Below, the secretariat reproduces, for information of the Working Party, the final draft of the TIR study commissioned by the United Nations Economic Commission for Europe (UNECE) with a view to facilitating strategic improvements of the TIR system and which was undertaken in 2008-2010 by a consulting company, TIS Pt. The contents are the sole responsibility of the authors and do not necessarily reflect the views of the UNECE secretariat. In March 2011, the attached draft was presented to a peer review panel with the participation or contribution of various international organizations (European Union, World Bank, World Customs Organization and International Road Transport Union) as well as experts in their personal capacity, who delivered valuable comments, both of a technical and strategic nature. These comments will be taken into account by the secretariat when preparing a UNECE publication on the basis of the TIR study.

The UNECE publication is planned to be ready as a draft by November 2011.
Annex
INTRODUCTION

CONTEXT

PURPOSE AND OBJECTIVES OF THE TIR STUDY

A. THE ROLE OF CUSTOMS TRANSIT SYSTEMS IN INTERNATIONAL TRADE
   A.1. INTRODUCTION
   A.2. THE ROLE OF TRANSIT SYSTEMS
   A.3. LOGISTICS COMPETITIVENESS

B. RECENT CHANGES IN TRADE AND TRANSPORT CONDITIONS
   B.1. INTERNATIONAL TRADE EVOLUTION
   B.2. GLOBAL SUPPLY CHAINS AND LOGISTICS
   B.3. MARKET STRUCTURE AND MULTI-MODAL TRANSPORT
      B.3.1. Road Freight Transport Market
      B.3.2. Multi-modal Freight Transport and “Door-to-door” Services
   B.4. ELECTRONIC SOLUTIONS
      B.4.1. E-governance in Customs
      B.4.2. E-business
      B.4.3. Other ICT developments
   B.5. SECURITY
      B.5.1. WCO - SAFE framework
      B.5.2. Scanning
      B.5.3. GPS tracking
   B.6. REGIONAL TRADE AGREEMENTS

C. COMPARATIVE ANALYSIS OF THE CURRENT TIR SYSTEM
   C.1. INTRODUCTION
   C.2. COMPARATIVE ANALYSIS OF THE CURRENT TIR SYSTEM
      C.2.1. TIR potential to facilitate transport and trade from/to landlocked countries in line with the objectives of the 2003 UN Almaty Programme of Action
   C.3. FINDINGS FROM THE SURVEY
      C.3.1. Customs transit regimes
C.3.2. TIR and Customs Security ........................................................................................................... 18
C.3.3. TIR and Trade / transport facilitation ......................................................................................... 19
C.3.4. Future of Customs transit, including the TIR system ................................................................. 20
C.4. SWOT ANALYSIS OF THE TIR SYSTEM .................................................................................... 20

D. FUTURE DEVELOPMENTS ............................................................................................................. 23
D.1. INTRODUCTION ............................................................................................................................ 23
D.2. GEOGRAPHICAL COVERAGE AND LINKAGES ......................................................................... 23
D.3. COMBINATION OF TRANSIT GUARANTEES AND SECURITY SAFEGUARDS ....................... 23
D.4. TRANSPORT MODES .................................................................................................................. 24
D.5. ELECTRONIC SOLUTIONS .......................................................................................................... 24

E. ASSESSMENT OF THE TIR: CONCLUSIONS AND RECOMMENDATIONS ................................. 28
E.1. TRANSPARENCY IN THE SETTING OF CARNET PRICES ....................................................... 29
E.2. APPLICATION OF LOWER GUARANTEE LIMITS ...................................................................... 30
E.3. DESIRED EVOLUTION TOWARDS THE ETIR SYSTEM ............................................................ 30
E.4. SELECTION OF THE BASIS FOR THE EVOLUTION TOWARDS THE ETRANSIT SYSTEM (TIR OR NCTS) .................................................................................................................. 31

Index of figures

Figure 1 – Variation of world merchandise exports, production and gross domestic product 1975-2007 ........................................................................................................... 5
Figure 2 - Evolution of logistical integration, 1960-2000 .................................................................. 6
Figure 3 - Number of RTAs from 1948 to 2004 (Source: WTO) ........................................................ 12
Figure 4 - EATL road routes (source: UNECE) .................................................................................. 16
Figure 5 - SWOT analysis .................................................................................................................. 21

Index of tables

Table 1 – Road Transport markets: country comparison ..................................................................... 7
Table 2 – Comparison between TIR advantages and other transit regimes’ advantages ..................... 14
Table 3 – Comparison between NCTS and TIR .................................................................................. 16
Table 4 – Advantages and disadvantages of TIR vs. NCTS as basis for the development of a future global system .................................................................................................................. 27
List of Annexes

ANNEX I    QUESTIONNAIRE
ANNEX II   ANALYSIS OF REPLIES TO QUESTIONNAIRE
ANNEX III  REGIONAL AND NATIONAL SYSTEMS OF CUSTOMS TRANSIT

List of Abbreviations

AEO        Authorized Economic Operator
ASYCUDA    Automated SYstem for CUstoms DAta
ATA        Customs Convention on the ATA Carnet for the temporary admission of goods
CMR        Convention on the Contract for the International Carriage of Goods by Road
EDI        Electronic Data Interchange
EDIFACT    Electronic Data Interchange for Administration, Commerce and Transport
EEA        European Economic Area, formed by EU and EFTA countries
EFTA       European Free Trade Agreement
GATT       General Agreement on Tariffs and Trade
GDP        Gross Domestic Product
IBRD       International Bank for Reconstruction and Development
ICT        Information and Communication Technologies
IRU        International Road Transport Union
ITBD       International TIR Database
NCTS       New Computerized Transit System
OECD       Organization on Economic Cooperation and Development
RFID       Radio Frequency Identification
RTA        Regional Trade Agreement(s)
TIR         Transport International Routier
TIRExB     TIR Executive Board
UNCTAD     United Nations Conference on Trade and Development
UNECE      United Nations Economic Commission for Europe
WCO        World Customs Organization
WTO        World Trade Organization
Introduction

Context

The revitalization of the economies in Europe following the Second World War was at the origin of the TIR transit system, under the auspices of the United Nations Economic Commission for Europe (UNECE). The first TIR Agreement was concluded in 1949 and its success led to the establishment in 1959 of the first TIR Convention. The 1959 Convention was replaced by the current Customs Convention on the International Transport of Goods under Cover of TIR Carnets in 1975 (TIR Convention 1975) which came into force in 1978.

Currently, the system counts 68 contracting parties and its implementation involves more than 3 million transport operations annually. The TIR Convention’s possible enlargement to China is seen as an opportunity for the acceleration of economic development in Central Asia by making landlocked countries of that region an important transit area, in line with the UN 2003 Almaty program of action.

Since its approval in 1975, the TIR Convention has been amended various times in order to keep it up to date and in line with the needs of the road transport industry, turning it into one of the most successful international transport conventions (and in fact the only universal Customs transit system existing).

Purpose and objectives of the TIR study

Over the last two decades major political, economic, structural and technological changes have taken place, which require a strategic review of the current TIR system. This strategic review should take into account not only the existence of other solutions but also give a better understanding of the requirements, from the perspective of its different stakeholders. The objectives of the current study are the following:

1. To undertake a review of the role of Customs transit regimes in international trade and its role in determining the logistics competitiveness of a country;
2. To evaluate the recent changes in trade and transport conditions;
3. To perform a critical and comparative analysis of the current TIR system;
4. To forecast the most probable development in the field of Customs transit procedures, taking as basis a consultation process;
5. To assess the relevance of the current TIR system, indicating the needed reforms and the directions of the future work.
A. The role of Customs transit systems in international trade

A.1. Introduction

Over the last decades, international trade has expanded faster than global GDP. This globalization trend is expected to continue as a consequence of fading barriers. The current re-localization trends may slow down this process, but they will not reverse it.

Moving freight across borders requires the fulfillment of a set of national Customs procedures governed by national legislation, implemented by Customs staff and designed to ensure national security and to guarantee the compliance with national norms and standards; and to generate government revenue through duties and taxes. For some countries it may also serve as a way to protect national industries and services.

Although crucial to international trade, Customs and administrative operations impose costs to governments (e.g. infrastructure, staff) and to businesses (tariffs, documentation, time lost, insurance/hedging) shaping international trade flows. Their restrictiveness, inefficiency or lack of transparency may restrict the global integration of a country or give it a minor role in the global trade network. In particular for landlocked countries, poor transit procedures are a major obstacle to trade and may penalize economies, when shippers may have to comply with different requirements at the different borders.

In the last decades, developed countries (and some developing countries) have made efforts to strike a balance between regulatory control and trade facilitation (i.e. ‘expediting the movement of, release and clearance of goods, including goods in-transit’), for example by replacing routine “gateway” inspections by more focused measures supported by risk management techniques. Moreover, there is now a much bigger awareness worldwide of the importance of trade and transport facilitation measures for the integration of the developing countries into the global trade network. Nonetheless, there are still numerous developing countries that see Customs procedures as a major source of government revenues, and are therefore less inclined to make an effort to facilitate international trade.

International agreements that concern transit traffic (e.g. GATT Article V) advocate the absence of Customs duties and taxes on cargo while in transit. Therefore, a Customs transit regime, while ensuring a tight control of transit cargo, is not supposed to levy Customs duties and taxes on goods originating from and destined to third countries.

Therefore, a Customs transit system should be supported by information and administrative systems that:

- confirm or guarantee the sealing of the cargo;
- impose guarantees to cover due Customs duties and taxes;
- either discharge the imposed guarantees (when the cargo is no more under the Customs transit regime) or activate them in case of non-compliance.
Note that a Customs transit system concerns only the
Customs aspects of transit, while many other restrictions
may apply to transport passing through a given territory.
BOX 1. Some effects of transport delays on costs and performance

- Border-related costs, when importing goods may amount to as much as 15% of the value of the goods being traded;
- Only about a 25% of delays is due to poor road or port infrastructure; 75% is due to non-tariff barriers such as numerous Customs procedures, tax procedures, clearances and cargo inspections - often before the containers reach the port;
- On average, each additional day that a product is delayed prior to being shipped reduces trade by at least 1 percent; The effect is larger on time-sensitive agricultural goods - one day of delay reduces a country’s relative exports of such products by 7 percent on average;
- One-day reduction in delays before a cargo sails to its export destination is equivalent to reducing the distance to trading partners by more than 85km;
- Increasing global capacity in trade facilitation by half, when compared with the global average, would increase world trade by US$377 billion, amounting to a 9.7 percent rise in global trade.

A.2. The role of Customs transit systems

The role of Customs transit regimes in international trade is to guarantee compliance with the established transit procedures; for the transit countries the main objective is to dissuade any attempt to evade Customs duties and taxes (by secretly offloading cargo while formally in transit); for the origin/destination countries the main objective is to check the contents of cargo and decrease fiscal evasion.

Moreover, traders and transporters expect that Customs transit regimes minimize transport costs and delays.

An effective Customs transit regime may reduce cargo checks, leading to lower administrative costs for the transit country and lower transport costs for the origin and destination countries.

The transport industry also benefits from effective Customs transit regimes through the reduction of travel time and administrative costs, and through the bigger number of available itineraries. Since traffic in transit is not slowed down by unnecessary delays or restrictions, by unpredictable charges or discriminatory treatment, the direct and indirect logistic costs may substantially decrease. More transparency and improved reliability of transport times and costs will be beneficial to the transport sector.

Trade facilitation measures and Customs reform programs may promote the economic development of a country, as the increased attractiveness of a Customs transit regime may stimulate new or increased transport flows, which in turn would stimulate secondary economy activity, contributing to a country’s wealth.

However, Customs transit regimes are only a part of the general trade procedures and of the procedures that international transport operations have to follow. Therefore, the logistic competitiveness of a country depends also on the efficiency of other government regulations in place (such as (phyto) sanitary standards, security regimes, technical vehicle requirements and resting times regulations, if any). And, of course, the

---

1 Sources: Trade Facilitation: The Benefits of Simpler, more Transparent Border Procedures; The OECD Policy Briefs; 2003.
Trading on Time; World Bank; Djankov, S.; C. Freund and C. S. Pham, 2006.
quality and quantity of infrastructure is extremely important.

### A.3. Logistics competitiveness

With the advent of global supply chains, smooth Customs regimes are becoming a key factor of a country’s attractiveness to international trade. Countries with weak links to the rest of the world are less able to attract foreign investment (especially if they have few natural resources) and to fully benefit from international trade that could boost their economic development and growth.

Logistics competitiveness refers to the quality and performance of available logistics facilities. According to an IBRD/World Bank study[^2], the key factors to assess the logistics performance of a country are:

- infrastructure quality,
- competence of public and private logistics service providers,
- Customs and other border agencies,
- corruption and transparency,
- reliability of the trading system and supply chains.

The UNECE analysis of country competitiveness and transport also underlines that a country’s capacity to enable its businesses to participate in the supply chains determines the overall competitiveness ranking of the given country.

The inexistence or inefficiency of specific Customs transit regimes undermines a transit country’s logistic performance, which usually has a strong negative impact on the country’s overall logistics competitiveness.

The fact that landlocked countries do not have access to maritime transport has a vast negative effect on the first point (infrastructure quality), as maritime transport nearly always is the cheapest and most far-reaching form of freight transport, with the highest capacity. This usually also means higher supply costs of fuel and other services for that country, making it relatively less attractive. Low performance in this respect could be partly compensated by competent providers, Customs agencies, and low corruption.

Evidence of this is seen in the European Union where the Community transit system, in combination with very good scores on the other key points mentioned above, may allow a landlocked country to have a very high score in logistic competitiveness (Austria ranks 5th worldwide, for example).

B. Recent changes in trade and transport conditions

B.1. International Trade Evolution

In the post war period, the structure of world trade by the 1960s reflected a bipolar world. The fragmentation of this bipolar world, the break-up of the former Soviet Union and the emergence of regional economical agreements shaped the current rearrangement of world trade. Between 1975 and 2007 the world exports have grown 8.6% annually (on average), which was more than twice the average annual world GDP growth (2.9%) in the same period (see Figure 1).

The sustained growth of some East Asian economies supported by exports of high-value products is a renewed proof that trade can be an engine of growth. Recently, Brazil, India and China have emerged as important world players in the global trade network.

China’s outward oriented policies boosted its share of world imports and exports. In 2007, China exported more than 45% per cent of its trade to other Asian countries, while Europe and North America each receive 21% of China’s exports ($264 billions)³.

B.2. Global Supply Chains and Logistics

In the last decades, both logistics and supply chains have undergone major changes (see Figure 2). Especially, the globalization process of the supply chain has been one of the main drivers of change in the logistics field. Other important drivers were unitized transport (in containers or in other logistics units) and transport infrastructure development.

Between the 1960’s and the 1980’s, the manufacturing industry has decreased its cycle time requirements (through productivity gains in production). As a consequence, warehousing costs increased (both in absolute and relative terms, as more products needed to be stored) and logistic costs became a significant part of the supply chain costs. So, the efforts to reduce overall costs now had to consider both production costs and logistics costs, especially warehousing costs.

In the 1980’s the “just-in-time” concept appears as a way to almost completely cut inventories and receive material strictly on demand. This was a major improvement in the

logistic field, completely reshaping the global distribution system. As a consequence, while logistics costs were cut down, the transport segment has grown consistently (both absolute and relative) since inventories are increasingly in circulation rather than in warehouses.

![Figure 2 - Evolution of logistical integration, 1960-2000](image)


Also, as production got more flexible (due to shorter cycle time requirements and “supply-on-demand”), companies sought manufacturing opportunities in developing countries in order to cut costs and be more efficient, leading to increasingly fragmented production activities, expanding the geographical scope of their economic activities. This spatial fragmentation was possible due to systematic reductions of transport costs, economies of scale in distribution, the continuous search for optimal distribution pathways in an increasingly intricate network of global flows and hubs.

The prevalent strategy in this area is to have a concentration of logistics functions in certain facilities at strategic locations (e.g. near highway intersections with easy access to a market area), through the creation of hubs and gateways (e.g. large ports, freight airport terminals, inland hubs) that are ever larger (in particular to large-scale goods flows). To be more efficient in terms of cost reduction by economies of scale, distribution tends to be increasingly planned and operated on the basis of international networks. However, this concentration strategy may become difficult due to physical restrictions (e.g. density, land constraints, and congested traffic arteries). Currently, “Inland Hubs” are gaining a growing importance which might become an opportunity for the transport industry (for example, the Turkish freight transport market might gain from becoming an efficient land link between Europe and Asia).

Recently, the introduction of innovations (e.g. IT developments, containerization), the e-commerce, the growing competition and the democratization of information and communications contributed to the emergence of major players in the logistic field that integrate and control different activities of the supply chain. These players (3PL and 4PL) integrate complex relationships mainly through sub-contracting (vertically or horizontally), smaller and more specialized service providers (warehousing, freight forwarders, insurance corporations and brokers, etc.).

### B.3. Market structure and Multi-modal transport

Intercontinental freight transport is mainly maritime, not only because it is usually the most competitive transport mode for those distances but also because two of the three main intercontinental trade flows are not possible through land-based routes. One exception is the historic land corridor between Europe and Asia, though today it still has little significance in the context of overall trade.
flows between these two regions (e.g., in 2006, China-Europe road trade flows were less than 1% of the overall containerized trade between those two territories, measured in volume terms). High-value transport is also transported by air, which has seen a sustained growth over the last decades.

There are also restrictions to intercontinental freight transport. In addition to geographical constraints, intercontinental freight transport modes and routes are influenced by available trade facilities and political and social circumstances. The maritime share of intercontinental freight transport is significant. However, in some regions or for some products, other transport modes can be more attractive - or even the only option, alone or in combination (e.g. landlocked countries).

B.3.1. Road Freight Transport Market

Currently, the global road freight transport market is dominated by small and medium-sized companies. It is still an un-consolidated and immature market without pure global road freight transport players (UNCTAD 2008). In many countries this is a market with low barriers to national entrants, which might be a reflection of low regulation levels. On the other hand, the lack of international standardization of vehicles and protective measures adopted by some countries (e.g. denied entry of foreign road freight operators) function as a barrier to international road freight operators.

<table>
<thead>
<tr>
<th></th>
<th>Total companies</th>
<th>Total employment</th>
<th>Sales per establishment (million $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>27,140</td>
<td>527,383</td>
<td>0,45</td>
</tr>
<tr>
<td>China</td>
<td>214,759</td>
<td>4,173,177</td>
<td>0,16</td>
</tr>
</tbody>
</table>

Table 1 – Road Transport markets: country comparison

In 2006 China road freight transport market had most establishments; and the US market was the biggest in sales volume per establishment (see Table 1).

As a result of recent trends in regional agreements and in the logistics field, regionally (mainly in the European Union and NAFTA) the road freight transport market has experienced major structural changes, such as mergers and acquisitions, which result in a higher market concentration and the appearance of big regional logistic providers that integrate road freight transport (and affiliated trucking and road transport activities) with other transport modes, searching for the most efficient flow trade pathway. These regional trends are expected to become global trends (some companies are already making efforts in this direction by integrating international maritime transport with rail/road or by integration of air transport with rail/road).

B.3.2. Multi-modal Freight Transport and “Door-to-door” Services

The current global supply chain management paradigm demands a flexible, reliable and efficient freight transport market. As response to these requirements, the global freight transport market is undergoing a major restructuring process. The role of freight forwarders is
changing and the logistics service providers are now the leading market players. Cargo transport management is shifting from a special multimodal transport focus to a trade flows focus. Assessment and operation of each consignment is often taking place on global multi-modal corridors. Containers and similar inter-modal transport units usually linked to maritime freight transport are increasingly being used for land transport.

Thus, coordination between a series of individual operators (maritime, air, road, rail and inland water transport) and regional and country legal requirements is one of the main challenges to current market players and shippers.

Outsourcing “door-to-door” solutions is very attractive since (with a single contract) the responsibility to ensure an efficient and cost-effective management and integration of the chain that interconnects different links or modes of transport (air, sea, and land) is outsourced to a single transport freight operator or integrator. New technologies have made this option far more feasible than it was before.

B.4. Electronic solutions

B.4.1. E-governance in Customs – national approaches

Computerization of national Customs is under way. It is also the main focus of the trade and transport facilitation projects across the world. In this digitalization process, ASYCUDA – developed and delivered by UNCTAD – is a solution from the shelf for many governments, mainly in developing countries, who intend to leap-frog in their Customs modernization program.

ASYCUDA

ASYCUDA is a computerized Customs management system dating back to 1981 which covers many foreign trade procedures. The system handles manifests and Customs declarations, accounting procedures, transit and suspense procedures and it generates trade data that can be used for statistical economic analysis. It uses the international codes and standards developed by ISO, WCO and the United Nations.

The system can be adjusted to adapt to the national characteristics of individual Customs regimes; it provides for Electronic Data Interchange between traders and Customs using EDIFACT rules.

The latest versions of ASYCUDA have modules for both TIR procedure and for the Community transit

B.4.2. E-governance in Customs – international approaches

Several electronic systems are being developed and used to manage Customs procedures and statistics electronically. One risk of developing several systems in parallel is that this may create incompatibilities among regional blocks and through it new barriers to trade facilitation.

The most important international ICT systems that are being used or under development in the field of Customs transit are shown here.

NCTS

E-Governance (governments’ use of information and

---

4 Electronic Data Interchange for Administration, Commerce and Transport
communication technologies) has been on the rise since internet became available for individuals in the middle of 1990s. In the areas of Customs and Customs transit, the most significant development so far has been the introduction of the NCTS (New Computerized Transit System) in operation within the European Union and EFTA countries since May 1⁴, 2004.

The NCTS seeks to enable full control of the "core" transit procedure including the guarantee management and enquiry procedures, with the support of IT facilities. An additional feature will be the incorporation of the data elements required by the security amendment to the Community Customs Code. The system applies to all Common/Community transit operations regardless of the mode of transport concerned, with the exception of simplified transit procedures where a commercial document serves as the transit declaration (such as for example in simplified procedures in air, sea, or rail where, respectively, the manifest or CIM consignment note serves as the transit declaration).

The NCTS system also includes the NCTS-TIR system, which integrates the Community leg of TIR movements into the NCTS⁵.

Besides the control of the EU leg of the TIR movements, NCTS-TIR facilitates the termination/discharge of TIR operations within the EU by replacing the physical return of Voucher No. 2 of the TIR Carnet with the electronic transmission of NCTS messages. A secondary objective is to stimulate the development of the eTIR project currently being developed by the UNECE.

**ITDB**

The International TIR Database is a database managed by the UNECE, TIR secretariat, on behalf of the TIR Executive Board, containing information on all transport operators authorized to use de TIR procedure, filled in by Customs authorities in collaboration with transport associations.

Customs authorities are requested to transmit within one week the particulars of each person authorized or withdrawn from the TIR System. Transport associations are requested to prepare annually a revised list of authorized transport operators (to be checked and forwarded by Customs authorities to the TIR Executive Board).⁶

Authorized Customs officers of Contracting Parties to the TIR Convention can consult the ITDB, through the ITDBonline web application, to obtain information on registered transport operators and their status.

**eTIR**

A computerized TIR procedure is currently being devised in the framework of the eTIR project. Contracting Parties have agreed on the following overall objectives for the project:

- Integrating the computerized TIR procedure in the

---

⁵ given the strong similarities between the data required for both procedures, the application operates entirely within the NCTS infrastructure.

⁶ Source reference: TIR Convention, Annex 9 – Part II, art. 4 & 5
overall process of technological development in international transport, trade and Customs procedures;

- Improving the efficiency and quality of the TIR procedure;

- Reducing the risk of fraud and improving security.

To this end, the eTIR international system, the core of the future eTIR system, will allow both the management by Customs of data on guarantees and the secure exchange of data between national Customs systems related to the international transit of goods, vehicles and/or containers according to the provisions of the TIR Convention. It is important to recall that the management of claims and the information to be provided by Customs authorities to authorized associations (under Article 42ter) and international organizations (under Article 6.2bis), as provided for by Annex 10 to the TIR Convention, are outside the current scope of the eTIR project. Nevertheless, the eTIR project foresees that through the eTIR International system the guarantee chain would receive much more information from Customs than it receives today.

In practice, the guarantee chain will first transmit to the eTIR international system information about the guarantees it has issued to the holders, so that they can be registered in the eTIR international system. The guarantee chain will then receive regular updates on the use of its guarantee and also be able, at any time, to query the eTIR international system on the status of guarantees it has issued and obtain all information on the TIR transports covered by those guarantees.

Customs authorities will use the eTIR international system to check the status of guarantees, assign guarantees to specific TIR transports as well as exchange information related to the TIR transport and to TIR operations with other Customs administrations. Moreover, the eTIR advance cargo information concept complies with the requirements of the sixth Customs to Customs standard of the SAFE Framework of Standards developed by the World Customs Organization (WCO).

The eTIR international system will rely on the International TIR Database (ITDB) to ensure that only authorized holders use the system.

**B.4.3. E-business**

Electronic solutions obviously also affect the industry side of international transport (in fact far more so); one relevant development in this area is the e-CMR.

**e-CMR**

The UNECE Convention on the Contract for the International Carriage of Goods by Road (CMR) is the standard regulation for goods transport contracts; it was established in 1956 and currently has 53 Contracting Parties. In 2008 it has been expanded with an extra protocol that gives the legal framework and standards for electronically recording and storing consignment note data. Besides saving time and money, transport operators will have more streamlined procedures and secure data exchange. This international legal framework for the e-CMR also increases the reliability of identification and authentication of signatures, although it does not provide any information on how the signatures in one country can be recognized in another country.

Consignment notes used in other modes of transport, particularly in aviation (Warsaw Convention, Montreal
Convention) and in maritime transport (Hamburg rules and the new UNCITRAL developed Rotterdam rules) have already become electronic. With regard to railways work is under way to unify the conditions for the carriage of rail freight building on the harmonization of the CIM and SMGS Consignment notes.

B.4.4. Other ICT developments

Another ICT development that is useful both for operational purposes and security issues is RFID which is a system that allows containers, cargo and inventories to be tagged electronically, and from a distance, making the identification process quicker and more accurate. Several companies and institutions now use RFID or even demand their suppliers to use them.

Several Customs agencies are introducing RFID technology, for example in the United States and Australia. The fact that RFID tags can be read from a distance means that far more seals can be checked at a lower cost, compared to physical seals.

WCO Data Model

The WCO Data Model is an important electronic Customs data exchange standard developed under the umbrella of UN/CEFACT. Version 3 of the Data Model provides not only a standard model for Business to Customs information (B2C), including data for other governmental agencies (OGA), but also standards message implementations in both UN/EDIFACT and XML.

B.5. Security

Security issues have become a major issue since 9/11 of 2001, and are having significant effects on Customs procedures. Several initiatives have been launched since, in addition to others that were in place already.

B.5.1. WCO - SAFE framework

The World Customs Organization (WCO) has developed the SAFE Framework, to secure and facilitate global trade. Its core is the use of advance electronic information to identify high-risk containers or cargo. By using automated targeting tools, Customs administrations identify shipments that are high-risk as early as possible in the supply chain, at or before the port of departure.

This will help to secure trade against the threat of global terrorism and, at the same time, it will allow Customs administrations to facilitate legitimate trade and improve and modernize Customs operations. This will, in turn, improve revenue collection and also the proper application of national laws and regulations.

B.5.2. Scanning

A relatively recent phenomenon is the scanning of entire containers in ports. X-ray scanners are able to scan containers and their content without the need to open

---

7 Radio Frequency Identification
8 Such as the United States Department of Defence, Boeing
9 Between 50-100 metres for active RFID, around 10m for passive RFID
10 XML stands for Extensible Markup Language, and is used in web development, often to simplify data storage and sharing.
them, thus speeding up the inspection process considerably. In this way, much higher numbers of containers can be scanned (e.g. 150 containers per hour per scanner in Rotterdam) and drivers can simply drive their lorries through the scanner\(^{11}\).

This system will be mandatory for maritime containers shipped to the United States from 2012 on\(^{12}\), implying huge costs, about $5 million per scanner. It is estimated that the average port will have to invest about $100 million to install and maintain the scanners, far too costly for a large number of smaller ports\(^{13}\). It may well be possible that this system will also be made mandatory on large land border crossings into the US, or on other North American ports. A 100% scanning rate is expected to add $500 to the travel cost of each scanned container, according to the European Commission.

B.5.3. GPS tracking

While scanners may check the content of containers at specific spots, security also needs to be maintained outside these spots. One application that has become increasingly popular is GPS tracking, that can be mounted on lorries as well as on individual containers. In this way, any irregularity in the movement of the cargo can be traced, as the cargo can be tracked at all times, if the data is made available.

GPS tracking obviously comes at a cost, but is also capable of generating additional benefits beyond security: it provides a lot of valuable data to the shipper and to the transport operations manager, leading to increased efficiency and possibly higher reliability, also in the context of just-in-time deliveries.

B.5.4. UNECE addressing inland transport security

A Multidisciplinary Group of Experts on Inland Transport Security (AC.11) was established by UNECE in 2007 to examine threats to inland transport security and provide recommendations on how to tackle them. The group prepared inventories of regulatory initiatives at international and national levels and the inventories of private sector initiatives. The Inland Transport Security Discussion Forum of 2010 made it clear that inland transport is the weakest link in global supply chains and, compared to other modes of transport, inland transport security has not received adequate attention.

If we consider the AEOs in the WCO Safe Framework, it is obvious that the rules have been designed to the needs of manufacturers and traders, while the special role of transport operators has been left unattended. On the European transport market any transport operators have to go through an authorization procedure (unified within the EU and rather similar in the other European countries). In this respect a road freight transport operator first has to meet the three general conditions (good financial standing, professional competence, good repute) to be admitted by the relevant authorities to the “profession”. In addition, if the operator uses the TIR Carnet, further checks are carried out by the industry, i.e. by the national road transport association.

This shows that there are some links between facilitation

---

\(^{11}\) The level of radiation is low; drivers would need to pass through 10,000 times a year to reach maximum legal exposure (source: Port of Rotterdam).

\(^{12}\) As part of the Container Security Initiative.

\(^{13}\) Source: European Commission
and security with regard to the TIR system as well, although of course there are also specifics on both sides.

**B.6. Regional trade agreements**

Besides the big multilateral treaties and institutions that are in place, regional trade agreements (RTAs) have increased in number and size since the creation of WTO, and in particular since the launch of the Doha Work Program. Both developing and developed countries have been actively participating in these processes, nearly all countries belong to at least one RTA and many take part in several RTAs. Figure 3 shows the evolutions of RTAs over time.

The UNECE region has been witnessing the evolution of regional integrations since the start of the UN. The integration process in Western Europe has become mature and the “new borders” have crystallized in the East. The European Union has clear external borders and through the neighborhood program enhanced cooperation is envisaged in many areas of the economy, including Customs. In the Eastern part of UNECE a disintegration process started in the nineties which also left room for new integration initiatives. The launch of the EurAsEC with the participation of Belarus, Russia, Kazakhstan, has the goal to establish a common market similar to the EU. In Central Asia the big number of regional initiatives is often referred to as the “spaghetti bowl” not being clear at this date which cooperation schemes will survive and will result in a Customs union. The newly created Customs Union between Belarus, Kazakhstan and the Russian Federation is so far the best example of integration in the region.

The development of the RTAs can be seen as a first stage in the process of reduction of barriers to transport and trade thus creating a momentum that favors the emergence of a Custom transit regime, possibly leading to an expansion and development of the TIR system.
C. Comparative analysis of the current TIR system

C.1. Introduction

This chapter is devoted to the development of an insight into the TIR system and other Customs transit systems in place with the overall goal to undertake a critical assessment of the TIR system.

A comparison between TIR and other Customs systems (NCTS; The Arab Transit Manifest; the national Customs transit procedures of Belarus, Iran, Russian Federation, Turkey and Ukraine) focused on three main issues: Customs, transport and logistics.

A questionnaire has been sent to a wide range of stakeholders (from transport operators to Customs authorities) in order to collect their perspectives and develop clearer ideas on future developments of the various existing transit systems. The conclusions taken from the 260 replies are annexed to this report.

In addition, we carried out detailed desk research and interviews with key stakeholders.

This chapter findings are therefore based on the desk research, survey results and personal interviews.

C.2. Comparative analysis of the current TIR system

Along with the TIR system, there are other regimes that are used, including national and regional procedures.

Although not a transit system, the CMR Convention (Convention on the Contract for the International Carriage of Goods by Road), must be mentioned here. This is a United Nations convention signed in Geneva on 19 May 1956, with the objective of “standardizing the conditions governing the contract for the international carriage of goods by road, particularly with respect to the documents used for such carriage and to the carrier’s liability”. It is thus associated with a transport document and not with a transit document or procedure. In some countries and under certain conditions, data from the CMR can be used as a transit Customs declaration. This corresponds to a standard from the revised Kyoto Convention regarding data requirements.

Checked by Customs and police, a transport document is required to be present when the shipment is transported. Although this document can be made in any form – there is a minimal of information required and in case of hazardous substances, there is additional information required as described in ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road).
Besides TIR, other transit systems are:

- ATA Carnet (Carnet or ATA Carnet is an international Customs document issued by 70 countries, that is presented when entering a Carnet country with merchandise or equipment that will be re-exported within 12 months. It is sometimes called The Merchandise Passport for boomerang freight);

- Arab Transit Agreement, promoted by the Arab Union of Land Transport, does not consider financial guarantee throughout the transport;

A questionnaire has been circulated by UNECE in order to understand which Customs transit systems are used in Iran, Turkey, Russia, Belarus and Ukraine. In this chapter, a summarized comparison will be made between these five countries (full responses in annex).

When asked about which transit documents are used by road, Iran, Belarus and Russia referred CMR Convention, commercial documents (invoice, packing list) were indicated by Iran, Belarus and Russia, and Turkey, Russia and Ukraine also indicated SAD (Single Administrative Document). Turkey was the only one that
referred ATA Carnet.

About the types of guarantees, all of these countries accept cash deposit and bank guarantees. Iran and Russia said insurance certification, and Belarus and Russia also consider the security of property/goods. Ukraine accepts the guarantee of an independent financial intermediary. Turkey presented various types of guarantees: global guarantee for all kind of Customs transactions, including transit operations, in a single assigned Customs office, and other protocols such as UND (International Transports Operators Association), RODER (Ro-Ro Ship Operators & Combined Transporters Association) and DTO (Maritime Chamber of Commerce).

International cooperation with other Customs administrations is based on several agreements between each country and its neighbors. Iran referred agreements with Turkey, Pakistan, Afghanistan and Turkmenistan, and Russia said that only the agreement with Republic of Belarus has a practical value for its Customs transit.

About the level of computerization, the Customs discharge procedures from all these countries are automated and computerized.

There were also questions about aspects concerning transport issues. From the information provided by Russia, Turkey and Belarus, we know that in these countries access to the system such as obtaining an authorization and vehicle approval is free of charge.

There are nevertheless costs associated with filling in the Customs transit document and Customs brokers’ fees, costs related to Customs escorts and other control measures (see annex).

About the average time required for Customs clearance at inland and border Customs offices, Belarus, Turkey and Russia indicated reasonable waiting times (20 to 40 minutes at the border). In Russia, in inland offices incoming vehicles should be issued a preliminary confirmation of arrival within 2 hours and the final certificate of termination within 24 hours. Ukraine sets a time between 10 minutes and 2 hours.

About the possibility to lodge transit declarations electronically, Belarus and Russia answered that electronic form of Customs transit is not used (in Russia national legislation provides for such a possibility but technical regulations have not been yet established).

**NCTS:**

For international trade within the European Economic Area (EEA), in goods for which Customs duties is applied, the use of the NCTS transit system is compulsory. It is necessary to have the means to send and receive electronic messages to and from NCTS. All traders must input all transit declarations and any other necessary messages such as arrival of the goods, to NCTS electronically. Connected traders receive electronic responses informing of key decisions during the procedure such as acceptance of declaration, release of goods, notification of discharge of liability etc at both departure and destination.

There are two types of procedures available under NCTS: Normal Procedures and Simplified Procedures.

Using the Normal Procedures, any company connected to NCTS is able to lodge declarations at any Office of Departure (OoDep). They also have the facility to ‘pre-
lodge’, i.e. to input a declaration prior to the physical presentation of the goods.

Under the Simplified Procedures, Authorised Consignors / Consignees are able to carry out Community Transit operations without presenting the goods and corresponding documents at the Customs office. They must, however, become connected to the NCTS system and make their declarations electronically.

There are bifurcating differences between the NCTS and the TIR procedure, which are described in the following table:

<table>
<thead>
<tr>
<th>Table 3 – Comparison between NCTS and TIR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographical Scope</strong></td>
</tr>
<tr>
<td>TIR</td>
</tr>
<tr>
<td>NCTS (Community and Common Transit)</td>
</tr>
<tr>
<td><strong>Guarantee systems</strong></td>
</tr>
<tr>
<td>TIR</td>
</tr>
<tr>
<td>NCTS (Community and Common Transit)</td>
</tr>
<tr>
<td><strong>Monetary limits of guarantee</strong></td>
</tr>
<tr>
<td>TIR</td>
</tr>
<tr>
<td>NCTS (Community and Common Transit)</td>
</tr>
<tr>
<td><strong>Selection of guarantors</strong></td>
</tr>
<tr>
<td>TIR</td>
</tr>
<tr>
<td>NCTS (Community and Common Transit)</td>
</tr>
<tr>
<td><strong>Goods Covered by the guarantee</strong></td>
</tr>
<tr>
<td>TIR</td>
</tr>
<tr>
<td>NCTS (Community and Common Transit)</td>
</tr>
<tr>
<td><strong>Pre-selection of transport operators</strong></td>
</tr>
<tr>
<td>TIR</td>
</tr>
<tr>
<td>NCTS (Community and Common Transit)</td>
</tr>
<tr>
<td><strong>Secure vehicles and sealing</strong></td>
</tr>
<tr>
<td>TIR</td>
</tr>
<tr>
<td>NCTS (Community and Common Transit)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td><strong>Physical inspection</strong></td>
</tr>
<tr>
<td><strong>Escorts</strong></td>
</tr>
<tr>
<td><strong>Itineraries</strong></td>
</tr>
<tr>
<td><strong>Time limits</strong></td>
</tr>
<tr>
<td><strong>Electronic procedures</strong></td>
</tr>
</tbody>
</table>
The significant role of the TIR Convention for landlocked countries in Central Asia has been highlighted in the course of the Euro-Asian Transport Links (EATL) joint project between UNECE and UNESCAP. Results of this work are available in the EATL Study\(^{14}\) which has identified the main Euro-Asian road, rail and intermodal routes for priority development and cooperation.

According to the EATL study, the development of infrastructure alone will not achieve the objective of ensuring the smooth and competitive inland movement of goods between Europe and Asia; much work is yet to be done to remove the non-physical obstacles. Greater and more effective effort is required to promote, accede to and implement the international legal instruments relating to transport facilitation in general and in the area of border-crossing facilitation in particular.

![Figure 4 – EATL routes (source: UNECE)](image)

C.3. Findings from the survey

In order to better understand the way the TIR regime is

\[^{14}\) http://www.unec.org/trans/main/eatln_house_study.pdf\]
perceived and assessed in different geographic groups and by different types of stakeholders, a survey was conducted.

A total of 260 survey responses were validated, subsequently categorized according to the geographical location and professional situation of the respondents:

- Geographic group:
  1. EEA Countries that have land border with non EEA Countries (50 replies);
  2. EEA Countries that do not have land border with non EEA Countries (34 replies);
  3. Non EEA Countries that have land borders with EEA Countries (134 replies);
  4. Non EEA Countries that do not have land borders with EU Countries and have maritime access (6 replies);
  5. Non EEA Countries that do not have land borders with EEA Countries and are land-locked (10 replies);
  6. Other/without country information (26 replies)

- Professional situation
  A. Public sector Customs (41 replies);
  B. Public sector non Customs (22 replies);
  C. Transporters and their associations (98 replies, out of which around 80 were from the same non-EEA country);
  D. Shippers and their agents (5 replies);
  E. Other private – probably these are companies that have several roles simultaneously, for instance: shippers + agents, forwarders + transporters. (98 replies).

The professional position of the interviewees was as follows:

- Customs official in an EU member country
- Manager of transport company in a Middle-East country
- Head of Legal Affairs department of an EU country
- Customs inspection quality certification company member
- Former Customs official in an EU member country
- Present and former IRU members
- National road transport association member of an EU country

A fuller presentation of the answers to the survey is presented in Annex III. The following sections present the main highlights arising from the various sections of the questionnaire, complemented by the insight obtained in the detailed interviews.

It is clear that this type of survey, with voluntary response and some representation bias across regions, is not adequate for a classical statistical analysis. Still, the high number of responses and the variety of professional positions from which responses were obtained is of great value if the interpretation of results is made by regional and professional groups, as is the case below.

C.3.1. Customs transit regimes

When asked about how they estimate the role that TIR procedure plays for their country and/or region, 40% of the answers given by respondents from land-locked non EEA countries that do not have borders with EEA
countries (Armenia, Azerbaijan, Jordan, Kazakhstan and Kyrgyzstan) referred that the TIR procedure plays a vital role in their countries.

The TIR procedure is not considered as vital for the EEA countries that do not have borders with non EEA countries, once they use the European Community and/or Common Transit (NCTS) for a large part of their trade. Once confronted with the comparison of the two systems (NCTS vs. TIR), the respondents from these countries showed a strong preference for NCTS.

Besides the countries that are covered by NCTS, only 5% of the respondents referred regional regimes like Arab Transit Agreement (1 reply from Lebanon), ATA Carnet system (1 reply from Belarus) or simplified transit procedures.

There is a significant number of national transit systems in use, more particularly in countries from geographic group 4 (where only Lebanon and Syria do not use a national regime) and geographic group 5 (all countries use a national regime).

When asked to compare the ease of administrative procedures for traders between the TIR regime and the other regimes used in their countries, the respondents presented a strong opinion in favor of TIR. The same question asked with regard to the transporters, the operators from EEA countries are equally split between TIR and the other (i.e. NCTS) regimes, while the ones from other geographic groups are totally in favor of TIR regime. The opinion of non-transporters is significantly in favor of TIR, except for the countries with NCTS.

In relation to the question of which regime is cheaper for traders, there is a strong general opinion in favor of TIR, with the exception of private sector non-transporters from EEA countries that have land border with non EEA countries and Customs officials from EEA Countries that have land border with non EEA countries.

About Customs security, Customs officials from EEA countries are equally split between TIR and other regimes, while others demonstrate a strong preference for TIR. TIR was also considered to be the less time and resource consuming regime for Customs officials, once again with the exception of EEA countries (more than 60% in favor of other regimes, i.e. NCTS).

C.3.2. TIR and Customs Security

In this survey the opinion was asked about eight aspects related with Customs security safeguards, having the options “it should be made less strict”, “it meets requirements” or “it should be strengthened”:

- When asked about TIR guarantee, 75% of all respondents said that “it meets requirements”. However, about 30% of Customs officials indicated that “it should be strengthened”.

- On the question concerning the secure vehicles/containers and Customs sealing, a strong percentage considers that “it meets requirements”. However, 40% of Customs officials answered that “it should be strengthened”;

- Virtually all professional situations from all geographic groups agree with the pre-selection of TIR Carnet holders on the basis of specific criteria. Only 7% of the answers opinion considers that “it should be made less strict”;
• There is also a strong majority giving a “it meets requirements” response to the mutual recognition of Customs controls performed in different countries;

• In relation to the possibility of excluding foreign infringers from the TIR regime (article 38), 75% of the responses were “it meets requirements”;

• On the opinion concerning the supervision of the application of the TIR Convention by the TIR Executive Board, 15% of the respondents considered that they were “not in a position to reply”. A strong majority considered that “it meets requirements”, collecting more than 70% of the answers from all professional categories, with the exception of Customs officials (where the percentage roughly exceeds 50%), and traders (3 out of 5 respondents considered that they were not in a position to reply).

• On the subject of the possibility of online checking the status of authorization of a transport operator, virtually nobody defends that “it should be made less strict”. Customs officials from EEA countries are roughly equally split between “it meets requirements” and “it should be strengthened”, while all the Customs officials from non EEA countries with no borders to EEA countries considered that they were not in a position to reply. About transport operators, respondents from EEA countries and non EEA countries that do not have land borders with EEA countries and have maritime access are equally split between “it meets requirements” and “it should be strengthened”, while in the other geographic groups a strong majority considers that “it meets requirements”;

• Virtually nobody considers that the possibility of online checking the validity of the TIR Carnet should be abolished. On the contrary, a significant percentage of Customs officials and transport operators replied that “it should be strengthened”, especially the ones belonging to EEA countries.

One of the objectives of the survey, as said, was to identify which aspects concerning the TIR regime could be further enhanced or developed. Suggestions were asked about additional Customs security safeguards.

It is noteworthy that the overall average number of suggestions is 1.4 per respondent, clearly indicating a willingness to cooperate in the improvement of the system. The most contributing professional situation across all geographic groups is Customs officials, with an average of 2.7 suggestions per respondent. The most suggested security safeguard was to align the criteria for authorization of the TIR Carnet holders with those of authorized economic operators (AEO), as contained in the World Customs Organization SAFE Framework of Standards. Advanced cargo information coming from Customs of other countries and electronic declaration were also frequently suggested security safeguards. Some respondents inserted very similar sentences mentioning “Electronic declarations are already operational thanks to the free-of-charge IRU TIR-EPD application”.

C.3.3. TIR and Trade / transport facilitation

In general, most of the respondents consider that there is a good balance between the Customs security and safeguards and transport and trade facilitation. Around 20% of the private sector considered that it inclines more towards security safeguarding.
As a system of Customs transit, the TIR procedure addresses only one aspect of border crossing, namely transit of cargo, leaving aside other controls of cargo (e.g. general security, veterinary, sanitary, intellectual property rights, etc.), the issue of transport permits, road taxes, etc. The strong majority of all geographic groups consider the above to be an advantage, as the TIR procedure has a clearly defined scope of application and should not be mixed up with other border crossing issues. However, 32% of the Customs officials consider that that is a shortcoming, as the TIR system could play a more prominent role in border crossing facilitation.

More than 80% of the respondents agree that the TIR procedure and other systems of cargo control should be integrated or at least made compatible with each other, with the exception of the respondents from non EEA countries that do not have land borders with EEA countries and have maritime access, where 3 out of 6 answers disagree with this statement.

A strong majority (more than 80%) of the respondents agree that the TIR procedure should play an important role in the process of integration or harmonization.

The majority of the respondents agree that the TIR procedure provides a “value for money” solution and is affordable even for transport operators in less developed countries. Yet 22% of the respondents did not answer this question. Nevertheless, also 22% of the respondents consider that regional transit regimes are still viable in our era of globalization, especially the ones from Non EEA countries that do not have land borders with EU countries and have maritime access (33% of replies).

C.3.4. Future of Customs transit, including the TIR system

A considerable number of respondents (86%) think that there is a need to further develop or extend the existing Customs transit systems. When asked about which features such a system should benefit from, “paperless environment” was the most referred aspect, followed by “seamless treatment or at least interfacing with other electronic transport and commercial documents (CMR, invoices, etc.) and “multimodal application”. Multimodal application has a strong support among Customs officials.

A question was raised on which current transit regime a future global system should be based. In general, there is a strong opinion in favor of TIR, with more than 70% of the answers collected, including transporters from all geographic groups. However Customs officials and traders from EEA countries prefer the NCTS (52% replies).

In relation to which aspects should be further developed or extended to achieve a future global system, it is noteworthy that the overall average number of suggestions per respondent is 1.5 with many geographic groups above 2.0. The most popular suggestion was to ensure full multimodal application, with 48% of replies. More than 80% of the respondents from non EEA countries that do not have land borders with EEA countries and have maritime access referred “enhance the system with advanced security features” and “make the regime more affordable to less developed countries” the main aspects to be further developed.

For Customs officials, “computerize the procedure” and “advanced security features” were the most suggested aspects. For private transporters, “full multimodal
application” was the most recommended feature, with more than 50% support in all geographic groups.

Globally, 75% of the respondents expect both paper and electronic papers to be accepted in the future, and none of them declines electronic procedures.

C.4. Findings from interviews with key informants

Besides the survey, several interviews to key informants (selected in association with their current job and experience) were made. These interviews, a total number of 8, were made partly orally (in presence or by phone), and partly by email.

Key informants, such as managers and C.E.O.’s and staff from the following organizations were consulted (either orally or by email exchange):

- World Shipping Council
- Turkish Roder Association
- IRU
- IMTT (Land transport and mobility institute in Portugal)
- Portuguese Customs Services
- Société Générale de Surveillance SA (SGS)
- Housami International Group (HIT&C)
- European Commission – Taxation and Customs Union

This process has allowed a deeper understanding of the evaluations and opinions of these actors regarding the TIR system and in more general terms the framework of transit systems and their expected / desired evolution.

Examples of the main findings we have obtained from this process are:

- Several systems were mentioned as potential alternatives to TIR (e.g. Arab transit convention and the on-going convention for multi modal transport between the Arab countries, under the support of Arab League and ESCWA) which may offer to the national truckers interesting flexibilities in terms of cost and equipment and technical specifications;
- The fixed level of guarantee in the TIR system is criticized, namely when dealing with goods of significantly lower Customs duties and taxes lower than the (fixed) level of the guarantee;
- The tariffs of the TIR Carnets are not always perceived as transparent;
- Some national and/or regional regimes are preferred by Customs rather than TIR, although it is generally considered a secure system;
- Several barriers to the adoption of e-TIR in some countries were referred at various levels (from political level to national truckers), sometimes due to low performance of the national representative, or conflicts of interest;
- Several opportunities are perceived as positive to the TIR development, such as its expansion in the Gulf countries and Saudi Arabia, the implementation of multimodal transport and on container movements, the continuous training to
users and authorities, the use of electronic seals and computerized procedures, etc.

Our sources of information for this report also include a relatively vast body of published material, including legal texts, specialized reports and minutes of the meetings of the relevant international agencies and working groups, among which the UNECE - Working Party on Customs Questions affecting Transport (WP.30), of the Inland Transport Committee (ITC). The information from those published materials is disseminated through the text and most referenced.

C.5. SWOT analysis of the TIR system

This section identifies the main competitive aspects of the TIR system and the development opportunities that could result from there. A deeper assessment identifies the core aspects for the TIR system development (internal and external perspectives).

Strengths:

- TIR is the only transcontinental Customs transit system, and has the largest geographical coverage: 68 countries;
- TIR can be applicable for intermodal transport, using suitable containers – road / rail / IWW / sea (as long as there is at least one road leg);
- Apart from NCTS, no other transit regime can compete with TIR. In fact TIR users have generally a rather positive opinion;
- TIR-EPD and SafeTIR are apparently well perceived by users and functioning well.

Weaknesses:

---

15 TIR-EPD is active in 11 countries, mainly EU.
• TIR currently is paper based, therefore more time- and resource consuming and vulnerable to frauds;

• Considered as expensive in some countries/cases – incentive for the falsification of the TIR Carnets;

• Monopoly position of road hauliers’ associations in each country allows the application of different prices for TIR Carnets;

• Lack of financial transparency in the guarantee system and in the setting of the TIR Carnets’ prices;

• The fixed guarantee of USD 50.000 and even 60 thousand Euros is too low for some shipments in certain countries, while being too high for some other countries;

• Costs associated with Customs transit documents, brokers’ fees, escorts, etc.;

• Time required for Customs clearance at inland and border Customs offices is still generally high;

• Electronic transit declarations are still not possible in many countries (technical regulations have not been yet established);

• It is not possible to detect and stop deliberate fraud committed within a short timeframe;

• Although the performance of the TIR guarantee system, managed by IRU, is generally considered as good, dependence on a monopoly supplier makes the system vulnerable and raises problems of poor transparency regarding the final price that transporters pay for the TIR Carnets.

Opportunities:

• If China, Pakistan and some other Middle East countries accede to the TIR Convention, the landlocked countries of Central Asia (already TIR members) will become part of an important transit area with a strong economic growth.

Threats:

• Several groups of countries are developing other Customs systems based on multilateral agreements (for instance: in Central Asian and in Middle East countries);

• The NCTS expansion will progressively replace the need for TIR in trade among those countries;

• The global downturn may continue to reduce trade and transport volume, and it can put the solvency of the TIR guarantee chain into question;

• If intermodal transport grows, road will tend to be used only for initial and final haulage, which is domestic in many cases (therefore does not require TIR);

• National Customs procedures are increasingly based on IT, and will require advance cargo information before the arrival of goods at the border. Paper-based TIR will not comply with these requirements.
D. Future developments

D.1. Introduction

In order to undertake a prospective analysis on the future and most probable future developments, a questionnaire and several interviews were made to establish an assessment of the most probable and relevant scenario for the development of transit procedures in general and for the TIR system in particular.

The above mentioned survey has also covered some issues related to what could be perceived by the respondents as the most probable development in the fields of Customs transit, namely:

1. The expansion of geographical coverage and linkages with each other
2. Combination of the Customs transit guarantees and security safeguards
3. Serving one mode of transport versus several modes of transport
4. Offering paper based only or electronic solutions or a combination of both

D.2. Geographical coverage and linkages

One of the main issues that frame the future developments of the TIR system is the extension of its scope into Asia and Middle East.

According to the study published by the United States Chamber of Commerce “Land transport options between Europe and Asia”, the main obstacles along the Silk Road result from inappropriate procedures and poor institutional capacity.

This explains why 40% of the answers given by respondents in our survey from land-locked non EEA countries that do not have borders with EEA countries (Armenia, Azerbaijan, Jordan, Kazakhstan and Kyrgyzstan) referred that the TIR procedure plays a vital role in their countries. Other important issue is the cost for transporters: the cost of transport for exports from landlocked developing countries compared with the cost of transport in developed countries is very asymmetric (various studies refer that the cost of transport in developing countries is much more expensive than in the developed countries). It can be even more expensive if we consider unofficial payments. Therefore, transit regimes like TIR can play a crucial role.

D.3. Combination of transit guarantees and security safeguards

When asked about TIR guarantee, 75% of the respondents said that “it meets requirements”. From the interviews made, there were no complaints from shippers in connection with a perceived unfairness of the TIR system. However, 30% of Customs referred that it should be strengthened.
D.4. Transport modes

TIR system applies to any kind of international transport operation as long as at least one leg of that operation is carried out by road.

Application to multimodal transport was strongly referred in the survey by the Customs officials as a feature to be further developed or extended. Also a big part of transport operators consider that it was a key aspect to achieve a future global system. On the one hand, these statements are a consequence of poor information, as what is mentioned as desirable is already in place for a long time. On the other hand, there are several other arguments for the lack of use of TIR in other modes. In the maritime mode, a Customs transit regime is not required (no transit, only origin and destination countries, if the containers do not leave the vessel when calling intermediate ports). In the rail mode, state-owned companies enjoy a guarantee waiver, not justifying TIR while these companies are not privatized. Other modes of transport have different liability regimes and documents, and combining them with TIR may lead to legal and/or practical conflicts.

D.5. Electronic solutions

Adoption of systematic electronic processing of all documents and transactions is an essential step to reduce costs, increase speed, improve risk management and reduce corruption. Some steps have already been made in that direction by IRU, namely the SafeTIR system (which allows the guarantee chain to obtain electronic data from Customs authorities) and the TIR-EPD (to transmit TIR related data in advance to Customs authorities).

Another contribution towards a fully computerized TIR system is the International TIR Database (ITDB) developed by UNECE, which contains data on authorized TIR operators and is accessible online to Customs authorities.

However, a comprehensive solution is needed, and that is supposed to be the result of the eTIR project, of which the main goals are:

- fully integrating the computerized TIR procedure in the overall process of technological development in international trade, transport and Customs procedures;
- reducing TIR’s risk of fraud and costs related to the distribution and archiving of paper TIR Carnets;

eTIR will allow Customs-to-Customs information exchange as well as management by Customs of data on guarantees.

With these forthcoming improvements on TIR’s security, efficiency and quality, along with the enlargement of its geographical scope, it can be expected that this regime will remain the only truly global Customs transit system.

When asked about on which current system a future global system should be based, there was a significant part of Customs officials and traders from EEA countries who said to prefer the NCTS (52% of replies). Therefore, a comparison was made of the advantages and disadvantages of a future global system based on NCTS and based on TIR regime.
Table 4 – Advantages and disadvantages of TIR vs. NCTS as basis for the development of a future global system

<table>
<thead>
<tr>
<th></th>
<th>NCTS</th>
<th>TIR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Point of view of Transporters</strong></td>
<td>Guarantors need a representative in every country in which their guarantee is valid. 😊</td>
<td>Apart from a national guaranteeing association, no other representatives are needed in all countries in which the guarantee is valid. 😊</td>
</tr>
<tr>
<td></td>
<td>The guarantor is chosen by the transport operator 😊</td>
<td>The guarantor is chosen by the transport operator 😊</td>
</tr>
<tr>
<td></td>
<td>Multiple suppliers of guarantees could reduce their price 😊</td>
<td>Monopoly of the supply of TIR Carnets (internationally) and its issuance (in each country) 😊</td>
</tr>
<tr>
<td><strong>Point of view of Customs</strong></td>
<td>Guarantee is in function of the value of the goods, including 100% guarantee 😊</td>
<td>Fixed guarantee (does not depend on the value of the goods) 😊</td>
</tr>
<tr>
<td></td>
<td>Possibly many guarantors have to be authorized and dealt with by Customs 😊</td>
<td>Only one guarantor for all TIR operations in a given country 😊</td>
</tr>
<tr>
<td><strong>Other considerations</strong></td>
<td>Requires an advanced level of national economies and legislation which allows for the functioning of numerous national and international guarantors (financial institutions such as banks, insurance companies, etc.) and their multilateral recognition by Customs authorities in various countries 😊</td>
<td>Suitable even for least developed countries 😊</td>
</tr>
</tbody>
</table>
E. Assessment of the TIR: Conclusions and Recommendations

As we have seen from the results of the survey undertaken for this study, the TIR system is generally seen rather favorably, both across geographic regions (survey coverage was mainly in Eurasia) and across professional situations.

In many of the answers, the NCTS system is declared as preferred option, although it currently is available only for trade within the EEA (European Economic Area) plus Switzerland. Two major dimensions distinguish the NCTS and the TIR systems:

- NCTS is fully computerized, whereas TIR is formally paper based with some parts available in computerized form;
- The set of agents involved in the validation of the Carnet and activation of the guarantees in case of claim by the Customs authorities is different.

Some claim that the NCTS system is not a transit regime (while the TIR system is), but we disagree with that vision: the NCTS is indeed a transit regime valid only in a limited geographic space (the EU and EFTA countries) and for the types of trade in which that space does not work as a full Customs union. But within that space and for that set of trades, its role, function and processes correspond to a transit system, meaning that on entry and exit of transit countries controls are kept to a minimum and no duties have to be paid.

Regarding the assessment of the TIR system in the body of answers to the survey, there are a few complaints about its cost for transporters (even if they overwhelmingly consider it the cheapest), and many suggestions for improvement of some of its features, mostly in direction of higher uses of ICT (Information and Communication Technologies) of several types, and of alignment of criteria and procedures for authorization of operators in the TIR system with those adopted by the SAFE framework. The suggestion of application of the TIR system in a multimodal context is also frequently present.

Although it is a fact that the TIR Convention is applicable to multimodal operations as long as they include a road leg (which most do), the fact is that the administration framework and the of the TIR Convention is so much road based that it is hard to envisage that it could be well accepted by the operators of the other modes, and particularly the railways.

In the railway sector, and for state-owned companies, many countries apply a guarantee waiver for Customs transit, although this is expected to diminish as privatization of railway companies moves forward. The situation for maritime and air transport is different, as in most of their operations the cargo goes directly from the country of origin to the country of destination, with no transit country.

Given the global nature of the WCO SAFE Framework we recommend to study the possibility of alignment of the conditions to become an authorized TIR Carnet holder with those to obtain the AEO (Authorized
Economic Operator) status in the SAFE framework. Such harmonization could reduce the costs for operators, without any increased security risk. This has been recognized by WP.30 in its meeting of January 2010.

A recommendation is also due in the matter of application of the TIR system to multimodal operations, referred by more than one third of transporters in all geographical groups (except in EEA countries without external land border) as an important additional feature. We think that the expansion of the TIR regime into a more generalized multimodal application could be favored by the introduction of alternative, more mode-neutral, channels for the issuance of the TIR Carnets and provision of the guarantees, which, as we will see below, is recommended also for other reasons. Of course, this should be accompanied by launching a powerful communication effort to inform the trade and transport sector of this possibility, even when considering the restraints mentioned in D.4 for the use of TIR in other modes of transport. A first step could be to amend the Convention and remove the obligation to have a leg of the TIR transport by road as foreseen in Article 2 of the TIR Convention.

We believe it is useful to structure our remaining conclusions and recommendations in three main points:

1) Overall evolution of the paper-based TIR regime towards greater efficiency and accountability;

2) Desired evolution towards an eTransit system;

3) Selection of the basis for the evolution towards a future global electronic system.

We treat these points in sequence.

E.1. Overall evolution of the paper-based TIR regime towards greater efficiency and accountability

As we have seen, the TIR is functioning reasonably well, but clearly shows some signs of its age and of the political preferences at the time it was conceived, when many countries organized services and functions of general economic interest around singular institutions.

This was supposed to guarantee the best defense of public interest, but history has shown that it could lead to loss of transparency and accountability, and ultimately to abuse of dominant position.

Currently, the dominant preference in the organization of systems of general economic interest is for a more open architecture, accessible to participation by several institutions which may initially be vetted in terms of their reputation and solidity, and then have to face the competitive pressure of the markets in terms of their value for money performance, and of audits by the public powers to check whether they continue to serve public interest.

We believe it is time for the TIR regime to introduce some opening in this direction.

The three most important criticisms of the TIR regime are the lack of transparency in the prices paid for the TIR Carnets; the existence of a fixed guarantee level independent of the value of the cargo being transported and the insufficient possibility of working in a completely paperless system. The latter is handled in the forthcoming sections; we concentrate here in the first two issues, as the forefronts of the desirable change of governance model.
Complaints on the price of TIR Carnets may be funded on two very different comparisons:

- for operators within the EEA, the basis of comparison is the NCTS, which is supposed to be cheaper (when asked about which regime is cheaper, the opinion of the transporters from EEA countries in favor of TIR regime were not as strong as the responses given by the non EEA countries). Of course, a fair comparison should not only look at the price because the levels of guarantees are rather different

- for operations outside the EEA, the NCTS is not available and the complaint is directed towards the practice of different prices for the TIR Carnet in different countries.

The price differences may be explained by the fact that IRU sells the TIR Carnets to its members (the national hauliers' associations) for the same price overall, but these associations are free to set the price at which they sell those TIR Carnets to their members or other hauliers involved in the international trade under the TIR system.

This pricing decision is fully decentralized and is basically a commercial decision of the association, combining the objectives of financing its own operations and of helping its associates develop their own business, as well as possibly other factors, including the number of TIR Carnets issued, the GDP of the country, etc. There also seems to be a correlation between the level of economic development and overall governance of the countries and the prices charges for the TIR Carnets.

Financing its own operations involves fixed costs in maintaining the guarantee system, as well as the activation of the international TIR guarantee for claims of the Customs authorities of that country against operators from other countries, and the levels of exposure to these risks are very different in different countries.

All in all, there may be significant differences in the retail prices of TIR Carnets, depending on the country of issuance. In this context, it should be pointed out that the exposure of the guarantee system to financial risks mainly depends on the type of transported goods and the countries where a particular TIR Carnet is going to be used (i.e. itinerary), and not on the country of issuance.

While it is easy to accept that there are factors that justify some price differences across countries, it is also a fact that the current system of monopolized distribution of TIR Carnets in each country allows abuse of that monopoly position and adoption of prices well above what could be justified.

It is true that these decisions are made by the Boards of the national associations, which are elected (or ejected) by their members. But in many countries, the national association has been created as an instrument to provide the TIR guarantee and many (or most) of their members are active in TIR operations. So, even if the price of TIR Carnets will affect a significant part of the members of those associations, the monopoly power of the association is very strong and the asymmetry of information with respect to its members is very high, so that it can in fact impose a high price with the argument that it is necessary to sustain its own operations.

The fixed level of guarantee in the TIR system has
received some criticisms in the survey and in the interviews, namely when dealing with goods of significantly lower Customs duties and taxes than the (fixed) level of guarantee. Customs authorities are against this fixed value for the opposite reason: in some cases, the level of those duties and taxes on the transported goods is much higher, and the possibility of redemption in case of fraud is not aligned with that real value.

It must be recognized that introducing a variable level of guarantee raises some risks of false Customs declarations in order to reduce costs, and so it should be subject to careful consideration, and available only to transport operators with a sound record of good behavior.

If we look at these two issues (pricing of the TIR Carnet and level of the guarantee) adopting a systems view of the TIR system, we will see that there are four key functions:

- Printing of the TIR Carnets
- Distributing the printed Carnets to guarantee providers
- Providing the guarantees
- Issuing TIR Carnets to end-users.

These four functions are currently provided by the same institutional coalition (IRU and national hauliers’ associations, with the support of insurance companies selected by them) but we should see what are the requisites of each of the functions, whether they are separable or not, and if yes, what are the pros and cons of such a separation.

Because of security arrangements incorporated in the TIR Carnet itself, the printing and distribution function must be performed by a unique entity worldwide, similarly to what existed until very recently for paper airline tickets.

This double function is reflected in the TIR convention, which mentions “the international organization responsible for the centralized printing and distribution of TIR Carnets”.

Because of the large size of the contract for a multi-year period, this job should be awarded in a competitive setting, with pre-qualification of the bidders based on their reputation and security arrangements.

In principle, these two functions (printing and distribution) could be separated and contracted separately, but there is no visible loss in launching a competitive tender for the bundle, as long as the natural applicants for this contract, consortia between a security certified printer and a global logistics company, are allowed to present their offers. Competitive pressure is indeed possible and should be expected given the existence of several actors of large scale in each of these domains.

The international guarantee function establishes the fiduciary link between the Customs authorities and the hauliers. In this respect, the TIR Convention mentions “guaranteeing associations, adhering to the conditions of Annex 9 Part I” as the issuers of the TIR Carnets. In Annex 9 Part I, it is stated that such associations must “represent the interests of the transport sector”. Moreover, they have to be affiliated to the same international organization which takes on responsibility for the effective organization and functioning of an international guarantee system.
This was drafted with an unequivocal idea of having the national hauliers’ associations and the IRU play these roles.

Of course, the existence of alternative providers of the guarantee in each country would lead to a clear separation of the prices of the TIR Carnet and of the guarantee. This transparency would be very healthy: the price of the TIR Carnet by itself would be much lower than it is today, and should represent only the costs of the security-enabled printing and the logistical costs of bringing them to where the hauliers can acquire them.

The level and the price of the guarantee would also be subject to competitive pressure. To understand how such a sub-system could be efficient and effective, we should consider which kind of entities could qualify for this role.

According to the TIR convention, there must be an “international organization which takes on responsibility for the effective organization and functioning of an international guarantee system”, plus in each country “an association representing the interests of the transport sector”.

The word “association” strongly limits the opening of the international guarantee function to new entrants, and with it the benefits of a competitive provision of this critical function. In this context, we welcome the proposals to amend the text of Annex 9, Part 1, doing away with the reference to the transport sector (document ECE/TRANS/WP.30/AC.2/2010/4).

We believe there would be clear benefits in this opening, as long as a clear set of rules could be defined for eligibility as providers of the international guarantee function.

Our concept is that this would require an international institution (or a consortium of institutions) established in each one of the countries involved in a particular transit operation, with the assets in each of those countries enough to respond directly before the Customs authorities of each of those transit countries, such institutions being preferably already involved in international trade and operations.

The natural candidates for this role are a relatively small number of big international banks and insurance companies, already heavily involved in international trade through credit financing and several other product lines. Of course, at a regional scale, other actors of a smaller dimension could also emerge, but that is only healthy for the system.

To allow a flawless performance of the system, these international guarantors and their national branches should be properly authorized by the TIR Administrative Committee and the Customs authorities of the various countries, respectively, before they can start selling guarantees to the transport operators.

It seems clear that this kind of agents would be considered by the Customs authorities as highly reliable guarantors of their transit duties, and be willing to issue guarantees for the full value of the Customs duties and taxes applicable to the cargo (above or below that of the current fixed guarantee), while not being more expensive for the hauliers, given the competition among them, and the relatively small weight of this type of operation in the whole set of their operations in relation to international trade. And we should expect that if the Customs duties and taxes are covered in full, the strict criteria for the authorization of TIR operators could be reviewed to
make them simpler.

Even if there are different providers of the distribution and guarantee functions, there is some advantage of having the supply to the hauliers in a single-till operation. From these two functions, clearly the dominant one is the guarantee function: it involves much higher financial values, for a much longer time exposure, and brings attached some risk of legal procedures.

So, a natural solution would be that each of the international institutions providing the guarantees would establish its own supply chain of TIR Carnets, becoming the point of delivery of TIR Carnets by the international logistics operator selected in consortium with the printer of the TIR Carnets. In this solution, the haulier would obtain the TIR Carnet and have it issued together with the guarantee from the same institution at the beginning of each operation.

This institution need not be the guarantor directly, as it could authorize other entities to act as its agents, namely freight forwarders associations, insurance or Customs brokers. However, the principle of obtaining the TIR Carnet issuance and the guarantee at the same place and time should be preserved.

Of course, there is no reason to prevent the current providers of these functions (IRU and the network of national hauliers’ associations) to continue performing the international guarantee function, in competition with new entrants.

Thus, the recommendations are:

- **Open the market for competitive provision of the two double functions: printing and distribution; and issuance and guarantee**

- **Printing and distribution must be supplied by a single provider and can be tendered jointly for a multi-year period, allowing consortia to present their offers. The printer has to show its familiarity (certification) with tight security procedures, and the logistics operator has to be active in all countries where the TIR system is in operation**

- **The international guarantee system should be open to multiple providers, previously authorized by the relevant Customs authorities and the TIR Administrative Committee, and then competing in the market. For each transit operation, the guarantee provider would have to be an international institution active in all the countries involved in this operation and with assets in each country that directly respond to payments requests from Customs authorities.**

**E.2. Desired evolution towards a computer-based e-Transit system**

The calls from the Customs authorities and from the transport operators to move in the direction of an e-Transit system imply that such a system is clearly recognized as the solution to which progress is desired as quickly as possible. In that sense, the preceding section on the evolution of the paper-based TIR system must be seen as a bridging solution on the path towards that solution.

As mentioned above, many of the replies to the survey indicated their support to diverse measures, some related to increased security, some others to additional features for higher efficiency.
In the first group, the following items received medium or strong support:

- Strengthen the on-line checking of the status of the operator and of the validity of the TIR Carnet by improving the electronic equipments of the Customs authorities.
- Adopt the Electronic Declaration
- Adopt advance declaration coming from Customs of other countries

In the group related to higher efficiency the items that receive medium or strong support are:

- Adopt Paperless Environment
- Adopt Seamless Electronic documents, which will require harmonization of the documents and the systems involved.

Multiple efforts have already been made in these directions, not always with a concern for easy convergence. In compatibility with the current framework of TIR, the following are worth mentioning and already available:

- The International TIR Database developed by UNECE, which contains a collection of data on transport operators that are authorized to use the TIR procedure, and is accessible to Customs authorities through the ITDBonline application.
- The TIR-EPD (Electronic Pre-Declaration) developed by IRU through which the operator transmits the TIR data electronically to the Customs authorities in advance of entering or leaving the territory of the EU. This initiative, launched by the IRU, offers hauliers a real simplification with regard to this obligation, introduced by the EU in July 2009 on a voluntary basis – and which will become obligatory as of 1 January 2011, as its releases the operators from having to use the services of third parties. We should note that what is mandatory is electronic submission and not the use of TIR-EPD, and several countries have their own systems. In fact, it can be argued that by using TIR-EPD the hauliers expose themselves to some risks by making commercially sensitive data accessible to another entity besides the Customs, IRU in this case, which is also involved in the management of the system.
- The IRU SafeTIR electronic control system for use of TIR Carnets allows the guarantee chain to apply risk assessment on the basis of partial and final termination information transmitted by Customs authorities. In addition, the Cute-WISE application provides Customs authorities the opportunity to check in real time the status and validity of a TIR Carnet.

Several components of the evolution towards an eTransit system must still be developed, and this is urgent for the facilitation of trade in the Eurasian land mass. The critical issue in that process however is the choice of the basis from which to develop.

In parallel, specific UNECE trade facilitation instruments, like United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) have been developed, but must still be adopted and implemented in many countries. Less sophisticated systems have been under development and deployment throughout the developing world, with varying degrees of complexity and success.
The trend to full electronic processing is irreversible, largely because this is a win-win process, bringing very significant efficiency gains to all agents involved. But although regional transport (sometimes cross-border) is everywhere dominant over long-distance transport, it is important that such computerized systems, even if initially developed separately for different regional blocks and based on road transport, progressively work towards harmonization or at least to levels of compatibility that make the underlying existence of different systems unperceived to their users. Such behavior is a very important element in support of transport and trade facilitation, and the evolution to intermodal transport corridor management solutions as mentioned above.

This evolution would also naturally lead to a wider set of possible eTransit operators, including not only road hauliers, but also operators of other transport modes, and especially also logistics operators and freight forwarders who are increasingly the ones launching and controlling the physical movement of cargo.

It should be noted that it seems unlikely that any computerized system could be introduced overnight or become compulsory in all current TIR countries at the same time. Thus, either the option to introduce extended transition periods, allowing countries to gradually adapt towards the selected electronic solution (see E.3 below) or the elaboration of a separate legal instrument, providing those countries which do not (yet) wish to change the opportunity to continue to benefit from the current, paper-based TIR system, should be considered.

**E.3. Selection of the basis for the evolution towards a future global eTransit system**

In the march towards an eTransit system, this has been perhaps the most critical issue: on what basis should the development of the new system be founded? Natural candidates are the principles of the TIR system and the NCTS (Community and Common Transit) system. On the one hand, NCTS could seem the natural choice because it is already fully computerized and with a flexible guarantee value, related to the value of the cargo, but on the other hand the TIR system is UN based (so tentatively of universal application) whereas the NCTS system has been developed and adopted by a regional block, the EEA and Switzerland, and other countries could legitimately wish to have a say in the specifications of the new electronic system.

But these are not the main stumbling blocks, although they should not be ignored. The real crux of the problem is the different role assignment of the two regimes regarding, on the one hand, the validation of the TIR Carnet at the point of departure and, on the other hand, the responsibility for activation of a guarantee recognized by the Customs authorities at the country of transit or destination when it finds an irregularity.

In the TIR system, this is based on a multilateral agreement in place for more than 30 years, through which the IRU network of national hauliers’ associations plays both roles: the issuance of the TIR Carnet is made by one hauliers’ association, the TIR Carnet is validated by the Customs authority of the country of departure for the transit operation and the responsibility for the activation of the guarantee in case of claim is borne by the association of the country where there is a claim of irregularity by the Customs authorities. These two
associations in turn are bound by their mutual link to IRU.

In the case of NCTS, this is based on binding EU regulations and a series of multilateral agreements. The operator needs a guarantor with a representative recognized by the corresponding Customs authorities in all EU member states or other countries involved in the transport. This not only adds costs to the transport operation, but it also facilitates the subsistence of non-standardized formats and procedures in the different countries, requiring different “translation” procedures in each country.

If we try to disentangle this discussion into its main elements we can draw the following principles as the basis for any good solution:

On the flow of information:

- There should be standard formats and protocols for all electronic data transactions between the operators and the Customs authorities, valid for all countries;

- The transport operators should not be required to use third parties for those transactions with the Customs authorities, which means that all authorized TIR Carnet holders should be allowed to process them directly. Thus, the authorization to perform the transport operation would be attached to the authorization to process the electronic data transactions with Customs.

On the authorization of operators, validation of TIR Carnets and responsibility for the guarantees:

- As far as possible, the authorization of TIR Carnet holders by Customs authorities should be aligned with other existing authorizations, like AEO of SAFE, and be recognized by all signatory countries.

- There must be a clear link between the validation of the TIR Carnet and the responsibility for activation of the guarantees in case of claim by the Customs authorities in the country of transit or destination where a problem is detected. Since this involves two different countries, a “bridging” element is needed, which is exactly why the guarantor must be an accredited international institution legally established in all the countries of each TIR transport.

Two solutions may be considered:

- The current TIR solution, where the bridge is formed by the “Guarantee Chain” linking two national hauliers’ association through their international union, IRU

- An alternative solution, based on international companies (most likely banks or insurance companies), established in each one of the countries involved in a particular transit operation, with the assets in each of those countries enough to respond directly before the Customs authorities of each of those transit countries.

The current TIR solution has the significant benefit of being well tested and also of including in the services it provides to the transporter some administrative support in case of complaints by the Customs authorities. But it has the inconvenience of depending on a single provider.
The alternative solution would introduce an element of competitive pressure but has two major weaknesses, besides its experimental character at the beginning of its adoption: in case of claim by the Customs authorities in the country of transit or destination, the transport operator (or more likely his guarantor) would have to mobilize a legal representative in that country and, perhaps even more importantly, the split of these processes by different agents (international banks) would reduce the scale of the operations for each of these banks, and so possibly lead to an increase in the overall costs per operation.

Of course, in the second (competitive) solution, the current providers of the guarantee chain (IRU and the national associations) should continue to be valid providers, although no longer in monopoly.

On the basis of the available evidence it is not possible to reach a clear conclusion on which of the two existing systems (or an emerging one) is preferable, but the steps presented above for the evolution of the paper-based TIR system towards a more competitive environment and variable guarantee values would certainly bring those two systems closer together, and so promote quicker convergence to the so desired eTransit system.

Quality note:

This document was subjected to Internal Quality Control in accordance with the Quality Control Procedure for Documents (P2/05) as defined in the TIS.PT Management System.

Lisbon, December 2010

TIS.PT