



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL  
TAXATION AND CUSTOMS UNION  
Digital Delivery of Customs and Taxation Policies

## ICS2 Transition from R1 to R2

Date:	24/02/2021
Status:	Submitted for acceptance (SfA)
Version:	1.00
Author:	DG TAXUD ICS2 Project team
Approved by:	DG TAXUD
Reference number:	
Public:	DG TAXUD external
Confidentiality:	Commission use (CU)

## Document control information

Property	Value
Title	ICS2 Transition from R1 to R2
Subtitle	
Author	DG TAXUD ICS2 Project team
Project owner	ICS2 Project team
Solution provider	ICS2 Project team
DG TAXUD Project Manager	
Version	1.00
Confidentiality	Commission use (CU)
Date	24/02/2021

## Contract information

Property	Value
Framework Contract:	-
Specific Contract:	-

### Document history:

The Document Author is authorized to make the following types of changes to the document without requiring that the document be re-approved:

- Editorial, formatting and spelling;
- Clarification.

To request a change to this document, contact the Document Author or Owner.

Changes to this document are summarized in the following table in reverse chronological order (latest version first).

Revision	Date	Created by	Short Description of Changes
0.10	16/09/2020	DG TAXUD	Initial draft
0.20	12/10/2020	DG TAXUD	Updated after ICS2 PG meeting of 24/09/2020
0.30	26/11/2020	DG TAXUD	Updated after ICS2 PG meeting of 5-6/11/2020
1.00	24/02/2021	DG TAXUD	Updated with MS and EO comments after an external review cycle Sent for acceptance to MS and EO

### Configuration Management: Document Location

The latest version of this controlled document is stored [\[1\]](#).

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# 1 INTRODUCTION

## 1.1 Purpose

The purpose of the ICS2 Transition from R1 to R2 document is to present the functional and the operational implications of transition from one release to another. This document assesses the different options of granting a deployment window to the Economic Operators part of ICS2 R2 as well as the transition implications for the Economic Operators (EO) already part of ICS2 R1.

The three releases of ICS2 with their different stakeholders require a transition strategy with regard to the readiness of the economic operators required to file their ENS filing the first time in ICS2 and the ones that already filed their ENS filings in the previous release. The complexity is increased by the possibility for deployment window with regard to the multiple filings since not all parties obliged to file may be connected to the relevant ICS2 release at the same time. This can lead to the situation that for given cases only house level filings exist that are not initiating the full risk analysis sub-process until a carrier filing instantiates the ENS and the related house level filings are linked to it.

It should be ensured that the detailed information regarding the obligation for connection to ICS2 Release 2 from 1 March 2023 on is communicated timely. Therefore, it is assumed that a valid justification for beginning ICS2 operations later than 1 March 2023 within the deployment window for an EO would be the readiness of all involved parties in the specific business model (e.g. freight forwarders and air carriers, etc.) and the technical capacity of the service providers to deploy the software for all its clients at the same point in time. Consequently, legal guidance for the application of the deployment window could foresee that economic operators that have already begun with Release 1 and air carriers should be given priority. The opportunities for taking appropriate legal and organisational measures and for achievement of an agreement with Member States and trade should be examined as soon as possible.

The subsequent chapters describe the identified practical scenarios affected by a different time of operational readiness of the parties obliged to file ENS particulars in a given transaction. It is taking into account each business model obliged to file ENS particulars in order to allow for a smooth business process execution during the transition from R1 to R2. The document focuses on the legal and organisational level regarding the deployment window for Release 2 in order to avoid complex technical solutions for the deployment windows that also impose a high risk with regard to proper operational functionality of the ICS2.

## 1.2 Scope

This document is applicable for transition from ICS2 Release 1 to Release 2. Transition to Release 3 will be elaborated separately.

## 1.3 Target Audience

This document is addressed to all parties involved in using and in the development of the system:

- Member States;
- Economic operators – Express carriers, Postal operators, Air carriers and House filers;
- DG TAXUD ICS2 project team;
- CUST-DEV3 (Development contractor).

## 1.4 Structure of this document

The present document contains the following chapters:

- **Chapter 1 – Introduction:** describes the purpose of the document;
- **Chapter 2 – Definitions and principles:** describes the principles and main definitions relevant to the transition strategy;
- **Chapter 3 – Express Business Model:** describes the implications of the transition from ICS2 R1 to R2 and the recommendations to the Express business model;

- **Chapter 4 – Postal Business Model:** describes the implications of the transition from ICS2 R1 to R2 and the recommendations to the Postal business model;
- **Chapter 5 – Air cargo general :** describes the implications of the transition from ICS2 R1 to R2 and the recommendations to the parties involved in the Air Cargo General business model;
- **Chapter 6 – Conclusions.**

## 1.5 Reference Documents

Ref.	Title	Reference	Version	Date

*Table 1: Reference documents*

## 1.6 Applicable Documents

Ref.	Title	Reference	Version	Date

*Table 2: Applicable documents*

## 1.7 Abbreviations and Acronyms

For a better understanding of the present document, the following table provides a list of the principal abbreviations and acronyms used.

Abbreviation/Acronym	Definition
COFE	Customs Office of First Entry
CR	Common Repository
CUST-DEV3	Development Contractor for Customs Systems 3
DG TAXUD	Directorate General for Taxation and Customs Union
ENS	Entry Summary Declaration
EC	European Commission
ICS2	Import Control System 2
MS	Member State
NES	National Entry System
STI	Shared Trader Interface

*Table 3: Abbreviations and acronyms*

## 1.8 Definitions

Term	Definition

*Table 4: Definitions*

## 2 DEFINITIONS AND PRINCIPLES

### 2.1 Deployment window and switch-over period

A deployment window is a period (several months) which can be granted to the Economic Operators in order for them to connect to the system and to become operationally ready avoiding a big bang. The deployment window can be granted to the EO's, which are already connected to the system but need to move from one release to another, and also to those, which are connecting to the system for the first time.

The deployment window allowed by the legislation for each release is not applicable by default – it needs to be granted by the Member States in close coordination with the Commission. In order to facilitate trade operations the agreed deployment window needs to be aligned across all Member States per mode of transport and business model filing ENS and the sequence of the connection of the different parties. For example, all air carriers operating across EU Customs territory need to have the same deployment window irrespective in which country they file an ENS filing.

A switch-over period is a short period of time (1-2 days), which is needed in order for all open transactions in a previous release of the system to be completed in the previous version. The two versions of the system/messages can run in parallel. During the switch-over period the EO send R1 version of the messages to close the R1 started transactions and R2 versions of the messages for newly triggered transactions. An expected low volume 1-2 days will be selected for the switch-over period.

### 2.2 Principles

- There is no deployment window for Member States to transition to ICS2 R2. They need to connect as of 01/03/2023.
- No customized technical solutions will be implemented in ICS2 R2 architecture, processes or information exchanges to facilitate ICS2 Transition from R1 to R2.
- Legally, the deployment window for ICS2 R2 may be applied for EO's already using ICS2 R1 and EO's joining ICS2 as from R2.
- The deployment window for the Economic Operators of each business model, authorized by the relevant National Authorities, needs to be preliminary coordinated between the Member States and the Commission. It is not applicable by default to the Economic Operators.
- ICS2 R2 functionality extends ICS2 R1 functionality from a business process perspective (i.e. new processes and new parts of the existing processes are added) with a common database behind. Consequently, there is no data migration envisaged between the two releases.
- The technical implications of the ICS2 Transition from R1 to R2 is not in scope of the current document.
- A pre-requisite for the application of the current ICS2 Transition from R1 to R2 is the full understanding and awareness of the scope of ICS2 R1 and R2 as well as the difference between the CFSS versions for both releases.
- The impact of the possible deployment windows to each type of Economic Operator is depicted in order to facilitate the final decision making process by the Member States in collaboration with the Commission.
- The impact of the transition from ICS2 R1 to R2 on each NES architecture is not in scope of this document – the current document covers only the high-level business implications.
- Deployment windows are primarily concerned with the operational readiness and, in addition, with the technical connectivity constraints. Consequently, the switch-over period and the deployment window need to be organized per business model.
- The deployment and the switch-over windows need to be agreed and communicated to the Economic Operators early enough for proper planning, preparation and readiness.
- The agreed deployment window needs to be aligned across the business models and among the Member States and published in due time in order all impacted participants to be able to plan and implement the required technical solutions.



## 3 EXPRESS BUSINESS MODEL

### 3.1 Release 1

In Release 1, express carriers will lodge the minimum ENS data set as defined in column F32 of Annex B-DA in the pre-loading phase. The pre-arrival phase is covered by ICS1 until ICS2 Release 2 is deployed.

#### Implications of open Release 1 transactions

Before switching over to ICS2 Release 2, the transactions that were initiated in ICS2 Release 1 (R1 versions of the messages) are finalised via ICS2 R1 response messages (the version of the system/message is part of the technical message header). Since only the air pre-loading phase is covered in ICS2 R1, it is assumed that transactions can be finalised without obstacles within a short switch-over window. This finalisation comprises open referrals are answered, the air pre-loading risk analysis is completed and 'Assessment Complete notification' or 'Do Not Load request' are sent and received. Consequently, the switch-over window can be kept quite short (one or two days) and the deployment window should not be applied for express carriers pre-loading phase (F32) in order to minimise transitional problems.

In general, for the lodged F32 messages in R1 no pre-arrival ENS Filings (part of R2) are expected.

### 3.2 Release 2

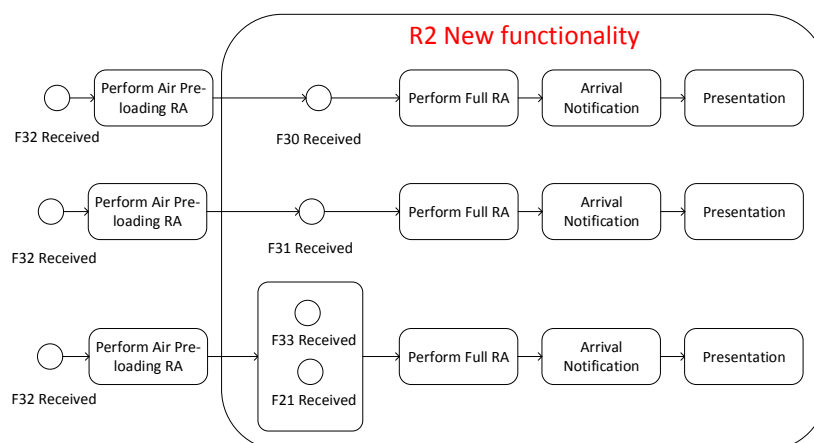


Figure 1 Express model new R2 functionality

#### 3.2.1 Express consignments carried by express carriers

Once express carriers switch over to Release 2, they continue to lodge the minimum dataset for the air pre-loading risk analysis (F32 version for R2) and are obliged to lodge the complete ENS (pre-arrival) in form of the data set F30 for consignments that are transported on their own aircrafts and arrive in the EU as express consignments. Additionally, the arrival notification (column G2) is to be lodged for the arrival of their own operated aircraft.

All submissions have to be made in ICS2 using Release 2 messages.

To enable the smooth transitioning from R1 to R2 in order to start lodging the pre-arrival data (F30) for the express consignments carried by the express carriers a deployment window can be granted – 2-3 months.

The presentation of the goods is also handled by the express carriers.

#### 3.2.2 Express consignments on air cargo general

Consignments, which were initially declared as express consignments with F32 in the pre-loading phase but arrive in the EU on aircrafts of general air carriers, can be filed in three different ways depending on the contractual agreement between express and general air carrier:

- Use case 1: the general air carrier provides the express carrier with the necessary conveyance data to lodge a complete pre-arrival ENS in the form of F31.
- Use case 2: the general air carrier files its partial data set F21. The express carrier lodges the pre-arrival house consignment data in form of the filing F33.

- Use case 3: the express carrier provides the details of the house level ENS filing to the air carrier which files complete ENS filing for pre-arrival (F27).

In all cases the arrival notification for the aircraft is to be lodged by the aircraft-operating carrier.

The goods are presented either by the express operator or by the general air carrier as per their mutual agreement.

To enable the smooth transitioning from R1 to R2 in order to start lodging the pre-arrival data for the express consignments on air cargo general (F31, F33) a deployment window can be granted – 2-3 months.

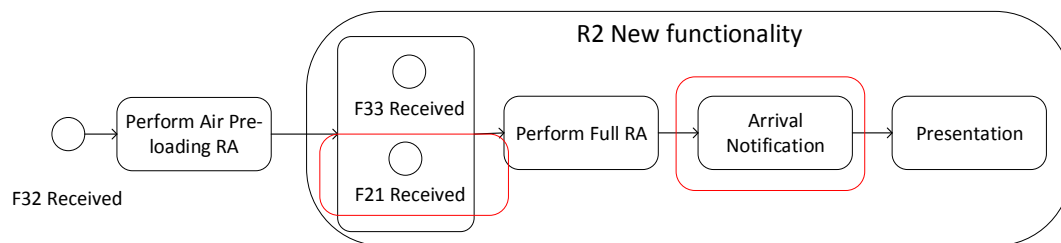
### **Implications of air carriers connecting to R2 before express carriers**

In this scenario the following options are applicable:

Option 1: in case the air carrier is connected to ICS2 R2 and starts filing F21 ENS filings and the express carriers are still lodging only pre-loading ENS filing (F32) in ICS2 R1 then, the pre-loading risk analysis is carried out in ICS2 R1, the air pre-arrival risk analysis will be performed in ICS2 R2 based on carrier filing (F21). Arrival notification and presentation of goods to be done in ICS2 R2 by the air carrier.

Option 2: in case the express carrier is still filing pre-loading ENS filing (F32) in ICS2 R1 and the air carrier is connected to ICS2 R2 and has obtained from the express carrier all necessary data to file a complete ENS (F27), then both the pre-loading and pre-arrival risk analysis are performed in ICS2 R2. In this case the pre-loading risk analysis will be performed two times – once in ICS2 R1 (based on F32) and once in ICS2 R2 (based on F27). Arrival notification and presentation of goods to be done in ICS2 R2 by the air carrier.

### **Implications of air carriers connecting to R2 after express carriers**



*Figure 2 Carrier deployment window implications for express business model*

If the involved general air carrier is not yet connected to ICS2 but the express carrier is already connected to ICS2 Release 2 the following options apply:

Option 1: the air carrier cannot file its own ENS particulars (F21) and can provide the express carrier with the conveyance data for the express carrier to file a complete ENS for pre-arrival (F31). Pre-arrival risk analysis is performed in ICS2 R2. No need for the air carrier to file in ICS1. Arrival notification cannot be done in ICS2 R2, but it does not cause any blocking problem. Presentation of goods has to be done in ICS2 R2 (to be agreed who does it between the express carrier and the air carrier).

Option 2: If the general air carrier does not file F21 (not connected to ICS2 yet) and does not provide the conveyance information to the express carrier to file F31, then the air carrier needs to file the pre-arrival information in ICS1 in order the pre-arrival risk analysis to be performed in ICS1. Arrival notification and presentation of goods to be done in ICS1 by the air carrier.

The express operators are expected to be able to lodge F33 only after the air carriers are connected and can file F21.

### 3.3 Recommendations for ICS2 transition from R1 to R2

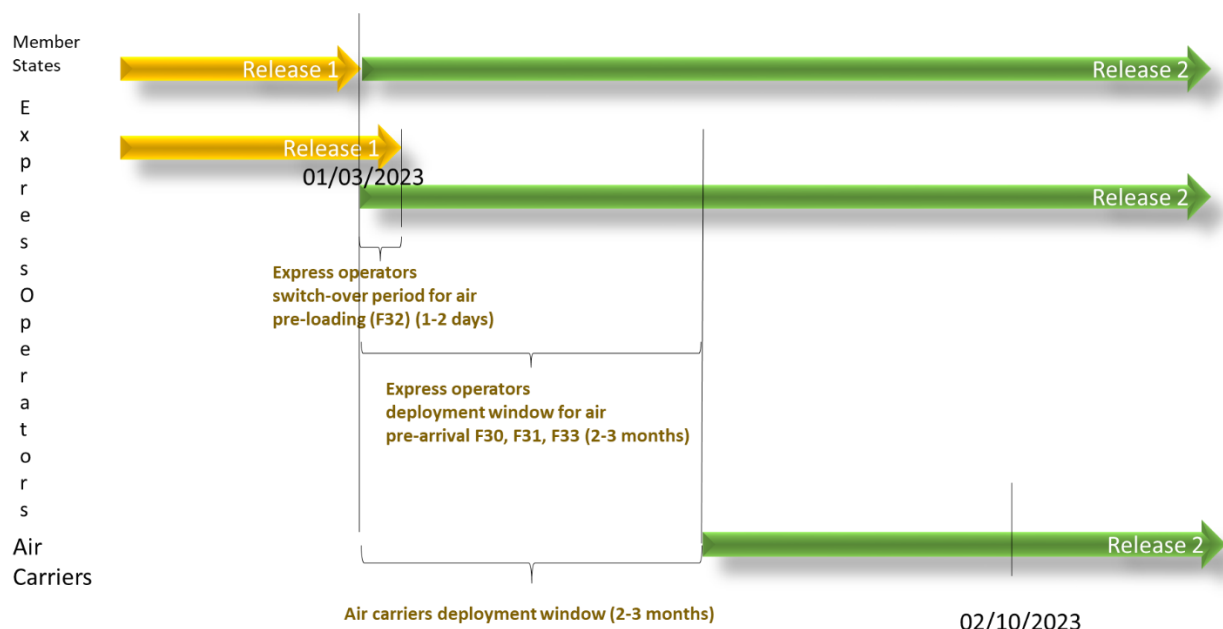


Figure 3 Express switch-over period and deployment windows and air carriers deployment window

Switch-over of express carriers - the preferred option is that the express carriers are provided with a short switch-over window, e.g. 1 – 2 days, for the air pre-loading phase (F32) to close the open ICS2 R1 transactions via R1 responses.

Air carriers for express consignments on air cargo general - in case the air carriers are not connected to ICS2 R2, then the preferred option that has the minimum impact would be for the express carriers to obtain from the air carrier the conveyance data and lodge a complete ENS filing (F31). In case where the air carrier is already connected to ICS2 R2 but the express carrier is not yet in R2, the preferred option is for the carriers to lodge a complete ENS filing (F27). This way there would be full ENS for pre-arrival risk analysis and there would be no need to file in ICS1. This option results in performing air pre-loading risk analysis two times by the NES – once based on F32 and once based on F27.

Deployment window for express carriers – to consider the smooth migration of the express operators a deployment window of 2-3 months can be granted for the lodgement of the pre-arrival ENS data (F30, F31 and F33). Until the pre-arrival ENS filings are not sent to ICS2 R2 the pre-arrival data is lodged in ICS1.

Deployment window for the air carriers does not have any significant impact. The duration of the deployment window is 2 to 3 months.

## 4 POSTAL BUSINESS MODEL

### 4.1 Release 1

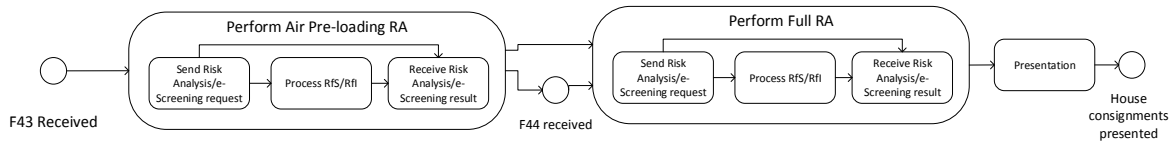


Figure 4 ICS2 R1 Postal business model

In Release 1, postal operators will lodge the ENS filings F43 containing the postal item information (house level) and the F44 filing containing information about receptacles and their link with the house consignments. Since no carrier filing F42 is lodged in Release 1, the F43 ENS filing is used to instantiate a PLACI for air pre-loading risk analysis and an ENS (incomplete) for pre-arrival risk analysis with all data elements originally submitted.

To enable such processing of postal ENS filings, specific temporary business rules are applied for Release 1. These rules need to be replaced in Release 2 with the permanent rules. The switch-over to Release 2 does not make much difference for the postal operators as they will continue to lodge the same filings F43 and F44 (using Release 2 message version). No additional ENS filings are to be lodged. The difference will be the processing of the filings in the ICS2 R2 since F43 and F44 need to be linked to the respective carrier ENS filing F42 before pre-arrival risk analysis is initiated.

All ENS filings the processing of which has started with R1 versions of the messages need to be finalized with R1 responses – for example, an F43 is sent in R1 then the corresponding risk analysis requests/responses, referrals requests/responses and the generated Assessment complete/DNL are expected to be R1 versions.

### 4.2 Release 2

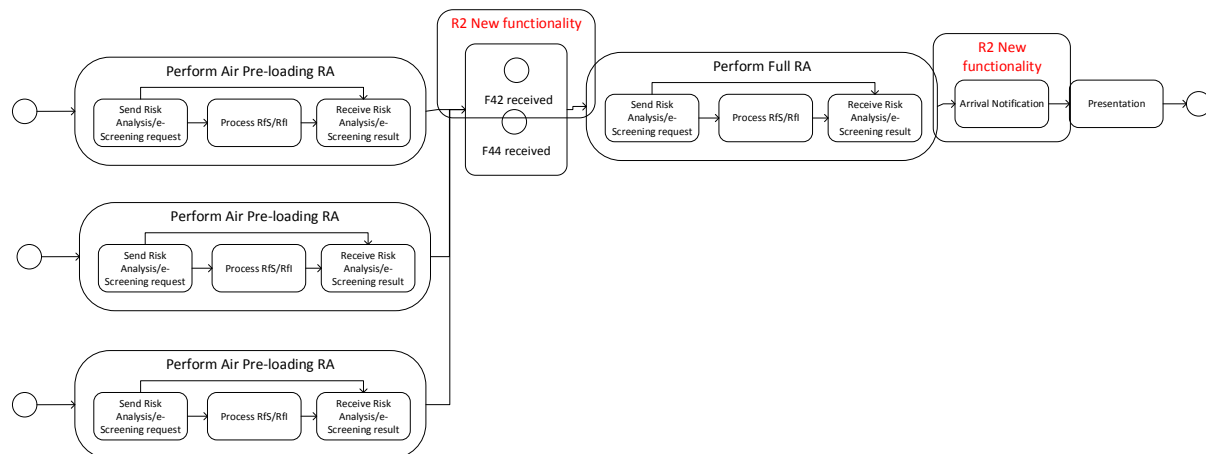


Figure 5 Postal business model new R2 functionality

For the scope of ICS2 Release 2 operations the following use cases need to be considered:

1. Postal operator and air carrier are already connected to ICS2 Release 2.
2. Postal operator is connected to Release 2 and air carrier is not (still connected to ICS1).
3. Postal operator is still connected to Release 1 and air carrier is already connected to Release 2.
4. Postal operator is still connected to Release 1 and air carrier is not connected to ICS2 R2 (still connected to ICS1).

#### Implications of the different use cases

The use cases 1 and 4 do not cause any problems since they are the regular cases in their releases and the system can process them as specified in the relevant release.

In use case 2, the F43 ENS filing (Release 2 message version) is not further processed after the air pre-loading risk analysis was completed until an air carrier ENS filing F42 is lodged. Hence follows, that all F43 ENS (Release 2

message version) filings are only processed for pre-loading risk analysis when the air carrier transporting the covered postal consignments is not yet connected to ICS2. No full risk analysis will be applied on the data of that ENS filings at all.

Moreover, if the air carrier is not connected to ICS2 R2 no Arrival Notification will be lodged which is not a critical point. Later in the process the goods will be presented by the postal operator in the NES of the Addressed MS.

In use case 3 the F43 ENS filing (Release 1 message version) will be processed in accordance with the Release 1 business rules – air pre-loading risk analysis and pre-arrival risk analysis will be triggered on the basis of F43 alone. The F43 ENS filing will be linked with the carrier’s ENS filing F42 and a pre-arrival risk analysis will be triggered again. For the customs administrations the burden is that pre-arrival risk analysis on some postal items would be performed twice, in some cases even in different Member States – when the Addressed MS is different from the MS of the COFE.

### 4.3 Recommendations for ICS2 transition from R1 to R2

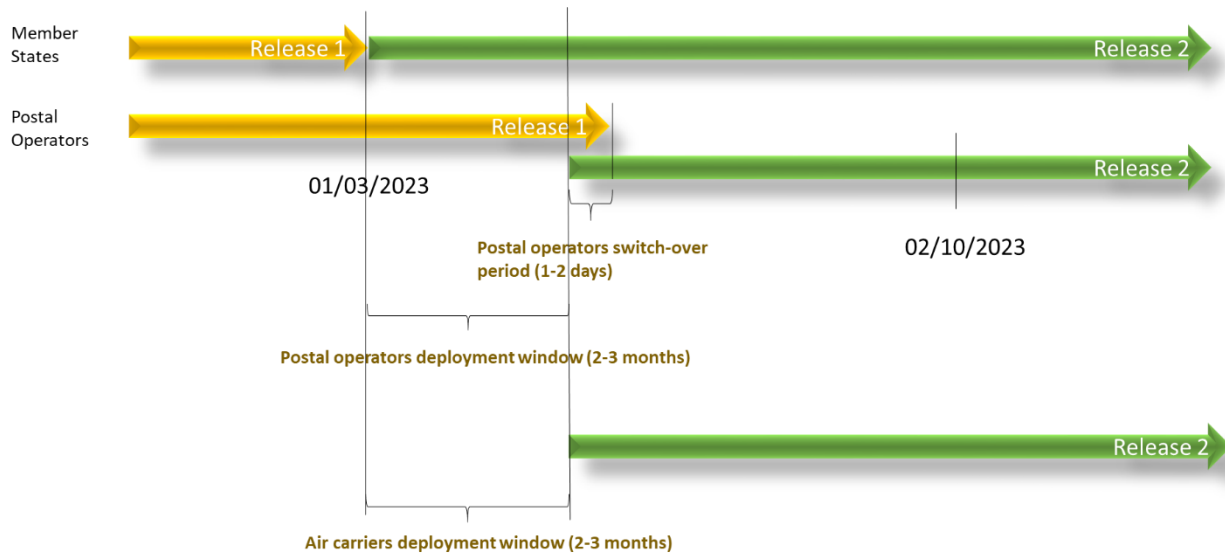


Figure 6 Postal operators switch-over period and deployment window and air carriers deployment window

The switch-over of postal operators (closing all transactions that started in R1) should be done in short window – 1-2 days.

In order to avoid the cases when either – pre-arrival risk analysis is not performed due to the postal operators using R2 and the air carrier not yet connected – or – performing pre-arrival risk analysis more than once when the postal operator is still using R1 and the air carrier is connected to R2, it is advised that the deployment windows for the postal operators and the air carriers are aligned. Air carriers need to be connected to ICS2 first. Postal operators would switch-over to R2 after the air carriers are connected.

Deployment windows can be granted to both sectors provided that they are aligned. The duration of the deployment window is 2 to 3 months. At the end of this deployment window the postal operators are expected to switch over from R1 (closing open transactions in R1) to filing in R2 the new ones.

## 5 AIR CARGO GENERAL

Air cargo general is the sector that will start filing the ENS's in ICS2 R2. While there is no need for a switch-over window, the deployment window is applicable both for the air carriers and the party filing the house level ENS filings (issuer of HAWB).

The following use cases are to be considered:

1. Use case 1: air carrier is already connected to ICS2 while the house level filer (issuer of a HAWB) is not yet connected.
2. Use case 2: air carrier is not yet connected to ICS2 while the house level filer (issuer of a HAWB) is already connected.

EO not connected	House level filings	Carrier filing	PLACI	House Consignment	Master Consignment (ENS)	Arrival Notification	Presentation Notification
House level filer (Issuer of HAWB)	missing (F22; F23+F25; F24; F26)	F21	-	-	F21	+	+
	missing (F23+F25; F24)	F27	-	F27	F27	+	+
	missing (F23+F25; F24)	F29	-	F29	F29	+	+
Carrier	F22 + F24	missing (F21)	F24	F22	-	-	-
	F22 + (F23+F25)	missing (F21)	F23+F25	F22	-	-	-
	F26	missing (F21)	F26	F26	-	-	-
	F24	missing (F27)	F24	-	-	-	-
	F23+F25	missing (F27)	F23+F25	-	-	-	-
	F24	missing (F29)	F24	-	-	-	-
	F23+F25	missing (F29)	F23+F25	-	-	-	-

### Implications

If the carrier is able to file full ENS filings, there is no impact on any other party that needs to file and for this reason such ENS's can be lodged in ICS2 R2 as soon as the carrier is able to file.

In the case of multiple filings, the following implications are identified:

Use case 1: the carrier is able to file the master level ENS filing (F21) while there is no pre-loading ENS filing (F24, F23+F25, F26) and no pre-arrival house level filings (F22). This means that there will be no pre-loading risk analysis performed, the pre-arrival risk analysis will be triggered on the carrier filing only. Customs will be informed about the missing pre-loading ENS filings and absence of risk analysis result – in the supplementary risk information of the risk analysis request the missing PLACI house consignment will be indicated. Arrival notification and presentation will be done in ICS2 R2 by the air carrier.

In case the house filer is not connected and the air carrier is connected, the latter can file a full ENS filing (F20, F27, F28, F29).

Use case 2: air pre-loading risk analysis will be performed on the PLACI data set lodged by the house level filer. The carrier will still be filing in ICS1 a complete ENS for pre-arrival, as well as Arrival notification and presentation of goods.

## 5.1 Recommendations for ICS2 transition from R1 to R2

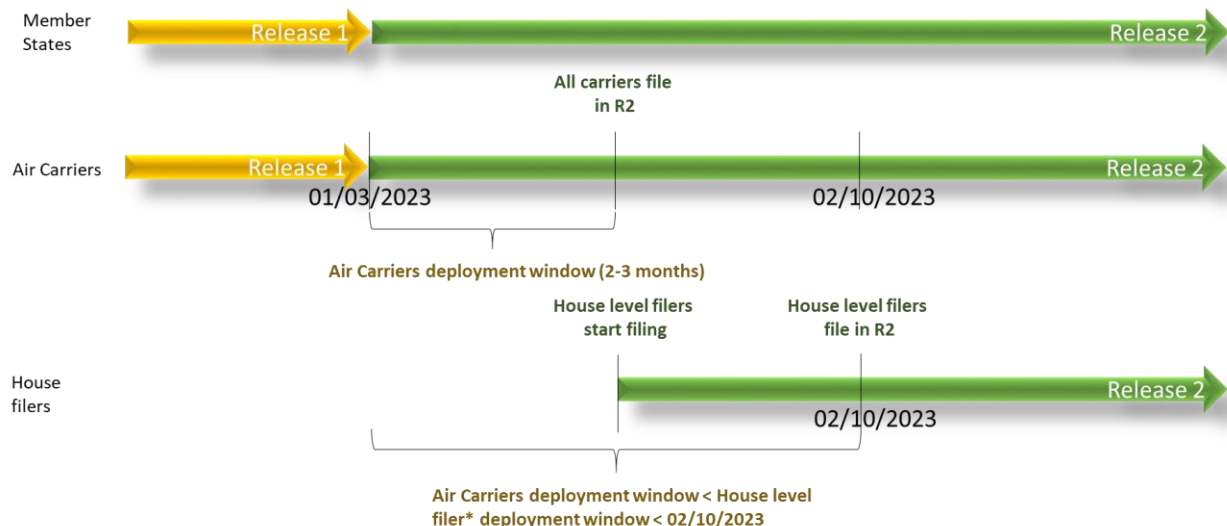


Figure 7 Air carriers and House filers deployment windows

For the air cargo general full filings (F20, F27, F28 and F29) and filings for pre-loading phase lodged by the house filers (F23+25, F24 for the cases of direct bills) there is no impact on the other business models – air carriers can lodge the full filings as soon as they are connected to ICS2 R2.

The carriers need to be connected to ICS2 R2 and start filing before the house level filers (issuers of HAWB) start filing to ICS2 R2. Deployment window can be granted to both, the carriers and house level filers. The duration of the deployment window is 2 to 3 months for the air carriers and the house level filers could connect after that until the end of the legally defined deployment window (02/10/2023).

For the dependencies with the other business models, please refer to the relevant section of the current document – 3.3 Recommendations for ICS2 transition from R1 to R2 and 4.3 Recommendations for ICS2 transition from R1 to R2.

## 6 CONCLUSIONS

The purpose of ICS2 transition from R1 to R2 is to highlight the aspects of the transition from R1 to R2 which need to be further aligned and agreed among all involved parties – Member States, the Commission and the Economic Operators. The agreement within due time on the necessary measures to mitigate the possible disruptive cases (due to lack of connectivity to ICS2 R2) for all business models will allow the predictability, transparency and the coordination required for the proper utilisation of ICS2 R2.

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