

# **Economic and Social Council**

Distr.: General 31 March 2020

Original: English

# **Economic Commission for Europe**

**Inland Transport Committee** 

**Working Party on Customs Questions affecting Transport** 

155th session

Geneva, 9–12 June 2020 Item 10 of the provisional agenda **Special event on eTIR related matters** 

# Approved amendments to the eTIR conceptual, functional and technical documentation - v.4.2a

Note by the secretariat

#### I. Introduction

- 1. At its twenty-seventh, twenty-eighth, twenty-ninth, thirtieth and thirty-first sessions, the Informal Ad hoc Expert Group on Conceptual and Technical Aspects of Computerization of the TIR Procedure (GE.1) considered a number of amendments to version 4.2 of the eTIR conceptual, functional and technical specifications.
- 2. Further to the decisions taken by GE.1 at those sessions, the secretariat prepared this document, containing a list of amendments approved by GE.1, which will be included in version 4.3 of the eTIR specifications, after approval by the Working Party on Customs Questions affecting Transport (WP.30).

# II. Approved amendments

#### A. Sequence of messages

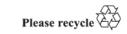
3. The sequence diagrams describing the standard sequences of eTIR messages for countries of departure, transit and destination (as contained in Annex I) will be included in the next revision of the eTIR functional specifications as a new Annex.

#### **B.** Guarantee status

4. GE.1 took note that the status of the guarantee could not remain "in use" in case of accidents or incidents nor in the case of a refusal to start a TIR operation. Consequently, it requested the secretariat to introduce two new codes for the guarantee status and the corresponding rules for the eTIR international system in the next version of the eTIR specifications.

GE.20-04858(E)





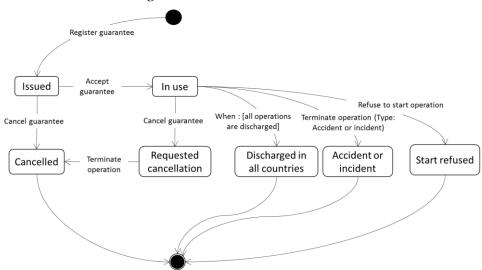


5. As a result, in the next revision of the eTIR specifications, the code list CL22 will be as follows:

CL22	Guarantee status (eTIR)	
	001	Issued
	002	In use
	003	Cancelled
	004	Requested cancellation
	005	Discharged in all countries
	006	Accident or incident
	007	Start refused

- 6. Chapter "3.1.2 Guarantee state chart diagram" of the eTIR concepts document will list the two additional guarantee statuses.
- 7. Figure 3 in the same document will be amended as follows:

Figure 3 **Guarantee status chart diagram** 



#### C. Refusal to start TIR operation

- 8. The "refusal to start TIR operation" use case will be included in Chapter 3.2 of the next version of the eTIR concepts document.
- 9. Furthermore, the following changes will be made to the eTIR concepts document (ECE/TRANS/WP.30/2020/2, para. 28):
  - Add a "refusal to start a TIR operation" use case in the use case diagram in Figure 10 (used by "Customs authorities" and "using" the "notify guarantee chain" use case.
  - In Chapter 3.2. add a new sub chapter "Refusal to start a TIR operation use case description" containing the following table:

Table x **Refusal to start a TIR operation use case description** 

Name	Refusal to start a TIR operation use case
Description	Customs authorities provide the eTIR international system with information regarding the refusal to start a TIR operation.
Actors	Customs authorities
Performance Goals	-
Preconditions	-
Postconditions	-
Scenario	Customs authorities send a message to the eTIR international system notifying that they refused to start a TIR operation (including the reason). The eTIR international system saves the information and notifies the guarantee chain of the refusal to start a TIR operation.
Alternative Scenario	Fallback scenario
	If electronic messages cannot be exchanged with the eTIR international system, the information regarding the refusal to start a TIR operation should be provided on the accompanying document. Customs authorities will nevertheless send the refusal to start electronic message at a later stage.
Special requirements	-
Extension Points	-
Requirements Covered	-

- In Chapter 3.2. add a new sub chapter "Refusal to start a TIR operation activity diagram" containing the refusal to start activity diagram.
- In Figure 19 (General eTIR class diagram) add an association class "refusal to start" between the classes "TIR operation" and "Customs office".
- 10. The following changes should be included in the eTIR functional specifications document (ECE/TRANS/WP.30/2020/2, para. 28):
  - In Figure 1.18 (Data exchange class diagram), add an association class "refusal to start" between the classes "TIR operation" and "customs office" with links to "Control results" and" additional information classes".
  - In Chapters 2.5.1.3, 2.5.2.3 and 2.5.3.3, the refusal to start a TIR operation message should be amended to include a "customs office" class containing a "customs office, code" attribute to allow indicating which customs office refused to start the TIR operation.

#### D. Definition of the declaration

11. The definition of the term "declaration" in the next version of the TIR glossary contained in Annex II to the Introduction of the eTIR conceptual, functional and technical documentation will be amended as follows:

Term	Definition	Source	Date
Declaration	Act whereby the holder, or his or her representative, indicates, in accordance		6 February 2020

Term	Definition	Source	Date	
Term	with the eTIR specifications, the inte to place goods under the eTIR procedure. From the moment of acceptance of the declaration by the competent authorities, based on the advance TIR data or the advance amendment data, and the transfer of the declaration data to the eTIR international system it shall constitut the legal equivalent of an accepted T	ent	Duic	
	Carnet.			

### E. Storage of information

12. In Chapter 1.2.5.1 "Central platform", the following sentence will be added at the end of the existing text: "The eTIR international system shall store and archive data for a minimum period of ten [10] years".

#### F. Hash code

- 13. In Chapter I.4.3.b "Liability of the holder if an error occurs in the course of the transmission of data from customs to customs through the eTIR international system" contained in Annex I of the eTIR concepts document, a footnote will be added to indicate that: "GE.1 was of the view that the inclusion of a hash code would complicate the submission of advance TIR data for transport operators. Furthermore, it underlined that, upon registration of the declaration by the custom office of departure in the eTIR international system, the data was not only forwarded to all customs offices en route and of destination but also to the guarantee chain. Thus, the information could easily be shared with transport operators to ensure that the data is identical to the data contained in the advance TIR data they submitted originally, but could also be used as evidence in case of claims or court cases. (ECE/TRANS/WP.30/2018/22, para. 21)".
- 14. Furthermore, the following amendments should also be made in Annex I of the eTIR concepts document (ECE/TRANS/WP.30/2020/2, para. 27):
  - Delete footnote 12 on page 47.
  - Delete "After having generated the 'key' to ensure the integrity of the advance TIR data," from point 5 on page 48.
  - Delete ", allowing the holder to verify the integrity of the data by comparing the 'key' of the declaration with the one originally generated." from point 13 on page 49.
  - Delete ", allowing the holder to verify the integrity of the data by comparing the 'key' of the declaration with the one originally generated." from point 8 on page 51.
  - Delete "After having generated the 'key' to ensure the integrity of the advance TIR data," from point 2 on page 52.
  - Delete ", allowing the holder to verify the integrity of the data by comparing the 'key' of the declaration with the one originally generated." from point 10 on page 53.

#### **G.** Pointers

15. Out of the three various options available in the World Customs Organization (WCO) data model to use pointers to indicate the position of errors or amendments in messages, GE.1 decided to only use the XPath standard (see example in Figure 1). eTIR messages should be amended accordingly in the next version of the eTIR specifications.

Figure 1
Usage of XPath in an error pointer

Erro	r	
	Error code	12 (Incorrect (code) value)
	Pointer	
	Location	Declaration / Consignment [2] / ConsignmentItem [3] / Packaging / Type

16. Furthermore, GE.1agreed with the proposal to delete code lists 18 and 19 (ECE/TRANS/WP.30/2020/2, para. 26).

#### H. Advance cargo information

17. In line with the text of Annex 11, in the next version of the eTIR specifications, all references to the term "advance cargo information" should be replaced by "advance TIR data". In the glossary contained in Annex II to the Introduction of the eTIR conceptual, functional and technical documentation, the term "Advance cargo information" should be replaced by:

Term	Definition	Source	Date
Advance TIR data	Data submitted to the competent authorities of the country of departure, in accordance with the eTIR specifications, of the intention of the holder to place goods under the eTIR procedure.	Annex 11 Article 2 (c)	6 February 2020

#### I. Amended list of messages

18. The following two lines will be added to Table 1.2 in Chapter 2.4.2 (Internal messages).

#### I17 Refusal to start a TIR operation This message allows customs authorities to record information related to the refusal to start a TIR operation. **I18 I17** Refusal to start results This message is a response to message I17. It confirms the reception of the refusal to start a TIR operation. I19 Check customs offices This message allows customs authorities or the eTIR international system to retrieve information about customs offices in the ITDB. I20 I19 Customs offices information

#### J. Accident or incident

19. The following changes should be made to the eTIR concepts document (ECE/TRANS/WP.30/2020/2, para. 29):

This message is a response to message I19. It provides the information

regarding customs offices or error codes.

 Add a "Accident or incident" use case in the use case diagram in Figure 10 (used by "Customs authorities" and "using" the "Terminate TIR operation" and "Update Consignment information" use cases. • In Chapter 3.2., add a new sub chapter "Accident or incident use case description" containing the following table:

Table x

Accident or incident use case description

Name	Accident or incident use case
Description	An accident or incident happens en route.
Actors	Customs authorities, other authorities en route (e.g. police)
Performance Goals	-
Preconditions	-
Postconditions	-
Scenario	Authorities en route fill in the certified report at the back of the accompanying document. At the first opportunity, customs authorities provide the eTIR international system with information regarding the accident or incident, either by updating the TIR transport information, if the TIR transport could continue, or by sending a termination message with type "Accident or incident" in case the TIR transport could not be resumed.
Alternative Scenario	Fallback scenario
	If electronic messages cannot be exchanged with the eTIR international system, information regarding the accident or incident is already available in the certified report and customs authorities shall amend the accompanying document accordingly. Customs authorities will nevertheless send the required electronic messages at a later stage.
Special requirements	
Extension Points	-
Requirements Covered	<u>-</u>

• In Chapter 3.2., add a new sub chapter "Accident or incident activity diagram" containing the accident or incident activity diagram.

#### K. Accompanying document and fallback procedure

- 20. The following changes should be made to the eTIR concepts document (ECE/TRANS/WP.30/2020/2, para. 23):
  - Amend Chapter 3 of the eTIR concepts document in line with Annex II.
  - Reword Chapter 1.3.2.3 (eTIR website) in the eTIR concepts document as follows:

"The eTIR website is an information platform which contains all the relevant information for all the actors to connect to the eTIR international system."

- Amend the footnote on page 13 as follows "The eTIR international system, as introduced in 1.1.2, is composed of the central databases and the web services.
- Amend the text of Chapter 1.2.8 (Fallback solutions) as follows:

"In case, once a TIR transport has begun, customs administrations are not in a position to communicate with the eTIR international system, they will rely on the accompanying document to obtain or provide the required information.

Detailed fallback solutions for individual use cases are contained in the functional specifications document."

• Amend the text of Chapter 1.3.2.10 (Authentication database) as follows:

"In order to technically restrict access to the eTIR international system to those users who have been authorized, an authentication database is used. This database is used to secure the web services. Consequently, it will contain the credentials of the IT systems of guarantee chains as well as the customs central systems. Furthermore, holders who would request the use of the centralized declaration mechanism will also have their credentials included."

- 21. Replace Chapter 1.2 of the eTIR functional specifications with the version contained in Annex III (ECE/TRANS/WP.30/2020/2, para. 23).
- 22. Add the sample accompanying document and summary description of the usage of the accompanying document contained in Annex IV to the eTIR functional specifications Annex III, Chapter III.3.1 (ECE/TRANS/WP.30/2020/2, para. 23).

#### L. Customs offices database

- 23. The following changes should be made to the eTIR concepts document (ECE/TRANS/WP.30/2020/2, para. 21):
  - delete the customs offices database from the eTIR international deliverables and add instead a new chapter to Chapter 1.3.3 (Other required systems), as it is the case for the database on TIR Carnet holders contained in ITDB. The new chapter should read as follows:

#### 1.3.3.2 Customs offices database

"To ensure that customs offices are approved for eTIR, the eTIR international system retrieves the necessary information from ITDB using a web service."

- 24. The following changes should be made to the eTIR functional specifications (ECE/TRANS/WP.30/2020/2, para. 22):
  - replace all references to "CL13 Customs offices database (eTIR/to be developed)" by "CL13 Customs offices database (TIRExB/ITDB)".
  - replace "CL15 International TIR database (TIRExB/ITDB)" by "CL15 TIR Carnet holders database (TIRExB/ITDB)".
- 25. The I19/I20 messages contained in Annex V should be included in the next version of the eTIR specifications, together with other necessary changes in use cases, activity diagrams and sequence diagrams.

#### M. Declaration data and advance amendment data

26. In the glossary contained in Annex II to the Introduction of the eTIR conceptual, functional and technical documentation, insert the term "advance amendment data":

Term	Definition	Source	Date
Advance amendment data	Data submitted to the competent authorities of the country in which an amendment to the declaration data is requested, in accordance with the eTIR specifications, of the intention of the holder to amend the declaration data.	. ,	6 February 2020

27. Limit the usage of the E9 message to send advance TIR data and create two additional messages to cancel advance TIR data and send advance amendment data (ECE/TRANS/WP.30/2020/5, para. 28).

28. Rename the I7 and I8 messages as "Record declaration data", and "Record declaration data results", respectively. In the eTIR concepts document, replace the recording or amending of a "consignment" by the recording or amending of a "declaration" (ECE/TRANS/WP.30/2020/5, para. 29).

#### N. Message Reference Number and Functional Reference

29. Include in the eTIR technical specifications a chapter on the unicity of the Message Reference Number attribute used in each message. The unique value should be the concatenation of a unique value identifying the sending entity with a Globally Unique Identifier (GUID). Furthermore, throughout the eTIR specifications, rename the "Message Reference Number" as "Message Identifier" (ECE/TRANS/WP.30/2020/5, paras. 30 and 31).

#### O. Cancellation of the advance TIR data

30. Remove code 1 (Cancellation) from the list of restricted codes available for the Message Function attribute of message I7 (ECE/TRANS/WP.30/2020/5, para. 34).

#### P. Changes in cardinalities

#### 1. Declaration - Guarantee

31. Class diagrams and the relevant messages should be amended to limit the cardinality of the guarantee to 1..1 (ECE/TRANS/WP.30/2020/5, paras. 36 and 37).

#### 2. Start - Customs office

32. In the Start operation message (E6), the cardinality of the customs office should be changed from 0..unbounded to 1..1 (ECE/TRANS/WP.30/2020/5, para. 40).

#### 4. Consignment item - UCR

33. In messages E6 and I15, the cardinality of the UCR should be changed from 0..unbounded to 0..1 (ECE/TRANS/WP.30/2020/5, para. 41).

#### 5. Consignor - Address

34. In messages E6 and I15, the cardinality of the address should be changed from 0..unbounded to 0..1(ECE/TRANS/WP.30/2020/5, para. 42).

#### Q. Error codes

35. In the eTIR functional specifications, the code list for errors (CL99) should be replaced with the one contained in Annex VI. (ECE/TRANS/WP.30/2020/5, para. 24).

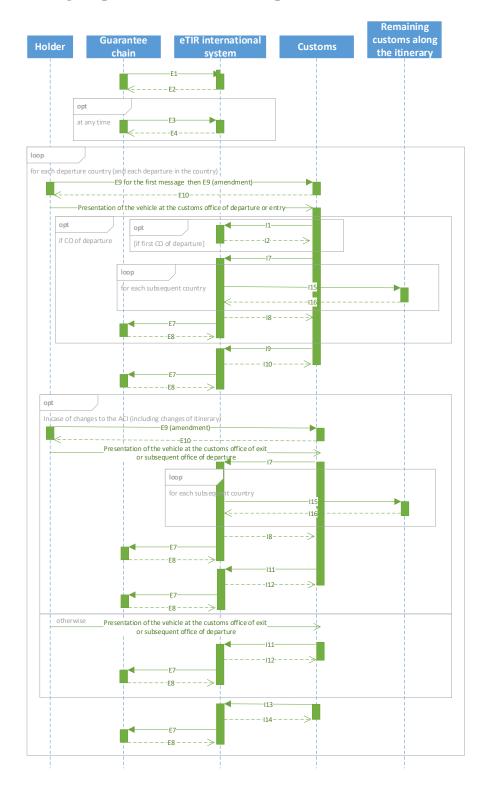
# III. Considerations by the Working Party

36. The Working Party may wish to consider all the amendments already approved by GE.1, but in particular those related to the concepts document and the functional specifications, before they are inserted in version 4.3 of the eTIR specifications. Furthermore, GE.1 specifically requested the Working Party to confirm that each TIR transport carried out under the eTIR procedure must have one and only one guarantee (see para. 31).

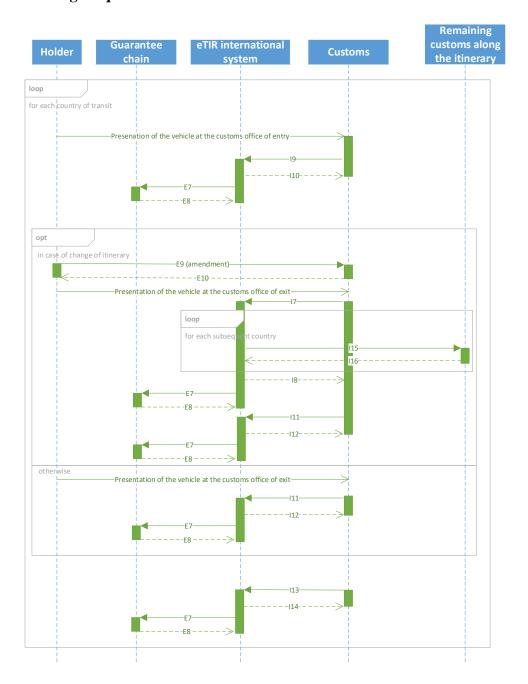
# Annex I

# Sequence of messages

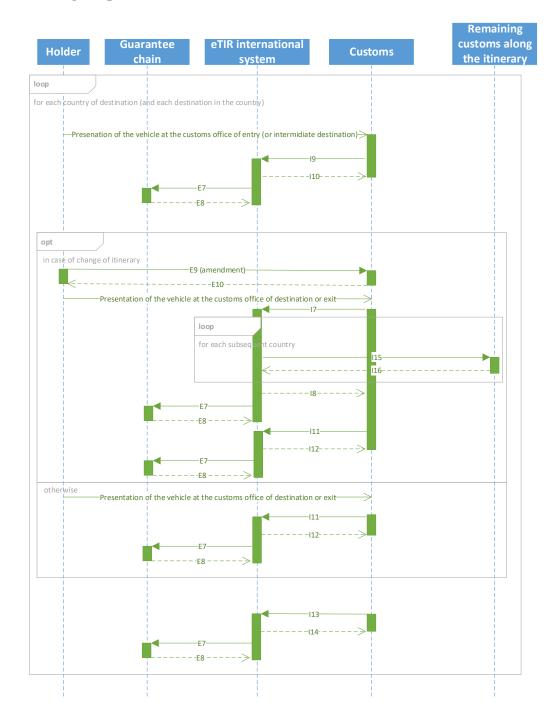
# A. Message sequence for countries of departure



# B. Message sequence for countries of transit



# C. Message sequence for countries of destination



# **Annex II**

# Amendments to Chapter 3 of the eTIR Concepts document (Fallback scenarios only)

3.1.5 Register guarantee use case description

Table 3

Register guarantee use case description

Name	Register guarantee use case
Description	The guarantee chain registers each guarantee issued to a holder in the eTIR international system by sending an electronic message.
Actors	Guarantee chain
Performance Goals	Any guarantee, issued to a holder, shall be registered in the eTIR international system before it can be used by a holder to accompany a declaration.
Preconditions	The holder, to whom the guarantee chain has issued a guarantee, must be authorized and registered in the ITDB and the eTIR international system should not contain a prior registration of the guarantee.
Postconditions	The guarantee information is stored in the eTIR international system with status "issued".
Scenario	Registration
	The guarantee chain issues a guarantee to a holder and sends a secure electronic message with all information regarding the guarantee to the eTIR international system. The eTIR international system checks if the guarantee has not yet been registered. Then it gets holder information, including its current status. In case the guarantee has not yet been registered and the holder is authorized, the system registers the guarantee and notifies the results of the registration of the guarantee to the guarantee chain. If the registration fails for any reason, the guarantee chain is informed accordingly.
Alternative Scenario	Fallback scenario
	If electronic messages cannot be sent to the eTIR international system by means of the web services, no functional fallback is foreseen, and the information should be sent as soon as it is possible.
Special requirements	The guarantee chain cannot update any information it has registered in the eTIR international system. Only the cancellation of the guarantee is possible.
Extension Points	-

#### 3.1.7 Cancel guarantee use case description

Table 4

Cancel guarantee use case description

Name	Cancel guarantee use case
Description	The guarantee chain cancels a guarantee after it has been issued to a holder by sending an electronic message to the eTIR international system.
Actors	Guarantee chain
Performance Goals	-

Name	Cancel guarantee use case
Preconditions	The guarantee must have been registered and have the status "issued". The guarantee can also have the status "in use".
Postconditions	The guarantee status is changed to "cancelled", "requested cancellation" or remains in its current status.
Scenario	Cancellation
	The guarantee chain sends a secure electronic message to the eTIR international system to request the cancellation of a guarantee. First the eTIR international system checks that the guarantee is registered. Then, in case the guarantee status is "issued", the eTIR international system changes the guarantee status to "cancelled". If the guarantee status is "in use", its status is turned to "requested cancellation".
Alternative Scenario	Fallback scenario
	If electronic messages cannot be sent to the eTIR international system by means of the web services, the guarantee chain should contact the eTIR helpdesk to transmit the cancellation information.
Special requirements	
Extension Points	-
Requirements Covered	-

# 3.1.9 Accept guarantee use case description

Table 5

# Accept guarantee use case description

Name	Accept guarantee use case
Description	The customs authorities notify the eTIR international system that the guarantee has been accepted.
Actors	Customs authorities
Performance Goals	-
Preconditions	The guarantee must be registered and its status must be "issued". The customs authorities at departure must also have received a TIR declaration. The holder must be registered in ITDB and authorized.
Postconditions	The guarantee status is changed to "in use" or remains at its current status.
Scenario	Accept guarantee
	Customs authorities send a secure electronic message to the eTIR international system informing that the guarantee has been accepted for a TIR transport.
Alternative Scenario	Fallback scenario
	If electronic messages cannot be sent to the eTIR international system by means of the web services, the accompanying document will serve as a proof that the guarantee has been accepted.
Special requirements	-
<b>Extension Points</b>	-
Requirements Covered	-

# 3.1.13 Query guarantee use case description

Table 7

# Query guarantee use case description

Name	Query guarantee use case
Description	Customs authorities or a guarantee chain request the eTIR international system information on issued guarantees.
Actors	Guarantee chain, customs authorities
Performance Goals	
Preconditions	-
Postconditions	-
Scenario	Query the guarantee
	A guarantee chain or customs authorities send a secure electronic query to the eTIR international system. The eTIR international system extracts all data from the database concerning the guarantee and combines them with data on the holder (get holder info) and sends all information to the customs authorities or to the guarantee chain. If the guarantee has not yet been registered, the customs authorities or the guarantee chain are informed accordingly.
Alternative Scenario	Fallback scenario
	Customs authorities can obtain information about the transport from the accompanying document and can use the web services or consult the web application developed by the guarantee chain.
Special requirements	A guarantee chain can only query information on those guarantees which it has issued and which have been registered by the eTIR international system. The eTIR international system also provides guarantee chains with information on TIR transports attached to the guarantees issued by them.
Extension Points	
Requirements Covered	-

#### 3.2.2 Record consignment information use case description

Table 8

# Record consignment information use case description

Name	Record consignment information use case	
Description	Information about the consignment is centrally stored.	
Actors	Customs authorities	
Performance Goals		
Preconditions	The guarantee must have been accepted (status "in use"). The holder should be authorized and not currently excluded from any country along the itinerary.	
	The declaration has been accepted by the customs authorities.	
Postconditions	-	
Scenario	The first customs office of departure will send all data contained in the electronic declaration together with the information on seals affixed to the eTIR international system after having accepted the declaration and sealed the loading unit. The eTIR international system provides all subsequent countries indicated in the itinerary and the guarantee chain with the	

Name	Record consignment information use case
	information. Customs authorities will provide the holder with an accompanying paper document.
Alternative Scenario	Fallback scenario
	In case the transmission of information to the eTIR international system fails, the customs authorities nevertheless accept the holder to start the TIR transport. Customs authorities will transmit the electronic data to the eTIR international system at the first opportunity. In the meantime, other customs authorities will obtain the required information from the accompanying document.
Special requirements	
Extension Points	-
Requirements Covered	

3.2.4	Update consignment information use case description		
	Table 9 Update consignment information use case description		
Name	Update consignment information use case		
Description	The information related to a declaration is updated after subsequent loading or partial unloading, after the truck and/or the goods have been submitted to checks, after the itinerary has been changed or after the vehicle has been changed.		
Actors	Customs authorities, holder		
Performance	Goals		
Preconditions	The declaration updates have been accepted by the customs authorities. The holder should be authorized and not currently excluded from any country along the itinerary.		
Postcondition	-		
Scenario	Intermediate loading points		
	The intermediate customs office of departure will send all data contained in the declaration to the eTIR international system together with the information on the new seals, after having accepted the declaration and resealed the vehicle or container. The eTIR international system provides all subsequent countries indicated in the itinerary and the guarantee chain with the updated information.		
Alternative S	enario Intermediate Unloading points		
	After having sent a termination message and unloaded the goods concerned, the intermediate customs office of destination will send information on the new seals affixed. The eTIR international system provides all subsequent countries indicated in the itinerary and the guarantee chain with the updated information. Customs authorities provide the holder with an updated accompanying paper document.		
	Customs checks		
	Having removed the seals from the vehicle or container, performed the necessary checks and resealed the vehicle or container, customs authorities send a message to provide the eTIR		

international system with information on the new seals affixed. The eTIR international system provides all subsequent countries indicated in the itinerary and the guarantee chain with the updated information. Customs authorities provide the holder with an updated accompanying paper document.

#### Change of itinerary

Name

Update consignment information use case

After having been informed by the holder that the routing of the transport has changed, customs authorities send a message to provide the eTIR international system with information on the new itinerary. The eTIR international system provides all subsequent countries indicated in the itinerary and the guarantee chain with the updated information. It also informs the countries removed from the itinerary that the TIR transport will not transit their country. Customs authorities provide the holder with an updated accompanying document.

#### Vehicles change

After having been informed by the holder that a new vehicle (usually the tractor unit) will be used, customs authorities send a message to provide the eTIR international system with information on the new vehicle. The eTIR international system provides all subsequent countries indicated in the itinerary and the guarantee chain with the updated information.

#### Fallback scenario

In case the transmission of information to the eTIR international system fails, the customs authorities nevertheless accept that the holder to continue the TIR transport. Customs authorities will transmit the electronic data to the eTIR international system at the first opportunity. In the meantime, other customs authorities will obtain the required information from the accompanying document.

Special requirements

Extension Points -

Requirements Covered

#### 3.2.6 Starting of TIR operation use case description

Table 10

#### Starting of TIR operation use case description

Name	Starting of TIR operation use case
Description	Customs authorities provide the eTIR international system with information regarding the start of a TIR operation.
Actors	Customs authorities
Performance Goals	-
Preconditions	Ensure the validity of the guarantee and the authorization for the holder.
Postconditions	-
Scenario	Customs authorities send a message to the eTIR international system notifying that a TIR operation has started. If the holder is authorized and the guarantee status is "in use", the eTIR international system saves the information and notifies the guarantee chain of the start of a TIR operation.
Alternative Scenario	Fallback scenario
	If electronic messages cannot be exchanged with the eTIR international system, the information regarding the start should be provided on the accompanying document. The status of the guarantee can be queried using the web services or the web application developed by the guarantee chain. Customs authorities will nevertheless send the start message at a later stage.
Special requirements	<del>-</del>
<b>Extension Points</b>	-

Requirements Covered -

# 3.2.8 Terminate TIR operation use case description

Table 11

# TIR operation use case description

Name	Terminate TIR operation use case			
Description	Customs authorities provide the eTIR international system with information regarding the termination of a TIR operation.			
Actors	Customs authorities			
Performance Goals	-			
Preconditions	-			
Postconditions	-			
Scenario	Customs authorities send a message to the eTIR international system notifying that a TIR operation has terminated. The eTIR system stores the information, changes the status of the guarantee to cancelled in case the guarantee chain has requested cancellation and notifies the guarantee chain of the termination of all TIR operations, including the final termination, providing the data as required by Annex 10 of the TIR Convention.			
Alternative Scenario	Fallback scenario			
	If electronic messages cannot be exchanged with the eTIR international system, the information regarding the termination should be provided on the accompanying document. Customs authorities will nevertheless send the termination message at a later stage.			
Special requirements	Termination can be made with reservations.			
Extension Points				
Requirements Covered	-			

Table 12

# Discharge TIR operation use case description

Name	Discharge TIR operation use case
Description	Customs authorities provide the eTIR international system with information regarding the discharge of a TIR operation.
Actors	Customs authorities
Performance Goals	
Preconditions	-
Postconditions	-
Scenario	Customs authorities send a message to the eTIR international system notifying that a TIR operation has been discharged. The eTIR international system stores the information and notifies the guarantee chain of the discharge of the TIR operations constituting a single TIR transport. When all goods have reached their final destination and all TIR operations covered by the guarantee have been discharged, the status of the guarantee is changed to "discharged in all countries".
Alternative Scenario	Fallback scenario
	If electronic messages cannot be exchanged with the eTIR international system, customs

authorities will nevertheless send the discharge message at a later stage.

#### ECE/TRANS/WP.30/2020/7

Name	Discharge TIR operation use case
Special requirements	-
<b>Extension Points</b>	
Requirements Covered	-

#### 3.2.12 Notify guarantee chain use case description

Table 13

# Notify guarantee chain use case description

Name	Notify guarantee chain use case
Description	The eTIR international systems notifies the guarantee chain of changes in the information related to a guarantee it has issued.
Actors	Guarantee chain
Performance Goals	
Preconditions	-
Postconditions	-
Scenario	The eTIR international system notifies the guarantee chain of changes in the information related to a guarantee it has issued by sending an electronic message.
Alternative Scenario	Fallback scenario
	In case the computer system of any guarantee chain cannot be reached, the eTIR international system will continue to try sending the information. A monitoring system will detect problems and trigger prompt and appropriate reactions.
Special requirements	-
Extension Points	-
Requirements Covered	-

#### 3.2.14 Notify subsequent Countries use case description

Table 14

# $Notify \ subsequent \ Countries \ use \ case \ description$

Name	Notify subsequent Countries use case			
Description	The eTIR international system notifies the customs authorities of information related to a consignment that will transit their territory.			
Actors	Customs authorities			
Performance Goals				
Preconditions	-			
Postconditions	-			
Scenario	The eTIR international system notifies customs authorities of information related to consignments that will transit their territory by sending them electronic messages.			
Alternative Scenario	Fallback scenario			

Name	Notify subsequent Countries use case			
	In case a national system is not available, the eTIR international system will continue to try sending the information. A monitoring system will detect problems and trigger prompt and appropriate reactions.			
Special requirements	-			
<b>Extension Points</b>	-			
Requirements Covered	-			
3.2.16 Advance	TIR data use case description			
Table 15 <b>Advance</b>	cargo information use case description			
Name	Declaration use case			
Description	The The holder transmits advance TIR data to the eTIR international system, either directly of via a declaration mechanism provided by the Customs authorities of his/her country of residence or a private international declaration mechanism, that will then forwards the data to the customs authorities of the country of first customs office of departure.			
Actors	Holder, customs authorities, private provider of an international declaration services (e.g. guarantee chain)			
Performance Goals				
Preconditions	The holder, the customs system of the country of residence of the holder or the private provider of an international declaration services is registered in the authentication database (see 1.3.2.10)			
Postconditions	-			
Scenario				
Alternative Scenario	Fallback scenario			
	In case transmission by means of web services is not available, the holder should use other available declaration mechanisms.			
Special requirements	-			
Extension Points	-			
Requirements Covered	-			

#### **Annex III**

# Revision of Chapter 1.2 of the eTIR functional specifications (Fallback scenarios)

#### 1.2 Fallback scenarios

The aim of this Chapter is to provide specific fallbacks for every use case involving the eTIR international system. The fallback scenarios are based on three major elements:

- (a) Accompanying document;
- (b) Local information;
- (c) A web application and web services developed by the guarantee chain.

The accompanying document is a piece of paper provided by the customs office of departure after the declaration has been accepted. It contains all relevant information regarding the TIR transport.

It is important to note that the underlying fallbacks are of a functional nature. The systems at stake (i.e. the eTIR international system, national systems and guarantee chain systems) should also be equipped with technical fallbacks which allow systems to run smoothly in case of failure. Functional fallbacks should be used only when all technical fallbacks have failed.

The use of functional fallbacks may not provide the same level of facilitation to both the holder and customs. As a consequence, their use should not be mandatory for the holder, who should always have the possibility to wait for the systems to be restored. Similarly, customs may establish delays before starting functional fallbacks, allowing for the technical fallback to be started or for the systems to be repaired.

#### 1.2.1 Management by customs of data on guarantees

Guarantee-related information is crucial for the well-functioning of the eTIR system, in particular for the customs office of departure. Therefore, particular emphasis is put on the use cases where the eTIR international system is not in a position to provide the required upto-date guarantee data.

#### 1.2.1.1 Register guarantee

Potential problems:

- (a) The guarantee chain system is not functioning;
- (b) The connection between the guarantee chain system and the eTIR international system is broken;
  - (c) The eTIR international system is not functioning.

Fallbacks:

- (a) No functional fallback is foreseen;
- (b) The guarantee chain will transmit the information to the eTIR international system as soon as the connection is restored. If the connection problem extends to custom administrations and an unregistered guarantee is used for a TIR transport, customs administrations can use the web services or consult the web application developed by the guarantee chain;
- (c) The guarantee chain will transmit the information to the eTIR international system as soon as the system is restored. In the meantime, if an unregistered guarantee is used for a TIR transport, customs administrations can use the web services or consult the web application developed by the guarantee chain.

#### 1.2.1.2 Cancel guarantee

Potential problems:

- (a) The guarantee chain system is not functioning;
- (b) The connection between the guarantee chain system and the eTIR international system is broken;
  - (c) The eTIR international system is not functioning.

#### Fallbacks:

- (a) Within the opening hours of the eTIR helpdesk, the guarantee chain can contact the eTIR helpdesk to transmit the cancellation information;
- (b) The guarantee chain can contact the eTIR helpdesk to transmit the cancellation information or will transmit the cancellation information to the eTIR international system as soon as the connection is restored. If the connection problem extends to custom administrations, customs administrations can use the web services or consult the web application developed by the guarantee chain;
- (c) The guarantee chain will transmit the cancellation information to the eTIR international system as soon as the system is restored. In the meantime, customs administrations can use the web services or consult the web application developed by the guarantee chain.

#### 1.2.1.3 Accept guarantee

Potential problems:

- (a) The customs system is not functioning;
- (b) The connection between the customs system and the eTIR international system is broken;
  - (c) The eTIR international system is not functioning.

Fallbacks:

- (a) The eTIR procedure cannot start when the customs system in the first country of departure is not functioning;
- (b) As soon as the connection is restored, the customs system will send the accept guarantee message. In the meantime, the following customs administration will rely on the accompanying document to ascertain that the guarantee has been accepted;
- (c) As soon as the system is restored, the customs system will send the accept guarantee message. In the meanwhile, the following customs administration will rely on the accompanying document to ascertain that the guarantee has been accepted.

#### 1.2.1.4 Get holder information

Potential problems:

- (a) The ITDB is not functioning;
- (b) The connection between the ITDB and the eTIR international system is broken.

Fallbacks:

- (a) The eTIR international system will use a local replica of the ITDB and include a warning code, informing that a replica of the ITDB is the source of the information and that the information might not be up to date;
  - (b) Same as (a).

#### 1.2.1.5 Query guarantee

The query guarantee use case has three functions:

- (a) allowing customs to obtain information on a guarantee (e.g. status or type);
- (b) allowing customs to obtain information related to TIR transports; and
- (c) allowing customs to obtain information related to TIR operations.

#### Potential problems:

- (a) The customs or guarantee chain system is not functioning;
- (b) The connection between the customs system and the eTIR international system is broken;
  - (c) The eTIR international system is not functioning;
  - (d) A previous country in the TIR transport used a fallback procedure.

#### Fallbacks:

- (a) (a) To request the status of a guarantee, customs authorities can consult the web application developed by the guarantee chain. (b) In order to obtain TIR transport information (mainly the declaration), the accompanying document will be used and, if necessary, the web application developed by the guarantee chain can be consulted. (c) The information on previous TIR operations can be obtained from the web application developed by the guarantee chain.
- (b) (a) To request the status of a guarantee, customs authorities can use the web services or consult the web application developed by the guarantee chain. (b) In order to obtain TIR transport information (mainly the declaration), the accompanying document will be used and, if necessary, customs authorities can use the web services or consult the web application developed by the guarantee chain. (c) To obtain information on previous TIR operations, customs authorities can use the web services or consult the web application developed by the guarantee chain.
  - (c) Same as (b)
- (d) (a) No fallback required (b) No fall-back required. (c) Information related to previous TIR operations that were handled under the fallback procedure (including potential changes of the seals) can be found on the accompanying document.

#### 1.2.2 Data exchange

The exchange of TIR transport data is a key element of the eTIR system. Customs authorities provide the holder with a paper accompanying document as reference. The paper accompanying document will also be used in case the information cannot be exchanged electronically. The information on TIR operations is also important but is considered of secondary importance and, therefore, will not be subject to fallback procedures other than stamping the accompanying document.

If a fallback procedure is used in a country of pure transit (no loading or unloading of goods), the following countries can still use the standard procedure but information regarding the operation carried out under the fallback procedure will only be available on the accompanying document until the information is transmitted at a later stage.

#### 1.2.2.1 Record consignment information

#### Potential problems:

- (a) The customs system of the country of departure is not functioning;
- (b) The connection between the customs system of the country of departure and the eTIR international system is broken;
  - (c) The eTIR international system is not functioning;
  - (d) Subsequent countries could not be notified.

#### Fallbacks:

- (a) The eTIR procedure cannot start when the customs system in the first country of departure is not functioning. At the following customs of departure, if the declaration is changed, customs authorities will manually amend the paper accompanying document, sign and stamp the changes. The information will be sent to the eTIR international system as soon as the customs system is restored;
- (b) The accompanying document produced by the customs system becomes the primary source of information for the TIR transport. The holder is informed that countries along the itinerary will not receive advance TIR data. The holder remains responsible to comply with advance information requirements in subsequent countries;
  - (c) Same as (b);
- (d) The eTIR international system informs the customs system that some subsequent countries could not be notified of the registration of this consignment. The customs system will specifically mention (print) on the accompanying document that some countries did not receive the adequate information. The holder is therefore informed that countries along the itinerary will not receive the advance cargo information. The holder remains responsible to comply with advance information requirements in subsequent countries.

#### 1.2.2.2 Update consignment information

The same potential problems and fallbacks as those of the record consignment use case apply.

#### 1.2.2.3 Start of TIR operation

Potential problems:

- (a) The customs system is not functioning;
- (b) The connection between the customs system and the eTIR international system is broken;
  - (c) The eTIR international system is not functioning.

#### Fall-backs:

- (a) Customs authorities (other than at the first customs office of departure) accept the accompanying document as source for the declaration, sign and stamp it (and indicate the new seals if required). The start information will be keyed-in and transmitted to the eTIR international system once the customs system is restored.
- (b) Customs authorities (other than at the first customs office of departure) accept the accompanying document as source for the declaration, sign and stamp it (and indicate the new seals if required). The start information will be transmitted to the eTIR international system once the connection is restored.
- (c) Customs authorities (other than at the first customs office of departure) accept the accompanying document as source for the declaration, sign and stamp it (and indicate the new seals if required). The start information will be transmitted to the eTIR international system once the system is restored.

#### 1.2.2.4 Terminate TIR operation

Potential problems:

- (a) The customs system is not functioning;
- (b) The connection between the customs system and the eTIR international system is broken;
- (c) The eTIR international system is not functioning.

Fallbacks:

- (a) Customs authorities accept the accompanying document, sign and stamp it (and indicate the new seals if required). The termination information will be keyed-in and transmitted to the eTIR international system once the customs system is restored.
- (b) Customs authorities accept the accompanying document, sign and stamp it (and indicate the new seals if required). The termination information will be transmitted to the eTIR international system once the connection restored.
- (c) Customs authorities accept the accompanying document, sign and stamp it (and indicate the new seals if required). The termination information will be transmitted to the eTIR international system once the system is restored.

#### 1.2.2.5 Discharge TIR operation

#### Potential problems:

- (a) The customs system is not functioning;
- (b) The connection between the customs system and the eTIR international system is broken:
  - (c) The eTIR international system is not functioning.

#### Fallbacks:

- (a) Customs authorities postpone the transmission of the discharge information until the customs system is working;
- (b) Customs authorities postpone the transmission of the discharge information until the connection is re-established.
- (c) Customs authorities postpone the transmission of the discharge information until the system is working.

#### 1.2.2.6 Refusal to start of TIR operation

#### Potential problems:

- (a) The customs system is not functioning;
- (b) The connection between the customs system and the eTIR international system is broken:
  - (c) The eTIR international system is not functioning.

#### Fallbacks:

- (a) Customs authorities (other than at the first customs office of departure) amend the accompanying document with the refusal to start operation information, sign and stamp it. The refusal to start information will be keyed-in and transmitted to the eTIR international system once the customs system is restored;
- (b) Customs authorities (other than at the first customs office of departure) amend the accompanying document with the refusal to start operation information, sign and stamp it. The refusal to start information will be transmitted to the eTIR international system once the connection is restored;
- (c) Customs authorities (other than at the first customs office of departure) amend the accompanying document with the refusal to start operation information, sign and stamp it. The refusal to start information will be transmitted to the eTIR international system once the system is restored.

#### 1.2.2.7 Notify guarantee chain

#### Potential problems:

- (a) The guarantee chain system is not functioning;
- (b) The connection between the guarantee chain system and the eTIR international system is broken.

#### Fallbacks:

- (a) The eTIR international system puts the messages in a queue and will send them when the guarantee chain system is restored;
- (b) The eTIR international system puts the messages in a queue and will send them when the connection is restored.

#### 1.2.2.8 Notify subsequent countries

#### Potential problems:

- (a) The customs system of one country along the itinerary is not functioning;
- (b) The connection between the customs system of one country along the itinerary and the eTIR international system is broken.

#### Fallbacks:

- (a) The eTIR international system puts the message in a queue and will send it as soon as the customs system is working. If the holder presents himself at a customs office, whose system is not functioning, the accompanying document will be used as source of information (see also 1.2.2.1 and 1.2.2.2);
  - (b) Same as (a).

#### 1.2.2.9 Advance TIR data

#### Potential problems:

- (a) The customs system is not functioning;
- (b) The connection between the customs system and the eTIR international system is broken;
  - (c) The eTIR international system is not functioning.

#### Fallbacks:

- (a) The eTIR international system notifies the holder or any system using the advance TIR data web service that the advance TIR data could not be sent and that an alternative declaration mechanism should be used;
  - (b) Same as (a);
- (c) The holder or any system using the advance TIR data web service must try to use alternative declaration mechanisms.

# **Annex IV**

# eTIR accompanying document (recto)

		eTIR guarantee barcode	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 identif	ication number		
		5. Country/Countries of	departure 6.	Country/Country	ies of destination
7. Registration No(s). of road vehic	cle(s)	8. Documents attache	ed to the manif	est	
GOODS MANIFES	ST				
9. (a) Load compartment(s) or container(s)  (b) Marks and Nos. of packages or articles	10(a)Number and type of package description of goods, custom		10(b)HS Code	11. Gross weight in kg	16. Seals or identification marks applied, (number, identification)
	FOR FALLBAC	K PROCEDURE			
Officer's signature and customs office date stamp: New seals:	Officer's signature and customs office date stamp: New seals:	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:	Officer's signature and customs office date stamp: New seals:	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:	Officer's signature and customs office date stamp: New seals:	Officer's signature and customs office date stamp: New seals:	11	Officer's signature and customs office date stamp: New seals:	12
				<u>:</u>	

# (verso)

1.	Customs office(s) of dep	parture		2.	TIR CA	ARNET	- //		///N
				3.	Name of the i	nternational o	organiza	ion	
4.	Registration No(s). of ro Identification No(s). of co	ad vehicle(s) ontainer(s)		5.	Holder (identif	fication numb	er, name	e, address and	country)
6. 7.	The customs seal(s) is/a The load compartment(s			8.	Remarks				
7.	The load compartment(s		not intact						
9.	No goods appeared t	o be missing	The goods indica destroyed (D) as				or have	been	
14.	Load compartment(container(s)     Marks and Nos. of packages or articles  Date, place and circums	descri	er and type of pack			12. M or D		emarks (give p uantities missin	
15.	Measures taken to enal affixing of new seal transfer of load (see	s: number	to continue		descrip	otion			
16.	If the goods have been (a) vehicle	transferred: description Registration No.	Approved		ner(s) substitute	No. of ce of appr		Number and of seals	d particulars affixed
	(a) veriliole	Identification No.	— <u> </u>	j				/	
	(b) container							/_	
17.	Authority which drew up	this certified report		18.	Endorsement of	of next Custor	ms office	e reached by the	e TIR transport
				1				\	/

# Summary description of the usage of the accompanying document

#### 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).

# 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 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).

#### 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 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).

# 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 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).

#### 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 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).

#### 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 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).

#### 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.

#### 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).

#### Annex V

# Draft interface for the ITDB customs offices database

- 2.5.1 Classes (English Only)
- s. I19 Check customs offices

Message	
Customs Office IDs	1 unbounded
100 Contains off and information	
t. I20 – Customs offices information	

Message		 
Еггог	0	 1
L—Pointer	1	 1
Customs Office	0	 unbounded
Role	0	 unbounded

- 2.5.2 Classes and attributes (English only)
- s. I19 Check Customs offices

Figure 1.47: (English only)

Check customs offices UML diagram

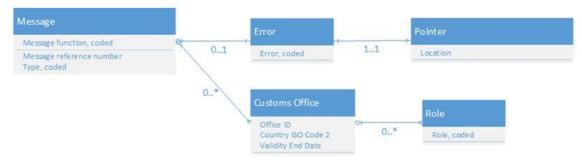


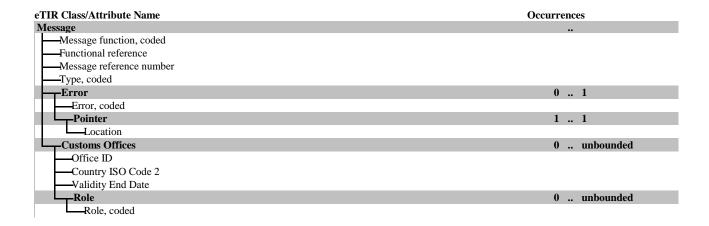


#### t. I20 – Customs offices information

#### Figure 1.48: (English only)

### **Customs offices information UML diagram**





# **Annex VI**

# Revised error code list (CL99)

CL99	Code	Name	Description
	100	Invalid Message	The message is invalid and there is no additional precision on the error
	101	Missing Parameter	A required parameter is missing in the message
	102	Invalid Domain Value Parameter	A parameter is outside a defined list of accepted values
	103	Malformed Date	A parameter holding a date cannot be properly converted
	151	Condition C001 failure	The condition C001 is not fulfilled
	152	Condition C002 failure	The condition C002 is not fulfilled
	154	Condition C004 failure	The condition C004 is not fulfilled
	155	Condition C005 failure	The condition C005 is not fulfilled
	158	Condition C008 failure	The condition C008 is not fulfilled
	200	Invalid State	The state of an internal object is invalid and there is no additional precision on the error
	201	Guarantee not acceptable	The guarantee is not in a state that allow to accept it
	202	Holder status exception	The state of the holder is not what it should have been to realize the current operation
	203	Guarantee not cancellable	The state of the guarantee does not allow for cancellation
	204	Guarantee already registered	The guarantee has already been registered
	205	Guarantee already cancelled	The guarantee is already cancelled or the request to cancel it has already been sent
	210	Operation already started	The operation is already started
	211	Operation already terminated	The operation is already terminated
	212	Operation already discharged	The operation is already discharged
	213	Operation not yet started	The operation is not yet started
	220	Declaration not yet received	The operation cannot start because the declaration was not received
	299	Duplicate message	The same message was already received from the same source
	300	Invalid Operation	An invalid operation was performed and there is no additional precision on the error
	301	Guarantee not found	The guarantee was not found in the database
	302	Guarantee chain not found	The guarantee chain was not found in the database
	303	Guarantee type not found	The guarantee type was not found in the database
	304	Customs Office not found	The customs office was not found in the database
	305	Country not found	The country was not found in the database

CL99	Code	Name	Description
	306	Control type not found	The control type was not found in the database
	320	Holder/Guarantee mismatch	The holder id parameter and the guarantee reference parameter do not match what is recorded in the database
	321	Holder not authorized	The holder is not authorized in the International TIR Data Bank (ITDB)
	330	Guarantee chain not authorized	The guarantee chain is not authorized in the database
	331	Guarantee chain/Guarantee mismatch	The guarantee chain code parameter and the guarantee reference parameter do not match what is recorded in the database
	332	Guarantee type/Guarantee mismatch	The guarantee type parameter and the guarantee reference parameter do not match what is recorded in the database
	400	eTIR Problem	An internal error in the eTIR international system occurred and there is no additional precision on the error