D.T1.1.5 WORK PAPER

Baseline Study Thuringia

Version 1.0
09.2019

Table of Contents

1. Introduction

Based on the deliverable "Methodology for baseline study" (D.T1.1.3) this Work Paper aims at analysing the current state of rail freight infrastructure and services (status quo, policy framework and stakeholders) in the region of Thuringia. The following figure illustrates the context of the baseline study:

In detail the work paper comprises the following structure:

Section A) Territorial Analysis will give a general overview about the region. The focus will then lay on the territorial analysis of the regional rail freight infrastructure and services, e.g industrial clusters and sites, rail infrastructure, intermodal facilities, transport flows, network classification etc.

Section B) continues with a Policy Analysis regarding rail freight infrastructure and services by analysing policy documents on national and regional level, including goals and strategies as well as instruments.

Section C) follows with Regional Stakeholder Mapping. Important stakeholders out of politics, economy and civil society for regional rail freight transport will be collected and described by their role, importance and contribution to the REIF project and classified in the categories of their influence on the project (low or high) and their level of interest in the project (low or high).

The analysis completes with Section D) SWOT Analysis by rounding up strengths, weaknesses, opportunities and threats in the field of regional rail freight transport for the specific region.

Section E) concludes the baseline study with a Recommendation/Outlook for the future work in the project.

2. Baseline study

A) Territorial Analysis

Thuringia, officially the Free State of Thuringia, is one of the 16 federal states that constitute the Federal Republic of Germany. It is located in central Germany covering an area of about 16,000 square kilometres and has a population of about 2.15 million inhabitants (133 inhabitants per sq km), for that it is the sixth smallest German state by area and the fifth smallest by population.

Erfurt is the capital and largest city. Other major cities are Jena, Gera, Weimar and Eisenach. Thuringia borders with the states Bavaria, Hesse, Lower Saxony, Saxony-Anhalt and Saxony.

It is often stated that Thuringia is "the green heart of Germany" or the "Heart of Europe" due to its location and large areas of landscapes and forests.

The demographic situation within Thuringia is a challenging issue, especially the population decrease through emigration, a drop in the birth rate and low figures of immigration after the reunification. The forecast until 2035 identifies no significant change so that the rural areas facing a persistent declining population. Nevertheless, the countryside forms one of the backbones of the Thuringian economy. Its forestry and agriculture, its small manufacturing companies are one supporting pillar of Thuringia's job market. Larger industrial sites are usually close to the big cities like Erfurt, Jena and Eisenach.

The settlement patterns, the population development and economic welfare are the main parameter of traffic trends and mobility patterns at the macro level – because of this, the following part will provide an insight into the current situation of Thuringia.

Settlement Structure

The settlement structure in Thuringia is predominantly rural and is characterised by villages and small or medium-sized cities. The main urban regions are settled along the so-called „Thuringian string of cities", where the cities of Eisenach and Gotha, Erfurt and Weimar, Jena and Altenburg are located right in a central axis of the state. Those cities form an industrial and transport corridor where most of the industrial and manufacturing sites are located. The areas beyond this corridor are mostly rural – with small and mediums sized towns as their regional centres. These towns can be seen as rural development cores. There is a poly-centric structure due to history with many small and independent lordships and counties.

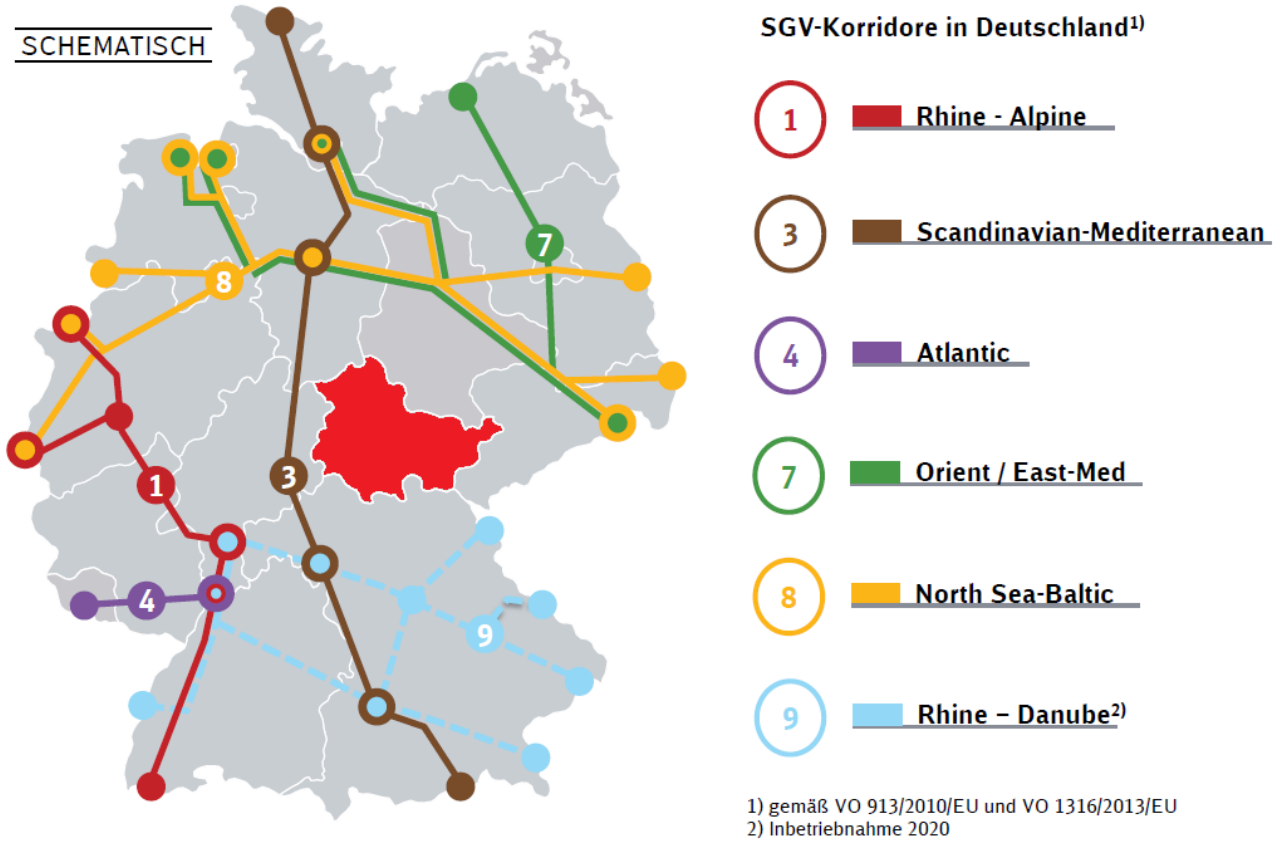
Economy and Economic Welfare

The economy in Thuringia is characterised by small and medium-sized enterprises in the manufacturing sector and several large corporations, like Jenoptik and Zeiss, Bosch and Siemens, Opel and BorgWarner. The concentration of manufacturing enterprises is quite different between the regions: The cities and their surroundings along the Thuringian string of cities are flourishing in means of industrial activities and source of zones. In addition, some regional centres in central and south-western Thuringia benefit of active industrial sites, such as Arnstadt or Schmalkalden. However, nearly all rural regions in the north and east of Thuringia suffer from a less-favoured economy situation with substantial unemployment.

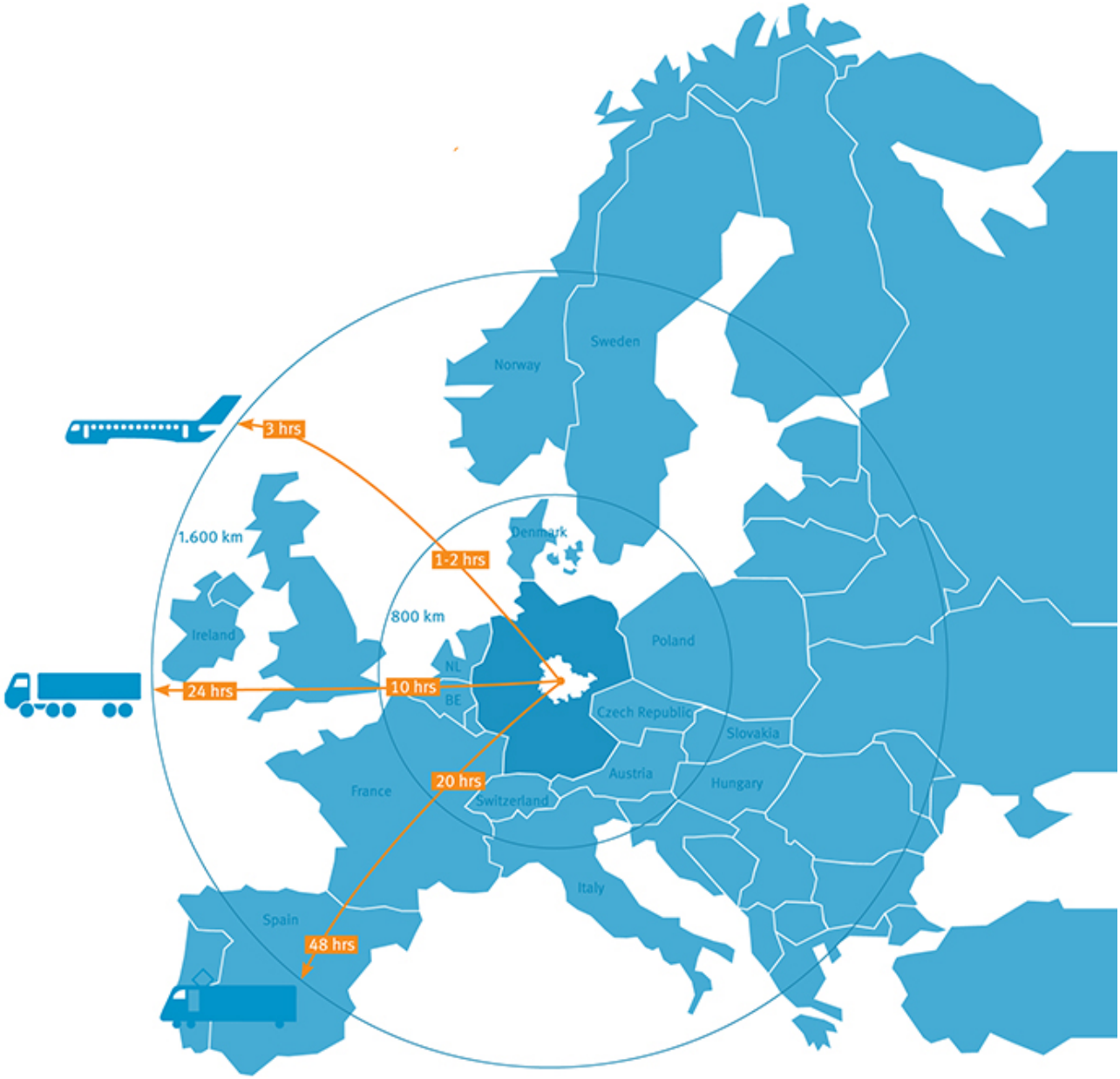
Transport

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, peripheric connection to those corridors. The Free State is covered by 1,500 km rail network and almost 10,000 km of road network. 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.

In the regional development plan 2025 it is stated that Thuringia is to be secured and further developed as a logistics location. Therefore, the integration of regional logistic centres into the national and European transport network by using the favourable locations within development corridors.
In order to assess Thuringia's role and the potentials in this situation, the traffic volumes have to be analysed and questions have to be answered. Which technical and organisational measures will lead to a strengthening of the railway traffic in and through Thuringia along the Scandinavian – Mediterranean axis? Which goods are shipped to and from Thuringia and which volumes could possibly be transferred from road to rail? Which are further relevant parameters for Thuringia to act as an efficient railway region along the corridor?

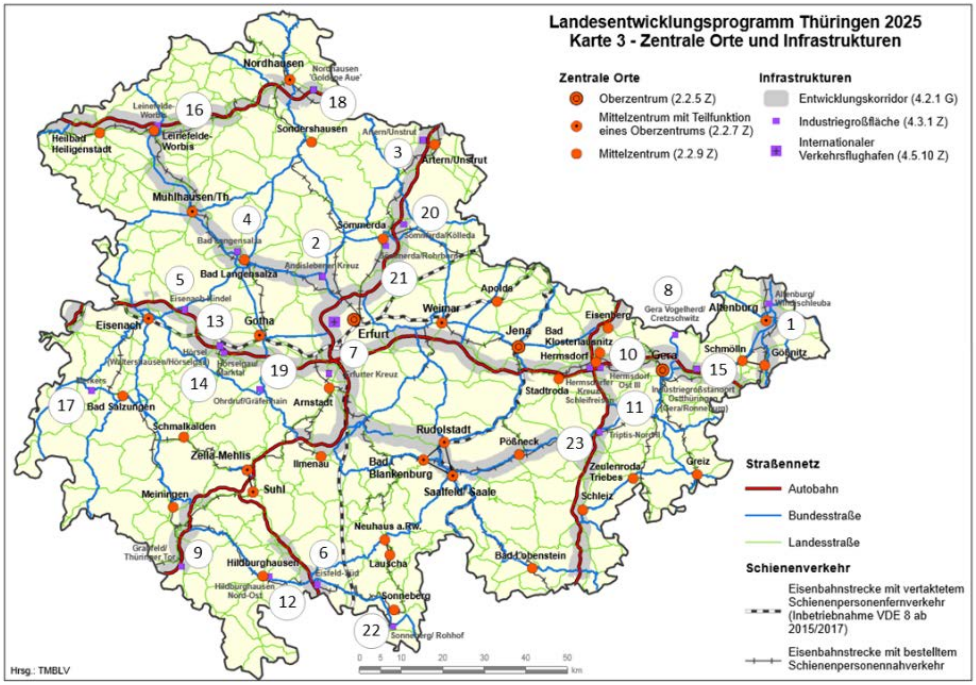


Rail Freight Corridors (RFCs) in Germany and Thuringia, Source: adapted from DB Netz AG

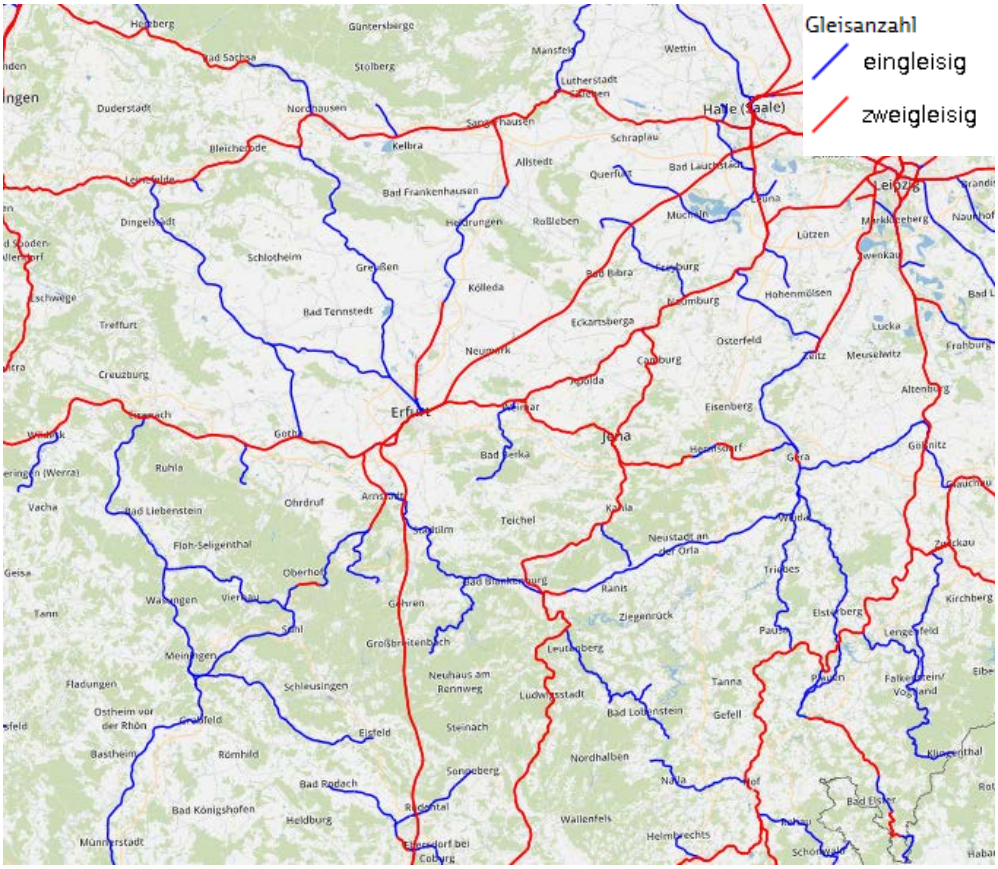


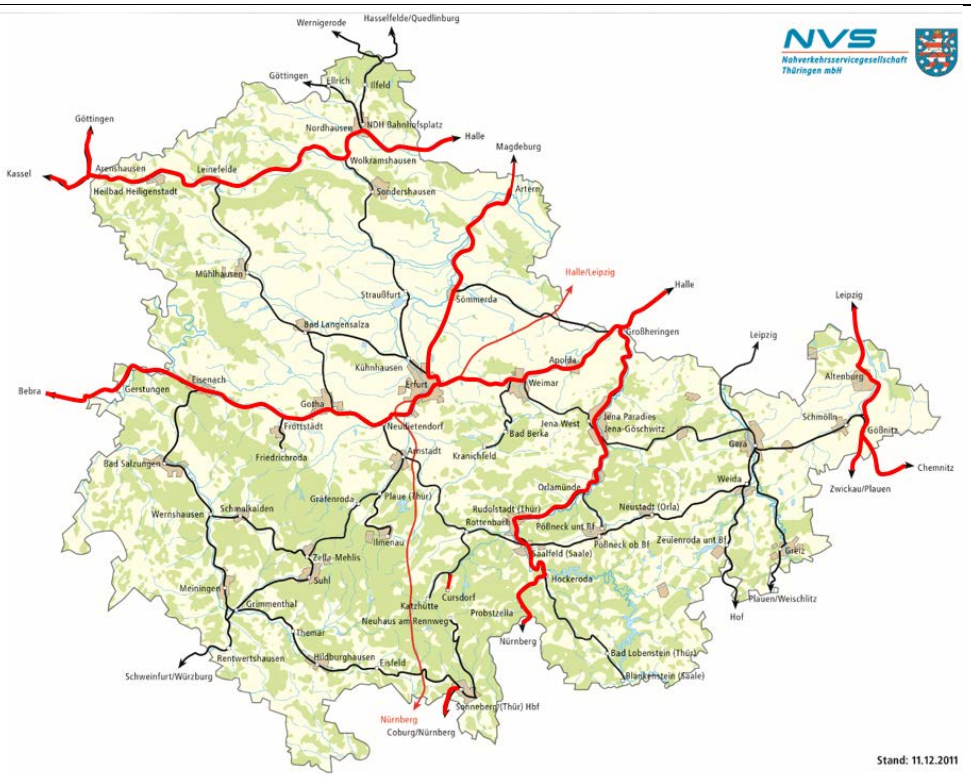
Thuringia in the heart of Europe, Source: LEG Thüringen

Regions/Ports and their Hinterland/catchment area

Industrial clusters/branches	The main industrial branches (volume of sales) in Thuringia are the following: - Machinery and vehicle construction - Metal production and processing - Food - Electrical engineering, precision engineering, optoelectronics, EDP - Rubber and plastics - Paper and printing industry - Glass, ceramics, processing of stones and earths - Chemical and pharmaceutical industry
Industrial sites	The following large industrial areas in Thuringia with high structural and supraregional importance are bindingly defined in the Regional Development Program Thuringia: 1. Altenburg/Windischleuba 2. Andislebener Kreuz 3. Artern/Unstrut 4. Bad Langensalza 5. Eisenach-Kindel 6. Eisfeld-Süd 7. Erfurter Kreuz 8. Gera Vogelherd/Cretzschwitz 9. Grabfeld/Thüringer Tor 10. Hermsdorf Ost III 11. Hermsdorfer Kreuz/Schleifreisen 12. Hildburghausen Nord-Ost 13. Hörsel (Waltershausen/Hörselgau) 14. Hörselgau/Marktal 15. Industriegroßstandort Ostthüringen (Gera/Ronneburg) 16. Leinefelde-Worbis 17. Merkers 18. Nordhausen „Goldene Aue“ 19. Ohrdruf/Gräfenhain 20. Sömmerda/Kölleda 21. Sömmerda/Rohrborn 22. Sonneberg/Rohhof 23. Triptis-Nord II These industrial sites have at least a surface of 20 ha and an existing or a potential rail connection to railway freight transport.  Source: Landesentwicklungsprogramm Thüringen 2025

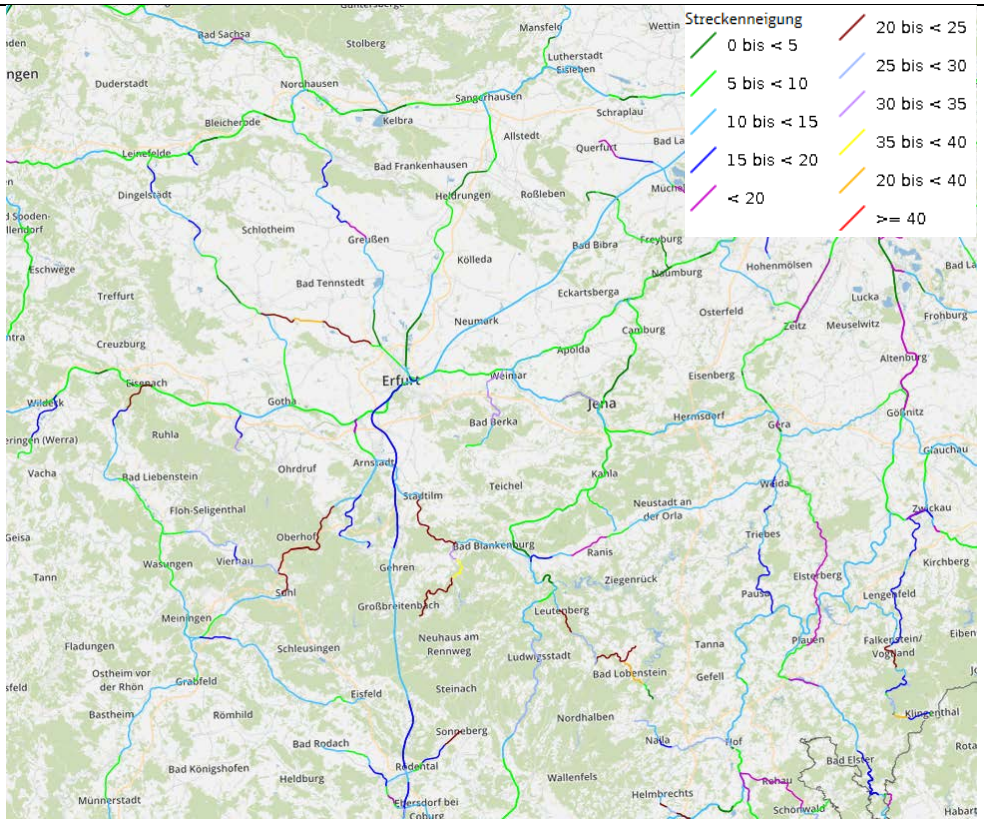
Rail infrastructure	There has been an immense quantity of railway line shutdowns and closures in Thuringia in the last decades. Since 1994 41 lines has been closed which makes an overall length of 466.9 km of closed lines. Meanwhile some of them were reactivated, but only 27 km of railway lines for freight transport and 61 km for passenger transport in Thuringia.  Source: Allianz pro Schiene
- lines	The regional railway network in Thuringia has an overall length of lines of 1.521 km. The most important axes for freight transport are: East-West-Axes: ➢ Halle – Nordhausen – Kassel ➢ Leipzig/Halle – Großheringen – Erfurt – Bebra North-South-Relation: ➢ Saalbahn ➢ Leipzig – Altenburg – Hof New stretch of track (North-South-Main Line for fast railway freight transport): ➢ Leipzig/Halle – Erfurt – Nürnberg

- tracks	The regional railway network in Thuringia has an overall length of tracks of 2.352 km, of which 1.339 km are single tracks (including sidings; blue in the map) and 1.013 km are multi-tracks (red in the map).  Number of tracks in Thuringia. Source: GeoViewer/Infrastrukturregister, DB Netze
- electrification	The regional railway network of Thuringia currently comprises 1.521 km of lines, of which 452 km are electrified and 1.069 km are non-electrified. Hence, only 30 % of all tracks in Thuringia are electrified, which is below the average of Germany as a whole (54 %). In Germany the railway electrification system using alternating current (AC) at 15 kilovolts (kV) and 16.7 Hertz (Hz) is applied.

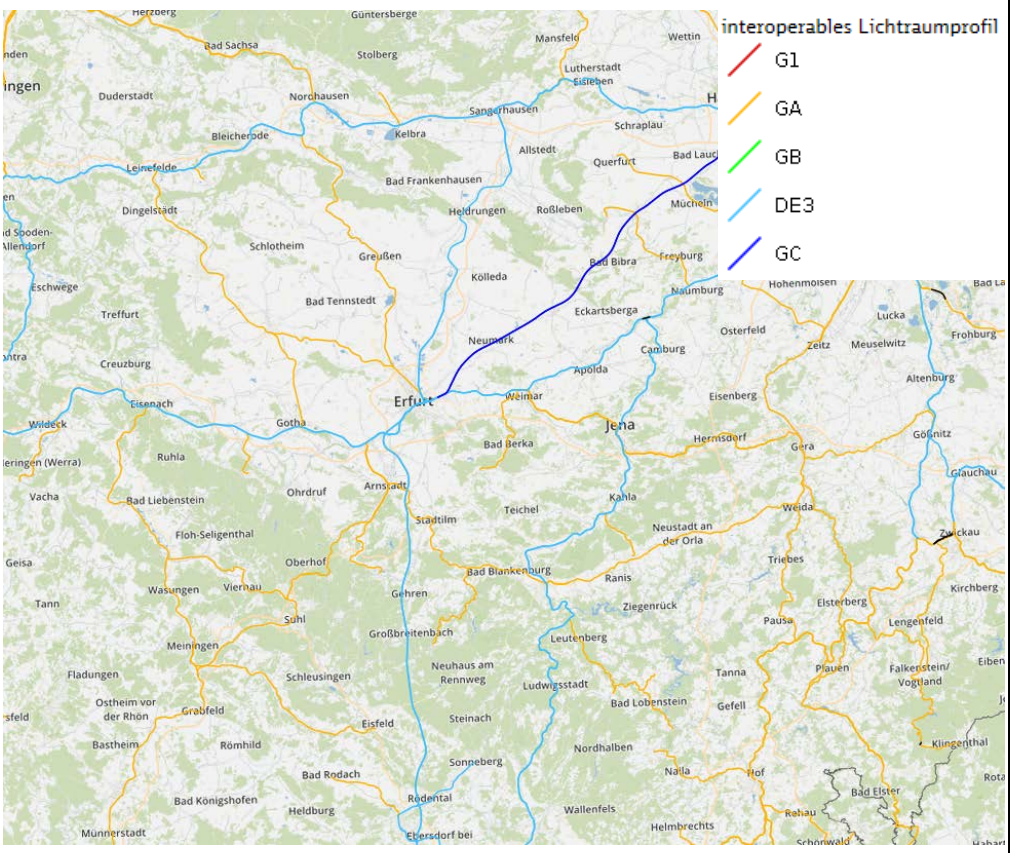


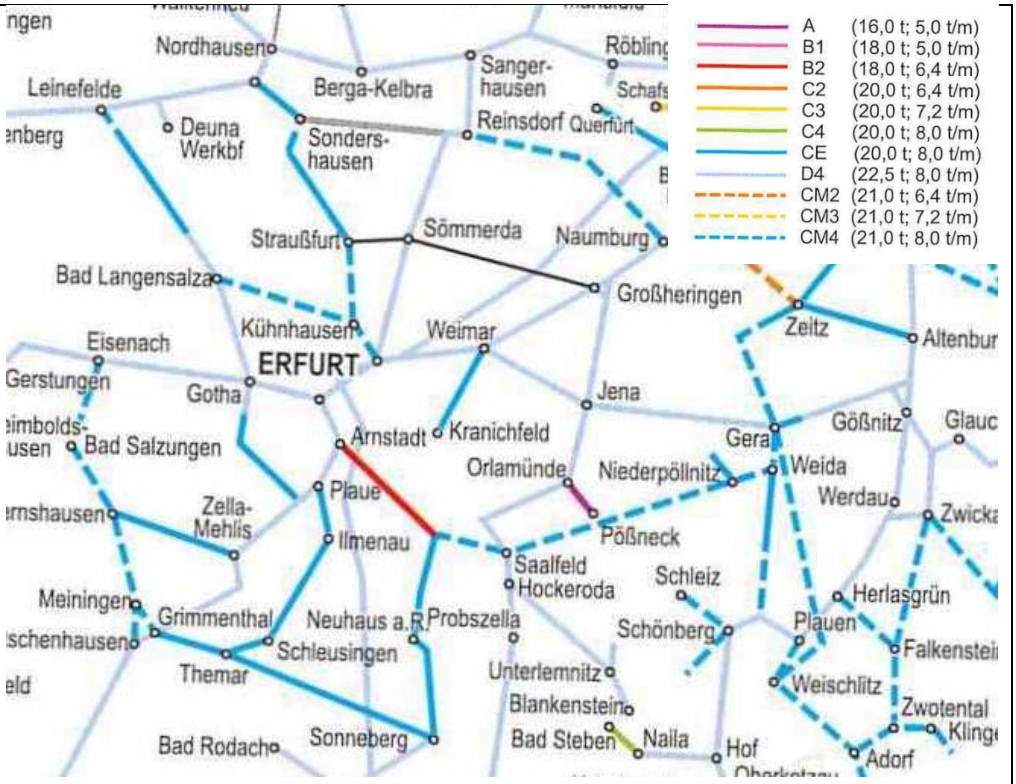
Source: adapted from Nahverkehrsservicegesellschaft Thüringen mbH 2011

- freight suitability



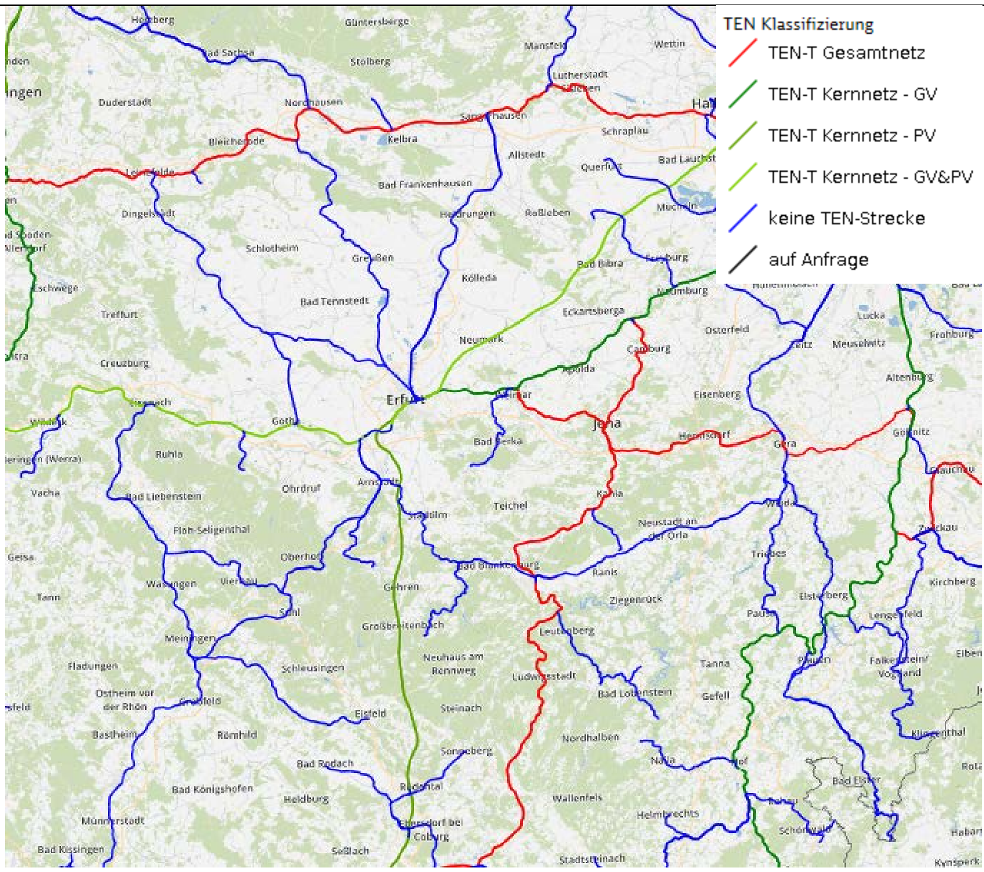
Gradient of railway lines (in permille). Source: GeoViewer/Infrastrukturregister, DB Netze

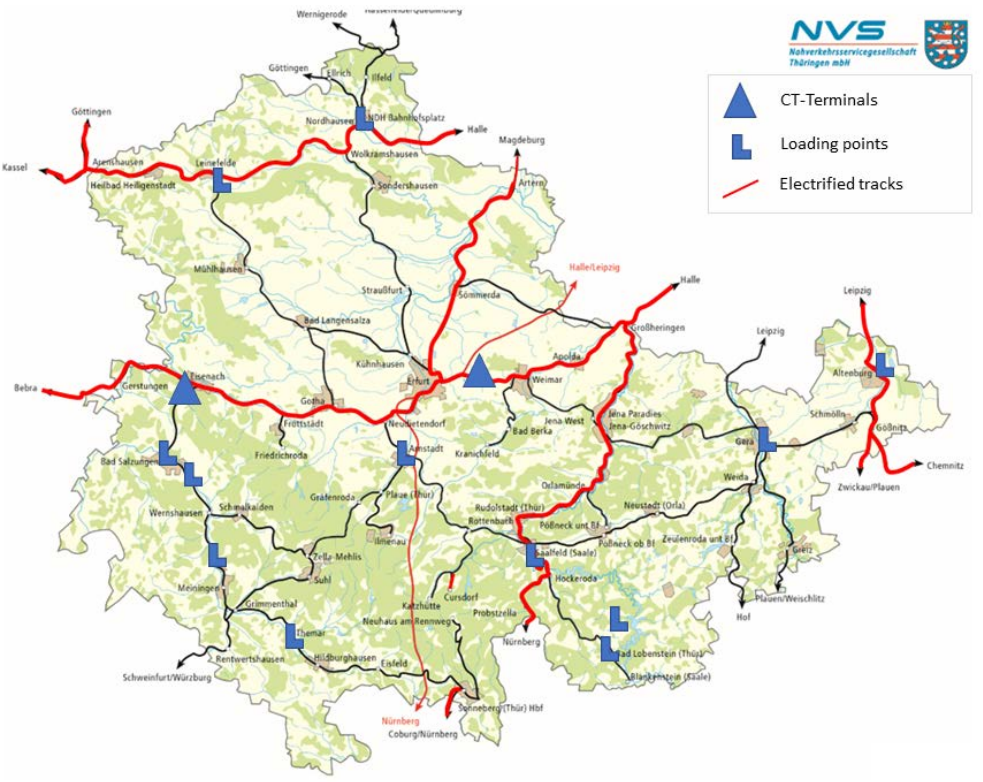
	Thuringia predominantly has a clearance gauge of GA (for container transport) and DE3 (for German railway network and the network of neighbour countries). There is one line between Erfurt and Halle with a clearance gauge of GC (recommended for reconstruction and new construction). The clearance gauge G2 (Central Europe) can be found extensively in Thuringia.  Clearance gauge. Source: GeoViewer/Infrastrukturregister, DB Netze



Route classes in Thuringia. Source: Eisenbahnatlas Deutschland, Verlag Schweers + Wall GmbH

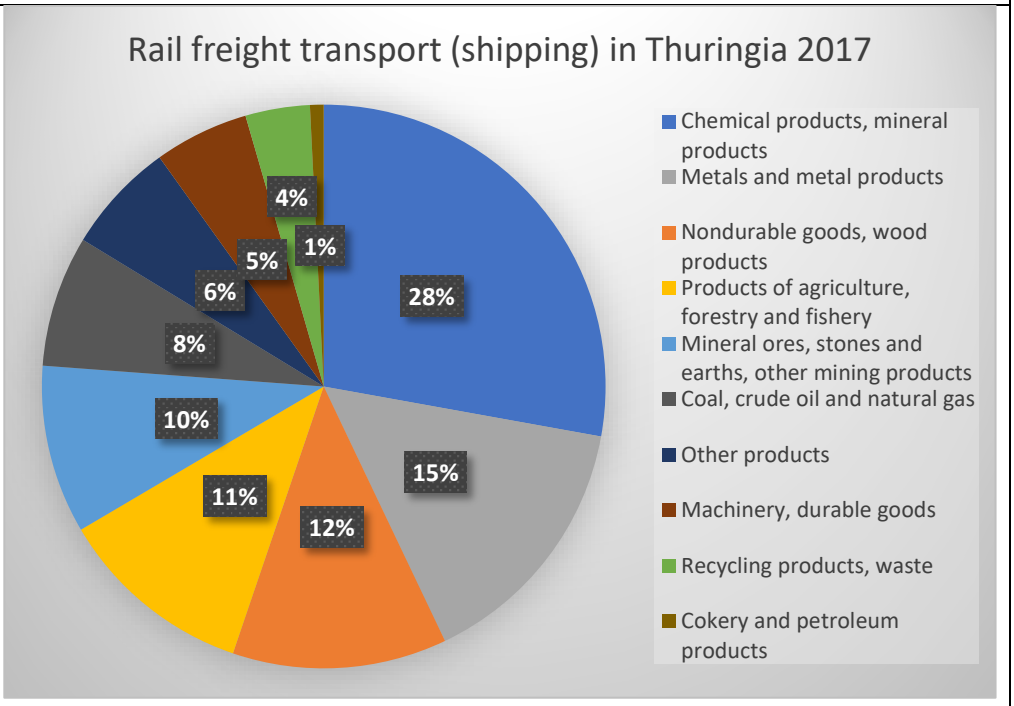
Route classes for rail freight transport in Thuringia are mostly CE (national route class extension of C4: 20,0 t; 8,0 t/m), D4 (22,5 t; 8,0 t/m) and CM4 (national route class: 21,0 t; 8,0 t/m). Few tracks also have A (16,0 t; 5,0 t/m), B2 (18,0 t; 6,4 t/m) and C4 (20,0 t; 8,0 t/m).

Network classification	 TEN-T Network classification. Source: GeoViewer/Infrastrukturregister, DB Netze
Intermodal facilities	Loading points of DB Netz AG in Thuringia: - Altenburg - Arnstadt Hbf - Bad Salzungen - Ebersdorf-Friesau - Eisenach - Erfurt Gbf - Gera Hbf - Immelborn - Kölleda - Leinefelde - Lobenstein - Saalfeld/Saale - Themar - Walldorf (Werra) CT-Terminals in Thuringia: - Erfurt-Vieselbach (EV) - Eisenach



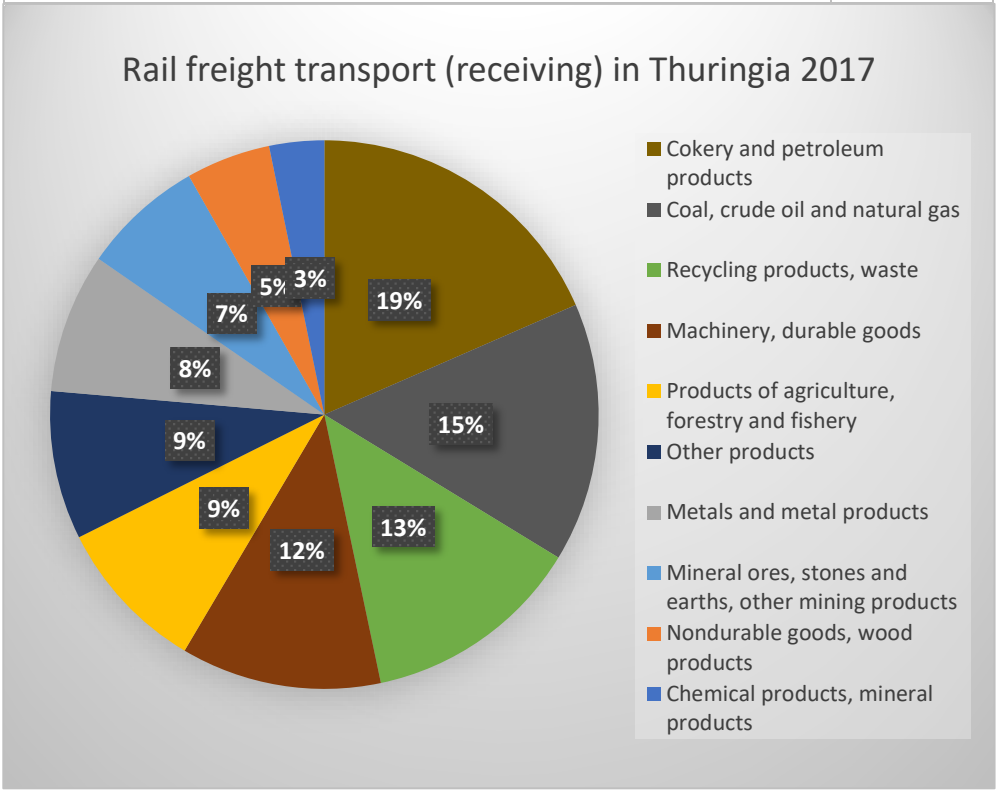
Source: own representation, adapted from Nahverkehrsservicegesellschaft Thüringen mbH 2011

Transport flows



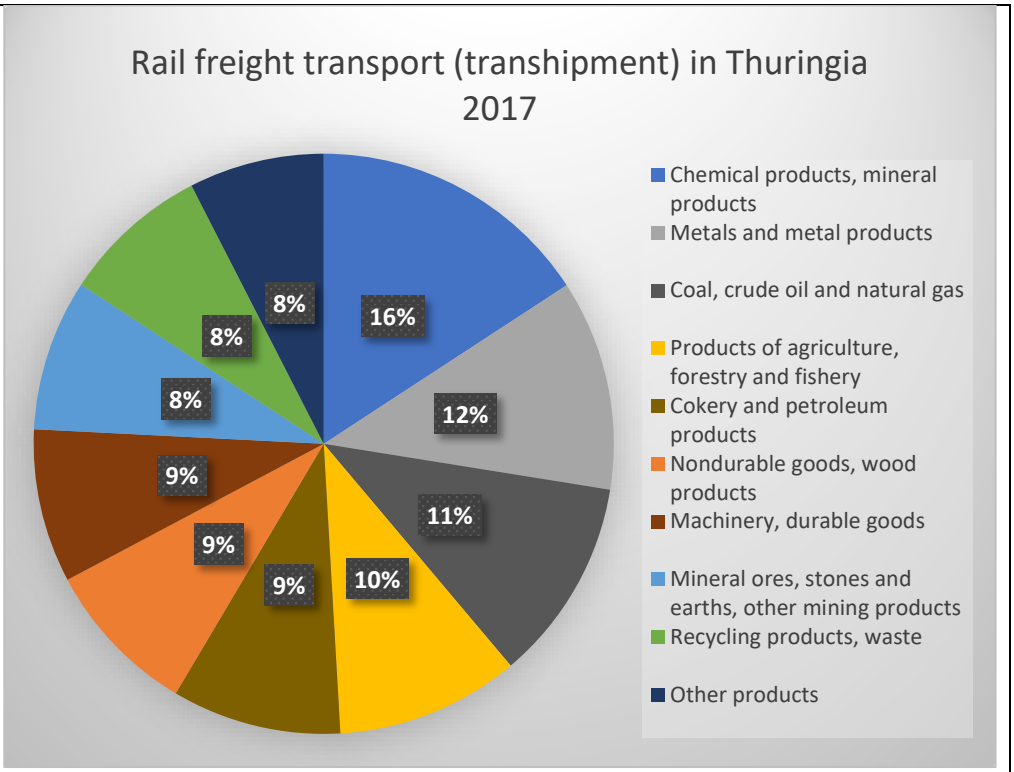
Chemical products, mineral products	1,032,000t
Metals and metal products	559,000t
Nondurable goods, wood products	456,000t

Products of agriculture, forestry and fishery	419,000t
Mineral ores, stones and earths, other mining products	358,000t
Coal, crude oil and natural gas	279,000t
Other products	237,000t
Machinery, durable goods	201,000t
Recycling products, waste	137,000t
Cokery and petroleum products	29,000t
In total	**3,705,000t**
Source: Own representation, based on Statistisches Bundesamt	



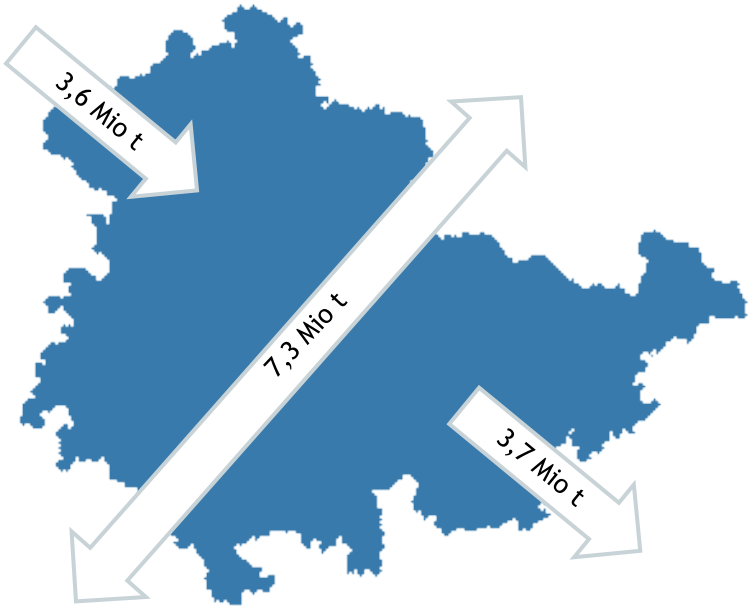
Cokery and petroleum products	656,000t
Coal, crude oil and natural gas	543,000t
Recycling products, waste	461,000t
Machinery, durable goods	420,000t
Products of agriculture, forestry and fishery	324,000t
Other products	311,000t
Metals and metal products	293,000t
Mineral ores, stones and earths, other mining products	255,000t
Nondurable goods, wood products	177,000t
Chemical products, mineral products	115,000t
In total	**3,557,000t**

Source: Own representation, based on Statistisches Bundesamt

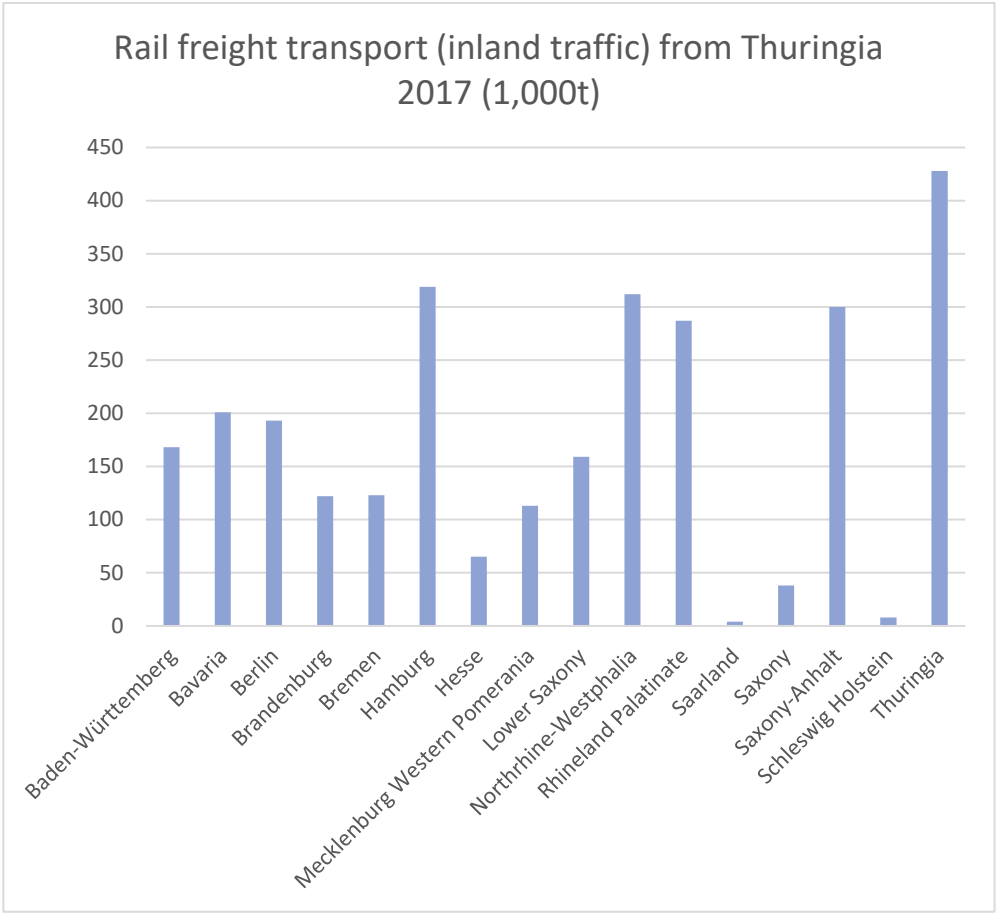


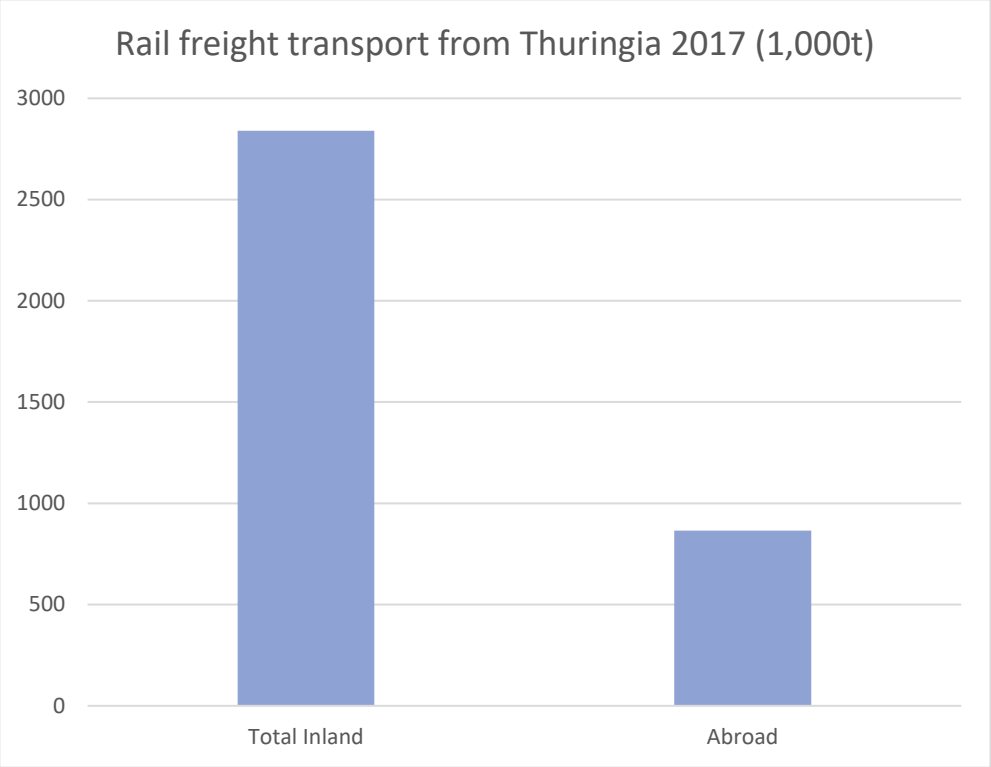
Chemical products, mineral products	1,147,000t
Metals and metal products	852,000t
Coal, crude oil and natural gas	822,000t
Products of agriculture, forestry and fishery	743,000t
Cokery and petroleum products	685,000t
Nondurable goods, wood products	633,000t
Machinery, durable goods	622,000t
Mineral ores, stones and earths, other mining products	613,000t
Recycling products, waste	597,000t
Other products	547,000t
In total	**7,262,000t**

Source: Own representation, based on Statistisches Bundesamt



Shipping, receiving and transhipment in Thuringia. Source: Own representation, based on destatis



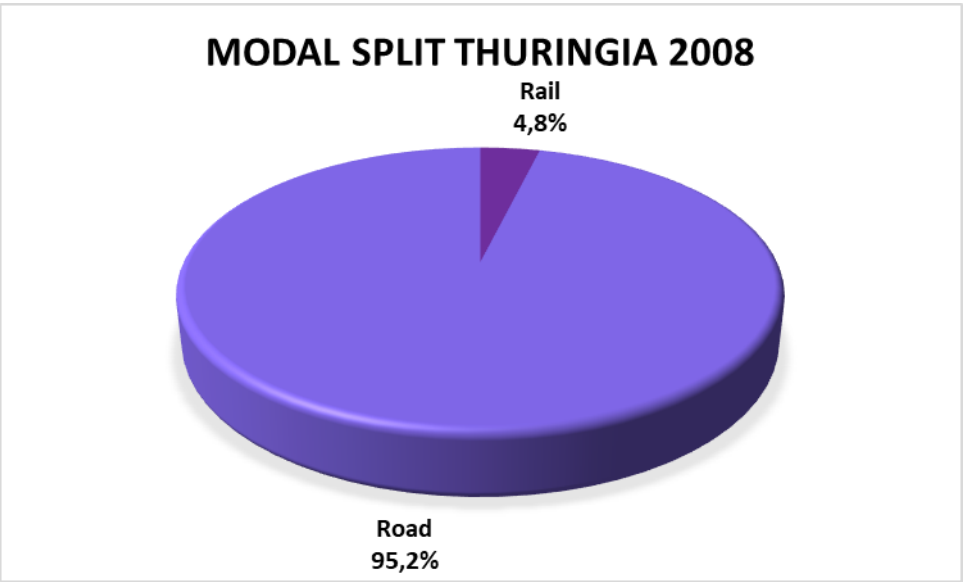


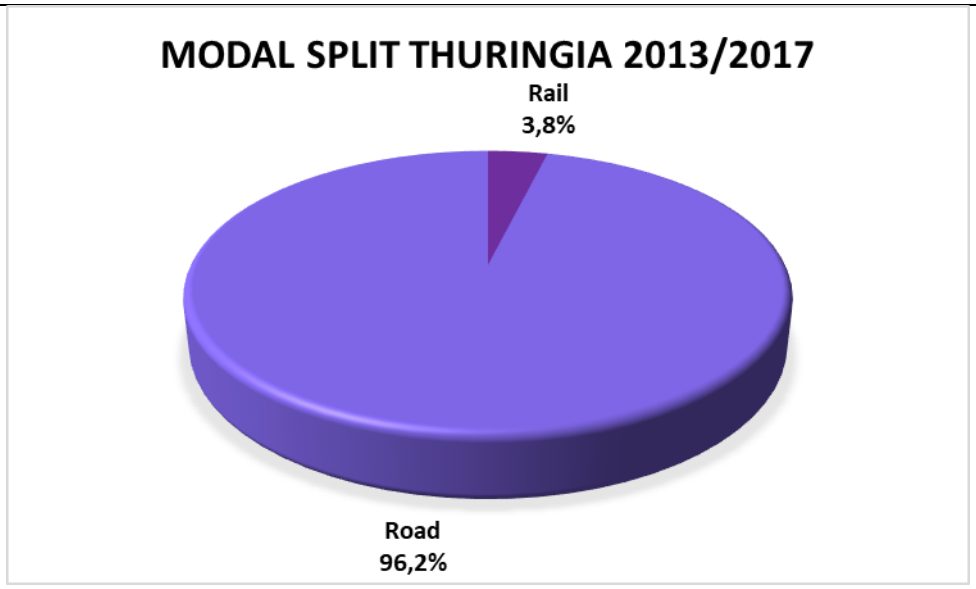
Source: Own representation, based on destatis

Modal share development

The modal share for freight transport in Thuringia stagnates in the last years or even decreases to the disadvantage of rail. In 2008 a total of 157.7 million tons of goods were transported to, from and inside of Thuringia, 150.1 million tons of which were road transport and 7.6 million tons rail transport.

Road transport is definitely the strongest mode of transport in terms of tonnage transported with a share in modal split of 95.2 % in 2008 and 96.2 % in 2013. The share of rail cargo traffic in the total tonnage transported amounts to 4.8 % in 2008 and 3.8 % in 2017.





Source: Own representation, based on destatis

B) Policy Analysis

EU – Level - The principles of European transport policy-making

The two declared driving principles of the last decades of European transport policy-making have been user-pays and polluter-pays. The first should impact the charging for the use of state-owned transport infrastructure, while the latter should apply when internalising external costs. Environmental considerations – embodied in the fight against air and noise pollution, as well as climate change/green-house gas emissions – have recently come to complement these two basic principles.
Declared goals for transport safety have been much tailored to the respective modes: on road it is a modest commitment to reduce the total number of fatalities, while for other modes it is more meticulously expressed in accident prevention aims, like the European Union Agency for Railways's Common Safety Targets.
Stemming from the state ownership and the monopoly standing of rail infrastructure management, which – through close controlling of trains – heavily impacts the quality performance of the overall railway sector, rules were also created to increase transparency, accountability and to streamline unjustified national differences for the sake of efficiency. The recast of the First Railway Package (2012), the Rail Freight Corridor Regulation (2013), and the Fourth Railway Package (2016), together with the related delegated acts have a moderate impact on modal split.
The Regulation on the Trans-European Network for Transport (TEN-T), as the sole multimodal piece of European transport legislation, sets the framework for the development of transport infrastructure in 2013. Since then nine TEN-T corridors in Europe where identified (six of them run through Germany). They display the most important transport connections and routes and have a priority in expansion. The Free State of Thuringia is located at the centre of the Scandinavian – Mediterranean TEN-T Corridor.

National Level

Masterplan Schienengüterverkehr (Master Plan Rail Freight Transport)

The Master Plan Rail Freight Transport is the central strategic paper for the future of rail freight transport in Germany. It was introduced in 2017 with the aim to strengthen rail freight transport permanently and make it economically more attractive in comparison to other modes of transport. For that the Master Plan comprises 10 aspects with guidelines for politics and rail sector. These fields of action and milestones are the following:

1) To provide efficient infrastructure for rail freight transport
2) To promote digitalisation of rail freight transport
3) To intensively automatize rail operations
4) To expedite technical innovations for rail vehicles considering profitability and eco-friendliness
5) To promote multimodality as well as ensure and expand access to rail
6) To develop electromobility on and with rail
7) To notably reduce prices for train paths and facilities
8) To restrict charges and tax price
9) To ensure comparable standards of process specification, social legislation and safety constraints for all modes of transport
10) To accelerate education and training

Furthermore, five immediate measures were determined:

- Reduction of prices for train paths through additional federal funds
- 740 metres network for longer freight trains
- Entrepreneurial contributions by the sector for modernising rail freight transport
- Setup of one test field for digitalisation and automatization of train composition in rail freight transport
- Concept development of a federal program "Future Rail Freight Transport"

Aktionsplan Güterverkehr und Logistik (Action Plan Freight Transport and Logistics)

The Action Plan Freight Transport and Logistics pursues the strengthening of the logistics location of Germany, the preservation and modernisation of an efficient transport infrastructure, improved cross-linking of all modes of transport as well as the promotion of environmentally friendly and energy-efficient freight transport. In this regard, the Master Plan Rail Freight Transport shall be implemented, advantages of the European Rail Freight Corridors utilized, bottlenecks in rail eliminated and longer freight trains enabled. The action plan will regularly be edited depending on the status of implementation.

Bundesverkehrswegeplan 2030 (German Federal Transport Infrastructure Plan)

The German Federal Transport Infrastructure Plan 2030 is an important strategic instrument for the transport infrastructure planning in Germany for the next 10 to 15 years. It considers the existing network (141,6 billion federal funds) as well as expansion and reconstruction projects (98,3 billion federal funds) on road, rail and waterway. The core objective is the preservation of the existing network and the removal of bottlenecks on main axes and transport hubs.

It is stated that there has to be an efficient, safe and sustainable passenger and freight transport as well as a strengthening of freight transport and shift to rail and waterway. At the same time the intermodal cross-linking and interlocking shall be improved. Especially the different types of combined transport include the eco-friendly modes of transport rail and waterway. Therefore, the state supports financially the construction of transhipment terminals.

In Thuringia the expansion and new construction of the rail connection between Erfurt and Leipzig/Halle was funded as well as the connection Paderborn – Bebra – Erfurt – Weimar – Jena – Glauchau – Chemnitz. Furthermore, current projects are the expansion of the node Erfurt and the rail connection Nürnberg – Erfurt.

Gleisanschlussförderrichtlinie (Railway Siding Funding Guideline)

To shift more goods from road to rail, the state of Germany funds the expansion and new construction as well as the reactivation of private sidings since 2004. The current Railway Siding Funding Guideline is valid since 2017 and expires in the end of 2020. The key points of funding are the following:

- Object of funding: A private siding is a rail facility in property of a private company. In the context of the funding programme investments by private companies for a construction, a reactivation or an expansion of a railway siding are funded.
- The amount of funding comes to 50 % of the investment spending. The contribution amounts to the maximum of 8 Euros per tonne per year or 32 Euros per 1.000 tonne kilometres. With light

goods the funding amounts to 220 Euros per wagon or 90 Euros per 100 wagon kilometres. There is no right for a guarantee of the contribution. The federal railway authority (Eisenbahn-Bundesamt) decides within the own budget.
- Companies apply by filling their grant applications at the federal railway authority. The outcome of the examination of the applications has to be communicated to the company not later than 3 months after handing in all documents.

Gleisanschluss Charta (Railway Siding Charter)

The Railway Siding Charter was developed by associations and organisations out of industry, commerce, logistics and public institutions in 2019 with the aim to focus in the transport political discussion more on the key role of railway sidings, customer-oriented access points and regional railway infrastructure. For this purpose, it takes efficient transport systems in Combined Transport and in Single Wagonload Transport. The charter defines central demands for politics, economy and logistics that complement respectively specify the Master Plan Rail Freight Transport. These demands are the following:

- To reduce bureaucracy and facilitate regulations
- To improve funding of railway sidings
- To reduce costs for the connection to the public network
- To save the feeder infrastructure and make it more efficient
- To ensure the operation of railway sidings and customer-oriented access points
- To expand and save public loading sites
- To connect industrial sites to rail and secure land
- To strengthen multimodal nodes
- To promote/fund multimodality
- To create new concepts of transport along with railway sidings
- To promote innovations on the first and last mile (digitalisation, automatization, modern locomotives)
- To enhance the interest on the own railway siding

Leistungs- und Finanzierungsvereinbarung (LuFV) (Performance and Funding Agreement)

To preserve the existing German railway network in a usable condition, the state with the national rail infrastructure companies and the German Rail agreed upon a Performance and Funding Agreement. In this the state commits itself to provide the companies with investments for the existing network (2009 – 2014: 10,5 billion Euros, 2015-2019: 20 billion Euros). Simultaneously the railway infrastructure companies have to guarantee that they provide the rail network in a predefined quality, invest in a predefined extent and implement sufficient maintenance measures. Transgression of defined targets can be sanctioned. From 2020 on a following LuFV shall be continued.

Regional level

In order to avoid the expected traffic burden on the road, the Free State of Thuringia is also relying on an integrated transport concept for freight transport, in which the various forms of transport are efficiently linked. The rail bound freight transport has to take over a huge portion of the growth. A key prerequisite

is the investments in rail infrastructure made till today in Thuringia like new and expanded construction measures, e.g. VDE 8. VDE 8 is a group of rail projects to close infrastructure and capacity gaps between East and West Germany from Nuremberg to Berlin through Erfurt.
Another important contribution to the strengthening of rail transport is also possible through the sound competition of railway companies. Here, in particular, further measures to promote competition on the rail network by the Federal Government and the European Union are required. Freight transport policy can only shape the investment and regulatory environment, while transport companies are responsible for providing modern, customer-friendly services.
The freight transport hubs and the combined transport have an important role in this process.
At least for Long Distance Freight Transport rails have the chance to cooperate successfully with road transport and gain a higher share from the transport market. To support this the freight transport hub Thuringia has been developed. The hub is conveniently located and close to the state capital and the main road and rail links including the new line trans-European high-speed rail VDE 8.1 and 8.2 which in the future can be used for the fast freight transport from southern and south-eastern Europe through the eastern federal states to Scandinavia.

Landesentwicklungsprogramm Thüringen 2025 (Regional Development Program Thuringia):

The Regional Development Program Thuringia 2025 is an informal document and instrument with goals and guidelines to develop the regional and spatial potentials of Thuringia. It was declared as obligatory by the federal state government in 2014, based on the Thüringer Landesplanungsgesetz ThürLPlG (State Planning Act Thuringia) from 2012.

Concerning rail freight transport, it is stated in the general principles of transport infrastructure that the rail network, stations and transhipment facilities shall be arranged to meet the future requirements of rail passenger and freight transport. Therefore, the rail hub Erfurt is an important node not only for the city but for the whole state. The hub has centrality and good preconditions for railway freight transport.
At the same time, it has to be considered, that it is not useful to maintain roads or rails that lost their function and will not be used anymore.

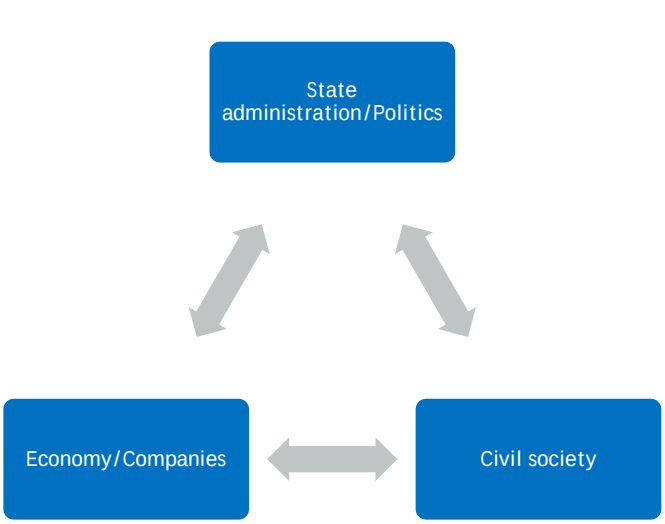
In the regional plans, locations for freight loading points can be considered as a principle of spatial planning, provided that a regional significance is justified in terms of spatial planning and a rail transport-related freight transport potential has been demonstrated or is to be expected.
To ensure the location of existing (often inner-city) areas, the functional relationship must be represented and evidence of existing or projected goods must be provided. The volume of goods must be suitable both for the quantity and the types of goods for transport by rail and for the corresponding transhipment.
A determination of location areas for freight loading points without proven freight potential is not possible.

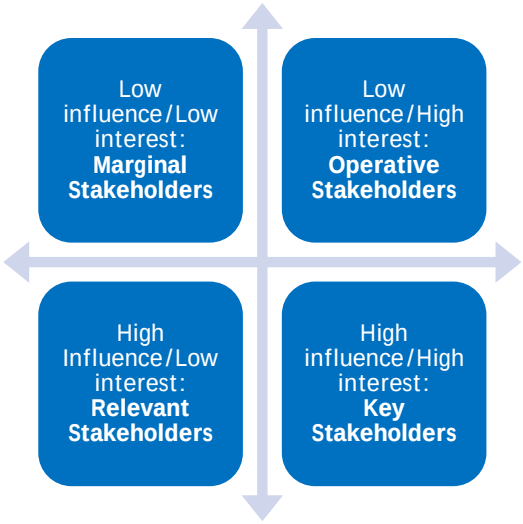
C) Regional Stakeholder Mapping

The involvement of major stakeholders is a key element for the project's results and outputs. Cooperation and coordination between all relevant stakeholders in regional rail freight transport is therefore fundamental and important. For that, this section will map out stakeholders by classifying them according to their influence on the project and their level of interest in the project. The identified and collected key stakeholders can be out of politics, economy and civil society.

The first table (matrix) maps out the important stakeholders by classifying them according to their influence on the project (low or high) and their level of interest in the project (low or high). This will show which stakeholders have to be involved in project activities (key stakeholders and operative stakeholders), which stakeholders the PP would like to involve (relevant stakeholders) and which stakeholders are less important (marginal stakeholders) for the project activities. In the second table the stakeholders are listed and described according to their role and benefits or conflicts their involvement could bring.

The stakeholder mapping serves also as a basis for the establishment of the market player working groups as an important element of all pilot actions in WP T2 (Deliverables D.T2.1.3, D.T2.2.4, D.T2.3.4). They will be composed of public and private stakeholders relevant to the chosen topic of the pilot action and the regional context.





		INTEREST	
		Low	High
INFLUENCE	Low	**Marginal Stakeholders:** **Importance = low** - Others	**Operative Stakeholders:** **Importance = medium/high** - Public Railway Undertakings - Private Railway Undertakings - Railway Infrastructure Undertakings - Customers
	High	**Relevant Stakeholders:** **Importance = medium/high**	**Key Stakeholders:** **Importance = high**

Stakeholder	Role	Importance/ Relevance (High/medium / low)	Contribution to the project	Benefits from the project	Conflicts (Potential, existing, former)	Current level of support	Strategies to improve the support
Public Railway Undertakings	Type						
DB Cargo AG (Regional Sales East)	Operator	High	Knowledge, experience	further cooperation		High	
Erfurter Bahn GmbH (EIB)	Operator	Low	Knowledge, experience			Low	
Thüringer Eisenbahn GmbH	Operator	Medium	Knowledge, experience	Further cooperation		Medium	
Railway Infrastructure Company							
DB Netze AG		High	Knowledge, experience	Further cooperation		High	
Rennsteigbahn GmbH & Co. KG		Medium	Knowledge, experience			Low	
Thüringer Eisenbahn GmbH		Medium	Knowledge, experience			Medium	
ZossenRail Betriebsgesellschaft mbH		High	Knowledge, experience	Further cooperation within pilot action		High	
Erfurter Bahn GmbH (EIB)		Low	Knowledge, experience			Low	

Logistic company							
TFG Transfracht GmbH		High	Knowledge, experience	Further coopera tion		High	
Kühne & Nagel KG		Medium	Knowledge, experience			Low	
DUSS (Deutsche Umschlaggesellschaft Schiene-Straße mbh) DB Netze		High	Knowledge, experience	Further coopera tion		High	
Customers							
Zellstoff- und Papierfabrik Rosenthal GmbH	Operator	High	Knowledge, experience				
Pollmeier Massivholz GmbH		Medium	Knowledge, experience			Low	
Thüringen Forst		High	Knowledge, experience	Further coopera tion		High	
Granitwerk Fischer GmbH & Co KG		Low	Knowledge, experience			Low	
Stahlwerk Thüringen GmbH		Low	Knowledge, experience			Low	
Others							
Chamber of Commerce		Medium				Low	Workshops Advisory Board Meetings
Regional Development Agency		Medium		Project Results		Low	Workshops
Regional Planning, regional public authorities		Medium		Knowled ge, project results		Medium	
DBV-Förderverein der Max-& Moritz-Bahn e.g.V.	Interest group	Low	Knowledge, experience			Low	
VDV Sachsen/Thüringen	Interest group	Medium	Knowledge, experience			Medium	

D) SWOT Analysis

The SWOT Analysis serves to identify key internal (Strengths and Weaknesses) and external (Opportunities and Threats) factors in the regional rail freight transport. These factors are derived from the previous steps of the baseline study and are therefore an overview or a summary of the status quo of rail freight transport.

Strengths
Location of Thuringian Industries concerning markets
Sufficient rail freight infrastructure
Low utilization rates of many lines
Wide range of goods

Weaknesses
The share of only 30 % of electrified railway tracks
Amount of closed railway lines
2 combined terminals: - **One is specialized for car-transport (Opel production site).** - **The biggest one at Erfurt freight village works at capacity limit.**
Terminal is not electrified
Low freight volume
50% transit traffic on lines

Opportunities
Location in the "heart of Europe" in-between RFCs and TEN-T network
Maintenance and construction of track connections
Maintenance and reactivation of secondary lines
Implementation of a network of loading platforms designed for flexible use
Facilitate, support and promote the establishment of additional offers for rail transportation
Establish a central institution which pools

Threats
Further closing or even dismantling of tracks should be prevented
New highways (Autobahn projects)
Skilled staff missing

the potentially suitable volumes for rail traffic at an administrative level (practical example TCU)
Research cluster

E) Recommendation/Outlook

Every baseline study should be concluded with a summary of the main findings and results. Importance should be given to a recommendation and outlook for the future work of the project. This will help to achieve the purposed aims and outcomes of every PP through the project and to compare and learn from the baseline studies in the REIF project.

- Thuringia's central location in Germany and Europe
- dense and sufficient railway infrastructure with capacities
- small network of electrified railway tracks
- very low modal share of rail freight transport
- European, national and regional (funding) programs and initiatives to promote rail freight transport and private sidings
- Good and diverse network and structure of stakeholders in railway freight transport
- Variety of branches and goods