

# Guidelines for establishing an international postal rail transport service

UPU-Rail Forum

Table of contents							
0	Introduction	3					
1	Background and general information	3					
1.1	Objectives of the postal rail service	3					
1.2	Strategic importance of the postal rail service	5					
1.3	Benefits of using rail to transport postal items	6					
2	Workflow, handling procedures and customs formalities	7					
2.1	Establishing a rail transport route	7					
2.2	UPU mail products involved	7					
2.3	Origin procedures and stakeholder roles	7					
2.4	Transhipment procedures and stakeholder roles	10					
2.5	Procedures adopted by different customs authorities	10					
2.6	Procedures at destination and stakeholder roles	11					
3	Future possibilities	12					
3.1	Seamless procedures facilitated by electronic data exchange	12					
3.2	Safety and security	13					
Ann	ex 1 – Detailed description of documents and forms used for the transportation of postal items by rail	11					
Ann	ex 2 – Glossary of terms	23					
Ann	ex 3 – Case study: Transport of parcels between China (People's Rep.) and Europe: integrating rail transport into the postal network	28					
Ann	ex 4 – Case study: Mail-only block trains from China (People's Rep.) to Europe	31					
Ann	ex 5 – Exemplary practices in setting up an international postal rail transport service – based on standard operating procedures shared by China Post	32					
Ann	ex 6 – The UPU Global Postal Model (GPM)	37					
Ann	ex 7 – Case study: EU customs law	39					
Ann	ex 8 – Roadmap on the interoperability of the EDI systems of DOs and railway/transport and logistics companies for the transportation of postal items in containers	40					
Ann	ex 9 – Case study: ICS2 Release 3 legal requirements for postal scenarios for rail	52					
Ann	ex 10 – Multimodal transportation of postal items	54					
Ann	ex 11 – Case study: Seal integrity programmes and compliance with ISO 17712 standard for high security seals	55					
Ann	ex 12 – Stakeholders involved	57					
Ann	ex 13 – List of abbreviations	63					

### 0 Introduction

This document aims to provide a holistic overview of the circumstances for mail transport by rail, the operational procedures and stakeholder responsibilities along the route, and the way forward, especially regarding electronic advance data (EAD) exchanges for customs declaration and prior risk assessment purposes. It is intended to be a generic description of the mail-transport-by-rail initiative and to serve as a source of information for any interested stakeholders that are considering taking part. Aside from specific operational procedures, additional information has been incorporated herein to enable readers to familiarize themselves with relevant information about the sector, which is intended to be beneficial in the evaluation and implementation phases. This additional information may range from lessons learned from initial pilots to plans for EAD exchanges between designated operators (DOs) and railway carriers.

Mail transport by rail has proven to be an effective and efficient alternative, among others, to mainstream international transport by air. This was especially true during the COVID-19 pandemic, when international air capacities plummeted within short notice and some small DOs were challenged by the shortage of available transport solutions for the foreseeable future. It reminded the DOs that all means of transport need to be examined and explored, and it should be among the postal sector's top priorities, in close cooperation with the transport providers, to build a more flexible and resilient international postal transportation network. In addition, rail transport offers the possibility of transporting non-priority mail from price-sensitive shippers in e-commerce, providing tailored services as per customers' expectations. Empty receptacles and returns could also be injected into this channel to unlock the full potential of rail and alleviate air transport constraints. Since 2017, the UPU has taken the lead in exploring this initiative, in close collaboration with the World Customs Organization (WCO) and international railway organizations and associations. This document is one of the major achievements of this collaboration, with all stakeholders having contributed from their respective sector to make international mail transport by rail possible.

To set up international mail transport by rail, efforts would be needed from three sectors, namely DOs, customs authorities (along with other national authorities) and railway companies. The origin DO would conclude a contract of carriage with the first or all of the rail carriers for conveyance, in line with the bilaterally preferred method of cooperation. EAD messages would be transmitted to the destination DO for pre-advice. The carrier(s) would liaise with the railway companies and customs authorities en route to handle operational issues and transit customs declarations. Over the years, the processes for international transport and customs declarations have been streamlined and standardized through the collective effort of all stakeholders. Following transit, the destination DO would receive the consignments and proceed with reforwarding the mail to its final destination or connect with other transport solutions. In due course, EAD messages would be exchanged between DOs and railway carriers to fulfil their respective filing obligations to the destination customs authorities in regions/countries where such data is required.

The guidelines are a living document and will be updated as circumstances evolve. The achievements of the mid- and long-term deliverables of this initiative will be incorporated accordingly, ranging from the opening of new corridors in other parts of the world and the exchange of EAD messages among stakeholders to meet regulatory requirements, to establishing a more flexible and resilient global postal transportation network.

Any parties that are interested in establishing an international postal rail transport service or that have any questions regarding this initiative are invited to contact the UPU Transport and Last Mile Delivery Programme at transport@upu.int.

# 1 Background and general information

# 1.1 Objectives of the postal rail service

Work proposal 010 of the Universal Postal Union's Istanbul Business Plan (2017–2020) provided the following instructions for the UPU Postal Operations Council (POC):

- "Develop detailed procedures for exchanging international mail by rail, including:
- working with the relevant international rail organizations and with the WCO to jointly study and develop relevant regulations related to the rail transportation of mail items;

jointly organizing seminars or workshops with these organizations and the WCO with a view to developing and disseminating best practices".

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

- developing operational standards regarding the transportation of postal items by rail;
- facilitating cross-border movement for the transportation of international mail by rail;
- submitting any proposals to supplement or amend the UPU Acts to the competent UPU bodies for approval, where appropriate.

In March 2017, in line with this mandate, the POC set up a task force for the transportation of postal items by rail. Recognizing the importance of this work, the UPU–Rail Contact Committee was established in November 2018, and was subsequently transformed into the UPU–Rail Forum in February 2020. The latter aims to be more open and offers a cooperation platform to engage all stakeholders along the supply chain for mail transport by rail.

The initiative involves the development of regulations, procedures and common standards for the new service. These tools, along with operational standards for the transportation of postal items, are being developed and will continue to be updated, based on the results of the pilots and on the practice of and lessons learned from the regular operation of international mail transport by rail.

Mail transport by rail is now operating on a regular basis, with more routes being launched and with the involvement of various transit countries that have distinct customs regimes. A major breakthrough in this area is that of mail-only block trains, which were introduced in early 2020 to clear the backlogs from China (People's Rep.) to Europe resulting from the air transport capacity shortages associated with the COVID-19 pandemic. This version of the guidelines is based on the experiences and lessons learned from daily operational practices. The goal is to harmonize and simplify postal, customs and rail regulations, standards and formalities, to better support world trade facilitation efforts.

The guidelines have been developed by all stakeholders participating in the UPU–Rail Forum: the UPU, WCO and European Commission (EC), as well as the DOs, national customs administrations and international rail organizations that took part in the pilots and are involved in the regular operation of mail transport by rail.

The guidelines are non-mandatory and neutral in nature and could serve as a model for DOs and rail companies in other parts of the world. The UPU is an intergovernmental organization and caters to the needs of its 192 member countries, irrespective of geographical location.

The objective of the guidelines is to provide an information source for DOs, customs administrations and rail-way companies dealing with the international transportation of postal items by rail. The guidelines comprise key elements and lessons learned from efforts to facilitate the establishment of an international postal rail transport service and promote cooperation and discussion at the national and international levels among DOs, customs administrations and railway companies.

The guidelines are a living document that will be updated as necessary to reflect the results of new pilots and national experiences, and on the basis of updates to customs procedures, including the development of electronic data exchanges to further expedite and secure the transportation of international mail by rail. In accordance with the legal requirements of the EC's Import Control System 2 (ICS2), Release 3 (R3), rail operators carrying mail into the European Union (EU) customs territory will be required to file transport details in advance with the customs office of first entry, i.e. that with jurisdiction over the location where the train enters the EU. ICS2 R3 will take effect from 15 March 2024. Pilots for the exchange of CARDIT/RESDIT messages will need to be organized in 2022 to ensure the readiness of all stakeholders – especially rail carriers – for these new requirements.

The guidelines have been developed by the Forum with the participation of the following members:

- DOs: POC member countries: China (Chair), France, Germany, Poland and Russian Federation Observers: Belarus, Kazakhstan and Lithuania
- Customs administrations: China Customs
- External stakeholders: WCO, EC, Intergovernmental Organization for International Carriage by Rail (OTIF), Organization for Cooperation of Railways (OSJD), International Rail Transport Committee (CIT), International Coordinating Council on Trans-Eurasian Transportation (CCTT), Community of European Railway and Infrastructure Companies (CER) and International Union of Railways (UIC).

Annex 12 provides details of the functions of the various stakeholders that took part in drafting the guidelines.

It should be noted that the UPU has signed memoranda of understanding with three international organizations and two associations: WCO, OTIF, OSJD, CIT, and CCTT.

For the purposes of this paper, the project will be referred to as the "postal rail project". The term "postal rail project" signifies that the project is led by the UPU – a global organization concerning postal matters, working in close cooperation with international rail organizations and associations for the benefit of its 192 member countries.

# 1.2 Strategic importance of the postal rail project

For all stakeholders, the postal rail project provides unique opportunities to improve business processes and to facilitate and promote global trade, thus leveraging vast postal and rail networks and promoting regional integration and economic competitiveness.

In order to exploit opportunities available through this mode of transportation across continents, particularly in the thriving e-commerce environment, all stakeholders need to work together to: i) adhere to the principle of "freedom of transit" and remove obstacles to the seamless movement of postal items by rail; ii) improve the exchange of EAD and carry out pilots, iii) harmonize and simplify procedures and formalities (including direct transhipment without the involvement of the DO of the country where transhipment takes place and the acceptance of transport documents for customs formalities); iv) develop regulations, procedures and common operational standards for mail transport by rail; v) enhance security and safety measures through effective risk management and robust seal integrity programmes; vi) promote multimodal transport; and vii) promote paper-free transport.

The postal rail project seeks to help DOs to establish a new mode of transportation for international mail, which has thus far been largely confined to air and maritime transport. Through rail transport, DOs can deliver e-commerce goods and further boost global e-commerce, which is currently growing at an annual rate of about 20%. The UPU wants to fully leverage the postal infrastructure – the world's largest physical network – to deliver mail and e-commerce goods at the lowest possible rate.

The postal rail project also provides a new source of business for international rail companies. Up to now, rail has been used as an active and frequent mode of transport only for domestic mail in some countries. With the transportation of international mail, railway transport has become more relevant, and traders and e-retailers stand to benefit.

For the WCO and customs administrations, though their instruments and tools are largely mode-neutral, this is an exciting opportunity to engage with railway organizations and associations to facilitate the transportation of postal items by rail, while ensuring compliance with all border regulatory requirements. Customs administrations will be examining the postal supply chain from the perspective of rail transport for the first time and will need to continually discuss efficient and effective customs transit procedures for this new mode of international trade. The many related challenges may call for the adaptation of procedures and requirements in a harmonized manner. The WCO opened the discussion on customs railway cooperation in 2017, focusing on transit declaration, EAD, cargo inspection, passenger control and data harmonization in railway transit. In 2019, the WCO launched the WCO Railway Project, consisting of a railway survey of WCO members, field studies on railway transit, a WCO global railway workshop, development of WCO guidance and capacity-building activities for its members. Following the project, the WCO has developed the WCO Railway Guidelines. Considering the number of countries involved in railway transportation, efficient and effective customs management of this

new mode of international trade will help expedite legitimate trade at reduced cost, curb illicit trade, secure the postal supply chain, and enhance connectivity and regional integration, thus contributing to the UN Sustainable Development Goals (SDGs).

# 1.3 Benefits of using rail to transport postal items

# Promotion of e-commerce

- As the UN specialized agency for postal services, the UPU is well placed to facilitate international trade and cross-border e-commerce. The UPU's Istanbul World Postal Strategy (IWPS) recognized the importance of this area of activity. IWPS goal 2 (Ensure sustainable and modern products) included a programme on "e-commerce and trade facilitation".
- Micro, small and medium-sized enterprises (MSMEs) will be able to export their e-commerce goods through this new postal channel.
- In terms of product performance, the major customers of certain DOs would like to deliver their products end-to-end (E2E) within a reliable time frame (on-time target of 90%). In order to meet this reliable time frame, DOs want to ensure that the rail transport process becomes smooth and stable.
- Online retailers will be able to transport their merchandise at reasonable cost, resulting in increased traffic volumes.
- DOs will be able to send and return merchandise more economically (by rail rather than by air).

# New mode of transport for international mail

- DOs will have a new mode of transport for international mail.
- The postal rail project will help to develop universal processes for rail.
- DOs will be able to use multimodal transport rail, road, maritime and air to expedite the conveyance
  of international mail.

# Operational viability

- Rail transport has the potential to be faster and more reliable than other means of transport (e.g. maritime transport).
- It will be possible to transport large volumes of postal items which are difficult or prohibited to transport by air, if the relevant prohibition and restriction regulations in rail transport are duly respected.
- Sending postal items by rail is expected to reduce pressure on surface airlifted (S.A.L.) mail.
- The cost of operational procedures will be kept to a minimum to ensure viability.
- Electronic data interchange (EDI) and radio frequency identification (RFID) will be applied E2E, for the benefit of all stakeholders.

# Security

- Subject to security and safety controls, DOs may be able to send postal items containing mailable quantities of allowable dangerous goods by rail when such items cannot be sent by air.
- Affixing seals (electronic or mechanical) on mail containers or carriages at origin will increase security.

# Economical and sustainable means of transportation

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

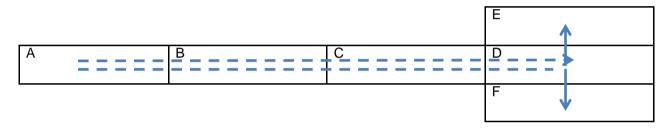
# 2 Workflow, handling procedures and customs formalities

# 2.1 Establishing a rail transport route

Providing freedom of transit is a fundamental obligation of all UPU member countries, as reflected in article 1.1 of the Constitution of the Universal Postal Union.<sup>1</sup>

In the diagram below:

- The origin DO is in country A;
- The destination DO (of the mail consignment being transported by rail) is in country D. The consignment from country A contains dispatches destined for country D, and may also contain dispatches in closed transit to countries E and F (in closed transit via country D);
- Countries B and C are direct transhipment countries. In normal circumstances, the DOs of B and C are not involved with the consignment being transported through the country;
- The DOs in countries E and F receive the dispatches in closed transit via the DO of country D, along with the originating mail from country D. The transport from D to E, and from D to F, has nothing to do with the rail transport from country A to D.



Based on the above diagram and on the practice of mail transport by rail, the following guidelines have been drawn up as recommendations for the various stakeholders – DOs, Customs, and origin, transit and destination railway companies – for establishing new routes for the transport of postal items by rail.

# 2.2 UPU mail products involved

The main thrust of the pilots has been towards e-commerce items. However, any of the following UPU postal products or by-products of international mail exchange can be subject to rail transport:

- Letter-post items, including small packets up to 2 kg;
- Parcels:
- ECOMPRO parcels;
- EMS items;
- Returns (of postal products);
- Empty receptacles.

# 2.3 Origin procedures and stakeholder roles

# DOs

a The origin DO should liaise with the railway company regarding the basic feasibility of each new route based on railway schedules, train schedules, origin handover processes, degree of containerization (use and type of container), use of a passenger or container train, estimated volumes, expected frequency of dispatch, estimated transport rates, expected arrival time, billing arrangements, etc.

<sup>&</sup>lt;sup>1</sup> The countries adopting this Constitution shall form, under the intergovernmental organization entitled the Universal Postal Union, a single postal territory for the reciprocal exchange of postal items. Freedom of transit shall be guaranteed throughout the entire territory of the Union, [...].

- b The origin DO should document all logistical aspects of a new route and communicate these to all parties involved, including but not limited to the first carrier (who should share the information with its agent or subcontractor) and the destination DO. Note that this excludes the negotiated transport rate, as this is typically commercially confidential information that is agreed bilaterally between the origin DO and the carrier (rail company).
- Before the handover of mail receptacles to the rail company, the origin DO should complete the relevant postal forms (CN 31 letter bill/CP 87 parcel bill, CN 34/CP 83 receptacle labels and CN 37 delivery bill) in a clear and legible manner, ensuring that mail receptacles are labelled in line with UPU regulations. In addition, the CN 47 delivery bill would be used in replacement of the CN 37, if empty receptacles, rather than mail receptacles, are to be transported by rail. (N.B. As only mail receptacles are being transported by rail in practice at the current stage, for the sake of consistency and clarity, only the CN 37 delivery bill is used to refer to the generic delivery bill for rail transport of mails in the context of the current document.)
- d Before the handover of mailbags to the rail company, the origin DO should scan the mailbags in the process of creating each dispatch and consignment, and transmit PREDES and PRECON messages to the destination DO (of the mail consignment) and CARDIT to the carrier. PREDES messages would be sent for mails destined for the country of destination of the mail consignment, while PRECON messages would be sent for mails that would be handled as closed transit mails via the destination DO of the mail consignment.
- The origin DO, in close cooperation with the rail company, should help complete rail documentation or its electronic equivalent. Such documentation for mail transport by rail varies from train to train (passenger or container train) and from territory to territory. Different rail treaties apply in different parts of the world. The DO should, in close cooperation with the rail company, make the necessary inquiries to identify the precise documentation to be used for rail transport via each route. For example, in the case of a container train transporting postal items from Asia to Europe, the origin DO should complete a CIM/SMGS consignment note. When transporting postal items by passenger train, the origin DO should complete a luggage ticket for passenger train/international passenger transport parcel shipment.
- The origin DO should liaise with the railway company to determine whether CARDIT/RESDIT messages can be exchanged and/or used for DO-carrier operations, accounting and customs declaration purposes. (A roadmap on the interoperability of the postal and railway EDI systems for mail transport by rail has been added to the guidelines as Annex 8).
- g As regards transit countries, for which there is no involvement on the part of the DO of the country of transit, the origin DO should liaise with the origin railway company to determine any processes that are required.
- h If specific customs requirements need to be met in the transit country, the origin DO should obtain information about these requirements in advance from the origin railway company.
- The origin DO should, where applicable, liaise with the origin railway company to:
  - resolve any transhipment issues before sending the shipments;
  - identify applicable customs legislation in the customs territories on the transport route;
  - identify other applicable legislation which may affect the transportation of postal consignments by rail.
- j The DO of the country of origin should liaise with the destination DO of the mail consignment and railway carriers as regards:
  - logistical arrangements at the destination involving movement of the postal items from the railway terminal to the destination office of exchange (OE).
  - EDI messaging between origin and destination DOs and between origin DO and railway carriers for each potential message set (PREDES/RESDES, PRECON/RESCON, EMSEVT and ITMATT), in full compliance with the latest UPU standards:
    - M10 PRECON V1.1
    - M12 RESCON V1.1
    - M13 RESDES V1.1
    - M33 ITMATT V1

- M48 CARDIT V2.1
- M49 RESDIT V1.1
- M40 EMSEVT V3
- M41 PREDES V2.1
- It may be noted that the sending of both PREDES and RESDES messages has become obligatory for all UPU member countries with effect from 1 April 2018 (IB circular 167 of 18 December 2017); and
- physical forms used (CN 37, railway consignment note, etc.), and sealing techniques, if applicable.
- The origin DO should liaise with the destination DO to bilaterally agree on the process and mail classes, including use of a passenger or a container train, to continually monitor the overall performance of the route (e.g. use of IQRS reports to measure performance and data compliance, use of QCS reports based on EMSEVT v3 data exchange, PREDES/RESDES, PRECON/RESCON and CARDIT/RESDIT messages to monitor quality, and use of any other reporting systems available to DOs). This liaison should include the DOs involved in all planned dispatches, even those planned as closed transit via the DO to which the mail will be consigned.

# Customs

- The origin customs administration should agree with the origin DO the modalities for submission of mail items to customs, in accordance with the national legislation regime.
- m In line with national customs law, the origin customs administration may carry out customs control based on risk assessment at departure and at the border.
- n The origin customs administration should:
  - affix electronic or mechanical seals on containers or carriages or mail-bags under customs control, in the presence of DOs, as deemed necessary;
  - check physical forms used (CN 37, railway documents, etc.) and sealing techniques, if applicable;
  - provide customs administrations along the route with necessary information about the mail schedules if required by national law, and exchange information on customs-related matters.

# Rail

- o For a route involving multiple railway companies, the origin railway company or the forwarder should liaise with the other railway companies to determine logistical arrangements and inter-company billing arrangements.
- The origin railway company or freight forwarder should include in the transportation services contract an obligation to provide the origin DO with information, within the set time limits and by pre-defined means, on mail transportation and all linked operations. Railway companies use rail EDI systems to exchange information on mail movement and to pass this information to the first railway company or freight forwarder, which will be responsible for transmitting that information to the origin DO. (N.B. Further analysis would be made as to whether the current data elements transmitted within rail EDI systems can fulfil the legal requirements as requested by destination customs administrations and how the gaps, if any, could be bridged if certain data elements are indeed to be provided by the DO.) More details on the roadmap in this regard are provided in Annex 8.

# 2.4 Transhipment procedures and stakeholder roles

### DOs

- a Throughout the process of transporting mail by rail, postal consignments will be transported directly from origin to destination countries with no involvement from the DOs of the transit countries (concept of "direct transhipment<sup>2</sup>").
- An example of direct transhipment is when an origin DO of country "A" consigns mail to a destination DO of country "C" on a train that operates from country A to B and on to C. In this case, country B is a "direct transhipment" country. The DO of country B is not involved in any way, but the customs administration of country B may (or may not) have some involvement. An example of such potential involvement would be checking that seals are intact when entering and leaving the country. A lengthy train journey may involve not just one, but several "direct transhipment" countries.
- Article 17-112.3 of the Regulations to the Universal Postal Convention states: "When the conveyance of a consignment in transit through a member country takes place without the participation of the designated operator of that member country, regardless of the means of transport, this form of transit ("direct transhipment") shall not involve the liability of the designated operator of the transit member country."

  (N.B. Proposed amendments to this provision were adopted by the 2021.1 POC session and will take effect from 1 January 2022.)

### Customs

- d The customs administration in the transit country may carry out a risk assessment if required by national legislation and customs regime requirements, and check customs seals (electronic or mechanical seals) if applicable.
- e As per national customs law or in line with the requirements of the customs regime, the customs administration in the transit country may open the national or international guarantee.

## Rail

- The rail company should hand over the CN 37 delivery bill and railway CIM or SMGS or CIM/SMGS consignment note or luggage ticket form, or transmit its electronic equivalent, to the transit customs administration.
- g As per agreement between the rail companies, the origin railway company should liaise with the rail company taking over the transportation work at transit to determine the next processes.
- 2.5 Procedures adopted by different customs authorities

When establishing an international postal rail transport service, DOs should be aware of the customs laws that may affect transportation of postal items by rail. As indicated in section 2.3 under items i and j, it is therefore important that the DO liaise with the origin railway company.

In general, the customs procedures and rules which will be relevant to the transport of postal consignments by rail will relate to:

- export and exit at the country of origin;
- entry, transit and exit for each customs territory of transit;
- entry and release for free circulation (import) at the country of destination.

<sup>&</sup>lt;sup>2</sup> As specified in article 17-009 of the UPU Convention Regulations, direct transhipment at the transit point shall preferably be performed between transport routes operated by the same carrier (intraline transhipment) but, where this is not possible, it may be performed between transport routes operated by different airlines (interline transhipment). Consignments transhipmed directly at the transit point, either between transport routes operated by the same carrier (intraline transhipment) or between transport routes operated by different carriers (interline transhipment), shall not be subject to transit charges between the DO at the transhipment point and the DO of origin.

It should be noted that Specific Annex J.2 to the WCO Revised Kyoto Convention (RKC) sets out customs clearance procedures for postal traffic. The annex contains five definitions, 10 standards and one recommended practice. The guidelines for Specific Annex J.2 explain the underlying concepts and principles identified in Specific Annex J.2 and describe the obligations and responsibilities of Posts and Customs in day-to-day business.

In addition, it should be noted that the customs administration has the right to inspect all postal items. The right to open letters is subject to national legislation. The customs administration typically determines which items are subject to customs control, taking into consideration the national regulations pertaining to the customs administration. Customs control should be based on risk management using data and the latest technologies, such as non-intrusive inspections (X-rays, etc.), to avoid unnecessary inspections.

According to Specific Annex E/Chapter 1, Standard 8, to the WCO RKC customs administrations should take all necessary actions to ensure the integrity of the consignment during the transit operation. This is of particular importance in railway transportation owing to the number of countries involved in the transit process. A customs seal is one of the most effective means of ensuring the integrity of the consignment.

There is the possibility of using an electronic customs seal (e-customs seal)/electronic cargo tracking system, which is a newly developed technology that enables electronic monitoring of the means of transport from the customs office of departure to the customs office of destination along the whole transit route. E-customs seals are based on either RFID or global positioning system (GPS) technology.

The use of a customs seal may have a positive influence on the quality of control and risk management, and may increase the transparency and predictability of transit procedures. Nevertheless, as stated in the WCO Transit Guidelines, customs administrations should not oblige railway operators to affix an electronic customs seal, except in cases in which ordinary customs seals are insufficient to ensure the integrity of the transit goods. If a customs administration obliges a transit railway operator to affix an electronic customs seal, Customs should not collect administrative/processing fees for the use of the seal, apart from the cost of the seal itself.

In addition, in line with the various and emerging legal requirements for advance customs declaration from destination countries, the filing of pre-loading and pre-arrival EDI messages with the destination customs administration for advance customs control and risk assessment would also be highly beneficial. The UPU has developed the Global Postal Model (GPM) for EAD, in which various flows of the exchange of item-, receptacle-, and consignment-level EDI messages among DOs, carriers and Customs have been specified. The GPM is transport-neutral and would therefore be applicable to all modes of transport. A graphic representation of the GPM and detailed explanations of the EDI flows involved can be found in Annex 6. It is recommended that pilots on the exchange of CARDIT/RESDIT messages be conducted between DOs and railway companies, in an effort to ensure the readiness of all stakeholders for this digitalization trend.

# 2.6 Procedures at destination and stakeholder roles

# DOs

- a The destination DO would transport the postal items to the OE under the supervision of the destination Customs and submit the postal items with the necessary documentation for customs procedures to the latter for postal customs clearance in accordance with national legislation.
- b The destination DO would meet expenses incurred for transporting postal items from the destination railway station to the destination OE.
- c If dispatches in closed transit are to be transported by the destination DO to other countries by means other than rail, the destination DO should make prior arrangements to ensure that the dispatches are not stranded and are forwarded within the agreed timeline.
- d The apportionment of the operational and financial responsibilities at destination should be determined between the origin and destination DOs prior to the physical transportation of mails by rail, which could be incorporated into the bilateral agreement.

### Customs

- e The destination Customs should perform the following functions:
  - Receive customs declarations, either as a hard copy or their electronic equivalent;
  - Check customs seals (electronic and mechanical seals), if applicable;
  - Carry out customs control based on risk assessment as per national legislation and customs regime;
  - Assess duties on postal items. It should be noted that assessment of duties on postal items is the sovereign right of customs authorities. In the majority of UPU member countries, Customs carries out this assessment. However, some DOs could act on behalf of Customs for certain operations, for example:
    - The DO could perform the primary customs inspection process, based on procedural instructions and training from Customs.
    - The DO could determine the duty to be collected, with Customs validating the DO's process and helping the postal service with any difficulties in identifying the precise tariff applicable to the item.
    - The DO could also act as a customs clearing agent, directly or indirectly representing the
      declarant (typically the addressee). In such a scenario, the DO would pay the duty and
      taxes to Customs and in turn receive payment from the addressee.

Flexible approaches to the three above-mentioned types of involvement should be developed to meet local needs.

# Rail

- Subject to bilateral discussions between the rail company and the destination DO, the rail company should hand over the consignments at an agreed place to the destination DO along with the relevant documentation, comprising the CN 37 surface delivery bill, CIM/SMGS consignment note (or SMGS or CIM respectively if applicable in the destination country) or luggage ticket for passenger train/international passenger transport parcel shipment. The use of electronic forms is to be promoted. (N.B. More emphasis should be placed on the use of e-consignment note and the paper-free initiatives, and more work needs to be done to carry out the corresponding pilots.)
- g In response to a CARDIT message sent by the origin DO, the rail company should send a RESDIT, which is an electronic UPU message acknowledging the processing of mail along the supply chain.

# 3 Future possibilities

3.1 Seamless procedures facilitated by electronic data exchange

# 3.1.1 Global Postal Model for EAD

The UPU has developed the GPM for EAD in an effort to standardize DOs' arrangements for the provision of EAD. The GPM includes eight EAD exchange flows among DOs, Customs and carriers. A graphical representation of the GPM and definitions of each flow can be found in Annex 6.

The provision of pre-loading and pre-arrival EAD messages would help to reduce security risks for carriers and Customs, and will soon be mandatory in certain regions of the world.

# The provision of EAD:

- Helps to improve transport security;
- Speeds up the pre-clearance of postal items at Customs; and
- Offers end-to-end visibility of postal items.

# 3.1.2 Customs-Post EDI messages (CUSITM and CUSRSP)

Risk assessment based on pre-loading advance electronic information would efficiently facilitate railway transportation while adequately controlling trade. Therefore, the use of pre-loading advance electronic information as stipulated in the SAFE Framework of Standards can be considered as a future possibility to facilitate railway transportation while ensuring adequate risk management in advance.

The UPU and the WCO have jointly developed Customs—Post EDI messages (CUSITM and CUSRSP) in line with the WCO Data Model for customs declaration purposes. In addition, the UPU Customs Declaration System (CDS), a software application provided by the UPU's Postal Technology Centre (PTC), was developed on the basis of the WCO—UPU Customs—Post EDI messages. It can implement and support customs-related WCO—UPU standard EDI messaging (CUSITM/CUSRSP or local equivalent) and inter-postal standard messaging (ITMATT or local equivalent).

Based on national requirements, customs administrations and DOs can exchange the CUSITM and CUSRSP (or local equivalent) messages via the electronic exchange of CN 22/CN 23 data for customs declaration and customs transit declaration purposes in the railway transport of postal items.

The UPU and the WCO should consider the possibility of standardizing electronic data requirements for seamless customs procedures for all countries involved en route in the transportation of postal items by rail.

# 3.1.3 ICS2 R3 legal requirements

The EC, based on the Union Customs Code (UCC) regulations, has formulated the ICS2R3 legal requirements for the postal scenario for rail, in an effort to reinforce risk assessment and security controls before mail actually enters the EU customs territory.

Under the ICS2 R3 legal requirements, the rail company that actually carries mail into the EU customs territory will be obliged to file the transportation details (with the exception of the ENS filing from the destination DO) with the customs office of first entry, i.e. that with jurisdiction over the location where the rail company enters the EU.

Details of the ICS2 R3 legal requirements for the postal scenario for rail can be found in Annex 9.

The UPU has been working closely with the EC on the development of these legal requirements. Every effort will be made to ensure that UPU exchanges can accommodate a method for compliance with these programmes, without undue disruption to the UPU system of EAD exchanges under current UPU procedures.

# 3.1.4 WCO Railway Guidelines

The WCO has developed the WCO Railway Guidelines, in which initiatives relating to electronic customs transit procedures, customs control in railway transportation, railway—postal procedures, passenger control and cooperation among relevant stakeholders and customs administrations are explored and explained in further detail. It is anticipated that the customs transit procedures and customs clearance will be simplified and facilitated through the exchange of EAD and the use of modern technologies. (N.B. – The WCO Railway Guidelines are currently being developed by the WCO in consultation with relevant stakeholders, and it is expected that they will be published on the WCO website in 2022 at www.wcoomd.org/en/topics/facilitation.aspx.)

# 3.2 Safety and security

Improving the accuracy of the information submitted by DOs, as well as the possible exchange of electronic data and EAD between customs administrations and DOs, contributes to the effective risk management by customs administrations of the international transportation of mail and facilitates railway transportation.

Sharing information such as X-ray images, among customs administrations and railway companies en route in railway transportation may increase safety and security while facilitating transportation.

# Detailed description of documents and forms used for the transportation of postal items by rail

# 1 UPU documents used for mail transport by rail

Postal items transported by surface (i.e. by ship, road and rail) are handed over to the transport company using the UPU CN 37 delivery bill for surface mails and the CN 34 receptacle labels, when letter mail is involved. Parcels require the use of the CP 83 receptacle labels for surface mails.

The CN 37 delivery bill for surface mails is the consignment document used in the transportation function, both for operational control and for accounting between the DO and the carrier. Operationally, the consignment moves the receptacles between an origin international mail processing centre (IMPC) and a destination IMPC, typically via a carrier such as an airline, a shipping company or a railway company. From an accounting perspective, the CN 37 is the basis for payment from the DO initiating the consignment to the carrier.

The above-mentioned forms and labels define the shipment as being mail, not only to DOs but also to the transport companies. This is very important for many reasons, including for the purposes of customs processes at borders and ports.

From a UPU point of view, when rail transport is involved, the CN 37 and the CN 34/CP 83 receptacle labels would enable the shipment to be recognized as surface mail and to be transported from origin to destination. They could also enable the mail to be moved from the destination rail terminal to the destination OE for postal customs clearance based on national laws.

It should be noted that UPU receptacle labels are uniquely identified with a barcoded receptacle ID. EDI messaging between the origin and destination DOs, based on these barcodes, makes it possible to send confirmation of receipt of each receptacle at destination to the origin DO and to monitor the time taken (in air transport, some, but not all, airlines also use the barcoded receptacle IDs). It is recommended that all accompanying paper documents be replaced by EDI message exchanges. Paper-free initiatives have already been launched in air and maritime transportation, and such pilots for mail transport by rail will also be organized in the near future.

# 2 Common CIM/SMGS consignment note (CIT and OSJD)

This is an alternative to the classic system of consignment, with re-transcription of an SMGS consignment note to a CIM consignment note or from a CIM consignment note to an SMGS consignment note at the re-consignment point.

# General regulations on paper/electronic consignment notes

Legal basis

The CIM/SMGS consignment note is based on CIM article 6 § 8 and SMGS article 13.

Terms of use

Under the provisions of the CIM/SMGS Consignment Note Manual (Annex 6 to SMGS), the common CIM/SMGS consignment note may be used as a CIM consignment note in the area in which the CIM applies and as an SMGS consignment note in the area in which the SMGS applies.

Descriptions of the boxes of the printed consignment note and on the printout of the electronic consignment note

Descriptions of the boxes are to be printed in two (or, as appropriate, three) languages, one of which must be Russian and another either English, French or German.

For consignments to or from China (People's Rep.), descriptions of the boxes are also to be printed in Chinese.

# Filling out a consignment note

Consignment note to be filled out in the following languages:

- a Fields relating to both the CIM contract of carriage and the SMGS: Russian plus English, French or German.<sup>3</sup> For transport to China, the consignment note can also be made out in Chinese;
- b Fields relating only to the CIM contract of carriage: English, French or German;<sup>1</sup>
- c Fields relating only to the SMGS contract of carriage: Russian. For transport to China, the consignment note can also be made out in Chinese.

In order to ensure prompt and accurate customs declaration at transit and/or destination country, it is recommended that the combined CIM/SMGS consignment note be filled out in the relevant working languages, preferably in a language accepted in the transit and/or destination country.

# Paper consignment note

Sample of the common CIM/SMGS consignment note consisting of six numbered A4 sheets:

Sheet No.	Description	Retention of the sheet
1	Original of the consignment note	Consignee
2	Road list	Carrier that delivers the goods to the consignee
CIM 5	Duplicate of the consignment	Consignor
SMGS 3	note	
4	Delivery note	CIM → SMGS traffic: destination railway
		$SMGS \rightarrow CIM$ traffic: not used
CIM 3	Arrival note/Customs	CIM → SMGS traffic:
SMGS 5		consignee/Customs
		SMGS → CIM traffic: destination carrier/Customs
6	Sheet of notification of cargo shipment	CIM → SMGS traffic: forwarding carrier
		$SMGS \to CIM \; traffic: \; not \; used$

# Common consignment note manual and manual for reconsignment

More details regarding the SIM/SMGS consignment note manual (GLV-CIM/SMGS) and the CIM/SMGS reconsignment manual (GR-CIM/SMGS) are accessible at www.cit-rail.org/en/freight-traffic/cim-smgs/#content-294296 and www.cit-rail.org/en/freight-traffic/cim-smgs/#content-294289 respectively.

# Electronic consignment note (where applicable)

Functional specifications	Updated based on the revision of SMGS (1 July 2015)
Legal specifications	EDI contract
Work done	Ad hoc technical working group on e-consignment note CIM/SMGS (CIT, OSJD, RailData and experts from CIM and SMGS railway undertakings)

<sup>&</sup>lt;sup>3</sup> Parties to the contract of carriage may agree on a language other than English, French or German. Such a deviation from the content of the consignment note for the shipment of dangerous goods under the RID can be agreed only by the countries concerned in this CIM contract of carriage. This footnote applies only to CIM contracts of carriage.

Tasks	Revision of the technical specifications; work towards development of the XML/EDIFACT converter
In force	1 July 2019
Document	Available for CIT and OSJD members in English, French, German, Russian and Chinese* (*OSJD website)
Next step	Organization of pilot transport with electronic CIM/SMGS consignment note; possible partners – DB Cargo and RZD
Important questions	<ul> <li>Full and formal recognition of the electronic CIM/SMGS consignment note</li> <li>Exchange of information with customs authorities (business-to-administration) and the scope of this information?</li> <li>Electronic use of accompanying documents (container and wagon note, formal report, etc.)</li> </ul>

The principle of functional equivalence in the CIM (CIM article 6 § 9)

The consignment note and its duplicate may be established in the form of electronic data registration which can be transformed into legible written symbols. The procedures used for the registration and treatment of data must be equivalent from the functional point of view, particularly in so far as the evidential value of the consignment note represented by that data is concerned.

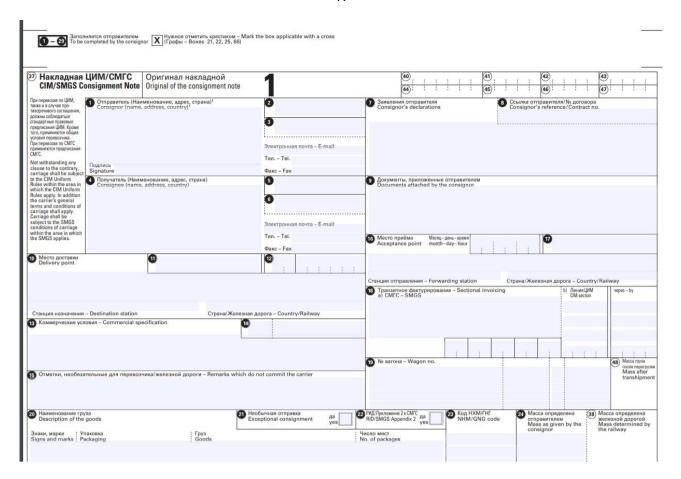
The principle of agreement between carriers, consignors and recipients using SMGS

The contract of carriage can be executed through an electronic consignment note. An e-consignment note functions as a paper consignment note and is a set of data in electronic form, identical to the data set of the paper consignment note. If necessary, the electronic consignment note and its additional sheets can be printed on paper in the form of Appendix 5 to the CIM/SMGS Consignment Note Manual (Annex 6 to SMGS). If changes are made to the electronic consignment note in accordance with the SMGS regulations, the original data is retained.

Agreement on Electronic Data Interchange in International Railway Freight Communication (EDI Agreement)

On a contractual basis, carriers and customers (senders/receivers) determine the messages which must be exchanged, as well as the type and method of data exchange for the electronic consignment note. A roadmap on interoperability between postal and railway EDI systems has been developed.

Sample of the common CIM/SMGS consignment note:



Groups of wagons and groups of containers consigned with a single CIM/SMGS consignment note

Groups of wagons and groups of containers may be consigned with a single CIM/SMGS consignment note and a CIM/SMGS wagon list/container list, provided that there is prior agreement between the consignor and the carriers taking part and that the following conditions are satisfied:

- Same consignor and consignee;
- Same acceptance point/forwarding station;
- Same delivery point/destination station;
- Same commodity (unless agreed otherwise).

Samples of the CIM/SMGS wagon sheets and container sheets and explanations on their completion are contained in Attachments 7.1 to 7.4 to the CIM/SMGS Consignment Note Manual (Annex 6 to SMGS).

With the CIM/SMGS consignment note, the necessary CIM and SMGS contracts of carriage are condensed into a single document. This enables non-stop rail freight transport with a single consignment document between Europe, Russia and Asia. It applies as a national customs (transit) document in each instance in the area of the SMGS regime and it can be used both in wagon and container loading and in combined traffic.

A common CIM/SMGS consignment note has several advantages. There are no amendments to the documents at the place of re-consignment between two legal areas, thus guaranteeing minimal wagon/container stoppage times. Meanwhile, it facilitates customs transit procedures; for instance, export formalities/commercial verification can be dealt with as soon as the consignment has been dispatched within the EU/countries of the Common Transit Convention. However, for export consignments from the region, customs controls during transport, or when leaving the EU/countries of the Common Transit Convention, would never be completely excluded. A common CIM/SMGS consignment note is used voluntarily, when agreed between the sender and the carrier.

### Customs clearance

Obligations regarding customs security procedures and other customs procedures

The applicable customs regulations at destination should be duly observed. In most cases, the origin DO and railway carriers would need to discuss and agree upon how to fulfil the filing obligations required by destination Customs, wherever such requirements exist.

In the case of transporting mails by rail to the EU, before a shipment enters EU territory, it is necessary to ensure the implementation of the EU customs provisions and customs regulations in force.

If in the territory of the EU or of the parties to the EU/EFTA convention on a common transit procedure for shipments, a simplified customs procedure for railway consignments should be implemented, then for shipments from states using the SMGS, the contractual SMGS carrier must – prior to the shipment's arrival in the territory of the EU – indicate on the CIM/SMGS consignment note the contractual CIM carrier and main party responsible (principal). For this purpose, the CIM carrier at the re-consignment point informs the contractual SMGS carrier of the details to be entered in box 66 of the consignment note, as well as the authorization number, in accordance with section 14.3.1 of the CIM/SMGS Consignment Note Manual (Annex 6 to SMGS).

# 3 Rail document used for a pilot conducted on a passenger train

The main document used during the pilots for the transportation of international mail items via international passenger train is the CN 37 delivery bill. The railway company also completed railway transportation document "Luggage ticket for passenger train/international passenger transport shipment" in accordance with p.29 of SMPS as sampled in Annex 1 to instruction of SMPS. "Luggage ticket for passenger train/international passenger transport shipment" contains a reference to the attached CN 37 along with its number and date.

The transportation of international mail items via passenger railway transportation is performed by carriage load in accordance with the schedules and rates of the rail companies involved (advisable not to exceed UPU rates).

A rail document entitled "Luggage ticket for passenger train/international passenger transport shipment" was used during a pilot conducted on a passenger train. The pilot was conducted from Beijing to Moscow via Harbin and Manzhouli on 10 April 2016. An image of the document is provided further on.

# CN 37 - Delivery bill. Surface mails.

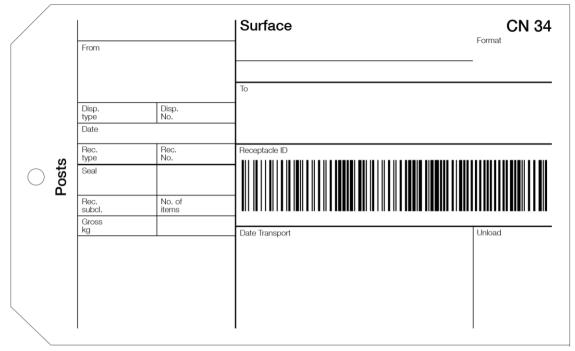
	d operator of origin xchange of origin of t			DELIN Surface Date	/ERY B ce mai	ILL s	Serial No				
Office of de	estination of the bill							By tra			
Priority	/ Non-pri	ority						Date of d			
Train No.∧	ш.	J,			Route			Seal No.			
Name of sl					Port of di	combarkat	ion	Company	,		
ivallie of Si	ıııp										
If a contai	iner is used				No. of co	ntainer		No. of se	aı		
	inor io dood										
Entry											
								Gross weight of receptacles, etc.			
Mail No.	Office of origin		post recep-	recepta- cles and loose	of empty	Letter post	CP	Empty recep- tacles	Observations		
1	2	3	4	5	6		8	9	10		
						kg <sup>3</sup>	kg <sup>3</sup>	kg <sup>3</sup>			
		Totals									

Size 210 x 297 mm

# CN 47 - Delivery bill. Mails of empty receptacles

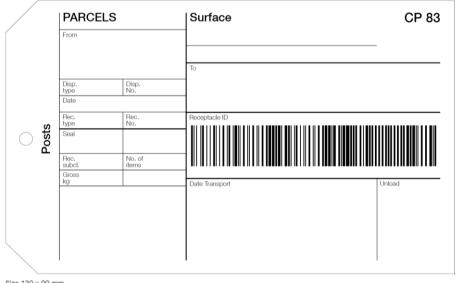
Office of origin of		DELIVERY BILL Mails of empty receptacles Date Serial No.								
Office of destinati	on									
esignated opera	ator to which rece	ptacles belong			Pric	ority n-priority			By airmail By S.A.L. By surface	
								Dat	e of departure	Time
Type of recepta	cles returned	Flight No.			Airport o	of direct tra	anshipment	Air	oort of offloadin	g
Priority/By a	ir	Train No.			Route					
Non-priority/	Surface				isembark	etion	Cov	Company		
Parcels					Portor	alse i i baik	auon	100	прапу	
EMS	If a container is No. of container	No. of seal		No. of container			No. of seal			
	No. of container		No. of seal			No. of c	ontainer		No. of seal	
ntn.										
Entry Mail No.	Office of origin	Office	ation	Number of sacks of em bags and of empty recent tacles return		Gro	oss weight	Observation		
1	2				3		4	11	5	6
								kg <sup>1</sup>		
									CC	
							720			
					-	P	1			
				<u>c(</u>						
			P							
		01								
,	CNI									
	<u> </u>				T-1-1					
	ce of exchange		e official of		Totals			06-	e of exchange	6 - 1 41 41

CN 34 - Receptacle label for surface letter mail



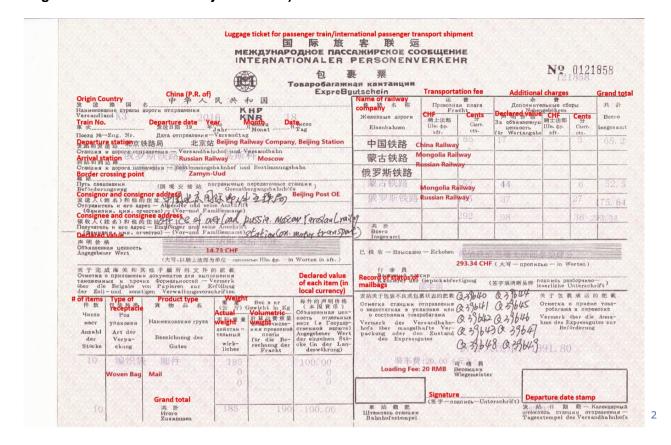
Size 130 x 90 mm

# CP 83 - Receptacle label for surface parcel mail



Size 130 x 90 mm

Luggage ticket for passenger train/international passenger transport shipment (revised image with English translation of the major elements)



# Glossary of terms

### Postal terms

Acceptance: point of time at which the carrier formally agrees to provide the service in accordance with an agreement, confirmed by the proof of acceptance provided by the carrier to the principal or the DO of origin/transit.

Carrier: the contractual rail carrier with whom the principal has concluded the contract of carriage pursuant to an agreement. The origin or destination DO may also be a carrier provided it possesses a proper fleet and transportation capabilities.

Closed transit: when receptacles are consigned to a transit DO to be forwarded onwards to the destination, along with the transit DO's own originating receptacles. The transit DO includes the receptacles on its delivery bill (CN 37 for surface). In the case of transport by surface, the applicable transport rate is the land rate. In accordance with the UPU Regulations, accounting for the closed transit of surface parcels is based on UPU form CP 88, which is sent from the origin DO to the destination DO. This applies only to surface parcels.

CN 22/CN 23 (Customs declaration): special customs declaration forms for postal items as described in the UPU Acts.

CN 37 (Delivery bill. Surface mails): the basic UPU form providing consignment information. A consignment is defined by a delivery bill. The delivery bill is used in the transportation function, both for operational control and for accounting between the DO and the carrier. This form defines the shipment as mail and therefore subject to postal customs clearance based on national laws. Typically, it is the presence of UPU consignment information (paper-based or electronic) that enables the receptacles to be moved from the custody of the rail carrier to that of the destination DO for postal customs clearance based on national laws.

Consignment: postal receptacles are grouped in consignments for transport purposes. A consignment consists of the receptacles assigned to a specific transport, regardless of the dispatch (or dispatches) to which the receptacles belong.

Contracted volumes: the volume of mail in a consignment handed over by the principal in accordance with the estimated volumes and/or the volume accepted by the carrier for the service.

Dangerous goods: articles covered by the UN Recommendations on the Transport of Dangerous Goods, in addition to certain dangerous goods provided for in the UPU Regulations, the Technical Instructions of the International Civil Aviation Organization, and the International Air Transport Association's Dangerous Goods Regulations.

# N.B. -:

- Subject to security and safety controls, DOs could send postal items containing mailable quantities of allowable dangerous goods by rail when such items cannot be sent by air.
- For instance, the UPU Convention currently specifies limits for postal items containing lithium batteries (must be installed in equipment; maximum two batteries/four cells; maximum 100 watt-hour rating). The countries involved could bilaterally agree to specifications outside these limits. This would require agreement of the origin, transit and destination countries. Dangerous goods that are transported as part of such agreements must be prepared in accordance with the national, regional and international requirements for transportation of such goods by rail.

Days: full calendar days, including legal rest days and public holidays.

Delivery: handover of mail at destination, confirmed by the proof of delivery; delivery of the mail transported by the carrier to the DO of destination.

Designated operator (DO): any governmental or non-governmental entity officially designated by the UPU member country to operate postal services and to fulfil the related obligations arising out of the UPU Acts on its territory.

Destination: location as stated in CN 37. Usually, it would be the railway station, where the mail is handed over to the DO of destination by the carrier.

Electronic data interchange (EDI) messages:

- CARDIT: message sent from a DO originating a consignment to a carrier that is going to transport that
  consignment. It is a consignment- and receptacle-level message. CARDIT defines receptacles allocated
  to a consignment for carrier operations and billing purposes, and provides pre-advice of mail to the
  carrier.
- CUSITM: CN 23 data transmitted by the destination DO to the associated customs partner for security evaluation.
- CUSRSP: assessment results transmitted by the associated customs partner to the destination DO.
   Associated code lists: 213 Item assessment; 214 Request for information; 215 Request for screening; 217 REFRSP; 218 Data elements. European Commission code lists: 724 HRCM; 735 Referral request; 752 Additional information requested.
- ITMATT: an electronic item-level message sent from an origin DO to a destination DO. It relates to UPU forms CN 22 and CN 23, and includes information on the contents of postal items. ITMATT is primarily used to provide customs-related data to the destination DO. The data can be used for both customs clearance and risk assessment.
- ITMREF: message sent by the destination DO providing the customs assessment result to the origin DO, as per UPU messaging standard M53.
- PRECON: message containing information about a mail consignment that has been prepared for handover to a carrier. Its purpose is to provide: i) planning information to the DO that will next handle the consignment; and ii) the means to automate the checking in of mail as it is received by that DO.
- PREDES: message containing information about a mail dispatch that has been prepared by an OE for delivery to an OE in another country. The message describes the individual receptacles within the dispatch and the individual items within each receptacle. Its purpose is to provide: i) planning information to the DO that will receive the dispatch at one of its OEs; ii) the means to automate the checking in of mail as it is received by that DO at the OE; and iii) data in support of accounting functions.
- RESCON: message containing information about a mail consignment that has been received from a carrier. Its purpose is to provide information that can be used to assist with the measurement of the quality of service delivered by the transport provider(s). This can be achieved by monitoring the arrival of containers and receptacles against the pre-advised transport information.
- RESDES: message containing information about an international mail dispatch that has been received at the destination OE. The message provides the dispatch-level information, such as the dispatch identification data, possibly the arrival transport, and the list of receptacles received for the dispatch. It provides a means for origin DOs to monitor and measure the receipt of their receptacles, so as to be able to ensure, for example, that planned transportation arrangements are working as planned.
- RESDIT: message sent by a carrier of a consignment to the DO. A RESDIT message is normally sent
  in response to a CARDIT. However, if no CARDIT is received, a RESDIT message can also be sent if
  a suitable message standard is used between a DO and a carrier. There can be several RESDIT messages for a single CARDIT as the receptacles in a consignment are transported along the supply chain
  from origin to destination.

Handover: transfer of custody of the mail from the principal or DO of origin to the carrier, which accepts the mail for transportation.

Mail: all postal items, as defined in the Universal Postal Convention, to be conveyed via aircraft, truck, rail or ship, or subject to other services as agreed.

Mail category: UPU standards code list 115 defines the mail categories as follows:

- A Airmail or priority mail;
- B S.A.L. mail/non-priority mail;
- C Surface mail/non-priority mail;
- D Priority mail sent by surface transportation (optional code).

Non-priority item: item for which the sender has chosen a lower rate, implying a longer delivery time.

Office of exchange (OE): office established by a DO for international mail, from which all outbound mail is dispatched and at which all inbound mail is received. International mail exchanged between countries thus actually moves between OEs. A DO may have only one OE or it may have several.

Origin: the place of dispatch of the mail, where the carrier accepts the mail from the principal to provide the services.

Postal item: generic term referring to any item dispatched by one DO to another (e.g. letter-post item, parcel-post item, money order).

Principal: the origin DO that has concluded the contract of carriage with the carrier(s) for the transportation of international mail.

Priority item: item conveyed by the quickest route (air or surface) with priority.

Proof of acceptance (POA): a positive check of all mail received by the carrier by positive data capturing of mail receptacle identifiers enclosed in the proper EDI messages generated by the carrier, and/or by the signature of the documents, or by other agreed data exchange. Proof of acceptance is subject to the critical handover time specified by the carrier for a specified volume of mail.

Proof of delivery (POD): a positive check of all mail received by the DO at destination or by its agent by positive data capturing of mail receptacle identifiers enclosed in the proper EDI messages generated by the carrier, and/or by the signature of the documents, or by other agreed data exchange. Proof of delivery is subject to the critical handover time specified by the carrier for a specified volume of mail, and to the local DO's availability to sign or exchange a POD.

Receptacle: a unit of a dispatch and of a consignment. The receptacle is typically a bag or a tray containing postal items. Receptacles are a physical entity handled by carriers. Each receptacle has a standard 29-character barcoded receptacle ID. The receptacle ID is used by carriers, as well as by DOs. The UPU standard for the postal receptacle identifier is standard S9.

Receptacle label: label affixed to the mail receptacle, indicating the contents of the receptacle, the gross weight, etc. The receptacle label for surface letter mail is the CN 34 form. The CP 83 form is the receptacle label for surface parcel mail.

Representative of the carrier: the party (successive carrier) that performs a duty on behalf of the carrier at the origin, transit or destination railway stations and that is liable on the basis of that contract.

Representative of the principal: the party that performs a duty on behalf of the principal at the destination railway station, as indicated by the principal to the carrier.

Routeings: all routes and schedules for the transportation of mail by the carrier. The carrier may change these routes and schedules depending on factors such as the weather or train cancellations.

Routeing plan: list of rail routeings to be used for the service as agreed between the carrier, the principal and the destination DO.

Services: all services relating to the transportation of mail, such as loading, unloading, ground handling, security, transportation, distribution and documentation.

Surface mail: any postal item conveyed in principle by train, ship or motor vehicle.

Transportation: the actual transport and physical movement by rail and road, as the case may be.

Transit charges: remuneration for services rendered by a DO in the country crossed (DO, other service or both) in respect of the land, sea or air transit of mail.

Universal Postal Convention: international treaty containing the rules applicable to international postal services.

Universal Postal Union (UPU): specialized agency of the United Nations, with the aim of securing the organization and improvement of postal services and promoting the development of international collaboration in this sphere.

### Customs terms

Customs seal: an assembly consisting of a seal and a fastening, which are joined together in a secure manner. Customs seals are affixed in connection with certain customs procedures (customs transit, in particular), generally to prevent or to draw attention to any unauthorized interference with the sealed items.

Customs transit operation: the transport of goods from an office of departure to an office of destination under customs transit.

- National customs transit: when the transit procedure applies to one country or customs territory only, and the office of departure and the office of destination are in the same territory. Any security required relates only to transit movements in the customs territory concerned.
- International customs transit: when the transit movements are part of a single customs transit operation
  during which one or more customs frontiers are crossed in accordance with a bilateral or multilateral
  agreement. This agreement generally sets out the form of the goods declaration for customs transit and,
  if required, security controls acceptable in each of the administrations that are parties to the agreement.

Electronic seal: a customs seal equipped with a mechanism for online tracking of the means of transport to which the electronic seal is affixed.

Guarantee: an undertaking which ensures to the satisfaction of Customs that obligations towards Customs will be fulfilled:

- Individual guarantee: a customs guarantee furnished for only one transit transaction in a predefined customs territory or territories;
- Comprehensive guarantee: a customs guarantee covering a number of transit transactions through a predefined customs territory or territories;
- National guarantee: a customs guarantee legally applicable only within one country according to the national legislation of that country;
- Regional guarantee: a customs guarantee legally applicable within the customs territory of several countries and legally binding pursuant to any regional agreement between the respective countries;
- International guarantee: a customs guarantee legally applicable in several customs territories and legally binding pursuant to international agreements or conventions.

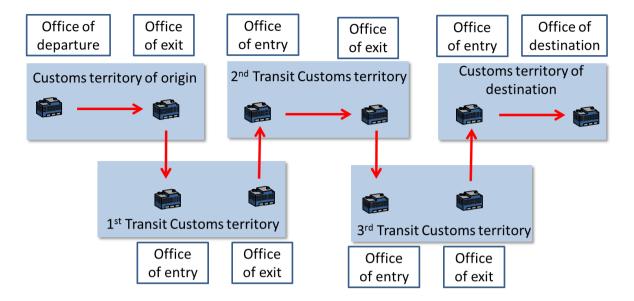
Office en route/office of transit: any customs office located on the route of customs transit operations.

Office of departure: any customs office at which a customs transit operation commences.

Office of destination: any customs office at which a customs transit operation is terminated.

Office of entry: any office en route where transit goods enter a customs territory.

Office of exit: any office en route where transit goods leave a customs territory.



# Railway terms

Uniform Rules Concerning the Contract of International Carriage of Goods by Rail (CIM) – Appendix B to COTIF (see Article 3)

# For the purposes of CIM

- a "carrier" means the contractual carrier with whom the consignor has concluded the contract of carriage pursuant to these Uniform Rules, or a successive carrier who is liable on the basis of this contract;
- b "substitute carrier" means a carrier that has not concluded the contract of carriage with the consignor, but to whom the carrier referred to in letter a) has entrusted, in whole or in part, the performance of the carriage by rail;
- c "General Conditions of Carriage" means the conditions of the carrier in the form of general conditions or tariffs legally in force in each member state and which have become, by the conclusion of the contract of carriage, an integral part of it;
- d "intermodal transport unit" means a container, swap body, semi-trailer or other comparable loading unit used in intermodal transport.

# Case study: Transport of parcels between China (People's Rep.) and Europe: integrating rail transport into the postal network

The post-by-rail project is a complex one in the sense that it is governed by four different areas of regulation:

- sale-of-goods regulations;
- postal regulations (UPU);
- customs regimes (WCO, EU);
- rail regulations (OTIF, OSJD).

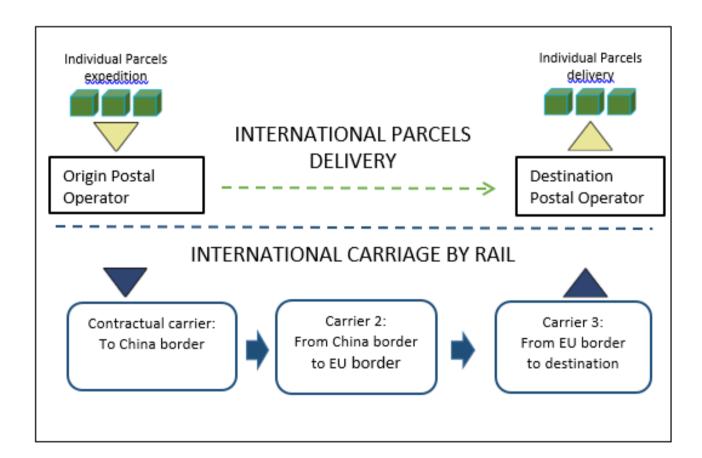
This annex describes how such a project should be organized from an operational and legal perspective at the customs level (1), and then proposes a method for mapping out the various regulatory interfaces (2).

Throughout the document, the envisaged service is based on the use of containers or postal carriages transported on the international freight rail network using the common CIM/SMGS consignment note.

# 1 Organizing customs transit without breaking load

For postal regulation, international transport can be thought of as a "black box" linking the origin DO with the destination DO, as shown in figure 1, in which rail can also be replaced by air, sea or road.

Figure 1: Operation of postal rail project



For such a system to work, there must be no breaking of load between the country of dispatch, in this instance China, and the destination country where the container arrives, e.g. Spain. This is the case for air transport: postal parcel containers in the air transport network remain sealed and are exchanged between the different transport nodes on the basis of CN 37 delivery bills. It is important that this way of working be replicated for the rail transport project.

Until the destination DO is reached, the container should not be opened except for necessary customs control, in particular upon arrival at the EU customs border. Any other solution would involve breaking the load, which would jeopardize the viability of the project for the following two reasons:

- From a legal standpoint, there is no overall transit procedure for railways that could be used in place of the UPU procedure, such as the International Road Transport Convention for roads. Therefore, until a container reaches its destination country, it is more efficient to use the postal procedure from end to end.
- From an operational standpoint, if upon entry into the EU all postal containers were opened prior to their transport within the EU, it is most likely that returning them to the rail network once they have left the rail-based logistics chain would be economically unviable, since the transport distances in Europe are short. However, in line with the EU commitments regarding the priority use of rail, it is strongly recommended that the European rail network be used to carry the containers to their respective destination countries. Given the current EU customs regulatory requirements, though, it is up to the first transit DO to open the container and to affix the yellow labels required for the postal parcels' entry into the EU.

# 2 Mapping out regulatory interfaces

The Open Systems Interconnection (OSI) model currently serves as a theoretical benchmark for data transmission networks, not least the Internet. It is composed of the various protocols needed for data transmission at multiple layers. Within a given stack of protocols, each layer resolves certain data transmission issues and provides well-defined services to the layers above. The upper layers are closer to the user and deal with more abstract data based on the services of the layers below, which format the data so that it can be transmitted to a physical medium.

The OSI hierarchy can be used to more clearly distinguish the interfaces between the different areas of regulation applicable to the project, as follows:

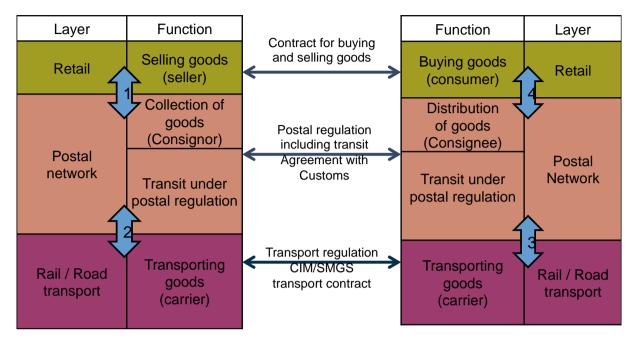
- Start from a position of respect for the autonomy of each set of regulations. As far as possible, each
  layer required to provide the corresponding service (mail order regulations, postal regulations, customs
  regulations, transport regulations) should be based on its own procedures from end to end;
- Between each layer, accurately define which services need to be exchanged for the relevant services to be provided at the next layer;
- Determine the changes, if any, to be made to the method of application of the various regulations to accommodate the necessary exchanges.

Lastly, the different layers need to be arranged into a hierarchy. The following arrangement would seem sensible:

- The transport component is the lowest layer and covers the international transport of postal parcels between two DOs, one in China (People's Rep.) and one in Europe;
- The next layer is postal regulation, which also serves as a basis for customs issues (given that the transit
  of postal items is regulated at the international level). This layer covers the collection of parcels in the
  origin country and their delivery to the recipient in the destination country;
- The service itself, i.e. mail order, represents the uppermost layer.

The hierarchy is illustrated in the diagram below. Between the postal component and the rail transport component (arrow No. 2 in figure 2), an effort must be made to accurately define the data exchanges required for the organization of transport and the establishment of relations between the origin DO and the destination DO.

Figure 2: Conceptual model for seamless international parcel delivery by train



This model can be used to accurately define how the various regulations (postal, customs and rail) interrelate to enable the data transmission required for the international post-by-rail service.

# Case study: Mail-only block trains from China (People's Rep.) to Europe

The international transportation network was severely affected, as of March 2020, by the outbreak of the global COVID-19 pandemic, which caused the majority of aircrafts to be grounded and international flights to be cancelled. Since then, the International Bureau has spared no efforts in reaching out to all partners to ensure that mail is kept moving and that all possible means of transport are utilized. Mail transport by rail has also played its part in this regard and, in collaboration with all stakeholders along the supply chain, China Post has introduced mail-only block trains to clear backlogs of mail destined for Europe.

During Q2 and Q3 2021, a total of 22 mail-only block trains departed from China, carrying 11,000 tonnes of mail destined for Europe. The receptacles were unloaded in Poland and Lithuania before being forwarded to over 30 final destinations throughout Europe.

This has been a major breakthrough, in that the entire train formation comprised containers carrying mail. The total volume of mail transported by rail decreased in the latter half of 2021 with the partial resumption of international passenger flights. However, mail has continued to be transported by rail at a rate of five to seven containers per week, equating to a total weight of 120–170 tonnes per month, which far exceeds pre-2020 volumes.

The outlook for mail transport by rail is quite promising, with a growing list of departure terminals:

- Current departure terminals: CKG, YIW, CGO and DGG;
- Departure terminals under evaluation: CAN, CTU, WUH and SIA.

China Post has been working on the formulation of a manual on mail transport by rail, which will provide a comprehensive description of the standard operating procedure involved in the supply chain for mail transport by rail, and serve as a source of information and instructions for operational staff. A dedicated working group has been established to compile this manual. To this end, on-site audits were conducted in December 2020 to examine day-to-day practices. The manual will be shared within the Forum once finalized, and comments would be welcome.

# Exemplary practices in setting up an international postal rail transport service – based on standard operating procedures shared by China Post

The following exemplary practices are intended to serve as a template for the operational procedures and processes involved in setting up an international postal rail transport service. The operational procedures are broken down into the specific steps that the stakeholders – DOs, railway carriers and customs authorities – should take. These practices are formulated from the standard operating procedures shared by China Post, which have been revised to make them more generic. In actual operations, it is advised that further revisions be made, so as to better reflect local circumstances. Two topics – namely accounting procedures and the conclusion of a contract between the origin DO and the railway carrier – are also included to provide more relevant information and for ease of reference by the intended users of this annex.

# Concluding a contract between the origin DO and railway carrier

The origin DO checks the feasibility of establishing an international rail transport route with the railway carrier. The factors to be taken into consideration include the following: train schedules, allocated capacity, transportation fees, expected lead time in rail transport, hard copies and/or electronic equivalent of postal documentation, railway transport documentation/forms, electronic customs transit and declaration processes, EAD exchange (both between the origin DO and railway carrier(s) and filing to the customs authorities), as well as first-mile and last-mile transport arrangements in connection with rail transport. The railway carrier may sign a contract with the subsequent railway carrier(s) along the route or may subcontract part or all of the above-mentioned contract to a railway agent.

# Pre-consignment procedures

# Origin DO

- a Railway business request at the departure postal branch: The postal branch at the place of departure (departure postal branch) provides the railway carrier with the monthly business request information and original business request letter at the beginning of each month.
- b Capacity booking with the railway carrier: The departure postal branch informs the railway carrier of the shipping plan in advance, including the container type, number of containers and destination of the shipments. Before the container is scheduled for transportation, the booking order should be submitted to the railway carrier. The booking order includes a description of the goods, weight, volume, quantity, consignor and consignee information, routeing and destination of the shipments, transportation fees and so on.
- c Dispatching at the outward OE: As part of the dispatch process, the CN 33 special list is placed into the mailbags, with the CN 31 letter bill in the F bag. The PREDES messages generated during the dispatch process will be sent to the final destination DO. Receptacles are then transported to the mail unit, with ITMATT messages being sent to the final destination DO prior to this, upon collection of the mail items.

# Consolidation of consignments

# Origin DO

- d Processing at the mail unit/loading point
  - Booking and collection of containers: The postal branch where the containers are loaded (the loading postal branch) informs the departure postal branch of its estimated demand for empty containers. The departure postal branch entrusts the carrier with making arrangements for trailers to collect the empty containers and transport them to the designated loading point. The origin DO may also procure containers from other suppliers (i.e. shipper-owned containers). It must be

- ensured that such shipper-owned containers meet the safety requirements of the railway and border authorities.
- Loading of containers: Under the supervision of the customs authorities, the loading of containers must comply with the weight limit requirements of the railway authorities, and receptacles must be stacked neatly in the container. If necessary, the receptacles must also be fastened as per international regulations for rail or road transportation. During the loading process, photos or videos must be taken and provided in accordance with the regulations of the railway authorities.
- Preparing the transportation data: After the containers are loaded, the loading postal branch prints out the CN 37 delivery bills, ensuring the number of copies is in line with the quantity required by the departure postal branch and customs and railway authorities. The CN 37 delivery bills are stamped by the local customs authority at the loading point, marking them as having been inspected. If Security Smart Lock (SSL) is to be used, the electronic equivalent of the mail details is retrieved from the processing system to prepare the electronic customs declaration form, which is filed with Customs at the departure point for inspection.
  - The origin DO and the railway carrier should explore the different ways that they can exchange the available EAD messages, ensuring that all the required datasets from destination Customs are properly filed in compliance with the applicable regulatory requirements. The exchange of CARDIT/RESDIT messages may serve as one of the optimal solutions.
- Sealing of containers: Once the containers are fully loaded, they are secured with the seal of the railway carrier (the type that is accepted as a customs seal) or Customs, or by SSL. The customs authority enters the container number and customs seal number on the CN 37 delivery bills, signs the forms, produces the customs seal and hands the containers over to the DO.

# Handover procedures to the rail transport provider

# Origin DO

Processing at the departure station: Once the containers arrive at the customs inspection zone of the departure postal branch, the customs seal, including the CN 37 delivery bills and any other documentation, are handed over to the local customs authority at the postal facility or to the railway customs authority for inspection. If the containers are locked using an SSL, a copy of the electronic customs declaration data is prepared and transmitted to the customs authority at the departure point.

As per customs and railway regulations, the departure postal branch provides the accompanying documentation to the railway carrier, including the CN 37 delivery bills, transit customs seals and electronic declaration information encrypted in the SSL. The information on the physical and electronic copies of the documentation must be identical. The number of copies of the accompanying documentation will depend on the requirements of the local customs authorities and railway companies.

# Train formation, customs inspection and release, and EAD transmission

Railway carrier (at origin)

Towing into the station and formation of the train: Upon receipt of the accompanying documentation from the departure postal branch, the railway carrier will arrange for the towing of the containers into the railway station and formation of the train.

# Customs at the departure station

g Customs inspection and release: Once the customs authority at the place of departure has finished supervising the loading of the containers, the towing into the station and the formation of the train, it will inform the border customs authority accordingly, either through the electronic customs information system or via hard-copy customs seals.

# Origin DO

h Pre-advice to the DO at the train's destination: Following the departure of the train, the departure postal branch sends pre-advice messages to the DO at the train's destination. The pre-advice information includes the number of containers, the electronic customs declaration form, the total number of mailbags and the total weight sent to each final destination (as included in the PRECON messages), along with a scanned copy of the railway consignment note.

# Customs at the national border

Customs release: The border customs authority cross-checks the container number, the status of the SSL and the information therein. Once the SSL has been unlocked, it is delivered to the railway carrier or its agent for return to the departure postal branch. The border customs authority also reviews the customs seal submitted by the railway carrier or its agent, and conducts the export inspection and release formalities.

Transiting via national/regional customs territories

# Railway carrier (en route)

The railway carrier that concludes the contract of carriage with the origin DO is responsible for liaising with the subsequent railway carriers along the route to make arrangements for the transfer and relay of the containers on their journey to the destination station. The railway carrier may also subcontract part or all of the workload to the railway agent.

The respective railway carrier presents the accompanying delivery bills, the SMGS/CIM consignment notes and any other documentation to the corresponding customs authorities when the containers enter and leave the national/regional customs territories.

In the event of any missing data or any requests for additional information to be provided by the origin DO, the railway carrier should inform the origin DO so that it can supply the missing elements accordingly.

# Customs at national/regional borders

k The customs authorities along the route inspect the containers (including their intactness and the container seals) and examine the accompanying filed documentation (or the electronic customs transit declaration information once available).

Customs inspection and release will take place whenever the containers enter and leave the customs territory of the countries transited.

# Receipt, processing and reforwarding of mail at the railway destination country

# Railway carrier (at destination)

- Collection of the containers: After submitting the consignment note and CN 37 delivery bills, the railway carrier collects the containers from the railway authorities.
- m Towing of containers to the yard: The railway carrier tows the containers with the postal shipments to the yard designated by the railway destination DO, from where the containers will be collected for further processing.

# Customs at the railway destination country

Following the arrival of the mail containers at the destination station, the local customs authority opens the containers sealed by the origin Customs (with the customs seal or railway carrier seal that is acknowledged as a customs seal) in accordance with its relevant regulations and those imposed by other regulatory authorities.

# Railway destination DO

o Inbound processing: The railway destination DO is responsible for receiving and processing the inbound containers, before organizing surface transit from its OE to the final destination OEs.

The main procedures include:

- i Fulfilling transit formalities with the customs authorities:
- Receipt of the containers from the railway carrier: The railway destination DO collects the containers within the agreed time frame, after submitting the CN 37 delivery bills, consignment note and pick-up order. The railway destination DO checks the container information against the data on the consignment note;

# Processing at the mail unit

- Towing of the containers to the mail unit and subsequent processing: The containers should be opened under the supervision of the customs authorities. When the receptacles are unloaded, the customs declaration forms must be checked. The receptacles must be compared with the data indicated on the CN 37 delivery bills to verify whether the information regarding the origin OE, destination OE, dispatch identifier and number of receptacles within the dispatch corresponds with the actual arrivals. In the event of the loss of receptacles, a CN 43 or CP 78 verification note must be sent to the last dispatching OE and origin OE.
  - If no discrepancies are identified, all the receptacles are scanned in the customs inspection zone of the postal facility and EDI messages are transmitted accordingly. For traffic destined for the railway destination country, RESDES and RESCON messages will be transmitted to the origin DO. For traffic intended for other final destinations, RESCON messages will be sent;
- iv Sorting of the receptacles according to their final destination (as well as those that will be delivered in its own country), placing them in different piles and checking the receptacles in each pile against the CN 37 delivery bills. Once the new consignment containing these receptacles is created, the PRECON message will be sent to the final destination DO;
- v Transportation of the receptacles to their respective final destination OEs, in line with the time limits and modes of transport agreed bilaterally between the origin DO and railway destination DO. Subject to the volume to each destination, trucking capacities and frequency, both parties may also agree on suitable changes in the modes of transport for reforwarding;
- vi Return of empty containers to the yard: In accordance with the return order provided by the departure station, the railway destination DO returns the empty containers to the designated yard in a timely manner and ensures that the containers are intact. If the return cannot be made on time owing to objective reasons, the railway destination DO must inform the departure postal branch accordingly and take photos for evidence purposes. The two parties shall determine their respective responsibilities in accordance with the provisions of their agreement, and the responsible party shall bear all the costs incurred for the delays:

# Processing at the OE (for traffic destined for the railway destination country only)

- vii Receipt of the receptacles: Once the receptacles have been received, the customs declaration forms must be checked. The receptacles must be compared with the data indicated on the CN 37 delivery bills to verify whether the information regarding the origin OE, destination OE, dispatch identifier and number of receptacles within the dispatch corresponds with the actual arrivals. In the event of any discrepancies, a CN 43 or CP 78 verification note must be sent to the last dispatching OE and origin OE;
- viii Opening of the receptacles: Once the receptacles have been opened, the items must be checked against the data indicated on the letter or parcel bill. In the event of any discrepancies, a CN 43 or CP 78 verification note must be sent to the origin OE;
- ix Items in the receptacles will then be inducted into the corresponding transport and delivery networks for final delivery.

# Processing and delivery of inbound mail at the final destination country

### Final destination DO

p Upon receipt of the receptacles, the final destination DO processes and inducts them into the corresponding transport and delivery networks for final delivery.

# Account settlement for outbound mail transported by rail

# 1 Scope of account settlement

Account settlement for outbound mail transported by rail concerns domestic processing and transportation costs, charges for international linehaul, transit charges, charges for handling transit mail, and terminal dues. The main parties involved in settlement are the origin DO, railway carrier, railway destination DO and final destination DO.

# 2 Settlement of charges for international linehaul

In line with the contract of carriage signed between the departure postal branch and the railway carrier, settlement is conducted as per the actual charging standards, settlement methods and frequency of settlement.

The charging standard applied by the carrier is based on the pricing and currency indicated in the contract of carriage, letter of quotation confirmation or booking order. The charges to be settled include, but are not limited to, trucking, international linehaul, dead freight, storage fees, demurrage fees and container imbalance charges. Storage fees and demurrage fees are additional fees that are incremented subject to the processing status at the destination station.

# 3 Settlement of transit charges and charges for handling transit mail

The account statements for transit charges and charges for handling transit mail are reviewed and settled as per the bilateral agreement in place between the origin DO and the railway destination DO, along with the UPU Regulations if applicable. The number of transit receptacles and the total weight sent to each destination are as per the data indicated on the consignment note and CN 37 delivery bills, as agreed by both parties.

4 Assignment of international linehaul charges, transit charges and charges for handling transit mail

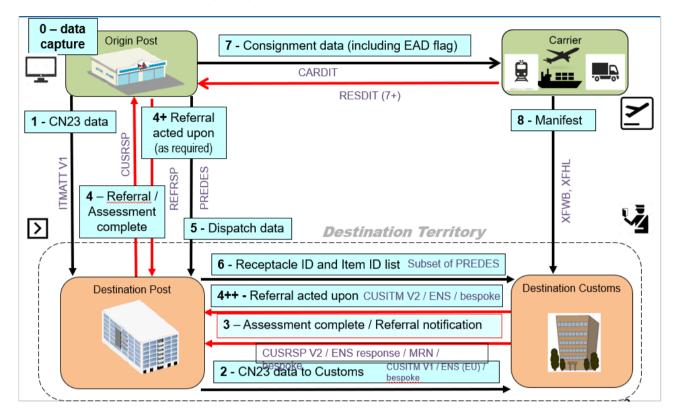
Based on the CN 37 delivery bills and the dispatch data in the processing system, the charges for international linehaul, transit and for handling transit mail are assigned to the respective areas where mail is collected, as per the actual number and weight of the receptacles loaded into the containers.

Based on the CN 33 special lists and data in the collection system, these charges are assigned to the respective collection point, as per the actual items in the receptacles loaded into the containers.

# 5 Other expenses

Domestic processing and transportation costs are assigned as per the existing accounting rules, with terminal dues being settled as per the applicable UPU regulations.

# The UPU Global Postal Model (GPM)4



- Flow 0 Initiation = CN 23 data captured electronically in transmittable format.
- Flow 1 ITMATT M33 V1 (item attribute 7+1 data) provided via CN 23 data from origin DO to destination
- Flow 2 CUSITM V2 (CN 23 data transmitted by destination DO to associated customs partner for security evaluation)
- Flow 3 CUSRSP (assessment results transmitted by associated customs partner to destination DO. Associated code lists: 213 Item assessment; 214 Request for information; 215 Request for screening; 217 RFRSP; 218 Data elements; European Commission code lists 724 HRCM; 735 Referral request; 752 Additional information requested).
- Flow 4 ITMREF V1 M53 (destination DO provides customs assessment result to origin DO).
- Flow 4+ REFRSP V1 M54 (origin DO provides information regarding any actions taken to destination DO).
- Flow 4++ Destination DO provides information received on origin actions to customs partner.
- Flow 5 PREDES Pre-advice dispatch (generated by the DO preparing the dispatch and sent to the DO receiving the dispatch at the destination location, initially designed for planning and tracking purposes).

A dispatch can be represented as a structure with three levels:

- The dispatch, having an identifier conforming to UPU standard S8;
- The receptacles in the dispatch, having an identifier conforming to UPU standard S9;
- The mail items in each receptacle; identified mail items have an identifier conforming to UPU standard S10.

<sup>&</sup>lt;sup>4</sup> The UPU GPM has been jointly developed with the International Air Transport Association (IATA), the International Civil Aviation Organization (ICAO) and the WCO. More information can be found on the UPU website at: www.upu.int/en/Postal-Solutions/Programmes-Services/Postal-Supply-Chain/Postal-Supply-Chain-Integration.

- Flow 6 Destination DO provides receptacle ID and item ID list to customs partner.
- Flow 7 CARDIT Carrier documents international transport advice (M48 origin DO provides consignment data (CN 37/CN 38/CN 41/CN 47), including the EAD flag, to transport provider).
- Flow 7+ RESDIT Response documents international transport advice (M49) a response/confirmation EDI message, sent by the transport provider to the DO of origin, to provide status on various transportation events. As each of these transportation events are completed, individual RESDIT messages are to be sent.
- Flow 8 Air carrier provides manifest data to destination Customs.

# Case study: EU customs law

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

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

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

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

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

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

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

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

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

Primary goals in enhancing and simplifying rail transport procedures into the EU:

- Possibility of removing the yellow sticker procedure, once the destination DO and the carrier can file the ENS data as requested.
- ii Possibility of trains travelling to the final destination without any disruption to conveyance at the EU border.
- iii Possibility of conducting customs control, security check and risk assessment procedures in the final destination country, once all the required ENS data has been filed and is available in the IT system.

# Roadmap on the interoperability of the EDI systems of DOs and railway/transport and logistics companies for the transportation of postal items in containers

## Glossary

- Roadmap: a plan of activities to move towards the specified target
- Interoperability: the ability of systems to interact and function with other systems
- Data exchange: transfer of data from system to system
- Designated operators: any governmental or non-governmental entities officially designated by the UPU member country to operate postal services and to fulfil the related obligations arising out of the UPU Acts on its territory
- Railway/transport and logistics companies: carriers, operators, infrastructure managers, freight forwarders and other participants in the rail transport process
- International postal items: export-import and transit mail and parcels

#### Aim

Ensure the smooth movement of transit and export-import postal goods by rail and the corresponding data interchange on the progress of transportation, taking into account the need to: i) develop digital transport corridors; ii) facilitate the inspection of postal packages and exchange of documentation; and iii) comply with preloading advance cargo information (PLACI) regulations governing the filing of EAD. These regulatory requirements are currently observed by certain countries and regions, such as the EU (Import Control System 2 – ICS2) and the United Kingdom (Pre-Departure Information for Cargo Targeting – PreDICT), and other similar requirements may be introduced around the world in the future.

## Objectives

- Stage 1 Analyze the new PLACI legal requirements and regulations governing the filing of EAD; define the interaction scheme and ensure the implementation of the information exchange approach, whereby the DO concludes a transportation contract, and information on the transportation of postal items is provided by railway/transport and logistics companies to the DO in any way specified in the contract and as per the level of accuracy and/or frequency required for such information. The DO is obligated to exchange any necessary data via the POST\*Net system.
- 2 Stage 2 Define the interaction scheme and ensure the compatibility of the railway EDI system, postal EDI system and national/regional customs systems, taking into account sub-regional digital integration programmes that have been implemented.
- 3 Provide a regulatory and process framework for stages 1 and 2 in sequence.

The tasks for stages 1 and 2 are implemented in parallel, with stage 1 being of higher priority.

Each stage can end with test transportation.

# **Arrangements**

- 1 Stage 1 arrangements
- i Identify the type of information (data) needed by Customs or the national/regional competent control authorities and DOs.
- Determine the parameters and processes of existing data collection and transmission systems within the framework of the transportation management contract.
- iii Compare the data collected and the data needed.

- iv In the event of insufficient data, identify the opportunities for data collection and transmission, with the designation of the responsible units within the transport operators (railway companies).
- v Determine the frequency and order of data transmission, the form of data transmission (without recourse to the POST\*Net system by railway companies) and generate a map of processes.
- vi Prepare standard templates for the sections of the contract of carriage relating to the data transfers required by DOs.
- 2 Stage 2 arrangements
- i Identify the type of information (data) to be exchanged.
- Determine the parameters and processes of existing data interchange systems for DOs and for railway companies and transport operators, including the basic data set transmitted.
- iii Compare the data required and the data set transmitted, and determine mutual sufficiency.
- iv In the event of insufficient data, identify the missing information and sources of information, as well as the parties responsible for the collection of data within companies/organizations.
- v In the event of insufficient data, assess the technological feasibility of transferring data from one system to another without full integration of systems.
- vi Determine the need for additional resources to ensure the technical capability of data transfer or the lack of such a need.
- vii Describe the process of data transfer, taking interoperability into account.
- viii Make the necessary technical adjustments.
- ix Test the operation of the systems and data interchange.
- 3 Measures to organize a seamless electronic document flow along postal cargo routes
- i Describe the current parameters (content of data interchanged, frequency, format, etc.) of document support for postal export-import and transit shipments, noting the current applicability of electronic formats.
- ii Determine the optimal parameters of electronic document support, including:i) document scope;ii) party responsible for issuing documents; and iii) access to electronic documents (postal and rail operators and control authorities, including Customs).
- iii Determine discrepancies between current and optimal parameters, including: i) document content; and ii) document applicability and acceptability.
- iv Determine the necessary changes in transport legislation, followed by discussions with the relevant organizations (OSJD, OTIF, CIT).
- v Identify the necessary changes in customs legislation, followed by discussions with the WCO and regional/national customs unions (e.g. European Union, Eurasian Customs Union, China Customs).
- vi Describe the process of preparation, transmission, storage and exchange of electronic documents specific to postal freight transportation, as well as the procedure for their review, verification and acceptance when crossing national borders, including the responsibilities of all parties.
- vii In cooperation with the OSJD, OTIF, CIT, WCO and European Commission, prepare and send relevant explanations to members of organizations (including in leaflet format).
- viii Time frame and responsibilities
- ix The deadline for implementation of the entire roadmap is 31 December 2022.
- x The deadlines for the implementation of the activities are set out in the roadmap itself.

No.	Organizations (in alphabetic order)	Areas of responsibility
1	China Customs (TBC)	Participation, <i>upon agreement</i> , in providing the regulatory and process framework, including as part of the UPU–Rail Forum;
		Participation in the monitoring of test transportation.
2	CCTT – International Coordinating Council on Trans-Eurasian Transportation	Coordination of the implementation of the roadmap measures by railway/transport and logistics companies and organizations that are members of the CCTT, including the collection of necessary information;
		Monitoring of the implementation of roadmap activities;
		Monitoring of test transportation.
3	CIT – International Rail Transport Committee	Participation, <i>upon agreement</i> , in providing the regulatory and process framework, including as part of the UPU–Rail Forum;
		Participation in the monitoring of test transportation.
4	EC – European Commission (TBC)	Participation, <i>upon agreement</i> , in providing the ICS2 regulatory and process framework;
		Participation in the monitoring of test transportation.
5	EAEU – Eurasian Economic Union (TBC)	Participation, <i>upon agreement</i> , in providing the regulatory and process framework;
		Participation in the monitoring of test transportation.
6	OSJD – Organization for Cooperation of Railways	Participation, <i>upon agreement</i> , in providing the regulatory and process framework, including as part of the UPU–Rail Forum;
		Participation in the monitoring of test transportation.
7	OTIF – Intergovernmental Organization for International Carriage by Rail	Participation, <i>upon agreement</i> , in providing the regulatory and process framework, including as part of the UPU–Rail Forum;
		Participation in the monitoring of test transportation.
8	UPU – Universal Postal Union	Coordination of UPU–Rail Forum activities;
		Coordination of the implementation of roadmap activities by DOs, including the collection of information from DOs;
		Monitoring of the implementation of roadmap activities;
		Monitoring of test transportation.
9	WCO – World Customs Organization	Participation, <i>upon agreement</i> , in providing the regulatory and process framework, including as part of the UPU–Rail Forum;
		Participation in the monitoring of test transportation.

If necessary, adjustments to the timeline may be made at the discretion of the UPU-Rail Forum.

# Monitoring and control

Monitoring and control of the implementation of activities is carried out within the framework of the UPU-Rail Forum.

Intermediate monitoring and preparation of information on the implementation of activities or events hindering the implementation thereof is carried out by the responsible parties within the UPU and CCTT.

•	K

No.	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
0	Appoint coordinators responsible for the implementation of the roadmap	UPU CCTT		December 2021	Roadmap approved by the UPU–Rail Forum meeting.  Coordinators appointed and a system of operational communications organized.  Indication of responsible coordinators added to the roadmap.	

# Stage 1

Objectives: Analyze the new PLACI legal requirements and regulations governing the filing of EAD; define the interaction scheme and ensure the implementation of the information exchange approach, whereby the DO concludes a transportation contract, and information on the transportation of postal items is provided by railway/transport and logistics companies to the DO in any way specified in the contract and as per with the level of accuracy and/or frequency required for such information. The DO is obligated to exchange any necessary data via the POST\*Net system.

1.1	Identify the type of information (data) needed by Customs or the national/regional competent control authorities and DOs.	UPU	February 2022	Type of information and parameters required described in the form of a list or table.	The filing obligation of carriers with regard to destination customs authority (EU Customs) is to be further discussed.
1.2	Determine the parameters and processes of existing data collection and transmission systems (for information about transportation) within the framework of a typical contract for the organization of transportation.	ССТТ	February 2022	Process of data collection and transmission described. Parameters of the collected and transmitted data described.	

No.	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
1.3	Compare the data collected and the data needed.	UPU CCTT		March 2022	Table drawn up of discrepancies/insufficient data or their parameters (transmission frequency, etc.)	
1.4	In the event of insufficient data, identify opportunities for data collection and transfer, with the designation of the responsible departments within railway/transport and logistics companies.	ССТТ		April 2022	Meetings held with CCTT members.  Conclusion reached as to the possibility of transferring additional data, including a clause to this end in contracts of carriage and identification of those responsible, presented in the form of minutes of the meeting.	
1.5	Determine the necessary frequency and order of data transmission, the form of data transmission (without recourse to the POST*Net system on the part of railway/transport and logistics companies).	UPU CCTT		June 2022	Frequency and order of data transmission, and the form of data transmission, defined and recorded in the minutes of a UPU–Rail Forum meeting.	
1.6	Generate a map of data collection and transmission processes.	CCTT UPU		July 2022	Map of data collection and transmission processes (for China–EU transit traffic) generated for use as an appendix to the guidelines.	

4	
6	

	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
1.7	Prepare standard templates for the sections of transportation contracts relating to the data transfers required by DOs and the competent Customs and other control authorities.	ССТТ		July 2022	Standard template prepared for inclusion in transportation contracts relating to the data transfer required by DOs and the competent Customs and other control authorities.	
1.8.	Test transportation, final meeting and decision on the need to implement stage 2.	UPU		August 2022	Test transportation carried out.  Results of the work summarized.  Decision taken on the need to implement stage 2.	
					system and national/regional custom	ns systems, taking
	1	T	nave been implement	ea. 		
2.1	Define and describe the type of information (data) needed by DOs and Customs and other competent control authorities.	Within stage 1	nave been impiement	ed.		
	Define and describe the type of information (data) needed by DOs and Customs and other competent	T	nave been implement	March 2022	Partially implemented within stage 1.  Parameters and processes of data exchange systems (EDI) for: i) DOs; and ii) railway companies described. Basic data set for transfer and associated parameters described in detail.	

No.	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
	and the data set transmitted, and determine their mutual sufficiency.	ССТТ			parameters (transmission frequency, etc.).	
2.4	In the event of insufficient data, identify the missing information and sources of information, including the parties responsible for collecting data within	CCTT  Railway/transport and logistics companies and DOs involved in test transportation		May 2022	Consultations held with the railway companies, missing information identified and described, and sources of said information and units responsible for obtaining it noted (in the minutes of the meeting).	
	companies/ organizations.				Relevant decision noted in the minutes if such data is not available.	
2.5	Determine the need for additional resources to ensure the technical ability to transfer data, or the lack of such need.	CCTT UPU Railway/transport and logistics companies and DOs involved in test transportation		July 2022	Need for additional resources estimated.	
2.6	Describe the data transfer process, taking interoperability into account.	CCTT UPU Railway/transport and logistics companies and DOs involved in test transportation		August 2022	Map for data collection and transmission processes (for China–EU transit traffic) generated and processes described, to be used as an appendix to the guidelines.	
2.7	Make the necessary technical adjustments.	Railway/transport and logistics companies and DOs involved in test transportation		September 2022	Technical settings completed.	
2.8	Conduct system and data exchange tests.	Railway/transport and logistics companies and		October 2022	Automatic and manual testing performed.	

		_
-	•	_
	;	<u>+</u>

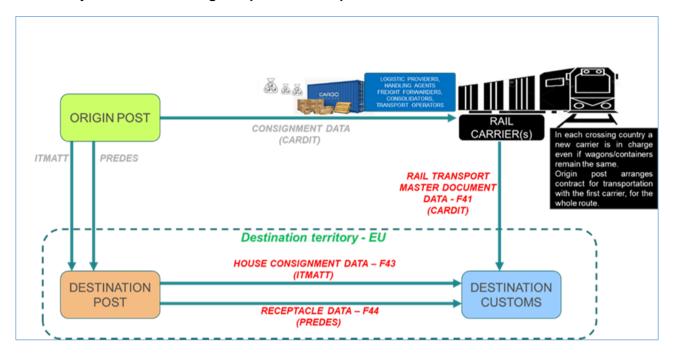
No.	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
		DOs involved in test transportation				
2.9.	Test transportation, final meeting.	UPU		November 2022	Test transformation completed and results summarized.	
Stage	3					
Object	ives: Provide a regulatory	and process framework for st	ages 1 and 2 in seque	ence.		
3.1	Describe the current parameters of documentation support for postal export-import and transit transportation, noting the current applicability of electronic formats.	ССТТ		February 2022	With the participation of railway/transport and logistics companies, current parameters of documentary support for the international transportation of postal items (export-import and transit) described, with a note on the current applicability of electronic formats.	
3.2	Determine optimal parameters of electronic document support, including: i) document scope; ii) the party responsible for issuing documents; and iii) access to electronic documents (DOs, railway/transport and logistics companies, and Customs).	CCTT UPU		March 2022	With the participation of railway/transport and logistics companies, optimal parameters of documentary support for the international transportation of postal items (export-import and transit) described, with a note on the current applicability of electronic formats.	

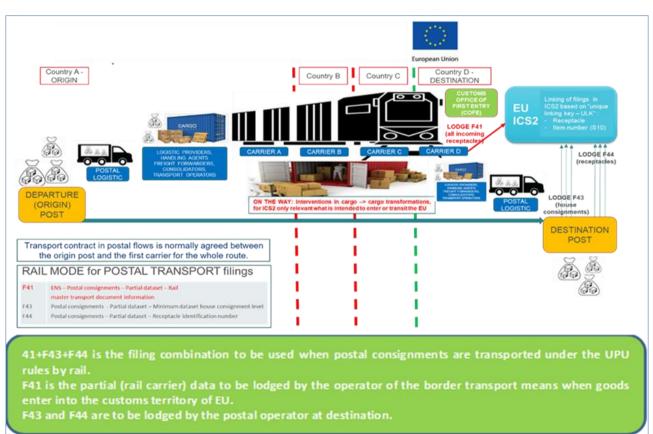
No.	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
3.3	Determine discrepancies between current and optimal parameters, including: i) document content; and ii) document applicability and acceptability.	CCTT UPU		April 2022	Table of discrepancies between the current and optimal parameters prepared.	
3.4	Determine the necessary changes in transport legislation, followed by discussions with the relevant organizations.	CCTT UPU OSJD (within UPU–Rail Forum) OTIF (within UPU–Rail Forum) CIT (within UPU–Rail Forum)		August 2022	Necessary changes determined.  Discussions held and the results recorded in the form of minutes of the meetings.	
3.5	Determine the necessary changes in customs legislation, followed by discussions with the WCO and regional customs unions (e.g. European Union, Eurasian Economic Union, China Customs)	CCTT UPU WCO (within UPU–Rail Forum) EC, EAEU, China Customs (TBC)		August 2022	Necessary changes determined.  Discussions held and the results recorded in the form of minutes of the meetings.	

No.	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
3.6	Describe the process of preparation, transmission, storage and exchange of electronic documents specific to postal items transportation, as well as the procedure for their review, verification and acceptance when crossing national borders, including the responsibilities of all parties.	CCTT UPU WCO (within UPU–Rail Forum) OSJD (within UPU–Rail Forum) OTIF (within UPU–Rail Forum) CIT (within UPU–Rail Forum) EC, EAEU, China Customs (TBC)		September 2022	Process, necessary procedures and responsibilities of the parties described.  Decision approved and recorded in the minutes of the UPU–Rail Forum meeting.	
3.7	Prepare and send appropriate explanations to members of organizations.	CCTT UPU WCO (within UPU–Rail Forum) OSJD (within UPU–Rail Forum) OTIF (within UPU–Rail Forum) CIT (within UPU–Rail Forum) EC, EAEU, China Customs (TBC)		October 2022	Explanations sent out.  Information communicated to all members of the UPU–Rail Forum.	

No.	Activities	Organization	Responsible party	Timeline (month, year)	Expected result	Status
3.8	Carry out test transportation.	ССТТ		November 2022	Test transportation carried out	
		UPU			and description of the results provided.	
		WCO (within UPU–Rail Forum)				
		OSJD (within UPU–Rail Forum)				
		OTIF (within UPU–Rail Forum)				
		CIT (within UPU–Rail Forum)				
		EC, EAEU, China Customs (TBC)				
3.9	Specify a plan for further activities.	UPU		December 2022	Plan of further actions prepared (if necessary).	
		сстт				

# Case study: ICS2 Release 3 legal requirements for postal scenarios for rail





#### Rail carriers file their partial ENS filing using the F41 ENS filing

In the case of transportation of goods by rail, some specific circumstances need to be taken into consideration. When transport by rail involves passing through several countries, each country has a separate (subsequent) railway undertaking with responsibility for the carriage of the goods, even if the postal receptacles remain on the same wagon or container. If carriage covered by a single contract is performed by several successive carriers, each carrier, by the very act of taking over the goods with the consignment note, becomes a party to the contract of carriage.

The origin DO (non-EU) sends data (ITMATT, PREDES) to an EU destination DO. In addition, the origin DO transmits data either to the rail carrier at origin or to all the rail carriers along the supply chain (subject to the outcome of discussions mentioned in section 2.3 (p)) on the receptacles that have been prepared for transport by rail (CARDIT). The carrier needs to transfer the receptacle information to the subsequent carriers, if the first option is adopted, on the route to the EU customs territory. UPU solutions can be further explored to enable the exchange of information in the case of transhipment.

The DO at destination submits its ENS filings (F43 based on ITMATT and F44 based on PREDES) to the "addressed member state" (via the ICS2 Harmonised Trader Interface – HTI), which is the member state/ICS2 country in which they are operating.

The obligation to lodge the ENS particulars related to the transportation of the goods lies with the rail carrier responsible for the transportation of the goods into the EU customs territory. The carrier lodges the F41 ENS filling with the customs office of first entry, listing the transported receptacles and the related master transport information, i.e. the active transport means at the border, routeing information for the means of transport and the arrival/departure date and time. F41 can contain receptacles from multiple F44 partial ENS filings, as well as house consignments ("postal item" in postal terms) from multiple F43 partial ENS filings. The principle behind the linking of all partial ENS filings (F41, F43 and F44) related to one ENS filing is as follows: the listed in F41 receptacles point to the receptacles content (the linked to each receptacle house consignments) in the respective F44 filings. The related house consignment identifiers are found in the respective F43 filings containing all the information related to the house consignment.

The DO at origin hands the transported receptacles to a contracting party to transport the goods to the rail carrier (if not to the rail carrier itself) to carry the goods into the EU customs territory. It is the responsibility of the parties in the transportation chain or the origin DO to exchange information with every subsequent party in the case of transhipment of the goods (subject to the outcome of the discussions mentioned in section 2.3 (p)).

#### Multimodal transportation of postal items

DOs may use multimodal means - rail, air, sea and truck - to transport international postal items.

With respect to the use of multimodal means to transport postal items, the DO of the Russian Federation provided the information below to the UPU International Bureau.

The Russian Post carried out five pilots and sent 14 shipments.

The pilots took place in 2017 on the following dates: 18 August, 1 September, 15 September and 19 September, and in 2018 on the following dates: 17 March.

The pilots using multimodal means took place on the following routes:

- Mongolia–Russia–Slovenia.
- China–Russia
- Japan–Russia–Latvia.
- Japan–Russia–Lithuania.
- Japan–Russia–Poland.
- Japan–Russia–Finland.

The following means of transport were used:

- Mongolia–Russia–Slovenia: rail and truck.
- China–Russia: rail and truck.
- Japan–Russia–Latvia: sea, rail and truck.
- Japan–Russia–Lithuania: sea, rail and truck.
- Japan–Russia–Poland: sea, rail and truck.
- Japan–Russia–Finland: sea, rail and truck or air.

Passenger train was the means used for the multimodal pilots.

The Russian Post did not face any transit or security problems during the five pilots.

The Russian Post exchanged UPU messages (PREDES, ITMATT) with other DOs when sending postal items using multimodal means.

The Russian Post did not face any "critical" customs-related problems when transporting postal items by rail.

The documents/forms used for the transportation of postal items were as follows:

- CN 37 Delivery bill. Surface mails.
- CN 38 Delivery bill. Airmails.
- Applicable rail document: Luggage ticket/Mail transportation ticket.

During multimodal transportation of international mail items, the carrier is to notify customs authorities about reloading operations being performed from vehicle to vehicle with further delivery to the IMPC stated in CN 37. Customs authorities may wish to facilitate the procedure, while taking necessary customs control measures.

#### Case study: Seal integrity programmes and compliance with ISO 17712 standard for high security seals

#### 1 Seal integrity programmes

Customs should apply a seal integrity programme as detailed in the Revised Guidelines to Chapter 6 of the General Annex to the WCO RKC.

Such seal integrity programmes should be based on the use of a high-security mechanical seal as prescribed in ISO 17712 at the point of stuffing, and should include procedures for recording the affixing and changing of seals and the verification of seal integrity at key points, such as modal change, as suggested in the SAFE Framework of Standards (FoS).

Consistent application and enforcement of such a seal integrity programme among the parties involved in the movement of secure containerized goods is important, since it will provide multiple benefits to all of those parties. Such benefits would be, in particular, improved security against acts of terrorism and illegal transport of narcotics and weapons that exploit global trade in goods, reduced risk of economic hardship caused by disruptions to or closures of trade in response to terrorist acts, and improved security against theft and diversion of cargo, with consequent reductions in direct losses and indirect costs, such as insurance.

In addition, the WCO AEO Validator Guide lists examples of security measures to be satisfied by economic operators to be granted Authorized Economic Operator (AEO) status. Security measures should be in place to ensure the integrity of cargo and to prevent irregular practices relevant to the flow of goods (transportation, handling, and storage of cargo) in the international supply chain. Those security measures include using the adequate high-security seals, such as ISO 17712 and/or any other customs approved securing mechanism or procedure, and allowing only authorized and well trained employees to have access to such high-security seals.

**N.B.** – An AEO is a party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national customs administration as complying with WCO or equivalent supply chain security standards. AEO status is granted to an economic operator that satisfies criteria such as customs compliance, management of commercial records, financial solvency and appropriate security and safety standards.

# 2 High security seals in ISO 17712

The International Organization for Standardization (ISO) is the world's largest developer of voluntary international standards. A standard is a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for their purpose. ISO international standards ensure that products and services are safe, reliable, and of good quality. The ISO 17712 standard establishes 'uniform procedures for the classification, acceptance, and withdrawal of acceptance of mechanical freight container seals. It provides a single source of information on mechanical seals which are acceptable for securing freight containers in international commerce.'

The current ISO 17712 standard requires independent confirmation in two areas, as below.

## A. Testing to determine a seal's physical strength (as barriers to entry).

ISO 17712 defines three types of class of seal strength or barrier capacity: 'I' for Indicative; 'S' for Security; and 'H' for High Security. Security and high security seals must be strong and durable so as to prevent accidental breakage and early deterioration due to weather conditions, chemical action, etc. Seals must made from the specified materials and meet the appropriate physical parameters for each class, as explained in ISO 17712.

Suppliers must use independent third party test laboratories to validate a seal's classification. Labs must be accredited according to ISO/IEC 17025 (General requirements for the competence of testing and calibration laboratories) to perform testing specific to ISO 17712.

Types of seal	Materials		
High-security seal	Material such as metal or metal cable with the intent to delay intrusion		
Security seal	Material that provides limited resistance to intrusion and requires lightweight tools for removal		
Indicative seal	Material that can easily be broken by hand or by using a simple snipping tool or shear		

Source: ISO/PAS 17712 (Para3. terms and definitions)

#### B. Auditing of manufacturer's security-related business processes.

Poor security-related practices can undercut the effectiveness of a high-quality security seal. ISO 17712's Annex A defines over two dozen required practices, such as facility risk assessments and access controls to production and storage areas. Suppliers' conformance with Annex A should also be demonstrated through an independent certification provider that is accredited to audit compliance with the ISO standards.

### 3 Responsibilities along the chain of custody

There are responsibilities and principles along the chain of custody that apply throughout the life cycle of a containerized shipment of goods. Each party in possession of the container has security responsibilities while cargo is entrusted to them, whether at rest at a node or while moving between nodes. Security seals are an integral part of the chain of custody and the SAFE FoS describe the responsibilities of each party in the supply chain, as below.

#### A. Responsibilities of shipper/consignor

- The shipper/consignor is responsible for securely stuffing the container and for the accurate and complete description of the cargo.
- The shipper is also responsible for affixing the cargo security seal immediately upon conclusion of the stuffing process, and for preparing documentation for the shipment, including the seal number.

#### B. Responsibilities of receiving party at each change of custody

- Security seals should be inspected by the receiving party at each change of custody for a cargo-laden container.
- Inspecting a seal requires a visual check for signs of tampering, comparison of the seal's identification number with the cargo documentation, and notation of the inspection in the appropriate documentation. (However, in some cases, this process of inspecting affixed seals may not be possible, for instance, with containers loaded on the wagon in a door-to-door position.)
- If the seal is missing, or shows signs of tampering, or shows an identification number other than that on the cargo documentation, then numerous actions are necessary.
- The receiving party must bring the discrepancy to the attention of the party tendering the container and the shipper.
- The receiving party must note the discrepancy on the cargo documentation.
- The receiving party should notify the customs or law enforcement agencies, in accordance with national legislation.
- Once the discrepancies have been resolved, the receiving party shall affix a security seal to the container and note the particulars, including the new seal number, on all pertinent cargo documentation.

#### Stakeholders involved

#### a United Nations

Universal Postal Union (UPU)

Established in 1874, the UPU, with its headquarters in the Swiss capital of Berne, is the second oldest international organization in the world. It is the United Nations specialized agency for postal matters.

With its 192 member countries, the UPU is the primary forum for cooperation between postal sector players. It helps to ensure a truly universal network of up-to-date products and services.

The organization fulfils an advisory, mediating and liaison role, and provides technical assistance where needed. It sets the rules for international mail exchanges and makes recommendations to stimulate growth in mail, parcel and financial service volumes and to improve quality of service for customers.

The Doha Postal Strategy underlined the postal network's three dimensions (physical, electronic and financial) as well as interconnection, governance and development as key axes to strengthen postal services worldwide. The strategy's goals were to be achieved through programmes aimed at strengthening the postal sector through better connected networks and quality of service, innovation, and responding more effectively to market changes.

The following UPU international treaties and regulatory frameworks and instruments are relevant to the postal rail project:

- Universal Postal Convention and Convention Regulations ;
- Memoranda of understanding signed with the other stakeholders taking an active part in the postal rail project.
- b Other intergovernmental or international organizations

World Customs Organization (WCO)

The WCO, established in 1952 as the Customs Co-operation Council, is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of customs administrations.

Today, the WCO represents 182 customs administrations across the globe that collectively process approximately 98% of world trade. As the global centre of customs expertise, the WCO is the only international organization with competence in customs matters and can rightly call itself the voice of the international customs community.

As a forum for dialogue and the exchange of experiences between national customs delegates, the WCO offers its members a range of conventions and other international instruments, as well as technical assistance and training services provided either directly by the WCO Secretariat or with its participation. The Secretariat also actively supports its members in their endeavours to modernize and build capacity within their national customs administrations.

Besides the vital role played by the WCO in stimulating the growth of legitimate international trade, its efforts to combat fraudulent activities are also recognized internationally. The partnership approach championed by the WCO is one of the keys to building bridges between customs administrations and their partners. By promoting the emergence of an honest, transparent and predictable customs environment, the WCO directly contributes to the economic and social well-being of its members.

Lastly, in an international environment characterized by instability and the ever-present threat of terrorist activity, the WCO's mission to enhance the protection of society and the national territory, and to secure and facilitate international trade, takes on its full meaning.

The following WCO treaties and regulatory frameworks and instruments are relevant to the postal rail project:

- Revised Kyoto Convention
- WCO SAFE Framework of Standards to Secure and Facilitate Global Trade
- WCO Transit Guidelines (non-binding)
- WCO Customs Risk Management Compendium (non-binding)
- Guidelines for the immediate release of consignments by Customs (non-binding)
- Memorandum of understanding signed with the UPU

European Commission (EC)

The functions of the EC are to be provided here.

Intergovernmental Organization for International Carriage by Rail (OTIF)

The mission of OTIF is to promote, improve and facilitate international traffic by rail. It provides its 50 member states with the legal means to facilitate international traffic by rail, to develop this traffic on their territory, and to connect to the railway networks of other member states.

OTIF has three major areas of activity: technical interoperability, dangerous goods, and railway contract law. It develops uniform legal regimes for contracts of carriage of passengers and goods; ancillaries to the contract of carriage, such as the contract of use of wagons or infrastructure; rules for the transport of dangerous goods; and procedures and technical provisions for the approval of rolling stock.

The Convention concerning International Carriage by Rail (COTIF) is the basic text used by OTIF. It governs the running of the organization, its objectives and attributions, its relations with member states, and its activities in general. It contains seven appendices.

The following COTIF appendices are of primary relevance to the postal rail project:

- Appendix B Uniform Rules concerning the Contract of International Carriage of Goods by Rail (CIM).
  The CIM is applicable in any case where the place of taking over the goods and the place designated
  for delivery are located in two different OTIF member states. It governs the relationship between the
  parties to the contract of carriage (consignor and carrier) and sets out the rules relating to the liability of
  the carrier.
- Appendix C Regulation concerning the International Carriage of Dangerous Goods by Rail (RID). The RID applies to international traffic and, via Directive 2008/68/EC, to national traffic within the EU member states. The RID is harmonized with the ADR and ADN, the European agreements concerning the international carriage of dangerous goods by road and inland waterways respectively, published by the United Nations Economic Commission for Europe (UNECE). These harmonized regulations allow for a smooth change of inland mode of transport in the carriage of dangerous goods. As part of the harmonization of the RID and the dangerous goods regulations applicable in OSJD member states (SMGS Annex 2), amendments to the RID are also transferred to SMGS Annex 2.

Organization for Cooperation of Railways (OSJD)

The OSJD, established in 1956 and headquartered in Warsaw, Poland, is an international organization operating in accordance with the 1969 Vienna Convention.

The main activities of the OSJD are:

- development and improvement of international rail transport, including combined transport, between Europe and Asia;
- formulation of the coordinated transport policy and strategy for development of international railway communication:
- improvement of documents making up international rail transport law;
- improvement of international railway tariffs for freight and passenger transportation;
- cooperation on operational, technical, financial and environmental issues;

- development of measures to improve the competitiveness of rail transport in relation to other modes of transport;
- cooperation with international organizations dealing with railway transport issues.

The OSJD brings together transport ministers, general directors of railway companies and infrastructure managers from 28 countries in Asia and Europe, providing a forum at the intergovernmental level and at the level of economic entities.

In terms of geographical scope, the OSJD covers the railway lines of 28 countries, from central Europe to the Asian coast of the Pacific Ocean, and from the Arctic Circle to the Persian Gulf. In total, it covers 286,000 km of railway lines, on which 4 billion passengers and about 5 billion tonnes of cargo are transported annually.

The highest governing body of the OSJD is the OSJD Ministers Conference, which takes decisions at the governmental level on all issues related to the direction of OSJD activities, taking into account the proposals of the Conference of Directors General of the OSJD Railways – the governing body at the level of railway enterprises. The Conference of Directors General (plenipotentiary representatives) organizes the work and takes decisions on issues related to the activities of the OSJD within the competence of the railways. The OSJD Committee is the executive body of the OSJD, acting as the depositary of the OSJD Statute, as well as international agreements and contracts concluded in the context of the OSJD. It ensures implementation of OSJD activities between sessions of the Ministerial Conference and the meetings of the Conference of Directors General.

The OSJD Committee consists of the following working bodies:

- OSJD Commission on Transport Policy and Development Strategy;
- OSJD Commission on Transport Law;
- OSJD Cargo Transportation Commission;
- OSJD Commission for Passenger Transportation;
- OSJD Commission for Infrastructure and Rolling Stock;
- Permanent OSJD Working Group on Coding and Informatics;
- Permanent OSJD Working Group on Financial and Settlement Issues.

Under the OSJD, a stable international legal framework has been created and put in place to regulate the range of issues related to the carriage of passengers and cargo by rail, as well as in combined transport operations.

There exist the following international agreements and OSJD regulations related to the postal rail transport project:

- Agreement on International Railway Cargo Transport (SMGS) (of 1951) with annexes:
  - Annex 1 Rules for the transport of goods;
  - Annex 2 Rules for the transport of dangerous goods;
  - Annex 3 Technical conditions for locating and securing of cargos;
  - Annex 4 Rules for the carriage of a wagon that does not belong to the carrier as a means of transport;
  - Annex 5 Informational guide;
  - Annex 6 Manual on the CIM/SMGS consignment note;
- Agreement on International Railway Passenger Traffic (SMPS) (of 1951);
- Agreement on the Organizational and Operational Aspects of Combined Transport in the Europe

  —Asia Communication (of 1997).

These normative documents adopted at the state level:

- determine the legal relationship between the passenger/client and the railway, as well as between the railways when entering into and executing the contract of carriage;
- regulate transport technology, the basic requirements for infrastructure and the use of technical means of combined transport.

In addition, under the OSJD, there are other international treaties and documents applied at the level of economic entities:

- International Passenger Tariff Agreement;
- Agreement on the Single Transit Tariff for Freight Transport;
- Agreement on the International Railway Transit Tariff for the Carriage of Cargos;
- Agreement on the Rules for the Use of Freight Wagons in International Transport;
- Agreement on the Rules for the Use of Passenger Wagons in International Transport;
- Agreement on the Rules of Payment in International Passenger and Freight Transport;
- Harmonized Nomenclature of Cargos (HNC), developed on the basis of the Harmonized Commodity
  Description and Coding System (HS) of the WCO and the Harmonized Commodity Code (NHM) of the
  International Union of Railways (UIC), used by European railways.

The above-mentioned agreements and documents adopted at the railway level determine the nominal (basic) level of the tariff, the technology of transportation, the operation and use of wagons, the economic and financial relations between railways for transportation, and the use of a unified system for the description and coding of cargo in international traffic.

The OSJD has extensive practical experience in the planning and organization of transit container trains in international traffic, including from China (People's Rep.) to European countries.

The OSJD conducts its activities with a view to expanding cooperation and partnership relations in railway transport and improving competitiveness; it cooperates with all interested states, railway companies and international organizations.

The OSJD has signed agreements and memoranda of cooperation with:

- United Nations Economic and Social Commission for Asia and the Pacific (ESCAP);
- Organization for Economic Cooperation and Development (OECD);
- World Customs Organization (WCO);
- Intergovernmental Organization for International Carriage by Rail (OTIF);
- Eurasian Economic Commission (EEC);
- European Commission Directorate General for Mobility and Transport (DG Move);
- European Union Agency for Railways (ERA);
- International Rail Transport Committee (CIT);
- International Union of Railways (UIC);
- International Coordinating Council on Trans-Eurasian Transportation (CCTT);
- International Federation of Freight Forwarders Associations (FIATA).

International Rail Transport Committee (CIT)

The CIT is an association of more than 216 railway undertakings and shipping companies which provide international passenger and/or freight transport services. The CIT includes 136 organizations that are members in their own right and 80 organizations that are linked indirectly by being members of CIT associate members. The CIT is an association under Swiss law and is based in Berne. The CIT helps railways implement international rail transport law. To achieve that, it draws up and maintains legal publications and boilerplate documents

for international traffic by rail; standardizes the contractual relationships between customers, carriers and infrastructure managers; and represents the interest of rail carriers.

COTIF and the EU legislation need to be implemented consistently by railways. The task of implementing COTIF on behalf of the railway community has been undertaken for many years by the CIT. Implementation includes the creation of standard documents of carriage (tickets and consignment notes) which are universally recognized, and the standardization of a number of legal relationships between customers, carriers, infrastructure managers and wagon keepers by means of general terms and conditions and systems to quickly and simply allocate the costs of claims for loss and damage between railway undertakings.

In order to share these costs fairly, the CIT relies on having every railway undertaking with international traffic join the association. Up to now, the CIT has been successful in recruiting as members the great majority of undertakings with significant international traffic, with the result that it has been possible to avoid licensing the use of CIT documentation (the international ticket design is subject to copyright). With membership, a cumbersome licensing system can be avoided.

International Coordinating Council on Trans-Eurasian Transportation (CCTT)

The CCTT is a non-commercial transport association with an open-ended duration, registered in the Main Register of the canton of Berne, Switzerland, on 21 February 1997 (the declaration of foundation of the CCTT was signed on 23 November 1993 in Moscow by the main participants of Euro-Asian freight transportation).

Currently, the CCTT has over 95 members from 23 countries, including railways in Europe, Asia and the CIS states; major shipping companies; operators and forwarders; ports and stevedoring companies; state organizations, administrations and municipalities; IT, insurance, telecom and marketing companies; security services; and mass media.

Main missions and goals of the CCTT

The CCTT plays a role on the international stage in developing cooperation and interaction between railway, shipping, stevedore, operator, transport and logistics companies and sea ports, fostering effective information exchange between these entities and promoting the development of competitive multimodal transport products. CCTT activities focus on strategic issues for the prospective development of trans-Eurasian routes and the integration thereof into the international transport corridor system.

Focused efforts are made within the CCTT with a view to realizing the potential of trans-Eurasian transit routes, consolidating additional cargo bases for trans-Eurasian transportation, and establishing new business contacts with freight owners.

The CCTT works closely with international organizations, such as UNECE, ESCAP, the UPU, the WCO, OTIF, the CIT, the OSJD, FIATA and the UIC, to develop Euro-Asian railway and multimodal transportation, through joint memoranda. The CCTT is a member of the commissions and working bodies of all of the above-mentioned organizations.

Promoting inclusive and sustainable industrialization and innovation serves to develop high-quality, reliable and sustainable infrastructure, including regional and cross-border infrastructure, to support economic development and the well-being of the population, with a particular focus on ensuring affordable and equitable access for all. To this end, the CCTT helps to identify, summarize and disseminate best practices that promote transportation, accelerate and increase volumes, establish reliable and sustainable international routes between Europe and Asia (including those linking transition and landlocked economies), and facilitate border crossings.

In 1997, within the framework of CCTT activities, the Ministry of Transport of the Russian Federation, in cooperation with federal authority stakeholders, developed the "Concept of the State Policy of Supporting Transit Transportation via the Transsib", which was approved and ratified by the Government of the Russian Federation.

The practical activities of the CCTT are carried out within the framework of the following working groups:

- i Global East–West working group:
  - a China-Europe-China working group
  - b Container Transportation working group
- ii North-South ITC working group
- iii Multimodality working group
- iv Working group on IT development: Joint mini-group of CCTT and UPU IT experts on internal data exchange between postal and railway operators participating in the transportation process
- Working group on harmonization of International Transport Law

The CCTT contributes to introducing advanced technologies which increase the capacities of border crossing points and international freight volumes.

The CCTT participates in the efforts of the OSJD, UIC, the UNECE Inland Transport Committee, CIT, Eurasian Economic Community, ESCAP, OTIF, WCO and the UPU to establish new technological regulations and harmonize transport law aimed at reducing barriers for freight transportation between Asia and Europe.

The following CCTT agreements, regulatory frameworks and instruments are relevant to the postal rail project:

- Cooperation agreement between the OSJD and the CCTT, signed on 2 November 2007 in the canton
  of St. Gallen, Switzerland
- Memoranda of cooperation between the UIC and the CCTT, signed on 6 December 2007 and 28 March 2012 in Paris, France
- Memorandum of cooperation between the CIT and the CCTT, signed on 10 May 2011
- Memorandum of understanding between the UPU, the CIT and the CCTT, signed on 18 March 2016 in Berne, Switzerland
- Memorandum of understanding between the CCTT and the Eurasian Economic Commission, signed on 18 January 2017 in Moscow, Russian Federation
- Memorandum of understanding between the CCTT and the FERRMED, signed on 4 October 2018 in Sochi, Russian Federation

Community of European Railway and Infrastructure Companies (CER)

The CER is the leading European railway association. It was founded in 1988 with twelve members and now brings together more than 70 members – European railway undertakings, their national associations, and infrastructure companies. The membership is made up of long-established bodies, new entrants, and both public and private enterprises.

CER members represent around 61% of the rail network length, over 84% of the rail freight business, and some 99% of rail passenger operations in EU, EFTA and EU accession countries.

The CER is based in Brussels and represents the interests of its members to the European Parliament, European Commission and Council of Ministers, as well as to other policymakers and transport stakeholders. The CER's objectives are to contribute to a regulatory environment that enhances business opportunities for European railway and railway infrastructure companies.

International Union of Railways (UIC)

An introduction to the UIC is to be added.

#### List of abbreviations

AEO Authorized Economic Operator

CCTT International Coordinating Council on Trans-Siberian Eurasian Transportation

CDS Customs Declaration System

CER Community of European Railway and Infrastructure Companies

CIM Uniform Rules concerning the Contract of International Carriage of Goods by Rail

CIT International Rail Transport Committee

COTIF Convention concerning International Carriage by Rail

DA Delegated Act

DG Move European Commission Directorate-General for Mobility and Transport

DO designated operator

EAD electronic advance data
EC European Commission

EDI electronic data interchange

EEC Eurasian Economic Commission
EFTA European Free Trade Association

ENS entry summary declaration

ERA European Union Agency for Railways

ESCAP United Nations Economic and Social Commission for Asia and the Pacific

EU European Union

E2E end-to-end

FCL full container load

FIATA International Federation of Freight Forwarders Associations

FoS Framework of Standards

GPM Global Postal Model

GPS global positioning system

HNC Harmonized Nomenclature of Cargos

HS Harmonized Commodity Description and Coding System

ICS2 R3 Import Control System 2 Release 3
IMPC international mail processing centre

ISO International Organization for Standardization

IWPS Istanbul World Postal Strategy

MSMEs small and medium-sized enterprises

NHM Harmonized Commodity Code

OE office of exchange

OECD Organization for Economic Cooperation and Development

OSI Open Systems Interconnection

OSJD Organization for Cooperation of Railways

OTIF Intergovernmental Organization for International Carriage by Rail

PLACI pre-loading advance cargo information

POA proof of acceptance

POC Postal Operations Council

POD proof of delivery

PreDICT Pre-Departure Information for Cargo Targeting

PTC Postal Technology Centre

RFID radio frequency identification

RID Regulation concerning the International Carriage of Dangerous Goods by Rail

RKC Revised Kyoto Convention

S.A.L. surface airlifted

SDG Sustainable Development Goal

SMGS Agreement on International Railway Cargo Transport
SMPS Agreement on International Railway Passenger Traffic

SSL Security Smart Lock
UCC Union Customs Code

UIC International Union of Railways

UNECE United Nations Economic Commission for Europe

UPU Universal Postal Union

WCO World Customs Organization