



STUDY ON CORRIDORS

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Recommendations:
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Executive Summary

Aim of the study

This study was carried out in accordance with OTIF's work programme for 2014/2015.

The main objectives of the study are to identify the existing legal and physical barriers to seamless international railway transport, to analyse which of them fall under OTIF's remit and to propose relevant legal solutions. In addition, the study answers the question of whether it is necessary to reinstate OTIF's Rail Facilitation Committee.

Means used

The problems described in the study were discovered by means of personal contacts and interviews with representatives and stakeholders in the railway sector, such as international railway organisations, associations, private railway undertakings and forwarding companies. Various articles, studies and research carried out recently by UNECE, UNESCAP, EU, OSJD, UIC, CAREC, ECO and other international and regional organisations were also analysed.

The scope of the study

This study focuses only on questions of freight transport.

In order to carry out reality-based research and provide information that is as precise as possible, it was decided to identify two specific railway routes to be studied. These routes are:

- The land bridge from China to the European Union through the territory of Russia,
- The Pakistan – Iran – Turkey corridor, with a possible extension to the countries of Western Europe.

The above-mentioned corridors were analysed in terms of the application of COTIF and its Appendices, use of the common CIM/SMGS consignment note, problems that exist at the border crossings and along the routes, differences of gauge and other technical issues, the economic and political situation in the region and specific countries involved in the corridor and their involvement with the international and regional organisations working in the field of railway transport. Specific attention was given to the issue of border crossing, which is generally recognised as the main obstacle to the smooth movement of goods.

The study analyses the key issues which need to be addressed in order to develop international rail transport. These include the harmonisation of transport documents and technical standards, use of electronic records and the simplification of customs procedures, etc. It is obvious that in many cases, the source of the problem is a lack of funding. Questions such as the financial issues and customs procedures are outside OTIF's scope of responsibilities, so

the solutions proposed in the study only consider those problems which could be resolved with the support of COTIF.

The results of the study also underline the importance of the widest possible use of the CIM and common CIM/SMGS consignment note. The study also includes a description of the common CIM/SMGS consignment note, its benefits and the latest developments on its implementation.

It is very important that those countries which are trying to develop international rail transport should become involved in the work of the relevant international organisations. A basic description of OTIF's activities, the benefits of acceding to OTIF, and COTIF and its Appendices as a legal tool for facilitation has also been integrated into this study. With this information, the study aims to reach the relevant audience in those countries which are not yet members of OTIF, but which might consider joining it and benefiting from the law of COTIF.

Main conclusions and recommendations

The volume of international trade between Europe and Asia has been growing sharply during recent years. This increase can be explained by the steadily growing economy of China, Turkey, India, central Asian countries and the Russian Federation.

Although maritime transport remains dominant, with a 99% share of all east-west traffic, the need to diversify existing routes and open up alternative passages between the two continents gives railway transport more opportunities for active development.

Railway transport on a Euro-Asian scale faces both physical and non-physical obstacles, but the two most cumbersome were and still are the existence of two legal regimes and the change of gauge.

At the same time the study has shown that the majority of the problems discovered arise from the lack of organisation and coordination of transport movements (especially at borders) and from the insufficient exchange of information between neighbouring railways. Customs procedures do not have a major negative impact on railway movements, as was first thought. With some exceptional cases which will probably always occur at some border stations, customs checks in general do not significantly undermine the seamlessness of railway movements.

Nevertheless, implementation of Annex 9 to the Harmonization Convention¹ and its correct execution would further contribute to improving the general situation.

Multimodal transport continues to gain importance and is becoming increasingly

attractive to carriers. Currently, the active development of multimodal carriage in the Black Sea and Caspian Sea regions can be observed.

The main recommendations of the study, supported by relevant justification, concern the introduction of new subjects in connection with cooperation with OSJD, the introduction of Russian for international communication, the elaboration of a separate project for maritime routes under CIM and the organisation of various training courses under the auspices of OTIF.

In order to facilitate international wagon exchange, it would be worth considering the application of CUV (Uniform Rules concerning contracts of Use of Vehicles in International Rail Traffic, Appendix D to COTIF) and the General Contract of Use (GCU) on a Eurasian scale, including the railway route from China to Europe and even on the Trans-Siberian, in view of the fact that the application of a set of legal rules such as CUV/GCU is not necessarily linked to the European standard gauge or any other gauge for that matter.

¹ The International Convention on the Harmonization of Frontier Controls of Goods, 1982

1. Railway routes designated for the study

This study is based on an analysis of operations on the specific corridors and the detection of problems and bottlenecks along them. The international corridors studied are:

- the land bridge from China through the territory of Russia to the EU (Germany),
- the Pakistan-Iran-Turkey corridor, with a further extension to central Asia and Europe,

1.1. Corridor 1: China – Europe passing through Russia with possible routes through Kazakhstan and Mongolia

Corridor 1 (Figure 1) connects Europe with China and involves Germany, Poland, Belarus, the Russian Federation, Kazakhstan and Mongolia. The beginning/end points are in China and Germany; Kazakhstan, Mongolia, Russia, Belarus and Poland are transit countries.



Figure 1: Corridor 1: China – Europe passing through Russia with possible routes through Kazakhstan and Mongolia

The Table below shows the application of COTIF along the corridor. Table 1 – Application of COTIF along corridor 1

	CIV	CIM	RID	CUV	CUI	APTU	ATMF	Comments
CN China								Not OTIF MSs
KZ Kazakhstan								
MN Mongolia								
RU Russia		✓						only specific lines
BY Belarus								Not OTIF MS
PL Poland		✓	✓	✓	✓	✓	✓	EU
DE Germany		✓	✓	✓	✓	✓	✓	

Poland and Germany apply COTIF in full. Russia became a member of OTIF in 2010 and for the time its accession is limited to the application of the CIM UR on the specific port lines of the Gulf of Finland, the Baltic Sea and part of the railway infrastructure at the port of Kavkaz on the Black Sea.

This corridor is largely based on the Trans-Siberian railway, which is capable of transporting 100 million tonnes of freight a year.

1.1.1. Trans-Siberian railway²

The Trans-Siberian railway (Figure 2) network forms the backbone of the northern route for the Trans-Eurasian connection. With its branch lines to Kazakhstan, Mongolia and China in the east and links via Belarus/Poland or Ukraine to Western Europe, the Trans-Siberian railway offers several possibilities to connect Europe and Asia. Moreover, via Russia's far eastern ports, such as Vladivostok and Vostochny, the line is linked by coastal and deep water shipping to the Republic of Korea, Japan, Chinese coastal regions and Vietnam.



Figure 2: Trans-Siberian railway corridor and associated railway routes (Source: CCTT presentation at the UIC GTE meeting, Paris, 13 May 2014)

The route is a natural continuation of Pan-European Transport Corridor II, which starts in Germany and ends in Nizhny Novgorod, passing through Moscow. At the same time, the Trans-Siberian railway is the longest part of OSJD corridor 1, which starts at the Polish-German border and ends in Nakhodka (a port in the Far East) and has many branches.

² Based on RETRAK Study - Potential for Eurasia land bridge corridors and logistics developments along the corridors

The Trans-Siberian railway is mostly used for cargo exchange within Russia itself (45% of domestic traffic³), as the route passes through 20 Russian administrative regions, where more than 80% of Russian industrial potential is based. These regions produce 65% of the country's coal, 20% of total oil products and 25% of timber⁴.

In order to increase further the transit capacity of the international transport corridor between Europe and the Asia-Pacific region based on the Trans-Siberian, the Russian government and Russian Railways (RZD) are developing and implementing the following measures:

- large-scale investment projects in the eastern part of the Trans-Siberian railway to ensure the growth of rail transport and transit between Russia and China (by 2015, RZD plans to spend about 50 billion roubles on upgrading the Trans-Siberian railway⁵);
- necessary development of railway stations on the border with Mongolia, China and North Korea, which is now complete;
- enhancing approaches to seaports; - modernising and upgrading container terminals to international standards;
- comprehensive reconstruction of the Karymskaya - Zabaikalsk railway line is underway to provide increasing volumes of cargo transport to China (especially oil).

The Trans-Siberian railway routes are:

- Trans-Siberian – China via Kazakhstan (Trans-Sib – Trans-Kazakh route)
- Trans-Siberian – China via Mongolia (Trans-Sib – Mongolian route)
- Trans-Siberian – China via Zabaikalsk (Trans-Sib – Manchurian route).

Among these routes, the Trans-Siberian - Mongolian route offers the shortest distance for rail transport between Moscow and Beijing and the Trans-Siberian – Trans-Kazakh route is favourable for transport to and from western China. The Trans-Siberian – Manchurian route is the shortest route for transport between Moscow and the ports on the Yellow Sea or to locations in north-east China.

Container transport dominates on this corridor. It totalled around 640 000 TEU in 2012, and it is expected to grow to 1 million TEU by 2020⁶.

All railways of the countries along the Trans-Siberian corridor (Russian Federation, Kazakhstan, Mongolia) are members of the Organisation for Cooperation of Railway (OSJD) and of the Coordinating Council on Trans-Siberian Transportation (CCTT). The main objectives of the OSJD are

³ <http://www.railwaypro.com/wp/?p=14498>

⁴ Strategic Assessment of Euro-Asian trade. Azerbaijan as a Regional Hub in Central Eurasia, Taleh Ziadov, 2011

⁵ http://eng.rzd.ru/static/public/en?STRUCTURE_ID=87 (last accessed 25 July 2014)

⁶ <http://www.railwaypro.com/wp/?p=14473>

to develop and improve international railway transport between Europe and Asia, coordinate the development of international railway transport policies and laws in the Member States, improve the competitiveness of the railways in comparison with other transport modes and to provide technical and economic cooperation in relation to railway issues. The main purposes of the CCTT are to attract transit and foreign trade cargo to the Trans-Siberian and coordinate the activities of companies participating in international cargo transport on the Trans-Siberian.

In Eastern Europe and Asia the international carriage of passengers and goods by rail is regulated by the SMPS and the SMGS international agreements.

For historic reasons the countries along the Trans-Siberian Corridor – the Russian Federation, Kazakhstan and Mongolia - inherited the common technical base of the railway infrastructure and traction and train operation standards. However, the signalling systems at main routes are developing at different speeds.. For instance, the signalling technology introduced according to former Russian standards is currently being replaced in Mongolia by the ERTMS system of the European Union.

TRANSIT TIME

Generally, the transit time consists of several components, such as transport time, container handling and processing time, customs clearance time, each of which influences the total duration on the route. Moreover, some other aspects have an impact on the travel time along the Trans-Siberian routes, such as technical differences on the route (gauge width, power supply), the number of border crossing points (different rules and regulations, official languages) and type of cargo. These aspects can also be a cause for transit time deviations on the routes. The potential for delays due to possible errors caused by the failure to fill in all the forms and documents according to the required national standards increases when different national language requirements have to be complied with.

According to the Coordinating Council of Trans-Siberian Transportation (CCTT) the main reasons for cargo detentions on the borders along the China – Russia - Europe route are: incorrect execution of carriage and commercial documents - 56%, untimely provision of cargo consignment by empty rolling stock - 12%, customs procedures - 9%, commercial flaws - 8%, technical flaws and malfunction of infrastructure - 7%, entry into force of defective normative legal documents -1%.⁷

⁷ CCTT presentation, UIC GTE meeting, 13 May 2014, Paris

RZD uses tariff settings to improve the competitiveness of Trans-Siberian transport services against both alternative modes of transport and routes and to attract more cargo. Since 2012, the rates for container train services from Europe to China via the Ukrainian border crossing stations, Brest in Belarus and Zabaikalsk at the Sino-Russian border have been reduced by 33%, as have those from Russia's Far East ports. Since 2014, RZD has reduced cargo handling rates by 11% for container train services on the Kanisay – Krasnoye route from China and back via Brest⁸.

According to information from the CCTT, 705 745 TEU of international cargo were carried on the line in 2013. The comparatively high capacity of trains on the Trans-Siberian is seen as an advantage.

West - East - West traffic on the Trans-Siberian is thus very unequal. The main flow of loaded wagons passes from west to east, but in the opposite direction, traffic accounts for only 5%. This is due to the structure of traffic on the Trans-Siberian and the structure of Russia's foreign trade.

The transport of coal from Kuzbass to the Far Eastern ports forms the main loaded freight flow on the Trans-Siberian. The RZD plans to modernise the Baikal-Amur mainline so that it can gradually take over bulk freight from the Trans-Siberian. This will help free up the Trans-Siberian and improve its operational conditions. The elimination of bottlenecks, the increase of capacity and the reduction in traffic loads on infrastructure will improve business activities in eastern Siberia and the Far East, improve their transit capabilities and contribute to realising Russia's transit traffic opportunities in general. Through traffic from Asia to Europe will partly shift from the sea route to rail, the delivery time of the latter being about three times less.⁹

1.1.2. Technical and operational characteristics of the routes

The Trans-Siberian – Trans-Kazakh route originates in Moscow and travels across Russia and Kazakhstan to China. The distance from Moscow to the Chinese border is 4,358 km. The Kazakh part of the route from Petropavlovsk, via Astana and Karaganda up to Monty, is electrified and double track (1,071 km). The route from Monty, via Aktogay up to Dostyk (839 km), is single track and is not electrified (electrification of this section is planned between 2015-2018 according to the “National Industrial and Innovative Development Programme of the Republic of Kazakhstan for the period 2010-2014”).

The electrification system on this section of the Trans-Siberian in Russia is based on 3 kV DC, while the electrification system in Kazakhstan was introduced later and hence is based on 25kV AC 50 Hz. Due to the different electrification systems at the southern Trans-Siberian connection

⁸ <http://www.railwaypro.com/wp/?p=14473>

⁹ Ibid

between Yekaterinburg and Omsk and in Kazakhstan, modern two system locomotives, or a locomotive change is required.

The maximum train length on this route is 1,000 m and the maximum train mass is 2,800 t. The maximum axle load on the Russian sections is 25t and 23t on the Kazakh sections. The loading gauge of the Trans-Siberian – Trans-Kazakh route is 1-T.¹⁰

The Trans-Siberian - Mongolian route originates in Moscow and travels across Russia and Mongolia to China and is 7,021 km long. The route uses the section of the Trans-Siberian main route from Moscow up until Zaudinskiy near Ulan-Ude (5,649 km long) and continues with the Trans-Siberian branch line to the Russian-Mongolian border in Naushki (253 km long). The length of the Mongolian section of the route connecting Russia and China is 1,111 km.

The Zaudinskiy-Naushki section is single track, non-electrified, equipped with automatic locking and centralised dispatching and traction services are provided by diesel locomotives 2ТЭ10М, 2ТЭ10У. At the border between Russia and Mongolia, transshipment is not needed because of the same gauge width (1,520 mm). From the Mongolian border station Suhe Bator the single gauge railway goes through the territory of Mongolia via Ulan-Bator to Zamyn Uud station at the Mongolian-Chinese border. The loading gauge on the whole route is 1-T.

At the Russia – Mongolia border the locomotive change, technical inspection, customs clearance and other border crossing procedures take place.

The maximum freight train length on the route is 1,000 m. The maximum freight train mass on all sections is 2,800t. The maximum axle load on Russian railways is 25 tons. The maximum speed is limited to 60 km/h for the Mongolian part and 80 km/h on the Russian railways.

The prospective traffic increase on the Russian section of the route Yekaterinburg – Naushki requires further strengthening of the infrastructure on this railway section.

China, Kazakhstan, Mongolia and Belarus are not OTIF Member States; together with Russia and Poland they cooperate within OSJD and apply SMGS to international transport. Russia and Poland have dual membership, being Member States of OTIF and OSJD.

¹⁰ One of the loading gauge standards in the 1520 mm area

a) Selected findings of the RETRACK Study concerning risks on the Trans-Siberian route

The RETRACK study - Potential for Eurasia land bridge corridors and logistics developments along the corridors (2007-2012) carried out by EU DG TREN detected the following major risks along the Trans-Siberian corridor and associated railway routes that are related to international carriage regulations.

1. Risk of non-availability of platform wagons for container transport.

There is a frequent lack of availability of platform wagons for container transport on the route from Europe to/from the Chinese border. In former times a wagon pool of all state-owned railways was in operation, which allowed interchanges between different railways and the one-way use of wagons. The separation of privatised RZD affiliates as new rolling stock owners (e.g. First Freight Company – a subsidiary of RZD) has changed the market situation for private container train operators. Whereas in a few cases the old system still applies (e.g. for platform wagons of Belarusian-Russian railways), the majority of platform wagons are now being considered by the state-owned railways as “private wagons”. This results in higher costs (because of costs for empty returns, higher coordination costs) and in possible discrimination due to the preference to provide wagons to RZD affiliated companies.

This risk can be avoided by stronger private investment in rolling stock and the expansion of private wagon leasing companies. The RZD subsidiary for rolling stock, First Freight Company JSCO, has already been partly privatised and other private industrial railways are trying to expand their business from internal industrial railway operations (e.g. in steelworks) to long distance transport, including the operation and leasing of their own private railway wagons.

With regard to the Trans-Siberian-Kazakh route there is a risk of delays at border crossing stations and delays in transshipment. There is a risk of delays at the border crossing terminal at Dostyk on the Kazakh/Chinese border. An expansion programme is currently underway to reduce this risk in the future.

2. Risk of unpunctuality. In the case of single wagon loads and wagon groups there is a risk of unpredictable transport times and unpunctuality along this long route. The consolidation of trains and shunting operations and marshalling yards frequently results in waiting times for single wagons or wagon groups. This risk can be minimised by establishing block train services which run on a fixed timetable. These trains are not broken up during the transit and monitoring and control is easier.

3. Risks relating to different administrative rules and documentation requirements. Owing to the different national rules of the various railway conventions that are applicable (SMGS and COTIF) and because of different languages, there is the risk of delays and additional costs because of friction in commercial and administrative procedures.

The solution is to harmonise the legal regulations and requirements and to use modern ICT solutions.

4. With regard to customs clearance, occasional difficulties in this area have been reported. One reason may be inaccurate declarations, which may be caused by the different Customs Codes in the EU (8 digit code) and in the customs union of Belarus, the Russian Federation and Kazakhstan (10 digit code). In addition to possible future harmonisation of Custom Codes and implementation of electronic customs declarations, the question arises as to why customs inspect transit containers at all.

Customs procedures within the customs union of Belarus, Kazakhstan and Russia do not cause unexpected delays, provided that documents are accurate and comply fully with the required standards. Respondents pointed out that the duration of the customs clearance depends on commodity types. Customs documentation and cargo inspection issues at the western part of the EU borders were considered to be more cumbersome than procedures at the Chinese border.

5. Risk of non-competitive tariffs, fluctuations or sudden tariff adjustments. As mentioned above, the segmented tariff policy of the railway administrations involved may cause higher and therefore non-competitive prices. In addition, tariff fluctuations hamper long term logistics service contracts when using the Trans-Siberian route.

As a competitor, sea transport offers much more flexible pricing. Although surcharges may be announced to the public at short notice, individual and tailor made service contracts between shippers and carriers guarantee fixed market rates and service levels.

On the Trans-Sib routes pricing is still inflexible and reacts slowly to market changes. The deregulation of tariffs along the Trans-Sib route is necessary and is supported by the RZD in their statements.

6. The imbalance of rail cargo container flows is a further obstacle. Most cargo is carried from Europe to Central Asia and Russia or between Central Asian countries and the People's Republic of China, while there is not yet much transit traffic between the European Union and China.

7. Technical barriers. The connection from the European Union to Russia

and China via the Trans-Siberian rail corridor involves several countries with partly different technical railway standards. These present challenges for the effective organisation of transport. The technical barriers are mainly between the EU and Russia and Russia and China and concern e.g. the gauge, electrical systems, signalling systems, length of trains and weather conditions.

The RZD has been implementing a number of actions to overcome the risks mentioned above and to achieve organisational and technical improvements on the Trans-Siberian.

With regard to the Trans-Siberian and Trans-Siberian-Kazakh routes, it should be noted that the electrification of missing links along the Kazakh route and the expansion of the transshipment capacities at Dostyk are technical barriers which need to be improved.

With regard to the Trans-Siberian-Mongolian route there are technical barriers caused by single, non-electrified tracks on the Russian branch route and on the Mongolian routes. A track extension and electrification programme should be assessed in order to evaluate the economic feasibility of a capacity improvement on this route.

10. Operational barriers

Availability of wagons and wagon distribution

For container operators who use wagons in single wagon traffic there is the problem of the availability of wagons and the availability of the right type at the right time and in the right place (logistics). Wagons for public use are available less and less since the RZD has been outsourcing rolling stock to subsidiaries. Wagons that belong to these companies are considered to be private wagons which must be returned to the owner at a designated place (e.g. in Moscow).

This results in empty carriages and additional costs while wagons belonging to the state railways (e.g. Belarusian Railways) have to be sent back to starting point within 30 days. These state railway wagons can be re-loaded on the return journey and used by others. In practice, this means that the container operator can return the wagon to the Russian/Chinese or Kazakh/Chinese border.

Container operators with their own wagons (e.g. Transcontainer) give priority to their own transport operations, whereas asset free operators do not have sufficient access to wagons. The market for renting private wagons is not fully functional. Therefore, private train operators are working on strategies on how to build up a wagon fleet.

The problem of the availability of wagons is eased in the case of block trains, which run on a fixed schedule in the same way as shuttle trains. At present, the low volume of container transport by rail via the Trans-

Siberian can be resolved by railway-owned or shipper-owned containers. However, if the volume increases, this barrier will become significant.

As such, the legal system of rules regarding the use/exchange of wagons is independent from the question of the technical parameters of these wagons and of the infrastructure on which the wagons move. This applies both to the CUV/GCU and the corresponding set of rules set up by OSJD, i.e. PPW (for passenger coaches) and PGW (for freight wagons). However, it is evident that the technical parameters of the wagon have to be compatible with the technical parameters of the railway infrastructure. If this is not the case, there is a real physical barrier to the circulation or exchange of wagons.

The CUV/GCU represents part of a complete, coherent system of COTIF uniform law. Application of the coherent system –in both legal and technical terms is an advantage for all parties involved, because it represents a single source providing them with appropriate solutions for different legal situations.

At the current stage, the UTPs as the basis for technical approval (wagons, locomotives, passenger coaches) are formulated in such a way that they are not linked to specific technical solutions or a specific gauge (European standard or another gauge). The UTPs contain only functional requirements.

In view of the fact that the application of a set of legal rules such as CUV/GCU is not necessarily linked to the European standard gauge, their application to the use of wagons on a Eurasian scale, including the railway route from China to Europe and even on the Trans-Siberian railway line, could be considered.

Availability and distribution of containers

The problem of the availability of containers is even more complex and complicated. The ISO container originates from sea transport. In sea transport, shipping lines, as carriers, have built up and optimised their container fleets over the last 40 years. They own by far the majority of ISO containers. Since it is not their primary interest to send their sea containers via rail, the container operators have to build up their own container fleets and even more importantly, they have to develop container logistics with a monitoring and depot network, which does not currently exist at a sufficient level.

10. Flow of information. Each of the routes studied is a multi-country corridor and entails multiple border crossing. Every border crossing causes additional waiting time and an increase in the lead time of the transport operation.

The next instrument that allows simplification of the border crossing procedure and reduced waiting times is the system of pre-electronic

declaration. Preliminary information technology has already been implemented in Zabaikalsk and enables the waiting time at the border to be reduced by 1.5 days.

CCTT is working on an innovative non-commercial pilot transport project called “Electronic train”. It will enable the operation of international freight trains from west to east and vice versa using electronic transport documents. The “Electronic train” project will be implemented on the basis of the “Ostwind” container train and will arrange a preliminary transfer of electronic documents to the transport participants. The first phase of the project focuses on organising an electronic and legally significant document workflow with the use of electronic digital signatures. This includes measures on the mutual recognition of digital signatures by all participants. In the second stage, the plan is to develop and implement a new train schedule for the parties involved in the project trains, in order to expedite train processing at border stations by means of electronic document circulation.

b) Use of CIM/SMGS consignment note along corridor 1

The introduction of a uniform CIM/SMGS consignment note was a big step forward in the direction of harmonisation of the legal regulations and requirements.

The CIM/SMGS consignment note may be used on the entire railway network of Russia, Belarus and Mongolia. In Kazakhstan, the common CIM/SMGS consignment note can be used on the transit routes and other important traffic axes for import.

In Poland, the common CIM/SMGS consignment note can be used for some transit routes and some broad gauge routes as well as for the line connecting to the Kaliningrad region (Russia). Within the CIM area, use of CIM/SMGS consignment note can be agreed between the customer and carrier as well as between carriers themselves.

China does not use the common CIM/SMGS consignment note for the time being. The pilot transport projects which cross China’s border points at Manchuria, Alashankou, Erlian with Russia, Kazakhstan and Mongolia have therefore to be agreed in advance in each case.

c) Change of gauge along corridor 1, related bottlenecks and customs controls

A change of gauge is a structural problem which exists at China’s borders with Russia, Mongolia and Kazakhstan. Another gauge change along the

route is at the border of Belarus and Poland. China uses the standard 1435 mm gauge. Russia, Kazakhstan, Mongolia and Belarus use the broad 1520 mm gauge. Most of the railway network in Poland is 1435 mm gauge¹¹.

According to the OSJD rules, the change of gauge and corresponding need to tranship has to be handled by the “importing country”. For example, if a train carrying ore from Kazakhstan enters China, the train will stop at Alashankou (China) and the ore will be transhipped onto the wagons of Chinese railways. The other way around, a train carrying consumer goods from China to Kazakhstan will stop at Dostyk (Kazakhstan) to tranship freight.

The efficiency of transshipment depends on the number of transshipment facilities and the availability of equipment. The use of cranes in addition to forklifts and mobile cranes can improve the efficiency of the transshipment process.

The management of rolling stock and its availability presents a challenge. Priority given to passenger trains introduces further delays.

At the Alashankou/Dostyk border crossing (China – Kazakhstan), goods are processed in both directions. According to research conducted by CAREC though, goods moving from China to Kazakhstan face more difficulties because of the lower capacity of Dostyk terminal compared with Alashankou and because of inefficient and stringent checks on documentation by Kazakh customs.

International consignment notes, such as the SMGS consignment note, are used in China at border crossings and major terminals. Errors can occur by reissuing the consignment note at smaller stations which are authorised only for domestic transport. Furthermore, the customs authorities of China and Kazakhstan may disagree on the classification of some products, which is normally based on the OSJD Nomenclature of Goods, where the items have a corresponding eight digit classification code. It is obviously necessary to harmonise these processes.

Erlian – Zamyn Uud is the border crossing point between China and Mongolia and is one of China’s largest border stations for cargo going to Russia. This border crossing point relies solely on the Tiajin sea port. If cargo is delayed there (sometimes 4-5 days), it results in substantial delays at the border crossing¹².

Transshipment due to the change of gauge is performed on the importing side. Customs clearance in Mongolia could be completed within 3 hours,

¹¹ Part of the railway infrastructure in Poland uses the 1520 mm gauge. These include some industrial lines, which go to the Ukrainian border

¹² CAREC Corridor Performance Measurement and Monitoring, Annual Report 2013

but in China's customs it could take 24 hours. The reissuing of transit documents requires 3 hours on average¹³.

Non-containerised freight is more time consuming. Wagons are offloaded and freight is truckled across the border where it is reloaded onto Mongolian or Chinese trains. Such short movements take a lot of time and are very inefficient and expensive.

Another impediment along the Trans-Mongolian route is that trains have to stop for technical inspection in Stainshand and Choyr, and locomotives are also switched. Sometimes wagons are collected and redeployed. Overall, trains stop for about ten hours in each of these two stations. A train can pass the Naushki (Russia) –Sukhbaatar (Mongolia) border crossing in 1-2 days. The average waiting time is 12 hours, with 4.5 hours usually spent on reissuing transit documents; customs documentation can be completed in two hours¹⁴.

In 2011 Kazakhstan, Russia and Belarus formed a Customs Union, which became the Eurasian Union in January 2015. The common market has contributed to reducing customs bribes between China and Europe (at the Kazakh-Russian and Russian-Belarusian borders) and knocking four to six days off the journey.

Cross-border transport in Central Asia has also been impacted by the Customs Union between Kazakhstan, Belarus and Russia. The study conducted by CAREC found that lorries leaving Kazakhstan and entering the Russian Federation enjoy significantly shorter waiting times following the Customs Union, with the average border crossing time decreasing from seven to two hours¹⁵.

On the other hand, border crossing in rail transport continues to worsen. The average clearing time of 24.7 hours in 2012 increased to 29.9 hours in 2013. This is largely attributed to longer border crossing encountered at Dostyk-Alashankou for westbound shipments¹⁶.

Every year OSJD publishes a list of all block/container trains that operate in its region. Table 2 shows the latest available list of block/container trains that use corridor 1.

Table 2 - Block trains operating between Europe and Asia¹⁷

¹³ Ibid

¹⁴ Ibid

¹⁵ ESCAP Review of Developments in Transport in Asia and the Pacific, 2013

¹⁶ CAREC Corridor Performance Measurement and Monitoring, Annual Report 2013

¹⁷ UNECE Euro-Asian Transport Linkages Phase II, 2012

Train Number	Train description	Type of train	Frequency
1208	Berlin – Kunzevo (Russian Fed.), “Ostwind”	Containers	3 times per week
1276	Brest – Ilijezk (Russian Fed.) – Arys (Kazakhstan) “Kasachischer Vektor”	Containers	2 times per week
1406	Brest – Nauschki (Russian Fed.) - Ulan Bator (Mongolia) - Huh Hoto (China)	Containers	2 times per week
1251/1252	Almaty (Kazakhstan) – Dostyk (Kazakhstan) / Alaschankou (China)	Containers	6 times per week
1402/1401	Lianyungang (China) - Alaschankou (China) / Dostyk Kazakhstan – Assake (Uzbekistan)	Containers	1 times per week
1401/1402	Tianjin (China) – Alaschankou (China) / Dostyk (Kazakhstan) – Almaty (Kazakhstan)	Containers	3 times per week

1.2. Corridor 2: Pakistan – Iran – Turkey with potential extensions to Europe and China

1.2.1. Situation in Iran and Pakistan

The Middle East region is well placed to act as a connection between Asia, Europe and even Africa. The main rail routes to Europe pass through Iran and Turkey.

The rail route connecting the capitals of Pakistan, Iran and Turkey, all of which are OTIF Member States, has potential extensions in both directions: west - to Europe, and east - to Central Asia and China (Figure 3).



Figure 3: Pakistan – Iran – Turkey Corridor with potential extensions to Europe and China

ECO plays an important role in the region in the development of international transport between its Member States. Following its promotion by ECO, a trial run of the Istanbul-Tehran-Islamabad container train was organised in August 2009. Regular, scheduled transport on this route started in 2010 and operation of the line is coordinated by a High Level Working Group attended by the States concerned. Following the accession of Pakistan

to COTIF in 2013, transport is now carried out under the CIM UR and it is no longer necessary to reissue transport documents on the border with Pakistan. The ECO Istanbul-Tehran-Islamabad (ITI) container train covers a distance of 6543 km: 1990 km in Pakistan, 2603 km in Iran and 1950 km in Turkey, which a train covers in eight, four and 3.5 days respectively.

a) Situation in Pakistan

Pakistan is the weakest link in the route. The capacity of Pakistan's railways is limited. The infrastructure is decapitalised and there is an acute funding deficit for improving the network and rolling stock.

The existence of tribal forces in the country complicates shipments, resulting in a need for escorts and convoys on certain sections. Unofficial payments are a constant issue for consignors.

However, in terms of trade facilitation, the country has made notable progress and further developments are expected. Pakistan has signed the Revised Kyoto Convention for all General Conditions and four out of eleven Special Conventions. Moreover, Pakistan is going to take charge of the ECO Chamber of Commerce and Industry (CCI), one of the active regional trade bodies, for the next three years. ECO CCI emphasises the promotion of bilateral trade and the strengthening of economic relations among the ECO states. According to the Ministry of Railways, there are some studies on the viability of delegating rolling stock management to the private sector¹⁸.

The strategic geographical location of Iran contributes to the development of the transport corridors in various directions. The railway network of Iran is well developed; many kilometres of new lines are under construction and investments in new freight wagons are foreseen. Iran has an ambitious growth strategy and expects almost to double the volume of freight carried and to reach 70 million tonnes by the end of 2018¹⁹.

¹⁸ CAREC Corridor Performance Measurement and Monitoring, Annual Report 2013
¹⁹ Railway Gazette International, October 2014

b) Situation in Iran

The Iranian section Kerman – Bam – Zahedan in the south-east, which is the part of the route, was finally completed in 2009, but the broad gauge connection to Pakistan's network (Pakistan's rail network uses the broad Indian 1676 mm gauge) is of a poor standard and needs to be modernised or rebuilt if an effective corridor is to be developed.



Figure 4: Railway line Kerman-Bam-Zahedan in Iran

The same problem occurs on the Pakistan side with the Quetta – Taftan section, which is 559 km long. Because of the old infrastructure, the journey through this section takes 18-36 hours²⁰. The old infrastructure here needs to be to be renovated.

The Iranian border crossing with Pakistan at Mirjaveh operates on a 24-hour basis.

Iran's primary link to Europe runs through the Razi border crossing into Turkey in the north-west. The railway connection between Turkey and Iran was built in the 1970s with a train ferry across Lake Van between the cities Tatvan and Van, rather than building a railway line around the rugged shoreline. Transfer operations limit the total carrying capacity and Turkey is currently looking at various options for a rail bypass²¹. There is

²⁰ <http://www.pakistanaffairs.pk/threads/72824-Islamabad-%E2%80%93-Tehran-%E2%80%93-Istanbul-Rail-Line-to-boost-trade-in-Central-Asia>

²¹ Railway Gazette International, October 2014

no change of gauge between Turkey and Iran.

To support and promote the route, a Memorandum of Understanding was signed by the governments of Turkey, Iran and Pakistan in 2012. In September 2014, it was decided to establish a commercial working group to activate and market the Istanbul-Tehran-Islamabad and Kazakhstan, Turkmenistan, Afghanistan and Iran (KTAI) train projects²².

c) Summary

There are numerous advantages of the Istanbul-Tehran-Islamabad rail route. First of all, it opens the way to the Indian market, providing much shorter delivery times to Europe, and helps strengthen the positions of transit countries as bridges between Asia and Europe. The development of commercial, social and cultural relations among the countries is beneficial for the whole region and the potential for development is huge.

At the same time there are a lot of problems to be addressed. The cost of railway transport is higher than maritime transport and the different gauges between Pakistan and Turkey/Iran constitute an additional problem.

The level of bureaucracy is high and the chances of delay and opportunities to demand bribes are immense. Visa formalities, customs clearance, obsolete infrastructure and lack of investment, safety, and various technical problems have a negative impact on the development of the corridor.

1.2.2. Connection with Europe and China

As mentioned above, the Pakistan – Iran – Turkey route could potentially be extended both to east and west. It also provides access to the region of Central Asia, which is now developing and becoming increasingly important, and to India. The information available on international rail transport in India is very poor, but in order to develop this connection, Pakistan, whose network is linked to the network of India using the same gauge, has to work on improving cooperation.

With the inauguration of the Marmaray tunnel under the Bosphorus in Istanbul in 2013, one of the most important discontinuities in the logistics chain to Europe was eliminated and opened up new possibilities for international passenger and freight transport by rail. The implementation of the project reflects Turkey's hope that trade by rail between Europe and Asia and as far as China will be boosted. The tunnel has also strategic importance – it is an alternative way to reach Europe from Asia without passing through Russia.

²² <http://pakobserver.net/detailnews.asp?id=251466>

At the same time, there are some problems at the border between Turkey and the EU (Bulgaria) which need to be addressed.

According to information submitted by rail freight operators of the EU, there is a lack of communication and information on train movements from TCDD (Turkish Railways), the opening hours of Turkish customs offices at the border station at Kapikule are irregular, priority is given to national freight trains, there is a lack of capacity and extremely long unloading times – up to 3 days in Cerkeyköy - and a lack of resources (e.g. locomotives) within TCDD, which is the only traction provider.

All these problems, which could be resolved relatively easily and quickly, result in the loss of large volumes of rail freight in connections between Turkey and the EU and serious concerns on the part of customers and railways concerning the future prospects of rail traffic to and from Turkey. China has commissioned a preliminary research study to build an international link connecting its border province of Xinjiang to Pakistan.

The 1800 km China-Pakistan railway is also planned to pass through Pakistan’s capital, Islamabad, as well as Karachi. Pakistan has already handed over control of the port at Gwadar to China, which provided an opening to the Arabian Sea of the Persian Gulf to Beijing. Implementation of the project might be complicated, because India has conveyed its reservations in this regard to China, as it is being constructed through the disputed territory of Kashmir²³.

Pakistan’s accession to COTIF opened up the entire region to OTIF, and in future, this region will be able to benefit from the law of COTIF. Applying the rules of COTIF will also enable freight traffic between Turkey, Iran and Pakistan to be developed, thanks largely to the CIM consignment note, which makes border crossing much easier.

Table 3 – Application of COTIF along route 2

	CIV	CIM	RID	CUV	CUI	APTU	ATMF	Comments
CN China								Not OTIF MS
PK Pakistan		✓						
IR Iran	✓	✓	✓	✓	✓	✓	✓	
TR Turkey	✓	✓	✓	✓	✓	✓	✓	
BG Bulgaria	✓	✓	✓	✓	✓	✓	✓	EU
RO Romania	✓	✓	✓	✓	✓	✓	✓	
HU Hungary	✓	✓	✓	✓	✓	✓	✓	
AT Austria	✓	✓	✓	✓	✓	✓	✓	
DE Germany	✓	✓	✓	✓	✓	✓	✓	
NL Netherlands	✓	✓	✓	✓	✓	✓	✓	

²³ <http://timesofindia.indiatimes.com/world/china/China-commissions-research-to-build-rail-link-to-Pakistan-via-PoK/article-show/37391462.cms>

The common CIM/SMGS consignment note is not used along this corridor for the time being.

2. Sea vs. Railway²⁴

Although the shipping time between Europe and Asia ranges between 28 and 40 days, maritime container transport is the cheapest and most preferred option.

The containerisation of global trade over the last thirty years has led to a rapid increase in the volume and value of maritime commerce, the number of containers and containerised cargo, and the number of larger ocean container carriers. Global maritime trade has doubled in terms of total weight of goods handled between 1987 and 2007 to 3.6 billion tons, of which containerised trade was 1.3 billion tons. In 2011, the number of containers used in international maritime trade exceeded 28.5 million TEU, up from 6.4 million TEU in 1990 and 14.9 million TEU²⁵ in 2000. By 2015, this number was expected to exceed 40 million TEU²⁶.

It is clear that the economic growth of the EU, East and South Asia, Turkey, Russia and Iran will bring with it containerised trade between these markets. Central Asia is well placed to transit some of this trade. Today, less than 1% of EU-Asia container trade is moved via various overland corridors, (such as the Trans-Siberian Railway, the Transport Corridor Europe, Caucasus and Asia (TRACECA), the Trans-Kazakh route and the Southern Route via Iran). The overland routes are shorter in terms of shipping time, but are inefficient and expensive compared to the maritime option.

The competitiveness of any freight route is commonly calculated using the “trio” of commercial indicators: “time – service – tariff”. The key reason for the failure to attract transit business to overland corridors is the undeniable commercial benefits of using sea freight from the eastern and southern provinces of China and other South-East Asian countries.

THE MAIN COMPETITIVE ADVANTAGES OF SEA TRANSIT ROUTES

Cheaper tariffs

International shipping companies with an extensive and cost-efficient fleet at their disposal can keep their charges and freight rates low. In many cases, shipping cost is the main consideration for consignors as they strive to minimise the transport component of the price of commodities in order to keep them competitive in the destination country. The tariffs charged by shipping companies will remain much more competitive than

²⁴ E. Vinkurov, M. Jadralliev, Y. Shcherbanin “The EurAsEC Transport Corridors”, 2009

²⁵ TEU – twenty foot equivalent unit

²⁶ . Ziyadov, Strategic Assessment of Euro-Asian Trade and Transportation. Azerbaijan as a Regional Hub in Central Asia, 2011

other modes of transport, at least in the near future.

However, this appears to be true only for east-west transit. For north-south traffic, which is the other main direction for transit in Eurasia, overland transport costs can compete with sea freight²⁷.

Customer service and compliance with international quality standards

In addition to their competitive rates, sea shipping companies offer a high standard of service, including cargo tracking, sophisticated logistics networks and guarantees of on-time and service delivery. They use state-of-the-art technology, offer discounts to regular customers, etc.

However, overland transit has an important competitive advantage – it reduces delivery times. The shortest cargo delivery time from eastern China and other South-East Asian countries to Western Europe by railway is 2 to 2.5 times shorter than sea shipments via the Suez Canal.

But simple calculations alone are not sufficient to demonstrate the advantages of overland transit. Shorter delivery time is a critical factor for certain cargoes (perishable goods or urgent door-to-door shipments). In addition, faster delivery means quicker receipt of cash from the bank, shortening transaction times. In certain cases, each day that payment is delayed is critical, and consignors prefer shorter delivery times to lower shipping costs. Expending delivery releases considerable financial resources, which are effectively frozen throughout the cargo's journey time. The time factor is an unquestionable competitive advantage that overland routes can offer for certain commodities, customers and even regions.

In order to compete seriously with maritime transit services, the transit countries need to improve their transport infrastructure and provide more effective cross-regional transport connections, creating a single intermodal Euro-Asian supply chain across Central Asia. This requires a comprehensive approach to national and regional infrastructure development, particularly in the railway sector, which holds enormous potential for freight and passenger transport.

27 E. Vinkurov, M. Jadraliev, Y. Shcherbanin "The EurAsEC Transport Corridors", 2009

3. Analysis of the key issues of international rail transport facilitation

There is no globally unified regime to cover rail transport in the same way as for air and maritime transport. This complicates international rail operations, as there is a lack of consistency in the legal regimes for rail operations. The risk associated with multiple legal frameworks discourages the international use of railway services.

Domestic regulations for transport can also create difficulties for international operations. National operating rules, signalling systems and safety standards vary between countries, giving rise to compliance issues and requiring additional training of staff to ensure safe operations. Formalities not related to transport, such as visas for train crews and customs procedures, can also create unnecessary delay and costs.

In general, countries with international rail transport face common challenges, namely:

- Congestion and delays at border stations, particularly at stations with a change of gauge,
- Excessive customs controls and often unreasonable and repetitive border checks, veterinary inspections; lengthy procedures for crossing borders,
- Lack of harmonisation in the documents that are required by different countries; incorrect information written on the consignment note or absence of the consignment note and accompanying documents,
- Inspections on both sides of border crossings,
- Different technical standards for rolling stock, power supply, braking systems and signalling systems,
- Lack of qualified staff to operate cross-border trains,
- Weak infrastructure.

The majority of the technical, operational and administrative difficulties fall under the scope of responsibility of the railway authorities and can be resolved by improving and harmonising operational regulations and communication and the conclusion of bilateral or multilateral agreements between the railways concerned.

When ensuring through cross-border transport, one necessarily comes into contact with the privileges based on state authority. Resolving questions such as the simplification of excessive customs inspections and transit procedures, harmonisation of transport documents, opening hours of border offices and providing enough personnel are under the scope of responsibility of the states and should be dealt with at intergovernmental

level.

As an intergovernmental organisation which functions exclusively for the interests and benefits of railway transport, OTIF is authorised to intervene in the sphere of rail facilitation at governmental level.

In COTIF 1999 an important role was given to the task of border crossing facilitation. Not only do the aims of the Organisation refer explicitly to the removal of obstacles to the crossing of frontiers (see Article 2 § 1 b)), they also establish responsibility for special public interests. At the same time, COTIF 1999 also provides the instruments for achieving this aim: Article 2 § 2 a) says that OTIF may elaborate other systems of law, which does not exclude the customs sector. The Member States may even elaborate other international conventions using the framework of OTIF (Article 2 § 2 b)).

Strengthening the Organisation as a platform for action is also an objective, as according to Article 3 § 1, the Member States undertake to concentrate international cooperation within the framework of OTIF, which also concerns facilitation in border crossing.

In order to develop international rail transport, a number of key issues need to be addressed. The main ones are:

1. participation in international railway organisations,
2. harmonisation of transport documents,
3. tackling difficulties in terms of gauge changes,
4. simplification of customs procedures for crossing borders,
5. standardisation and harmonisation of technical requirements.

The two international railway organisations, OTIF and OSJD, play a key role in the coordination and organisation of international rail transport between countries in Europe and Asia. It is estimated that the member countries of the two organisations have a significantly higher volume of international traffic than other countries²⁸. Both organisations coordinate law, operating rules, key transport documents, wagon use, safety and technical standards for infrastructure and rolling stock. OSJD also coordinates policy, transit tariffs and train timetables.

Railways will be used more for international traffic with the increase in regional integration and intra-regional trade, as well as environmental awareness. However, operational systems cannot be established in a short time period. Countries need to gradually harmonise their technical standards, transport documents operating rules, tariff structures (in the OTIF area this is considered as a commercial issue and left to the sector) and rules for wagon exchange.

²⁸ UN ESCAP Monograph Series on Transport Facilitation of International Railway Transport in Asia and the Pacific

The clear role of the international and regional organisations is to work together with the various railways in each country to develop the international corridors and prioritise work on the relevant routes.

The numerous international railway corridors were established and identified by different railway organisations. OSJD has identified 13 rail corridors, ECO has prioritised five. UNECE and ESCAP have also identified their own priority transport corridors and some of them are identical. To promote their corridors, international organisations have elaborated various agreements and regulations, which need to be executed effectively in order to remove or reduce legal incompatibility and facilitate the crossing of borders.

It is very important for states and railway authorities to participate in the activities of international railway organisations, to benefit from their experience and the experience of other railways in developing international rail transport, and to prepare themselves for future developments. But cooperation between the international and regional organisations is equally important. They need to coordinate their actions targeted at removing obstacles and resolving problems of international traffic.

POTENTIAL BENEFITS OF ACCESSION TO OTIF AND APPLICATION OF COTIF

COTIF constitutes a unique harmonised international system of law, which was created by the Member States on the basis of their national transport laws. The added value of COTIF is that new Member States might be motivated by the harmonised international law and adopt its requirements into national law for domestic transport at governmental level or railway undertakings might base their general terms or conditions on it. For example, since 2013, Austria has applied a large number of Articles of CIM to domestic transport as well. Another example is the French freight forwarder Fret SNCF, which took over the provisions of CIM into its General Sales and Transport Conditions for French domestic transport.

COTIF offers effective legal instruments to develop freight transport and provides compatibility with the European technical regulations for those countries that are developing their networks with an international dimension.

One of OTIF's strength is its flexibility. For instance, the substance of an accession can be adapted to the needs of the rail sector of a particular state to the extent that a state can choose which Appendices it wishes to apply. But this provision can only be granted for a specific category

²⁸ <http://www.otif.org/>; Convention concerning international Carriage by Rail COTIF 1999; UNESCAP Monograph Series on Transport. Facilitation of international Railway Transport in Asia and the Pacific

of states (see Article 1 § 6 CIM and CIV). For example, when Pakistan acceded, its interest was focused on the CIM consignment note, which will enable Pakistan to develop trade links with surrounding countries that apply OTIF law, such as the Islamic Republic of Iran and Turkey. COTIF 1999 also enables new Member States or candidates for accession to make part of their infrastructure subject to the CIM or CIV UR. Countries such as Ukraine, Georgia, Russia and Estonia used this possibility when they acceded to COTIF.

Usually, the CIM Uniform Rules apply to the carriage of goods when the place of taking over the goods and place of delivery are situated in two different Member States, irrespective of the place of business and nationality of the parties to the contract of carriage. But Article 1 § 2 CIM makes it possible to apply these uniform rules when at least one of the states is a Member State of OTIF and the parties agree to use the CIM for carriage.

There is no specific profile for countries that are interested in acceding to COTIF. COTIF can embrace countries whose structures are very different in terms of technology and the degree of openness for competition. For example, the technical rules of OTIF provide compatibility with the networks of the European Union. Nevertheless, this does not mean that the structural reforms underway in the European Union, such as the separation of infrastructure managers and railway undertakings, have to be adopted by countries that are considering acceding to COTIF.

3.1. Legal interoperability

In the area of legal interoperability, there is often an insufficient legal basis for establishing rules and relations between railway undertakings and all stakeholders. Domestic railway legislation determines the liability of railways, but there is a lack of international components in terms of this liability. At the international level two legal regimes are in force between Europe and Asia: the regime defined by the Intergovernmental Organisation for International Carriage by Rail (OTIF), using the CIM consignment note in Western European countries, and the regime defined by the Organisation for Cooperation between Railways (OSJD) in East European countries, the Caucasus and some Asian countries, using the SMGS consignment note, which is not accepted in Western Europe.

The existence of two different legal regimes causes substantial delays in the movement of trains across borders. Although apparent success was achieved with the adaptation and introduction of the common CIM/SMGS consignment note, more work is still needed to make OTIF and OSJD

railway zones more coherent, convergent and interoperable.

The consignment note is the most important document for rail transport. CIM/SMGS legal interoperability is a joint CIT/OSJD project, the aim of which is to transport goods under a single legal regime, whereas today 2 legal regimes, CIM and SMGS, apply. The long term objective is a single legislative framework for transport from the Atlantic to the Pacific. OTIF has strongly supported the project from the beginning.

The first step in this direction was the creation of the CIM/SMGS consignment note as a new consignment note model combining elements of both CIM and SMGS consignment notes.

3.1.1. The common CIM/SMGS consignment note

The common CIM/SMGS consignment note was introduced in 2006. According to the OSJD statistics, in 2011 more than half of the international traffic between SMGS and CIM contracting states was carried using the common consignment note. It has to be borne in mind that the CIM/SMGS consignment note is a document which serves as evidence of two contracts of carriage.

The CIM/SMGS consignment note frees the parties involved in transport operations from rewriting carriage documents when crossing the border between states of two different legal frameworks, CIM and SMGS, which saves the consignor approximately 40 Euros per document. As it is recognised as an international customs and banking document, it significantly simplifies customs formalities and reduces delays at border stations by 10-12 hours²⁹. The CIM/SMGS consignment note ensures a high level of legal certainty, clearly sets out the route and allocates transport expenses between the consignor and consignee. Moreover, it is a guarantee of compensation in case of damage to or loss of the cargo, and prevents system errors in the conversion of documents. It also contributes to reducing the risk of corruption.

A CIM/SMGS wagon list, a CIM/SMGS container list, a CIM/SMGS formal report and a standardised claim handling mechanism were developed to allow further simplification of international freight traffic by rail.

Under the CIM scope of application, the provisions of the CIM/SMGS Consignment Note Guide apply only in those situations where they are included in the contractual terms and conditions accepted by customers and in the collaboration contracts signed between carriers. Under the SMGS scope of application, the provisions of the Guide apply to traffic, which is specified by the authorities in Annex 1 to the CIM/SMGS Consignment Note Manual. The respective railways are also listed there.

²⁹ Railway PRO 2.4 (106) 2014

The CIM/SMGS consignment note is recognised as a customs transit document by the European Union and European Freight Trade Association (EFTA) Member States³⁰ and by the customs authorities of Belarus, Russia and Ukraine. It can also be used by customers for documentary credit operations³¹.

Since it was adopted in 2006, use of the CIM/SMGS consignment note has greatly increased and is still growing. More than 50 transport axes and 4 trans-European corridors are successfully served by the common CIM/SMGS consignment note. This is the key indicator that the CIM/SMGS consignment note is an effective tool for legal interoperability. The overwhelming majority of transshipments using the CIM/SMGS consignment note are container transport.

Further improvement of the common CIM/SMGS consignment note will extend its scope and enable it to be used as a multimodal document for sea-rail transport.

3.1.2. Transcontinental axes between Europe and China

The common CIM/SMGS consignment note is becoming increasingly important for transcontinental movements between Europe and Asia.

The traditional routes pass via Kazakhstan, which uses the CIM/SMGS consignment note on all transit routes and for import transport, and Mongolia which allows the CIM/SMGS consignment note on all lines. Currently, the Kyrgyz Republic is the only Central Asian country which uses the CIM/SMGS consignment note on all lines. Other Central Asian countries, such as Tajikistan, Uzbekistan and Turkmenistan, have also been invited to join the project and internal considerations are currently underway.

To complete the network, increasing account is being taken of ferry services on the Caspian Sea and rail routes in the Caucasus region, where Azerbaijan has opened all lines and Georgia all transit routes to the common consignment note.

China does not use the common CIM/SMGS consignment note and for the time being, the pilot transport projects which go through China's border points Manchuria, Alashankou and Erlian with Russia, Kazakhstan and Mongolia have therefore to be agreed in advance.

35 container trains used the Chongqing – Alashankou /Dostyk – Brest – Duisburg line in 2013 and 12 in the first half 2014. The number of consignments from China to Russia increases every year: in 2013, 22 trains and a total of 902 containers left China for Russia. Mainly,

³⁰ EFTA Member States: Iceland, Liechtenstein, Norway and Switzerland
³¹ UNECE OSCE Best Practices

electrotechnical goods and equipment are being transported.



Figure 5: Chongqing – Duisburg route (source https://www.rw.by/en/freight/container_transportation/accelerated_trains/chuntsin_dujsburg/)

At present, most freight trains between China and Europe depart from traditional places of origin of goods, i.e. Lianyungang (city on the east coast of China), Shanghai and Tianjin. New departure points are now being developed, namely Chengdu, the capital of Sichuan province in west China; Chongqing, a metropolis near Chengdu, along the Yangtze River; Wuhan, the capital of Hubei province in central-south China along the Yangtze River; Zhengzhou, the capital of Henan province in central China along the Yellow river³².

According to information provided by DB Schenker AG, since 2012 almost 3000 common CIM/SMGS consignment notes have been drawn up for consignments destined for Europe from China. Since the middle of 2014, DB Schenker Rail has been working together with the operator Trans Eurasia Logistics to set up regular transport services between Europe and China. 35 container trains are planned for 2015.

In 2014, further projects were organised. The aim of these pilot projects is to bring the duration of the journey to 9 days, i.e. for the train to travel an average of 1000 km per day. There is significant potential for developing these transport operations, as only 0.5% of Chinese exports are carried by rail.

In order for this traffic to develop, it would also be necessary to reduce the length of time transit trains are stopped at the borders. At present, 26% of the duration of transport operations depends on customs procedures³³. Given that the common CIM/SMGS consignment note is recognised as a

³² Presentation Wang, Huaixiang Transportation & Economics Research Institute, China Academy of Railway Sciences May 13, 2014, Paris

³³ OSJD Best Practices in Improvement of Efficiency of the International Carriages by Rail in Eurasian connection (translated from Russian), 2014

customs transit document, it is therefore increasingly important that the common consignment note be used for these consignments.

3.1.3. Initiative on Unified Railway Law³⁴

In March 2011, the UNECE Inland Transport Committee approved the vision and strategy laid out in a position paper entitled “Towards unified railway law in the pan-European region and on Euro-Asian transport corridors”.

The position paper contains a step-by-step approach in three phases, starting with the preparation of a memorandum of understanding, resolution or declaration on the general terms and conditions for Euro-Asian railway transport contracts, including the common consignment note, followed by model regulations for international railway transport, and concluding with an international convention on international railway transport.

The Political Declaration on the promotion of rail transport between Europe and Asia and establishing unified Eurasian railway transport law was signed on 26 February 2013 by the Ministers of 37 UNECE countries. The declaration constitutes the expression of the political will of these States to implement the five point strategy described in the declaration in order to establish legal conditions for railway transport equivalent to those existing for competing modes, namely road, air, inland water and maritime transport.

The Joint Declaration sets a direction for the unification of railway law, including:

- establishment of a unified set of transparent and predictable provisions and legal rules for Euro-Asian rail transport operations in all countries concerned that would facilitate border crossing procedures, particularly for transit traffic,
- unification of international railway law with the objective of allowing rail carriage under a single legal regime from the Atlantic to the Pacific, and
- on the basis of a future material consensus on unified railway law, identification of an appropriate management system for the unified railway law using the experience of international organisations in the field of railway transport (OSJD, OTIF and others) as well as of international organisations for other modes of transport.

The Group of Experts set up by UNECE has started its work in order to give substance to this unified law.

³⁴ http://www.cit-rail.org/media/files/public/CIT-Info_2014/3-2014_EN.pdf, <http://www.railwaypro.com/wp/unified-legislation-for-eurasian-railway-transport/>, UNESCAP Monograph Series on Transport. Facilitation of International Railway Transport in Asia and the Pacific, http://www.unece.org/trans/main/sc2/sc2_geurl_mandate.html

In parallel, interested railway undertakings, other stakeholders and international railway organisations and associations were also invited to pursue the work on the development of general terms and conditions of transport for Euro-Asian rail transport (GTC EurAsia).

The GTC EurAsia were unanimously approved by CIT's CIM Committee and from 1 July 2014 are available for use by interested CIT members on the relevant Eurasian corridors, which means that phase I has been successfully completed.

Application of the GTC EurAsia as the General Terms and Conditions of carriage will take place on the basis of private international law, including its conflict of laws rules.

Compared with the situation that exists today, GTC EurAsia offer a wide range of benefits, namely:

- single end-to-end contract of carriage,
- end-to-end liability, including liability for delays,
- uniform rules and contract structure between the railway undertakings and their customers, including forwarding companies and multimodal transport contracts with shipping company members of the CIT,
- joint liability between the carriers and allocation of compensation based on traffic revenue,
- in the final analysis, a closed legal system for dealing with complaints and the use of standardised CIM/SMGS accident reports.

The objective of phase II was to elaborate the Model Regulations for international rail transport. The timeframe for phase II was initially planned between June 2012 and 2015, but taking into account the extent and complexity of the task, the terms of reference of the Group of Experts towards Unified Railway Law (GEURL) was extended for one year³⁵.

The Model Regulations for international rail transport were considered to consist of two layers:

Layer 1: core provisions, generally applicable to specific international rail transport operations, including those addressed by COTIF/CIM and SMGS and general terms and conditions for Euro-Asian rail transport contracts, and

Layer 2: regional provisions, applicable to specific international rail transport lines and/or specific regions and geographical areas.

³⁵ UNECE SC.2

It is expected that only the core provisions of the Model Regulations would be transposed step-by-step into the existing railway conventions, i.e. COTIF and SMGS, which would lead to the further harmonisation of these two transport law regimes.

Phase III, which was initially planned to start in 2015, has now been postponed in view of the extended timeframe for phase II.

During this phase it is envisaged to prepare the Convention on International Rail Transport along the lines of those that exist for air, maritime, road and inland waterway transport at global and pan-European level. It is obvious that such work requires considerable resources and the necessary political support.

In order to facilitate the work in relation to the unification of Euro-Asian rail freight transport law, the OTIF Secretariat has submitted its analysis on the general framework to be put in place to develop unified Euro-Asian law for the transport of goods by rail to UNECE.

OTIF's proposal is to establish an **interface regime** between CIM and SMGS with a common consignment note and common liability regime, rather than to create law overarching the two legal regimes or to create autonomous law. The proposed interface law would only apply if goods consignments cross the border between the areas where COTIF/CIM and SMGS are applied. In addition, it would be applied on a voluntary basis if the parties to the contract of carriage so decided, or to certain high-performance corridors defined by the parties. The parties to the contract of carriage are free to continue to apply COTIF/CIM and SMGS and arrange re-consignment at the border of the two legal regimes, if they consider it necessary.

Thanks to the constant efforts of OTIF, OSJD and CIT a lot of progress has already been achieved in bringing together the legal provisions of COTIF/CIM and SMGS (rapprochement of the provisions concerning the presumption of damage in case of re-consignment, the creation of the CIM/SMGS consignment note, the model wagon and container list form and the uniform CIM/SMGS report model), so it will be relatively simple to establish the legal framework proposed by OTIF.

The question of the legal form of the institution intended to support this new instrument is very complex. OTIF proposes high-level provisions using the model of COTIF and giving the sector the responsibility to decide the precise conditions for applying them. These provisions assume that contractual relations between the parties will be given an important place. In addition, it is essential that the provisions of the new instrument are

simple and practical and enable rail transport undertakings to develop.

3.2. Technical interoperability

Rail transport is environmentally friendly and offers relatively low freight costs for long haul transport. However, in many countries rail transport has been losing a significant market share in favour of road transport. In most countries, the railway infrastructure belongs to the state and is largely financed from the public budget. This consequently means weak maintenance of existing infrastructure, lack of resources to build new infrastructure and missing links and to renew or upgrade rolling stock. These factors reduce train speeds and increase transport time and costs, accelerate rolling stock breakdowns and in the end make railways uncompetitive.

Interoperability of rail services refers to the harmonisation of specifications for rolling stock, command and control; signalling and telecommunications systems; noise emissions; operational rules; maintenance and repair. Interoperability improves rail services and fosters technical and operational innovations and provides seamless, cross-country connections and cost-effective railtransport.

The challenge to make railways more interoperable applies not only to rail companies operating across Europe and Asia, but also to countries within these two continents. Decades ago, two policies with non-obligatory recommendations for infrastructure parameters were introduced. The network criteria were developed by UNECE and established by means of the European Agreement on Main International Railway Lines (AGC) and the European Agreement on Important International Combined Transport Lines and Related Installations (AGTC).

The railway parameters of the former Soviet Union are different from the parameters used in the European countries. These include axle-loads of 23.5 t (European standard is 22.5 t); the minimum train length is 850 m (European standard 750 m); the usual loading standard is 2800-4200 t (European standard 1500 t).

But with regard to speed requirements, the railway lines in the countries of the former Soviet Union do not measure up to the European standards. This can be explained by the historical development of the railways in the former Soviet Union, which was oriented towards coping with the constantly growing cargo volumes which exceeded similar indices in Europe by several times. This is why a significant part of the existing wagon and locomotive fleet is designed for a speed of 80 km/h when loaded and 90 km/h when empty. The fundamental problem in terms of

increasing speeds in the post-Soviet area is the need to renew the wagon and locomotive fleets, which would require major investment.

The new rolling stock which is now being built, as well as upgrading of the infrastructure, is generally designed to be able to reach a speed of 200 km/h for passenger and freight trains.

Notwithstanding the high level of integration inside the European Union, it still has difficulties with the harmonisation of rail operations on an international scale. Despite all the efforts, including political pressure, it cannot be yet affirmed that railway transport in the EU is fully integrated³⁶.

Factors such as the generally low level or even lack of computerisation, insufficient advance notifications and the co-existence of various non-standardised electronic data interchanges (EDI) also impede interoperability significantly. To ensure integrated train operations, more advanced information and communication technologies are needed.

3.2.1. Technical Interoperability in the European Union

Interoperability in the EU is understood to mean the creation of a “single area” through the harmonisation of European railway technical and operating standards and approval processes. Interoperability has a major contribution to make to transport policy in the single European market. The primary purpose is to improve the way a railway undertaking can provide services across the borders of EU Member States. In addition, it will create an internal market in the construction, operation and renewal of rail infrastructure and rolling stock. Adopting a single set of technical specifications and pan-European product approval will allow railway companies to buy interchangeable equipment from amongst a large pool of competing suppliers both from within and outside Europe.

More than any other transport mode, rail transport depends on technical compatibility between the infrastructure and vehicles running on it. Safe and efficient operation of railways requires a high level of standardisation of infrastructure, rolling stock, signalling systems, clearance spaces, the axle weight of track and communication systems, etc. Harmonisation is therefore indispensable to enable international rail traffic.

Currently, railway infrastructure and rolling stock are not standardised in many countries, which causes difficulties in crossing borders. Apart from the different track gauges, the difference in braking systems and different standards in axle weight can prevent cross-border operations and entry of a train from one country to the network of another country.

UIC plays an important role in railway standardisation and participation in

³⁶ UNECE Joint Study on Developing Euro-Asian Transport Linkages, 2013

its activities may assist its members to move towards the standardisation of railways. Railway undertakings, which are members of UIC, can carry out particular studies to identify gaps between the existing railway systems and standards. National plans can be formulated according to the findings of the studies, which allow countries to move step-by-step towards standardisation of their railway systems in terms of new constructions or upgrades to the existing railway systems.

For historical reasons, the OSJD countries have a much higher level of technical and operational compatibility. At the same time there are various bilateral agreements between neighbouring countries, which limit and regulate the access of locomotives to the railway network of an accepting country. Thus, locomotives are allowed to enter only for a fixed distance (for example, 20 km) onto a railway network of the accepting country, where the locomotive has to be changed to a local one. This is carried out according to an “equality principle”. The locomotive crew has to be changed over as well. There are many good reasons for this kind of restriction. The main one is safety. For example, the terrain might be very challenging, which means locomotive drivers and crew members might need to be trained for the particular type of terrain. This is especially important if the weather conditions are likely to be bad. Sometimes the electricity supply is also different. In this case, locomotives have to be changed anyway. There are also some economic reasons why railway undertakings may prefer to use their own locomotives and may not wish to allow locomotives owned by a neighbouring railway to be used.

In the EU, the challenge now and for the future is to achieve the right balance between regulations imposed by the authorities on the one hand and harmonisation of technical solutions by the rail industry and operators on the other. The key is to create a regulated basis which ensures cross-border technical compatibility for all rail vehicles, including locomotives and train sets, whilst not imposing unnecessary technical solutions. In both OTIF and EU law, rule-making powers have been transferred from the integrated railway companies to the competent government authorities.

The advantage in the countries of the former Soviet Union is the uniformity of the automatic block signalling system used on the railway network. In the European rail system there are over 20 different national signalling and speed control systems and each one is incompatible with the other. The co-existence of all these systems creates an obstacle to the free flow of rail traffic across Europe and reduces its competitiveness. Trains need to be equipped with several on-board systems to cross borders; drivers need to be trained to use these systems. Sometimes trains even have to be changed at the border. For example, the high-speed train which connects Paris, Brussels, Cologne and Amsterdam is equipped with a

³³ OSJD Best Practices in Improvement of Efficiency of the International Carriages by Rail in Eurasian connection (translated from Russian), 2014

³⁴ http://www.cit-rail.org/media/files/public/CIT-Info_2014/3-2014_EN.pdf, <http://www.railwaypro.com/wp/unified-legislation-for-eurasian-railway-transport/>, UNESCAP Monograph Series on Transport. Facilitation of International Railway Transport in Asia and the Pacific, http://www.unece.org/trans/main/sc2/sc2_geurl_mandate.html

minimum of seven different systems for its cross-border operation. The ongoing deployment of a single common system, ERTMS, aims to remove this technical barrier to cross-border passenger and freight movements. ERTMS is a major industrial project being implemented to enhance cross-border interoperability through Europe by creating a single standard for railway signalling. ERTMS is a continuous communication-based signalling system. The project is being developed by eight UNEFE (the Association of the European Rail Industry) members, together with the EU, railway stakeholders and the GSM-R (Global System of Mobile Communications – Railway) industry.

However, the implementation of ERTMS will greatly depend on the speed of its deployment on the trackside, and on the willingness of the EU Member States to make the necessary investments.

As part of this project, the EU initiated the creation of six priority corridors for the deployment of ERTMS. These are the major European rail freight axes, where the deployment of ERTMS will bring considerable benefits:

- Corridor A: Rotterdam - Genoa;
- Corridor B: Stockholm – Naples;
- Corridor C: Antwerp – Basel;
- Corridor D: Budapest – Valencia;
- Corridor E: Dresden – Constanta;
- Corridor F: Aachen – Terespöl.

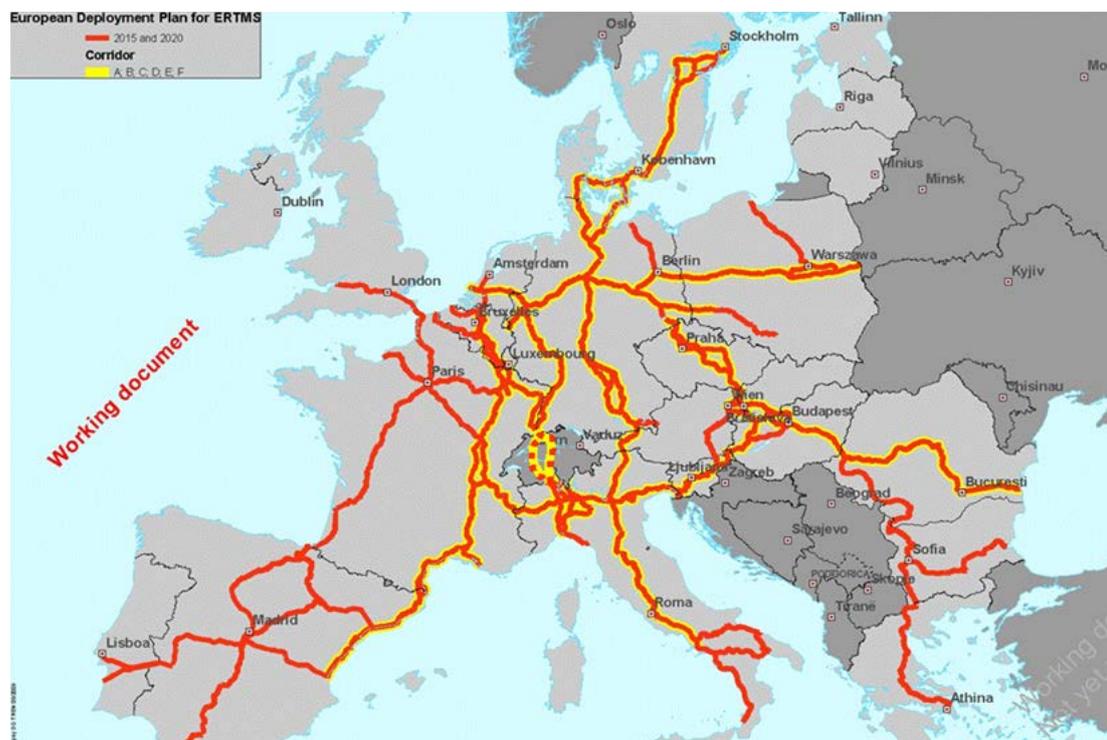


Figure 6: Deployment plan for ERTMS

All EU countries are free to install ERTMS on the rest of their network if they so wish. However, the corridors are of particular importance when it comes to international freight traffic. As a result, cooperation between different Member States which are part of these corridors has to be very close. Moreover, in 2009, equipping the ERTMS Corridors became a legal obligation.

Likewise, the assessment of conformity with the rules is no longer a matter for railway companies, but is the responsibility of an independent assessment entity recognised by the state.

In COTIF 1999, besides adapting and introducing other Appendices to the Convention, two new technical Appendices have been introduced; Appendix F, APTU - the Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions, and Appendix G, ATMF – Uniform Rules concerning Technical Admission.

The aim of these Appendices is to facilitate the authorisation of vehicles in more than one Member State, so that the individual vehicle and not necessarily complete trains can be operated on different networks.

A majority of OTIF Member States are also EU Member States. Therefore, compatibility between EU law and OTIF law is necessary. However, there are some differences, primarily that COTIF 1999 applies to international traffic and is compatible with the EU open market principle, but does not require competition in railways.

The aim and scope of the OTIF technical regulations are not identical to those of the EU. In principle, the aim of OTIF regulations is to establish uniform law in order to facilitate international traffic by rail. The EU regulations also concern domestic traffic.

One of the basic principles of Appendices F and G is the mutual acceptance of vehicles if they comply either with EU or OTIF regulations. The prerequisite for this is full equivalence between the EU regulations in the form of Technical Specifications for Interoperability (TSI) and OTIF's Uniform Technical Prescriptions (UTP). Exceptions only apply in the case of notified and duly justified national technical requirements.

With the entry into force of the first set of UTPs (for Wagons and Noise) in 2012, full equivalence with the EU's TSIs was established for wagons. This provides the legal basis for the approval of freight wagons in international operations.

Full equivalence between OTIF UTPs and EU TSIs for rolling stock was

achieved with the adoption of the list of regulations at the 7th session of the OTIF Committee of Technical Experts (5 June 2014). These regulations entered into force and have been applicable since 1 January 2015.

The technical regulations in force can be consulted on the OTIF website.

3.2.2. Latest developments in the EU railway sector. Rail Freight Corridors

On 30 January 2013, the European Commission (EC) presented the Fourth Railway Package, with the aim of completing a single European railway area. The package proposes to amend a number of directives and regulations on rail transport services.

Despite earlier attempts by the Commission to establish an internal market for rail and improve the efficiency of rail transport, the modal share of rail has remained modest. This is partly due to suitability issues but also, according to the Commission, because of obstacles to market entry, which hamper competition and innovation. Under the current system, there are not enough incentives for European and intermodal cooperation. With this package, the Commission's main goal is to remove obstacles to the efficient operation of infrastructure managers (IMs), and thus to complement the TEN-T policy, the new proposal for Connecting Europe Facility (CEF) and the existing rules on Rail Freight Corridors.

The ultimate goals are to increase railway capacity, efficiency and attractiveness for customers, to encourage modal shift from road and air and to complete the circle of market opening already achieved in the freight, international passenger and other transport markets.

The Commission's proposals focus on four key areas:

- Infrastructure governance;
- Opening of the market for domestic passenger transport services by rail;
- Interoperability and safety;
- The social dimension.

With regard to infrastructure governance, the Commission is proposing to strengthen the role of infrastructure managers (IMs) so that they control all the functions at the heart of the rail network – including infrastructure investment planning, day-to-day operations and maintenance, as well as timetabling. To achieve this, the Commission proposes an institutional separation between infrastructure managers and railway undertakings. If they are independent of infrastructure managers, railway undertakings will have immediate access to the internal passenger market in 2019. Faced with numerous complaints from users, the Commission considers that the infrastructure managers must have operational and financial

independence from any transport operator running the trains.

To ensure that the network is developed in the interests of all players, the Commission is proposing to set up a coordination committee, which will allow public authorities and infrastructure users to communicate their needs and ensure that the difficulties they encounter are properly addressed. The aim is to make infrastructure managers more market-oriented and guarantee that their infrastructure allocation, charging, maintenance and renewal policy meet the demands of all railway infrastructure users. In addition, the Commission wishes to establish a European Network of IMs to promote cross-border cooperation, with particular attention paid to operations along Rail Freight Corridors and international passenger transport routes.

Statistically, rail is far safer than road travel and has continued to improve in the last decade, so safety benefits would accrue through modal shift. In the field of interoperability and safety the Commission's proposal goes in the direction of harmonisation, cutting administrative costs and removing market access barriers. It proposes the transferral of competences from Member States to the European Railway Agency (ERA) for issuing vehicle authorisations for placing on the market and for safety certification for railway undertakings. While legal responsibility would lie with ERA, it would work in close cooperation with the relevant National Safety Agencies (NSAs). At the same time, it would have an enhanced role in the supervision of national rules and monitoring NSAs.

a) Trans-European Transport Networks (TEN-T)

With the establishment of a trans-European transport network (TEN-T), the European Union aims to secure a single market with the free movement of passengers and goods, as well as to reinforce economic and social cohesion and promote economic competitiveness and sustainable development. As a result, the national networks for all modes of transport have to become easily accessible, interconnected and interoperable.

For the first time, a core transport network is built on nine major corridors: two north–south corridors, three east–west corridors and four diagonal corridors. These corridors are not new; they shape and complete the core network within the TEN-T.

The idea is to connect 94 main European ports to railway and road links and 38 major airports to railway lines modernised for high-speed traffic. This all has to contribute to the improvement of connections between different modes of transport and to the EU's climate change objectives. The core network is to be completed by 2030.

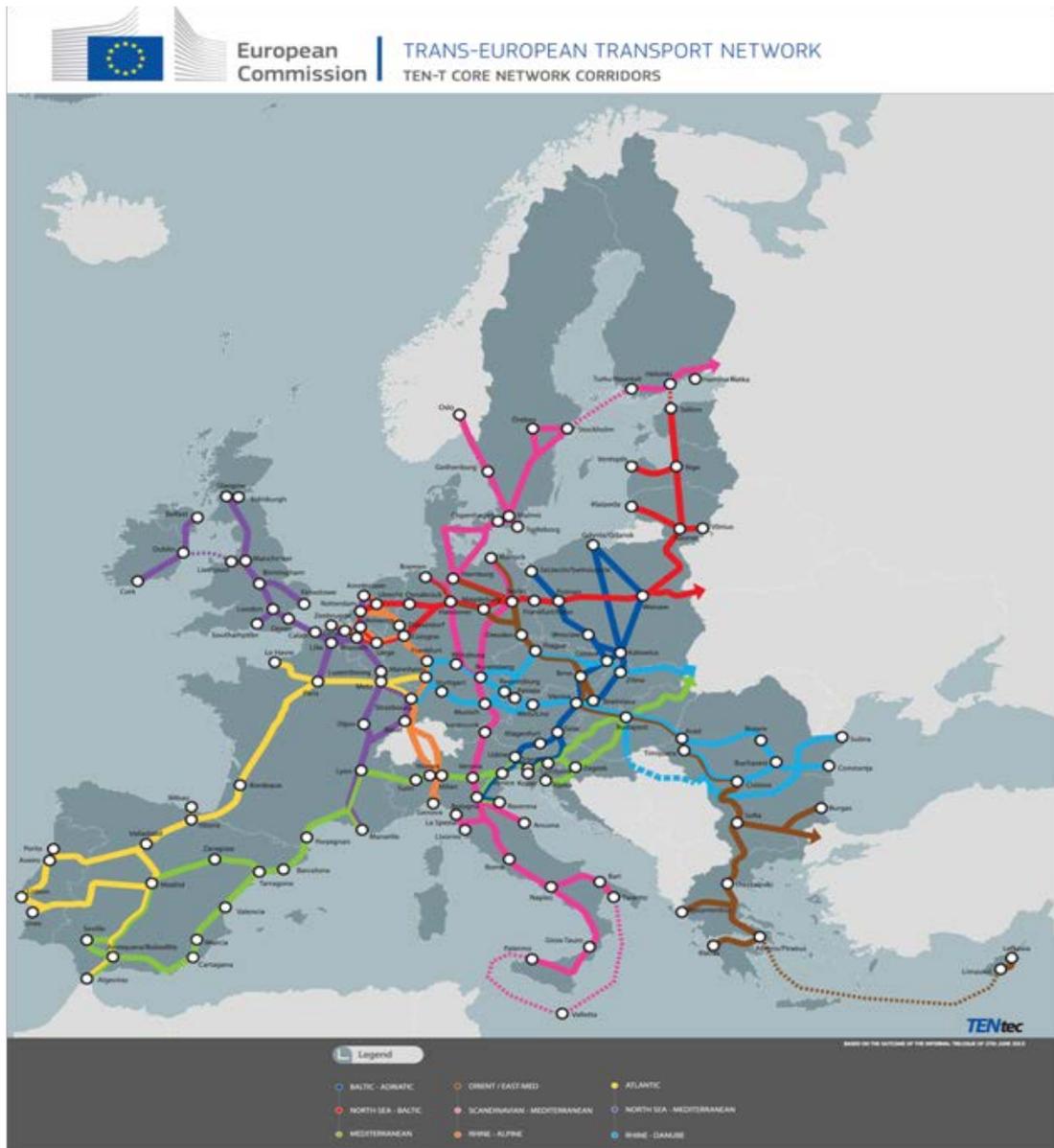


Figure 7: Trans-European transport network The basic principle used to select projects on the core network was that every country should benefit from access to a strong European core transport network enabling the free movement of people and goods. All European countries will be connected to this network.

The European Commission also adopted the first work programmes: a multiannual work programme covering large and long-term projects and an annual work programme which deals with smaller and less complex projects.

The main priorities of these two programmes include eliminating missing connections in cross-border sections between EU states and eliminating major bottlenecks, especially the bottlenecks on the new corridors of the TEN – T core network.

Priorities also include such projects as the promotion of interoperability in order to overcome technological barriers at national borders, especially in the railway sector; the consolidation of multimodality in order to facilitate unitary chains of passenger and freight transport (including freight transport services) as well as the full integration of urban hubs into the TEN – T network and especially in the corridors of the core network, and the stimulation of innovative approaches in accordance with future technological trends.

THE NINE NEW CORRIDORS OF THE TEN-T CORE NETWORK

The **Baltic-Adriatic Corridor** is one of the most important trans-European road and railway axes. It connects the Baltic with the Adriatic Sea, through industrialised areas between southern Poland (Upper Silesia), Vienna and Bratislava, the Eastern Alpine region and northern Italy. It comprises important railway projects such as the Semmering base tunnel and the Koralm railway in Austria and cross-border sections between Poland, the Czech Republic and Slovakia.

The **North Sea-Baltic Corridor** connects the ports of the eastern shore of the Baltic Sea with the ports of the North Sea. The corridor will connect Finland with Estonia by ferry, provide modern road and rail transport links between the three Baltic States on the one hand and Poland, Germany, the Netherlands and Belgium on the other. Between the Odra River and German, Dutch and Flemish ports, it also includes inland waterways, such as the “Mittelland-Kanal”. The most important project is “Rail Baltic”, a European standard gauge railway between Tallinn, Riga, Kaunas and north-eastern Poland.

The **Mediterranean Corridor** links the Iberian Peninsula with the Hungarian-Ukrainian border. It follows the Mediterranean coastlines of Spain and France, crosses the Alps towards the east through northern Italy, leaving the Adriatic coast in Slovenia and Croatia towards Hungary. Apart from the Po River and some other canals in northern Italy, it consists of road and rail sections. Key railway projects along this corridor are the Lyon–Turin links and the Venice–Ljubljana section.

The **Orient/East-Med Corridor** connects the maritime interfaces of the North, Baltic, Black and Mediterranean Seas, optimising the use of the ports concerned and the related “Motorways of the Sea”. Including the Elbe as an inland waterway, it will improve multimodal connections between northern Germany, the Czech Republic, the Pannonian region and south-east Europe. It extends, across the sea, from Greece to Cyprus.

The **Scandinavian-Mediterranean Corridor** is a crucial north-south axis for the European economy. Crossing the Baltic Sea from Finland to Sweden and passing through Germany, the Alps and Italy, it links the major urban centres and ports of Scandinavia and northern Germany to continue to the industrialised high production centres of southern Germany, Austria and northern Italy, further to the Italian ports and Valletta. The most important projects in this corridor are the fixed Fehmarnbelt crossing and Brenner base tunnel, including their access routes. It extends, across the sea, from southern Italy and Sicily to Malta.

The **Rhine-Alpine Corridor** constitutes one of the busiest freight routes of Europe, connecting the North Sea ports of Rotterdam and Antwerp to the Mediterranean basin in Genoa, via Switzerland and some of the major economic centres in the Rhine-Ruhr, the Rhine-Main-Neckar regions and the agglomeration of Milan in northern Italy. This multimodal corridor includes the Rhine as an inland waterway. Key projects are the base tunnels, already partly completed, in Switzerland and their access routes in Germany and Italy.

The **Atlantic Corridor** links the western part of the Iberian Peninsula and the ports of Le Havre and Rouen to Paris and further to Mannheim/Strasbourg, with high speed rail lines and parallel conventional ones, including the Seine as an inland waterway. The maritime dimension plays a crucial role in this corridor.

The **North Sea-Mediterranean Corridor** stretches from Ireland and the north of the UK through the Netherlands, Belgium and Luxembourg to the Mediterranean Sea in the south of France. This multimodal corridor, comprising inland waterways in Benelux and France, aims not only to offer better multimodal services between the North Sea ports, the Maas, Rhine, Scheldt, Seine, Saone and Rhone river basins and the ports of Fos-sur-Mer and Marseille, but also to connect the British Isles and Ireland better with continental Europe.

The **Rhine-Danube Corridor**, with the Main and Danube waterway as its backbone, connects the central regions around Strasbourg and Frankfurt via southern Germany to Vienna, Bratislava, Budapest and finally the Black Sea, with an important branch from Munich to Prague, Zilina, Kosice and the Ukrainian border.

These corridors represent the combination of three transport modes, namely road, rail and waterways.

b) The Rail Freight Corridors (RFC)

The RFC represent the railway part of the TEN-T network. All RFC are numbered and named and their names reflect both their historical origins and geographical route, such as Baltic-Adriatic or North Sea-Baltic. The indicative names will also promote better identification and distinguish them from the other corridors, and will help facilitate communication with the public and parties that are not necessarily familiar with the corridors.

The projects for each of these corridors were initially created individually, but to minimise effort it was decided to incorporate them under the TEN-T umbrella. As a result, RFCs represent the railway corridors merged with the railway corridors established under the TEN-T policy, although both the RFCs and TEN-T network are still governed by their own separate EU regulations.

In 2013 the TEN-T revision policy was adopted by two regulations, namely Regulation (EU) 1315/2013 of the European Parliament and the Council on Union guidelines for the development of the trans-European transport network and Regulation (EU) 1316/2013 of the European Parliament and the Council establishing the Connecting Europe Facility. The revised TEN-T policy also defines further conditions which have to be met by the rail infrastructure, covering not only the RFCs that have been incorporated into TEN-T, but also various technical projects, such as the installation of way-side ERTMS.

The Railway Freight Corridors are based on [Regulation No 913/2010/EC](#), which comprises provisions concerning the governance and functioning of the corridors and “lays down rules for the establishment and organisation of international rail corridors for competitive rail freight”. For each Rail Freight Corridor a dedicated governance structure is set up, comprising as its main bodies an Executive Board and a Management Board.

The Regulation referred to defines “freight corridor” as follows:

“freight corridor” means all designated railway lines, including railway ferry lines, on the territory of or between Member States, and, where appropriate, European third countries, linking two or more terminals, along a principal route and where appropriate, diversionary routes and sections connecting them, including the railway infrastructure and its equipment and relevant rail services”.

In developing the RFCs, particular account was taken of [Rail Network Europe \(RNE\)](#) and [European Railway Traffic Management System \(ERTMS\) corridors](#).

RNE is a body which acts as a coordination tool for infrastructure managers, addresses, timetabling and capacity allocation issues and provides a number of services to international freight undertakings. All nine Rail Freight Corridors include one or several RNE corridors or part of them. The main contribution of the RNE corridors is the IT systems. With the establishment of Rail Freight Corridors, the RNE corridors will basically disappear and will not exist as separate structures.

Different corridor concepts - TEN-T, RNE and ERTMS - are complementary to each other and harmonising all these concepts into the single concept of the RFC system would have a positive effect.

EU RAIL FREIGHT CORRIDORS LINES

1. Rhine Corridor passes through Netherlands, Belgium, Germany and Italy: Zeebrugge-Antwerp/Rotterdam-Duisburg-[Basel]-Milan-Genoa; operational since November 2013;
2. Benelux-France Corridor passes through Netherlands, Belgium, Luxembourg, France: Rotterdam-Antwerp-Luxembourg-Metz-Dijon-Lyon/[Basel]; operational since November 2013;
3. Central North-South Corridor passes through Sweden, Denmark, Germany, Austria and Italy: Stockholm-Malmö-Copenhagen-Hamburg-Innsbruck-Verona-Palermo; operational by November 2015;
4. Atlantic Corridor passes through Portugal, Spain and France: Sines-Lisbon/Leixões – Madrid -Medina del Campo/Bilbao/San Sebastian-Irun-Bordeaux-Paris/Le Havre/Metz - Sines-Elvas/Algeciras; operational since November 2013;
5. Baltic-Mediterranean Corridor passes through Poland, Czech Republic, Slovak Republic, Austria, Italy and Slovenia: Gdynia-Katowice-Ostrava/Žilina-Bratislava/Vienna/Klagenfurt-Udine-Venice/Trieste/ Bologna/Ravenna/Graz-Maribor-Ljubljana-Koper/Trieste; operational by November 2015;
6. Mediterranean Corridor passes through Spain, France, Italy, Slovenia, Hungary: Almería-Valencia/Madrid-Zaragoza/Barcelona- Marseille-Lyon-Turin-Milan-Verona-Padua/Venice-Trieste/Koper-Ljubljana-Budapest-Zahony (Hungarian-Ukrainian border); operational since November 2013;
7. Orient Corridor passes through Czech Republic, Austria, Slovak Republic, Hungary, Romania, Bulgaria and Greece: Bucharest-Constanta - Prague-Vienna/Bratislava-Budapest - Vidin-Sofia-Thessaloniki-Athens; operational since November 2013;
8. Central East-West Corridor passes through Germany, Netherlands, Belgium, Poland, Lithuania: Bremerhaven/Rotterdam/Antwerp- Aachen/Berlin-Warsaw-

- Terespol (Poland-Belarus border)/Kaunas; operational by November 2015;
9. Eastern Corridor (Czech-Slovak Corridor) passes through Czech Republic and Slovak Republic: Prague-Horní, Lide -Žilina-Košice-Čierna nad Tisou (Slovak/Ukrainian border); operational since November 2013.

Routes 4 and 6 should in future be completed by the Sines/Algeciras Madrid-Paris freight axis which takes in the central Pyrenees crossing via a low elevation tunnel.

c) Missing links in the RFC network

With the amendment of the principal routes of the initial Rail Freight Corridors by Annex II of Regulation 1316/2013/EC (CEF-Regulation), certain sections were added to the Rail Freight Corridors, which can be considered as filling some missing links (though the primary objective of this amendment was to ensure optimal alignment between Rail Freight Corridors and Core Network Corridors).

Whether there are any (remaining) gaps in the network of Rail Freight Corridors is an issue which the RFC have to assess themselves – taking particular account of views from the Advisory Groups (Railway and Terminal Advisory Groups) and possibly the results of Transport Market Studies. Regulation 913/2010 comprises provisions to establish further RFC and to modify RFC, so that there is the possibility of closing possible missing links. RFC 8 has already requested the extension of this RFC to Southern Poland and to the Czech Republic and certain discussions on minor extensions are going on in other RFC. However, the Commission will not initiate the establishment of further RFCs or the extension of any RFCs at its own initiative.

3.2.3. Analysis of the impact of the change of gauge on interoperability

A change of gauge is a significant challenge specific to rail transport. It occurs when the railways of neighbouring countries have different track gauges, i.e. the distance between the inner surfaces of each rail of the track is different. As a consequence, rolling stock cannot move across the border or be exchanged without taking specific measures.

A change of gauge requires time-consuming bogie changing or transshipment, which increases the risk of damage to the goods being carried.

Figure 5 below shows that a change of gauge and related operations at the border take the most time compared with other factors. At the same time, the time needed for customs clearance is three times less.

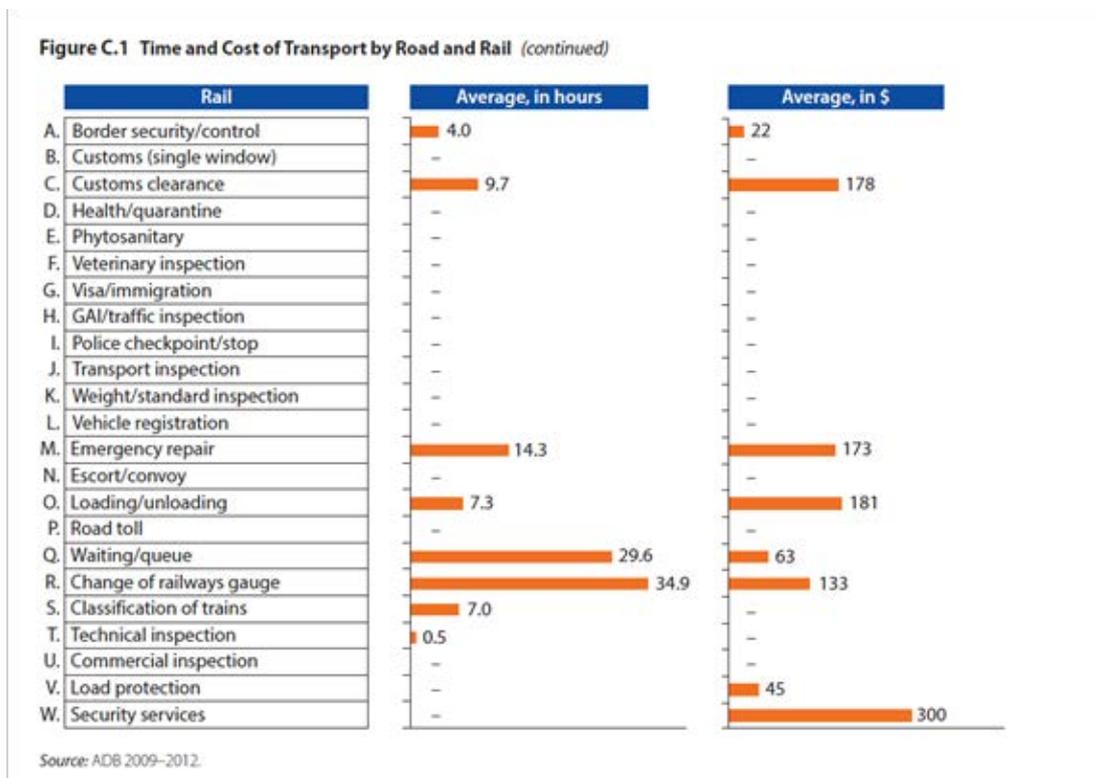


Figure 8: Time needed for change of railway gauge

Source: Rastogi, Cordula, and Jean-François Arvis. 2014. *The Eurasian Connection: Supply-Chain Efficiency along the Modern Silk Route through Central Asia*. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-0-8213-9912-5. License: Creative Commons Attribution CC BY 3.0 IGO

The efficiency of transshipment depends on the number of transshipment facilities and the availability of equipment. A mismatch can result in a long waiting time. For example, the transshipment of cargo from one wagon to another due to the different gauges at the border stations Dostyk (Kazakhstan) and Alashankou (China) is the key factor for delay³⁷.

The lack of uniform transport rules and regulations, plus non-compliance with them by various parties, further complicates the problem and affects the logistics chain by lengthening the journey time and increasing the cost. All these problems make routes with a change of gauge less competitive than other rail corridors and sea or road transport.

In addition to a change of gauge, other differences in technical standards, the lack of coordination between domestic agencies and neighbouring authorities and inefficient and lengthy border formalities can prevent interoperability.

³⁷ CAREC Corridor Performance Measurement and Monitoring, Annual Report 2013

But at the same time, trains are required to stop at the border in any case for border controls and railway requirements. This means that a change of gauge could be regarded as just an additional obstacle to the flow of traffic, which can be overcome by existing technical solutions and theoretically, should not constitute a major problem to efficient services.

The issue of different gauges is especially topical for the ESCAP region³⁸, where different track gauges occur³⁹. In order to improve regional connectivity and facilitate intra-regional trade, ESCAP has summarised some good practices in organising efficient transshipment at border crossing, the implementation of which may streamline border formalities and procedures. These good practices are of course relevant for any region or on any international rail corridor where the problem of different gauges exists.

Some other issues, for example appropriate facilities at the border to support efficient transshipment, can be addressed through cooperation between governments and the private sector. It is obvious that the use of containers, where possible, can facilitate the reloading process, as a container can be lifted onto a wagon in a few minutes and the total time spent loading a train can be reduced significantly.

In addition, the international organisations, together with the member countries, may develop common standards for advanced cargo and passenger information systems. According to the data collected by OSJD, 11.3%⁴⁰ of causes of delays at borders was the correction of incorrect documentation. Such unnecessary delays could be reduced with the use of advanced cargo and passenger information systems, which have already existed for years in maritime and air transport.

³⁸ OTIF's Member States in the ESCAP region are Armenia, Georgia, Iran, Russia, Pakistan, Turkey

³⁹ 1,676 mm (India, Pakistan, Nepal, Bangladesh), 1,520 mm (Armenia, Azerbaijan, Russia, Georgia, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan, Uzbekistan), 1,435 mm (China, Iran, Turkey, DPRK), 1,067 mm (Indonesia), 1,000 mm (Bangladesh, Cambodia, Lao People's Democratic Republic, Malaysia, Vietnam, Thailand, Singapore, Myanmar)

⁴⁰ OSJD Best Practices in Improvement of Efficiency of the International Carriage by Rail on Eurasian connections (translated from Russian), 2014

4. Simplification of customs procedures and coordination of inspections for crossing borders

In general, border crossing points constitute the major obstacle to the smooth flow of goods. The situation cannot be alleviated solely by infrastructure improvements. Different technical, administrative and safety procedures converge at border stations and cause problems of a complex and mixed nature, which can be resolved only by a systematic and balanced approach with the cooperation of all parties involved in the process.

Waiting times, which normally occur at border crossings points, are the principal reason for delays in terms of frequency and duration. One of the principal causes of delays is the complex and repetitive clearance procedures of customs and other agencies on both sides of the borders. In addition, inefficient regulations and procedures, plus non-conformity with them by various parties, complicate the situation. To facilitate railway traffic and cross border operations, these impediments need be resolved through harmonisation, standardisation, regional cooperation and cooperation between international organisations and customs authorities.

Some of the tasks, such as:

- moving customs clearance to take place at the departure and arrival points to decrease congestion and delay at the border,
- opening hours of the customs offices,
- use of scanners to inspect moving wagons,
- use of mutually recognised electronic seals and common guarantees are the responsibility of governments or can be resolved by cooperation between governments and railway administrations.

A number of agreements, regulations and conventions have been formulated and put in place, but they need to be implemented effectively.

Despite the World Customs Organisation's International Convention on the Simplification and Harmonisation of Customs Procedures (Revised Kyoto Convention) of 1999 and the UN International Convention on the Harmonization of Frontier Controls of Goods of 1982 (Harmonisation Convention), in practice customs regulations continue to differ both in terms of requirements and procedures. In addition, there is no integrated information system or information exchange and, in a number of countries, customs posts are poorly equipped and use out of date IT equipment that fails to provide data on cargo in a timely manner.⁴¹

⁴¹ Based on UNECE Euro-Asian Transport Linkages, Phase II

4.1. The UNECE International Convention on the Harmonization of Frontier Controls of Goods

This Convention is generally known as the “Harmonization Convention⁴²”; it was signed in Geneva, Switzerland, on 21 October 1982.

The Convention aims to facilitate border crossing in the international transport of goods, primarily through the harmonisation of frontier controls, without impairing their purpose, their proper implementation or their effectiveness and at the same time, it aims to minimise requirements for completing formalities and the number and duration of border controls.

There are currently 57 contracting parties⁴³ to the Harmonization Convention and there are five OTIF Member States – Algeria, Lebanon (membership suspended), Liechtenstein, Pakistan and Syria, which have not yet ratified the Convention. In view of the increasing importance of rail transport in the Eurasian context, it would be most welcome if Pakistan were to ratify the Convention.

The following principles of the Convention are the most important for the contracting parties:

- the Convention is binding,
- it provides a formal method of arbitration,
- Articles 15 and 21 deal with responsibilities.

The new Annex 9, which came into force on 30 November 2011 for all contracting parties, deals with rail transport and the facilitation of rail border crossing and controls of goods through the reduction, harmonisation and coordination of procedures and paperwork. This objective will be achieved through the introduction of minimum requirements for border (interchange) stations, cooperation at these stations, the moving of controls from borders to stations of departure or destination, reductions in the time required for controls, the elimination of paper documents and using the CIM/SMGS consignment note as a customs document.

Minimum requirements for border (interchange) stations:

- Border (transfer) stations to be properly equipped to carry out daily and round-the-clock controls, including phytosanitary, veterinary and other controls where appropriate and adequate for the volume of traffic,
- Equipment, facilities, information technology and communications systems must be available to enable the exchange of information in advance,

⁴² <http://www.unece.org/trans/maps/un-transport-agreements-and-conventions-51.html>

⁴³ <http://www.unece.org/trans/bcf/news/wp30-011011>

- Sufficient qualified staff of the railway, customs, border and other agencies must be on hand at border (transfer) stations to cope with the freight volumes involved,
- Ability to accept and use technical approval and inspection data.

Controls:

- Establish mechanism for reciprocal recognition of control,
- Customs controls relying on the principle of selection on the basis of risk evaluation and management,
- Simplified controls at border (interchange) stations,
- Inspections of transit goods only in cases where these are warranted by the actual circumstances of risks.

This Convention is managed by the UNECE's Working Party WP30, which deals with customs questions concerning transport. OTIF actively cooperated with OSJD on drafting the new Annex 9 and supports the work of WP30 to achieve full implementation of the Annex.

However, as mentioned above, it is not only involvement in the conventions and regulations that is of crucial importance, but also their correct implementation. It is the international organisations that have the greatest role to play in this respect, as they can bring together governments and representatives of the private sector and encourage them to cooperate more effectively with each other, target their actions at removing obstacles and implement agreements, regulations and conventions more effectively in order to promote rail traffic.

Nevertheless, progress in this respect relies heavily on the political will. Georgia's⁴⁴ experience in customs reform, which led to a significant increase in productivity and efficiency, is a good example for other countries.

Five main stages were implemented⁴⁵:

- improvement of customs operations, such as the adoption of a single electronic window,
- revision and streamlining of border crossing procedures,
- implementation of Joint Customs Control,
- development and upgrading of infrastructure and equipment,
- more customs and border officers.

Moreover, the government placed emphasis on investing in information

⁴⁴ Georgia is member of OTIF since 2012

⁴⁵ CAREC Corridor Performance Measurement and Monitoring, Annual Report 2013

and communication technology to further streamline the process. Electronic declarations are now possible and the workflow has likewise to be streamlined. This is evident in the number of documents required for import and export: in 2005, 54 documents were required; by 2013, this number had decreased to two⁴⁶. It is important to understand that up-to-date technology is essential.

4.2. Implementation of Single Window⁴⁷

In many countries, companies involved in international trade have to prepare and submit large volumes of information and documents to governmental authorities to comply with import, export and transit-related regulatory requirements. This information often has to be submitted through several different agencies, each with their own specific (manual or automated) systems and paper form. These extensive requirements, together with the associated costs, can constitute a serious barrier to both governments and business in the development of international trade.

This problem can be addressed by establishing a so-called “Single Window”, a one-stop approach to exchange information between traders and government agencies. The Single Window system significantly simplifies the flow of information between trade and government, reduces time and the costs involved in international trade; it is an important instrument in terms of increasing the competitiveness of national economies.

Besides the problems with transit transport, the absence of a Single Window creates an additional bottleneck at borders for imports and exports, which greatly hampers the development of international trade.

Since 2005, the UNECE, through its specialised working party the Centre for Trade Facilitation and Electronic Business (UN/CEFACT), has been developing standards for a Single Window. The UNECE prepared specific recommendations Nos. 33, 34 and 35 on “Establishing a Single Window”, “Data Simplification and Standardization for International Trade” and “Establishing a Legal Framework for International Trade” respectively, in order to help countries implement the Single Window system.

Under the EU’s research project ITAIDE, the UNECE has developed the Single Window Implementation Framework (SWIF), a managerial tool to plan and implement Single Window projects. Moreover, since 2006, the UNECE has initiated and maintained a repository that brings together information on existing case studies. It provides useful additional information on countries’ experience in setting up a Single Window.

⁴⁶ Ibid

⁴⁷ Based on the documents/information: http://www.unece.org/fileadmin/DAM/cefact/recommendations/rec33/rec33_trd352e.pdf, <http://www.unece.org/fileadmin/DAM/cefact/publica/SWImplementationFramework.pdf>

For example, the successful implementation of a national Single Window in Azerbaijan has reduced border crossing time from 3 hours in 2007 to 10 minutes in 2012⁴⁸.

While a lot of countries understand the benefits of implementing a Single Window and have expressed interest in developing the system, the underlying impediments need to be resolved. The principal obstacles lie in the interagency nature of the undertaking, the legislative amendments that are needed (such as the acceptance of electronic documents and e-signatures), reluctance to engage the private sector in the development of a Single Window, and financing for Single Window design and implementation. Business process reengineering at single window agencies, new hardware, software, and networking tools will be needed to launch the Single Window project⁴⁹.

Effective cooperation between governments and the private sector in the sense of promoting the broadest possible use of electronic documents and intelligent transport systems and the establishment of informational communities of ports, air terminals and other large transport nodes can contribute to the implementation of measures to facilitate cross border traffic.

4.3. Standardisation of rail freight seals on international rail freight shipments⁵⁰

In a liberalised European rail transport market, ongoing efforts are being made to accelerate international freight traffic by eliminating to a large extent checks and formalities at the borders. For this purpose it is essential that consignments are handled in accordance with rules from the moment they are accepted at the place of taking over (siding, station, port, container terminal, etc.) This includes ensuring that they can be properly identified. Proper identifiability is a requirement of customs law (transit and export procedures) which are met by affixing seals or providing a description of the goods in accordance with the relevant requirements.

However, difficulties arise from the railway undertakings' use of seals with different markings and technical features.

UIC leaflet 426 on standardised railway seals – “Europlombs” - which was published 2007, aims to resolve these difficulties. This leaflet has since proved its worth, but the Working Group on Seals set up within the CER Customs Group undertook a thorough revision of the leaflet to further improve the competitiveness, quality and security of international carriage by rail. The draft of the new leaflet was

⁴⁸ CAREC Corridor Performance Measurement and Monitoring, Annual Report 2013

⁴⁹ Ibid

⁵⁰ Information from CIT and UIC

finalised in 2013 and was recently approved by members of the UIC Freight Forum. The guidelines for sealing wagons and intermodal units define the recognised and standardised Europlombs as the minimum requirement for sealing spaces in which goods are contained for conveyance by rail and include a checklist for affixing seals on wagons and intermodal transport units. The checklist was prepared due to the variety of types and sealing devices.

5. Use of electronic transport documents

Electronic communication, information and commerce are reality today and it is obvious that substitution of paper transport documents by electronic ones would facilitate international trade.

In recent years there has been much international effort towards creating a stable legal basis for electronic commerce in general by UNCITRAL (Model Laws on Electronic Commerce 1996 and Electronic Signatures 2000), which have had a major influence on national laws worldwide⁵¹. In addition, EU initiatives in this respect, such as the Electronic Commerce Directive (e-commerce Directive) 2000/31/EC of 8 June 2000, in force from 17 June 2000, aim to facilitate contracts concluded electronically by removing obstacles to cross-border online services in the EU internal market (free movement of services), provide legal certainty to business and citizens and offer a flexible, technically neutral and balanced legal framework⁵².

Electronic transport documents have a lot of advantages over the traditional paper documents. First of all, substantial costs and time could be saved. An electronic transport document would be faster, more flexible and easier to handle. It could be checked, verified or amended and sent to the next recipient without postal or courier shipment. The storage of electronic documents is much easier and requires less space and administrative effort. Another important advantage is that electronic records cannot be lost and all participants in the transport chain can be identified.

However, progress in replacing transport documents with electronic records has been hampered by the absence of a secure legal environment for the creation and use of such electronic records in international trade.

The security of electronic records is probably the major concern of the transport community. The persons involved need to be able to rely on the authenticity and integrity of such electronic documents and

⁵¹ Ridley's Law of the Carriage of Goods by Land, Sea and Air, Brian Harris

⁵² From the presentation of Denis Sparas, European Commission, Directorate-General for Internal Market and Services, WTO Workshop, Geneva, 18 June 2013

'signatures'. In the perception of many carriers in different transport modes, the traditional paper document ensures more security from fraud than electronic documents, notwithstanding that with the technical solutions available today, an electronic document is probably better protected against fraudulent action, due to the electronic signature, than any paper document could be. Consequently, traditional paper documentation is still the norm for all transport modes.

Electronic transport documents can only be successful if they fulfil the same practical and legal functions as a traditional paper document. The functional equivalence must be addressed with regard to the function of each particular type of documentation issued for the carriage of goods, such as, for instance, a consignment note. Nowadays, most of the functions of the paper documents can be replicated by electronic records.

5.1. Legal basis for using electronic systems in the field of freight transport in the EU

The e-Freight initiative of the European Commission laid down by the White Paper on Transport – “Roadmap to a Single Transport Area – towards a competitive and resource efficient transport system” aims to establish an electronic framework for the multimodal transport of goods. The key objective is to achieve paperless and seamless information flows along the whole transport logistics chain involving shippers, freight forwarders, carriers, network managers and authorities.

A number of initiatives have been developed in recent years at EU and national level through research, standardisation and industry initiatives. In all transport modes, initiatives are ongoing with regard to the development and deployment of electronic systems for the exchange of information on freight traffic and transport.

The use of electronic documents is also mentioned under 2.5 Telematics Applications of Annex II to Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community, in respect of the two elements - passenger and freight services. Both the TAF TSI (freight) and TAP TSI (passenger) are in force.

Information exchange systems are also being developed for the purposes of establishing a paperless environment for customs and trade (e-Customs), thus ensuring interoperability between the Member

States' electronic customs systems and providing single window services for customs clearance. This idea has been enshrined in the modernised Customs Code (Regulation (EC) 450/2008 of the European Parliament and of the Council of 23 April 2008) and its recast Union Customs Code.

The Union Customs Code (UCC) was adopted on 9 October 2013 as Regulation (EU) 952/2013 of the European Parliament and of the Council and entered into force on 30 October 2013. Its substantive provisions will only come into effect on 1 May 2016. The UCC stipulates the legal requirement for using IT systems for customs clearance and procedures with a view to facilitating the way of doing business with customs and ensuring safe and secure trade with goods in the EU.

The UCC is part of the modernisation of customs and will serve as the new framework Regulation on the rules and procedures for customs throughout the EU. With the implementation of the UCC the shift by customs to a paperless and fully electronic environment will be completed. It will also help to simplify customs rules and procedures and facilitate more efficient customs transactions in line with modern requirements⁵³.

This shows that legal documents in electronic form are suitable for cross border procedures. Giving precedence to electronic records over traditional paper documents is possible and it could promote and speed up internal processes among states in terms of implementing electronic systems.

5.2. Use of electronic transport records in railway transport

Handling paper transport documents is costly and presents technical limitations for rail transport. The transition to electronic communication will definitely mean progress and compliance with modern demands and will improve the attractiveness of rail transport.

Full functional equivalence for electronic rail consignment notes is established by Article 6 § 9 of the CIM UR. This Article entitles carriers to use the electronic consignment note, which some already do. The fact that they can only do so within the limits of public law is obvious and is also explicitly mentioned in Article 2 of the CIM. The provisions of EU public law for customs questions and sanitary and phytosanitary measures do not therefore require any particular reservation; they do not constitute a legal obstacle to giving the CIM electronic consignment note precedence. The CIM consignment note is recognised as a "transit declaration" within the EU in accordance

⁵³ http://ec.europa.eu/taxation_customs/customs/customs_code/union_customs_code/index_en.htm

with Commission Regulation (EEC) 2454/93 of 2 July 1993 (Article 414).

Use of the electronic consignment note is also mentioned in the draft new Convention on Unified Railway Law, the project which is ongoing under the auspices of the UNECE. The project aims to unify international railway law and set up a single legal regime for rail transport from the Atlantic to the Pacific. It is clear that the legal instrument which is now being developed should satisfy present day demands, where the use of electronic records by different transport means is becoming increasingly important.

The joint CIT and UIC project, with the participation of the CER customs working group “e-Rail Freight”, was launched in 2008, based on Article 6 § 9 of the CIM UR. The project is looking at future paperless technology for the railways. The CER e-RailFreight project is being carried out in close cooperation with DG TAXUD to make sure that e-RailFreight fulfils the UCC requirements. The electronic consignment note will be adapted to fit the customs requirements.

RAILDATA was tasked to work on the technical specifications for the system, based on the functional and legal specifications, which the CIT made available, as well as on the message structure, data catalogue and message flow. Reference was also made to the functional and legal specifications for the electronic CIM/SMGS consignment notes of the CIT/OSJD project on CIM/SMGS interoperability. The data catalogue and message catalogue for the electronic CIM/SMGS consignment note can be considered as an extension of the catalogues for the CIM consignment note. Legal ownership of the project and the results (technical specification and IT message) belong to UIC and its members.

It is planned to present the common e-RailFreight CIM/SMGS consignment note at the OSJD technical expert group meeting in October 2015.

More than twenty railway undertakings in Europe have committed themselves to implementing the e-RailFreight system by 1 July 2009. However, the economic crisis has caused some difficulties for some project members and some of them are carrying out initial tests and launching pilot schemes bilaterally. The e-RailFreight application is used by Fret SNCF (France) and DB Schenker Rail (Germany) for international transport, except intermodal transport. It is planned that other companies, such as CD Cargo, RCA and Trenitalia, will start using the e-RailFreight electronic consignment note in 2015.

⁴⁹ Ibid

⁵⁰ Information CIT and UIC

Future plans include the implementation of e-RailFreight for intermodal traffic and possible full implementation in the area covered by TAF TSI. (TAF TSI requires Customer Note data functionality to be aligned with CIM/CUV). It is also envisaged to set the customs data needed for the transit declaration and to adjust the parts for data concerning dangerous goods according to RID. These changes are expected in 2016-2017.

At present, the e-consignment note is used more or less only for domestic transport within each EU Member State. This will probably change soon, as the TAF TSI prescribes Customer Note data functionality. The consignment note is aligned according to CIM/CUV. As to international carriage, CMR does not require the road consignment note to be in any particular form. The “Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road (CMR) concerning the Electronic Consignment Note” (e-CMR) entered into force on 5 June 2011, although it has only been ratified by certain states⁵⁴. With the entry into force of the Protocol, the legal framework and standards for using electronic means and storing consignment data were established.

The Protocol allows CMR consignment notes, as well as demands, declarations, instructions, requests, reservations and other communications falling within the scope of the CMR, to be issued in electronic format, provided that they comply with the authentication requirements and other requirements of the Protocol. In this case, the consignor is entitled, upon request, to accept a cargo and access the electronic record.

⁵⁴ Bulgaria, Czech Republic, Denmark, Latvia, Lithuania, Netherlands, Slovakia, Spain, Switzerland, http://www.unece.org/trans/conventn/legalinst_27_OLIRT_e-CMR.html

Conclusions

The volume of international trade between Europe and Asia has been growing sharply in recent years. This increase can be explained by the steadily growing economies of China, Turkey, India, Central Asian countries and the Russian Federation.

Although maritime transport still dominates with a share of 99% of total east-west transport, and is still preferred by shippers, many studies show that there are opportunities for railways to increase their share of the transport market. The need to diversify existing routes and open up alternative routes between two continents gives railway transport more opportunities for active development.

Railway transport on the Euro-Asian scale faces both physical and non-physical obstacles. But the two most cumbersome were and remain the existence of two legal regimes and the different gauges. Generally speaking, all other existing obstacles result from these two problems. The existing legal tools, such as the common CIM/SMGS consignment note and technical solutions for combined bogies help to eliminate the negative impact, but they cannot entirely resolve the problems.

Based on the analysis of the two international corridors connecting Europe and Asia, the aim of this study was to identify the obstacles, analyse them according to OTIF's scope of responsibilities and propose possible solutions.

The table below summarises the obstacles to crossing borders that have been determined along the corridors studied, their correlation to OTIF's scope of competence and proposals for implementation.

Table 1 – Main obstacles to rail transport along the corridors studied

No.	Obstacles	Possible solutions	OTIF Scope yes/no	Implementation Proposal
ORGANISATIONAL				
1	Shortage of locomotives and rolling stock	Private investment could be fostered following the guaranteeing of international security interests in accordance with the Luxembourg Protocol signed on 23 February 2007	YES	Encourage OTIF MS to ratify Luxembourg Protocol - publicity, OTIF Bulletin, promotion at the level of MS
2	- Customs control and border checks, veterinary inspection - Opening hours of custom offices - Insufficient staff capacity for international transport operations at borders	Implementation of Annex 9 to the Harmonisation Convention	NO	Encourage OTIF MS to follow the provisions of Annex 9 (publicity, OTIF Bulletin, promotion at the level of MS)

3	Insufficient information on train flows	Good communication facilities and qualified staff; internships for staff at those border stations where this work is well organised between railway undertakings	NO	Encourage OTIF MS to ratify Luxembourg Protocol - publicity, OTIF Bulletin, promotion at the level of MS
4	Incorrect data submitted by the consignor or carrier Incorrect information in the consignment note or absence of the consignment note and accompanying documents	Electronic consignment note; data; electronic copy sent to neighbouring railways	YES	Implementation of TAF TSI Preference given to electronic records, electronic consignment note Transition to use of electronic data exchange, electronic documents
5	Incorrect translation -> reissuing of consignment note	Electronic consignment note, IT solutions (for example automatic translation tools)	YES	Implementation of TAF TSI Establishment of numeric codes, language courses, training for junior staff
6	Non-acceptance of rail vehicle by a neighbouring railway operator when daily limits are exceeded	Investment in infrastructure at border stations	NO	
7	Waiting in the queue	Better communication, organisation of timetable, investments. Improve quality of railway services		
8	Priority given to domestic transport and not to international	Give priority to international freight trains, harmonisation of timetable	NO	
9	Priority given to passenger trains	Harmonisation of passenger and freight timetables between neighbouring countries	NO	
10	Non-synchronisation of timetables	In EU solutions developed by RNE; International – for passenger FTE, for freight RNE at least by the countries bordering EU	NO	
11	Insufficient information exchange	Good communication facilities and qualified staff for contacts with clients	NO	

TECHNICAL

12	Missing links	Investment	NO	
13	Change of gauge and subsequent reloading -> risk of damage to the goods being transported	Investment in infrastructure, adapting bogies, technical equipment or rolling stock	NO	
14	Technical defect of the train, maintenance questions	Investment	NO	
15	Weak infrastructure and equipment and customs offices at border crossing points	Investment in buildings, "single offices", IT systems	NO	
16	Limited capacity of terminals and transshipment centres	Investment, involvement of private sector	NO	
17	Disruption to train movements caused by organisational failure or weak infrastructure	Better organisation, investment	NO	
18	- Different national standards to axle load, train length, signalling system, electricity, etc. - Rolling stock is not being mutually accepted and authorised	International harmonisation	YES	Gradual harmonisation of parameters required for interoperability
19	Changing locomotives, crews at the border stations	Technical standardisation, direct trains	YES	OTIF is developing legal framework and it is up to MS to implement it

LEGAL

20	Incorrect implementation of COTIF convention, regulation, etc.	Workshops, training courses	YES	Organisation / participation in seminars, workshops, conferences, etc.
21	5.3. Lack of common regulation of wagon management	Extend CUV and GCU	5.4. YES	5.5 Organisation / participation in seminars, workshops, conferences, etc.
22	Difficulties in accessing essential facilities for freight	Potential need for general terms and conditions	YES	Launch a specific study at OTIF level
23	Visa formalities for crews	Implementation of Annex 9	NO	Encourage OTIF MS to follow the regulations of Annex 9 (publicity, OTIF Bulletin, promotion at the level of MS)
24	Non implementation of National Single Window – lack of funding + requires amendment of national legislation	Investment; study best practices and experience of EU MS	NO	

As can be seen from Table 1, most problems occur due to the lack of organisation, insufficient coordination and information exchange. The organisation of railway movements is the responsibility of railway companies and/or infrastructure managers. At the same time, the development of international regulations for border points where two systems of transport law meet – COTIF and SMGS – could resolve many problems. For example, this kind of international legal tool could regulate such questions as information exchange, minimal content of the information necessary for the receiving/accepting party, daily limits for accepting wagons and level of flexibility, synchronised timetable, possible implementation of TAF TSI in a wider scale outside Europe, etc.

As mentioned above, the regulation of most organisational questions falls under the scope of responsibilities of railway undertakings. At the same time, with regard to long haul transport, e.g. China – Europe, the possibility of creating an international regulation with the involvement of the railway undertakings could be more effective and easier to implement.

The broad and constantly growing geographical coverage of COTIF and the growing number of OTIF Member States underscores the importance, effectiveness and flexibility of the COTIF Uniform Rules, which can be adapted according to the specific needs of different countries. The study shows that broader application of the COTIF regulations, especially CIM, on a wider range of railway routes would facilitate the development of international railway transport, including multimodal carriage, and would significantly reduce the impact of the existing non-physical obstacles.

Multimodal transport continues to gain importance and is becoming increasingly attractive to carriers. Currently, active development of multimodal carriage in the Black Sea and Caspian Sea regions can be observed. The inclusion of new maritime lines in the list of CIM routes on the Black and Caspian Seas would enable active development of multimodal carriage between the countries of these regions.

The maritime lines on the Caspian Sea connecting the ports of Azerbaijan, Russia, Turkmenistan, Iran, and Kazakhstan lead further into the region of Central Asia. In order to become a vital transit link between Europe and Asia, the development of railway transport is critically important for the all countries of the region, especially for the landlocked ones. One of the major attractions of this region is that it offers diversification from the existing international railway routes, which increases competitiveness and consequently contributes to the improvement of services.

The study shows that customs procedures do not have a major negative impact on railway movements, as was previously thought. With a few excep-

tional cases, which will probably always occur at some border stations, customs checks in general do not significantly undermine the seamlessness of railway movements.

Nevertheless, the correct implementation of Annex 9 to the Harmonization Convention will contribute to improving the general situation. Annex 9 contains many provisions concerning customs issues which are of benefit to the railways. Among other issues, it foresees the use of the common CIM/SMGS consignment note for international carriage. The common CIM/SMGS consignment note not only simplifies border crossing procedures, it is also recognised as a customs and banking document in the EU and some other countries and, in addition, it helps to reduce costs, saving approximately 40 Euros on the reconsignment.

All OTIF Member States along the corridors studied are contracting parties to the Harmonization Convention and Annex 9. The only exception is Pakistan.

With regard to the corridor from China to Europe passing through Russia, it can be concluded that the creation of the Customs Union between Russia, Kazakhstan and Belarus has also contributed to the improvement of the statistical data concerning time spent on customs checks at the borders.

The OTIF Secretariat has recently started a number of activities aimed at facilitation and more are planned for the next period. Progress has been achieved in terms of increasing awareness of the Organisation in Central and South Asia. Cooperation with the Economic Cooperation Organisation (ECO) continues to be strengthened.. The same applies to bilateral cooperation with some OTIF Member States in the region, namely Iran and Turkey, which are both in a strategic position for transport coming to Europe from all over Asia.

The OTIF Secretariat's strategy for the accession of new Member States also includes the countries of the Gulf Cooperation Council (GCC). The six countries – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) – have committed themselves to cooperate and develop international railway transport. There are many infrastructure projects that are underway and the railway connecting the six GCC Member States is to be completed by 2017. For the legal basis of future international carriage, GCC has chosen the COTIF regulations and this decision was strengthened by the Memorandum of Understanding signed on 19 March 2014 in Bern. Activities are underway to give priority to the CIM electronic consignment note over its traditional paper form. These activities were initiated with to the aim of making railway transport able to respond adequately to the demands of today's increasingly digital world.

The one common goal connecting all the initiatives guided by the OTIF Secretariat is to facilitate international railway transport inside and between the OTIF Member States, as well as with third countries, and to increase the attractiveness and popularity of railway transport in general.

The positive activities described, as well as other initiatives, which could be put in place in the next period, require a great deal of sustainable effort on the part of the OTIF Secretariat and its Member States and should be continued and supported in every way possible.

One of the tasks of this study was to answer the question of whether to reinstate OTIF's Rail Facilitation Committee (RFC). After analysing the current situation, past experience and the legal framework of the RFC laid down by COTIF 1999, the study reached the conclusion that there is no need to reinstate the RFC for the time being.

Recommendations

1. Continue the work on encouraging new states to accede to OTIF.

This study on railway facilitation provides many indications that broader use of the COTIF regulations, especially CIM, on a wider range of railway lines and corridors will facilitate international traffic by rail. This recommendation is fully in line with OTIF's strategy concerning the accession of new Member States, especially those in Central Asia.

2. Cooperation with the UN Economic and Social Commission for Asia and the Pacific (UNESCAP)

The UNESCAP Committee on Transport addresses issues of transport policy, promotes initiatives on international intermodal transport and provides support for the accession and implementation of international transport agreements, etc.

The idea of India's acceding to COTIF is not new; it has been around since the 1970s. China also prefers to cooperate in the context of the UNESCAP committees.

The development of relations with the UNESCAP Committee on Transport would facilitate the process of OTIF's extension in Asia and the application of COTIF regulations on the Trans-Asian Railway network.

3. New technical subjects in cooperation with OSJD

The planned extension of the application of COTIF in Central Asian countries would mean closer cooperation with OSJD, since all the countries in the region are OSJD Member States. The countries of Central Asia have a strategic geographical position as they ensure transit between the place of origin of the goods, namely China, and the consumers of these products, which are the European countries.

Interoperability between the two regions is important in order to overcome the technical barrier of different gauges and to ensure sustainable transit. The European Railway Agency (ERA) and OSJD have been working together on drafting technical specifications for the 1520 mm gauge since 2007 and many of these specifications have already been drafted and approved for application.

In January 2015, ERA and OSJD signed a Memorandum for future joint work for 2015-2019. The OTIF Secretariat could consider the gradual harmonisation of high level provisions concerning the 1520 mm gauge into the technical regulations of COTIF. This would motivate those OTIF MS where the infrastructure is based on the 1520 mm gauge to cooperate more actively in the OTIF Technical Committee and in future, those OTIF MS which have made a reservation concerning the application of COTIF's technical Appendices (Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical prescriptions applicable to Railway Material intended to be used in International traffic (ATMF) and Uniform Rules concerning the Technical Admission of Railway Material used in International Traffic (APTU)) would have a good reason to lift their reservations and apply these Appendices.

4. CUV for facilitation of international wagon exchange

In order to facilitate international wagon exchange, it would be worth considering the application of CUV (Uniform Rules concerning contracts of Use of Vehicles in International Rail Traffic, Appendix D to COTIF) and the General Contract of Use (GCU) on a Eurasian scale, including the railway route from China to Europe and even on the Trans-Siberian, in view of the fact that the application of a set of legal rules such as CUV/GCU is not necessarily linked to the European standard gauge or any other gauge for that matter.

5. Create a separate project on the subject of maritime services under CIM.

Maritime and multimodal sea/railway carriage has its own special features. There are now active development of maritime transport on the Black Sea, especially between the ports of Turkey and other countries of the Black Sea basin. Following the accession of Azerbaijan to CIM, some new maritime

routes on the Caspian Sea can be also included in the list of CIM lines. This will also enable the development of new multimodal routes for traffic coming from Central Asia.

The project could include only those countries which have access to the Black and Caspian Sea basins and would help direct and target activities better. This work could be carried out in cooperation with the regional organisations, such as the Organization of the Black Sea Economic Cooperation (BSEC). As a further step and analogously to the creation of an international regulation for 1435/1520 crossing points, an international regulation for rail-port transport could be considered.

6. Using Russian for international cooperation

OTIF already has some information available in Russian. Its initiative to translate the RID (Regulations concerning the International Carriage of Dangerous Goods by Rail, Appendix C to COTIF) into Russian is aimed at facilitating the work on harmonising RID and SMGS Annex 2 and, as a result, the international carriage of dangerous goods in general.

Bearing in mind that OTIF's strategy contains such important objectives as the accession of the Central Asian states, the intensification of cooperation with OSJD, the development of working relations with UNESCAP and increasing the attractiveness and degree of awareness of OTIF, it is recommended that broader use of Russian in external communication and international cooperation be considered. It will also be necessary to translate material from Russian into one of OTIF's official languages. Russian should be regarded as a tool which would help facilitate OTIF's work on building the connection between European countries and China and other Asian countries under the unified CIM contract of carriage. The broader use of Russian in external communications would also strengthen the OTIF's image as a flexible international organisation, which possesses a clear vision for its future, considers the interests of its all existing and future Member States and is open to development. For example, OSJD, whose official languages are Russian and Chinese, also uses English and German in international cooperation.

Being able to communicate in Russian would motivate existing OTIF MS and future ones to cooperate actively in OTIF's meetings and would also help achieve better and more accurate implementation of the COTIF regulations. As a future objective, it would be also reasonable to consider translating COTIF into Chinese.

7. OTIF's participation in the organisation of training for railway staff.

According to OSJD statistics, 11.3% of delays at borders occur as a result of incorrect transport documents. The problem of under-qualified staff at local level is a common problem for many countries and many studies have highlighted this issue. OTIF could address this by organising (in cooperation with OSJD, CIT and UIC) training tools. In so doing, OTIF could bring real added value to its Member States, especially newer members, and increase motivation in those countries which might be interested in accession. Non-MS of OTIF might also be interested, especially those which border the European Union or an OTIF MS (Belarus, Moldova, India, etc).

Different training programmes could be prepared. Specific training programmes or workshops for freight forwarders and shipping companies could also be organised.

Annex 1 – Description of COTIF and its Appendices

Role of OTIF in the facilitation of international rail transport⁵⁵

OTIF is the intergovernmental organisation for promoting, improving and facilitating all aspects of rail transport. The organisation was set up on 1 May 1985. The Organisation's basis under international law is the Convention of 9 May 1980 (COTIF). The predecessor of OTIF was the Central Office for International Carriage by Rail, which was set up in 1893.

Presently OTIF has 50 Member States in Europe, North Africa and the Middle East and one State is an Associate Member (Jordan).

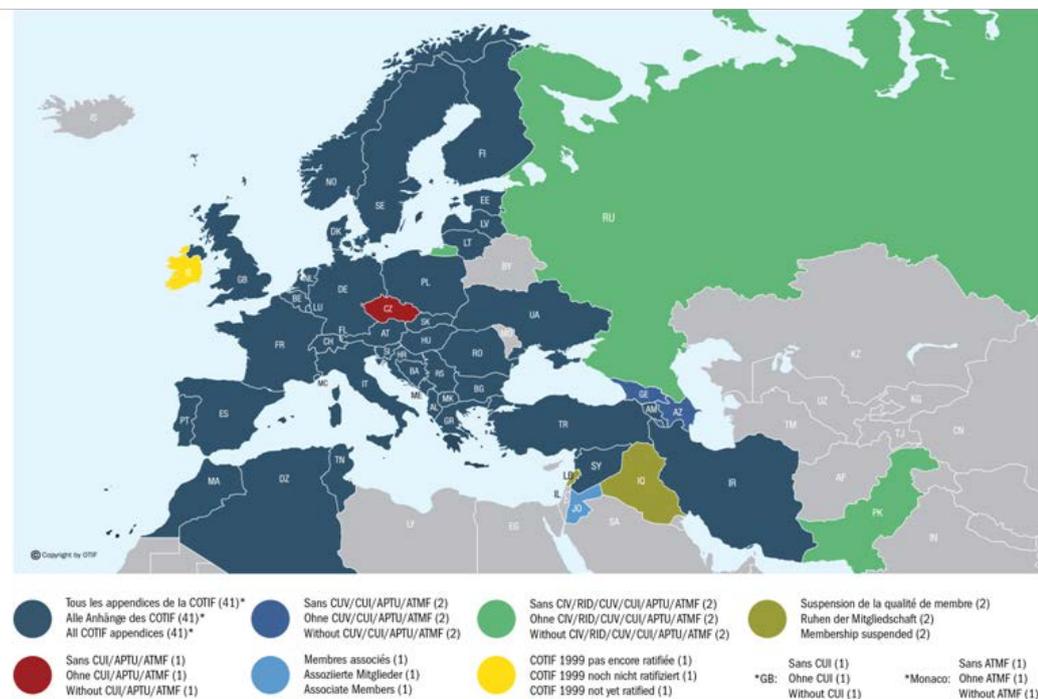


Figure 9: OTIF Member States

⁵⁵ <http://www.otif.org/>; Convention concerning international Carriage by Rail COTIF 1999; UNESCAP Monograph Series on Transport. Facilitation of international Railway Transport in Asia and the Pacific

OTIF has 50 Member States:

Albania, Algeria, Armenia, Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iran, Iraq, Ireland, Italy, Jordan (Associate Member), Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Former Yugoslav Republic of Macedonia, Monaco, Montenegro, Morocco, Netherlands, Norway, Pakistan, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Tunisia, Turkey, Ukraine, United Kingdom.

Establishment of uniform rules for international traffic

One of the principal objectives of OTIF has been to establish a uniform system of law for various aspects of rail transport and support its development and application among its members. These uniform rules are contained in Appendices A to G of COTIF and cover the following areas of rail transport:

- Uniform Rules concerning the Contract of International Carriage of Passengers by Rail (CIV);
- Uniform Rules concerning the Contract of International Carriage of Goods by Rail (CIM);
- Regulations concerning the International Carriage of Dangerous Goods by Rail (RID);
- Uniform Rules concerning the Contract of Use of Vehicles in International Rail Traffic (CUV);
- Uniform Rules concerning the Contract of Use of Infrastructure in International Rail Traffic (CUI);
- Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material Intended to be used in International Traffic (APTU);
- Uniform Rules concerning the Technical Admission of railway material used in International Traffic (ATMF).

Structure of the Organisation

The headquarters of the Organisation are in Berne, Switzerland. The work of OTIF is carried out by the three general bodies, namely the General Assembly, the Administrative Committee and the Revision Committee.

The General Assembly consists of representatives from all the Member States and meets once every three years or at the request of the Administrative Committee.

The Administrative Committee consists of representatives from one third of the Member States and keeps a check on the administrative and financial business of the Secretary General and approves the Organisation's work programme, budget, management report and accounts.

The Revision Committee is made up of representatives of the Member States and takes decision on proposals to amend the provisions of the Convention and its Appendices that are subject to a simplified and accelerated revision procedure. It also gives initial consideration to proposals on which a final decision must be made by the General Assembly.

The Secretary General, elected by the General Assembly, performs the functions of head of the Secretariat of the Organisation.

There are three expert Committees to consider technical issues:

The RID Committee of Experts is made up of representatives of the Member States and takes decisions on amending the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID),

The Committee of Technical Experts decides on amendments to the annexes to the Uniform Rules concerning the validation on technical standards and the adoption of Uniform Technical Prescriptions applicable to railway material intended to be used in international rail traffic,

The Rail Facilitation Committee was established by COTIF 1999 and according to the provisions laid down in the Convention, the Committee deals with all issues relating to the cross border movement of rail traffic, e.g. to recommend standards, methods, procedures and practices to facilitate rail transport.

3.2 COTIF as a legal instrument of facilitation

Around 60 years after the invention of the steam locomotive and the uncoordinated, large scale construction of railway infrastructure throughout Europe, on 14 October 1890 the founding States Belgium, Germany, France, Italy, Luxembourg, the Netherlands, Austro-Hungary, Russia and Switzerland adopted the International Convention concerning the Carriage of Goods by Rail.

The Convention played a pioneering role in requirements for transport documentation that was commonly used at the time, with the introduction of minimum requirements for a compulsory consignment note, which also had to contain an accurate directory for handling by the customs or tax authorities or for the accompanying documentation necessary for police inspections.

It was the foundation stone for transport and liability questions, as well as for the allocation of rights and obligations of all the actors involved. The implementing provisions of the Convention even laid down the maximum

transit times that were allowed. In addition, a list prescribed in detail the items approved for carriage and the conditions of carriage.

At the same time, the obligation to publish the applicable tariffs for carriage was introduced. Customer discounts were only permitted to the extent that this should apply to all without discrimination. It seems remarkable that the following rule existed at that time: “upon delivery, the destination railway must collect all amounts arising from the contract of carriage, in particular freight and supplementary charges, customs fees and other expenses incurred for the purpose of performing carriage, both for its own accounts and for the account of preceding railways and other beneficiaries.”

These pioneering regulations had their origins in the context of great enthusiasm for a rapid means of transport that permanently changed people’s spatial awareness. The technical aspects were so completely ignored and the opportunity for harmonisation so badly missed at the outset that transport policy today seems to focus primarily on the technical aspects and finds it difficult to follow a multidisciplinary approach, which should feed through into a policy serving solely to promote this means of transport, which has now become very environmentally friendly.

Under the supervision of the Swiss Confederation’s Federal Council (Bundesrat), the Central Office kept the list of railway lines and had a mediating role between the States that were party to the Convention. Between the two World Wars, its range of tasks was expanded to include the international carriage of passengers and luggage.

In 1985 the Central Office achieved the status of an international organisation whose work was no longer restricted to publishing information from its Member States relating to rail transport. Instead, based on what was needed in the sector, it became the continuous driving force behind legislative developments at international level in all the relevant areas.

The Basic Convention

The first international Convention concerning Carriage of Goods by Rail dates from the year 1890 and was revised several times. It created the Administrative Union as per the prevailing rules of international law with a permanent secretariat, the Central Office for International Carriage by Rail, headquartered in Berne, Switzerland. On 9 May 1980, a Convention was set up and entered into force on 1 May 1985 and this led to the formation of the Intergovernmental Organisation for International Carriage by Rail (OTIF).

After significant modifications to COTIF that were brought about by the Vilnius Protocol of 3 June 1999, the amended Convention entered into force on 1 July 2006.

The Convention consists of seven Appendices (see Figure 3). A description of the Appendices can be found in Annex 1.

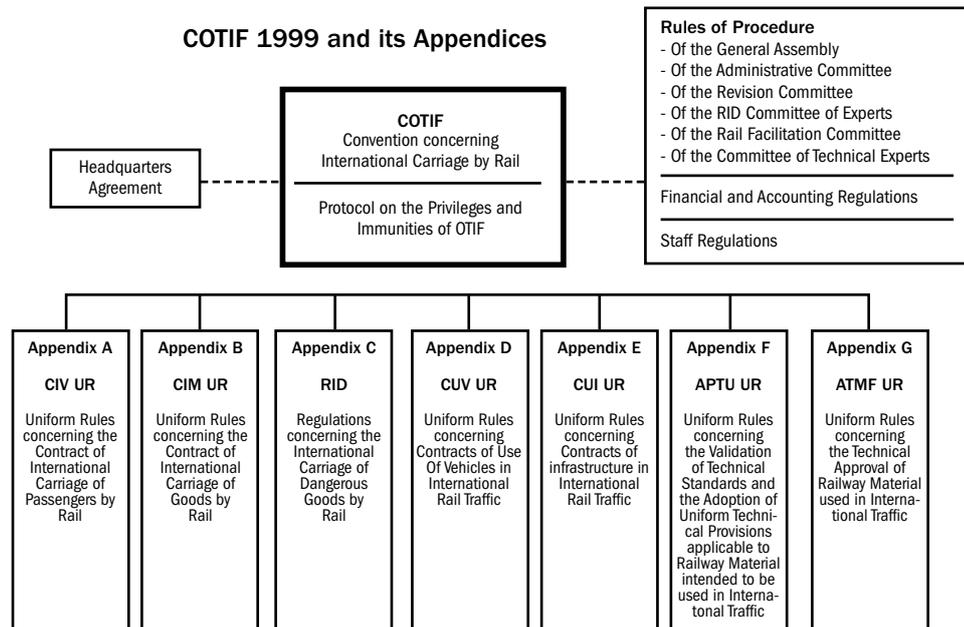


Figure 10: COTIF 1999 and its Appendices

Regulations on the international carriage of passengers by rail (Appendix A) - Uniform Rules concerning the Contract of International Carriage of Passengers by Rail (CIV)

The CIV Uniform Rules apply on the entire railway network. But it is possible for new Member States to declare that they will only apply the CIV UR to part of their railway infrastructure. Such a declaration can only be made if a State is a contracting party to a comparable international transport convention (e.g. SMPS) and only at the time of the accession (Article 1 § 6).

In accordance with the contract, the carrier undertakes to carry the passenger and, where appropriate, their luggage and vehicles, to the place of destination and to deliver the luggage and vehicles there. The ticket confirms/proves the contract, but is not essential for its conclusion.

The CIV UR are mandatory law, which means that it is not possible to derogate from all the provisions where such a possibility is not expressly provided. However, a carrier can always assume additional obligations, i.e. derogate in favour of the passenger.

Not everything is regulated in detail. Certain provisions refer to the General Conditions of Carriage, e.g. details regarding the tickets.

Basic provisions implemented and supplemented by the carrier's General

Conditions of Carriage concern:

- payment/refund of the carriage charge
- exclusion from carriage
- luggage and animals permitted
- luggage and vehicles carried, and
- liability in case of death/injury to passengers and failure to keep to the timetable.

Carriers are liable for their auxiliaries, servants and other persons they make use of for the performance of the carriage.

The managers of the railway infrastructure on which the carriage is performed are considered as persons whose services the carrier makes use of for the performance of the carriage.

The CIV Uniform Rules apply to every contract of carriage of passengers

- by rail, when the place of departure and the place of destination are situated in two different OTIF Member States,
- when international carriage being the subject of a single contract includes carriage by road or inland waterway in internal traffic of an OTIF Member State as a supplement to transfrontier carriage by rail,
- when international carriage being the subject of a single contract of carriage includes carriage by sea or inland waterway as a supplement to carriage by rail and the carriage by sea or inland waterway is performed on services included in the OTIF lists.

In EU law, almost all the provisions of the CIV Uniform Rules have been incorporated into Annex I of the so-called “Passengers’ Rights Regulation (PRR)” (Regulation No. 1371/2007 of 23 October 2007 on rail passengers’ rights and obligations).

Regulations on the international carriage of goods by rail (Appendix B) - Uniform Rules concerning the Contract of International Carriage of Goods by Rail (CIM)

The CIM Uniform Rules apply on the entire railway network concerned. But it is possible for States to declare that they will only apply the CIM UR to part of their railway infrastructure. Such a declaration can only be made if a State is a contracting party to a comparable international transport convention (e.g. SMGS) and only at the time of the accession (Article 1 § 6). For example, OTIF Member States such as Ukraine, Georgia, Russia and Estonia have only made some specific lines subject to the CIM UR.

In accordance with the contract, the carrier undertakes to carry the goods for

reward to the place of destination and to deliver them there to the consignee. The consignment note confirms/proves the contract, but is not essential for its conclusion. It may also be used as a customs and bank document and may also be established in the form of electronic data registration.

Like CIV, the CIM UR are mandatory law, which means that is not possible to derogate from all the provisions where a possibility to derogate is not expressly provided. However, a carrier can always assume additional obligations.

Basic provisions are implemented and supplemented by the 'General Conditions of Carriage' of the carrier. They concern:

- loading/unloading of the goods
- payment of costs
- transit periods
- circumstances preventing carriage and delivery, and
- liability for loss or damage resulting from the total or partial loss of, or damage to, the goods between the time of taking over the goods and the time of delivery and for the loss or damage resulting from the transit period being exceeded.

The CIM UR contain certain supplementary rules that apply if nothing else has been agreed. Other specific rules can be included in the actual contract, which are documented in the consignment note.

Carriers are liable for their auxiliaries - servants and other persons whose services they make use of for the performance of the carriage. The managers of the railway infrastructure on which the carriage is performed are considered as persons whose services the carrier makes use of.

The CIM Uniform Rules apply to every contract of carriage of goods for reward

- by rail when the place of taking over the goods and the place designated for delivery are situated in two different COTIF Member States. There is also a possibility provided by Article 1 § 2 CIM according to which it is sufficient for establishing a contract if at least one State is a COTIF Member State,
- when international carriage being the subject of a single contract includes carriage by road or inland waterway in internal traffic of an OTIF Member State as a supplement to transfrontier carriage by rail, and
- when international carriage being the subject of a single contract includes carriage by sea or transfrontier carriage by inland waterway as a supplement to carriage by rail, if the carriage by sea or inland

waterway is performed on services included in the OTIF lists.

The uniform consignment note model was established by CIT. Article 6 § 9 CIM provides the possibility to establish the consignment note and its duplicate in electronic form.

Regulations on the international carriage of dangerous goods (Appendix C)
- Regulation concerning the International Carriage of Dangerous Goods by Rail (RID)

RID applies to the international carriage of dangerous goods by rail on the entire railway network of RID Contracting States.

RID is harmonised with other modal specific regulations on the transport of dangerous goods, such as the IDMG Code, the ICAO Technical Instructions, ADR and ADN. It contains extensive and detailed operational and technical provisions, such as the classification of goods according to their hazardous properties, use and construction of packagings and other means of containment, marking, documentation and handling.

Dangerous goods that are prohibited from carriage in accordance with RID may not be carried in international transport by rail.

RID is not applicable, or is only partly applicable, to the carriage of dangerous goods which are exempt according to RID. Exemptions are only permitted if the quantity or type of the exempted carriage or the packaging ensures the safety of the transport operation.

In general, dangerous goods may only be carried in goods trains. There are exceptions for the carriage of certain small consignments as express goods and dangerous goods carried as hand luggage, registered luggage or in or on board motor vehicles within the meaning of the CIV Uniform Rules, provided they meet the special conditions of RID.

RID applies to

- the international carriage of dangerous goods by rail on the territory of the RID Contracting States,
- carriage complementary to carriage by rail to which the CIM Uniform Rules are applicable, subject to the international prescriptions governing carriage by the other mode of transport, including the activities referred to in RID.

The latest version of the Annex has more than 1000 pages.

The provisions of RID became an integral part of EU law by being referenced in Annex II of Directive 2008/68/EC on the inland transport of dangerous goods. Its scope was extended to include domestic transport.

Uniform Rules on the use of wagons (Appendix D) - Uniform Rules concerning Contracts of Use of Vehicles in International Rail Traffic (CUV)

The CUV Uniform Rules apply to bilateral or multilateral contracts concerning the use of railway vehicles as means of transport for carriage in accordance with the CIV and CIM Uniform Rules. CUV applies on the entire railway network concerned.

Unlike the CIV and CIM Uniform Rules, the provisions of CUV provide a large degree of contractual freedom and only one provision of these Uniform Rules is mandatory (Article 12). Numerous wagon keeper undertakings and carriers have made use of this freedom by means of the General Contract of Use of wagons (GCU).

The provisions establishing general principles concern:

- signs and inscriptions on the vehicles (keeper, home station, etc.)
- liability in case of loss of or damage to a vehicle or caused by a vehicle
- limitation of actions, and
- forum.

The provisions apply without distinction to wagons that belong to the carrier or to wagons belonging to other keepers.

Carriers are liable for their servants and other persons whose services they make use of for the performance of the carriage (auxiliaries). The managers of the infrastructure on which carriage is performed are considered as the carrier's auxiliaries, if nothing else has been agreed.

CUV contains a large number of supplementary rules that only apply if nothing else has been agreed between the parties. Other specific rules can be included in the GCU.

The fact is that two thirds of all railway wagons are not owned by railway undertakings, but belong to leasing or hire companies. This is why the contractual instrument is necessary, to regulate, for example, how the obligations to maintain the wagons are allocated.

Uniform Rules on the use of infrastructure (Appendix E) - Uniform Rules concerning the Contract of Use of Infrastructure in International Rail Traffic (CUI)

The CUI Uniform Rules apply to any contract of use of railway infrastructure by railway undertakings for the purposes of international carriage within the meaning of the CIV Uniform Rules and the CIM Uniform Rules. They apply on the entire railway network concerned.

The “European General Terms and Conditions of Use of Railway Infrastructure (E-GTC-I)” were developed by the groups representing the interests of carriers and infrastructure managers to interpret, supplement and extend the application of the provisions of the CUI Uniform Rules.

The existence of a contract on the use of infrastructure is the basic prerequisite for the CUI Uniform Rules to apply, particularly with regard to liability.

Other prerequisites are the presence of (in the EU, EU-compliant) operating approvals and safety certificates, as well as corresponding insurance cover for carriers.

If the infrastructure is situated in a State which is obliged to apply EU legislation, there are certain exemptions from the CUI, but they do not concern the core provisions concerning liability and compensation.

According to the CUI Uniform Rules, liability is as follows:

- the infrastructure manager is liable for bodily loss or damage and for loss of or damage to property caused to the carrier or to his auxiliaries during the use of the infrastructure and having its origin in the infrastructure. He is also liable for pecuniary loss resulting from damages payable by the carrier under the CIV Uniform Rules and the CIM Uniform Rules, and
- the carrier is liable for bodily loss or damage and loss of or damage to property caused to the infrastructure manager or to his auxiliaries during the use of the infrastructure, by the means of transport or by the persons or goods carried.

Technical standards and prescriptions (Appendix F)- Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material intended to be used in International Traffic (APTU)

The APTU Uniform Rules lay down the procedure for the validation and

adoption of technical standards and uniform technical prescriptions for railway material intended to be used in international traffic.

The aim of the APTU regulations is to ensure the interoperability of technical systems and components necessary for international rail traffic.

The validated technical standards and uniform technical prescriptions should contribute to achieving safety, efficiency and operational availability for international traffic and should take account of the protection of the environment and public health.

The validated technical standards and adopted uniform technical prescriptions are included in Annexes to APTU and they can also be found on OTIF's website.

Technical approval of rolling stock and mutual recognition (Appendix G) - Uniform Rules concerning the Technical Admission of Railway Material used in International Traffic (ATMF)

The ATMF Uniform Rules lay down the procedure for the admission to circulation or use in international traffic for railway vehicles.

Technical admission is granted either directly by issuing an "admission to operation" for a certain individual railway vehicle or, in a simplified procedure, in two stages in the form of the "admission of a type of construction" for a particular design type and the subsequent admission to operation for individual vehicles corresponding to that type of construction.

Technical admission is based on the standards validated and uniform technical prescriptions adopted in accordance with APTU.

Important principles and aims of APTU and ATMF are:

- to develop and adopt harmonised technical requirements for the admission to international traffic of vehicles at state level,
- to transfer competence for approving vehicles from the railway companies to governments,
- to define responsibilities for the use of vehicles, in particular for railway undertakings, entities in charge of maintenance (ECM) and keepers,
- to establish compatibility with EU railway regulations.

When applying ATMF and APTU, states agree on minimum technical and safety requirements for vehicles set out in Uniform Technical Prescriptions (UTP). The compliance check is carried out by an assessing entity, which

is independent of the railway company; admission is recognised by all contracting states, if all requirements are covered by UTPs.

ATMF and APTU require only those legal requirements which are strictly necessary for interoperability.

Railway undertakings may agree voluntarily on additional agreements.

Annex 2 – International and regional organisations whose activities are relevant to OTIF

Organization for Cooperation between Railways (OSJD)⁵⁶

The Organization for Cooperation between Railways (OSJD) is an international organisation established at the Railway Ministers' Conference in Sofia, Bulgaria, by the ministers in charge of railway transport on 28 June 1956. OSJD activities are undertaken on the basis of the OSJD Statute, which was adopted and is subject to amendments by the OSJD Ministers' Conference.

The main objective of OSJD is to provide, develop and improve international transport by rail between Europe and Asia. It develops international freight and passenger traffic, creates a common railway transport environment in the Eurasian region, promotes competitiveness, transcontinental railway routes and technical progress and technical and scientific cooperation in the field of railway transport.

Structure of the Organisation

Cooperation within the framework of OSJD takes place at both intergovernmental level and at the level of railway companies. The OSJD Ministers' Conference (MC) is the supreme governing body of OSJD. The sessions of the Ministers' Conference consider and take decisions on issues concerning the overall direction of the Organization's activities. The Conference of General Directors (authorised representatives) of OSJD Railways is the highest OSJD steering body at the level of railways and railway undertakings.

The Conference of General Directors organises cooperation in the field of international railway traffic between Europe and Asia, including combined transport, the reciprocal exchange of information on anticipated international trade transport and, based on this, develops joint proposals, adopts rules for the use of wagons and coaches and containers for international services, and organises the process of accounting between railways.

The OSJD Committee is the executive body of OSJD. It manages OSJD

⁵⁶ www.en.osjd.org; UNESCAP Monograph Series on Transport. Facilitation of International Railway Transport in Asia and the Pacific

activities in the period between the sessions of the Ministers' Conference and General Directors' Conference. The Committee acts as a depository for the agreements and other legal instruments within the OSJD framework. The system of the OSJD working bodies consists of commissions and permanent working groups, which focus on the main direction of OSJD's activities.

There are five commissions (Commission on Transport Policy and Development Strategy; Commission on Transport Law; Commission on Freight Traffic; Commission on Passenger Traffic; Commission on Infrastructure and Rolling Stock) and two permanent working groups (Permanent Working Group on Coding and Information Technology and Permanent Working Group on Finance and Accounting).

Besides the main OSJD working bodies, there are a number of ad hoc working groups and joint working groups for cooperation with other international organisations.

The number of OSJD members, observers and affiliated undertakings as of 1 September 2014 was: 26 member government transport authorities and 26 corresponding member railway companies; 7 observer railways and 34 affiliated undertakings⁵⁷.

New members may join OSJD on the basis of a consensus decision by the current members.

Main legislative documents

The system for OSJD legislative documents consists of the basic OSJD documents, including rules of procedure and regulations for OSJD; agreements concluded within the framework of OSJD; decisions of the OSJD governing bodies, such as rules; leaflets of a mandatory or recommendatory nature on various technical issues concerning the member railways' operations.

Nine main agreements have been concluded within the framework of OSJD:

- Agreement on International Passenger Traffic (SMPS);
- Agreement on International Freight Traffic (SMGS);
- Agreement on the International Passenger Tariff (MPT);
- Agreement on the International Railway Transit Tariff (MTT);
- Agreement on the Uniform Transit Tariff (ETT);
- Agreement on Rules for the Use of Coaches in International Traffic (PPW);
- Agreement on Rules for the Use of Wagons in International Traffic (PGW);
- Agreement on the Accounting Rules in International Transport of Passengers and Goods by Rail; and

⁵⁷ Report on OSJD activities for 2013

- Agreement on Organizational and Operational Aspects of Combined Transportation between Europe and Asia.

Important activities:

- Development and improvement of international railway transport between Europe and Asia, including combined transport;
- Development of consistent transport policy in the field of international railway traffic, elaboration of strategies for railway transport and OSJD's activities;
- Development of international transport law, administration of the Agreement on International Passenger Traffic by Rail (SMPS), Agreement on International Goods Traffic by Rail (SMGS) and other legal documents connected with international railway traffic;
- Co-operation on resolving problems relating the economic, information, scientific, technological and ecological aspects of railway transport;
- Development of measures aimed at increasing the competitiveness of railway transport in comparison with other modes of transport;
- Co-operation in the field of railway operations and technical matters connected with further development of international railway traffic; and collaboration with other international railway transport organisations.

Key current activities

Activities relating to transport policy and development strategy include efforts to improve the operation and further development of OSJD transport corridors, facilitating border crossing formalities for passenger and freight traffic and implementing measures to improve the competitiveness of the railways, including studies on defining the technical and operational compatibility of 1,520 mm and 1,435 mm railway gauges.

In the area of transport law, OSJD administers the agreements concluded within its framework. It also undertakes the revision of SMGS and SMPS to modernise them and adapt them to modern realities and promotes application of the CIM/SMGS common consignment note. Another direction of its work is to draft the Convention on Through International Rail Transport, which is aimed at the future integration of OSJD basic documents, SMGS and SMPS and other key legal acts.

Activities on the development of freight traffic focus on improving the existing international agreements on combined transport and transit freight traffic tariffs, updating the Agreement on Rules for the Use of Wagons in International Traffic, harmonising the unified system of coding and cargo descriptions for OSJD member railways and scheduling and managing

container block trains along the routes between Europe and Asia.

Activities relating to passenger traffic include the management of passenger trains, drafting and approval of timetables, train composition procedures, improving conditions and services for passengers, development of passenger traffic and compliance with the timetables of international passenger trains. Activities on infrastructure and rolling stock are concentrated on rolling stock clearance in international carriage with regard to interoperability, tracks and engineering, signalling, coupling and communication systems, power supply and electric traction, and technical requirements for rolling stock components. A joint OSJD/UIC Group on Automatic Gauge Changeover Systems (AGCS) has been also established.

The work being carried out on the issues of coding and information technology covers the topics of coding and information technologies, paperless international carriage of goods, security of information resources, information and telecommunications infrastructure and information support for interoperability of passenger and freight traffic.

Activities relating to finance and accounting focus on addressing the issues of payment clearance between the railways, debt reduction and dispute settlement, and updating the Agreement on the Accounting Rules in International Transport of Passengers and Goods by Rail.

OSJD's main international cooperation partners are ECE, ESCAP, OTIF, CIT, ERA and UIC. Among the important results of joint activities is the preparation, in cooperation with CIT, of the Handbook on the CIM/SMGS Common Consignment Note, which contains rules for the practical application of that document.

International Union of Railways (UIC)⁵⁸

UIC was established in Paris on 17 October 1922 with the main purpose of harmonising and improving conditions for railway construction and operations. The idea of creating an international organisation, bringing together the railway companies, was developed in the wake of the international conference of Portorosa, Italy, on 23 November 1921, followed by the international conference of Geneva on 3 May 1922. The state representatives favoured the "creation of a permanent rail administration focusing on international traffic for the standardization and improvement of conditions of railway construction and operations".

The international conference founding UIC was held in Paris on 17 October 1922. Initially, the UIC had 51 members from 29 countries, including China and Japan, which were soon joined by the railways of the former USSR, the Middle East and North Africa.

⁵⁸ <http://www.uic.org>; UNESCAP Monograph Series on Transport. Facilitation of International Railway Transport in Asia and the Pacific

UIC currently has 202 members, 78 of which are active members (including the railways from Europe, Russia, the Middle East, North Africa, South Africa, India, Pakistan, China, Japan, Korea, Kazakhstan, and companies operating worldwide such as Veolia Transport), 51 associate members (including railways from Asia, Africa, America and Australia) and 72 affiliated members (related or ancillary to rail transport businesses or services).

Members of UIC can be integrated railway companies, infrastructure managers, and railway or combined railway transport operators, rolling stock and traction leasing companies, service providers (restaurant services, sleeping cars, public transport, and maritime transport).

UIC's mission is to promote rail transport at world level and meet the challenges of mobility and sustainable development.

UIC's main objectives are to:

- facilitate the sharing of best practices among members (benchmarking)
- support members in their efforts to develop new business and new areas of activities
- propose new ways to improve technical and environmental performance
- promote interoperability, create new world standards for railways (including common standards with other transport modes)
- develop centres of competence (high speed, safety, security, e-Business, etc.).

Important UIC projects

Standardization Platform

Launched in December 2012, the UIC standardization platform is one of the important initiatives to develop UIC's standardization strategy for various aspects of railway operations. Its objective is to make UIC a global unifying body for railway operating rules and maintenance. Some of the other purposes the platform will serve are:

- the gradual development of international railway standards (IRS) from the current UIC leaflets;
- institutional arrangements with other standards organisations, such as ISO, IEC in the development of railway standards; and
- the coordination of standardisation activities developed by different UIC forums.

Apart from increasing the geographical scope and use of UIC standards, the platform will strike a better balance between various stakeholders and standard bodies.

*Intercontinental Combined Traffic (ICOMOD)*⁵⁹

Under this project completed in 2011, UIC commissioned a study in collaboration with consulting firm Roland Berger, with the objective of:

- establishing the viability of a rail link between Asia and Europe
- elaborating steps required to increase traffic on these routes
- estimating market potential for rail freight.

The study found that to be successful, railways must focus on niche markets where they have a competitive advantage and thus avoid direct confrontation with maritime transport. In this regard, it suggested that the maximum value for railway transport was in hinterland areas for high value goods. It also highlighted the importance of predictability and reliability, which are vital to consignors when they are choosing between alternative modes of transport, so rail operators should focus on them to attract business. The study also underscored the importance of improving customs procedures and inspections at origin or destination and during transit.

Organisation of global rail freight conference (GRFC)

Since 2007, UIC has organised a GRFC every two years. It brings together all stakeholders involved in rail transport, such as policy makers, rail logistic service providers, customers, regulators and research institutions across the globe.

The purpose of GRFC is to highlight strategic issues of freight development along international corridors that promote intercontinental and transcontinental traffic and develop partnerships and the exchange of ideas among all stakeholders.

International rail transport Committee (CIT)⁶⁰

The International Rail Transport Committee (CIT) was formed in 1902 to simplify formalities in international railway transport. The main objective of the CIT is to promote the interoperability of international railway transport by promoting the harmonisation of legal frameworks and supporting the uniform implementation of laws governing railway transport.

CIT is an association of about 200 railway undertakings and shipping companies which provide international passenger and/or freight transport services. About 130 organisations are members in their own right; about 80 organisations are linked indirectly by being members of the CIT associate members. The CIT is an association under Swiss law and is based in Bern.

Activities

CIT helps implement international rail transport law by:

- drawing up and maintaining legal publications and boiler plate documents for international traffic by rail;
- standardising the contractual relationships between customers,

⁵⁹ <http://www.uic.org/spip.php?article3152>

⁶⁰ <http://www.cit-rail.org/> UNESCAP Monograph Series on Transport. Facilitation of International Railway Transport in Asia and the Pacific

- carriers and infrastructure managers;
- representing the interests of carriers by rail vis-à-vis legislators and authorities;
- providing regular briefings on legal issues; and
- organising training courses and giving legal advice as requested.

Every two years, it brings together some 120 specialist in international rail transport law at a workshop called the “Bernner Tage”, where experts debate current legal developments and the future direction of railway transport law. CIT supports the freight business by supporting its members in implementing the applicable legislation and in particular the CIM Uniform Rules. It also aims to simplify and standardise the working relationships between transport undertakings and between them and their customers. In this regard it produces various reference documents such as agreements, basic contractual documents, manuals and forms.

Structure of the organisation

The main working bodies of CIT are the Executive Committee and the Committees on Passenger and Freight Transport and the Use of Infrastructure. The Multimodality Committee was set up in 2014 and had its first meeting on 12 November. The newly established committee will deal with the legal issues surrounding cooperation and interfaces between rail and other transport modes, starting with ferry and road transport. The Executive Committee directs the operations and administration and oversees the work of the Secretary General.

The general assembly provides the strategic direction, approves the budget and accounts and elects members of working bodies. The working groups are responsible for recommendations for decisions by the committees and expert groups are constituted to examine specific issues as needed.

The CIT works closely with the OSJD, OTIF and other international organisations on joint projects to make transport law regimes for traffic between Europe and Asia interoperable.

In 2012, CIT completed a pilot project on shipments from China to Europe with the use of the common CIM/SMGS consignment note, which is now fully operational. A new document based on the COTIF legal framework to cover multimodal shipments has been recently included in the CIT documents. CIT also made progress in completing the legal groundwork for using the electronic consignment note.

World Customs Organization (WCO)⁶¹

The World Customs Organization (WCO) was established in 1952 after the Second World War as a result of the desire of various countries to re-launch

⁶¹ <http://www.wcoomd.org/>, UNECE OSCE Handbook of Best Practices at Border Crossings – A Trade and Transport Facilitation Perspective

world trade and to provide a platform for the discussion of customs issues. WCO is the only international intergovernmental organisation that deals with customs procedures governing trade between countries.

The mission of the Organisation is to improve the effectiveness and efficiency of its member customs administrations across the globe.

Today, the WCO represents 179 customs administrations that collectively process approximately 98% of world trade. Separate customs territories such as Hong Kong and Macau (China), Bermuda, Curacao are also Members of the WCO. The European Union has a status akin to WCO membership. All OTIF Member States except Liechtenstein and Monaco are members of WCO.

To facilitate the work of customs at borders, the WCO has developed a number of instruments and tools, and has introduced a number of programmes and initiatives. In terms of customs procedures relating to trade and transport facilitation, the Revised Kyoto Convention is its core instrument.

Regional organisations

Participation in international conventions is desirable in order to promote rail transport. At the same time, the role of bilateral and regional agreements in furthering international rail transport is equally important.

Together with participation in international organisations, these agreements can be an effective means for countries to develop and expand railway transport from national to regional and international level.

The Economic Cooperation Organization (ECO)⁶²

The Economic Cooperation Organization is an intergovernmental regional organisation of 10 countries: Afghanistan, Azerbaijan, Islamic Republic of Iran, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey, and Uzbekistan.

It was established in 1985 to promote economic, technical and cultural cooperation among its member countries. Transport connectivity is immensely important for ECO due to the strategic location of its member countries.

Rail transport has developed at different rates in the ECO region, with some countries having no rail transport, while others have a well-developed rail infrastructure. ECO has approved a master plan for the railway network and identified eight railway transport corridors. ECO works in the areas of railway infrastructure, operations and facilitation.

⁶² <http://www.ecosecretariat.org/>, CIT-Info 5/2009, OTIF Bulletin 1/2 2013, UNESCAP Monograph Series on Transport. Facilitation of International Railway Transport in Asia and the Pacific, UNECE OSCE Handbook of Best Practices at Border Crossings – A Trade and Transport Facilitation Perspective

In 2009 OTIF and ECO signed a Memorandum of Understanding on the further development of their cooperation. With the signing of the Memorandum, the parties agreed to coordinate their actions in order to promote, improve and facilitate international rail traffic, to promote uniform legal and technical regimes for rail transport and to exchange relevant information and etc.

The signing of the Memorandum of Understanding between OTIF and ECO presaged Pakistan's accession to OTIF, which took effect on 1 September 2013. Pakistan became the 49th Member State of OTIF.

With Pakistan's accession to COTIF a rail link for trains carrying containers between Islamabad and Istanbul via Tehran was set up. Applying the rules of COTIF will enable freight traffic between Turkey, Iran and Pakistan to be developed, largely thanks to the CIM consignment note, which makes border crossing much easier.

This line might one day be extended to Western Europe and to regions in Southern and Central Asia. Pakistan's accession opened up the entire region to OTIF and in future this region will be able to benefit from the law of COTIF.

Gulf Cooperation Council (GCC)⁶³

The Gulf Cooperation Council (GCC) was established in an agreement concluded on 25 May 1981 in Riyadh, Saudi Arabia, between Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE. These countries declared that the GCC was established in view of the special relations between them, their similar political systems based on Islamic beliefs, their "joint destiny" and common objectives. The GCC is a regional common market with a defence planning council as well. The geographic proximity of these countries and their general adoption of free trade economic policies are factors that encouraged them to establish the GCC.

The GCC Charter states that the basic objectives are:

- to effect co-ordination, integration and inter-connection between member states in all fields in order to achieve unity between them,
- to deepen and strengthen relations, links and areas of cooperation now prevailing between their peoples in various fields,
- to formulate similar regulations in various fields, including economic and financial affairs, commerce, customs, legislative and administrative affairs and others.

Nowadays, this geographical area is witnessing an impressive revival in the rail sector. The construction of a rail network connecting the six GCC Member States by 2017 is a sign of the growing importance of the Arabian Peninsula

63 <http://www.gcc-sg.org/>, <http://www.globalsecurity.org/>, OTIF Press Release, 20.03.2014

for international rail transport. Once complete, the 2000 km railway network will help strengthen trade between the countries of the Arabian Peninsula and offer an alternative to air and maritime transport. The network could reach Turkey and could be connected to Asian railways through Central and Southern Asia towards China.

On 19 March 2014 a Memorandum of Understanding between OTIF and the Cooperation Council for the Arab States of the Gulf (GCC) was signed. This is an important step towards the accession of the GCC and its six Member States to COTIF.