of contributing to the objectives of the newly adopted Clean Industrial Deal.

The integrative approach of the TSI Telematics proposal should be embraced as the essential legal instrument for intermodal rail freight transport to gain competitiveness, especially when compared with its alternative transport modes, and to satisfy the needs of intermodal rail freight buyers towards rail freight service providers.

Requests of the intermodal rail freight segment

1) **Standardising and harmonising the master data** through centralised reference databases as part of the TSI Telematics proposal is a highly welcome initiative to increase data consistency, efficiency and in the end data quality. Transitional solutions remain necessary until the EU-wide availability of a unique train number identification for cross-border freight trains is in place, which means that we must content ourselves with less than perfect data quality.

2) **Similar efforts are required to standardise the transactional data** while respecting and adapting the regulatory framework to reduce the costs of data exchange between Railway Undertakings, Infrastructure Managers as well as Terminal Operators, Intermodal Transport Operators, Logistics Service Providers, and Customers. For transactional data, the data elements and their values need to be standardised between each stakeholder group. With an end-to-end focus in mind, standardisation will increase the information availability, traceability of intermodal transport and actionability to faster identify and respond to disruptions. Not all data needs to be exchanged at all levels to be compliant with security, property rights and competition laws, but the minimum viable data sets need to be known by Terminal Operators and their IT service providers.

3) **For operators of rail service facilities such as intermodal terminals, the current IT requirements posed by the Common Interface are prohibitively expensive and time consuming**. Therefore, **alternative solutions need to be collaboratively devised** to improve not only the possibility but also the value of the data exchange between Terminal Operators and other stakeholders in an end-to-end Combined Transport supply chain. Dedicated IT platforms could be a solution with standardised data exchange formats and IT protocols. Affordability and fit-for purpose for small terminals require an innovative approach to reduce the costs and maximise the value of data exchange for the SME players. It should be avoided that they receive more information than they need for optimal terminal operations and (data) responsiveness to other stakeholders.

EDICT

EDICT – Enhanced Data Interoperability for Combined Transport stakeholders - is an EU CEF co-funded project aiming at removing the barriers to TAF-TSI related CT data messages, in particular by integrating efficiently the terminal operators in the exchange of information and by improving the data flows between CT stakeholders to improve the overall quality of intermodal freight trains. Under the coordination of UIRR, the EDICT's consortium consists of nine project partners in total: CIS, Combinant, Duisport, Hupac, Kombiverkehr, Port of Rotterdam, Rail Cargo Group, WienCont and UIRR. More information on https://edict-project.eu/.