



ROADMAP "NEW RAIL INFRASTRUCTURE/SERVICES 2030" - D.T3.2.7 - THURINGIA

Work paper

Version 1.0
11.2021

1. Introduction

This document represents the final “Roadmap new rail infrastructure and services 2030” (D.T3.2.7) drawn up by the Thuringian Ministry for Infrastructure and Agriculture (LP) and the University of Applied Sciences Erfurt (PP2). The roadmap constitutes the operation plan which illustrates the main actions needed for the future development of the regional rail freight transport system in Thuringia. This roadmap is based on the main findings of WP.1 and WP.2, where the main aspects of regional rail freight transport were deepened, as described in chapter 2, on the one hand and the recommendations of the Regional Advisory Board of Thuringia on the other hand.

Climate change and emissions in the transport sector are a big threat to the world in the long-term. Shifting transport from road to rail is an important contribution to reduce these effects. In order to be able to make this contribution, the regional conditions in Thuringia for access to rail freight transport must be improved and rail freight transport needs to be put in focus on the political agenda. That is why this roadmap was developed.

2. Lessons learned from WP.T1 and WP.T2

The results from “WP.T1” and “WP.T2” form the basis for developing this roadmap.

The current situation of rail freight traffic in Thuringia was analysed in the base line study. The main findings were:

- Thuringia is outside (but surrounded by) the major European transport corridors.
- Only around 3.8% of goods in Thuringia are transported by rail.
- Only about 30% of the rail lines are electrified.
- Only about 3% of the loading points in Germany are located in Thuringia.

The comprehensive analysis of the market potential and opportunities for rail freight transport in Thuringia brought important insights to light. The following statements are particularly worth to be mentioned:

- Thuringia has the densest rail network in terms of population and size in Germany.
- There are sufficient network capacities even if usage is doubled



- Digitization and automation strengthen combined transport and single wagon transport and thus the demand structure in Thuringia
- There are many existing European, national and regional programs and initiatives for strengthening rail freight transport
- The two existing container terminals have no longer any spare capacity.

In numerous interviews with experts for rail freight transport in Thuringia, the existing weak points for improving access to freight transport by rail were identified. The following four points were identified as the most important bottlenecks:

- Lack of loading points
- Freight traffic is generally only profitable on routes that also include passenger traffic.
- Missing connections in and to the route network
- Lack of electrification.

One way of eliminating these bottlenecks is to reactivate disused railway lines. This topic was taken up in Thuringia and a pilot action was initiated with the title::

Development of a roadmap for the revitalization of disused routes for rail freight traffic using the example of the Ohratal Railway between Gotha and Gräfenroda.

This pilot action is finished. The results obtained are incorporated into this final roadmap.

3. Main challenges for the implementation of the roadmap

In Thuringia, there are a number of proposals to reactivate disused branch lines and loading points for rail freight traffic. There are also good ideas for new freight-terminals and improvements for the existing infrastructure.

Unfortunately, it is not possible in the short and medium term to finance and implement all of these actions in order to create a better supply in infrastructure and service.

The greatest challenge is therefore to set the right priorities in order to achieve the greatest possible impact with the available funds.

As a result of the working meetings of the Regional Advisory Board Thuringia for the development of rail freight transport, projects have been prioritised and are summarised in the following chapters.

Strengthening regional rail freight transport in Thuringia requires a variety of measures and investments. In the "Roadmap new rail infrastructure / services 2030" measures are presented that promise the greatest effects for Thuringia with feasible costs and in a medium-time horizon.



4. Identification of the actions

ACTION/MEASURE	ESTIMATED COSTS	TIME HORIZON
A. TRANSPORT INFRASTRUCTURE		
A.1 Reactivation of the »Ohratal Railway«- for rail freight transport	216,000 € ²⁾	2023
A.2 »Werra Railway« - Closing the gap between Coburg (Bavaria) and southern Thuringia	30,000,000 € ¹⁾	2030
A.3 Reactivation of »Höllental Railway«	25,000,000 € ¹⁾	2030
A.4 »Werratal Railway« Bad Salzungen - Philippsthal	250,000,000 € ¹⁾	2030
B. ROLLING STOCK / MACHINERY		
n/a		
C. LEGISLATION/ADMINISTRATION		
C.1 3. Maintenance and expansion of state subsidies	To be defined	2022
D. SERVICES / OPERATIONS		
D.1 Expansion of the Erfurt-Vieselbach container terminal	5,000,000 € ¹⁾	2025
D.2 Construction of a new loading point / railport in Sonneberg	3,000,000 € ²⁾	2023
D.3 Reactivation, modernization and expansion of the railport Nordhausen	130,000 € ²⁾	2025

- 1) first estimation; to be specified in a feasibility study
2) first of more steps



A. TRANSPORT INFRASTRUCTURE (Reactivation of disused routes)

Besides the expansion of the network access points, the Thuringian Regional Advisory Board recommended the reactivation of disused routes.

These routes provide access to previously disused loading points and to commercial areas that have previously been cut off from the rail network. They also enable the so-called “last mile” for trucks to be shortened.

With route reactivations, the conditions will also be improved in order to get more passenger traffic back onto the railway. If routes are used for the transport of people and goods, the route usage charges are distributed over significantly more trains and thus reduce the costs for each individual train and consequently the cost disadvantages of rail compared to road.

The following lines are recommended as routes that can be realised in terms of time and economy:

➤ Ohratal Railway

The Ohratal Railway has a comparatively well-preserved rail infrastructure on which only relatively minor measures need to be carried out for the reactivation of rail freight transport.

If passenger transport is to be reactivated in addition to freight transport, greater expenditure is required for the maintenance of former stations and the construction of new stops as well as an integrated transport concept.

An external study developed as part of the Thuringian pilot action of the REIF project has depicted a step-by-step plan which measures are necessary for reactivating freight traffic on closed lines and which investments have to be made.

In conversations between the operator ZossenRail Betriebsgesellschaft mbH and the traffic department of the Thuringian Ministry of Infrastructure, start-up funding was promised in order to be able to start the first stage of freight transport. That is still planned for 2021.

For the second stage, it is intended to use federal funding. That is planned for the year 2023.

The third and final stage of the route revitalization will depend on whether the route is reactivated for local and regional rail passenger transport.

➤ Werra Railway - Closing the gap between Coburg (Bavaria) and southern Thuringia

The route between Eisenach in Thuringia and Lichtenfels in Bavaria is known as the Werra Railway. The section between Eisfeld and Coburg was shut down and dismantled as a result of the division of Germany.

In March 2012, the Chambers of Commerce and Industry in Coburg and Suhl commissioned the preparation of a study to examine the economic viability of a new connection between Eisfeld and the future Coburg ICE stop. The study published in October 2012 shows that closing the gap is worthwhile and that this route should be included in the Federal Transport Infrastructure Plan 2030 as quickly as possible. The Thuringian state government followed this request and announced the closure of the Werra Railway gap for the Federal Transport Infrastructure Plan 2030.

DB AG has included the Werra Railway in the list of 20 prioritized reactivation projects.

The cost of closing this gap is estimated at around € 30 million.

The representatives of 23 regional authorities, chambers of commerce and interest groups as well as mandate holders of the federal government, the Free States of Bavaria and Thuringia



have meanwhile signed a partnership agreement for the establishment of the community of interests (IG) "Rail Gap Closure Coburg - South Thuringia".

The purpose of this community is to advance the project, primarily to determine the most suitable route using a regional planning procedure to be carried out by the Free States of Bavaria and Thuringia without prejudice.

The Thuringian state government should continue to work in cooperation with the Free State of Bavaria to ensure that this rail network gap is closed by DB AG.

➤ Hoellental Railway

By reactivating the Hoellental Railway, routes for goods can be shortened considerably. This applies in particular to the transport of wood for the wood processing industry, which is based in Rosenthal / R. and Friesau. In addition to shorter transport routes by rail, there is a great opportunity here to shift considerable transport volumes from road to rail and to prevent enormous detours on the road.

According to a study, reactivation would lead to certain impairments of an FFH area (Special Area of Conservation) that has meanwhile been laid over parts of the railway line. High environmental barriers have to be overcome.

DB AG has included the Hoellental Railway in the list of 20 prioritised reactivation projects in Germany.

Details on the relocation and savings potential as well as the costs incurred and necessary measures would have to be determined. In this context, possible sources of funding should also be listed.

The establishment of passenger transport alongside goods transport is worth striving for in order to achieve better profitability.

The Saale-Orla district and the Chamber of Commerce and Industry Ostthüringen are in favor of reactivation.

The Thuringian state government should continue to work in cooperation with the Free State of Bavaria to ensure that this gap is closed by DB AG.

➤ Werratal Railway Bad Salzungen - Philippsthal

The line was opened as part of the Bad Salzungen - Vacha section of the narrow-gauge "Feldbahn" in 1879 and converted to standard gauge in 1906. From this point on, the name "Werratalbahn" has established itself. The extension to Unterbreizbach did not take place until the 1950s.

During the division of Germany, the section between Vacha and Philippsthal was closed and was dismantled.

In 2003 the line between Bad Salzungen and Vacha was closed. Freight traffic has been sporadic again since 2015.

The district office of the "Wartburg" district is currently examining whether the line can be expanded again as a full-fledged railway line between Bad Salzungen and Philippsthal, where a CT terminal is located. Therefore, a study is to be commissioned that checks technical requirements, compares variants and determines needs. A cost estimate can then be derived from this. A bachelor thesis at the University of Applied Sciences Erfurt in 2015 determined a financing requirement of around EUR 250 million. This amount needs to be checked.



B. ROLLING STOCK / MACHINERY

n/a

C. LEGISLATION/ADMINISTRATION

➤ Maintenance and expansion of state subsidies

The strengthening and expansion of rail freight transport requires the maintenance and expansion of existing funding programs as well as the creation of additional financing instruments, especially at national and European level. That is why the Free State of Thuringia has to campaign for sustainable support from the federal government and the EU and develop additional regional programs within the scope of its possibilities.

- In order to be able to develop a positive effect in the Free State of Thuringia in particular, it is important to create an own funding instrument.
- List of the most important current federal subsidies
 - TraFöG - Path price promotion in rail freight transport

The train path price subsidy in freight transport (TraFöG) is a funding measure initiated by the Federal Ministry of Transport and Digital Infrastructure (BMVI) with which environmentally and climate-friendly rail freight transport can be promoted through partial financing of the train path prices.

- SGFFG - Long-Distance Rail Freight Transport Network Funding Act

The German Long-Distance Rail Freight Transport Network Funding Act regulates the promotion of replacement investments in railways of non-federally owned railways that serve public long-distance rail freight transport.

Funding is provided for non-federally owned railway infrastructure companies (EIU) on whose routes rail freight traffic can take place over a distance of more than 50 kilometers. The maximum route speed must be at least 30 kilometers per hour and the permissible axle load must be at least 20 tons. A maximum of 50 percent of the investment and planning costs are eligible.

- Connection promotion

On the basis of the Connection Funding Guideline, the Federal Government grants financial assistance to companies in private legal form for the construction, reactivation, expansion and replacement of sidings and multifunctional facilities as well as feeder and industrial sidings. With this support programme, the federal government intends to secure existing transports on the railways and to shift an additional share of freight transport from the roads to the environmentally friendly transport mode of rail.

D. SERVICES / OPERATIONS (Loading points)

The creation of new and the modernisation and expansion of existing access points for rail freight transport was defined as a priority task by the members of the Regional Advisory Board Thuringia in order to strengthen and expand regional rail freight transport.

➤ Expansion Container Terminal Erfurt-Vieselbach

The container terminal in Erfurt-Vieselbach, which is operated by DUSS GmbH, is the most important intermodal interface for freight transport in Thuringia. It has been operating at its capacity limit for years and for this reason cannot realise any additional shift of freight transport from road to rail, although there is a great demand for it.



DUSS GmbH would therefore like to expand this terminal as quickly as possible and has drawn up corresponding plans. Thuringia's state politicians should do everything in their power to support and promote this project.

The expansion of the container terminal in Erfurt-Vieselbach is divided into the following sub-projects, which fall into various areas of responsibility:

- Extension of the supply tracks DB Netz AG
- Extension of the tracks at the train station DB Netz AG
- Electrification of the supply and loading tracks DB Netz AG
- Upgrade of the crane track DUSS GmbH
- Establishment of a second module DB Netz AG
- Expansion of the access road City of Erfurt / GVZ
- Extension of container parking spaces / depot DUSS GmbH
- Construction of additional truck parking spaces City of Erfurt / GVZ

In order to be able to fully utilize the capacities of an expanded terminal, a second connection to the rail network to the east will be necessary.

There is also a need for more space for container storage and for handling longer trains.

➤ Construction of one or more railports

Railports as modern intermodal interfaces are indispensable in order to bring even smaller individual quantities from different shippers onto the rails economically.

At the moment, deliberations and work are being carried out on building railports at two locations in Thuringia:

▪ **Sonneberg**

At the Sonneberg-Hüttensteinach location, a loading point for round timber with 4 switches, a 400 m double track and an asphalt track is to be built. The operator will be the Thüringer Eisenbahn GmbH. An investment plan was drawn up.

The location is conveniently located a few kilometers outside Sonneberg on the railway line between Sonneberg and Steinach and on the L1150 road.

Since the large industrial area of Sonneberg-Süd is being developed in the area around Sonneberg in addition to the four existing industrial areas, the future expansion of the Sonneberg-Hüttensteinach loading point into a railport is an option in a second development step. This can then be used as an intermodal interface for the regions of southern Thuringia and northern Franconia and contribute to a greater shift in freight transport from road to rail.

This project should be supported by Thuringian state politicians because, in addition to traffic planning, it also pursues state planning requirements for the connection of large industrial areas to the rail network.

▪ **Nordhausen**

At the Nordhausen site, Paul Will GmbH & Co. KG Rail Logistic is planning to open a railport in the area of the former freight yard.



There are currently no other intermodal interfaces in Northern Thuringia. The closest ones are 90 km away from Nordhausen by road. Nordhausen is conveniently located on the route between Halle in the east and the Ruhr area in the west. The importance of this route is increasing due to the construction of the so-called "Kurve Kassel", which improves the connection between the North Sea ports and Eastern Europe.

In addition, the industry in the Nordhausen district and neighbouring districts has considerable potential to shift traffic to the railways. Companies based in Nordhausen with rail-related products have already expressed their interest.

A warehouse is already available. The track at the loading ramp needs to be renewed, extended and connected to existing tracks. With an estimated cost of € 130,000, it would be possible to activate the basic function of a railport in a first phase.

An existing reach stacker could initially be rented as required.

It is possible to reactivate an existing gantry crane for the next expansion stage.

In view of the importance of intermodal interfaces for access to rail-bound freight transport, this offers the opportunity to create the basis for a conveniently located railport with relatively manageable initial investments.

5. Detail description of priority actions/measures

Number and name of intervention: A.1 Reactivation of the »Ohratal Railway«- for rail freight transport	
Priority area <i>Indicate the priority area of the intervention</i>	Transport infrastructure
Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i>	<p>The Ohratal Railway is a 34 km long branch line and connects two main lines. In the north it is connected to the main line Halle - Bebra, in the south to the main line Erfurt - Schweinfurt.</p> <p>It was built at the end of the 19th century. At the end of 2011, passenger traffic was discontinued and only a few freight trains were running. Today it is closed.</p> <p>In order to expand the usable rail infrastructure and further to fulfil the goals set for climate protection, closed secondary lines such as the Ohratalbahn must be revitalized.</p> <p>Directly on this route there is a large industrial area with its own siding, which will be made usable again. In the future, at least one train per week should transport goods in and out.</p> <p>There are also timber loading bays along the route, which today have to be served by road. Here at least 50 truckloads of wood (1700t) can be shifted onto the rails per week.</p> <p>In addition to freight traffic, the route is to be used again for passenger traffic to replace bus and individual traffic on the road.</p>



REIF

<p>Description of the main steps for its implementation <i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i></p>	<p>In the first step, studies are to be carried out on the feasibility of freight transport and passenger transport.</p> <p>On this basis, an investment plan including a financing plan must be drawn up.</p> <p>Before the investment measures are initiated, the Free State of Thuringia must submit a binding declaration for ordering passenger transport. Furthermore, preliminary contracts must be concluded with shippers for freight transport.</p> <p>After the investment has been completed, the Federal Railway Authority must issue a license for the route for rail traffic.</p> <p>Finally, all necessary contracts are concluded with users and operators.</p>
<p>Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i></p>	<p>Zossen Rail GmbH as the owner of this route - direct beneficiary</p> <p>Rail Systems GmbH as possible operator - direct beneficiary</p> <p>Mercer Holz GmbH as potential user</p> <p>Thuringian Ministry of Infrastructure and Agriculture, Dep. for Transport, as responsible authority</p> <p>Counties of Gotha and Ilmkreis as well as neighbourhoods as affected local authorities</p> <p>Local companies as possible shippers - direct beneficiaries</p>
<p>Timeline <i>Indicate the time horizon for the implementation of the action</i></p>	<p>With a transitional arrangement, the first freight trains could run in 2022. Regular train traffic with freight and passenger trains is to be set up by 2023.</p>
<p>Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i></p>	<p>The costs for an efficient and contemporary expansion of the entire route for passenger and freight traffic are estimated at € 6.5 million.</p> <p>For freight transport alone, costs of a maximum of € 800,000 are to be expected. This represents the maximum variant with the highest technical equipment. The absolutely necessary costs for a registration by the Federal Railway Authority for freight transport are estimated at around € 220,000.</p>
<p>Sources of financing¹ <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i></p>	<p>Private capital</p> <p>Public capital</p> <p>Shares have to be negotiated.</p>
<p>Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i></p>	<ul style="list-style-type: none"> - Additional terminals for shipment of goods by rail - Additional links in railway network for more flexibility and thus better performance of rail traffic - Better competitiveness in costs through freight plus passenger transport on this route

¹ This information, if already available, could be assumed in the draft version and it has to be confirmed in the final one



REIF

<p>Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i></p>	<p>The Ohratal Railway is particularly suitable for viewing by REIF, because when it is reactivated, three of the four bottlenecks identified by REIF are addressed:</p> <ol style="list-style-type: none"> 1. New loading points will be developed along the route. In the Ohrdruf business park alone, there are two companies with their own private siding that will regain access to the public route network. Other companies can use existing loading points. The proximity to the Thuringian Forest also makes it possible to reactivate timber loading points. 2. Since the resumption of passenger traffic on the Ohratalbahn is planned, a good basic occupancy rate can be achieved through the interaction of freight and passenger traffic. This will have a positive effect on the profitability of the route and enable sustainable, successful usage concepts. 3. The Ohratal Railway connects to the main line Halle-Bebra in Gotha and to the main line Erfurt-Schweinfurt in Gräfenroda. Secondary routes like this turn existing routes into a route network. They enable short distances for shippers and open up regions for rail traffic. <p>The roadmap developed using the example of the Ohratal Railway can in the future serve as a guideline for the revitalization of further disused routes for freight traffic and thus has a lasting effect on strengthening rail freight traffic that goes beyond the project.</p>
<p>Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i></p>	<p>The European Union, Germany and also Thuringia want to significantly increase the share of rail in the total traffic volume in the next few years in order to be able to achieve the respective climate targets. To achieve this, the regional access conditions for rail freight transport in particular must be improved away from the large industrial centres and main corridors. In the last few decades, large parts of the regional rail and loading infrastructure have been taken out of use or neglected.</p> <p>The Ohratal Railway is one of the disused branch lines that are planned for reactivation in the coalition agreement of the Thuringian state government.</p>

<p>Number and name of intervention: D.3 Reactivation, modernization and expansion of the railport Nordhausen</p>	
<p>Priority area <i>Indicate the priority area of the intervention</i></p>	<p>Services / Operations</p>
<p>Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i></p>	<p>The goal is to build a railport in the city of Nordhausen.</p>



	<p>There is a suitable warehouse with a loading ramp on a loading track.</p> <p>The loading track must be repaired again. Loading technology is no longer available and has to be purchased again.</p> <p>The forwarding company that owns the hall and the loading platform is interested in setting up a railport.</p> <p>In the immediate vicinity there is a manufacturer of packaging material that would be suitable as an anchor customer for the railport.</p> <p>There are numerous machine manufacturers in the Nordhausen region. Particularly noteworthy are the nearby gypsum quarry and the existing forestry as potential shippers.</p> <p>Nordhausen is on the important railway line between the Halle freight hub and the Ruhr area with strong industries.</p> <p>The construction of a railport in Nordhausen improves access to rail freight traffic in Northern Thuringia with a catchment area as far as Lower Saxony and Saxony-Anhalt.</p>
<p>Description of the main steps for its implementation <i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i></p>	<p>Development of an operation concept</p> <p>Repair of the existing loading track</p> <p>Acquisition of loading technology</p> <p>Modernisation and expansion of the warehouse</p> <p>Customer acquisition</p>
<p>Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i></p>	<p>Paul Will GmbH & Co. KG Rail Logistic Center - railport operator - direct beneficiary</p> <p>DB Cargo GmbH - railport customer</p> <p>DB Netz GmbH - rail network operator</p> <p>Local companies as possible shippers - direct beneficiaries</p> <p>County and City of Nordhausen as affected local authorities</p> <p>Thuringian Ministry of Infrastructure and Agriculture, Dep. for Transport, as responsible authority</p>
<p>Timeline <i>Indicate the time horizon for the implementation of the action</i></p>	<p>A first step for start working is possible in 2023.</p> <p>A second step for modernisation and expansion is possible to be finished in 2025.</p>
<p>Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i></p>	<p>130,000 € in a first step to start working</p> <p>500,000 € in a second step for modernisation and expansion</p>
<p>Sources of financing² <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i></p>	<p>Private capital</p> <p>Public capital</p> <p>Shares have to be negotiated.</p>

² This information, if already available, could be assumed in the draft version and it has to be confirmed in the final one



REIF

<p>Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i></p>	<ul style="list-style-type: none"> - Creation of additional loading capacities for rail freight transport in Northern Thuringia - Addressing additional interested parties through the possibility of temporary storage - Improvement of the connection of the region to the goods traffic junction Halle and to the TEN-T corridors - Shifting more goods from road to rail.
<p>Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i></p>	<p>A railport in Nordhausen corresponds to the goals of the REIF project.</p> <p>The most important bottleneck to rail freight access in Thuringia is the lack of loading points. A railport is a very flexible type of loading point. In addition to direct loading, it also offers the option of temporary storage in a depot. This is very much in line with the requirements of a small-scale industrial structure. This means that customers can also be served who need such temporary storage in order to be able to use rail as a transport mode.</p>
<p>Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i></p>	<p>The European Union, Germany and also Thuringia want to significantly increase the share of rail in the total traffic volume in the next few years in order to be able to achieve the respective climate targets. To achieve this, the regional access conditions for rail freight transport in particular must be improved away from the large industrial centres. In the last few decades, large parts of the regional rail and loading infrastructure have been taken out of use or neglected.</p> <p>A railport in the northern part of Thuringia located at the important connection between the rail-node Halle and the Ruhr area as one of Germany's most important industrial regions will support these strategies.</p>

Measures under the responsibility of the BMVI and DB AG

The following projects of the Federal Transport Infrastructure Plan (BVWP) with reference to rail freight transport should be kept in mind by the Free State of Thuringia and demanded if necessary:

(Note: For the projects, the project components that are relevant for freight transport are indicated.)

- 2-050-V01 - 740 m programme (stations in Thuringia) Wartha, Wutha (already realised), Mechterstädt-Sättelstädt (already realised), Wandersleben
- 2-030-V01 - ABS Gotha - Leinefelde: Electrification and expansion of 3 crossing stations to 740 m usable track length
- 2-038-V02 - ABS Weimar - Gera - Goeßnitz: Electrification and track extensions in various stations in the Gera - Gößnitz section to 640 m
- L 13 - ABS Karlsruhe - Stuttgart - Nürnberg - Leipzig/-Dresden: Capacity increase and 740 m tracks in Altenburg and Goeßnitz



Furthermore, the electrification of the Gerstungen - Heimbaldshausen line is planned as part of the special programme "Electric Freight Railways". The BMVI is expected to award the planning contract at the end of 2021/beginning of 2022.

6. Conclusion

The final aim of this roadmap is to support the access for industry, mining, forestry and agriculture to rail freight transport in Thuringia. This is in line with the policy objectives in Europe, Germany and Thuringia.

In accordance to the goals of REIF project, the roadmap is based mainly on activities to revitalise closed loading points and branch lines for shipping and transport of goods.

Another important aspect is the extension of existing and the creation of new modern loading infrastructure.

In Thuringia this is the key for the strengthening and expansion of rail freight transport.

Key words:

- Revitalisation/Reactivation
- Branch lines
- Railport
- Loading infrastructure
- Loading services.