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**Economic Commission for Europe****Inland Transport Committee****Working Party on Customs Questions affecting Transport****Group of Experts on Conceptual and  
Technical Aspects of Computerization of the TIR Procedure****Third session**

Geneva, 13–15 September 2021

Item 4 (c) of the provisional agenda

**eTIR conceptual, functional and technical documentation version 4.3:  
eTIR functional specifications****Sequence of messages, functional fallbacks and extensions\*****Revision****Note by the secretariat****I. Mandate**

1. The Inland Transport Committee during its eighty-second session (23–28 February 2020) approved (ECE/TRANS/294, para. 84<sup>1</sup>) the establishment of the Group of Experts on Conceptual and Technical Aspects of Computerization of the TIR Procedure (WP.30/GE.1) and endorsed its ToR<sup>2</sup> (ECE/TRANS/WP30/2019/9 and ECE/TRANS/WP.30/2019/9/Corr.1) pending approval by UNECE Executive Committee (EXCOM). EXCOM during its Remote informal meeting of members of the Executive Committee (20 May 2020) approved the establishment of the Group of Experts on Conceptual and Technical Aspects of Computerization of the TIR Procedure (WP.30/GE.1) until 2022, based on the terms of reference included in document ECE/TRANS/WP.30/2019/9 and Corr.1, as contained in document ECE/TRANS/294 (ECE/EX/2020/L.2, para. 5(b)).<sup>3</sup>

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\* The numbering of the chapters in this document is aligned with numbering of the chapters in former versions of the eTIR specifications (e.g. ECE/TRANS/WP.30/2011/4/Rev.1).

<sup>1</sup> Decision of the Inland Transport Committee para. 84 / ECE/TRANS/294 ([www.unece.org/fileadmin/DAM/trans/doc/2020/itc/ECE-TRANS-294e.pdf](http://www.unece.org/fileadmin/DAM/trans/doc/2020/itc/ECE-TRANS-294e.pdf)).

<sup>2</sup> Terms of reference of the newly established Group approved by the Inland Transport Committee and the Executive Committee (EXCOM) of UNECE ([www.unece.org/fileadmin/DAM/trans/bcf/wp30/documents/2019/ECE-TRANS-WP30-2019-09e.pdf](http://www.unece.org/fileadmin/DAM/trans/bcf/wp30/documents/2019/ECE-TRANS-WP30-2019-09e.pdf) and corrigendum [www.unece.org/fileadmin/DAM/trans/bcf/wp30/documents/2019/ECE-TRANS-WP30-2019-09c1e.pdf](http://www.unece.org/fileadmin/DAM/trans/bcf/wp30/documents/2019/ECE-TRANS-WP30-2019-09c1e.pdf)).

<sup>3</sup> Decision of EXCOM, ECE/EX/2020/L.2 / para. 5(b) ([www.unece.org/fileadmin/DAM/commission/EXCOM/Agenda/2020/Remote\\_informal\\_mtg\\_20\\_05\\_2020/Item\\_4\\_ECE\\_EX\\_2020\\_L.2\\_ITC\\_Sub\\_bodies\\_E.pdf](http://www.unece.org/fileadmin/DAM/commission/EXCOM/Agenda/2020/Remote_informal_mtg_20_05_2020/Item_4_ECE_EX_2020_L.2_ITC_Sub_bodies_E.pdf)).

2. The terms of reference of the Group stipulate that the Group should focus its work on preparing a new version of the eTIR specifications, pending the formal establishment of TIB. More specifically the Group should (a) prepare a new version of the technical specifications of the eTIR procedure, and amendments thereto, ensuring their alignment with the functional specifications of the eTIR procedure; (b) prepare a new version of the functional specifications of the eTIR procedure, and amendments thereto, ensuring their alignment with the conceptual specifications of the eTIR procedure; (c) prepare amendments to the conceptual specifications of the eTIR procedure, upon requests by WP.30.
3. This document presents the sequence of messages, the functional fallbacks and the and the extensions to the WCO data model version 3.10. The the sequence of messages, the functional fallbacks and the and the extensions to the WCO data model version 3.10 will be part of the eTIR functional specifications document.

## **Annex I<sup>1</sup>**

### **Sequence of messages**

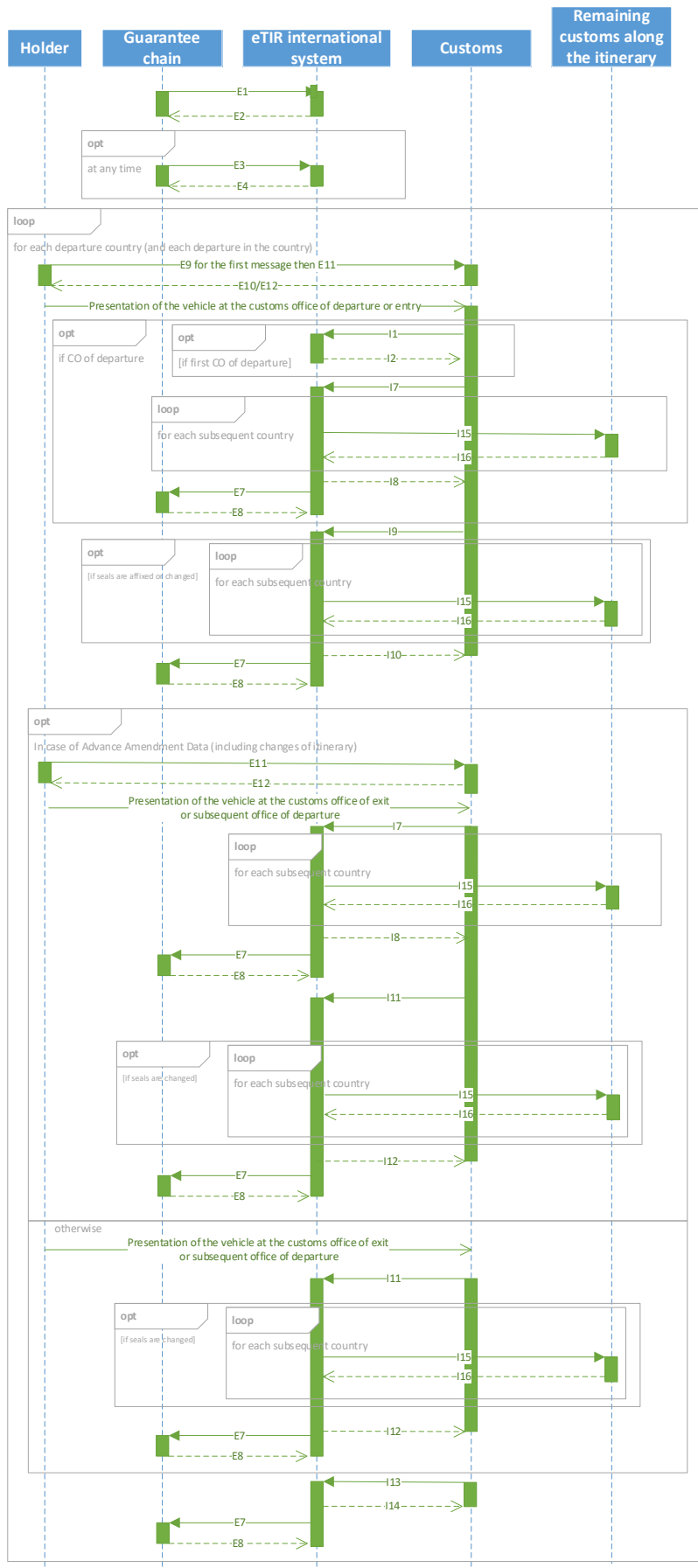
#### **III.1. Message sequence for countries of departure**

Figure III.1 presents the sequence of messages for countries of departure. For the sake of readability of the diagram, it does not show that, before the guarantee has been accepted, the holder also has the possibility to send an E13 message to cancel its E9 or E11 messages. Furthermore, it also does not show that different declaration mechanisms can be used to send E9, E11 and E13 messages (see chapters 1.1.2.9, 1.1.2.10 and 1.1.2.11 for more details).

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<sup>1</sup> Corresponds to annex III in the former versions of the eTIR specifications (e.g. ECE/TRANS/WP.30/2011/4/Rev.1).

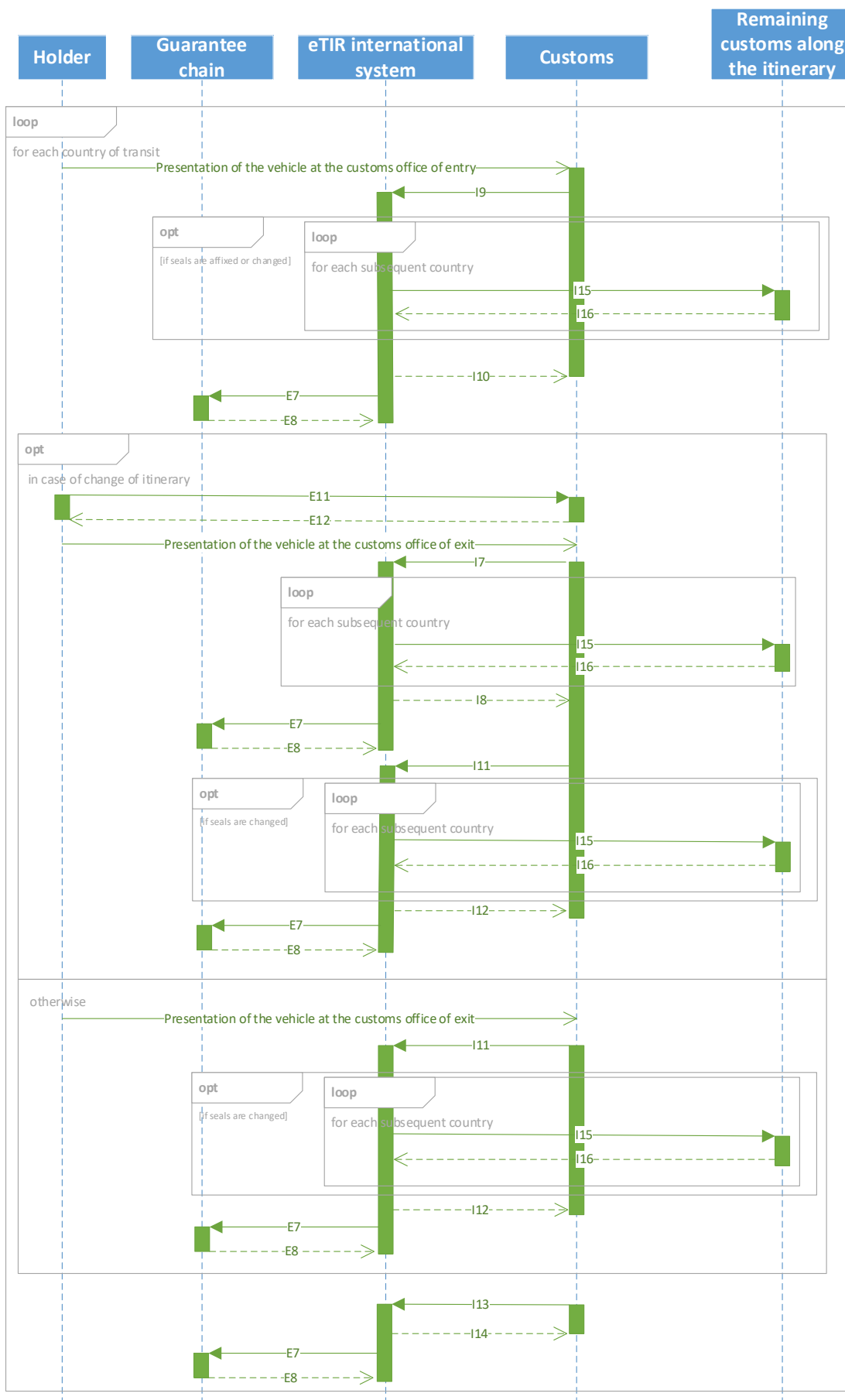
Figure III.1  
**Message sequence for countries of departure**



### **III.2. Message sequence for countries of transit**

Figure III.2 presents the sequence of messages for countries of transit. For the sake of readability of the diagram, it does not show that, before the an amendment has been accepted, the holder also has the possibility to send an E13 message to cancel its E11 messages. Futhermore, it also does not show that different declaration mechanisms can be used to send E11 and E13 messages(see chapters 1.1.2.10 and 1.1.2.11 for more details).

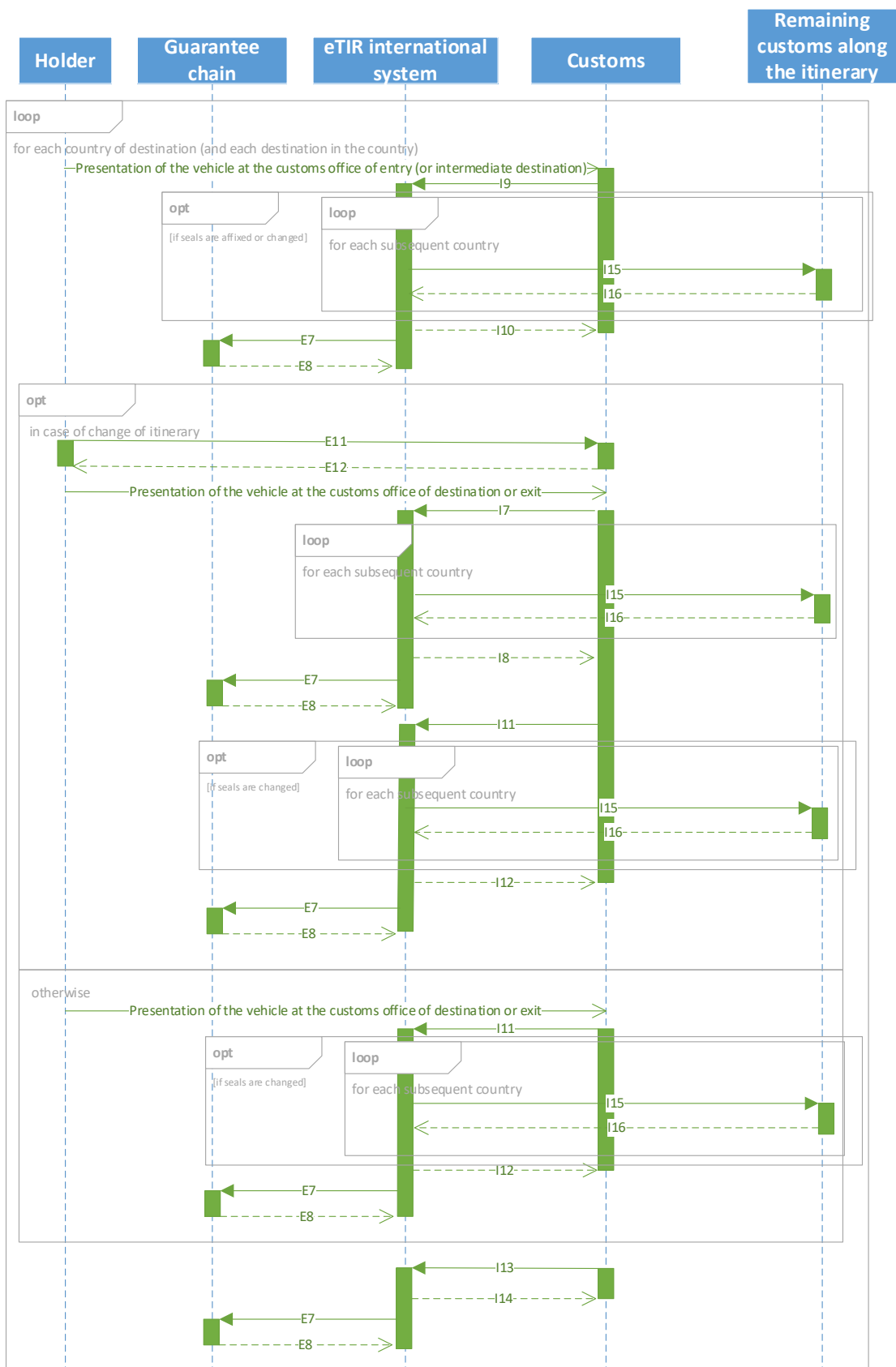
Figure III.2  
**Message sequence for countries of transit**



### **III.3. Message sequence for countries of destination**

Figure III.3 presents the sequence of messages for countries of destination. For the sake of readability of the diagram, it does not show that, before amendments have been accepted, the holder also has the possibility to send an E13 message to cancel its E11 messages. Futhermore, it also does not show that different declaration mechanisms can be used to send E11 and E13 messages (see chapters 1.1.2.10 and 1.1.2.11 for more details).

Figure III.3  
**Message sequence for countries of destination**





## **Annex II<sup>1</sup>**

### **Functional fall-backs**

In order to ensure that a TIR transport under the eTIR procedure can continue despite failures in systems or connection between systems, a number of fallback components can be used. The following chapters present the various fallback components and present activity diagrams of their usage.

#### **IV.1. Fallback components**

##### **IV.1.1. Accompanying document**

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<sup>1</sup> Corresponds to annex IV in the former versions of the eTIR specifications (e.g. ECE/TRANS/WP.30/2011/4/Rev.1).

Figure IV.1  
Accompanying document – Recto


		1. eTIR guarantee number and		 MX51000000							
2. Customs office(s) of departure		3.(a) Name of the international organization 3.(b) Name of the issuing association									
Itinerary and national references		4. Holder identification number									
		5. Country/Countries of departure		6. Country/Countries of destination							
7. Registration No(s). of road vehicle(s)		8. Documents attached to the manifest									
<b>GOODS MANIFEST</b>											
9. (a) Load compartment(s) or container(s) (b) Marks and Nos. of packages or articles		10(a) Number and type of packages or articles; description of goods, customs office(s) of destination		10(b) HS Code	11. Gross weight in kg	16. Seals or identification marks applied, (number, identification)					
FOR FALLBACK PROCEDURE											
Officer's signature and customs office date stamp: New seals:		1	Officer's signature and customs office date stamp: New seals:		2	Officer's signature and customs office date stamp: New seals:	3	Officer's signature and customs office date stamp: New seals:		4	
Officer's signature and customs office date stamp: New seals:		5	Officer's signature and customs office date stamp: New seals:		6	Officer's signature and customs office date stamp: New seals:		7	Officer's signature and customs office date stamp: New seals:		8
Officer's signature and customs office date stamp: New seals:		9	Officer's signature and customs office date stamp: New seals:		10	Officer's signature and customs office date stamp: New seals:		11	Officer's signature and customs office date stamp: New seals:		12
Officer's signature and customs office date stamp: New seals:		13	Officer's signature and customs office date stamp: New seals:		14	Officer's signature and customs office date stamp: New seals:		15	Officer's signature and customs office date stamp: New seals:		16

Figure IV.2  
Accompanying document - Verso

<b>Certified report</b>				
Drawn up in accordance with Article 25 of the TIR Convention (See also Rules 13 to 17 regarding the use of the TIR Carnet)				
1. Customs office(s) of departure		2. <b>TIR CARNET</b> <span style="float: right; border: 1px solid black; padding: 2px;">N</span>		
		3. Name of the international organization		
4. Registration No(s), of road vehicle(s) Identification No(s), of container(s)		5. Holder (identification number, name, address and country)		
6. The customs seal(s) is/are intact <input type="checkbox"/> not intact <input type="checkbox"/>		8. Remarks		
7. The load compartment(s) or intact <input type="checkbox"/> not intact <input type="checkbox"/>				
9. <input type="checkbox"/> No goods appeared to be missing <input type="checkbox"/> The goods indicated in items 10 to 13 are missing (M) or have been destroyed (D) as indicated in column 12				
10. (a) Load compartment(s) or container(s) (b) Marks and Nos. of packages or articles	11. Number and type of packages or articles; description of goods	12. M or D	13. Remarks (give particulars of quantities missing or destroyed)	
14. Date, place and circumstances of the accident				
15. Measures taken to enable the TIR operation to continue				
<input type="checkbox"/> affixing of new seals: number _____ description _____ <input type="checkbox"/> transfer of load (see item 16 below) <input type="checkbox"/> other				
16. If the goods have been transferred: description of road vehicle(s)/container(s) substituted				
	Registration No.	Approved		
		Yes	No	No. of certificate of approval
(a) vehicle	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Identification No.	<input type="checkbox"/>	<input type="checkbox"/>	_____ / _____
(b) container	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____ / _____
	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____ / _____
17. Authority which drew up this certified report		18. Endorsement of next Customs office reached by the TIR transport		
_____ Place/Date/Stamp		_____ Signature		
<input type="checkbox"/> Mark the appropriate boxes with a cross				

#### **IV.1.1.1. Summary description of the usage of the accompanying document**

##### **IV.1.1.1.1. At the customs office of departure (first)**

As the final step of the procedure to start the first TIR operation at the first customs office of departure, the customs system will print the accompanying document in line with the model above. The customs officer will provide the transport operator with the accompanying document (without stamping it).

##### **IV.1.1.1.2. At the customs office of departure (intermediate)**

As the final step of the procedure to start a TIR operation at an intermediate customs office of departure, the customs system will print the accompanying document in line with the model above. The customs officer will provide the transport operator with the new accompanying document containing an updated version of the goods manifest (without stamping it).

In case the customs officer cannot complete the termination of the TIR operation or the start of the next TIR operation electronically, he or she will date, stamp and sign the first available box on the “FOR FALLBACK PROCEDURE” part of the accompanying document (and indicate the newly affixed seals, if an inspection took place).

##### **IV.1.1.1.3. At the customs office of exit**

At the customs office of exit, the customs officer will scan the bar code on the accompanying document (or enter manually the TIR guarantee reference in the customs system) to identify the eTIR transport and access the related information from the national system.

In case of inspection, the customs officer will print a new accompanying document containing a reference to the newly affixed seals.

In case the customs officer cannot complete the termination of the TIR electronically, he or she will date, stamp and sign the first available box on the “FOR FALLBACK PROCEDURE” part of the accompanying document (and indicate the new seals affixed if an inspection took place).

##### **IV.1.1.1.4. At the customs office of entry**

At the customs office of entry, the customs officer will scan the bar code on the accompanying document (or enter manually the TIR guarantee reference in the customs system) to identify the eTIR transport and access the related information from the national system.

In case of inspection, the customs officer will print a new accompanying document containing the reference to the newly affixed seals.

In case the customs officer cannot complete the start of the TIR operation electronically, he or she will date, stamp and sign the first available box on the “FOR FALLBACK PROCEDURE” part of the accompanying document (and indicate the newly affixed seals, if an inspection took place).

##### **IV.1.1.1.5. At the customs office of destination (intermediate)**

At the customs office of intermediate destination, the customs officer will scan the bar code on the accompanying document (or enter manually the TIR guarantee reference in the customs system) to identify the eTIR transport and access the related information from the national system.

In case of inspection, the customs officer will print a new accompanying document containing a reference to the newly affixed seals.

In case the customs officer cannot complete the termination of the TIR operation or the start of the next TIR operation electronically, he or she will date, stamp and sign the first available box on the “FOR FALLBACK PROCEDURE” part of the accompanying document (and indicate the newly affixed seals, if an inspection took place).

#### **IV.1.1.1.6. At the customs office of destination (final)**

At the customs office of final destination, the customs officer will scan the bar code on the accompanying document (or enter manually the TIR guarantee reference in the customs system) to identify the eTIR transport and access the related information from the national system.

In case the customs officer cannot complete the termination of TIR operation electronically, he or she will date, stamp and sign the first available box on the “FOR FALLBACK PROCEDURE” part of the accompanying document and return the document to the transport operator (and indicate the newly affixed seals if an inspection took place).

#### **IV.1.1.1.7. En route (e.g. police)**

Authorities en route can request the accompanying document from the transport operator. In case of doubts, authorities en route should contact the customs administration in their country to verify the authenticity of the document provided on the basis of the data contained in the customs system.

#### **IV.1.1.1.8. In case of accident or incident**

In case of accident or incident, authorities en route will fill in the certified report at the back of the accompanying document.

Upon reception of the certified report, in case the TIR transport cannot continue, customs authorities shall terminate the TIR operation indicating the termination type “Accident or incident”. If the TIR transport can continue, customs will amend the TIR transport/operation data in line with the measures taken by the authorities present at the accident or incident (in line with boxes 15 and 16 of the certified report).

#### **IV.1.2. eTIR queue mechanism**

Whenever the eTIR international system is not in a position to send messages (either because the system of the addressee is not functioning or because there is a problem with the connection) the messages will be placed in a queue so that they can be sent once the system of the addressee or the connection is restored.

#### **IV.1.3. eTIR service desk**

During its opening hours, the eTIR service desk will assist the guarantee chain to cancel a guarantee in the eTIR international system if the guarantee chain system or its connection with the eTIR international system is not functioning.

#### **IV.1.4. Web application and web services developed by the guarantee chain**

When they cannot access the eTIR international system, customs administration may use the web application and the web services developed by the guarantee chain to obtain information on the guarantee and on the TIR transport.

#### **IV.1.5. ITDB replica**

When the eTIR international system cannot access the International TIR Data Bank (ITDB), it will use the local replica of the ITDB stored within the eTIR international system.

## IV.2. Activity diagrams

This chapter provides activity diagrams for the usage of the various fallback components.

### IV.2.1. Accompanying document

Figure IV.3

**Activity diagram of the usage of the accompanying document – Data not received and impossibility to query the eTIR international system**

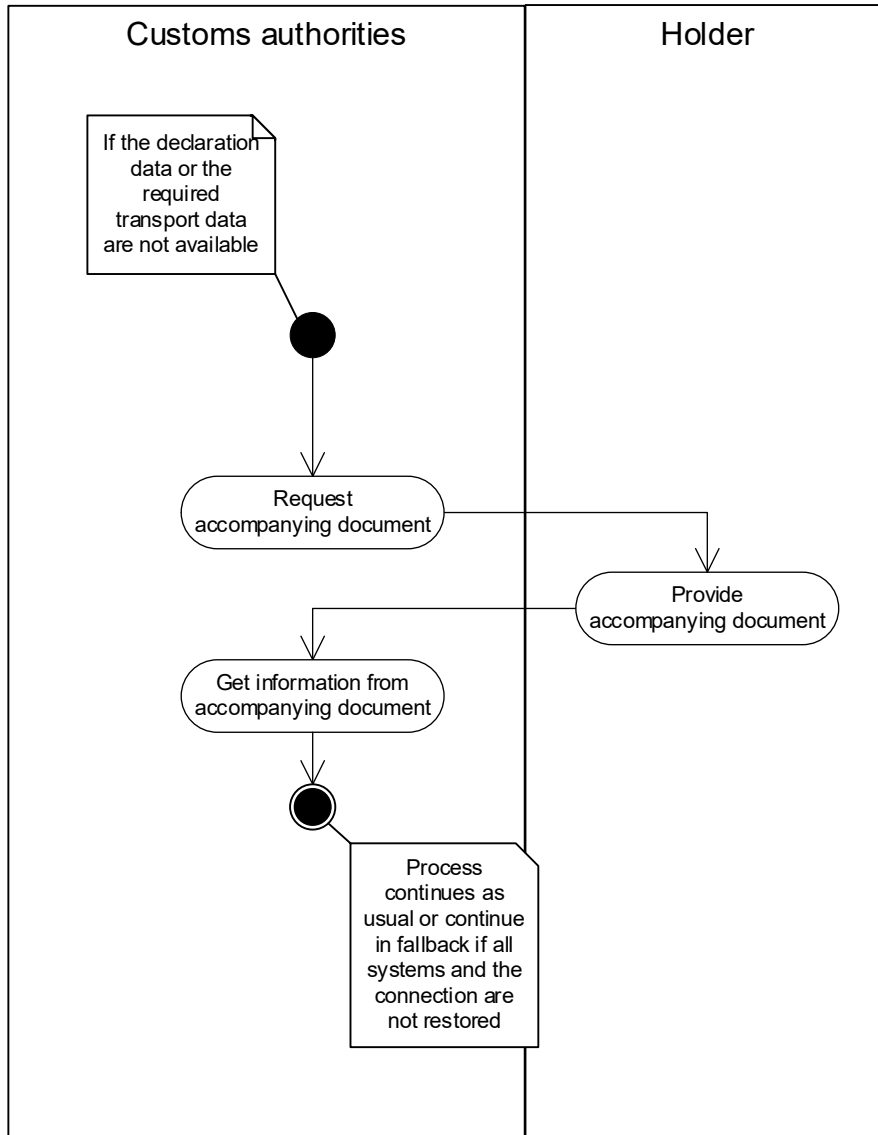
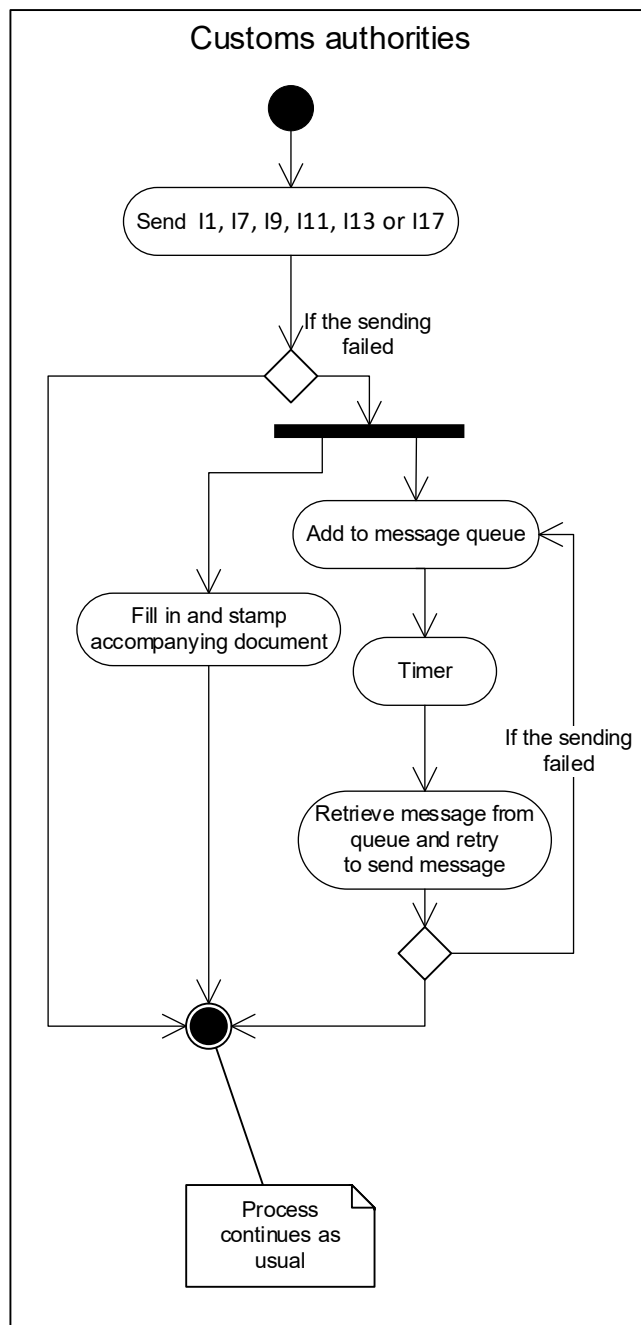
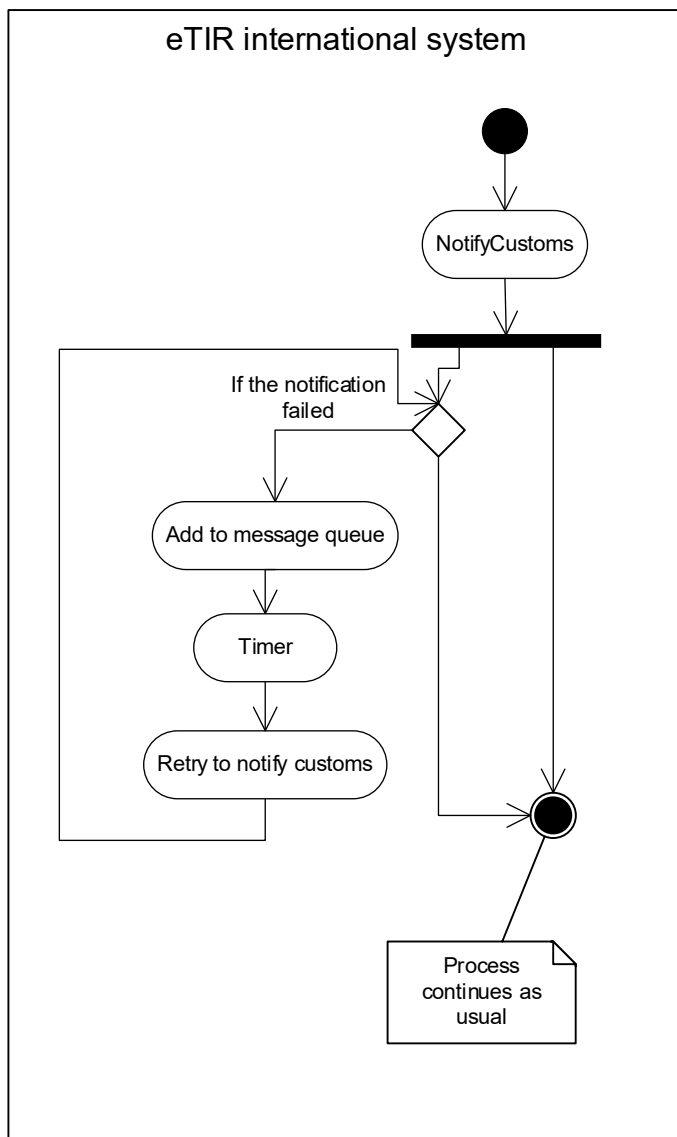


Figure IV.4  
Activity diagram of the usage of the accompanying document – Failed sending  
I1/I7/I9/I11/I13/I17 messages



IV.2.2. eTIR queue mechanism

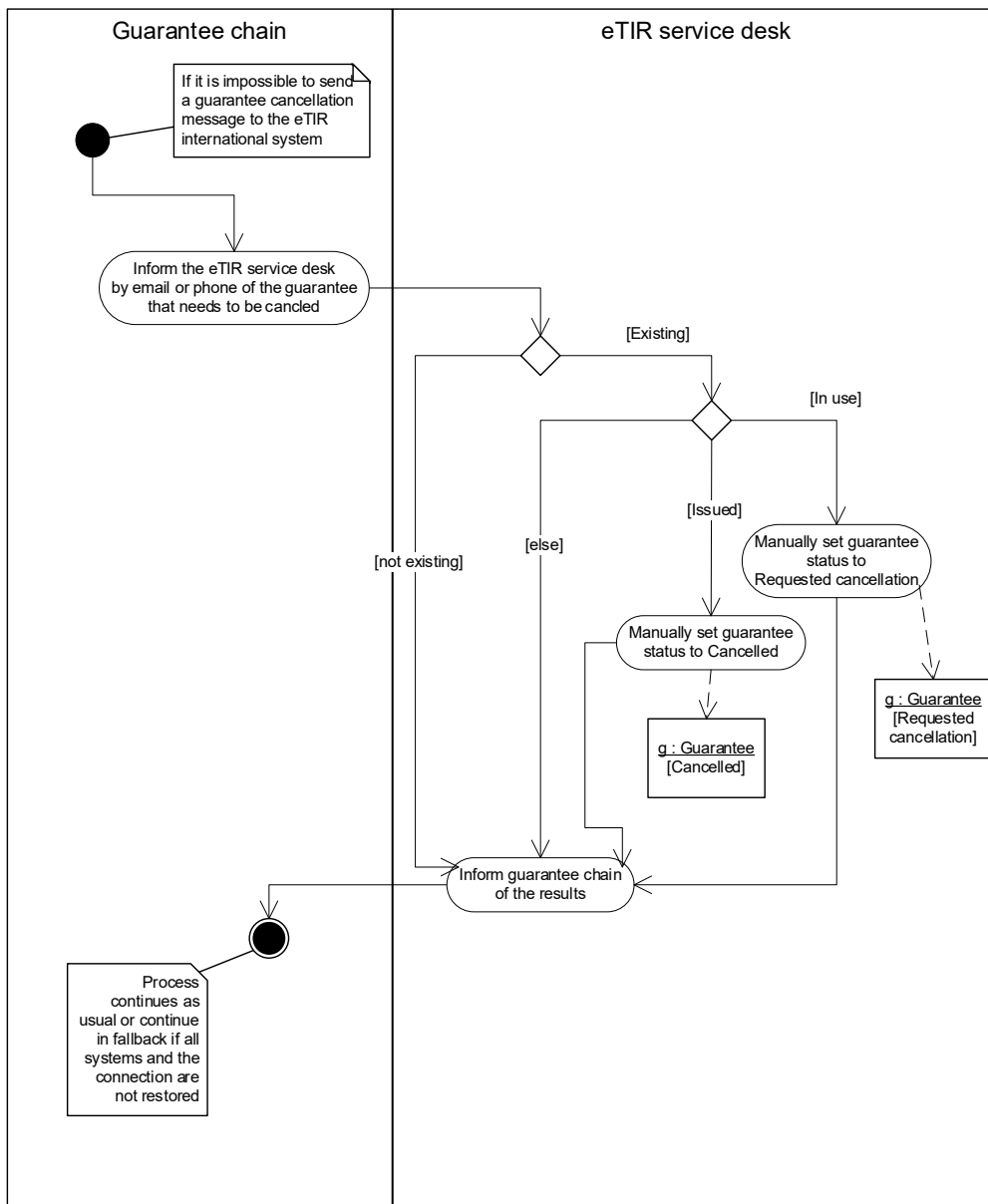
Figure IV.5  
Activity diagram of the usage of the eTIR queue mechanism





IV.2.2. eTIR service desk

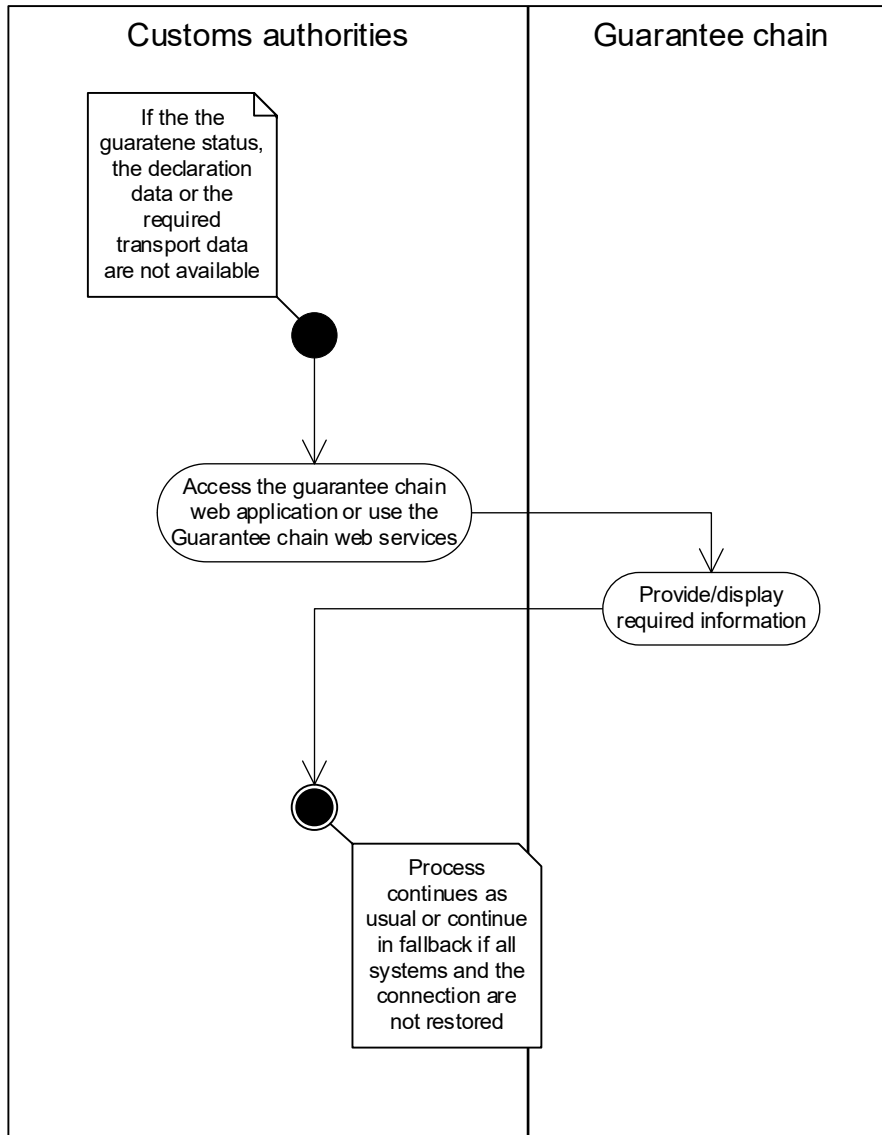
Figure IV.6  
Activity diagram of the usage of the eTIR service desk



**IV.2.3. Web application and web service developed by the guarantee chain**

Figure IV.7

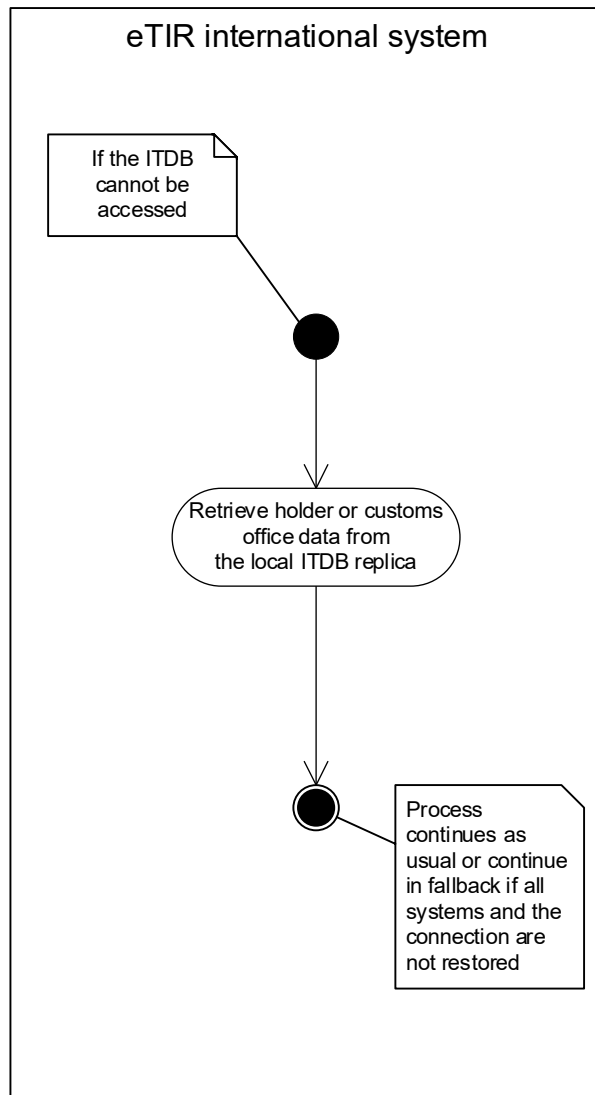
**Activity diagram of the usage of the web application and web service developed by the guarantee chain**



#### IV.2.4. ITDB replica

Figure IV.8

Activity diagram of the usage of the ITDB replicad



**Annex III<sup>1</sup>****Extensions to the WCO data model version 3.10**

Table V.1

**Extensions to the WCO data model version 3.10**

<i>eTIR Messages</i>	<i>Extention</i>	<i>WCO DM elements affected</i>
I7 and I15	Add the “Certificate of approval” class under the “TransportEquipment” class	Intergov
I6, I7 and I15	Add the “Type” attribute in the “Classification” class	Content information structure and Intergov
I19 and I20	Add the “CustomsOffice” class	Library, Content information structure and Intergov
E6, E9, E11, I6, I7 and I15	Add the “Sequence number” attribute in the “Packaging” class	Library, Content information structure, LPCO and Intergov
	Add the “Sequence number” attribute in the “TransportMeans” class	Library, LPCO and Intergov
	Add the “Heavy or bulky goods indicator” attribute in the “Consignment” class	Library, LPCO and Intergov

<sup>1</sup> Corresponds to annex V in the former versions of the eTIR specifications (e.g. ECE/TRANS/WP.30/2011/4/Rev.1).