

PILOT EVALUATION REPORT #4 - THURINGIA

D.T2.2.7

Work paper

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1) Introduction

The Investigation during the first Project phase in Thuringia on the Status of Rail freight transport, the market potential as well as existing bottlenecks which hamper the modal shift can be concluded as follows:

The Free State of Thuringia is located close to the Scandinavian - Mediterranean TEN-T Corridor as well as to the Orient/East-Med Corridor and the North Sea-Baltic Corridor. As the railway network has good connections to Saxony and Saxony-Anhalt, there is an indirect, peripheral connection to those corridors. The Free State is covered by 1,500 km rail network and almost 10,000 km of road network. Regarding the rail network Thuringia has the densest (per capita) in Germany. Together with the developments of the locations at the Baltic and Adriatic Sea these are very good prerequisites for Thuringia to participate positively in the development of both transport volumes and logistic concepts. One of Europe's most important railway connections for passenger and freight traffic - the Paris - Frankfurt am Main - Berlin - Warsaw - Moscow route - runs through Thuringia. Nevertheless, the development of the railway infrastructure in Thuringia nearly stagnated in the last 15 years. From an overall length of 1598 kilometres in 2005 it decreased until 2017 to 1558 kilometres. Since 1994 even 41 lines have been closed with an overall length of 467 kilometres.

Due to its central location in Germany and Europe and its relatively dense rail network Thuringia has a high potential for shifting goods from road to rail. The existing rail network is able to ensure more suitable freight transport even with a doubling of capacity. There are also potential industrial users, but most companies do not have a siding. The settlement of large companies with a high affinity for rail freight will further increase the modal share. However, the utilization and expansion of the CT Terminal Erfurt shows, that a rethink is also taking place in Thuringia.

Access to rail freight transport in the Thuringian region is limited by the existing loading points. Without additional loading points, CT terminals and railports, the share of rail freight transport in the total volume of freight transport cannot be increased.

Rail freight transport is in direct competition with freight transport by road. It is therefore always faced with the challenge of making its operation cost-effective.

This always works if the fixed costs for a railway line can be divided among as many users as possible. It is therefore important that there is also passenger transport on a line that is used for rail freight transport.

Unfortunately, passenger transport has been stopped on some branch lines in recent years because the number of passengers was considered too low. As a result, the operation of these routes became less and less profitable. Today, these routes are threatened with decommissioning or have already been decommissioned.

In order to improve the competitiveness of rail freight transport, some deficits in the infrastructure of the rail network in Thuringia have to be remedied.

In Thuringia there are a number of disused railway lines or sections. These missing connections mean that railway trains in the areas of these gaps have to take long detours to reach their destination. This makes freight transport by rail uneconomical. So it loses parts of transport share to road transport.

The preservation, expansion and reactivation of route sections and access points that are no longer used should therefore be promoted as a priority.

The weaknesses and opportunities investigated so far have led to the conclusion to set up a pilot action which could try to tackle some of these bottlenecks and serve as a best practice in further development of the Thuringian way to shift transports from road to rail.

2) Pilot action description

The aim of this pilot action “Development of a roadmap for revitalisation of disused routes for rail freight traffic using the example of the “Ohratal line” between Gotha and Graefenroda” is a roadmap that can be used as a guideline for projects to revitalise closed railway lines for rail freight transport. This roadmap was developed and tested using the example of the “Ohratal line”.

The pilot action responds to three of the previously identified challenges:

- Missing loading terminals
- Rail freight transport is only profitable on routes with passenger transport
- Missing connections in the route network.

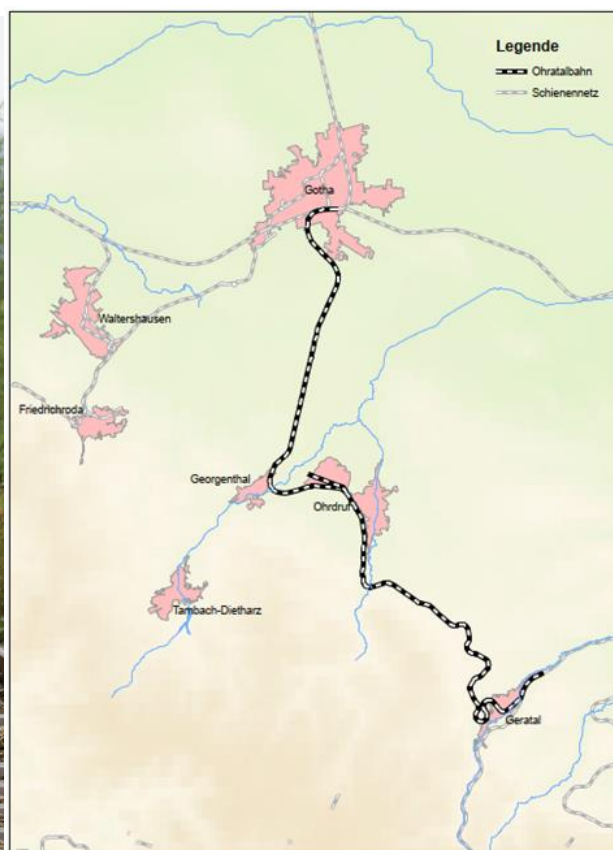
The municipalities, industries and population located in the region of the “Ohratal line” will benefit in the first line.

In the second line all closed branch lines in Thuringia will benefit and thus the rail freight transport as a whole.

PP involved	TMIL, FHE
Timescale (start/end date)	September 2020 - May 2021
Main Beneficiaries	<ul style="list-style-type: none"> - Stakeholder/customers along the “Ohratal Line” - Closed branch lines in Germany and Europe
Pilot action documents	Roadmap for revitalisation of disused routes for rail freight traffic using the example of the Ohratalbahn between Gotha and Graefenroda
Description of the activities within the roadmap	<ul style="list-style-type: none"> - Classification of the route to be considered - Situation of the infrastructure - Expected demand of transportation - Operating concept for the route - Reactivation effort - Organization, financing
Achieved results	<ul style="list-style-type: none"> - Availability of a guideline for reactivation of closed branch lines for rail freight transport - First freight transports on the “Ohratal Line” between Gotha and Ohrdruf after 7 years



Ohratalbahn near Georgenthal in 2020



Ohratalbahn line connecting Gotha and Graefenroda

3) Conclusions

In the context of a feasibility study, a concept of measures and implementation was drawn up for the reactivation of freight traffic on a selected route, including a cost estimation.

The roadmap developed using the “Ohratal line” as an example is intended to provide a base for action. On this basis the feasibility of revitalizing disused railway lines for freight traffic can be checked and created in a practical manner.

The examined route is a branch line with a length of 36 km in the northern foothills of the Thuringian Forest between the connection points to two main railway lines in Gotha and Graefenroda. There are a total of 29 road crossings along the route. There had been no trains running on the Emleben - Graefenroda section since 2014. However, the route remains dedicated to railway purposes and a new operator permit can be applied for at any time.

The key aspects of the roadmap for the revitalization of railway lines for freight traffic can be summarized as follows:



Classification of the route to be considered	<ul style="list-style-type: none"> • Location and connection to the national rail network • Function regarding development in the region (settlement areas and business locations)
Situation of the infrastructure	<ul style="list-style-type: none"> • Is the route still dedicated to railway operations? • Who is responsible for the infrastructure? • What is the condition of the rail line infrastructure? • What measures are required for restarting?
Expected demand of transportation	<ul style="list-style-type: none"> • Is there a corresponding volume of goods traffic in the catchment area (including road freight transport)? • Is there an immediate need for transport? Is it possible to identify a development in freight transport by rail?
Operating concept for the route	<ul style="list-style-type: none"> • Is only freight traffic planned or is a mixed operation with passenger traffic to be expected? • Which operational requirements result from this? • Which infrastructural measures (track, safety technology etc.) are required accordingly?
Reactivation effort	<ul style="list-style-type: none"> • Determining the required investment, if necessary, also for a step-by-step restart of the route. • Assessing the operating expenses. • Can an economical operation be represented?
Organization, financing	<ul style="list-style-type: none"> • Who is the operator of the route (infrastructure and / or operation) in future? • How can investment and operating expenses be financed? • Are there funding opportunities for reactivating and expanding the infrastructure available?

The initial expectation was that the “Ohratal line” can be reactivated for rail freight traffic within the next two or three years. Now it seems that there will be the first freight trains using former closed sections of this line already this year in 2021.



According to the results of the roadmap the reactivation process should be organized in three phases:

- Phase 1: minimal repair measures for occasional freight traffic with reduced operational quality
- Phase 2: extended route upgrading to meet the operational requirements for regular freight traffic
- Phase 3: reactivation of the route for the operational requirements of combined passenger and freight traffic

The developed roadmap is applicable for other comparable closed branch lines in Thuringia and Germany as well as in Central Europe and throughout Europe.