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Intermodal transport and the TIR Convention

Implementation of the intermodal aspects of the TIR procedure

Note by the secretariat

The Working Party on Intermodal Transport and Logistics (WP.24), at its sixty-third session, expressed interests in an analysis by the TIR secretariat on which legs of the intermodal transport the TIR system could be successfully applied as it would bring some competitive advantages. This note, prepared by TIR secretariat, studies the use of TIR procedure in intermodal transport.

WP.24 may wish to consider this note and offer its views in particular on the conclusions and recommendations.

Study on the intermodal aspects of the TIR Convention



February 2021

Table of Contents

INTRODUCTION – MANDATE	5
INTERMODAL TRANSPORT MARKET ANALYSIS – POSSIBLE MARKET FOR TIR.....	7
A. MARITIME TRANSPORT.....	8
B. RAIL TRANSPORT	10
ANALYSIS OF CROSS CUTTING ISSUES	13
A. SUBCONTRACTORS	13
B. AUTHORIZED CONSIGNOR-CONSIGNEE CONCEPTS	14
C. COMPUTERIZATION OF THE TIR PROCEDURE	17
EXISTING TOOLS FOR INTERMODAL TRANSPORT - THE CASE OF TIR	19
A. MARITIME TRANSPORT DOCUMENTS AND PROCEDURES.....	19
B. RAIL TRANSPORT DOCUMENTS AND PROCEDURES.....	21
C. DOCUMENTS / PROCEDURES PREPARED BY WORLD CUSTOMS ORGANIZATION	22
D. THE BUREAU INTERNATIONAL DES CONTAINERS	24
E. INTERNATIONAL FEDERATION OF FREIGHT FORWARDERS ASSOCIATIONS (FIATA).....	24
F. THE CASE OF TIR CARNETS FOR BOTH MARITIME AND RAIL TRANSPORT	25
THE CASE OF POSTAL PARCELS	28
PILOT TESTS – CASE STUDIES	33
A. TIR INTERMODAL TRANSPORT SCENARIOS	33
B. INTERMODAL TIR TRANSPORT OF A CONTAINER INVOLVING ROAD AND MARITIME LEGS FROM AFGHANISTAN TO INDIA VIA THE PORT OF CHABAHAR (IRAN (ISLAMIC REPUBLIC OF))	37
C. INTERMODAL TIR TRANSPORT OF A CONTAINER INVOLVING ROAD, SEA AND RAIL LEGS FROM THE UNITED ARAB EMIRATES TO CZECH REPUBLIC	41
D. SLOVENIA-IRAN (ISLAMIC REPUBLIC OF): INTERMODAL TIR TRANSPORT WITH TIR USED FOR RAIL.....	45
CONCLUSIONS – RECOMMENDATIONS	46

Table of Figures

Figure 1 Reasons for not using the TIR Carnet for intermodal transport 6

Figure 2 different types of intermodal transport..... 7

Figure 3 Global containerized trade, 1996–2018 (Million 20-foot equivalent units and percentage annual change)..... 8

Figure 4 Estimated containerized cargo flows on major East–West container trade routes, 1995–2018 (Million 20-foot equivalent units) 8

Figure 5 World container port throughput by region, 2016–2017, (20-foot equivalent units and annual percentage change)..... 9

Figure 6 The dynamics of traffic volumes in the direction East-West-East for the period of 2014-2017 (thousand TEU) 10

Figure 7 Dynamics of international transportation along the Trans-Siberian Railway for 2011-2017. 11

Figure 8 Number of block trains routes in OSJD member States, in 2016..... 11

Figure 9 Market share by mode of transport in cargo flows (in tons) between the European Union and China, 2011–2016 (percentage)..... 12

Figure 10 Subcontracting under TIR..... 14

Figure 11 TIR Authorized consignor – consignee 15

Figure 12 TIR authorized consignor in use: Poland.....16

Figure 13 TIR authorized consignee in use: France17

Figure 14 RO-RO routes under TIR 18

Figure 15 eTIR international system and intermodal transport..... 19

Figure 16 FELB Technology of Container transport between China and Europe / Procedures and Documentation needed.....21

Figure 17 Example of an intermodal TIR transport 25

Figure 18 Transportation of eCommerce goods 29

Figure 19 Map of TIR intermodal transport scenarios..... 33

Figure 20 Analysis of TIR intermodal transport scenarios 34

Figure 21 Pilot project: Afghanistan to India via the port of Chabahar (Iran (Islamic Republic of)) 38

Figure 22 Pilot Project: United Arab Emirates to the Czech Republic 41

Figure 23 Slovenia-Iran (Islamic Republic of): intermodal TIR transport with TIR used for rail 45

Introduction – Mandate

At its seventy-eighth session (October 2018), the TIR Executive Board (TIRExB) requested the secretariat to conduct an analysis of the use of the TIR procedure in intermodal transport (ECE/TRANS/WP.30/AC.2/2019/2, para. 27). Furthermore, the Board, at its eighty-first session (April 2019) welcomed the progress made until then and requested the secretariat to present a comprehensive document on the study to its October 2019 session (ECE/TRANS/WP.30/AC.2/2019/13, para 22-24).

Article 2 of the TIR Convention mentions the following:

This Convention shall apply to the transport of goods without intermediate reloading, in road vehicles, combinations of vehicles or in containers, across one or more frontiers between a customs office of departure of one Contracting Party and a customs office of destination of another or of the same Contracting Party, provided that some portion of the journey between the beginning and the end of the TIR transport is made by road.

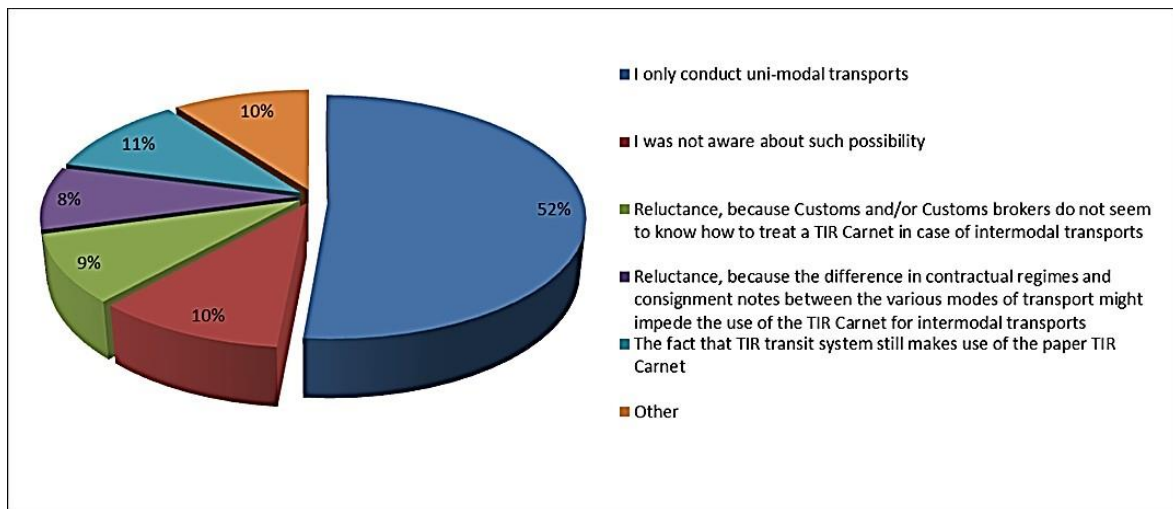
Article 2 allows goods to be carried under cover of a TIR Carnet when only part of the journey is made by road. It does not specify what part of the journey must be made by road and it is sufficient that this should occur at some point between the beginning and the end of the TIR transport. Based on the mandate given by TIRExB and the provisions of the TIR Convention, the secretariat prepared the current study in order to address and analyze the challenges and opportunities to implement the TIR Convention and use TIR Carnets in intermodal transport.

In 2013, the secretariat conducted a survey on the implementation of the intermodal aspects of the TIR procedure. From January to March 2013, the secretariat received 344 replies. More than half of the respondents indicated that they conduct or accept intermodal transports and most of them used combinations of various modes of transport, in particular the road-maritime. 74 per cent of the respondents saw the practical need to develop a truly intermodal customs transit system, possibly, because the majority believed that the TIR system requires further clarifications.

The largest share of the 344 replies to the survey came from the road transport sector (267), followed by logistics service providers (33), private railways (11), sea/inland water transport (10), public railways (8), airline industry (5), port and inland waterways authorities (3) and others (7).

167 companies replied the question “Why don't you use (or accept) the TIR Carnet for intermodal transports”. 10 per cent of them responded that they were not aware of such possibility, 9 per cent responded reluctance because customs and customs brokers do not seem to know how to treat a TIR Carnet in case of intermodal transport, 11 per cent responded because the TIR system still uses paper and 8 per cent expressed reluctance because the difference in contractual regimes and consignment notes between the various modes of transport might impede the use of TIR. Most of them (52 per cent) was not performing intermodal transports.

Figure 1 Reasons for not using the TIR Carnet for intermodal transport



Source: TIR Secretariat

Furthermore, the majority of the respondents (63 per cent from 237 answers) replied that there was a need to clarify the usage of the TIR system for intermodal transport.

Intermodal Transport Market Analysis – possible market for TIR

Based on UNECE terminology on combined transport,

Multimodal transport is the carriage of goods by two or more modes of transport;

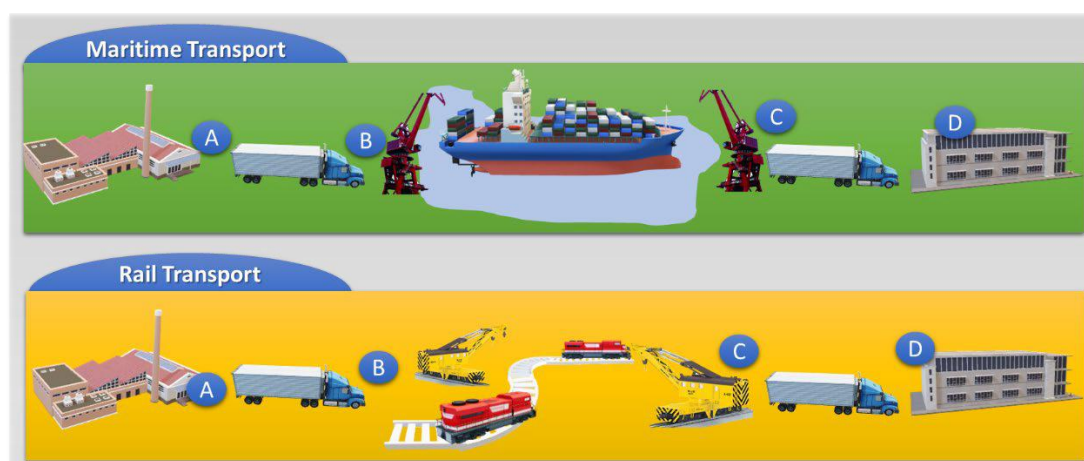
Intermodal transport is the movement of goods in one and the same loading unit or road vehicle, which uses successively two or more modes of transport without handling the goods themselves in changing modes. By extension, the term intermodality has been used to describe a system of transport whereby two or more modes of transport are used to transport the same loading unit or truck in an integrated manner, without loading or unloading, in a [door to door] transport chain;

Combined transport is the Intermodal transport where the major part of the journey is by rail, inland waterways or sea and any initial and/or final legs carried out by road are as short as possible.

Based on those terminologies, it would be convenient to use the term intermodal for the TIR Convention since intermodal requires that two or more modes of transport are used to transport the same loading unit or truck in an integrated manner, without loading or unloading.

The following figure illustrates the different types of intermodal transport.

Figure 2 different types of intermodal transport

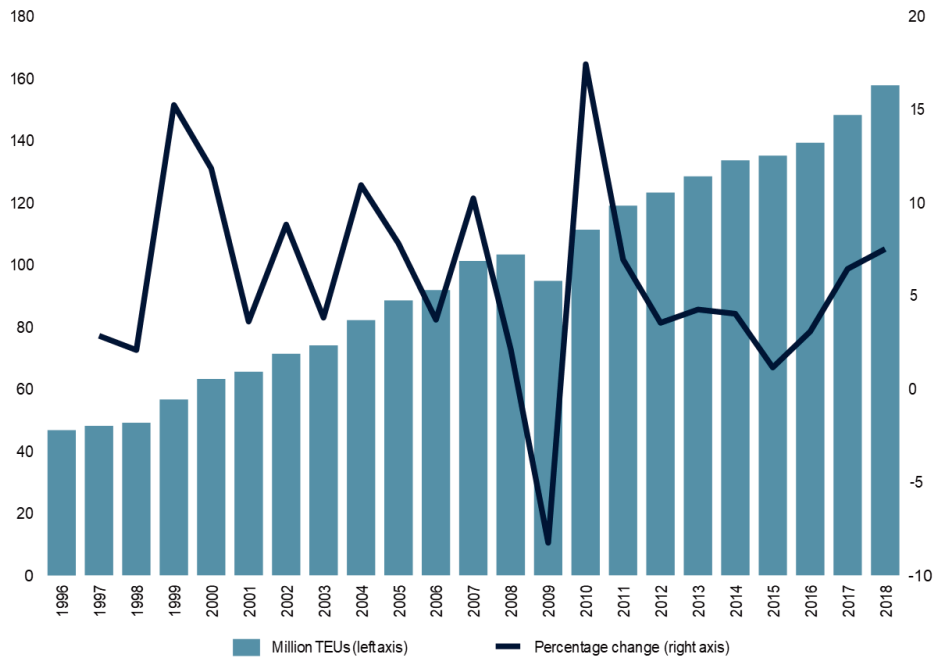


Source: TIR secretariat

A. Maritime Transport

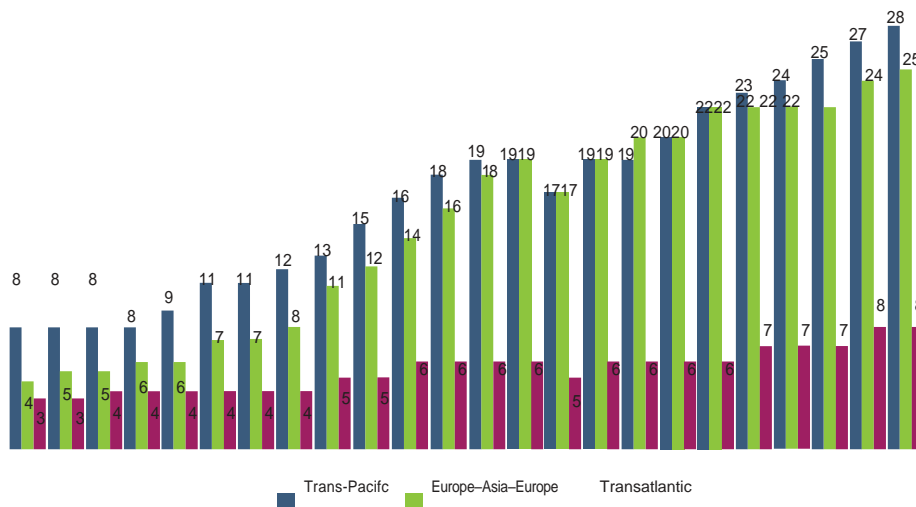
Following the difficult years of 2015 and 2016 when containerized trade grew modestly at 1.1 per cent and 3.1 per cent, respectively, the container market conditions improved in 2017, and strong growth in volumes was recorded across all routes. World maritime share of containerized trade volumes expanded by a strong 6.4 per cent in 2017, the fastest rate since 2011. Global volumes reached 148 million twenty-foot equivalent units (TEU) (figure 2), supported by various positive trends.

Figure 3 Global containerized trade, 1996–2018 (Million 20-foot equivalent units and percentage annual change)



Source: UNCTAD secretariat calculations, based on data from MDS Transmodal, 2018.
 Note: Data for 2018 are projected figures.

Figure 4 Estimated containerized cargo flows on major East–West container trade routes, 1995–2018 (Million 20-foot equivalent units)



Source: UNCTAD secretariat calculations, based on a study by the Economic Commission for Latin America and the Caribbean, 2010. Figures from 2009 onwards are derived from data provided by MDS Transmodal and Clarksons Research.

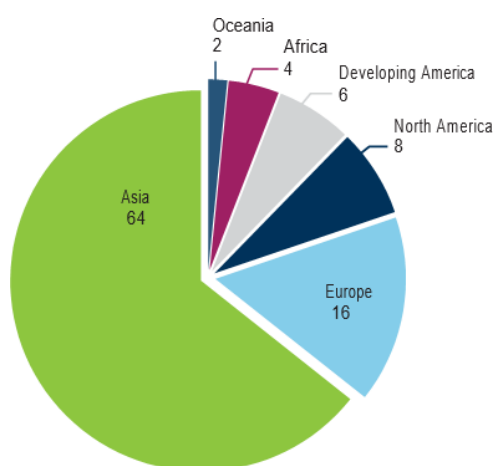
Based on an UNCTAD maritime review report, trade growth strengthened on the major East–West trade lanes, namely Asia–Europe, the Trans-Pacific and transatlantic routes (figure 3). Volumes on the Trans-Pacific route (eastbound and westbound) increased by 4.7 per cent, while volumes on the East Asia–North America route (eastbound and westbound) increased by 7.1 per cent. Overall, the Trans-Pacific trade lane remained the busiest, with total volumes reaching 27.6 million TEUs, followed by 24.8 million TEUs on the Asia–Europe route and 8.1 million TEUs on the transatlantic route.

Asia plays a central role in global trade and shipping, as shown by activity in the container shipping sector. The Asia–Pacific region accounts for over 42 per cent of the number of ports and 60 per cent of the calls, with China representing 19 per cent of all calls alone (Clarksons Research, 2017). These trends have been largely supported by globalization. The second most important player is Europe, which accounts for 28 per cent of world container ports and 21 per cent of port calls.

In line with trends in port calls, Asia dominates the container-handling business. The region continued to account for nearly two thirds of the global container port throughput (figure 4). Volumes handled in the region increased by 6.5 per cent. Some 240 million TEUs were recorded in China, including Hong Kong, China and the Taiwan Province of China. This represents almost half of all port volumes handled in the region. Restrictions imposed by the Government of China limiting imports of some waste material on the backhaul journeys from North America and Europe are likely to increase the incidence of empties in the overall traffic handled by ports, which could exacerbate the trade and freight rate imbalances on the trans-Pacific route.

A development affecting European ports during the year was the growing presence of the China Ocean Shipping Company as a principal port investor. After acquiring port facilities in Greece, Italy and Spain, the company established a presence in Northern Europe by signing a concession agreement with Zeebrugge Port Authority to open a container terminal – this was made possible in part by the Belt and Road Initiative(Wei, 2018).

Figure 5 World container port throughput by region, 2016–2017, (20-foot equivalent units and annual percentage change)



	2016	2017	Annual percentage change
Asia	454 513 516	484 176 997	6,5
Africa	30 406 398	32 078 811	5,5
Europe	111 973 904	119 384 254	6,6
North America	54 796 654	56 524 056	3,2
Oceania	11 596 923	11 659 835	0,5
Developing America	46 405 001	48 355 369	4,2
World total	709 692 396	752 179 321	6,0

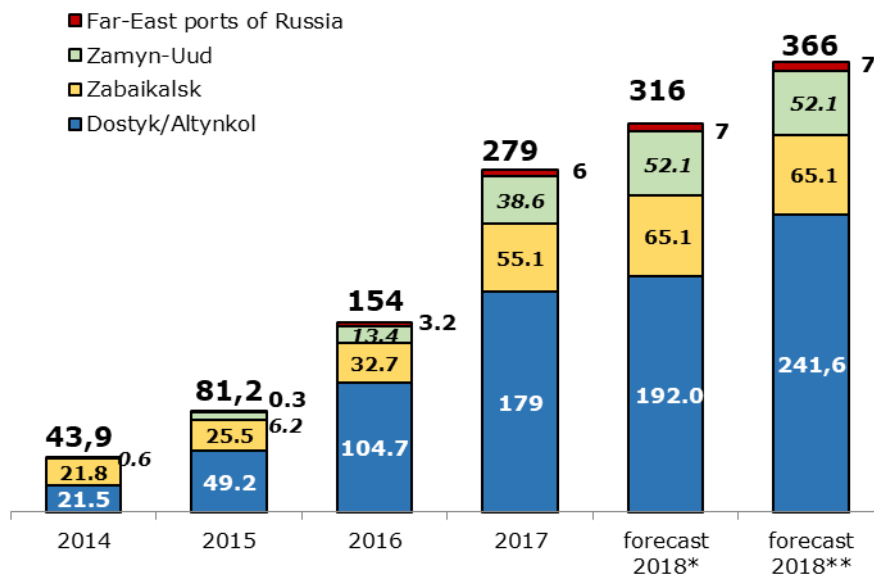
Source: UNCTAD secretariat calculations

B. Rail Transport

Various projects under the Belt and Road Initiative of China have the potential to generate growth and boost seaborne trade volumes through increased demand for raw materials and semi-finished and finished products. Infrastructure developments of the size of the initiative require large amounts of construction materials in the form of dry bulk commodities, steel products, cement, heavy machinery and equipment. Improvements in connectivity through enhanced transport infrastructure, linking manufacturing industry or agriculture to global markets, could strengthen the economic growth of many countries and boost trade. These developments have favorable implications for container shipping and bulk commodities trade.

However, an expanding overland route between China and Europe that has already attracted movements of high-value, time-sensitive goods – which previously would have been transported by sea – could shift some seaborne cargo from ship to rail. The pipelines built in the framework of the Belt and Road Initiative could also restrict seaborne trade growth in related trades (Hellenic Shipping News, 2017). All in all, however, the net effect of the initiative could support shipping demand, as rail transport services and pipelines are not expected to significantly displace the role of shipping in the region and along the Asia–Europe trade lane.

Figure 6 The dynamics of traffic volumes in the direction East-West-East for the period of 2014-2017 (thousand TEU)

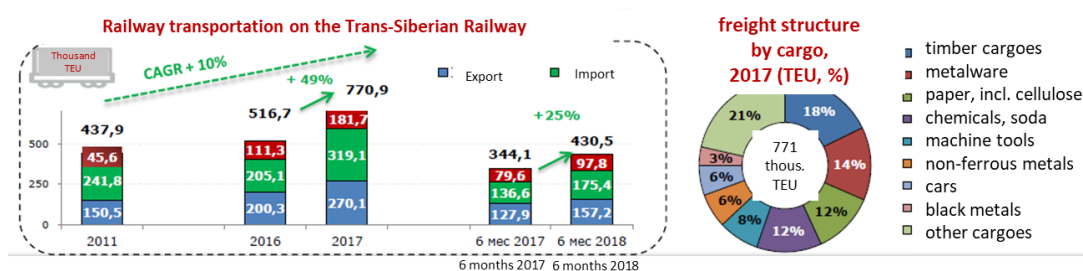


* Estimated forecast according to the declared KZD forecasts
 ** Calculation based on growth rates for the first quarter of 2018

Source: CCTT, Drewery

Based on calculations of the Coordinating Council on Trans-Siberian Transportation (CCTT) in 2017, 279 thousand TEU were transported through the key border crossings and the forecast was to reach the 366,000 TEU in 2018.

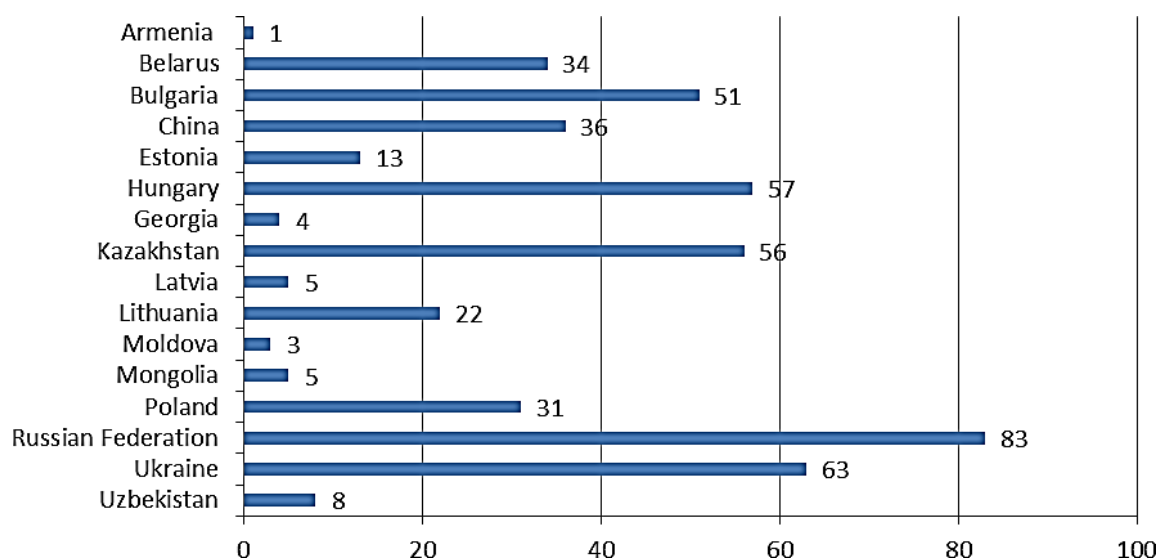
Figure 7 Dynamics of international transportation along the Trans-Siberian Railway for 2011-2017



Source: CCTT

According to Organization for Co-operation between Railways (OSJD) data more than 450 routes for block trains operated in the OSJD member States in 2016 (figure 7). Nearly 170 block trains were regularly scheduled. The remaining block trains ran on requests from cargo owners and logistics services providers. In Poland and Czechia, almost all block trains ran on a regular basis.

Figure 8 Number of block trains routes in OSJD member States, in 2016

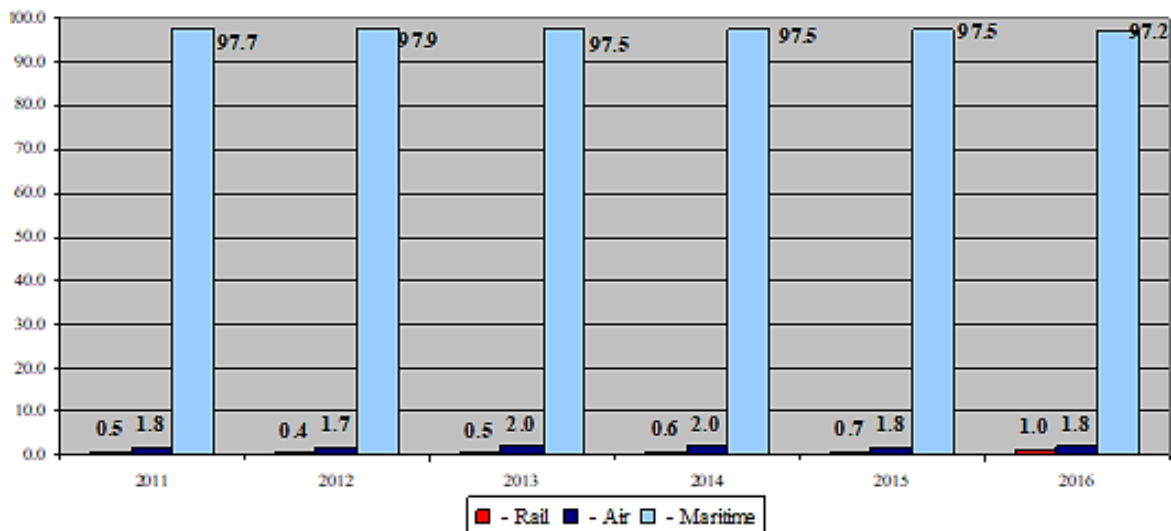


Source: Euro-Asian Transport Links (EATL) Study phase III

Eurasian trade was largely transported by sea, according to organizations such as UNCTAD, Eurostat, International Air Transport Association (IATA), International Union of Railways (UIC), Boeing Corporation and their container statistics. More than 95 per cent of the volume (in metric tons) and nearly 70 per cent of the value (in United States dollars) of cargo was transported by maritime routes. Air cargo between Europe and Asia was less than 2 per cent by volume, but over 30 per cent by value. Railways carried 1 per cent of volume and more than 2 per cent of the value. The road transport of goods between China and Europe (without a change of trucks or transshipment en route) began in 2017.

According to Eurostat statistics, the total volume of goods transported between the European Union-28 and China in 2016 was approximately 105 million tons.

Figure 9 Market share by mode of transport in cargo flows (in tons) between the European Union and China, 2011–2016 (percentage)



Source: EATL Study Phase III

Modes of transport	2011	2012	2013	2014	2015	2016	percentage change
From China to the European Union							
- Maritime	50.1	43.5	47.7	52.7	53.8	54.4	108.6
- Air	1.0	0.9	1.1	1.3	1.1	1.2	116.4
- Rail	0.4	0.3	0.3	0.4	0.5	0.6	170.6
Total	51.5	44.7	49.1	54.4	55.4	56.2	109.2
From the European Union to China							
- Maritime	38.0	39.5	41.0	41.8	44.5	47.7	125.3
- Air	0.6	0.5	0.7	0.6	0.7	0.8	124.0
- Rail	0.1	0.1	0.1	0.2	0.2	0.4	326.5
Total	38.8	40.1	41.8	42.6	45.4	48.8	125.9
TOTAL EU-28 and China	90.2	84.7	90.9	96.9	100.8	105.0	116.4

Analysis of cross cutting issues

A. Subcontractors

Goods across TIR operational countries are very commonly transported in containers using various modes of transport, considerably saving transport time, improving scalability and the cost efficiency of transport operations, as well as helping to resolve the driver shortage issue in road transport, and ultimately reducing the carbon footprint. Such practices are becoming more and more relevant for those countries which have been using the TIR system as a trade facilitation tool for many years, and this is becoming more topical in view of the TIR expansion towards China, India, Pakistan, the United Arab Emirates and other countries.

The specific geographical situation of some new TIR contracting parties –having no land border with any TIR operational countries– makes it inevitable to use intermodal transports under TIR for trade facilitation with other TIR operational countries (it would require a maritime leg). The containerized movement of goods is the most efficient and scalable option in this context (apart from Ro-Ro also available). Hence, the use of subcontracting is an essential component in the intermodal TIR transport of containers.

Subcontracting is widely used in international transport operations and can be considered an integral part of modern logistics practices, especially in the case of long-haul transport. Using subcontractors facilitates international transport and provides a solution for technically complex transport operations. Furthermore, the use of subcontracting in international transport reinforces the cooperation between private sector representatives around the world.

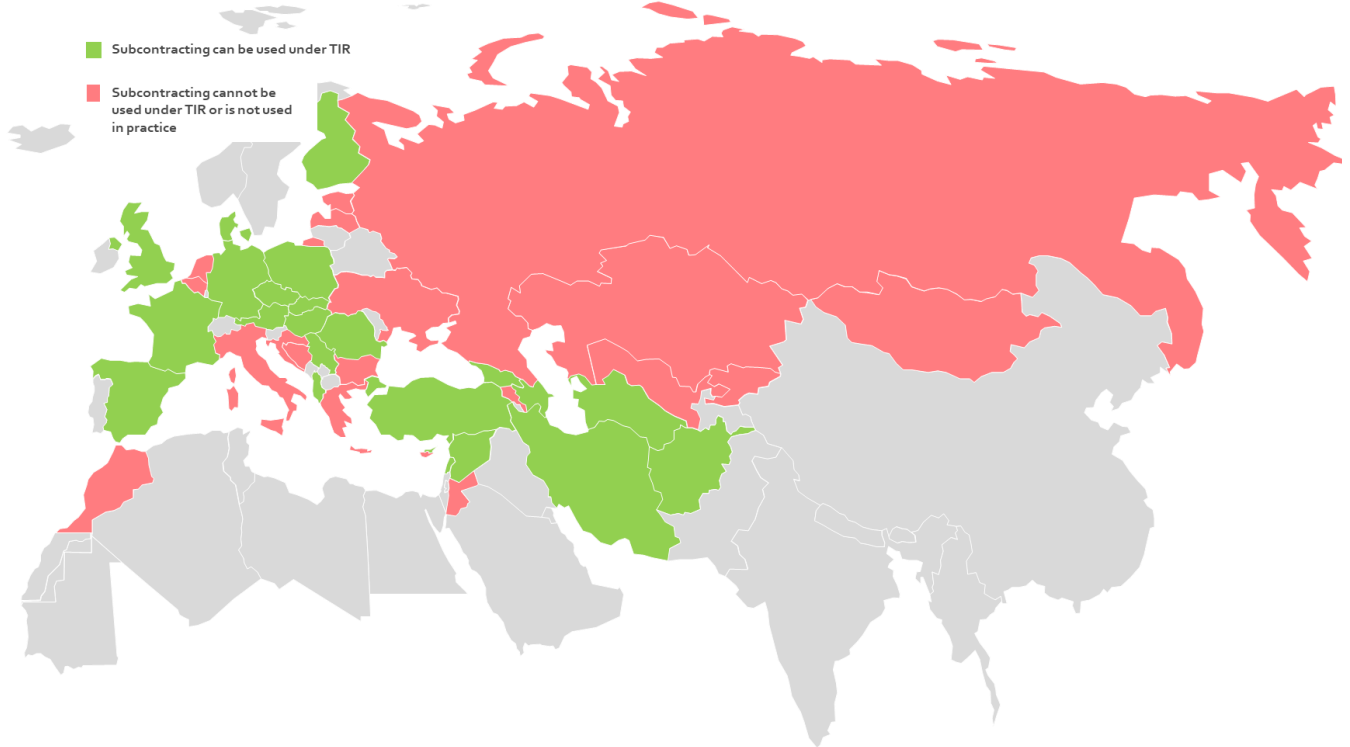
At present, subcontracting is used in the framework of TIR transports, although such a use is not defined in the TIR Convention. A survey among customs administrations and national associations conducted in 2008, established that many contracting parties permit the use of subcontractors within the context of the TIR Convention, under the condition that, in case of an infringement, the TIR Carnet holder will be held liable, often together with the subcontractor. Various national associations, with the approval of IRU, supported this approach by offering special arrangements between interested TIR Carnet holders and (a selection of) subcontractors. IRU applies specific rules related to the use of subcontracting to ensure the security of the TIR system for both customs duties and taxes as well as for the commercial risks of the parties involved.

At the same time, there are countries which do not accept the use of subcontractors. Their concerns mainly relate to the liability and application of Article 38 of the TIR Convention (exclusion) in the case of irregularities. Some also consider granting the right to use TIR Carnets to a transport operator who has no access to the TIR procedure would not conform to one of the pillars of the TIR Convention, namely the controlled access of carriers to the TIR procedure (Annex 9, Part II).

At the request of TIRExB, the secretariat formulated a comment to Article 1 (o) of the TIR Convention which would, in view of the absence of any legal or practical problem regarding the use of subcontractors and in order to support the uninterrupted use of subcontractors, allow those countries which accept subcontractors to continue this practice.

According to the comment to Article 1(o) of the TIR Convention, adopted by the Administrative Committee in October 2019, some contracting parties accept that, with the consent of the TIR Carnet holder, other persons could perform a TIR transport or part of it by means of a TIR Carnet issued to the TIR Carnet holder. IRU applies specific rules related to the use of subcontracting to ensure the security of the TIR system for both customs duties and taxes as well as for the commercial risks of the parties involved. IRU contractual rules apply both to its relationship with the national associations and to the relationship between the national associations and the transporters. Below figure illustrates the status of the use of subcontractors in TIR contracting parties.

Figure 20 Subcontracting under TIR



Source: IRU

Subcontracting is widely used in international transport operations and can be considered as an integral part of modern logistics practices, especially in the case of long-haul transport. Using subcontractors facilitates international transport and provides a solution for technically complex transport operations. Furthermore, the use of subcontracting in international transport reinforces cooperation between private sector representatives around the world. The use of a subcontractor is crucial in below circumstances:

- a) In intermodal transport, to enhance the efficiency of the transport operation;
- b) As the only option to use the TIR system for new TIR contracting parties (e.g. India);
- c) For technically complex transport operations under TIR (e.g. transport of live animals).

The practice also shows that the wide-spread use of subcontracting would facilitate cooperation between business partners.

B. Authorized consignor-consignee concepts

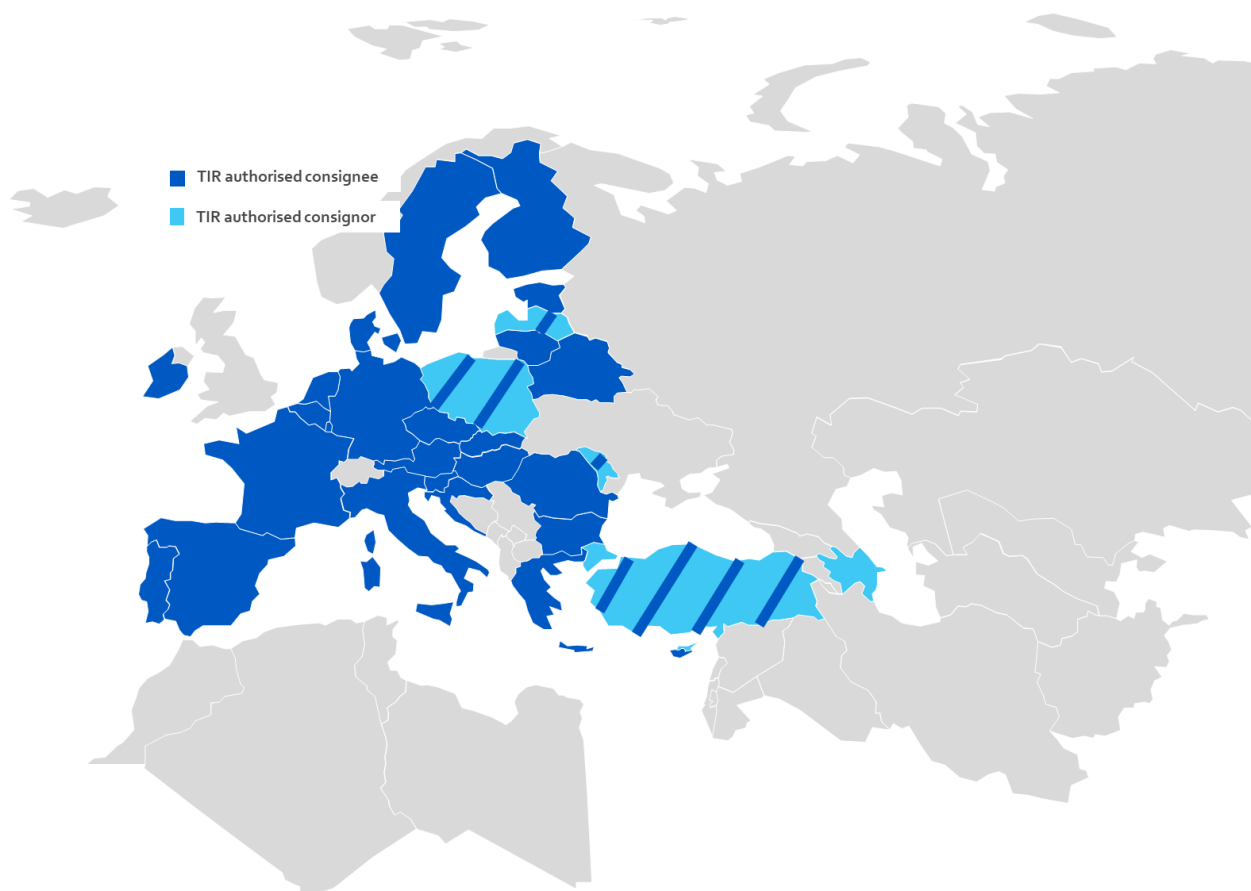
Use of the authorized consignor and consignee concepts in the TIR system would provide practical benefits both to customs and trade for the following reasons:

- (a) formalities can be done outside the working hours of customs offices,
- (b) controls at the start and end of TIR operations are minimized further to risk analysis on the basis of advance cargo information,
- (c) customs procedures are much faster and more focused on high risk consignments,
- (d) the workload of the customs authorities is diminished as well as
- (e) waiting times for transport operators,

- (f)
 (g) there are more accurate deliveries of the goods to customers and
 (h) supply chain efficiency is improved.

It has been a practice for more than a decade in various TIR contracting parties to grant transport operators greater facilities in the application of the provisions of the TIR Convention, in line with national legislation. In this regard, the TIR authorized consignee concept was introduced as a simplification in the European Union as well as some other contracting parties, while the TIR authorized consignor concept was introduced in countries such as Latvia, Poland, Republic of Moldova and Turkey. Below figure illustrates the status of the use of TIR authorized consignor/consignee concepts in TIR contracting parties.

• *Figure 11 TIR Authorized consignor – consignee*



Source: IRU

The practice shows that the granting of these statuses is connected with strict authorization criteria. Criteria usually set for TIR authorized consignors/ consignees are:

- a) Established in a certain territory (of a country, Customs Union);
- b) Regularly performs trade activities/ TIR operations;
- c) No serious or repeated offenses involving customs/tax legislation;
- d) Use a data-processing technique to communicate with customs;
- e) Maintain records to enable customs to carry out controls.

Also, TIR authorized consignor's/consignee's premises are usually located close to the premises of a customs office (of departure or destination), to allow for easy reach in case physical inspection is needed. The actual intermodal transports show that the wide-spread use of TIR authorized

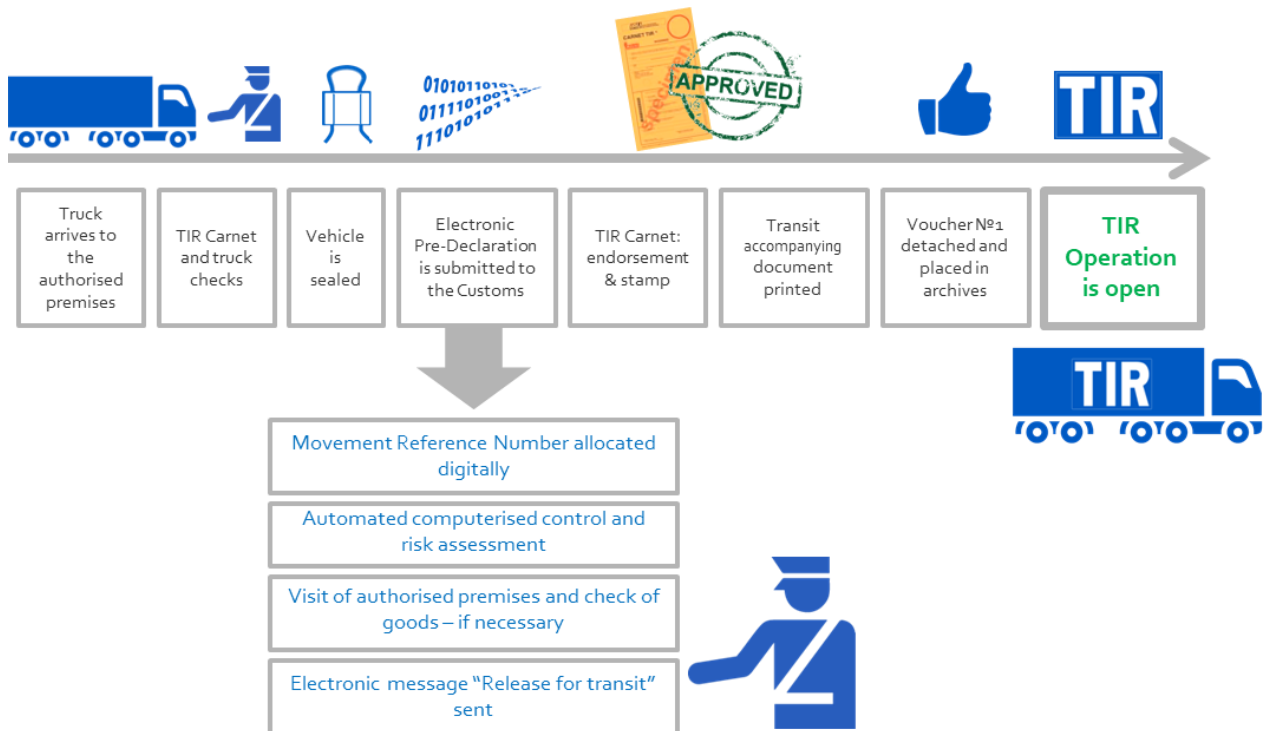
consignee/consignor concepts would facilitate procedures at ports.

The TIR Administrative Committee, in October 2020, adopted an Explanatory Note to Article 49 which

states that contracting parties may grant, in line with national legislation, duly authorized persons greater facilities in the application of the provisions of the Convention. Also taking into account the aforementioned practice by some contracting parties so far, the Explanatory Note stipulates that the conditions prescribed by the competent authorities should, at least, include the application of information and communication technologies to ensure the good conduct of the TIR procedure, the exemption to produce goods, road vehicle, the combination of vehicles or the container with the TIR Carnet at the customs offices of departure or destination, as well as instructions for duly authorized persons to perform specific duties entrusted pursuant to the TIR Convention to customs authorities, such as, in particular, the filling in and stamping of the TIR Carnet and the affixing or checking of customs seals. It is also required that duly authorized persons who have been granted any greater facility should put in place a system of record-keeping, enabling customs authorities to carry out effective customs control as well as to supervise the procedure and carry out random controls.

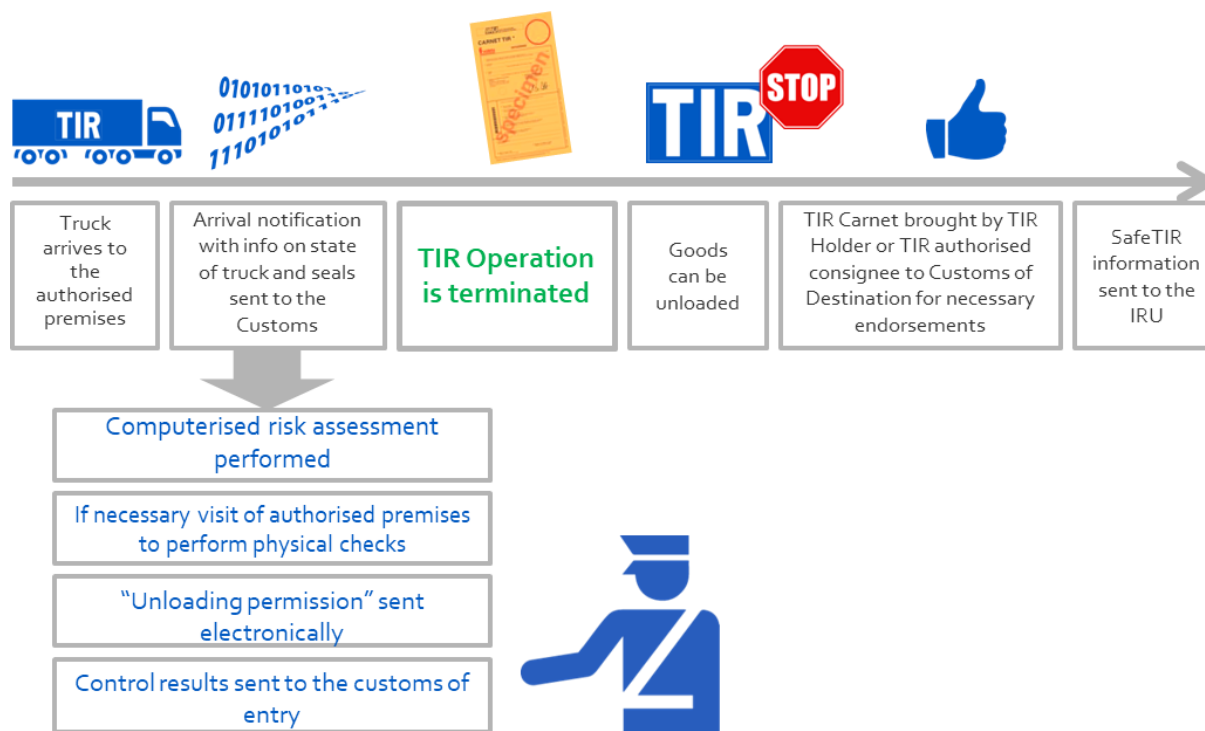
Below are some practical examples of the use of the authorized consignor – consignee.

- *Figure 12 TIR authorized consignor in use: Poland*



Source: IRU

• Figure 13 TIR authorized consignee in use: France

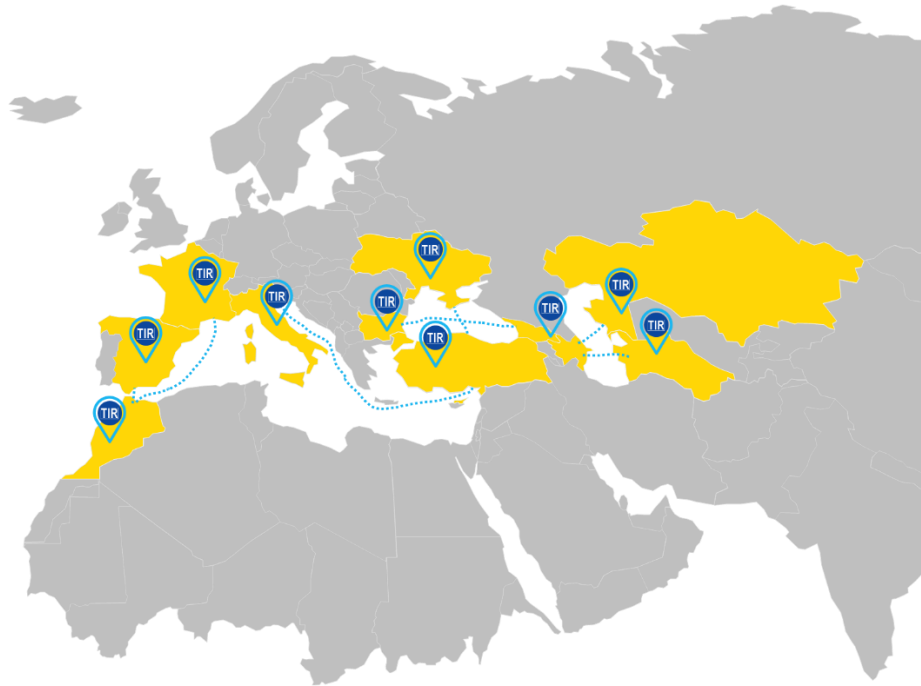


Source: IRU

C. Computerization of the TIR procedure

In various countries, Ro-Ro lines have demonstrated that TIR Carnets can be used for intermodal TIR transports. However, the use of paper TIR Carnets for containerized transport still raises numerous concerns, in particular when the containers are transported by ship. The shipping industry, as well as ports around the world, have efficient computerized systems, in which a procedure based on a paper document would be hard to integrate. Furthermore, considering that there is no agreement on the possibility to allow subcontractors in the framework of the TIR procedure, the submission of a paper TIR Carnet still requires in many countries the physical presence of the TIR Carnet holder or his representative. It goes without saying that such a requirement does not seem compatible with the intermodal transportation of containers as neither the TIR Carnet holder nor his representative will travel with the container once it gets loaded on a ship.

- *Figure 14 RO-RO routes under TIR*



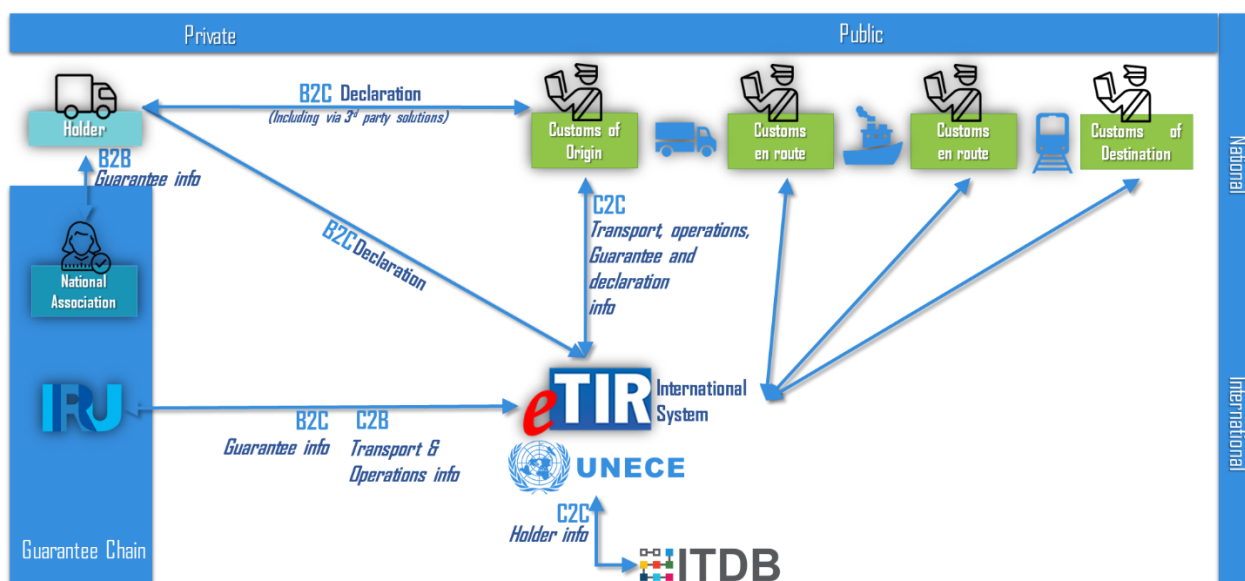
Source: IRU

The introduction of the eTIR system will provide solutions needed to resolve these issues. On the one hand, a seamless TIR information flow will allow all actors along the route of a TIR transport to obtain the information they require, not only in electronic form but also, in most cases, prior to the arrival of the goods. On the other hand, the submission of declaration in electronic format will allow TIR Carnet holders to submit declarations at distance.

So far, the technical specifications of the eTIR international system do not describe any intermodal transport scenario and, therefore, neither the system itself nor the design of it reflect such transportation. It is, therefore, a prerequisite and urgent task for the formal Group of Experts on the Conceptual and Technical Aspects of Computerization of the TIR Procedure (WP.30/GE.1) and / or the Technical Implementation Body (TIB) to start working on this concept and these processes / scenarios in order to ensure that the eTIR international system could accommodate / serve any possible intermodal transport.

The figure below illustrates the functions of the eTIR international system as they have been adopted by the contracting, including some intermodal transport scenarios. This figure serves illustration purposes only, however, clearly shows how the system could work in an intermodal environment.

• Figure 15 eTIR international system and intermodal transport



Source: TIR secretariat

Existing tools for Intermodal Transport - the case of TIR

A. Maritime transport documents and procedures

The International Maritime Organization (IMO) prepared the Convention on Facilitation of International Maritime Traffic (FAL)¹ whose main objectives are to prevent unnecessary delays in maritime traffic, to aid co-operation between Governments, and to secure the highest practicable degree of uniformity in formalities and other procedures. In particular, the Convention reduces the number of declarations which can be required by public authorities.

As shipping and trade developed and grew in the early part of the twentieth century, so did the paperwork involved. By the 1950s, it was being regarded not simply as an inconvenience but as a threat. The actual number of separate documents required varied from port to port; yet the information on cargoes and persons carried that was sought was often identical. The number of copies required of some of these documents could often become excessive. To the variety of forms and the number of copies required could be added other burdens such as local language translations, consular visa requirements, variations in document size and paper stock used and the necessity for authentication by the shipmaster of the information submitted.

In its Annex, the Convention contains "Standards" and "Recommended Practices" on formalities, documentary requirements and procedures which should be applied on arrival, stay and departure to the ship itself, and to its crew, passengers, baggage and cargo.

The Convention defines standards as internationally agreed measures which are "necessary and practicable in order to facilitate international maritime traffic" and recommended practices as measures the application of which is "desirable".

¹ <https://www.ifrc.org/Docs/idrl/I258EN.pdf>

The Convention provides that any Contracting Government which finds it impracticable to comply with any international standard, or deems it necessary to adopt differing regulations, must inform the Secretary-General of IMO of the "differences" between its own practices and the standards in question. The same procedure applies to new or amended standards.

The IMO Standardized Forms (FAL 1-7): Standard 2.1 lists the documents which public authorities can demand of a ship and recommends the maximum information and number of copies which should be required. IMO has developed Standardized Forms for seven of these documents. They are the:

- IMO General Declaration
- Cargo Declaration
- Ship's Stores Declaration
- Crew's Effects Declaration
- Crew List· Passenger List
- Dangerous Goods

Two other documents are required under the Universal Postal Convention and the International Health Regulations.

The general declaration, cargo declaration, crew list and passenger list constitute the maximum information necessary. The Ship's Stores Declaration and Crew's Effects Declaration incorporate the agreed essential minimum information requirements.

DOCUMENTS ON ARRIVAL

Standard. In respect of the arrival of a ship in a port, public authorities shall not require more than:

- 5 copies of the General Declaration
- 4 copies of the Cargo Declaration
- 4 copies of the Ship's Stores Declaration
- 2 copies of the Crew's Effects Declaration
- 4 copies of the Crew List
- 4 copies of the Passenger List
- 1 copy of the Maritime Declaration of Health.

DOCUMENTS ON DEPARTURE

Standard. In respect of departure of a ship from a port, public authorities shall not require more than:

- 5 copies of the General Declaration
- 4 copies of the Cargo Declaration
- 3 copies of the Ship's Stores Declaration
- 2 copies of the Crew List
- 2 copies of the Passenger List.

Recommended Practice. In the Cargo Declaration public authorities should not require more than the following information:

(a) on arrival

- Name and nationality of the ship

- Name of master
- Port arrived from
- Port where report is made
- Marks and numbers; number and kind of packages; quantity and description of the goods
- Bill of lading numbers for cargo to be discharged at the port in question
- Ports at which cargo remaining on board will be discharged
- Original ports of shipment in respect of goods shipped on through bills of lading

(b) on departure

- Name and nationality of the ship
- Name of master
- Port of destination
- In respect of goods loaded at the port in question: marks and numbers; number and kind of packages; quantity and description of the goods
- Bill of lading numbers for cargo loaded at the port in question.

B. Rail transport documents and procedures

In order to present the procedure and the documentation needed to conduct a block train service between Asia and Europe we are using a case study as illustrated in the EATL Study phase III of the Far East Land Bridge (FELB) Company. FELB is specialized in transit railway container transportation on the China - Europe - China route via Zabaikalsk and YuXinOu (Chongqing) Logistics Co. Ltd. which provides regular railway container transportation on the Trans-Kazakhstani China - Europe - China route.

Figure 16 FELB Technology of Container transport between China and Europe / Procedures and Documentation needed



Source: EATL Study Phase III

FELB used border crossing points for cargo heading from China to Europe, such as Brest / Malaszewicze (at the Belarusian Polish border) for cargo transported to Poland, Germany, the Netherlands or Belgium (Dobra / Chop (Slovakia / Ukraine) - to Austria, Czechia, Italy, Slovakia and Slovenia (Zahony / Chop (Hungary / Ukraine) - to Austria, southern Germany and Hungary. Cargo included electronics and automotive manufacturers.

Based on the procedure being described in figure 7, the following documents are being used during the trip:

- Railway bill and accompanying documents as requested by the Agreement on International Goods Transport by Rail (SMGS) in Chinese territory;
- Translation of railway bill in Russian at the borders with Russian Federation (Zabaikalsk);
- Reconsignment point at Brest where SMGS agreement is being replaced by the Convention concerning International Carriage by Rail (COTIF) and a new railway bill (CIM) is being prepared;
- Issuing of T1 document in Duisburg (Germany) and traveling to final destination by truck;

C. Documents / Procedures prepared by World Customs Organization

The World Customs Organization (WCO) administers the revised Kyoto Convention (RKC), the ATA² System (ATA and Istanbul Conventions), the Customs Convention on Containers 1972, and other conventions and programmes concerning export controls.

The Revised Kyoto Convention

RKC provides a comprehensive set of uniform principles for simple, effective and predictable customs procedures with effective customs control. The International Convention on the simplification and harmonization of customs procedures (as amended), known as RKC is the blueprint for modern and efficient customs procedures in the twenty-first century.

RKC elaborates several key governing principles- chief among these are the principles of:

- transparency and predictability of customs actions;
- standardization and simplification of the goods declaration and supporting documents;
- simplified procedures for authorized persons;
- maximum use of information technology;
- minimum necessary customs control to ensure compliance with regulations;
- use of risk management and audit based controls;
- coordinated interventions with other border agencies;
- partnership with the trade.

RKC promotes trade facilitation and effective controls through its legal provisions that detail the application of simple yet efficient procedures. RKC also contains new and obligatory rules for its application which all contracting parties must accept without reservation.

The ATA System (ATA and Istanbul Conventions)

The ATA is a system allowing the free movement of goods across frontiers and their temporary admission into a customs territory with relief from duties and taxes. The goods are covered by a single document known as the ATA Carnet that is secured by an international guarantee system. With this system, the international business community enjoys considerable simplification of customs formalities. The ATA Carnet serves as a goods declaration at export, transit and import. In addition, no import duties or taxes are collected for the temporary importation of goods covered by the system since an internationally valid security has been established by the national associations issuing the ATA Carnets. These national associations are approved by customs and are affiliated to an international guaranteeing chain administered by the International Chamber of Commerce World Chambers Federation (ICC/WCF).

E-Commerce Package

The E-Commerce Package includes the Framework of Standards on cross-border e-commerce as well as documents supporting its implementation. The Framework of Standards is intended to provide global baseline standards to assist customs and other relevant government agencies in developing E-Commerce strategic and operational frameworks supplemented by action plans and timelines. It will be equally useful for members that are seeking to enhance existing frameworks in order to effectively meet the requirements of new and evolving business models.

The Framework provides the standards for the effective management of cross-border E-Commerce from both facilitation and control perspectives. Overall, the Framework:

- Establishes global standards to promote certainty, predictability, transparency, safety and security, and efficiency in the E-Commerce supply chain.
- Promotes a harmonized approach to risk assessment, clearance/release, revenue collection, and border cooperation in relation to cross-border E-Commerce.
- Establishes a standardized framework for advance electronic data exchange between E-Commerce stakeholders and customs and other relevant government agencies with the aim to facilitate legitimate shipments, providing a more level -playing field for various stakeholders.
- Seeks to strengthen co-operation between customs administrations, other relevant Government agencies and other stakeholders involved in cross-border E-Commerce.

WCO–UPU cooperation

WCO has also cooperation with the Universal Postal Union (UPU), institutionalized through the Contact Committee established in 1964, on issues related to the clearance of postal items through customs.

This joint committee develops procedures and publications to guide post and customs work at the national and international level. The two organizations also engage in joint capacity-building projects, organizing workshops on postal customs issues for developing countries. In 2018, **WCO–UPU Postal Customs Guide** was issued as an information source for post and customs administration staff dealing with postal customs clearance.

This WCO–UPU Postal Customs Guide (guide) is a joint WCO–UPU tool, envisaged as a "living document" that can be easily updated as experience is gained or conditions change. The guide is an information source for Posts and for Customs Administration staff dealing with postal customs clearance. For Posts, it is intended as a means of acquainting staff with the various aspects of the

postal supply chain's customs component and with the different WCO standards, instruments and tools. For Customs Administrations, the guide will help staff responsible for postal customs clearance (rapidly increasing work for Customs Administrations) to become more familiar with the postal processes involved in the international exchange of mail. This document also seeks to form a common basis for dialogue and discussion at the national level between the Designated Operators (DOs) of Universal Postal Union (UPU) member countries and Customs Administrations of the World Customs Organization (WCO). The 2018 edition of the WCO–UPU Postal Customs Guide has been approved by the WCO–UPU Contact Committee. It is available on the Customs section of the UPU website (www.upu.int) and on the WCO website (www.wcoomd.org).

D. The Bureau International des Containers

The Bureau International des Containers (BIC) was founded in 1933 as a neutral, non-profit, international organization whose mission is to promote the safe, secure and sustainable expansion of containerization and intermodal transportation.

Publisher of the BIC Code Register since 1970, BIC was appointed by the International Organization for Standardization (ISO) in 1972 as the industry's global container prefix registry, a role further endorsed by international customs conventions, and currently has over 2300 container-operating members in more than 127 countries.

Today, the BIC code is the “international calling card” of nearly every container in international trade, allowing for proper identification and facilitating the crossing of borders without delay. With a mission to promote the safe, secure and sustainable expansion of intermodal transportation, BIC enables professional dialogue amongst its members, standards bodies, governments and other industry organizations. According to ISO Standard 6346 (Freight Containers-coding, identification and marking), BIC, with the assistance of a worldwide network of National Registration Organizations, assigns an owner code to every container owner or operating company. These codes are listed in the official ‘CONTAINERS BIC-CODE’ Register.

Recently, BIC launched the BoxTech Global Container Database to help improve efficiency and safety in the supply chain, and to help simplify compliance with SOLAS container weight reporting requirements. BoxTech Global Container Database allows for the efficient sharing of the technical details of containers, including container tare weights for SOLAS VGM declarations. BIC is also responsible for the creation, registration, and publication of the LO-Codes which provide a structured coded geographical identification of each facility of every company working in the container industry.

E. International Federation of Freight Forwarders Associations (FIATA)

The main objectives of FIATA are:

- to unite the freight forwarding industry worldwide
- to represent, promote and protect the interests of the industry by participating as advisors or experts in meetings of international bodies dealing with transportation
- to familiarize trade and industry and the public at large with the services rendered by freight forwarders through the dissemination of information, distribution of publications, etc.
- to improve the quality of services rendered by freight forwarders by developing and promoting uniform forwarding documents, standard trading conditions, etc.
- to assist with vocational training for freight forwarders, liability insurance problems, tools for electronic commerce including electronic data interchange (EDI) and barcode.

FIATA has created several documents and forms to establish a uniform standard for use by freight

forwarders worldwide. The documents are easily distinguishable as each has a distinctive colour and carries the FIATA logo.

- FIATA FCR (Forwarders Certificate of Receipt)
- FIATA FCT (Forwarders Certificate of Transport)
- FWR (FIATA Warehouse Receipt)
- FBL (negotiable FIATA Multimodal Transport Bill of Lading) List of issuing Associations
- FWB (non-negotiable FIATA Multimodal Transport Waybill) List of issuing Associations
- FIATA SDT (Shippers Declaration for the Transport of Dangerous Goods)
- FIATA SIC (Shippers Intermodal Weight Certificate)
- FFI (FIATA Forwarding Instructions)

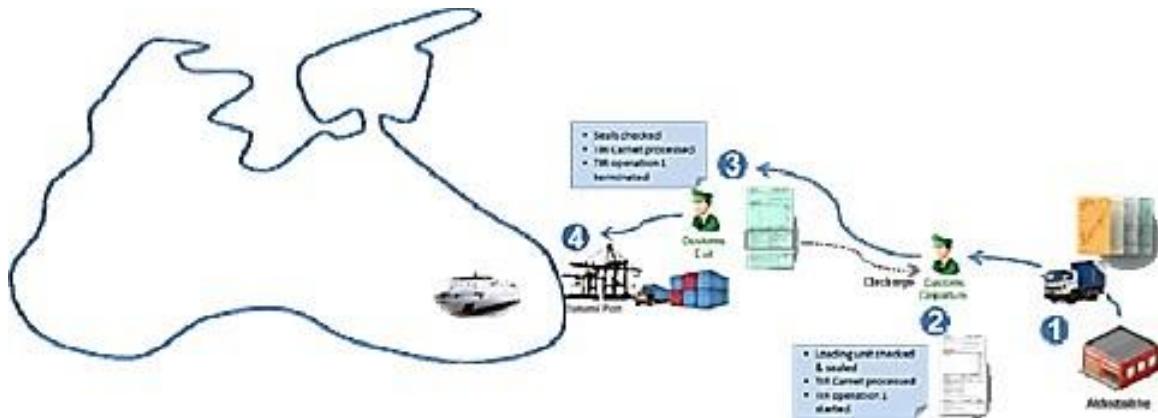
FIATA is taking considerable steps towards the digitalization of its main transport documents, mainly with the help of UN/CEFACT, that is being operated by the UNECE Trade Division. The mapping of the FIATA Bill of Lading with the UN/CEFACT Multimodal Transport Reference Data Model has already started and the expert group is already working towards its finalization.

F. The case of TIR Carnets for both Maritime and Rail transport

According to Article 2 of the TIR Convention, as long as some portion of the journey between the beginning and the end of a TIR transport is made by road, other modes of transport (railways, inland waterways, etc.) can be used. During a non-road leg, the holder of a TIR Carnet may either:

- ask the customs authorities to suspend the TIR transport in accordance with the provisions of Article 26, paragraph 2 of the Convention. In order to resume the suspended TIR transport, customs treatment and customs control should be available at the end of the non-road leg. If the whole part of the journey in the country of departure is not made by road, the TIR operation may start and be immediately certified as terminated at the customs office of departure by tearing off both vouchers No. 1 and No. 2 of the TIR Carnet. Under these circumstances, no TIR guarantee is provided for the remainder of the journey inside this country. However, the TIR transport could be easily resumed at the customs office situated at the end of the non-road leg in another contracting party in accordance with the provisions of Article 26 of the Convention;
- or use the TIR procedure. However, in this case the holder should take into account that a TIR operation in a given country may apply only in case the national customs authorities are in a position to ensure the proper treatment of the TIR Carnet at the following points (as applicable): entry (en route), exit (en route) and destination. {TRANS/WP.30.AC.2/67, paragraph 64 and Annex 4}.

Figure 17 Example of an intermodal TIR transport



Source: TIR secretariat

There are different types of containers used for intermodal transport. However, it is estimated that 90 per cent of the intermodal containers are “general purpose” containers, mostly with sizes of 20’ or 40’ feet. The current scenario applies to most types and uses of intermodal containers, as long as they are approved for transport under TIR.

In this scenario, a TIR Carnet holder gets the assignment to transport a container from Akhaltsikhe (Georgia) to an inland destination in Ukraine. The filling in of the TIR Carnet follows the same procedure as used for a standard road transport: the name of the authorized TIR Carnet holder will be inserted in Box No. 3 of the cover page and the identification number of the container, if applicable in Box 10.

The procedure to be taken by the customs office of departure also follows the same procedure as used in a standard road transport: customs authorities check the load on the basis of the information contained in the TIR Carnet (goods manifest) completed by the authorized TIR Carnet holder, seal the container, inscribe the seal number in the TIR Carnet, tear out Voucher No. 1 and fill in counterfoil No. 1 (See Article 19 of the Convention and Chapter 7, III, B (a) of the TIR Handbook).

Upon arrival at the port of Batumi (Georgia), customs authorities check the seals, take out Voucher No. 2, fill in the corresponding counterfoil and return the TIR Carnet to (the representative of) the TIR Carnet holder. The container is then loaded on a cargo vessel for the sea transport (See also Chapter 7, III, B (b) of the TIR Handbook).

During the sea leg, the holder of a TIR Carnet may ask the customs authorities to suspend the TIR transport in accordance with the provisions of Article 26, paragraph 2 of the Convention (see Comment to Article 26 “use of the TIR procedure in case a part of the journey is not made by road”). In case of suspension, customs treatment and customs control should be available at the end of the sea leg in order to resume the TIR transport, in accordance with the provisions of Article 26 of the Convention.

The method of transferring (by mail, air or any other way) the TIR Carnet from the customs office of exit en route to the customs office of entry en route is left to the TIR Carnet holder.

After unloading the container from the vessel in the port of Illichevsk (Ukraine), the TIR Carnet is produced at the customs office of entry en route (Article 21 of the Convention). The seals are checked by the customs office, which tears out Voucher No. 1 and fills in counterfoil No. 1 (See also Chapter 7, III, B (c) of the TIR Handbook).

The transport continues until the final destination in Ukraine, where the container and goods are

produced for termination of the TIR operation and final termination of the TIR transport (Article 28 of the Convention). The office of destination removes Voucher No. 2, fills in the corresponding counterfoil and returns the TIR Carnet. Following the usual procedure, the termination is confirmed to the international control system (SafeTIR; Annex 10 of the Convention). The competent customs office then proceeds with the discharge of the final TIR operation (See also Chapter 7, III, B (d) of the TIR Handbook).

In the context of this example, contracting parties are recommended to bear in mind that:

(a) TIRExB, at its thirty-eighth session (December 2008), established that:

- in view of the absence of any legal or practical problem with regard to the use of subcontractors, it did not seem to make sense to propose changes to the TIR Convention;
 - in order to support the uninterrupted use of subcontractors in the future, it seemed appropriate to recommend that, once the customs authorities of the country of departure [entry en route] have accepted a TIR Carnet from another person than the authorized TIR Carnet holder, such TIR Carnet be accepted by the customs authorities of [the same or] other countries involved in a TIR transport without further requirements (see ECE/TRANS/WP.30/2009/4, paragraph 9).
- (b) these considerations have been confirmed by AC.2 at its forty-seventh session (February 2009; see ECE/TRANS/WP.30/AC.2/97, para. 8).

Whether or not a subcontractor can be assigned by an authorized TIR Carnet holder to perform part of a TIR transport, depends on the national legislation of the country concerned. It is a fact that some contracting parties allow, with the consent of their national guaranteeing association, some authorized TIR Carnet holders to subcontract part or the entire TIR transports to a selected number of pre-screened third-party transport operators, whereas others do not. In any case, the use of a subcontractor does not relieve the TIR Carnet holder from his liability in accordance with Article 11, paragraph 2.

The case of postal parcels

According to the comment to Article 3 of the TIR Convention on “TIR procedure and postal items”: “According to Chapter 2 of Specific Annex J to the International Convention on the Simplification and Harmonization of Customs procedures (Revised Kyoto Convention), postal items are not subject to customs formalities whilst they are being conveyed in transit. Therefore, the TIR procedure should not apply to postal items which are defined as letter-post and parcels, as described in the Acts of the Universal Postal Union currently in force, when carried by or for postal services.”

However, due to the rapid expansion of e-commerce and the new guidelines prepared by UPU on establishing an international postal rail transport service, the possibility of using the TIR Convention in this market and, therefore, preparing relevant amendments to the Convention need to be examined.

The rapid expansion of e-commerce is of direct relevance to the container shipping market, given the related implications for consumption patterns, retail models, distribution networks, and transport and logistics, UNCTAD estimates, global e-commerce at almost \$26 trillion in 2016 (UNCTAD, 2018d). Cross-border e-commerce is particularly relevant to shipping and accounts for a relatively smaller share of total e-commerce in general and business-to consumer sales, in particular. According to UNCTAD, such cross-border transactions were worth about \$189 billion in 2015. Dwarfed by the size of domestic business-to-consumer e-commerce, cross-border sales in that year accounted for 6.5 per cent of total business-to-consumer e-commerce (UNCTAD, 2017a).

Nevertheless, business-to-consumer e-commerce, including cross-border transactions, is growing rapidly, and Asia is becoming a major growth area. While data on e-commerce trends in developing countries are difficult to obtain, cross-border e-commerce in China was said to account for up to 20 per cent of total import and export trading volumes (JOC.com, 2017). Elsewhere in the region, the size of e-commerce-related business is much smaller, but is characterized by rapid growth. In India, e-commerce sales were estimated at around \$40 billion in 2016, up from \$4 billion in 2009, while in Indonesia, the market was worth about \$6 billion in 2016. By 2020, 45 per cent of online shoppers are expected to buy goods from other countries. This would represent a fourfold increase in the value of cross-border sales since 2014 (Colliers International, 2017).

Shipping, like other modes of transport, is also part of the e-commerce supply chain. However, the extent to which container shipping is able to benefit from e-commerce trade flows and capture some of the associated gains remains unclear in view of the relatively small share of cross-border business-to-consumer e-commerce flows and the participation of alternative modes of transport. The speed of air transport favourably positions aviation as a better fit for e-commerce trade, notably for high-value and time-sensitive cargo. Rail transport could also gain in market share as illustrated by developments in the China–Europe rail connections and the example offered by the China–Germany service advertised on the Alibaba portal (Colliers International, 2017).

Based on CCTT report there are already several services established for the delivery of e-commerce freight along the Euro-Asian corridors.

Figure 18 Transportation of eCommerce goods



Source: CCTT

In 2018, UPU issued the Guidelines for establishing an international postal rail transport service. Work proposal 010 of the Universal Postal Union's Istanbul Business Plan (2017–2020) provided the following instructions for the UPU Postal Operations Council (POC):

- "Develop detailed procedures for exchanging international mail by rail, including:
- working with the relevant international rail organizations and with WCO to jointly study and develop relevant regulations related to the rail transportation of mail items;
- jointly organizing seminars or workshops with these organizations and WCO with a view to developing and disseminating best practices".

The goal of this mandate is to improve the interoperability of the postal network through transport activities by:

- developing operational standards regarding rail transportation of postal items;
- developing rail transportation processes in cooperation with WCO;
- submitting any proposals to supplement or amend the UPU Acts to the competent UPU bodies for approval, where appropriate.

In March 2017, in line with this mandate, the POC set up a task force for the transportation of postal items by rail.

Promotion of e-commerce

- As the United Nations specialized agency for postal services, UPU is well placed to facilitate international trade and cross-border e-commerce. The current UPU strategy, the Istanbul World Postal Strategy (IWPS), recognizes the importance of this area of activity. IWPS goal 2 (Ensure sustainable and modern products) includes a programme on "e-commerce and trade facilitation".
- Micro, small and medium-sized enterprises (MSMEs) will be able to export their e-commerce goods through this new postal channel.
- In terms of product performance, the major customers of certain designated operators would like to deliver their products end-to-end (E2E) within a reliable time frame (on-time target of 90 per

cent). In order to meet this reliable time frame, designated operators want to ensure that the rail transportation process becomes smooth and stable.

- Online retailers will be able to transport their merchandise at reasonable cost, resulting in increased traffic volumes.
- Posts will be able to send and return merchandise more economically (by rail rather than by air).

New mode of transport for international mail

- UPU designated operators will have a new mode of transport for international mail.
- The postal rail project will help develop universal processes for rail.
- Designated operators will be able to use multimodal transport – rail, truck and air – to expedite conveyance of international mail.

Operational viability

- Rail transport has potential to be faster and more reliable than other means of transport (e.g. sea transport).
- It will be possible to transport large volumes of postal items which are difficult or prohibited to transport by air service.
- Sending postal items by rail will reduce pressure on surface airlifted (S.A.L.) mail.
- The cost of operational procedures will be kept to a minimum to ensure viability.
- EDI and RFID will be applied E2E, for the benefit of all stakeholders.

Security

- Subject to security and safety controls, postal services may be able to send postal items containing lithium batteries by rail when such items cannot be sent by air.
- Affixing seals (electronic or mechanical) on mail containers or carriages at origin will increase security.

Economical and sustainable means of transportation

- Sending postal items by rail will be economical.
- In terms of fuel and carbon emissions, rail is more advantageous than air, including S.A.L. In the interests of environmental sustainability, rail could prove a viable alternative to S.A.L. for non-priority mail. This is in line with the United Nations Sustainable Development Goals and the UPU's IWPS ("sustainable development" is one of the programmes under IWPS goal 3).

Case study: European Union customs law

The European Union customs law was discussed many times during the postal rail project in connection with ongoing pilots from China to Europe. The provisions of the European Union customs law are presented below. It is important to note that this text is not legally binding and is of an explanatory nature. The legal provisions of customs legislation take precedence over the contents of this document and should always be consulted. The authentic texts of the European Union legal instruments are those published in the Official Journal of the European Union. There may also exist national instructions or explanatory notes that need to be considered in addition to this document.

All goods entering the customs territory of the European Union are subject to customs control and remain under customs supervision until their status has been determined.

It is the actual customs office of first entry that will perform the customs control pertinent to safety and security based on the Entry Summary Declaration (ENS) data. Supply of the ENS data is waived for postal items of correspondence (Delegated Act (DA) article 104(1)(c)). For goods in postal consignments, supply of ENS data is waived until the relevant IT system has been updated, and it is waived until 2020 if the goods do not exceed 250 grammes (DA article 104(2)(3)).

Whether ENS data has been provided or not, all goods must be presented at the actual customs office of first entry. From that point onwards, non-Union goods will remain under customs supervision and can move in accordance with the Acts of UPU. The yellow labels are required to identify the non-Union postal items in customs transit. This means that the yellow labels must be affixed by the "intermediate" designated operator to receptacles containing postal items and all related documents when presenting the goods to the customs office of first entry/departure, regardless of the means of transport.

Transit of postal items: Articles 226(3)(f) and 227(2)(f) of the Union Customs Code define the transit of postal items through the customs territory of the European Union. A transit movement may take place:

"(f) under the postal system in accordance with the acts of UPU, when the goods are carried by or for holders of rights and obligations under such acts."

This means that these provisions are limited to the holders of rights and obligations under the UPU Acts and are applicable when the goods are moved in accordance with the UPU Acts.

Under the Acts, a right holder is defined as the designated operator appointed by the member country. A designated operator is any governmental or non-governmental entity officially designated by the UPU member country to operate postal services and to fulfil the related obligations arising out of the UPU Acts on its territory.

It is the designated operator appointed by the member country through which the postal items enter the customs territory who has to present these items to the customs office of first entry for moving them further under the postal system to the customs office of destination.

Case study: possible use of TIR for postal parcels.

COVID-19 significantly reduced or even stopped flights to/from China and postal operators set their sights to other modes of transport and, in particular, rail and road.

The challenges identified with the current practices are as follows:

- A single document (neither CN the postal consignment note docs nor TIR carnet can be used along the whole route from China to an European Union member State). Postal documents are reissued in Poland and Lithuania, where repacking and consolidation of postal parcels is mainly taking place;
- Postal items are transported through the European Union from a point of entry (in Poland or Lithuania) to its final destination without a customs guarantee. Sacks with postal items receive yellow tags instead. It seems (confirmation is required) that this is a temporary solution while the European Union is looking for a permanent solution;
- If the regular TIR or T procedure would apply, then postal items would be treated as "regular" cargo, losing all their privileges (single HS code, simplified customs value, exemption from financial guarantee).

Upcoming changes:

- Starting from 2021, the duty-free limit for postal items in the European Union will be reduced from today's **22 Euro to 0 Euro**. This means that all postal items will be subject to VAT. It also means that

European Union customs will pay much more attention to the calculation of customs value and, consequently, of the financial guarantee needed in case of irregularities;

- Starting from 2021-2022, electronic exchange of information is planned to be organized between China Post and European Union postal services. This means that all information required about the packages and their value should be available while loading in China.

Possible solution for further consideration

The introduction of a new tool which could be called "Postal TIR". The main feature, characteristic of this postal TIR would be that it provides a customs guarantee, covered by the TIR guarantee chain, but this guarantee would be valid within one country or customs union only. For instance, it could be activated at the point/station/post of entry to the European Union and terminated at the point/station/post at destination in the European Union territory.

Practically this would mean the following: the container with the postal items will arrive by train from China at the rail station of entry in the European Union, possibly in Lithuania or Poland, following the current practice. Then it will be "opened", the postal items / sacs / parcels will be consolidated per final destination inside the European Union territory and then the final trip will start either by train or truck to this final destination. The relevant transport documents required for railways or the trucks will be issued. At this stage "postal TIR" could be activated to serve as a transit declaration across the European Union and, possibly more importantly, to provide financial guarantee to European Union customs (most relevant starting from 2021). When arrived at destination "postal TIR" will be terminated based on the standard TIR Carnet procedure. The whole procedure should be fully digitalized.

Benefits for UPU:

- European Union customs will get financial coverage for postal items from the TIR guarantee chain;
- Postal TIR can be fully electronic or combined with paper voucher;
- Postal TIR will be activated after repacking and consolidation in the European Union (Poland or Lithuania) together with the reissued CN33 and CN37;
- IRU has already practical experience of using TIR on the territory of one country under certain conditions. Therefore, the implementation of the proposed solution could be rather quick.

Other benefits:

- No need to open TIR in China;
- No need to change procedures in China;
-

Next steps:

- To launch postal TIR as a pilot if the European Union supports the idea;
- Further analysis should be performed in order to verify that no changes are required either in the European Union Customs Code or in the TIR Convention.
- As a next step, if the first step has been implemented successfully, the start of a TIR transport in China could be considered.

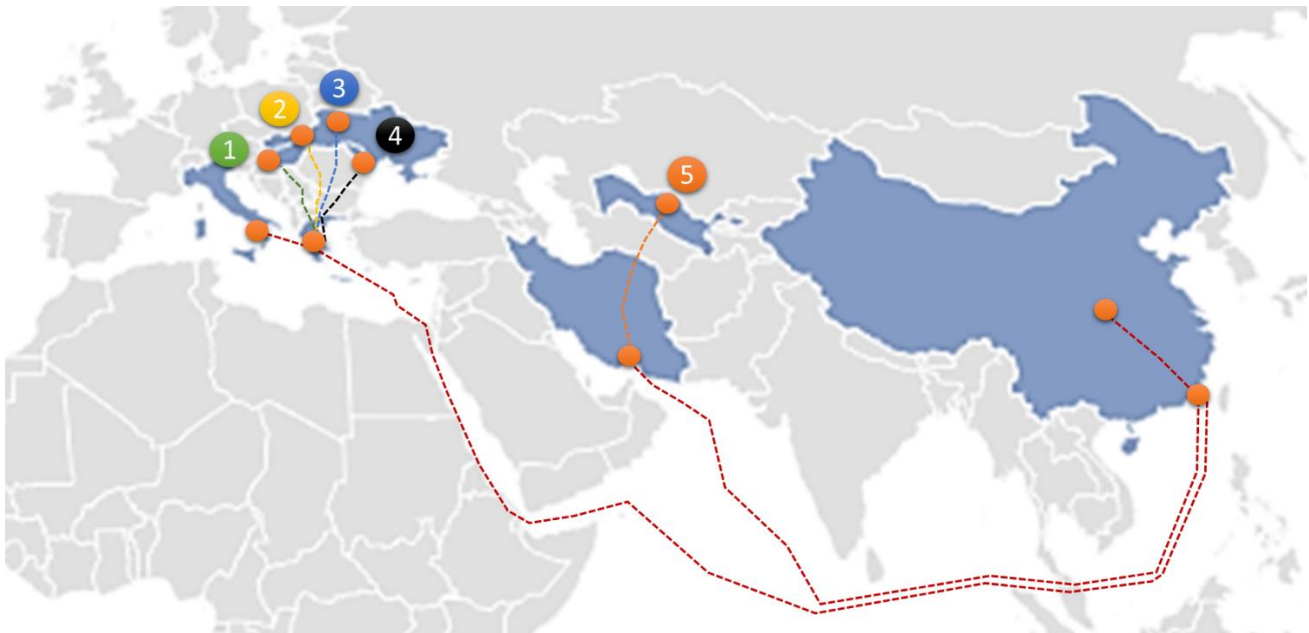
Pilot tests – case studies

A. TIR intermodal transport scenarios

Before presenting some pilot tests undertaken by IRU, with the assistance of several contracting parties, some intermodal transport scenarios are being given in order to present the benefits that existing flows of cargo can have. These transport scenarios include road, maritime, rail and finally road transport. The itineraries as the following figure illustrates are:

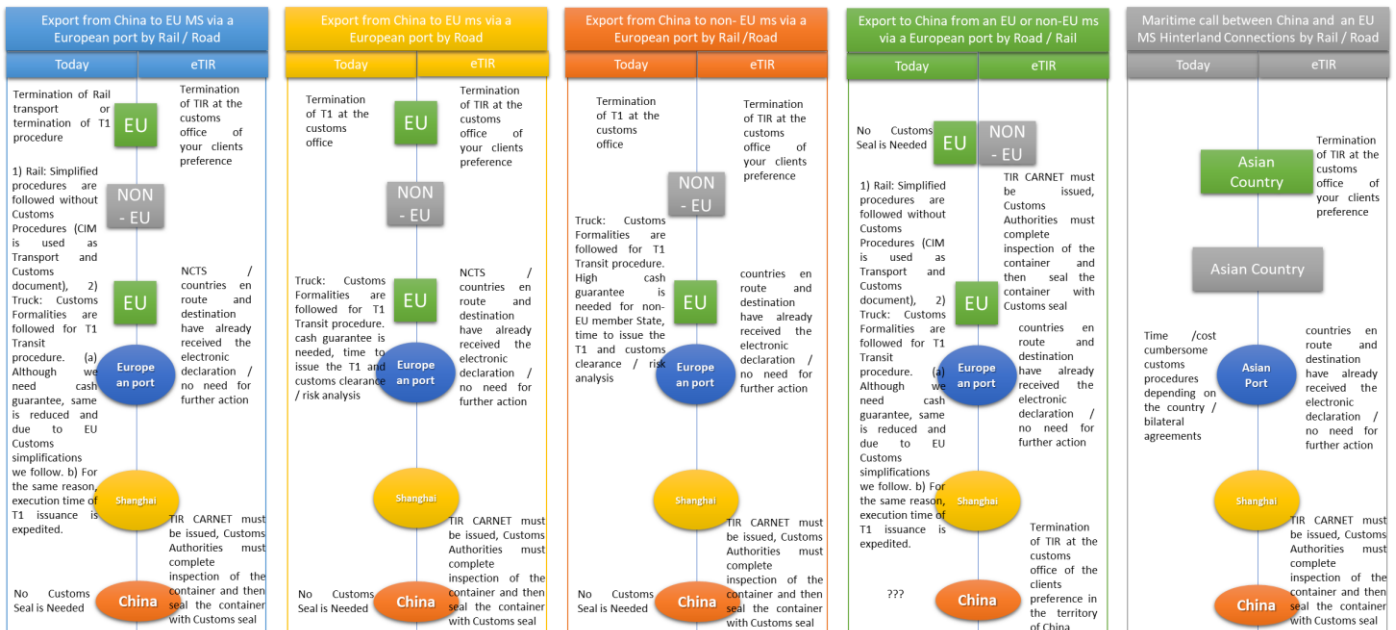
- a) From China to the European Union by maritime transport and then by rail to a European Union member State;
- b) From China to the European Union, by maritime transport and then by road to a European Union member State;
- c) From China to the European Union, by maritime transport and then by rail / road or road to a country outside the European Union
- d) From a European Union member State or a country outside the European Union to China, first by road or road/rail to a European Union port and then by maritime transport to a Chinese port;
- e) From China to a central Asian country by maritime transport to a central Asian port and then by road or rail/road to the final destination.

- *Figure 19 Map of TIR intermodal transport scenarios*



Source: TIR secretariat

Figure 20 Analysis of TIR intermodal transport scenarios



Source: TIR secretariat.

(a) **1st Scenario: export of a container from China to a European Union member State (maritime transport) via a European port and then by rail and road:**

- a. Current situation: No customs seal is needed in China. When the container arrives at the European port then the rail simplified procedures are followed without customs procedures (CIM is used as transport and customs document). For the transportation by truck at the final rail station to the final destination, the T1 customs formalities will be followed. In this case, a cash guarantee is needed. In the end, there is a termination of the rail transport at the final rail terminal and termination of the T1 procedure at the final destination.
- b. With eTIR: TIR Carnet / electronic guarantee must be issued in China and customs must complete the inspection of the container, seal etc. The container will be transported by a truck to a Chinese port. Through the eTIR international system, all customs en route and destination receive automatically the declaration, eguarantee etc. Therefore, practically, when the container under TIR arrives at a European port, independently if it will be transported by rail or by truck and independently if it will be transported through countries outside the European Union being TIR contracting parties, it will be immediately loaded on a train and then a truck or on a truck and it will be transported to the customs offices of its final destination without any other extra costs or formalities.
- c. Conclusion: this scenario considers that all interconnections are there (eTIR – NCTS etc). Practically, in the current conditions, all formalities are taking place at the European port whereas, with eTIR, all formalities are taking place in China. It cannot be established, at this stage, which solution is cheaper, since no tariffs have been established, so far, for the e guarantees. However, it looks like the eTIR scenario can be faster at the European territory, since no formalities are needed to take place. If – theoretically at this stage – eTIR was connected with eCIM or eCMR, then all documents would be issued automatically and no time would be needed to spend in the European port in order for the inland transport to be initiated, except for the

availability of the truck or the train;

(b) **2nd Scenario: export of a container from China to a European Union member State (maritime transport) via a European port and then by road:**

- a. Current situation: No customs seal is needed in China. When the container arrives at the European , the truck customs formalities are followed for the T1 transit procedure. Again, a cash guarantee is needed and, of course, some time to issue the T1 and customs clearance / risk analysis. At the final destination, the termination of the T1 procedure is taking place;
- b. With eTIR: TIR Carnet / electronic guarantee must be issued in China and customs must complete the inspection of the container, seal etc. The container will be transported by a truck to the Chinese port. Through the eTIR international system all customs en route and destination receive automatically the declaration, eguarantee etc. Therefore, practically, when the container under TIR arrives at a European port, independently if it will be transported through countries outside the European Union being TIR contracting parties, it will be immediately loaded on a truck and it will be transported to the customs offices of its final destination without any other extra costs, time or formalities.
- c. Conclusion: our scenario considers that all interconnections are there (eTIR – NCTS etc). Practically in the current conditions all formalities are taking place at the European port where with eTIR, all formalities are taking place in China. Again, it cannot be established at this stage which solution is cheaper, since no tariffs have been established, so far, for the eguarantees. However, it looks like the eTIR scenario can be faster in the European territory, since no formalities are needed to take place and under certain conditions could be more efficient. Also, If eTIR was connected with eCMR, then all documents would be issued automatically and no time would be needed to spend in the European port in order for the inland transport to be initiated, except for the availability of the truck;

(c) **3rd Scenario: export of a container from China to a country outside the European Union(maritime transport) via a European port and then by rail and road:**

- a. Current situation: No customs seal is needed in China. When the container arrives at the European port then the customs formalities are followed for the T1 transit procedure. However, in this case, high cash guarantee is needed for countries outside the European Union and, of course, time is needed to issue the T1 and customs clearance / risk analysis.
- b. With eTIR: TIR Carnet / electronic guarantee must be issued in China and customs must complete the inspection of the container, seal etc. The container will be transported by a truck to the Chinese port. Through the eTIR international system all customs en route and destination receive automatically the declaration, eguarantee etc. Therefore, practically, when the container under TIR arrives at a European port, independently if it will be transported to a country outside the European Union being a TIR contracting party, it will be immediately loaded on a truck and it will be transported to the customs offices of its final destination without any other extra costs, time or formalities.
- c. Conclusion: this scenario considers, again, that all interconnections are there (eTIR – NCTS etc). Practically, in the current conditions, all formalities are taking place at the European port where, with eTIR, all formalities are taking place in China. It seems that, in this scenario, eTIR could be more efficient, since no time is needed and, most

probably, the cost of the eguarantee will be less than the huge amount needed today for the cash guarantee for a country outside the European Union. Again, if eTIR was connected with eCMR, then all documents would be issued automatically, and no time would be needed to spend in the European port in order for the inland transport to be initiated except of the availability of the truck;

(d) 4th Scenario: export of a container from a member State of the European Union or a country outside the European Union, by road and rail to a European port and then by maritime transport to China:

- a. Current situation: no customs seal is needed. The simplified rail procedures with CIM are followed until the train reaches a European port. For the truck, the T1 procedure will be initiated with cash or a huge cash guarantee, depending if the truck starts in a country insider or outside the European Union. Then, formalities are taking place in the European port, in order for the container to be shipped in China. Further formalities are taking place in China in order for the container to reach its final destination;
- b. With eTIR: TIR Carnet / electronic guarantee must be issued in the European Union or in a country outside the European Union being a contracting party to the TIR Convention and customs authorities must complete the inspection of the container, seal etc. The container will be transported by a truck to a European port. Through the eTIR international system all the customs en route and destination receive automatically the declaration, eguarantee etc. Therefore, practically, when the container under TIR arrives at the European port, no other formalities, time is needed and the container could be loaded on the ship. The same will happen at the Chinese port where a truck should take the container to its final destination where termination of the TIR procedure should take place;
- c. Conclusion: this scenario considers again that all interconnections are there (eTIR – NCTS etc) . Practically, in the current conditions all formalities are taking place again at the European port but also at the Chinese port. With eTIR, all formalities are only taking place in the country of origin (inside or outside the European Union). It seems that, in this scenario, eTIR could be more efficient, since no time is needed and most probably the cost of the eguarantee will be less than the amounts needed today for the cash guarantee for a country outside the European Union;

(e) 5th Scenario: maritime call between China and a European port and stop at an intermediary port in Asia with rail /road hinterland connections:

- a. Current situation: in this scenario, the ship starts its trip from a Chinese port and then it stops, for instance, in Bandar Abas port in Iran (Islamic Republic of) because there are some containers to be delivered in Uzbekistan by rail and then by truck to its final destination. Formalities must take place in both the Chinese and the Iranian port. Then it will be transported by train inside Iran possibly until Aprin, outside Tehran, and then the SMGS consignment note should be issued in order for the container to be transported by train to Uzbekistan. Then a truck will take the container based on national rules and transport it to its final destination where formalities will take place if they have not taken place at the rail station;
- b. With eTIR: TIR Carnet / electronic guarantee must be issued in China and customs must complete the inspection of the container, seal etc. The container will be transported by a truck to a Chinese port. Through the eTIR international system all customs en route and destination (Iranian and Uzbek ones) receive automatically the declaration, eguarantee etc. Therefore, practically, when the container under

TIR arrives at the port of Bandar Abbas, a truck without any formalities should take the container to its final destination in Uzbekistan since both countries are contracting parties to the TIR Convention;

- c. Conclusion: definitely in this scenario it is really more competitive compared to the current conditions in both time and cost.

This analysis makes it clear that the eTIR international system, under certain conditions, could be a tool in the hands of big freight forwarders and shipping lines, offering simplified procedures for them and their customers while eliminating costs and time.

B. Intermodal TIR transport of a container involving road and maritime legs from Afghanistan to India via the port of Chabahar (Iran (Islamic Republic of))

Route: Nemroz(Afghanistan)- Chabahar (Iran)- Port of Mumbai(India)/ Port of Mundra(India)

General description of the transport operation

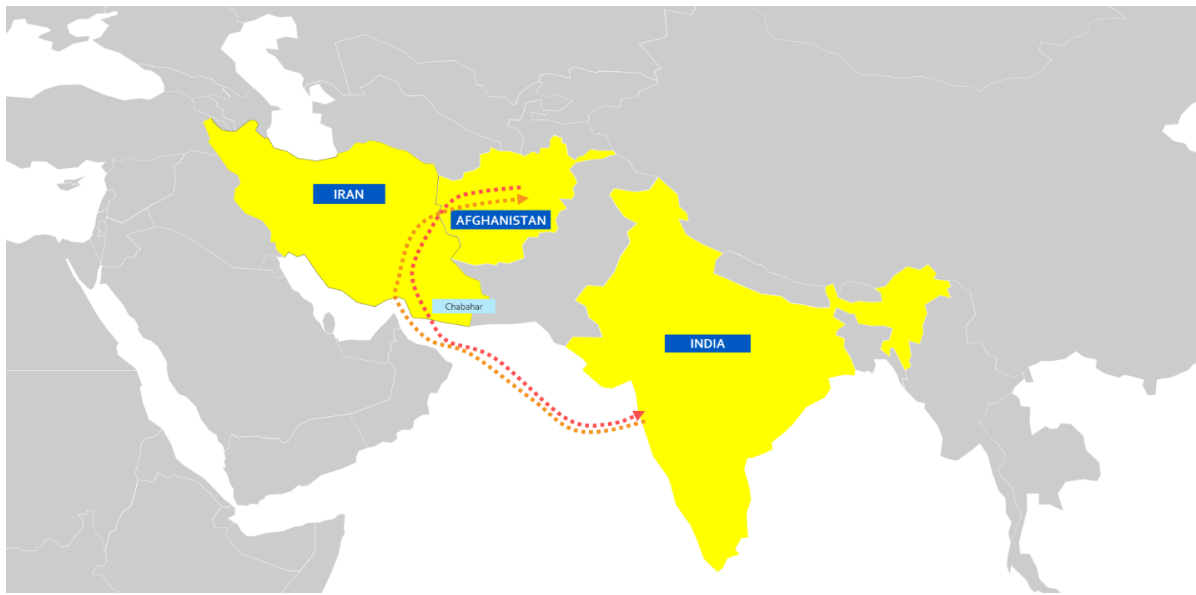
Twenty-three containers (570 tons of goods (moth beans and talc stones)) were shipped from Afghanistan to India via the port of Chabahar in Iran (Islamic Republic of), implementing the Chabahar agreement³.

The goods were transported under TIR based on the following itinerary :

- **Road leg:** Nemroz (Afghanistan) – Milak (border crossing between Iran and Afghanistan) - the port of Chabahar (Iran (Islamic Republic of)) (**TIR in use**);
- **Sea leg:** from Chabahar Port (Iran (Islamic Republic of)) to the port of Mumbai (India) – 8 containers, To the port of Mundra (India) 15 containers (**TIR was suspended during maritime leg**);
- Termination of TIR operation and transit at the port of Mumbai and Mundra.

The transit time between Nemroz in Afghanistan and the Chabahar port in Iran (Islamic Republic of) was 2 days. Furthermore, the maritime route between the port of Chabahar and Mumbai is around 2-3 days depending on weather conditions.

- *Figure 21 Pilot project: Afghanistan to India via the port of Chabahar (Iran (Islamic Republic of))*



Source: IRU

³ The officials of Afghanistan, Iran (Islamic Republic of) and India agreed on 24 December 2018 to fully operationalize the Chabahar transit corridor under the TIR system. The port of Chabahar is seen as an important intermodal hub for the development of trade by India, Iran (Islamic Republic of) and Afghanistan with central Asian countries as well as among the three countries themselves. The route is significantly reducing the land and maritime transport time between Afghanistan and India (up to 20 per cent as claimed by Afghan Ministry of Transport) also solving the issue of absence of transit possibility between Pakistan and India. TIR is seen by the officials of all the three countries as an optimal trade facilitation tool for the development of the Chabahar corridor.

The TIR Carnets used belonged to an Afghan TIR Carnet holder and were issued by ACCI the National association of Afghanistan. In the ports of Mundra and Mumbai, TIR operations were opened and immediately terminated as no further road leg was foreseen in India. However, it is expected to use TIR in the future also for the road leg in the territory of India depending on the further development of this specific corridor. .

. The TIR Carnet holder submitted advance cargo information to all customs via the TIR-EPD application
All stakeholders from the public and private sector were involved in these operations: IRU member associations ACCI (Afghanistan), ICCIMA (Iran), FICCI (India) and the Customs Administrations of Afghanistan, Iran and India.

Organization of the shipment

- 1) Afghan TIR Carnet holder) got an order from an exporter to transport 570 tonnes of moth beans and talc stones in containers to India (ports of Mumbai and Mundra);
- 2) It was decided to choose the newly operationalized Chabahar route and the TIR system;
- 3) ;
- 4) It was exceptionally agreed that after the containers were loaded on a container ship in the port of Chabahar, the respective TIR Carnets were handed over to the crew of the ship, which further passed them to agents in the port of Mumbai and Mundra accordingly. The agents presented the TIR Carnets to customs officers in the ports of Mundra and Mumbai during their check.
- 5) TIR Carnet holder submitted advance cargo information through the TIR-EPD application to all the transit countries- Afghanistan, Iran (Islamic Republic of), and India.

Procedure of TIR handling

- 1) Milak - customs of departure in Afghanistan:**
 - The procedure at the customs office of departure was the same as used in a standard road transport: customs authorities checked the cargo load, based on the information contained in the TIR Carnet (goods manifest) completed by the authorized TIR Carnet holder, the container was sealed and the seal number was added to the TIR Carnet, voucher no. 1. Then, Page 1 was removed, and counterfoil no. 1 was completed;
 - TIR Carnet was returned to the driver. The truck with the container started its journey.
- 2) Milak – customs of exit from Afghanistan:**
 - Customs officers checked the seals, removed voucher no. 2 Page 2 and completed the corresponding counterfoil;
 - TIR Carnet was returned to the driver. The truck with container exited Afghanistan.
- 3) Milak- customs of entry to Iran (Islamic Republic of):**
 - The procedure at the customs office of entry was the same as used in a standard road transport. Customs officers checked the seals, removed voucher no. 1 Page 3 of the TIR Carnet, filled in counterfoil no. 1;
 - TIR Carnet was returned to the driver. The truck with the container exited the territory of the customs office of entry to Iran (Islamic Republic of).
- 4) Chabahar port – customs of exit from Iran (Islamic Republic of):**

- Customs officers checked the seals, removed voucher no. 2 Page 4 and completed the corresponding counterfoil. The TIR Carnet was returned to the driver.
- The driver passed the TIR Carnet to the agent in the port of Chabahar, container was unloaded from the truck and placed in the waiting zone of the port of Chabahar;
- Per arrival of container ship, containers were loaded on board, TIR Carnet was handed over by the agent to a member of crew.

5) The port of Mumbai/ the port of Mundra – customs of entry and destination in India.

- Container was unloaded from the container ship to the waiting area of the port of Mundra/ Mumbai. The TIR Carnet was handed over by a container ship crew member to an agent in the port of Mundra/Mumbai;
- The agent in the port of Mundra/ Mumbai presented the TIR Carnet to the customs officer in the port of Mundra/ Mumbai during check of containers;
- Given that no road leg was foreseen in India in this particular case, a TIR operation was started and immediately terminated at the port of Mumbai/ Mundra. All the respective procedures with the TIR Carnet were done foreseen for the customs of entry and destination.
- Goods were ready to be unloaded.
- TIR Carnets were returned to the agent who shipped them back to the TIR Carnet holder in Afghanistan by post.

Other documents used:

- Sea way bill;
- Packing list;
- Invoice;
- Bill of lading;
- CMR.

All the documents were used in paper

Benefits in the use of TIR

The following benefits of the use of TIR can be summarized, based on the feedback received from the participants of the intermodal TIR transport:

- TIR was used as a single guarantee instrument and transit document in three countries- Afghanistan, Iran (Islamic Republic of), and India vs a potential combination of several guarantee instruments/ bond systems in each of the countries – seamlessness of transport operation.
- Reduced number of documents in use and complexity of transport operations, thereby reducing the transit time and workload for both the transport sector and customs authorities;
- The use of TIR IT tools, such as TIR-EPD allowed to notify the customs on arrival of the goods under TIR in advance, which provided a possibility to analyse potential risks in advance;

C. Intermodal TIR transport of a container involving road, sea and rail legs from the United Arab Emirates to Czech Republic

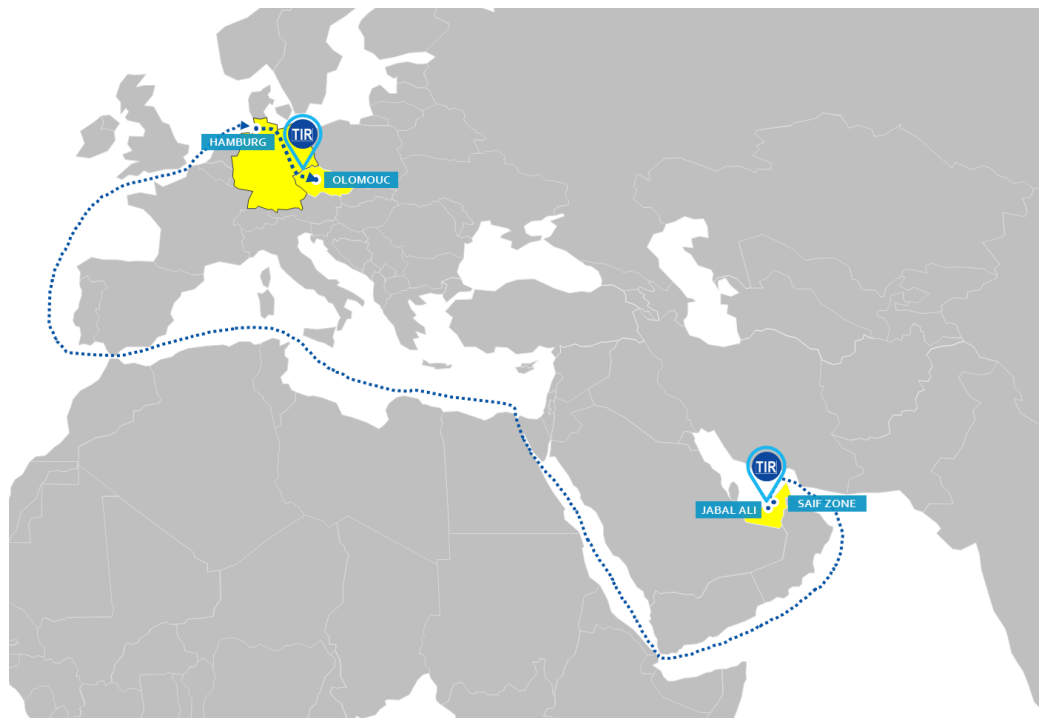
Route: Saif Free Zone – (UAE) – Jebel Ali Port (UAE) – Hamburg Port (Germany) – Ceska Trebova (Czechia) – Olomouc (Czech Republic)

General description of transport operation

The first three intermodal TIR transport operations from UAE were launched at the end of September beginning of October 2018, and reached the final destination at the end of October beginning of November 2018. The itinerary was as follows:

- **Road leg** in UAE: from Saif Zone in Sharjah to Jebel Ali Port (**TIR in use**);
- **Sea leg**: from Jebel Ali Port (UAE) to Hamburg (Germany) - 30 days. Container only was loaded on a cargo ship (**TIR was suspended**);
- **Rail leg** from Germany to Czech Republic: from Hamburg Port to Ceska Trebova rail terminal - 5 days. Container only loaded on a cargo train (**TIR in use**);
- **Road leg** in the Czech Republic: from Ceska Trebova rail terminal until the customs of destination in Olomouc (**TIR in use**).

- *Figure 223 Pilot Project: United Arab Emirates to the Czech Republic*



Source: IRU

The TIR Carnets in use belonged to a **UAE TIR Carnet holder** and were issued by ATCUAE. Both the rail leg from Germany to the Czech Republic and the road leg in the Czech Republic were performed by a subcontractor of the TIR Carnet holder, a Czech company. The name of the subcontractor was indicated in Box 11 on the front cover of the TIR Carnet. The **TIR Carnet holder** remains **liable** for the payment of any customs duties and taxes due.

TIR was in use as transit declaration and guarantee for the payment of customs duties and tax due **during the rail leg** from the port of Hamburg to the Ceska Trebova rail terminal.

TIR IT tools were in use to enhance the security and traceability of the transport operations. The TIR Carnet holder submitted an electronic pre-declaration to all customs, where required, using the TIR-EPD application(UAE, Germany, Czech Republic), which allowed both the TIR Carnet holder and IRU to track the status of the transit via the exchange of respective electronic messages with customs. SafeTIR information was sent by Czech customs via RTS (Real Time SafeTIR) upon the termination of the TIR procedure.

A series of three intermodal TIR transport operations were organized in close cooperation and coordination between the private and public sector: IRU member associations ATCUAE (UAE), BGL (Germany), CESMAD Bohemia (Czech Republic) and the Federal Customs Authority (FCA) of UAE, German and Czech customs administrations.

Organization of the shipment

- 6) A UAE TIR Carnet holder got an order from exporter Indus to transport a container of Miele equipment from Saif free zone (UAE) Olomouc in the Czech Republic;
- 7) In cooperation with the freight forwarder, Germany and the Czech Republic, a decision was taken on a concrete itinerary and the modes of transport to be used;
- 8) After the decision was taken about the concrete itinerary and modes of transport to be used, the freight forwarder in the Czech Republic concluded a contract with -a transport operator who was operating the cargo train from the port of Hamburg and whose truck further transported the container from the rail terminal in the Czech Republic to the customs office of destination in Olomouc. The transport operator was acting as a sub-contractor in this transport operation. The name of the transport operator was indicated in Box. N 11 of the cover page of the TIR Carnet..
- 9) The itinerary and the expected modality of the use of TIR was coordinated with the customs authorities of UAE, Germany and the Czech Republic;
- 10) It was agreed that TIR Carnet would be shipped from the port of Jebel Ali to the port of Hamburg together with the remaining accompanying documents by courier post along with other container accompanying documents.
- 11) The use of TIR IT tools: TIR-EPD was submitted by UAE TIR Carnet holder to all the countries along the route where TIR was used(UAE, Germany and Czech Republic)

Procedure of TIR handling

6) Saif Zone- customs of departure:

- The procedure at the customs office of departure was the same as used in a standard road transport: customs authorities checked the cargo load based on the information contained in the TIR Carnet (goods manifest) completed by the authorized TIR Carnet holder, the container was sealed, the seal number was added to the TIR Carnet, voucher no. 1 Page 1 was removed and counterfoil no. 1 was completed;
- The TIR Carnet was returned to the driver;
- The truck with maritime container exited the Free zone-customs controlled premises to the customs office of departure exit (Jebel Ali).

7) Jebel Ali port – customs of exit (from UAE):

- Customs officers checked the seals, removed voucher no. 2 Page 2 and completed the corresponding counterfoil;
- The TIR Carnet was returned to the representative of the TIR Carnet holder (agent) at the port of Jebel Ali, who then sent the TIR Carnet along with other documents accompanying the container to the agent based in the port of Hamburg.
- The sealed container was submitted to the secured Jebel Ali port yard for loading onto the vessel.

8) Hamburg Port (customs of entry to Germany):

- The container was unloaded from the ship to the waiting area and then onto the cargo train;

- The representative of the TIR Carnet holder (agent) at the port of Hamburg received the TIR Carnet along with other accompanying documents (listed in Section III below) for the container in advance of the arrival of the container. As it was already planned that the container was to continue its journey by rail, the agent had arranged a visit of the remote customs team (Hamburg customs) prior to the departure of the cargo train;
- The remote customs team (Hamburg customs) checked the seals on the container, removed voucher no. 1 Page 3 of the TIR Carnet, filled in counterfoil no. 1 and then returned the TIR Carnet to the agent of the TIR Carnet holder in the port of Hamburg;
- The agent of the TIR Carnet holder in the port of Hamburg sent the TIR Carnet along with all other documents accompanying the container to the agent of the TIR Carnet holder located at Ceska Trebova (where the container was reloaded from the cargo train and onto a truck).

9) Ceska Trebova (rail station):

- The agent provided the truck driver who picked up the container (company of the subcontractor) with the TIR Carnet, who then transported it to the customs of destination;
- The container was reloaded from the cargo train onto a truck belonging to the subcontractor of the TIR Carnet holder ;
- The authorities of Ceska Trebova were informed of the expected container movement and respective details.

10) Olomouc (customs of destination):

- The TIR Carnet was presented by the driver for the termination of the TIR operation and the final termination of the TIR transport to the customs authorities of the Olomouc customs office;
- As per standard procedure at the customs of destination, the seals were removed, the content of the container was checked, voucher no. 2 Page 4 was removed from the TIR Carnet and the TIR Carnet was returned to the driver of the subcontractor of the TIR Carnet holder;
- Following the usual procedure, SafeTIR information was sent and the competent customs office proceeded with the discharge of the final TIR operation;
- The subcontractor of the TIR Carnet holder returned the TIR Carnet by post to the TIR Carnet holder.

Other documents used:

- Sea way bill for multimodal transport
- Packing list
- Invoice
- Bill of lading

All the documents were used in paper.

Benefits in the use of TIR

The following benefits of the use of TIR can be summarized based on the feedback received from the participants of the intermodal TIR transport:

Benefits in the UAE:

- The movement of goods from the customs office of departure - entry, a free zone in UAE (SAIF zone) was performed with no need for the 5 per cent customs duties and taxes deposit based on the invoice value of goods, which reduced financial burden of USD 14,304.00 (i.e) USD 4768 * 3 container = USD 14304.00.
- Since the customs duties and taxes were guaranteed under the cover of a TIR Carnet, an additional document "Exit/Entry Certificate" was not used, saving time and money for the holder ratifying the certificate from the entry and exit customs authorities. The TIR Carnet

itself was used for that purpose.

- Simplified customs clearance procedure and respective savings in UAE at both customs of departure and exit:
 - Saving of cost of customs clearance at Saif Zone (customs of departure - entry) & Jebel Ali (customs of departure - exit) by AED 350.00 (using TIR) vs AED 750.00 (non-TIR)
 - Customs provided priority on inspection for TIR operations (both at the customs of departure and exit), thereby reducing the waiting time to approximately 30-45 minutes vs 2 hours without TIR.
 - Reduced number of steps performed at the customs office for clearance with TIR, whereby the customs stamps were placed on the TIR Carnet, eliminating the use of Exit/Entry Certificate saving time by only 2 hrs with TIR (integrated IT systems) at the customs of exit vs the average 3 days that are spent at the customs of exit to obtain an exit stamp on the "Exit/Entry Certificate".

Other conceptual benefits:

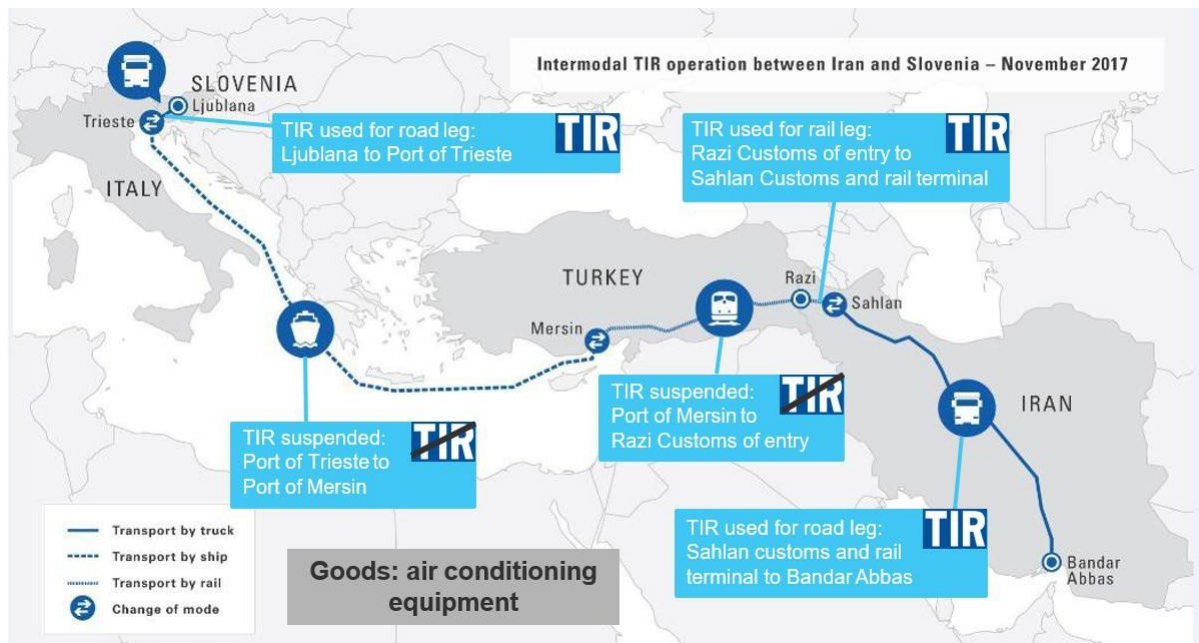
- **TIR was used as a single guarantee instrument and transit document in UAE, Germany and Czech Republic for both road and rail** vs a potential combination of several guarantee instruments in each of the countries and for different transport modes. This contributed to the seamless performance of the intermodal transport, and simplified the number of documents, therefore reducing the workload for both the transport company and customs authorities;
- **The use of TIR at rail road accepted by German customs**
- No cargo inspection at the port of Hamburg, as the container arrived sealed under TIR – the only check performed was to make sure the seals had remained intact and the TIR Carnet was handled;
- **TIR would be even more beneficial** in case of a transport of a container under TIR from UAE with a destination to a non-European Union country. This is because of the need to use a combination of both T1 and other national regimes that would result into considerable additional costs and time spent.

Recommendations

1. Implementation of the facility of TIR authorized consignor in Germany would facilitate the process of TIR handling in the port of Hamburg.
2. Return of TIR Carnets could be done via foreign associations to avoid shipment via couriers.

Figure 23

D. Slovenia-Iran (Islamic Republic of): intermodal TIR transport with TIR used for rail



- TIR Carnet used belonged to a Slovenian TIR Carnet holder (liable for all parts of itinerary where TIR was used).
- The use of TIR IT tools enhanced the security and traceability of the transport.
- Road transport in Iran (Islamic Republic of) was performed by the representative of a Slovenian TIR Carnet holder who is an authorized TIR operator in Iran (Islamic Republic of) (TIR Carnet holder of the Iranian TIR operator was included in Box. 11 of the cover of the TIR Carnet).
- Iranian company asked customs to act as subcontractor.
- Iranian customs accepted TIR as a transit document and a guarantee for rail transport.

Conclusions – recommendations

Conclusions

Some main conclusions could be summarized as follows:

- TIR Convention allows for the intermodal transport of goods, provided that at least one leg of the journey is carried out by road;
- During a non-road leg, the TIR guarantee can be either suspended or continued. When suspended, the TIR transport can be resumed at the customs office situated at the end of the non-road leg;
- The main potential for TIR transport with intermodal aspects could be in rail and maritime Ro-Ro traffic; while the interest and volumes of transport of containers under TIR is growing; There seems to be a lack of knowledge of the treatment of TIR Carnets in case of intermodal transport, both for customs officers and brokers;
- The difference in contractual regimes and consignment notes between the various modes of transport might impede the use of TIR;
- Market is not aware of the possibility that TIR can be used for intermodal transport;
- Asia dominates the container-handling business;
- Eurasian trade is largely transported by sea;
- Some 240 million TEUs were recorded in China, including Hong Kong, China and the Taiwan Province of China;
- A development affecting European ports during recent years was the growing presence of the China Ocean Shipping Company as a principal port investor (Greece, Italy, Spain, Northern Europe);
- An expanding overland route between China and Europe that has already attracted movements of high-value, time-sensitive goods – which previously would have been transported by sea – could shift some seaborne cargo from ship to rail;
- More than 450 routes for block trains operated in member States of the Organization for Cooperation of Railways (OSJD) in 2016;
- The containerized movement of goods is the most efficient and scalable option (apart from Ro-Ro also available) hence the use of subcontracting is an essential component in the intermodal TIR transport of containers;
- Use of the authorized consignor and consignee concepts in the TIR system would provide practical benefits both to customs and trade;
- The shipping industry, as well as ports around the world, have efficient computerized systems, in which a procedure based on a paper document would be hard to integrate;
- Considering that there is no agreement on the possibility to allow subcontractors in the framework of the TIR procedure, the submission of a paper TIR Carnet still requires in many countries the physical presence of the TIR Carnet holder or his representative;
- Introduction of the eTIR system will provide solutions needed to resolve some issues;
- The rapid expansion of e-commerce and the new guidelines prepared by the UPU on establishing an international postal rail transport service create a new opportunity for further use of the TIR Convention and it should be examined;
- The separation of rail infrastructure from operators could possibly create a new market for the TIR Convention for cargo transported by railways;

-
- The different pilot tests performed by IRU illustrated many advantages that the TIR Convention can bring to intermodal transport:
 - Security: sealed load compartments with the possibility to track the transit of containers via eTIR;
 - Possible preferential treatment of containers/ Ro-Ro under TIR in the ports (e.g. Aktau and others to come) – time saver;
 - Access to the network of trusted road transport operators via TIR associations;
 - No physical cargo inspection along the route;
 - Financial benefits and time saving benefits: 1 guarantee instead of a combination of guarantees in different countries (up to several thousand USD per container);
 - Significant delivery time decrease along various itineraries; (4 days saved on container transport from SRB to AZE; 1-2 days saved on Mediterranean route between Turkey and France; 5 days saved on Slovenia-Iran (Islamic Republic of) case, with TIR vs. w/o TIR)
 - Improved utilization of containers due to decreased transport time (up to 33 per cent per container)
 - Only between Europe and Asia there is a market of, at least, 26 million containers (maritime and rail transport) that today are not using TIR and could possibly use it;
 - Furthermore, there are millions of postal parcels due to e-commerce that are moved along the Europe-Asian corridors. Where in the pre-Covid 19 era, postal parcels were moved mainly by planes, during the pandemic considerable quantities of those parcels were moved by trucks and trains along the euro-Asian corridors. This could be a new market for inland intermodal transport as well as for the TIR system;
 - The implementation of eTIR could be an opportunity to facilitate the use of intermodal TIR;
 - Enabler and facilitator of such use would be amendments of the TIR Convention to include subcontractors and authorized consignors and consignees;
 - Not all cases of intermodal transport could benefit from TIR; however, if TIR could attract the 10 per cent of this market, then a new era of growth could start for the TIR Convention;
 - The market exists but the TIR system is not yet ready to serve this market.

Recommendations

TIREXB recommends that:

- A web space is created by the secretariat for informative, educational and knowledge sharing reasons with following features:
 - A dedicated web site / web pages on the intermodal aspects of the TIR Convention which will include all relevant information and will promote the intermodal aspects of the TIR system;
 - Uploading the current study on this web site;
 - Uploading the brochure on the intermodal aspects of the TIR Convention in the three official ECE languages – if possible, in more – on this website;
 - Case studies / pilot projects will be presented and analysed;
 - Guidelines for customs officers and the TIR system will be prepared and uploaded;

- eTIR international system: an analysis and processes that would reflect the intermodal transport is prepared and incorporated first in the technical specifications and then in the system itself,
 - an analysis is prepared by the secretariat in order to examine the possibilities to “electronically connect” any other digital transport documents such as the electronic CIM, SMGS, the eCMR etc with the eTIR International System that would possibly further connect the TIR system with intermodal transport and would make its use more apparent and easy;
 - the cooperation with non-governmental organizations that promote or function as intermodal transport representatives is established by the secretariat– even in the form of Memoranda of Understanding, wherever feasible – in order to promote the TIR system in intermodal transport in a more structured, sustainable and regular way;
 - potential cases and pilot tests are identified by the secretariat, which would facilitate the understanding of the market and customs on how the TIR system can serve intermodal transport and the processes to be followed, and could foster the use of the TIR procedure in intermodal transport;
 - the intermodal aspects of the TIR system is included by the secretariat in its presentations at platforms such as capacity building, workshops, meetings etc. and is promoted by the TIREXB members, representatives of the international organization and the national delegates in their public interventions to the extent possible.
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