



# **EESSI – CDM 4.4**

## **ADMIN - Administrative**

### **AD\_BUC\_11\_Subprocess - v4.4.0**

**Business Exception**

***BUC Specifications***

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## Document history

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v0.1.0	14/01/2016	Initial Draft
v0.2.0	01/02/2016	Adaptations following the RINA Team comments
v0.3.0	25/07/2016	Alignment to the standard description and layout of the BUC.
v0.99.0	23/09/2016	Candidate for AC Approval  1. new layout
v0.99.1	26/09/2016	Corrections to document following AC Review
v1.0.0	19/10/2016	AC APPROVED VERSION
v1.0.1	16/11/2016	Typo corrected
v1.0.2	08/08/2017	- Included the BPMN Diagram version in section 5.
v1.0.3	19/12/2017	Clarification following Jira ticket EESSIDEV-11560: The AD_BUC_11 is not triggered on a closed existing case after an incoming X002 – Reopen Case SED;  Updated section 5 to the latest BPMN Diagram version.
v4.1.0	22/08/2018	- Section 4.4 merged 2 tables (for SED & for Subprocesses) into 1 BUC Artefact table."  - Version adaptations to release 4.1.0.
v4.2.0	29/05/2019	Version adaptations to release 4.2.0.
v4.3.0	31/08/2021	Version adaptations to release 4.3.0.
v4.4.0	06/12/2024	Version adaptations to release 4.4.0

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## 1. Introduction

### 1.1. Purpose

The purpose of this document is to construct an external view of, part of, the 'EESSI business system' as described in EC Regulations 883/2004 [R1] and 987/2009 [R2]. The 'EESSI Business System' describes the business and expected business processes without consideration as to which part(s) may be realized by an IT System (i.e. the proposed EESSI IT System).

The external view comprises of models and descriptions of business use cases, the services of a business system offered to business actors: customers, business partners, or other business systems.

A business use case is described from an actor's perspective; it describes the interaction between an actor and the business system, meaning it describes the behaviours of the business system that the actor utilizes. The Business Use Case includes Use Case Diagrams and Business Process Models.

Use case diagrams show actors, business use cases, and their relationships. Use case diagrams do not describe procedures. Alternative scenarios also remain hidden. These diagrams give a good overview of the behaviours of the EESSI business system which will direct and govern part of the expected behaviours and functionality delivered by the EESSI IT System.

### 1.2. Scope

This document is limited to the external view of the Business Exception process. The different elements like use case description, actors, and business process as well as supporting UML diagrams and BPMN models pertaining to the Business Exception.

### 1.3. Definitions, Acronyms and Abbreviations

Please see the EESSI Project Glossary [here](#)

### 1.4. References

#	Document Type	Document Name
R1	Basic Regulations EC (883/04)	<a href="#">Regulation EC No. 883/2004.pdf</a>
R2	Implementing Regulations EC (987/09)	<a href="#">Regulation EC No 987/2009.pdf</a>

### 1.5. Overview

Chapter 1 introduces the external view on the business system under review and lists the elements of this specification.

Chapter 2 introduces us to the Business Exception business process. The chapter gives a short and detailed description as well as a reference to business process' legal base.

Chapter 3 lists the actors involved in the Business Exception business process.

Chapter 4 describes in detail the Business Exception business process based on the RUP use case template, as well as the relationship to other use cases.

Chapter 5 describes the Business Exception business process using business process modelling notation (BPMN).

## 2. Description

### 2.1. Business Scenario

In a situation where a national application receives an erroneous message (which causes an exception to occur), an exception message should be generated and sent over to the sender of the erroneous message to inform about the error(s) that has (have) occurred.

### 2.2. Legal Base

This Business Use Case document's legal base is described in the following Regulations

- Basic Regulation (EC) No 883/2004 [R1]
- Implementing Regulation (EC) No 987/2009 [R2]

The following matrix specifies the SEDs that are used in this Business Use Case and documents the articles that provide the legal basis for each SED.

SED	Basic Reg (883/04)	Implementing Reg (987/2009)	
	76	2(1)	2(2)
X050	✓	✓	✓

*Table 1: SED – Legal base relationship matrix*

### 3. Actors & Roles

This chapter captures details of the actors which are important to understand the different types of system users. An actor is anyone or anything that exchanges data with the business system. An actor can be a user, external hardware, or another system.

The overarching description of each actor described in this Business Use Case can be found in the Glossary. Below you will find a short description which provides further clarity of this actor within the context of this Business Use Case.

Actor name	Description
<b><i>Triggering Participant</i></b>	The triggering participant is an actor (national application) in the main process that receives an unexpected/erroneous Business Message.
<b><i>Other Participant</i></b>	The other participant is the actor (national application) that has sent an erroneous Business Message.

## 4. Use Case

### 4.1. RUP Table Representation

<b>Use Case ID:</b>	<b>AD_BUC_11</b>		
<b>Use Case Name:</b>	Business Exception		
<b>Created By:</b>	EESSI BA Team	<b>Last Updated By:</b>	EESSI BA Team
<b>Date Created:</b>	29/01/2016	<b>Publication Date:</b>	06/12/2024
<b>Actors:</b>	Triggering Participant Other Participant(s)		
<b>Description:</b>	<p>In a situation where a national application receives an erroneous message (which causes an exception to occur), an exception message should be created and sent to the sender of the erroneous message to inform about the error(s) that has (have) occurred.</p> <p>There are 2 categories of erroneous received messages:</p> <ul style="list-style-type: none"> <li>- Business exceptions which do not require a waiting period.</li> <li>- Business exceptions which do require a waiting period.</li> </ul> <p>The reason to wait during a certain period before sending the exception is because the erroneous message could be followed by another message which might correct the problem known as a 'corrective event'.</p> <p><u>For example:</u> After receiving a SED in the wrong sequence, the case receives shortly after the expected SED in the right sequence. As a consequence, the initial wrongly received message is now in the right sequence, and a business exception does not need to be generated anymore.</p> <p><b><u>The following errors do not require a waiting period:</u></b></p> <ul style="list-style-type: none"> <li>- Receiving a SED with invalid Business signature</li> <li>- Receiving a SED / Attachment which failed antimalware checking</li> </ul> <p><b><u>The following errors do require a waiting period to expire:</u></b></p> <ul style="list-style-type: none"> <li>- Receiving a SED for a missing case</li> <li>- Receiving a SED for a missing setId SED (update for a non existing SED)</li> <li>- Receiving a SED after the case was removed by receiving a X006 SED</li> <li>- Receiving a SED after the case was forwarded to another participant.</li> <li>- Received a SED in the case in the wrong sequence/Business Rule not followed</li> <li>- Received a SED when the case is in "closed" status through exchange of X001, except for SED X002 'Reopen Case SED':</li> </ul>		



	<p>- If SED X002 (Reopen Case) is received on a Case which is in Closed status, a business exception will <b>not</b> be triggered.</p> <p><u>Please note</u> that the other types of errors can occur (for example, receiving a wrong SED Type within a Case type, etc...) and these should be blocked at the <b>AP level</b><sup>1</sup> and will therefore not be part of this business exception BUC.</p>
<b>Trigger:</b>	The Triggering Participant received a message (SED) which cannot be accepted in the national application.
<b>Preconditions:</b>	A participant receives an erroneous SED.
<b>Post conditions:</b>	<p>The following post-conditions are possible:</p> <ul style="list-style-type: none"> <li>- A business exception SED (X050) has been generated and sent by the triggering participant to the other participant.</li> <li>- A business exception SED (X050) has not been generated because, before the waiting period expired, a correcting event has occurred.</li> </ul>
<b>Main Scenario:</b>	<ol style="list-style-type: none"> <li>1. The Triggering participant receives from another Participant an erroneous SED which does not require a waiting period;</li> <li>2. The received SED does not require to wait a certain period, and so the Triggering participant fills in a Business Exception (<b>X050</b>) SED and specifies within the SED which is/are the reason(s) of the Business Exception;</li> <li>3. The triggering Participant sends the Business Exception (<b>X050</b>) SED to the other participant (the participant that has sent erroneous message);</li> <li>4. The other Participant receives the business Exception SED (<b>X050</b>) and understand the business error that it produced, and will be able to react accordingly based on the information provided in <b>X050</b>;</li> <li>5. The use case ends here.</li> </ol>
<b>Alternative Scenarios:</b>	<p><b><i>Branch 1: At [Part 1] the Triggering participant has received an erroneous SED from another participant, which does require a waiting period, which has expired.</i></b></p> <ol style="list-style-type: none"> <li>1. The Triggering Participant waits for 24 hours</li> <li>2. After waiting for 24 hours the business situation has not been resolved through a corrective event.</li> <li>3. The Triggering Participant fills in a Business Exception (<b>X050</b>) SED and specifies within the SED which is/are the reason(s) of the Business Exception;</li> <li>4. The Triggering Participant sends the Business Exception (<b>X050</b>) SED to the other participant which has sent erroneous message;</li> <li>5. The other Participant receives the business Exception SED (<b>X050</b>) and understand the business error that it produced, and will be able to react accordingly;</li> <li>6. [This Branch] Ends.</li> </ol>

<sup>1</sup> For a full list of AP Errors please see Part 8 of the EESSI AP Messaging Interface document delivered as part of Architecture Pack 1.0

	<b><i>Branch 2: At [Branch 2, Step 2] the Triggering participant as received a correcting SED/corrective event.</i></b>  1. [This Business Use Case] Ends.
<b>Exceptions:</b>	none
<b>Includes:</b>	This BUC is exclusively used as an <<include>> in other sectorial business processes.
<b>Frequency of Use:</b>	
<b>Special Requirements:</b>	<b>SR1:</b> Active Participants are those participants defined in the <Actors> section of Section 3.
<b>Assumptions:</b>	N/A
<b>Notes and Issues:</b>	N/A

#### 4.2. Request – Reply SEDs

The following table specifies the SEDs that have a logical pairing to one another, usually this is known as a request-reply pair.

REQUEST SED	REPLY SED(s)

#### 4.3. Attachments

The following table specifies whether attachments are permitted to be included when sending a SED type.

SED	Attachments
<b>X050</b>	Not allowed

#### 4.4. Artefacts used

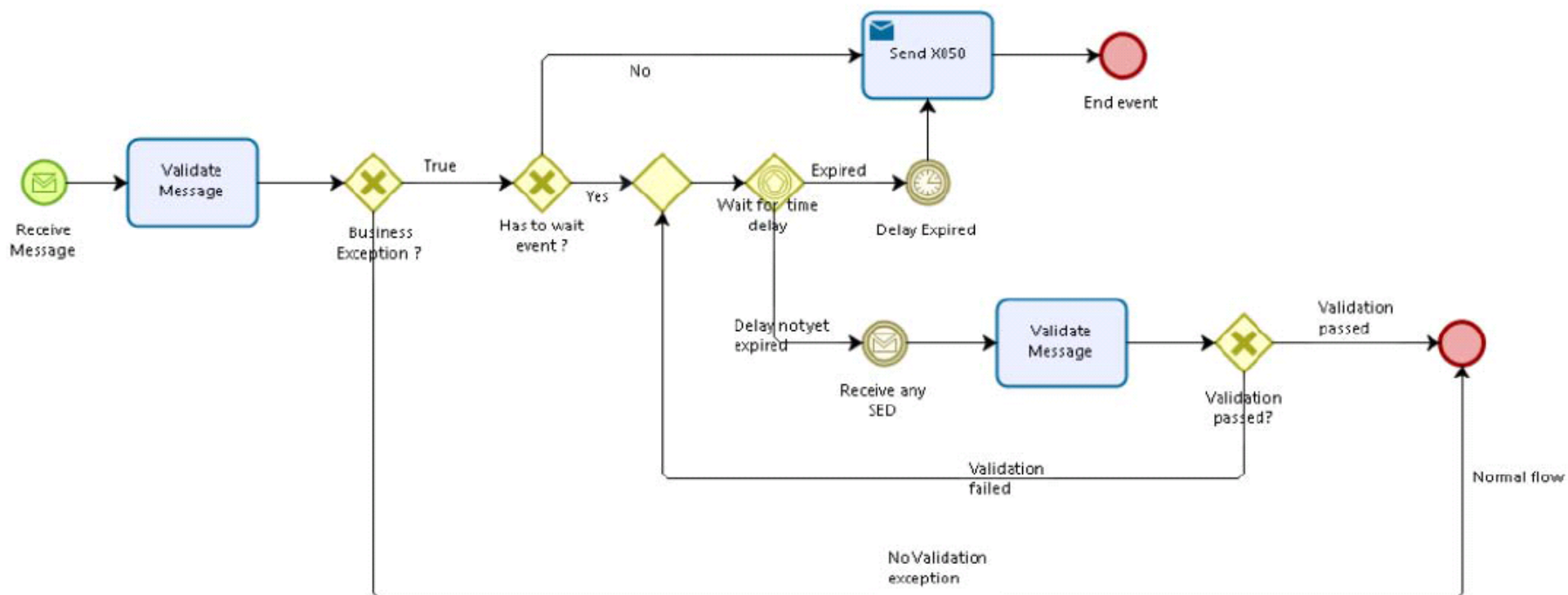
The following table specifies the artefacts that are used in this Business Use Case.

Artefact name	Artefact type
<b>X050</b>	<b>SED</b>

## 5. Business Processes

This chapter describes the Business Use Case Business Exception using BPMN 2.0.

## 5.1. Triggering Participant



## **5.2. Other Participant**

N/A

## **5.3. Sub Processes**

N/A

## 6. Appendices

### 6.1. Issues

N/A