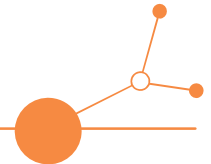


# Overview of Bottlenecks

D.1.1.4



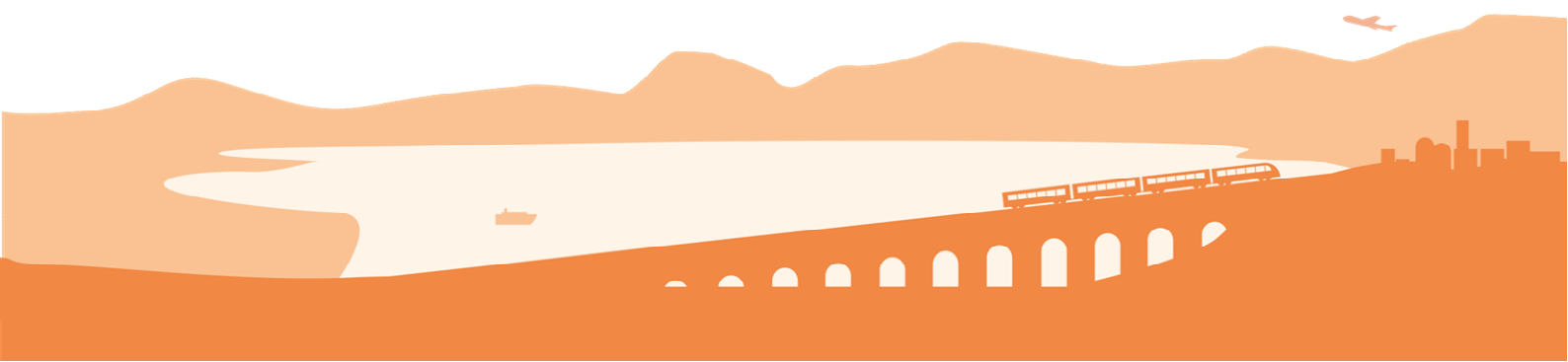
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# Overview of Bottlenecks Hindering Rail Freight Transport

## Background

The Rail4Regions project addresses the need to improve the freight transport grid. While there were already certain investments on the main corridors, the freight transport on the regional rail lines have just received little attention. Despite their potential importance for the local economy, the carriers mostly transport via road. A reduction of access points and a decrease of knowledge about the special requirements for rail transport makes it even worse. As there are multiple overall problems, it is still needed to know about the specific problems of the shift to rail in each region.

In the Deliverable 1.1.4 so called “bottlenecks” are listed that hinder rail or multimodal transport and the goods are transported by road only.

The Deliverable 1.1.4 is the result of a partner workshop, where all partners discussed about the bottlenecks of their case studies, they elaborated in the Deliverable 1.1.2. These bottlenecks should contain preferably specific measures that could be overcome with simple, single actions and do not need a change of the rail freight system in total. As the bottlenecks and their effects are in certain cases not clearly delimitable and affected by each other, a clear assignment of each case study is not always possible. Nevertheless, the following list should give an overview about the elaborated bottlenecks including the affected case studies and the relevance of it for each represented region.

## List of Bottlenecks

### 1. Infrastructural

Bottleneck	Affected Case Study:	High relevance for region:
No (useable) industrial siding	<ul style="list-style-type: none"> <li>• „North Ludbreg” Business Zone (HR)</li> <li>• Tarnów District Logistics Center (PL)</li> <li>• Ohratalbahn (DE)</li> <li>• Port of Baja (HU)</li> <li>• Industrial sidings in Kecskemét (HU)</li> <li>• Industrial siding of NT Kft., Kiskunfélegyháza (HU)</li> </ul>	<ul style="list-style-type: none"> <li>• Dél-Alföld (HU)</li> </ul>

<p><b>Low speed limit on connecting railway line</b></p>	<ul style="list-style-type: none"> <li>• Đurđevac (HR)</li> <li>• Žilina Timber transport (SK)</li> <li>• Revitalization of Line 115 (PL)</li> <li>• Rail Border Crossing Muszyna – Plavec (PL)</li> <li>• Ljubljana – Metlika line (SI)</li> <li>• Port of Baja (HU)</li> <li>• Powerplant Dukovany (CZ)</li> <li>• Siding to Mokrý (CZ)</li> </ul>	<ul style="list-style-type: none"> <li>• Dél-Alföld (HU)</li> <li>• Małopolska (PL)</li> </ul>
<p><b>Limitation in the capacity of railway infrastructure (axle load, length of tracks, number of tracks,...)</b></p>	<ul style="list-style-type: none"> <li>• Đurđevac (HR)</li> <li>• Ohratalbahn (DE)</li> <li>• Žilina Timber transport (SK)</li> <li>• Žilina Stone transport (SK)</li> <li>• Žilina Limestone transport (SK)</li> <li>• Rail Border Crossing Muszyna – Plavec (PL)</li> <li>• Tarnów District Logistics Center (PL)</li> <li>• Ljubljana – Metlika line (SI)</li> <li>• Rogatec – Grobelno (SI)</li> <li>• Port of Baja (HU)</li> <li>• Powerplant Dukovany (CZ)</li> <li>• Teplárny Brno (CZ)</li> </ul>	<ul style="list-style-type: none"> <li>• Novara (IT)</li> <li>• Dél-Alföld (HU)</li> <li>• Małopolska (PL)</li> <li>• Žilina (SK)</li> <li>• South Moravian Region (CZ)</li> <li>• Slovenia (SI)</li> </ul>
<p><b>Lack of loading points or terminals in the area</b></p>	<ul style="list-style-type: none"> <li>• Möllbrücke (AT)</li> <li>• Hermagor (AT)</li> <li>• Tauern (AT)</li> <li>• Koprivnica (HR)</li> <li>• Križevci (HR)</li> <li>• Intermodal terminal Brezje (HR)</li> <li>• Artern (DE)</li> <li>• Novara Waste Transport (IT)</li> </ul>	<ul style="list-style-type: none"> <li>• Carinthia (AT)</li> <li>• Thuringia (DE)</li> </ul>

	<ul style="list-style-type: none"> <li>• Revitalization of Line 115 (PL)</li> <li>• Powerplant Dukovany (CZ)</li> <li>• Teplárny Brno (CZ)</li> </ul>	
<p><b>Missing or insufficient loading facilities</b></p>	<ul style="list-style-type: none"> <li>• Möllbrücke (AT)</li> <li>• Hermagor (AT)</li> <li>• Tauern (AT)</li> <li>• Ivanec - Lepoglava industrial region (HR)</li> <li>• Railport Nordhausen (DE)</li> <li>• Novara Waste Transport (IT)</li> <li>• Rail Border Crossing Muszyna – Plavec (PL)</li> <li>• Žilina Timber transport (SK)</li> <li>• Žilina Stone transport (SK)</li> <li>• Žilina Limestone transport (SK)</li> <li>• Powerplant Dukovany (CZ)</li> </ul>	<ul style="list-style-type: none"> <li>• Carinthia (AT)</li> <li>• Novara (IT)</li> <li>• Dél-Alföld (HU)</li> </ul>

The infrastructural bottlenecks are the “basic” bottlenecks as they affect the transport relation with an obstacle that hinders or restrict the rail transport directly. It is mostly “just” a matter of investments to remedy the infrastructural bottlenecks - but comprehensibly the costs are related to the future exploitation as nobody is willed to invest with no secure prediction of a high and regular volume of rail transportation.

The infrastructural bottlenecks affect implicitly also the operational costs as the carrier is restricted by his possibilities of transportation e.g., the time, duration or other limits of transportation.

## 2. Organizational

Bottleneck	Affected Case Study	High relevance for region
<b>closures due to construction works especially for international movements</b>	<ul style="list-style-type: none"> <li>• Novara Consumer goods (IT)</li> </ul>	<ul style="list-style-type: none"> <li>• Novara (IT)</li> </ul>
<b>lack of knowledge about rail transport system/no qualified staff</b>	<ul style="list-style-type: none"> <li>• Žilina Timber transport (SK)</li> <li>• Žilina Stone transport (SK)</li> <li>• Žilina Limestone transport (SK)</li> <li>• Đurđevac (HR)</li> <li>• Tarnów District Logistics Center (PL)</li> </ul>	<ul style="list-style-type: none"> <li>• Žilina (SK)</li> <li>• Thuringia (DE)</li> <li>• Croatia (HR)</li> <li>• Małopolska (PL)</li> </ul>
<b>high effort of single wagon transport</b>	<ul style="list-style-type: none"> <li>• Single wagon transport Carinthia</li> </ul>	<ul style="list-style-type: none"> <li>• Carinthia (AT)</li> </ul>
<b>time flexibility</b>	<ul style="list-style-type: none"> <li>• Novara Stone transport (IT)</li> <li>• Novara Consumer Goods (IT)</li> <li>• Đurđevac (HR)</li> </ul>	<ul style="list-style-type: none"> <li>• Novara (IT)</li> <li>• Croatia (HR)</li> </ul>
<b>lack of cooperation between terminal operators and logistic operators</b>	<ul style="list-style-type: none"> <li>• Railwayline no. 115 (PL)</li> <li>• Novara Waste Transport (IT)</li> <li>• Žilina Stone transport (SK)</li> <li>• Žilina Limestone transport (SK)</li> </ul>	<ul style="list-style-type: none"> <li>• Małopolska (PL)</li> <li>• Novara (IT)</li> <li>• Žilina (K)</li> </ul>

The organizational bottlenecks represent obstacles that lead the rail transport to worse conditions than the road transport. Especially for small carriers these conditions make it impossible to enter the rail system directly as it needs a comprehensive planning and organization. Equally some difficulties result from the circumstance, that the carrier is not the operator of siding and may hesitate with investments as he has no guarantee for a persistent cargo volume. To overcome these bottlenecks, any kind of cooperation is auxiliary, e.g., collaboration of companies to use the same loading points/terminals, networks for interaction of knowledge, platforms of accessible data or interfaces with bigger companies like the (former) national railways that are equipped with appropriate knowledge and manpower.

### 3. Regulations/Governance

Laws, directives or bureaucracy could affect the rail freight transport in a negative way, as there are usually significant more regulations to follow than on road transport. It may concern the rail transport directly or (re-) development of the infrastructure. As these bottlenecks stand on a meta level and affect the rail transport globally, it is not possible to allocate the case studies directly with them. But nevertheless, they play a major role for the decision makers in the choice of transport mode.

- low transparency in administration and authorization process for reconstruction works
- lack of simplification of regulations and standards regarding official exam to hire staff in the sidings
- operators in small countries have difficulties to organize long-distance rail connections which are more affordable on rail
- time consuming border procedures
- not enough stakeholders for rail reconstruction
- consolidated mentality of good owners / business decision makers considering road transportation more time-efficient

The regulations usually cannot be solved with financial implements but increases the effort for the carriers in a similar way than organizational problems. As it is not a problem between the market participants, the government or the owner of the railway tracks are asked to simplify and/or reduce the regulations.

Freight transport and especially rail freight transport have a low public attention, therefore the political priorities are usually not set in this sector. An increasing marketing or lobbying could set the public focus on these subjects.

### Conclusions

As seen above there are several topics the rail freight transport in rural areas is afflicted with. Some of them could be solved with increasing the amount of funds (esp. the infrastructural bottlenecks), some could be overcome with better interaction and transfer of knowledge to reduce the effort of organization and some need the attention of the government or authorities to decrease the regulations and focus the urgency of the publicity on this subject.

The mix of these bottlenecks hinders or restricts the regional rail freight transport and thereby the rail freight transport in total - as it is considerably fed by the potentials in the rural areas apart from the main corridors.