

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

# Configuration Guide

SAP Responsible Design and Production Integration with SAP ERP

## Contents

Overview .....	4
Required SAP Business Technology Platform Services .....	4
Integration Flows .....	4
Message Mappings .....	6
Script Collection .....	9
Value Mapping.....	9
Supported Scenarios .....	10
Setup and Configuration for SAP ERP and SAP S/4HANA (On Premise).....	16
Connectivity Configuration Steps .....	16
Import, configure and deploy cloud integration content.....	16
Add integration package to your SAP Cloud Integration tenant.....	16
Configure Mapping Extension Receiver .....	18
Configure replication frequency. ....	20
Configure filters .....	20
Setup and Configuration for SAP S/4HANA Public Cloud.....	22
Connectivity Configuration Steps .....	22
Configure Communication System in S/4HANA Public Cloud.....	22
Configure authentication in Cloud Integration .....	22
Import, configure and deploy cloud integration content.....	22
Add integration package to your SAP Cloud Integration tenant.....	22
Configure Mapping Extension Receiver .....	24
Configure replication frequency .....	25
Configure filters .....	26
Configuration for Supported Scenarios .....	28
Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports mapping flow .....	28
Support for SAP ERP and SAP S/4HANA (On Premise).....	28
Support for SAP S/4HANA Public Cloud .....	33
Configure Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax .....	39
Support for SAP ERP and SAP S/4HANA (On Premise).....	39

Support for SAP S/4HANA Public Cloud .....	43
Configure Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging .....	49
Support for SAP ERP and SAP S/4HANA (On Premise).....	49
Support for SAP S/4HANA Public Cloud .....	55
Configure Extended Producer Responsibility Reports with support for customer roles.....	63
Support for SAP ERP and SAP S/4HANA (On Premise).....	63
Support for SAP S/4HANA Public Cloud .....	72
Order of deploying the artifacts.....	78
Trigger Full load. ....	80

## Overview

This document provides information about configuration steps to setup the integration content to consume the SAP Responsible Design and Production Integration with SAP ERP package. The primary audience of this document is integration administrators and developers.

This integration package provides sample integration flows and mappings required for integration. The predefined integration flows provide basic capabilities to replicated calculated SAP Responsible Design and Production packaging fees and convert them into Sales and Distribution and Material Management pricing conditions, as well as replication of required data for invoice printing into Material Classification.

The SAP Responsible Design and Production Integration with SAP ERP package allows you to extend the capabilities of the predefined integration content. The extension in the package allows you to implement specific integration scenarios relevant to your business use case without changing the content provided by SAP. See further details of the concept: [Integration Flow Extension](#).

## Required SAP Business Technology Platform Services

The SAP Responsible Design and Production Integration with SAP ERP package is intended to be used for SAP ERP and SAP S/4HANA Public Cloud and requires the following services in SAP Business Technology Platform:

- SAP Responsible Design and Production
- SAP Process Integration runtime
- SAP Integration Suite
- Cloud connector to establish access to SAP ERP on-premise

## Integration Flows

This section explains the integration flows included into the content of the SAP Responsible Design and Production Integration with SAP ERP package.

The SAP Responsible Design and Production Integration with SAP ERP package provides one main flow for data replication and mapping flows. The mapping integration flows extend the main flow and can be extended with additional logic depending on your specific scenarios.

- **Create Pricing Conditions and Material Classifications in SAP ERP** – this integration flow provides the main replication logic. The flow contains sub-processes for support of pulling the data from SAP RDP, delta, and pagination handling, storing the next and delta links.

- **Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports** – this mapping integration flow extends the main flow and provides a template for replication of calculated fees and converting the data into Sales and Distribution (SD) or Materials Management (MM) pricing condition records. Data which cannot be mapped can be filtered out of the process. After the successful mapping, a standard IDOC message (COND\_A01) is sent to the SAP ECC system, or an OData or SOAP message is sent to SAP S/4HANA Public Cloud depending on your use case. The integration flow includes support for customer role dependent sales and distribution pricing condition records.
- **Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax** – this mapping integration flow extends the main flow and provides a template for replication of calculated fees and converting the data into Sales and Distribution (SD) pricing condition records for the purposes of the Spain Plastic Packaging Tax.

The flow would also provide capabilities for replicating data required for invoice printing. It contains also mapping to Material Classification based on predefined characteristics in the SAP ERP System. After the successful mapping, a standard IDOC message (CLFMAS02) is sent to the SAP ECC system, or an OData or SOAP message is sent to SAP S/4HANA Public Cloud depending on your use case. For additional details: see [Access Report Documentation](#) and check the report documentation for Spain Plastic Packaging Tax, chapter **Prerequisite Activities for Spain Plastic Packaging Tax**.
- **Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging** - this mapping integration flow extends the main flow and provides a template for replication of calculated fees and converting the data into Sales and Distribution (SD – customer independent and dependent) or Material Management (MM – company code independent and dependent) pricing condition records only for fees with empty packaging. Data which cannot be mapped can be filtered out of the process. After the successful mapping, a standard IDoc message (COND\_A05) is sent to the SAP ECC system, or an OData message is sent to SAP S/4HANA Public Cloud depending on your use case. For additional details, go to [Access Report Documentation](#) and check the report documentation CONAI EPR report, chapter **Prerequisite Activities for CONAI EPR Report**.
- **Distribute Pricing Conditions and Material Classifications to Multiple SAP ERP systems** – this integration flow extends the main flow and provides the possibility to send IDocs to multiple target systems. However, this template must be modified

with your specific integration scenarios relevant to your business use case, based on the examples in this document.

- **Send IDocs to SAP ERP Systems** – this integration flow provides the possibility to send and filter IDocs to one or multiple ERP systems. However, this template must be modified with your specific integration scenarios relevant to your business use case, based on the examples in this document.
- **Send Pricing Condition Records to S/4HANA Public Cloud** - this integration flow provides the possibility to send pricing condition records for Sales and Distribution (SD) and Material Management (MM) to an S/4HANA Public Cloud system.
- **Maintain Customer Roles in SAP ERP** – this integration flow provides a template for customer role replication and converting the data into Customer Master Data records. Data which cannot be mapped can be filtered out of the process. After the successful mapping, a standard IDoc message (DEBMAS01) is sent to the SAP ECC system, or a SOAP message is sent to SAP S/4HANA Public Cloud depending on your use case.

In case multiple mapping flows shall be used for replication, the main flow [Create Pricing Conditions and Material Classifications to SAP ERP](#) shall be copied. See section [Configure Mapping Extension Receiver](#).

## Message Mappings

This section explains the message mappings included into the content of the [SAP Responsible Design and Production Integration with SAP ERP](#) package.

The [SAP Responsible Design and Production Integration with SAP ERP](#) package provides one main flow for data replication, mapping flows, and example message mapping templates. The message mappings should be modified depending on your specific mapping scenarios.

- **Sales And Distribution Mapping** – template mapping for Sales and Distribution (SD) pricing condition records
- **Sales And Distribution ZESP Mapping** – template mapping for Sales and Distribution (SD with ZESP condition type) pricing condition records.
- **Sales And Distribution ZEST Mapping** – template mapping for Sales and Distribution (SD with ZEST condition type) pricing condition records.
- **Sales And Distribution ZCON Mapping** – template mapping for Sales and Distribution (SD with ZCON condition type) pricing condition records for CONAI Empty Packaging.

- **Sales And Distribution ZESE Mapping** – template mapping for Sales and Distribution (SD with ZESE condition type) pricing condition records for CONAI Empty Packaging.
- **Sales and Distribution Mapping for S/4HANA Public Cloud** – template mapping for Sales and Distribution (SD) pricing condition records for S/4HANA Public Cloud
- **Sales and Distribution ZCON Mapping for S/4HANA Public Cloud** – template mapping for Sales and Distribution (SD with ZCON condition type) pricing condition records to S/4HANA Public Cloud for CONAI Empty Packaging.
- **Sales and Distribution ZESE Mapping for S/4HANA Public Cloud** – template mapping for Sales and Distribution (SD with ZESE condition type) pricing condition records to S/4HANA Public Cloud for CONAI Empty Packaging.
- **Sales and Distribution ZESP Mapping for S/4HANA Public Cloud** – template mapping for Sales and Distribution (SD with ZESP condition type) pricing condition records to S/4HANA Public Cloud for Spain Plastic Tax.
- **Sales and Distribution ZEST Mapping for S/4HANA Public Cloud** – template mapping for Sales and Distribution (SD with ZEST condition type) pricing condition records to S/4HANA Public Cloud for Spain Plastic Tax.
- **Material Management Mapping** – Material Management (MM) pricing conditions mapping template with supplier extension.
- **Material Management Mapping ZCON Mapping** – Material Management (MM with ZCON condition type) pricing conditions mapping template for CONAI Empty Packaging.
- **Material Management Mapping ZESE Mapping** – Material Management (MM with ZESE condition type) pricing conditions mapping template for CONAI Empty Packaging.
- **Material Management Mapping for S/4HANA Public Cloud** - template mapping for Material Management (MM) pricing condition records for S/4HANA Public Cloud.
- **Material Management ZCON Mapping for S/4HANA Public Cloud** - template mapping for Material Management (MM with ZCON condition type) pricing condition records to S/4HANA Public Cloud for CONAI Empty Packaging.
- **Material Management ZCON Mapping for S/4HANA Public Cloud** - template mapping for Material Management (MM with ZESE condition type) pricing condition records to S/4HANA Public Cloud for CONAI Empty Packaging.
- **Material Classification Mapping** – template mapping for Material Classification (MC).
- **Customer Roles Mapping** – template mapping for customer roles to SAP ERP Customer Master Data
- **Customer Roles Mapping for S/4HANA Public Cloud** – template mapping for customer roles to Customer Master Data for S/4HANA Public Cloud

- **Sales And Distribution Mapping with support for Customer Role dependent Pricing Conditions** – template mapping with support for customer role dependent Sales and Distribution pricing conditions
- **DEPRECATED - Material Management Mapping** - The artifact is deprecated and will not be supported from 12-July-2023. Please use Material Management Mapping version 2.0.0 or above.

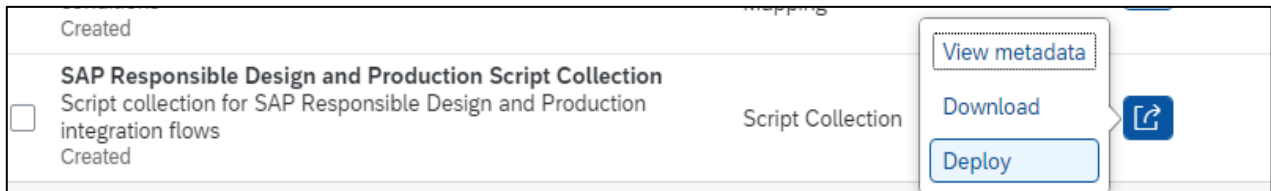


## Script Collection

This section explains the script collection included into the content of the SAP Responsible Design and Production Integration with SAP ERP package.

The SAP Responsible Design and Production Integration with SAP ERP package provides one script collection for storing all scripts used in the integration flows. Message Mappings use local scripts, separate from this collection.

- **SAP Responsible Design and Production Script Collection** – Collection of all scripts used in the integration flows



## Value Mapping

This section explains the value mappings included into the content of the SAP Responsible Design and Production Integration with SAP ERP package.

The value mappings should be modified depending on your specific mapping scenarios.

- **Value mapping for SAP Responsible Design and Production** – value mapping that currently supports customer roles in Customer Master Data for SAP ERP and S/4HANA Public Cloud.

<input type="checkbox"/>	Script collection for SAP Responsible Design and Production integration flows Created	Script Collection	1.2.0	<a href="#">View metadata</a>	
<input type="checkbox"/>	<b>SAP Responsible Design and Production Value Mapping</b> Value mapping for SAP Responsible Design and Production Created	Value Mapping	1.0.1	<a href="#">Download</a> <a href="#">Configure</a>	
<input type="checkbox"/>	<b>Send IDocs to SAP ERP Systems</b> Flow for sending IDocs to SAP ERP systems	Integration Flow	1.0.0	<a href="#">Deploy</a>	

## Supported Scenarios

### I. Support for SAP ERP and SAP S/4HANA (On Premise)

- Extended Producer Responsibility Reports
- Spain Plastic Tax
- CONAI Empty Packaging
- Extended Producer Responsibility Reports with support for customer roles

## Required Artifacts and Configuration

### Extended Producer Responsibility Reports

#### **Deployment Order:**

1. SAP Responsible Design and Production Script Collection
2. Material Management Mapping
3. Sales And Distribution Mapping
4. Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports
5. Create Pricing Conditions and Material Classifications to SAP ERP

#### **Configuration:**

Configure Extension for Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports with Material Management Mapping and Sales and Distribution Mapping.

### Spain Plastic Tax

#### **Deployment Order:**

1. SAP Responsible Design and Production Script Collection
2. Material Classification Mapping
3. Sales And Distribution ZEST Mapping
4. Sales And Distribution ZESP Mapping
5. Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax
6. Create Pricing Conditions and Material Classifications to SAP ERP

#### **Configuration:**

Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with “Packaging Fee Extension Enabled” set to “true”.

## CONAI Empty Packaging

### **Deployment Order:**

1. SAP Responsible Design and Production Script Collection
2. Material Management ZESE Mapping
3. Material Management ZCON Mapping
4. Sales and Distribution ZESE Mapping
5. Sales and Distribution ZCON Mapping
6. Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging
7. Create Pricing Conditions and Material Classifications to SAP ERP

### **Configuration:**

Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with “CONAI Packaging Fee Extension Enabled” set to “true”.

## Extended Producer Responsibility Reports with support for customer roles

### **Deployment Order:**

1. SAP Responsible Design and Production Value Mapping
2. SAP Responsible Design and Production Script Collection
3. Material Management Mapping
4. Sales And Distribution Mapping with support for Customer Role dependent Pricing Conditions
5. Customer Roles Mapping
6. Send IDocs to SAP ERP Systems
7. Maintain Customer Roles in SAP ERP
8. Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports
9. Create Pricing Conditions and Material Classifications to SAP ERP

### **Configuration:**

Configure the artifact Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility with Sales and Distribution Mapping with support for Customer Role dependent Pricing Conditions. Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with “Include Customer Role Dependent Fees” set to “true”.

## II. Support for SAP S/4HANA Public Cloud

- Extended Producer Responsibility Reports
- Spain Plastic Tax
- CONAI Empty Packaging
- Extended Producer Responsibility Reports with support for customer roles

### Required Artifacts and Configuration

#### Extended Producer Responsibility Reports

##### **Deployment Order:**

1. SAP Responsible Design and Production Script Collection
2. Material Management Mapping for S/4HANA Public Cloud
3. Sales And Distribution Mapping for S/4HANA Public Cloud
4. Send Pricing Condition Records to S/4HANA Public Cloud
5. Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports
6. Create Pricing Conditions and Material Classifications to SAP ERP

##### **Configuration:**

- Configure the authentication method for the integration flow Send Pricing Condition Records to S/4HANA Public Cloud. You have the following options:
  - Basic authentication: configure the credential name and host.
  - Authentication with Client Certificate: configure the host and the Private Key Alias. You can also import your own certificate.For more information, see **Setup and Configuration for SAP S/4HANA Public Cloud**.
- Configure the integration flow Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports with:
  - Material Management Mapping for S/4HANA Public Cloud
  - Sales and Distribution Mapping for S/4HANA Public Cloud
- Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with “S/4HANA Public Cloud Integration Enabled” set to “true”.

#### Spain Plastic Tax

##### **Deployment Order:**

1. SAP Responsible Design and Production Script Collection
2. Material Classification Mapping
3. Sales and Distribution ZESP Mapping for S/4HANA Public Cloud
4. Sales and Distribution ZEST Mapping for S/4HANA Public Cloud
5. Send Pricing Condition Records to S/4HANA Public Cloud

6. Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax
7. Create Pricing Conditions and Material Classifications to SAP ERP

### **Configuration:**

- Configure the authentication method for the integration flow Send Pricing Condition Records to S/4HANA Public Cloud. You have the following options:
  - Basic authentication: configure the credential name and host.
  - Authentication with Client Certificate: configure the host and the Private Key Alias. You can also import your own certificate.For more information, see **Setup and Configuration for SAP S/4HANA Public Cloud**.
- Configure the integration flow Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax with the following message mappings:
  - Material Classification Mapping
  - Sales and Distribution ZESP Mapping for S/4HANA Public Cloud
  - Sales and Distribution ZEST Mapping for S/4HANA Public Cloud
- Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with “Packaging Fee Extension Enabled” and “S/4HANA Public Cloud Integration Enabled” set to “true”.

### **CONAI Empty Packaging**

### **Deployment Order:**

8. SAP Responsible Design and Production Script Collection
9. Material Management ZESE Mapping for S/4HANA Public Cloud
10. Material Management ZCON Mapping for S/4HANA Public Cloud
11. Sales and Distribution ZESE Mapping for S/4HANA Public Cloud
12. Sales and Distribution ZCON Mapping for S/4HANA Public Cloud
13. Send Pricing Condition Records to S/4HANA Public Cloud
14. Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging
15. Create Pricing Conditions and Material Classifications to SAP ERP

### **Configuration:**

- Configure the authentication method for the integration flow Send Pricing Condition Records to S/4HANA Public Cloud. You have the following options:
  - Basic authentication: configure the credential name and host.

- Authentication with Client Certificate: configure the host and the Private Key Alias. You can also import your own certificate.  
For more information, see **Setup and Configuration for SAP S/4HANA Public Cloud**.
- Configure the integration flow Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging with the following message mappings:
  - Sales and Distribution ZCON Mapping for S/4HANA Public Cloud
  - Sales and Distribution ZESE Mapping for S/4HANA Public Cloud
  - Material Management ZCON Mapping for S/4HANA Public Cloud
  - Material Management ZESE Mapping for S/4HANA Public Cloud
- Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with “CONAI Packaging Fee Extension Enabled” and “S/4HANA Public Cloud Integration Enabled” set to “true”.

### Extended Producer Responsibility Reports with support for customer roles

#### **Deployment Order:**

1. SAP Responsible Design and Production Value Mapping
2. SAP Responsible Design and Production Script Collection
3. Sales And Distribution Mapping for S/4HANA Public Cloud
4. Customer Roles Mapping for S/4HANA Public Cloud
5. Send Pricing Condition Records to S/4HANA Public Cloud
6. Maintain Customer Roles in SAP ERP
7. Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports
8. Create Pricing Conditions and Material Classifications to SAP ERP

#### **Configuration:**

- Configure the authentication method for the integration flow Send Pricing Condition Records to S/4HANA Public Cloud. You have the following options:
  - Basic authentication: configure the credential name and host.
  - Authentication with Client Certificate: configure the host and the Private Key Alias. You can also import your own certificate.  
For more information, see **Setup and Configuration for SAP S/4HANA Public Cloud**.
- Configure Maintain Customer Roles in SAP ERP with:
  - Customer Roles Mapping for S/4HANA Public Cloud
  - “S/4HANA Public Cloud Integration Enabled” set to “true”
  - Max Message Batch Size: 1
- Receiver: “S4HANA\_PUBLIC\_CLOUD”. You have the following options:
  - Basic authentication: configure the credential name and host.
  - Authentication with Client Certificate: configure the host and the Private Key Alias. You can also import your own certificate.  
For more information, see **Setup and Configuration for SAP S/4HANA Public Cloud**.

- Configure the integration flow Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports with:
  - Sales and Distribution Mapping for S/4HANA Public Cloud
- Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with “S/4HANA Public Cloud Integration Enabled” set to “true”.

**Important note:** For each scenario you want to implement, refer to the list of artifacts in **Required Artifacts and Configuration** section and duplicate the relevant artifacts that are required.

## Setup and Configuration for SAP ERP and SAP S/4HANA (On Premise)

This section explains how to set up the integration content that is required for the [SAP Responsible Design and Production Integration with SAP ERP](#) package for SAP ERP and SAP S/4HANA (On Premise).

### Connectivity Configuration Steps

#### Configure SAP Cloud Connector

The Cloud connector needs to be configured to allow connections from Cloud Integration as per the standard security practices for BTP accounts.

[Configure SAP Cloud Connector](#) to enable secure tunnel for IDoc calls, add mapping with HTTPS protocol and enable the iDoc service for `/sap/bc/idoc_xml`.

Make sure the IDoc service is activated in the SAP ERP.

To persist pricing conditions in SAP ERP, the COND\_A01 IDoc and COND\_A05 IDoc are used.

To persist Characteristic in Material Classification in SAP ERP, the CLFMAS02 IDoc is used.

Creating Sender Partner Profiles on the SAP ERP (receiver system) for processing IDoc

Creating Sender Partner Profiles on the SAP ERP (receiver system) for processing IDoc (see detail in SAP Help [Sender Partners Profiles](#))

Note that the created partner profile needs to be set into the mapping (see section “Modify Mappings”)

- Sender Info > Port
- Sender Info > Partner Type
- Sender Info > Partner number

### Import, configure and deploy cloud integration content

The integration content package [SAP Responsible Design and Production Integration with SAP ERP](#) is available in SAP API Business hub to integrate SAP Responsible Design and Production Integration with SAP ERP.

The data is extracted via the public Packaging Fees REST API. Once converted based on the predefined mappings, the data is inserted as pricing condition records and material classification using standard IDoc messages (COND\_A01, COND\_A05 and CLFMAS02) in SAP ERP.

Add integration package to your SAP Cloud Integration tenant.



To be able to import and deploy integration flows, you need integration developer assigned in your tenant.

Details of required steps: [SAP Help > Add Integration Packages to the Customer Workspace](#)

### Configure Receiver and Sender in Cloud Integration

1. Create credentials for receiver (SAP Responsible Design and Production) and sender (SAP ERP)

Within Cloud Integration, go to Manage Security section > Security Material (see details SAP Help [Managing Security Material](#))

- Receiver (SAP Responsible Design and Production) – use OAuth2 Client Credentials (see details on SAP Help [Deploying an OAuth2 Client Credentials Artifact](#))
- Token Service URL - use the below value, by replacing the subdomain: `https://{tenant-subdomain}.authentication.eu20.hana.ondemand.com/oauth/token`
- Create a Service Instance and Service Key (see details on SAP Help [Create a Service Instance and Service Key](#))  
Note: In case the service instance and key are already create, use the client id and client secret.
- For sender (SAP ERP) – use User Credentials (see details on SAP Help [Deploying a User Credentials Artifact](#))
- Set technical username and password.

2. Configure Responsible Design and Production Host

- Within the Cloud Integration, go to [SAP Responsible Design and Production Integration with SAP ERP](#) package.
- Open the [Create Pricing Conditions and Material Classifications to SAP ERP](#) integration flow.
- Click on “Configure” button (right-upper corner) and open “Receiver” tab.
- Select “SAP\_Responsible\_Design\_and\_Production” from the “Receiver” drop-down.
- Set the Responsible Design and Production host of the Customer subdomain in field “Host”
- Set the Credential Name from step [Create credentials for receiver \(SAP Responsible Design and Production\) and sender \(SAP ERP\)](#)
- Press “Save”

Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer Receiver More

Receiver: SAP\_Responsible\_Design\_and\_Production

Adapter Type: HTTP

Connection

Address: https://SAPnewSDAndMm/conditiontypes/SDAndMm/conditiontypes

Host: \*\*anonymized\*\*

Credential Name: \*\*anonymized\*\*

Save Deploy Close

## Configure Mapping Extension Receiver

- Within the Cloud Integration, go to SAP Responsible Design and Production Integration with SAP ERP package
- Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
- Click on "Configure" button (right-upper corner) and open "Receiver" tab
- Select "MAPPING\_FLOW" from the "Receiver" drop-down
- Set custom name in field "Address" (example: /sdAndMm/pricingconditions)

Note: The Address should begin with alphanumeric or '/' character. It can also contain '\_', '/', and '-'. Also, you can use expression. For example: \${header.address} Parameter Name : Mapping Extension URL

- Press "Save"
- The value set in the "Address" field shall be set in the mapping integration flow:
- Open one of the following integration flow extensions depending on the use case:
  - Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report
  - Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report configured with Sales and Distribution Mapping with support for Customer Role dependent Pricing Conditions
  - Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax
  - Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging

- Click on “Configure” button (right-upper corner) and open “Sender” tab
- Set the Address value created in the main flow in field “Address”

Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer **Receiver** More

Receiver:

Adapter Type:

**Connection**

Address:

Save Deploy Close

Configure "Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax"

**Sender** More

Sender:

Adapter Type:

**Connection**

Address:

Save Deploy Close

## Configure replication frequency.

By default, the replication frequency is set to recur once per day at midnight. To change the replication schedule:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package.
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow.
3. Click on “Configure” button (right-upper corner)
4. Configure the desired frequency (tab Timer)

The screenshot shows a configuration window titled "Configure 'Create Pricing Conditions and Material Classifications to SAP ERP'". It has three tabs: "Timer", "Receiver", and "More". The "Timer" tab is active. The configuration includes:

- Timer: Start Timer [StartEvent\_87]
- Run Once:
- Schedule on Day:  Daily
- Schedule to Recur:  On Time
- On Time: 12:00 AM
- Every:  1 min
- Between: 00:00 and 01:00
- Time Zone: ( UTC 0:00 ) Greenwich Mean Time(Etc/GMT)

At the bottom right, there are buttons for "Save", "Deploy", and "Close".

## Configure filters

By default, no replication filters are set. To add a replication filter:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
3. Click on “Configure” button (right-upper corner)
4. Open tab “More “
5. In fields “Report Category”, “Report Configuration” and/or “Report Country” add the desired filter values comma separated.  
Example: In field Report Configuration enter values: VIRT\_SOUTH\_01, VIRT\_SOUTH\_02

Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer Receiver **More**

Type:	All Parameters
CONAI Packaging Fee Extension Enabled:	**anonymized**
Context:	
Context Prefix Enabled:	**anonymized**
Multiple Systems Extension:	**anonymized**
Packaging Fee Extension Enabled:	**anonymized**
Page Size:	500
Report Category:	
Report Configuration:	
Report Country:	
Splitter Batch Size:	250
Suppliers Enabled:	**anonymized**

Save Deploy Close

**Important note:** In case you need to modify the replication filters after the replication process is started and the delta replication process is ongoing, a new full (initial) load shall be initiated. See section Full and Delta replication.

## Setup and Configuration for SAP S/4HANA Public Cloud

This section explains how to set up the integration content that is required for the SAP Responsible Design and Production Integration with SAP ERP package for SAP S/4HANA Public Cloud.

### Connectivity Configuration Steps

#### Configure Communication System in S/4HANA Public Cloud

Configure a Communication System in your S/4HANA Public Cloud and enable the following inbound Communication Arrangements:

- Pricing Data Integration (SAP\_COM\_0294)
- Product Lifecycle Management - Variant Configuration Integration (SAP\_COM\_0149)

#### Configure authentication in Cloud Integration

Depending on the authentication method used in the configured Communication System and Communication Arrangements, you must also configure the respective Security Material or Keystore Entries in Cloud Integration. (For more details, see: [Managing Security Material | SAP Help Portal](#) and [Managing Keystore Entries | SAP Help Portal](#).)

### Import, configure and deploy cloud integration content

The integration content package SAP Responsible Design and Production Integration with SAP ERP is available in SAP API Business hub to integrate SAP Responsible Design and Production Integration with SAP ERP.

The data is extracted via the public Packaging Fees REST API. Once converted based on the predefined mappings, the data is inserted as pricing condition records using OData or SOAP messages in S/4HANA Public Cloud.

#### Add integration package to your SAP Cloud Integration tenant

To be able to import and deploy integration flows, you need integration developer assigned in your tenant.

Details of required steps: [SAP Help > Add Integration Packages to the Customer Workspace](#)

#### Configure Receiver and Sender in Cloud Integration

Configure Responsible Design and Production Host and S4HANA\_PUBLIC\_CLOUD address

- Within the Cloud Integration, go to SAP Responsible Design and Production Integration with SAP ERP package.
- Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow.
- Click on “Configure” button (right-upper corner) and open “Receiver” tab.
- Select “SAP\_Responsible\_Design\_and\_Production” from the “Receiver” drop-down.
- Set the Responsible Design and Production host of the Customer subdomain in field “Host”
- Set the Credential Name and Host
- Open “Receiver” tab again and select “S4HANA\_PUBLIC\_CLOUD”
- Set the address to be the address of integration flow Send Pricing Condition Records to S/4HANA Public Cloud
- Press “Save”

Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer Receiver More

Receiver: SAP\_Responsible\_Design\_and\_Production

Adapter Type: HTTP

Connection

Address: http://SAP-URL-HERE

Host: \*\*anonymized\*\*

Credential Name: \*\*anonymized\*\*

Save Deploy Close

Timer **Receiver** More

Receiver: S4HANA\_PUBLIC\_CLOUD

Adapter Type: ProcessDirect

Connection

Address: \*\*anonymized\*\*

Save Deploy Close

## Configure Mapping Extension Receiver

- Within the Cloud Integration, go to SAP Responsible Design and Production Integration with SAP ERP package
- Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
- Click on "Configure" button (right-upper corner) and open "Receiver" tab
- Select "MAPPING\_FLOW" from the "Receiver" drop-down
- Set custom name in field "Address" (example: /sdAndMm/pricingconditions)

Note: The Address should begin with alphanumeric or '/' character. It can also contain '\_', '/', and '-'. Also, you can use expression. For example: \${header.address} Parameter Name : Mapping Extension URL

- Press "Save"
- The value set in the "Address" field shall be set in the mapping integration flow:
- Open the following integration flow extensions depending:
  - Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report
- Click on "Configure" button (right-upper corner) and open "Sender" tab
- Set the address value created in the main flow in field "Address"



#### Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer **Receiver** More

Receiver:

Adapter Type:

Connection

Address:

#### Configure "Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports"

**Sender** More

Sender:

Adapter Type:

Connection

Address:

## Configure replication frequency

By default, the replication frequency is set to recur once per day at midnight. To change the replication schedule:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package.
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow.
3. Click on "Configure" button (right-upper corner)
4. Configure the desired frequency (tab Timer)

Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer Receiver More

Timer: Start Timer [StartEvent\_87] ▼

Run Once
  Schedule on Day
  Schedule to Recur

Schedule to Recur: Daily ▼

On Time
  Every

On Time: 12:00 AM 🔔

Every: 1 min ▼

Between: 00:00 ▼ and 01:00 ▼

Time Zone: ( UTC 0:00 ) Greenwich Mean Time(Etc/GMT) ▼

Save Deploy Close

## Configure filters

By default, no replication filters are set. To add a replication filter:

5. Go to SAP Responsible Design and Production Integration with SAP ERP package
6. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
7. Click on "Configure" button (right-upper corner)
8. Open tab "More "
9. In fields "Report Category", "Report Configuration" and/or "Report Country" add the desired filter values comma separated.

Example: In field Report Configuration enter values: VIRT\_SOUTH\_01, VIRT\_SOUTH\_02

Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer Receiver **More**

Type:	All Parameters
CONAI Packaging Fee Extension Enabled:	**anonymized**
Context:	
Context Prefix Enabled:	**anonymized**
Include Customer Role Dependent Fees:	**anonymized**
Multiple Systems Extension:	**anonymized**
Packaging Fee Extension Enabled:	**anonymized**
Page Size:	500
Report Category:	
Report Configuration:	**anonymized**
Report Country:	
S/4HANA Public Cloud Integration Enabl...:	**anonymized**
Splitter Batch Size:	250
Suppliers Enabled:	**anonymized**

[Save](#) [Deploy](#) [Close](#)

**Important note:** In case you need to modify the replication filters after the replication process is started and the delta replication process is ongoing, a new full (initial) load shall be initiated. See section [Full and Delta replication](#).

## Configuration for Supported Scenarios

### Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports mapping flow

Support for SAP ERP and SAP S/4HANA (On Premise)

#### Modify Sales and Distribution Mapping and Material Management Mapping

The message mappings contain example mappings of the PackagingFees REST API attributes to iDoc structure for SD and MM pricing conditions. Message mappings are dynamic, and IFlow can be configured to use custom Message Mappings. To use different from the default Message Mapping the ID from the Metadata of the message mapping must be provided as configuration property.

1. Open the **Sales And Distribution Mapping** and **Material Management Mapping**
2. The following values shall be modified in the mapping:
  - Sender profiles – see section *Creating Sender Partner Profiles on the SAP ERP (receiver system) for processing IDoc*
  - Condition Table – number of the target condition table
  - Condition Type – type of the target condition type
  - Value Key (VAKEY) – mandatory field for creation of pricing condition record. The field is a concatenated value that contains combination of key fields used in the pricing condition table. The mapping artifact contains logic for generation of value key.

#### **Value Key generation logic**

The key is generated based on the order of the Organization and Master key fields of a pricing condition table.

Example for SD table A304 / A004 - value key is concatenated value of the below fields in the following order:

- sales org (STBL)
- distribution channel (10)
- material (21)

Example Value Key (VAKEY) value: STBL10000000000000000021

**Note:** In case the values of the respective field are not the max length, zeros are added as prefix (example: product id=21, value would be 000000000000000021) in case the value contains only numbers.

**Important note:** For the generation of DOCNUM and SERIAL values the same implementation is used. In case you need to add a custom script or mapping for the generation of one of the attributes (e.g DOCNUM), make sure to maintain the same script/mapping for the other one (e.g SERIAL).

In case the target condition table contains different key fields, the logic for the value key shall be adapted. In the Mapping Expression window of field VAKEY, change the following parameters:

- Within *padLeftForNumeric* custom script, set the *value* and *valueLength* of the designed attribute
- Repeat this step for all key fields of the pricing condition table
- Concatenated them based on the order of the Organization and Master key fields of the target pricing condition table

Integrations / SAP Responsible Design and Production Integration with SAP ERP / Sales And Distribution Mapping / Sales And Distribution Mapping

root

Structure	Occurrence
root	1.1
value	1..*
Product	0.1
ValidFrom	0.1
ValidTo	0.1
ReportConfiguration	0.1
ReportCategory	0.1
ReportCategoryCountry	0.1
ReportCategoryRegion	0.1
ApplicableOrganizationData	0.1
ReferenceQuantity	0.1
BaseUnitOfMeasure	0.1

COND\_A01

Structure	Occurrence
COND_A01	1.1
IDOC	1..*
@BEGIN	0.1
EDL_DC40	1..1
E1K0MG	1.1
@SEGMENT	0.1
MATNR	0.1
VAKEY	0.1
LAND1	0.1
REGIO	0.1
BUKRS	0.1
VKORG	0.1

Mapping Expression

Test Input File: Upload test file

Select a mapping

IDOC Segment Structure	System Fields	iDoc SEGMENT.FIELD	Sample Value
Control Record	Segment	<EDI_DC40 SEGMENT="1">	1
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40
	Document Number	<DOCNUM>16663613051</DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field	<SERIAL>16663613051</SERIAL>	timestamp + counter
	Direction	<DIRECT>2</DIRECT>	Constant value = 2 (Inbound)
	Basic Type	<IDOC TYP>COND_A01</IDOC TYP>	COND_A01
	Message Type	<MESTYP>COND_A</MESTYP>	COND_A
	Sender Info > Port	<SNDPOR>ZRDP</SNDPOR>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number	<SNDP RN>SIDCLNTxxx</SNDP RN>	Value shall be configured by Customer depending on Target System
	Receiver Info > Port	<RCVPOR>ZRDP</RCVPOR>	
	Receiver Info > Partner Type	<RCVPRT>ZR</RCVPRT>	
	Receiver Info > Partner number	<RCVPRN>ZRDP</RCVPRN>	
E1KONG	Condition Table	E1KONG.KVEWE	Value shall be configured by Customer depending on Target Condition Table
		E1KONG.KOTABNR	Value shall be configured by Customer depending on Target Condition Table
	Condition Type	E1KONG.KSCHL	Value shall be configured by Customer depending on Target Condition Type
		E1KONG.KSCHL	Value shall be configured by Customer depending on Target Condition Type
	Application	E1KONG.KAPPL	Value shall be configured by Customer depending on target SD or MM: "V" for SD / "M" for MM

Replicated from ERP	PackagingFees API field	iDoc SEGMENT.FIELD	Field in ECC Pricing Condition Table
MARA.MATNR	productId	E1KONG.MATNR	A***.MATNR
n/a	n/a	E1KONG.VAKEY Field with concatenated value that contains combination of key fields used in the condition table	n/a
n/a	validFrom	E1KONH.DATAB	A***.DATAB (Condition Table) KONH.DATAB (Condition Header Table)
	validTo	E1KONH.DATBI	A***.DATBI (Condition Table) KONH.DATAB (Condition Header Table)
n/a	reportConfigurationId	n/a	n/a
n/a	reportCategoryId	n/a	n/a
n/a	reportCategoryCountry	E1KONG.LAND1	A***.LAND1
n/a	ReportCategoryRegion	E1KONG.REGIO	A***.REGIO
T001.BUKRS	CompanyCode	E1KONG.BUKRS	A***.BUKRS
TVKO.VKORG	SalesOrganization	E1KONG.VKORG	A***.VKORG
VTW.VTWEG	DistributionChannel	E1KONG.VTWEG	A***.VTWEG
TSPA.SPART	Division	E1KONG.SPART	A***.SPART
n/a	ReferenceQuantity	E1KONP.KPEIN	KONP.KPEIN (Condition pricing unit)
MARA.MEINS	BaseUnitOfMeasure	E1KONP.MEINS (base unit of measure) or E1KONP.KMEIN (condition unit of measure)	KONP.MEINS or KONP.KMEIN
n/a	ShipToPartyRole	n/a	n/a
n/a	TotalFee	E1KONP.KBETR	KONP.KBETR (Condition Amount)
n/a	Currency	E1KONP.KONWA	KONP.KONWA Rate unit (currency or percentage)

## Additional Supplier information configuration for Material Management

For **Material management mapping** VAKEY is generated from variables VAKEY\_SUPPLIER and VAKEY\_INDEPEDANT. VAKEY\_SUPPLIER variable is using example table A018, for that table VAKEY build as follows Vendor/Material/Purchasing Organization/Purchasing Info record category. For example, table A018 trailing white spaces must be added after each property. VAKEY\_INDEPEDANT variable is working the same way as it is already described above in "Modify Sales and Distribution Mapping and Material Management Mapping"

*In case whitespaces are not needed createVakeyAttribute.groovy script must be adjusted from the mapping the following way:*

**return value.padRight(valueLength) -> return value**

*In case white spaces must be changed with something else for example with trailing '\*' script must be changed as follows:*

**return value.padRight(valueLength) -> return value.padRight(valueLength, '\*')**

### Value Key generation logic for VAKEY\_SUPPLIER variable

If a key field that compose VAKEY is empty, it must be populated with zeros and whitespaces (max lengths) to have the complete value key ID.

Example with leading zeros:

- vendor (0000000000)
- material (0000000000000000071)
- purch. org. (1000)
- infotype (constant "0" Standard will be used)

Example value: 00000000000000000000000007110000

Example with leading zeros **and** whitespaces:

- vendor (101501)
- material (VSSHSCC02)
- purch. org. (1000)
- infotype (constant "0" Standard will be used)

Example value: 0000101501VSSHSCC02 10000

**Note:** *In case the values of the respective field are not the max length, zeros are added as prefix only if the value is consisted of numbers (example: product id=21, value would be*

000000000000000021). In case the values consist of letters, symbols or combination of letters/symbols/numbers, whitespaces must be added after the value to meet the max length. (example: product id=VSSHSCC02, value would be "VSSHSCC02", without quotes)

## Set additional replication filters

### Material Managements pricing conditions

- MM Response Filter - this filter can be used to filter the packaging fees data coming from SAP Responsible Design and Production to ensure data consistency for Material Managements pricing conditions
- Example: In case the data shall be replicated only in case Company Code field is not empty (when this field is used as key value in the target pricing condition table), the following filter value can be added in this condition:

*/root/value*

*[not(empty(ApplicableOrganizationData/CompanyCode/text()))]*

- In case no filters are required, please set */root/value*
- *In case IDOC generation for Material Management must be skipped, please set /root [value='excludeSubprocess']*
- MM Mapping – this property points to the desired message mapping that needs to be used for generating IDocs and allows custom message mappings to be used instead of the provided templates. By default, points to the Material Management template mapping from the package. This property accepts only the ID of the message mappings, and ID can be captured from the metadata of the artifact.

### Sales and Distribution pricing conditions

- SD Response Filter - this filter can be used to filter the packaging fees data coming from SAP Responsible Design and Production to ensure data consistency for Sales and Distribution pricing conditions
- Example: In case the data shall be replicated only in case all the three Sales Area objects are not empty (Sales Organization, Distribution Channel and Division fields in case they are used as key values in the target pricing condition table), the following value can be added in this condition:

*/root/value*

*[(not(empty(ApplicableOrganizationData/SalesOrganization/text())) or  
(not(empty(ApplicableOrganizationData/DistributionChannel/text())) or  
(not(empty(ApplicableOrganizationData/Division/text())))]*

- In case no filters are required, please set */root/value*
- *In case IDOC generation for Sales and Distribution must be skipped, please set /root [value='excludeSubprocess']*



- SD Mapping – this property points to the desired message mapping that needs to be used for generating IDocs and allows custom message mappings to be used instead of the provided templates. By default, points to the Sales and Distribution template mapping from the package. This property accepts only the ID of the message mappings, and ID can be captured from the metadata of the artifact.

Configure "Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports"

Sender **More**

Type: All Parameters

MM Mapping: Material\_Management\_Supplier\_Extended\_Mapping

MM Response Filter: /root/value

SD Mapping: Sales\_And\_Distribution\_Mapping

SD Response Filter: /root/value

Save Deploy Close

### Support for SAP S/4HANA Public Cloud

**Important note:** To trigger the mapping integration flow Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports mapping flow, configure the "S/4HANA Public Cloud Integration Enabled" filter to be set to "TRUE". In case the filter is not set and the deploy is triggered for Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports, the replication will fail with an error.

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
3. Click on "Configure" button (right-upper corner)
4. Go to the "Receiver" tab and select "S4HANA\_PUBLIC\_CLOUD"
5. In field "Address" add the address of the integration flow Send Pricing Condition Records to S/4HANA Public Cloud.
6. Open "More" tab
7. Set the flag "S/4HANA Public Cloud Integration Enabled" to "TRUE"
8. Press "Save"

## Modify Sales and Distribution and Material Management Mapping for S/4HANA Public Cloud

The message mappings contain example mappings of the Packaging Fees REST API attributes to OData structure for SD and MM pricing conditions. Message mappings are dynamic, and IFlow can be configured to use custom Message Mappings. To use different from the default Message Mapping the ID from the Metadata of the message mapping must be provided as configuration property.

1. Open the **Sales and Distribution Mapping for S/4HANA Public Cloud** and **Material Management Mapping for S/4HANA Public Cloud**
2. The following values shall be modified in the relevant mappings if necessary:
  - a. ConditionTable – the default table numbers are as follows:
    - i. 004 – for Sales and Distribution Pricing Conditions
    - ii. 049 – for Material Management Pricing Conditions without Supplier
    - iii. 018 - for Material Management Pricing Conditions with Supplier
  - b. ConditionType – by default it is set to ZRDP.

Note: If necessary, the table numbers and the condition type can be adjusted to your setup.

## Sales And Distribution Mapping for S/4HANA Public Cloud

SAP Responsible Design and Production Integration with SAP ERP / Sales and Distribution Mapping for S/4HANA Public Cloud /

**Sales and Distribution Mapping for S/4HANA Public Cloud**

Message Mapping

References

Local (4) Global (0)

Name	Type	Size	Acti...
source	XSD	2 KB	↓
target	XSD	13 KB	↓
convertC	Gro...	164...	↓
validateC	Gro...	2 KB	↓

Mapping Expression Parameters

Test Input File: Upload test file Browse

ODATA Segment Structure	System Fields	OData Field	Sample Value
Control Record	Method	<method>POST</method>	POST
A_SlsPrgConditionRecordType	Condition Table	<ConditionTable>xxx</ConditionTable>	This filed has two placeholders - a top and a bottom one. For customer role independent pricing conditions, configure the top placeholder with one table (for example: 004).For the customer role dependent pricing conditions, configure the lower placeholder with a different table (for example:801).
	Condition Type	<ConditionType>ZRDP</ConditionType>	ZRDP
	Condition Rate Amount	<ConditionRateAmount></ConditionRateAmount>	Value of filed TotalFee from PackagingFee API
	Condition Currency	<ConditionCurrency></ConditionCurrency>	Value of filed Currency from PackagingFee API
	Condition Quantity	<ConditionQuantity></ConditionQuantity>	Value of filed ReferenceQuantity from PackagingFee API
A_SlsPrgCndnRecdValidityType	Condition Quantity Unit	<ConditionQuantityUnit></ConditionQuantityUnit>	Value of filed BaseUnitOfMeasure from PackagingFee API
	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
	Material	<Material></Material>	Value of filed Product from PackagingFee API
	Division	<Division></Division>	Value of filed Division from PackagingFee API
	Sales Organization	<SalesOrganization></SalesOrganization>	Value of filed SalesOrganization from PackagingFee API
	Distribution Channel	<DistributionChannel></DistributionChannel>	Value of filed DistributionChannel from PackagingFee API
Customer Condition Group	<CustomerConditionGroup></CustomerConditionGroup>	If the filed ShipToPartyRole from PackagingFee API is not empty: populated the value with the respective one from the SAP Responsible Design and Production Value Mapping	

## Material Management Mapping for S/4HANA Public Cloud

SAP Responsible Design and Production Integration with SAP ERP / Material Management Mapping for S4HANA Public Cloud / Edit Simulate Deploy Delete

### Material Management Mapping for S4HANA Public Cloud

Message Mapping

References: Local (3) Global (0)

Name	Type	Size	Act...
source	XSD	3 KB	↓
target	XSD	13 KB	↓
convert	Gro...	165...	↓

root

Structure	Occure...
root	1..1
value	1..*
Product	0..1
ValidFrom	0..1
ValidTo	0..1
ReportConfiguration	0..1
ReportCategory	0..1
ReportCategoryCountry	0..1
ReportCategoryRegion	0..1
PackagingComposition	0..1
BusinessProcessDirection	0..1
ApplicableOrganizationData	0..1
CompanyCode	0..1

batchParts

Structure	Occure...
batchParts	1..1
batchChangeSet	1..*
batchChangeSetPart	1..*
method	1..1
A_PurgPrgConditionRecord	1..1
A_PurgPrgConditionRecordType	1..*
ConditionTable	0..1
ConditionType	0..1
ConditionRateValue	0..1
ConditionRateValueUnit	0..1
ConditionQuantity	0..1
ConditionQuantityUnit	0..1
to_PurgPrgCndnRecdValidity	0..*

Mapping Expression Parameters

Test Input File: Upload test file Browse

ODATA Segment Structure	System Fields	OData Field	Sample Value
Control Record	Method	<method>POST</method>	POST
A_PurgPrcgConditionRecordType	Condition Table	<ConditionTable>xxx</ConditionTable>	This field has two placeholders - a top and a bottom one. If the value of filed Supplier from PackagingFee API is not empty, configure the top placeholder with one table (for example: 018). If the value of filed Supplier is empty, configure the lower placeholder with a different table (for example: 049).
	Condition Type	<ConditionType>ZRDP</ConditionType>	ZRDP
	Condition Rate Value	<ConditionRateValue></ConditionRateValue>	Value of filed TotalFee from PackagingFee API
	Condition Rate Value Unit	<ConditionRateValueUnit></ConditionRateValueUnit>	Value of filed Currency from PackagingFee API
	Condition Quantity	<ConditionQuantity></ConditionQuantity>	Value of filed ReferenceQuantity from PackagingFee API
	Condition Quantity Unit	<ConditionQuantityUnit></ConditionQuantityUnit>	Value of filed BaseUnitOfMeasure from PackagingFee API
A_PurgPrcgCndnRecdValidityType	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
	Company Code	<CompanyCode></CompanyCode>	Value of filed CompanyCode from PackagingFee API
	Purchasing Organization	<PurchasingOrganization></PurchasingOrganization>	Value of filed CompanyCode from PackagingFee API
	Purchasing Info Record Category	<PurchasingInfoRecordCategory>0</PurchasingInfoRecordCategory>	0
	Supplier	<Supplier></Supplier>	Value of filed Supplier from PackagingFee API
	Material	<Material></Material>	Value of filed Product from PackagingFee API

## Configurations in SAP S/4HANA Public Cloud

The following steps need to be fulfilled:

1. Maintain the access sequence to the condition tables relevant for SAP Responsible Design and Production
2. Maintain Pricing Condition Type ZRDP in Sales and in Purchasing

### Set additional replication filters

#### Material Managements pricing conditions

- MM Response Filter - this filter can be used to filter the packaging fees data coming from SAP Responsible Design and Production to ensure data consistency for Material Managements pricing conditions
- Example: In case the data shall be replicated only in case Company Code field is not empty (when this field is used as key value in the target pricing condition table), the following filter value can be added in this condition:

*/root/value*

*[not(empty(ApplicableOrganizationData/CompanyCode/text()))]*

- In case no filters are required, please set */root/value*
- *In case OData message generation for Material Management must be skipped, please set /root [value='excludeSubprocess']*
- MM Mapping – this property points to the desired message mapping that needs to be used for generating IDocs and allows custom message mappings to be used instead of the provided templates. By default, points to the Material Management template mapping from the package. This property accepts only the ID of the message mappings, and ID can be captured from the metadata of the artifact.

## Sales and Distribution pricing conditions

- SD Response Filter - this filter can be used to filter the packaging fees data coming from SAP Responsible Design and Production to ensure data consistency for Sales and Distribution pricing conditions
- Example: In case the data shall be replicated only in case all the three Sales Area objects are not empty (Sales Organization, Distribution Channel and Division fields in case they are used as key values in the target pricing condition table), the following value can be added in this condition:

/root/value

[(not(empty(ApplicableOrganizationData/SalesOrganization/text())) or  
(not(empty(ApplicableOrganizationData/DistributionChannel/text())) or  
(not(empty(ApplicableOrganizationData/Division/text())))]

- In case no filters are required, please set /root/value
- *In case OData message generation for Sales and Distribution must be skipped, please set /root [value='excludeSubprocess']*
- SD Mapping – this property points to the desired message mapping that needs to be used for generating IDocs and allows custom message mappings to be used instead of the provided templates. By default, points to the Sales and Distribution template mapping from the package. This property accepts only the ID of the message mappings, and ID can be captured from the metadata of the artifact.

## Configure Send Pricing Condition Records to S/4HANA Public Cloud

This integration flow supports sending of OData messages to S/4HANA Public Cloud systems.

### Procedure:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Send Pricing Condition Records to S/4HANA Public Cloud integration flow
3. Click on “Configure” button (right-upper corner)
4. Open “Sender” tab and configure the address. The address should be the same as the one you configured in tab “Receiver” for “S4HANA\_PUBLIC\_CLOUD” in the main integration flow “Create Pricing Conditions and Material Classifications to SAP ERP”. For reference, see chapter for S/4HANA Public Cloud - **Setup and Configuration: Connectivity Configuration Steps**.
5. Open “Receiver” tab and configure the connectivity to your S/4HANA Public Cloud system

Note: The configuration depends on how you set up the S/4HANA System and the CPI credentials. For reference, see chapter for S/4HANA Public Cloud - **Setup and Configuration: Connectivity Configuration Steps**.

Configure "Send Pricing Condition Records to S4HANA Public Cloud"

Sender Receiver

Sender: Sender

Adapter Type: ProcessDirect

Address: \*\*anonymized\*\*

Save Deploy Close

Configure "Send Pricing Condition Records to S4HANA Public Cloud"

Sender Receiver

Receiver: S4HANA\_API

Adapter Type: HCIOData

Address: https://{(Host)}/sap/opu/odata/sap/S[header.api]

Host: \*\*anonymized\*\*

Proxy Type: Internet

Authentication: Client Certificate

Private Key Alias: \*\*anonymized\*\*

CSRF Protected:

Reuse Connection:

Save Deploy Close

### Integrate into Existing Package

To use the Extended Producer Responsibility Reports scenario for S/4HANA Public Cloud, the main flow Create Pricing Conditions and Material Classifications to SAP ERP should be copied.

## Configure Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax

Support for SAP ERP and SAP S/4HANA (On Premise)

Message mappings are dynamic, and IFlow can be configured to use custom Message Mappings. To use different from the default Message Mapping the ID from the Metadata of the message mapping must be provided as configuration property.

Before modifying the mapping for this integration flow, see [Access Report Documentation](#) and check the report documentation for Spain Plastic Packaging Tax, chapter **Prerequisite Activities for Spain Plastic Packaging Tax**.

**Important note:** To trigger the mapping iflow of Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax, configure the “Packaging Fee Extension Enabled” filter to be set to “TRUE”. In case the filter is not set and the deploy is triggered for Spain Plastic Tax, the replication will fail with an error.

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
3. Click on “Configure” button (right-upper corner)
4. Open “More” tab
5. Set the flag “Packaging Fee Extension Enabled” to “TRUE”
6. Press “Save”

### Modify Sales And Distribution ZESP Mapping

The message mapping contains example mapping of the PackagingFees REST API attributes to iDoc structure for SD pricing conditions with ZESP condition type. Plastic Tax Charge to Customer (inhouseProductionChargeableFee) from the API is replicated as KBETR.

### Modify Sales And Distribution ZEST Mapping

The message mapping contains example mapping of the PackagingFees REST API attributes to iDoc structure for SD pricing conditions with ZEST condition type. Plastic Tax Paid as Info (inhouseProductionStatisticalFee) from the API is replicated as KBETR.

Modify the SD pricing conditions

See section “Modify Sales and Distribution Mapping and Material Management Mapping” in Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow

### Modify Material Classification mapping

1. Open the Material Classification Mapping
2. The following values shall be modified in the mapping:
  - Sender profiles – see section Creating Sender Partner Profiles on the SAP ERP (receiver system) for processing IDoc
  - Characteristic Names – in case different names are used (not the recommended from SAP Responsible Design and Production)
  - OBJEK value generation

#### **OBJEK value generation logic**

The value for the OBJEK attribute is generated using the material value

Example for MARA table:

- material (21)

Example (OBJEK) value: 000000000000000021

**Note:** In case the value of the respective field is not the max length (in the example template it's 18), 0 are added as prefix (example: product=21, value would be 000000000000000021) in case the value contains only numbers. If the length of your material numbers is different than 18, change the constant to the desired length in the mapping for OBJEK attribute.

**Important note:** For the generation of DOCNUM and SERIAL values the same implementation is used. In case you need to add a custom script or mapping for the generation of one of the attributes (e.g., DOCNUM), make sure to maintain the same script/mapping for the other one (e.g., SERIAL).



IDoc Segment Structure	System Fields	IDoc Field	Sample Value
Control Record	Segment	<EDI_DC40 SEGMENT="1">	1
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40
	Document Number	<DOCNUM>16663613051</DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field	<SERIAL>16663613051</SERIAL>	timestamp + counter
	Direction	<DIRECT>2</DIRECT>	Constant value = 2 (Inbound)
	Basic Type	<IDOCTYP>CLFMAS02</IDOCTYP>	CLFMAS02
	Message Type	<MESTYP>CLFMAS</MESTYP>	CLFMAS
	Sender Info > Port	<SNDPDR>ZRDPL/SNDPDR>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number	<SNDPRN>SIDCLNTxxx</SNDPRN>	Value shall be configured by Customer depending on Target System
Receiver Info > Port	<RCVPDR>ZRDPL/RCVPDR>		
Receiver Info > Partner Type	<RCVPRT>ZR</RCVPRT>		
Receiver Info > Partner number	<RCVPRN>ZRDPL/RCVPRN>		
E10CLFM	Name of database table for object	<OBJTAB>MARA</OBJTAB>	MARA
	Key of object to be classified	<OBJEK>00000000000000045</OBJEK>	Value of field ProductId from PackagingFees API
	Class Type	<KLART>001</KLART>	0001
E1KSSKM	Indicator: Object/Class	<MAFID>0</MAFID>	Constant value = 0 (Object)
	Class	<CLASS>ZRDPL_ES_PLASTICTAX</CLASS>	ZRDPL_ES_PLASTICTAX
E1AUSPM	Characteristic Name	<ATNAM>ZRDPL_ES_EXEMPTION</ATNAM>	Sample value: ZRDPL_ES_EXEMPTION (value can be changed depending on characteristic name in Target System)
	Change Number	<AENNR>xxxxxxxxxxxx</AENNR>	Value shall be configured based on the created Change Number in the Target System
E1AUSPM[1]	Characteristic Value	<ATWRT>30</ATWRT>	Value of field ExemptionCode from PackagingFees API
	Characteristic Name	<ATNAM>ZRDPL_ES_PLASTIC</ATNAM>	Sample value: ZRDPL_ES_PLASTIC (value can be changed depending on characteristic name in Target System)
	Change Number	<AENNR>xxxxxxxxxxxx</AENNR>	Value shall be configured based on the created Change Number in the Target System
E1AUSPM[2]	Characteristic Value	<ATWRT>30</ATWRT>	Value of field WeightInKg from PackagingFees API
	Characteristic Name	<ATNAM>ZRDPL_ES_NONRECYCLED_PLASTIC</ATNAM>	Sample value: ZRDPL_ES_NONRECYCLED_PLASTIC (value can be changed depending on characteristic name in Target System)
	Change Number	<AENNR>xxxxxxxxxxxx</AENNR>	Value shall be configured based on the created Change Number in the Target System
E1DATEM	Characteristic Value	<ATWRT>30</ATWRT>	Value of field NonRecycledPlasticInKg from PackagingFees API
	Change Number	<AENNR>xxxxxxxxxxxx</AENNR>	Value shall be configured based on the created Change Number in the Target System

In the Material Classification the weight values are stored for 1 product (as quantity). During the conversion the weight values (PlasticWeightInKg and NonRecycledPlasticInKg) are divided by the Reference Quantity and then mapped to the ZRDPL\_ES\_PLASTIC and ZRDPL\_ES\_NONRECYCLED\_PLASTIC characteristics.

### Set additional replication filters for Material Classification

- MC Response Filter - this filter can be used to filter additionally the packaging fees data coming from SAP Responsible Design and Production for the Material Classification replication.
- MC Mapping – this property points to the desired message mapping that needs to be used for generating IDocs and allows custom message mappings to be used instead of the provided templates. By default, points to Material Classification template mapping from the package. This property accepts only the ID of the message mappings, and ID can be captured from the metadata of the artifact.
- SD Response Filter ZESP – this filter can be used to filter additionally the packaging fees data coming from SAP Responsible Design and Production for the Material Classification replication.
- SD Response Filter ZEST - this filter can be used to filter additionally the packaging fees data coming from SAP Responsible Design and Production for the Material Classification replication.
- Example: In case the main flow is set to replicate data for three different Report Categories, but only one is relevant for replication of data into Material Classification, required data for invoice printing.
- In case no filters are required, please set `/root/value`
- In case IDOC generation for SD Response Filter ZESP/ZEST or MC Response Filter must be skipped, please set `/root [value='excludeSubprocess']`

- SD Mapping ZESP/ZEST – this property points to the desired message mapping that needs to be used for generating IDocs and allows custom message mappings to be used instead of the provided templates. By default, points to the Sales and Distribution ZESP/ZEST template mapping from the package. This property accepts only the ID of the message mappings, and ID can be captured from the metadata of the artifact.

Configure "Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax"

Sender **More**

Type: All Parameters

MC Mapping: Material\_Classification\_Mapping

MC Response Filter: /root/value

SD Mapping ZESP: Sales\_And\_Distribution\_ZESP\_Mapping

SD Mapping ZEST: Sales\_And\_Distribution\_ZEST\_Mapping

SD Response Filter ZESP: /root/value

SD Response Filter ZEST: /root/value

Save Deploy Close

## Support for SAP S/4HANA Public Cloud

Before modifying the mapping for this integration flow, see [Access Report Documentation](#) and check the report documentation for Spain Plastic Packaging Tax, chapter **Prerequisite Activities for Spain Plastic Packaging Tax**.

**Important note:** To trigger the mapping integration flow Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax, configure the “Packaging Fee Extension Enabled” filter to be set to “true”. In case the filter is not set and the deploy is triggered for Spain Plastic Tax, the replication will fail with an error.

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
3. Click on “Configure” button (right-upper corner)
4. Open “More” tab
5. Set the flag “Packaging Fee Extension Enabled” to “true”
6. Set the flag “S/4HANA Public Cloud Integration Enabled” to “true”
7. Press “Save”

## Modify Sales and Distribution ZESP/ZEST Mapping for S/4HANA Public Cloud

The message mappings contain example mappings of the Packaging Fees REST API attributes to OData structure for SD pricing conditions with ZESP/ZEST condition type. Message mappings are dynamic, and integration flows can be configured to use custom message mappings. To use different from the default message mapping the ID from the metadata of the message mapping must be provided as configuration property.

## Modify Material Classification Mapping for S/4HANA Public Cloud

1. Open the **Sales and Distribution ZEST Mapping for S/4HANA Public Cloud** and **Sales and Distribution ZESP Mapping for S/4HANA Public Cloud**

The following values shall be modified in the relevant mappings if necessary:

- a. ConditionTable – the default table numbers are as follows: 004 – for Sales and Distribution with ZESP/ZEST condition type Pricing Conditions
- b. ConditionType – ZESP or ZEST.

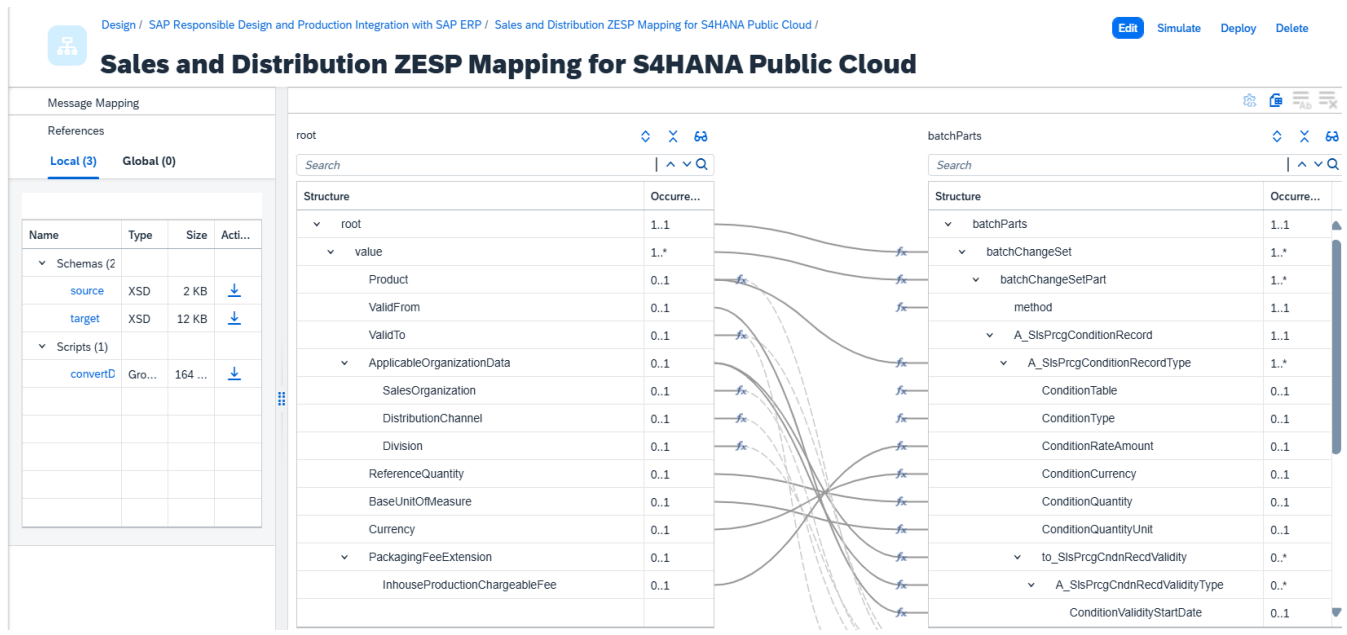
Note: If necessary, the table numbers and the condition type can be adjusted to your setup.

2. Open the and **Material Classification Mapping for S/4HANA Public Cloud**
  - a. The following field: SNDPRN should be modified in the Material Classification Mapping in order to use it for S/4HANA Public Cloud. Use

the logical name of the communication system SAP\_COM\_0149. The field should be configured based on the Communication System's Business System.

**Important:** If you have more than one scenario using the Material Classification Mapping, make sure to create a copy of the message mapping.

## Sales and Distribution ZESP Mapping for S4HANA Public Cloud



ODATA Segment Structure	System Fields	OData Field	Sample Value
Control Record	Method	<method>POST</method>	POST
	Condition Table	<ConditionTable>xxx</ConditionTable>	004
A_SisPrgConditionRecordType	Condition Type	<ConditionType>ZESP</ConditionType>	ZESP
	Condition Rate Amount	<ConditionRateAmount></ConditionRateAmount>	Value of filed InhouseProductionChargeableFee from PackagingFee Extension API
	Condition Currency	<ConditionCurrency></ConditionCurrency>	Value of filed Currency from PackagingFee API
	Condition Quantity	<ConditionQuantity></ConditionQuantity>	Value of filed ReferenceQuantity from PackagingFee API
	Condition Quantity Unit	<ConditionQuantityUnit></ConditionQuantityUnit>	Value of filed BaseUnitOfMeasure from PackagingFee API
A_SisPrgCndnRecdValidityType	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
	Material	<Material></Material>	Value of filed Product from PackagingFee API
	Division	<Division></Division>	Value of filed Division from PackagingFee API
	Sales Organization	<SalesOrganization></SalesOrganization>	Value of filed SalesOrganization from PackagingFee API
	Distribution Channel	<DistributionChannel></DistributionChannel>	Value of filed DistributionChannel from PackagingFee API

# Sales and Distribution ZEST Mapping for S4HANA Public Cloud

Design / SAP Responsible Design and Production Integration with SAP ERP / Sales and Distribution ZEST Mapping for S4HANA Public Cloud / Edit Simulate Deploy Delete

## Sales and Distribution ZEST Mapping for S4HANA Public Cloud

Message Mapping

References

Local (3) Global (0)

Name	Type	Size	Acti...
▼ Schemas (2)			
source	XSD	2 KB	↓
target	XSD	12 KB	↓
▼ Scripts (1)			
convertD	Gro...	164 ...	↓

ODATA Segment Structure	System Fields	ODATA Field	Sample Value
Control Record	Method	<method>POST</method>	POST
A_SisPrgcConditionRecdType	Condition Table	<ConditionTable>xxx</ConditionTable>	004
	Condition Type	<ConditionType>ZEST</ConditionType>	ZEST
	Condition Rate Amount	<ConditionRateAmount></ConditionRateAmount>	Value of filed InhouseProductionChargeableFee from PackagingFee Extension API
	Condition Currency	<ConditionCurrency></ConditionCurrency>	Value of filed Currency from PackagingFee API
	Condition Quantity	<ConditionQuantity></ConditionQuantity>	Value of filed ReferenceQuantity from PackagingFee API
A_SisPrgcCndnRecdValidityType	Condition Quantity Unit	<ConditionQuantityUnit></ConditionQuantityUnit>	Value of filed BaseUnitOfMeasure from PackagingFee API
	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
	Material	<Material></Material>	Value of filed Product from PackagingFee API
	Division	<Division></Division>	Value of filed Division from PackagingFee API
	Sales Organization	<SalesOrganization></SalesOrganization>	Value of filed SalesOrganization from PackagingFee API
	Distribution Channel	<DistributionChannel></DistributionChannel>	Value of filed DistributionChannel from PackagingFee API

# Material Classification Mapping for S4HANA Public Cloud

The screenshot shows the SAP Material Classification Mapping interface. On the left, there's a 'References' panel with a table of local and global references. The main area displays two message mapping structures: 'root' and 'CLFMAS02'. The 'root' structure includes fields like Product, ValidFrom, ValidTo, ReportConfiguration, ReportCategory, ReportCategoryCountry, ReportCategoryRegion, ApplicableOrganizationData, CompanyCode, SalesOrganization, DistributionChannel, Division, and ReferenceQuantity. The 'CLFMAS02' structure includes fields like @BEGIN, EDI\_DC40, @SEGMENT, TABNAM, DOCNUM, SERIAL, DIRECT, IDOCTYP, MESTYP, SNDPOR, SNDPRT, SNDPRN, and RCVPOR. Arrows indicate the mapping between these fields.

IDOC Segment	Structure	System Fields	iDoc Field	Sample Value
Control Record	Segment		<EDI DC40 SEGMENT="1">	1
	Table Name		<TABNAM>EDI DC40</TABNAM>	EDI DC40
	Document Number		<DOCNUM></DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field		<SERIAL></SERIAL>	timestamp + counter
	Direction		<DIRECT>2</DIRECT>	Constant value = 2 (Inbound)
	Basic Type		<IDOCTYP>CLFMAS02</IDOCTYP>	CLFMAS02
	Message Type		<MESTYP>CLFMAS</MESTYP>	CLFMAS
	Sender Info > Port		<SNDPOR>ZRDZ</SNDPOR>	
	Sender Info > Partner Type		<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number		<SNDPRN>SIDCLNTxxx</SNDPRN>	Value shall be configured by Customer depending on Target System.
Receiver Info > Port		<RCVPOR>ZRDZ</RCVPOR>	Value shall be configured by Customer depending on Target System.	
Receiver Info > Partner Type		<RCVPRT>ZR</RCVPRT>	Should be configured by the Communication System's Business System	
Receiver Info > Partner number		<RCVPRN>ZRDZ</RCVPRN>	Value shall be configured by Customer depending on Target System	
Name of database table for object		<OBJTAB>MARA</OBJTAB>	Value shall be configured by Customer depending on Target System	
E1OCLFM	Key of object to be classified		<OBJEK>00000000000000045</OBJEK>	MARA
	Class Type		<KLART>001</KLART>	Value of field Product from PackagingFees API
E1KSSKM	Indicator: Object/Class		<MAFID>O</MAFID>	0001
	Class		<CLASS>ZRDZ ES PLASTICTAX</CLASS>	Constant value = 0 (Object) ZRDZ ES PLASTICTAX
E1AUSPM	Characteristic Name		<ATNAM>ZRDZ ES EXEMPTION</ATNAM>	Sample value: ZRDZ ES EXEMPTION (value can be changed depending on characteristic name in Target System)
	Change Number		<AENNR>xxxxxxxxxxxx</AENNR>	Value shall be configured based on the created Change Number in the Target System
E1AUSPM[1]	Characteristic Value		<ATWRT>30</ATWRT>	Value of field ExemptionCode from PackagingFees API
	Change Number		<ATNAM>ZRDZ ES PLASTIC</ATNAM>	Value shall be configured based on the created Change Number in the Target System
E1AUSPM[2]	Characteristic Value		<ATWRT>30</ATWRT>	Value of field WeightInKg from PackagingFees API
	Change Number		<ATNAM>ZRDZ ES NONRECYCLED PLASTIC</ATNAM>	Sample value: ZRDZ ES_NONRECYCLED_PLASTIC (value can be changed depending on characteristic name in Target System)
E1DATEM	Characteristic Name		<AENNR>xxxxxxxxxxxx</AENNR>	Value shall be configured based on the created Change Number in the Target System
	Change Number		<ATWRT>30</ATWRT>	Value of field NonRecycledPlasticInKG from PackagingFees API

## Configure Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax to S/4HANA Public Cloud

Configure the integration flow Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging with the message mappings:

- Sales and Distribution ZEST Mapping for S/4HANA Public Cloud
- Sales and Distribution ZESP Mapping for S/4HANA Public Cloud

- Material Classification Mapping

## Configurations in SAP S/4HANA Public Cloud

The following steps need to be fulfilled:

1. Maintain the access sequence to the condition tables relevant for SAP Responsible Design and Production
2. Maintain Pricing Condition Type ZEST or ZESP in Sales

### Configure Send Pricing Condition Records to S/4HANA Public Cloud

#### Procedure:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Send Pricing Condition Records to S/4HANA Public Cloud integration flow
3. Click on “Configure” button (right-upper corner)
4. Open “Sender” tab and configure the address. The address should be the same as the one you configured in tab “Receiver” for “S4HANA\_PUBLIC\_CLOUD” in the main integration flow “Create Pricing Conditions and Material Classifications to SAP ERP”. For reference, see chapter for S/4HANA Public Cloud - **Setup and Configuration**: Connectivity Configuration Steps.
5. Open “Receiver” tab and configure the connectivity to your S/4HANA Public Cloud system.

Note: The configuration depends on how you set up the S/4HANA System and the CPI credentials. For reference, see chapter for S/4HANA Public Cloud - **Setup and Configuration**: Connectivity Configuration Steps.

Configure "Send Pricing Condition Records to S4HANA Public Cloud"

Sender Receiver

Sender: Sender

Adapter Type: ProcessDirect

Address: \*\*anonymized\*\*

Save Deploy Close

Configure "Send Pricing Condition Records to S4HANA Public Cloud"

Sender Receiver

Receiver: S4HANA\_SOAP\_API

Adapter Type: SOAP

Address: https://({Host SOAP API})/sap/bc/srt/IDoc

Host SOAP API: \*\*anonymized\*\*

Proxy Type: Internet

Authentication: Client Certificate

Private Key Alias: \*\*anonymized\*\*

Save Deploy Close

### Integrate Spain Plastic Tax into Existing Package

To integrate Spain Plastic Tax into your package, the main flow Create Pricing Conditions and Material Classifications to SAP ERP shall be copied.

For more information, see Important note in section Configure Mapping Extension Receiver.



## Configure Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging

Support for SAP ERP and SAP S/4HANA (On Premise)

Before modifying the mapping for this integration flow, see [Access Report Documentation](#) and check the report documentation for CONAI EPR report, chapter **Prerequisite Activities for CONAI EPR Report**.

**Important note:** To trigger the mapping integration flow Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging, configure the “CONAI Packaging Fee Extension Enabled” filter to be set to “TRUE”. In case the filter is not set and the deploy is triggered for CONAI Empty Packaging, the replication will fail with an error.

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
3. Click on “Configure” button (right-upper corner)
4. Open “More” tab
5. Set the flag “CONAI Packaging Fee Extension Enabled” to “TRUE”
6. Press “Save”

### Modify Sales And Distribution ZCON Mapping

The message mapping contains example mapping of the PackagingFees REST API attributes to iDoc structure for SD pricing conditions with ZCON condition type. Customer independent fees for sales order invoice (fee per tonne) from the API is replicated as KBETR.

### Modify Sales And Distribution ZESE Mapping

The message mapping contains example mapping of the PackagingFees REST API attributes to iDoc structure for SD pricing conditions with ZESE condition type. Customer dependent fees for sales order invoice (discount percentage) from the API is replicated as KBETR.

### Modify Material Management ZCON Mapping

The message mapping contains example mapping of the PackagingFees REST API attributes to iDoc structure for SD pricing conditions with ZCON condition type. Company code independent fees for purchase order invoice (fee per tonne) from the API is replicated as KBETR.

## Modify Material Management ZESE Mapping

The message mapping contains example mapping of the PackagingFees REST API attributes to iDoc structure for SD pricing conditions with ZESE condition type. Company code dependent fees for purchase order invoice (discount percentage) from the API is replicated as KBETR.

Modify the SD pricing conditions

See section “Modify Sales and Distribution Mapping and Material Management Mapping” in [Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow](#). The referenced section is applicable for Sales and Distribution for CONAI Empty Packaging, except for the value key generation logic, which described below:

### Value Key generation logic

The key is generated based on the order of the Organization and Master key fields of a pricing condition table. Keep in mind, Sales and Distribution can be customer independent or customer dependent.

Example for customer independent SD of condition type ZCON table A820 - value key is concatenate value of the below fields in the following order:

- c. Company code (IT99)
- d. material (21)

Example Value Key (VAKEY) value: IT990000000000000000021

Example for customer dependent SD of condition type ZESE table A971 - value key is concatenate value of the below fields in the following order:

- e. Company code (IT99)
- f. Customer (284)
- g. material (21)

Example Value Key (VAKEY) value: IT99000000028400000000000000021

**Note:** In case the values contain only numbers and are not the max length, zeros are added as prefix (example: material id=21, value would be 000000000000000021). In case the values contain both numbers and letters, and are not the max value, white spaces are added as suffix. For example: customer id= “CUST1”, value would be “CUST1 ”.

IDOC Segment Structure	System Fields	iDoc Field	Sample Value
Control Record	Segment	<EDL_DC40 SEGMENT="1">	1
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40
	Document Number	<DOCNUM></DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field	<SERIAL></SERIAL>	timestamp + counter
	Direction	<DIRECT>2</DIRECT>	Constant value = 2
	Basic Type	<IDOCTYP>COND_A05</IDOCTYP>	COND_A05
	Message Type	<MESTYP>COND_A</MESTYP>	COND_A
	Sender Info > Port	<SNDPOR>ZRDP</SNDPOR>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number	<SNDPRN>SIDCLNTxxx</SNDPRN>	Value shall be configured by Customer depending on Target System
	Receiver Info > Port	<RCVPOR>ZRDP</RCVPOR>	Value shall be configured by Customer depending on Target System
Receiver Info > Partner Type	<RCVPRT>ZR</RCVPRT>	Value shall be configured by Customer depending on Target System	
Receiver Info > Partner number	<RCVPRN>ZRDP</RCVPRN>	Value shall be configured by Customer depending on Target System	
E1KOMG	Material	<MATNR>xxx</MATNR>	Value of filed Product from PackagingFee API, sample value:21
	Value Key	<VAKEY>xxxxxxxxxxxxxxxxxxxxxxxx</VAKEY>	See value key generation logic Sample value: IT9900000000000000021
	Company Code	<BUKRS>xxx</BUKRS>	Value of filed CompanyCode from PackagingFee API, sample value:IT99
	Condition Type	<KSCHL>ZCON</KSCHL>	ZCON
	Usage of Condition Type	<KVEWE>A</KVEWE>	A
	Condition Table	<KOTABNR>820</KOTABNR>	820
E1KONH	Application	<KAPPL>V</KAPPL>	V
	Valid-From Date	<DATAB>xxx</DATAB>	Value of filed ValidForm Date from PackagingFee API
E1KONP	Valid-To Date	<DATBI>xxx</DATBI>	Value of filed ValidTo Date from PackagingFee API
	Condition Pricing Unit	<KPEIN>1</KPEIN>	1
	Condition Unit of Measure	<KMEIN>THE</KMEIN>	THE
	Condition Amount	<KBETR>xxx</KBETR>	Value of filed FeePerTonne from PackagingFee API
E1KONPT	Currency or Percentage	<KONWA>xxx</KONWA>	Value of filed Currency from PackagingFee API
	Language Code	<LAISO>IT</LAISO>	IT
	Product Hierarchy Description	<VTEXT>xxx</VTEXT>	Concatenate value of the below fields from PackagingFee API in the following order: 1. Value of filed packagingCode 2.(dash character) 3. Value of field reportFractionName Sample value:1-Steel

IDOC Segment Structure	System Fields	iDoc Field	Sample Value
Control Record	Segment	<EDI_DC40 SEGMENT="1">	1
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40
	Document Number	<DOCNUM></DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field	<SERIAL></SERIAL>	timestamp + counter
	Direction	<DIRECT>2</DIRECT>	Constant value = 2
	Basic Type	<IDOCTYP>COND_A05</IDOCTYP>	COND_A05
	Message Type	<MESTYP>COND_A</MESTYP>	COND_A
	Sender Info > Port	<SNDPOR>ZRDP</SNDPOR>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number	<SNDPRN>SIDCLNTxxx</SNDPRN>	Value shall be configured by Customer depending on Target System
	Receiver Info > Port	<RCVPOR>ZRDP</RCVPOR>	Value shall be configured by Customer depending on Target System
Receiver Info > Partner Type	<RCVPRT>ZR</RCVPRT>	Value shall be configured by Customer depending on Target System	
Receiver Info > Partner number	<RCVPRN>ZRDP</RCVPRN>	Value shall be configured by Customer depending on Target System	
E1KOMG	Material	<MATNR>xxx</MATNR>	Value of filed Product from PackagingFee API, sample value:21
	Customer	<KUNNR>xxx</KUNNR>	Value of filed Customer from PackagingFee API, sample value:CUST1
	Value Key	<VAKEY>xxxxxxxxxxxxxxxxxxxxxxxx</VAKEY>	See value key generation logic Sample value: IT990000002840000000000000021
	Company Code	<BUKRS>xxx</BUKRS>	Value of filed CompanyCode from PackagingFee API, sample value:IT99
	Condition Type	<KSCHL>ZESE</KSCHL>	ZESE
	Usage of Condition Type	<KVEWE>A</KVEWE>	A
E1KONH	Condition Table	<KOTABNR>971</KOTABNR>	971
	Application	<KAPPL>V</KAPPL>	V
E1KONP	Valid-From Date	<DATAB>xxx</DATAB>	Value of filed ValidForm Date from PackagingFee API
	Valid-To Date	<DATBI>xxx</DATBI>	Value of filed ValidTo Date from PackagingFee API
E1KONPT	Calculation Type of Condition	<KRECH>A</KRECH>	A
	Condition Amount	<KBETR>xxx</KBETR>	Value of filed exemptionPercent from PackagingFee API
E1KONPT	Language Code	<LAISO>IT</LAISO>	IT
	Product Hierarchy Description	<VTEXT>xxx</VTEXT>	Concatenate value of the below fields from PackagingFee API in the following order: 1. Value of filed packagingCode 2.(dash character) 3. Value of field reportFractionName Sample value:1-Steel

Modify the MM pricing conditions

See section “Modify Sales and Distribution Mapping and Material Management Mapping” in Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow. The referenced section is applicable for Material Management for CONAI Empty Packaging, except for the value key generation logic, which is described below:

**Value Key generation logic**

The key is generated based on the order of the Organization and Master key fields of a pricing condition table. Keep in mind, Material Management can be company code independent or company code dependent.

Example for company code independent/dependent MM of condition type ZCON/ZESE table A820 - value key is concatenate value of the below fields in the following order:

- h. Company code (IT99)
- i. material (21)

Example Value Key (VAKEY) value: IT99000000000000000021

Note: Supplier Support for CONAI Empty Packaging Material Management is not applicable.

IDOC Segment Structure	System Fields	iDoc Field	Sample Value
Control Record	Segment	<EDI_DC40 SEGMENT="1">	1
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40
	Document Number	<DOCNUM></DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field	<SERIAL></SERIAL>	timestamp + counter
	Direction	<DIRECT>2</DIRECT>	Constant value = 2
	Basic Type	<IDOCTYP>COND_A05</IDOCTYP>	COND_A05
	Message Type	<MESTYP>COND_A</MESTYP>	COND_A
	Sender Info > Port	<SNDPOR>ZRDP</SNDPOR>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number	<SNDPRN>SIDCLNTxxx</SNDPRN>	Value shall be configured by Customer depending on Target System
	Receiver Info > Port	<RCVPOR>ZRDP</RCVPOR>	Value shall be configured by Customer depending on Target System
	Receiver Info > Partner Type	<RCVPRT>ZR</RCVPRT>	Value shall be configured by Customer depending on Target System
Receiver Info > Partner number	<RCVPRN>ZRDP</RCVPRN>	Value shall be configured by Customer depending on Target System	
E1KOMG	Material	<MATNR>xxx</MATNR>	Value of filed Product from PackagingFee API, sample value:21 See value key generation logic Sample value: IT9900000000000000021
	Value Key	<VAKEY>xxxxxxxxxxxxxxxxxxxxxxxx</VAKEY>	
	Company Code	<BUKRS>xxx</BUKRS>	Value of filed CompanyCode from PackagingFee API, sample value:IT99
	Condition Type	<KSCHL>ZCON</KSCHL>	ZCON
	Usage of Condition Type	<KVEWE>A</KVEWE>	A
	Condition Table	<KOTABNR>820</KOTABNR>	820
E1KONH	Application	<KAPPL>V</KAPPL>	M
	Valid-From Date	<DATAB>xxx</DATAB>	Value of filed ValidForm Date from PackagingFee API
E1KONP	Valid-To Date	<DATBI>xxx</DATBI>	Value of filed ValidTo Date from PackagingFee API
	Condition Pricing Unit	<KPEIN>1</KPEIN>	1
	Condition Unit of Measure	<KMEIN>THE</KMEIN>	THE
	Condition Amount	<KBETR>xxx</KBETR>	Value of filed FeePerTonne from PackagingFee API
E1KONPT	Currency or Percentage	<KONWA>xxx</KONWA>	Value of filed Currency from PackagingFee API
	Language Code	<LAISO>IT</LAISO>	IT
	Product Hierarchy Description	<VTEXT>xxx</VTEXT>	Concatenate value of the below fields from PackagingFee API in the following order: 1. Value of filed packagingCode 2.(dash character) 3. Value of field reportFractionName Sample value:1-Steel

IDOC Segment Structure	System Fields	iDoc Field	Sample Value
Control Record	Segment	<EDI_DC40 SEGMENT="1">	1
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40
	Document Number	<DOCNUM></DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field	<SERIAL></SERIAL>	timestamp + counter
	Direction	<DIRECT>2</DIRECT>	Constant value = 2
	Basic Type	<IDOCTYP>COND_A05</IDOCTYP>	COND_A05
	Message Type	<MESTYP>COND_A</MESTYP>	COND_A
	Sender Info > Port	<SNDPOR>ZRDP</SNDPOR>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number	<SNDPRN>SIDCLNTxxx</SNDPRN>	Value shall be configured by Customer depending on Target System
	Receiver Info > Port	<RCVPOR>ZRDP</RCVPOR>	Value shall be configured by Customer depending on Target System
	Receiver Info > Partner Type	<RCVPRT>ZR</RCVPRT>	Value shall be configured by Customer depending on Target System
Receiver Info > Partner number	<RCVPRN>ZRDP</RCVPRN>	Value shall be configured by Customer depending on Target System	
E1KOMG	Material	<MATNR>xxx</MATNR>	Value of filed Product from PackagingFee API, sample value:21 See value key generation logic Sample value: IT9900000000000000021
	Value Key	<VAKEY>xxxxxxxxxxxxxxxxxxxxxxxx</VAKEY>	
	Company Code	<BUKRS>xxx</BUKRS>	Value of filed CompanyCode from PackagingFee API, sample value:IT99
	Condition Type	<KSCHL>ZESE</KSCHL>	ZESE
	Usage of Condition Type	<KVEWE>A</KVEWE>	A
	Condition Table	<KOTABNR>971</KOTABNR>	820
E1KONH	Application	<KAPPL>V</KAPPL>	M
	Valid-From Date	<DATAB>xxx</DATAB>	Value of filed ValidForm Date from PackagingFee API
E1KONP	Valid-To Date	<DATBI>xxx</DATBI>	Value of filed ValidTo Date from PackagingFee API
	Calculation Type of Condition	<KRECH>A</KRECH>	A
	Condition Amount	<KBETR>xxx</KBETR>	Value of filed exemptionPercent from PackagingFee API
	Language Code	<LAISO>IT</LAISO>	IT
E1KONPT	Product Hierarchy Description	<VTEXT>xxx</VTEXT>	Concatenate value of the below fields from PackagingFee API in the following order: 1. Value of filed packagingCode 2.(dash character) 3. Value of field reportFractionName Sample value:1-Steel

- Refer to section **Configure Responsible Design and Production Host** for configuration of host and credential name.

- SD/MM Response Filter - this filter can be used to filter additionally the packaging fees data coming from SAP Responsible Design and Production for the SD/MM replication. This filter is applicable for both condition types for Sales and Distribution and Material Management (ZCON and ZESE).
- Example: In case the main flow is set to replicate data for three different Report Categories, but only one is relevant for replication of data into SD/MM required data for invoice printing.
- In case no filters are required, please set */root/value*
- *In case IDOC generation for SD Response Filter or MM Response Filter must be skipped, please set /root [value='excludeSubprocess']*
- SD Mapping ZCON/ZESE – this property points to the desired message mapping that needs to be used for generating IDocs and allows custom message mappings to be used instead of the provided templates. By default, points to the Sales and Distribution ZCON/ZESE template mapping from the package. This property accepts only the ID of the message mappings, and ID can be captured from the metadata of the artifact.

Configure "Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging"

Sender Receiver **More**

Type:	All Parameters
MM Mapping ZCON:	Material_Management_ZCON_Mapping
MM Mapping ZESE:	Material_Management_ZESE_Mapping
MM Response Filter:	/root/value
SD Mapping ZCON:	Sales_and_Distribution_ZCON_Mapping
SD Mapping ZESE:	Sales_and_Distribution_ZESE_Mapping
SD Response Filter:	/root/value

Save Deploy Close

## Integrate CONAI Empty Packaging into Existing Package

To integrate CONAI Empty Packaging into your package, the main flow Create Pricing Conditions and Material Classifications to SAP ERP shall be copied.

For more information, see Important note in section Configure Mapping Extension Receiver.

#### Support for SAP S/4HANA Public Cloud

Before modifying the mapping for this integration flow, see [Access Report Documentation](#) and check the report documentation for CONAI EPR report, chapter **Prerequisite Activities for CONAI EPR Report**.

**Important note:** To trigger the mapping integration flow Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging, configure the “CONAI Packaging Fee Extension Enabled” filter to be set to “TRUE”. In case the filter is not set and the deploy is triggered for CONAI Empty Packaging, the replication will fail with an error.

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Create Pricing Conditions and Material Classifications to SAP ERP integration flow
3. Click on “Configure” button (right-upper corner)
4. Go to the “Receiver” tab and select “S4HANA\_PUBLIC\_CLOUD”
5. In field “Address” add the address of the integration flow Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging.
6. Open “More” tab
7. Set the flag “CONAI Packaging Fee Extension Enabled” to “TRUE”
8. Set the flag “S/4HANA Public Cloud Integration Enabled” to “TRUE”
9. Press “Save”

## Modify Sales and Distribution ZCON/ZESE and Material Management Mapping ZCON/ZESE for S/4HANA Public Cloud

The message mappings contain example mappings of the Packaging Fees REST API attributes to OData structure for SD and MM pricing conditions. Message mappings are dynamic, and IFlow can be configured to use custom Message Mappings. To use different from the default Message Mapping the ID from the Metadata of the message mapping must be provided as configuration property.

- a. Open the **Sales and Distribution ZCON Mapping for S/4HANA Public Cloud, Sales and Distribution ZESE Mapping for S/4HANA Public Cloud, Material Management ZCON Mapping for S/4HANA Public Cloud and Material Management ZESE Mapping for S/4HANA Public Cloud**
- b. The following values shall be modified in the relevant mappings if necessary:
  - b. ConditionTable – the default table numbers are as follows:
    - i. 004 – for Sales and Distribution with ZCON condition type Pricing Conditions
    - ii. 005 – for Sales and Distribution with ZESE condition type Pricing Conditions
    - iii. 820 – for Material Management with ZCON or ZESE condition type Pricing Conditions
  - c. ConditionType – ZCON (for customer independent pricing conditions) or ZESE (for company code dependent pricing conditions).

Note: If necessary, the table numbers and the condition type can be adjusted to your setup.

### **Sales And Distribution ZCON Mapping for S/4HANA Public Cloud**





## Sales and Distribution ZCON Mapping for S4HANA Public Cloud

Message Mapping

References

Local (3) Global (0)

Name	Type	Size	Acti...
source	XSD	2 KB	<a href="#">↓</a>
target	XSD	13 KB	<a href="#">↓</a>
convert	Gro...	164...	<a href="#">↓</a>

root

Structure	Occure...
root	1..1
value	1..*
Product	0..1
ValidFrom	0..1
ValidTo	0..1
ApplicableOrganizationData	0..1
CONAIIPackagingFeeExtension	0..1
Currency	0..1

batchParts

Structure	Occure...
batchParts	1..1
batchChangeSet	1..*
batchChangeSetPart	1..*
method	1..1
A_SisPrgConditionRecord	1..1
A_SisPrgConditionRecordType	1..*
ConditionTable	0..1
ConditionType	0..1
ConditionRateAmount	0..1

Mapping Expression Parameters

Test Input File: [Upload test file](#) [Browse](#)

ODATA Segment Structure	System Fields	OData Field	Sample Value
Control Record	Method	<method>POST</method>	POST
A_SisPrgConditionRecordType	Condition Table	<ConditionTable>xxx</ConditionTable>	004
	Condition Type	<ConditionType>ZCON</ConditionType>	ZCON
	Condition Rate Amount	<ConditionRateAmount></ConditionRateAmount>	Value of filed FeePerTonne from PackagingFee API
	Condition Currency	<ConditionCurrency></ConditionCurrency>	Value of filed Currency from PackagingFee API
	Condition Quantity	<ConditionQuantity>1</ConditionQuantity>	1
	Condition Quantity Unit	<ConditionQuantityUnit>TO</ConditionQuantityUnit>	TO
A_SisPrgCndnRecdValidityType	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
	Material	<Material></Material>	Value of filed Product from PackagingFee API
	Division	<Division></Division>	Value of filed Division from PackagingFee API
A_SisPrgConditionRecordTextType	Sales Organization	<SalesOrganization></SalesOrganization>	Value of filed SalesOrganization from PackagingFee API
	Distribution Channel	<DistributionChannel></DistributionChannel>	Value of filed DistributionChannel from PackagingFee API
	Language	<Language>IT</Language>	IT
	ConditionText	<ConditionText></ConditionText>	Concatenate value of the below fields from PackagingFee API in the following order: 1. Value of filed packagingCode 2. - (dash character) 3. Value of field reportFractionName Sample value:1-Steel

## Sales And Distribution ZESE Mapping for S/4HANA Public Cloud

Design / SAP Responsible Design and Production Integration with SAP ERP / Sales and Distribution ZESE Mapping for S4HANA Public Cloud

**Sales and Distribution ZESE Mapping for S4HANA Public Cloud**

Message Mapping

References: Local (3) Global (0)

Name	Type	Size	Acti...
source	XSD	2 KB	↓
targetSD	XSD	13 KB	↓
convert	Gro...	167...	↓

Mapping Expression Parameters

Test Input File: Upload test file [Browse](#)

ODATA Segment Structure	System Fields	OData Field	Sample Value
Control Record	Method	<method>POST</method>	POST
A_SlsPrcgConditionRecordType	Condition Table	<ConditionTable>xxx</ConditionTable>	005
	Condition Type	<ConditionType>ZESE</ConditionType>	ZESE
	Condition Rate Value	<ConditionRateValue></ConditionRateValue>	Value of filed exemptionPercent from PackagingFee API
	Condition Rate Value Unit	<ConditionRateValueUnit>%</ConditionRateValueUnit>	%
	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
A_SlsPrcgCndnRecdValidityType	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
	Material	<Material></Material>	Value of filed Product from PackagingFee API
	Division	<Division></Division>	Value of filed Division from PackagingFee API
	Sales Organization	<SalesOrganization></SalesOrganization>	Value of filed SalesOrganization from PackagingFee API
	Distribution Channel	<DistributionChannel></DistributionChannel>	Value of filed DistributionChannel from PackagingFee API
A_SlsPrcgConditionRecordTextType	Customer	<Customer></Customer>	Value of filed Customer from PackagingFee API
	Language	<Language>IT</Language>	IT
	ConditionText	<ConditionText></ConditionText>	Concatenate value of the below fields from PackagingFee API in the following order: 1. Value of filed packagingCode 2. - (dash character) 3. Value of field reportFractionName Sample value:1-Steel

## Material Management ZCON Mapping for S/4HANA Public Cloud

## Material Management ZCON Mapping for S4HANA Public Cloud

Message Mapping

References

Local (3) Global (0)

Name	Type	Size	Acti...
source	XSD	2 KB	<a href="#">↓</a>
target	XSD	10 KB	<a href="#">↓</a>
convert	Gro...	164...	<a href="#">↓</a>

Mapping Expression Parameters

Test Input File:  [Browse](#)

ODATA Segment Structure	System Fields	OData Field	Sample Value
Control Record	Method	<method>POST</method>	POST
	Condition Table	<ConditionTable>xxx</ConditionTable>	840
	Condition Type	<ConditionType>ZCON</ConditionType>	ZCON
A_PurgPrgConditionRecordType	Condition Rate Value	<ConditionRateValue></ConditionRateAmount>	Value of filed FeePerTonne from PackagingFee API
	Condition Rate Value Unit	<ConditionRateValueUnit></ConditionRateValueUnit>	Value of filed Currency from PackagingFee API
	Condition Quantity	<ConditionQuantity>1</ConditionQuantity>	1
	Condition Quantity Unit	<ConditionQuantityUnit>TO</ConditionQuantityUnit>	TO
	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
A_PurgPrgCndnRecdValidityType	Material	<Material></Material>	Value of filed Product from PackagingFee API
	Company Code	<CompanyCode></CompanyCode>	Value of filed Company Code from PackagingFee API
	Purchasing Organization	<PurchasingOrganization></PurchasingOrganization>	Value of filed Company Code from PackagingFee API
	Purchasing Info Record Category	<PurchasingInfoRecordCategory>0</PurchasingInfoRecordCategory>	0

## Material Management ZESE Mapping for S/4HANA Public Cloud

## Material Management ZESE Mapping for S4HANA Public Cloud

Message Mapping

References

Local (3) Global (0)

Name	Type	Size	Acti...
source	XSD	2 KB	<a href="#">↓</a>
target	XSD	9 KB	<a href="#">↓</a>
convert	Gro...	164...	<a href="#">↓</a>

ODATA Segment Structure	System Fields	OData Field	Sample Value
Control Record	Method	<method>POST</method>	POST
A_PurgPrgcConditionRecordType	Condition Table	<ConditionTable>xxx</ConditionTable>	840
	Condition Type	<ConditionType>ZESE</ConditionType>	ZESE
	Condition Rate Value	<ConditionRateValue></ConditionRateAmount>	Value of filed exemptionPercent from PackagingFee API
	Condition Rate Value Unit	<ConditionRateValueUnit>%</ConditionRateValueUnit>	%
A_PurgPrgcCndnRecdValidityType	Condition Validity Start Date	<ConditionValidityStartDate></ConditionValidityStartDate>	Value of filed ValidFrom from PackagingFee API
	Condition Validity End Date	<ConditionValidityEndDate></ConditionValidityEndDate>	Value of filed ValidTo from PackagingFee API
	Material	<Material></Material>	Value of filed Product from PackagingFee API
	Company Code	<CompanyCode></CompanyCode>	Value of filed Company Code from PackagingFee API
	Purchasing Organization	<PurchasingOrganization></PurchasingOrganization>	Value of filed Company Code from PackagingFee API
	Purchasing Info Record Category	<PurchasingInfoRecordCategory>0</PurchasingInfoRecordCategory>	0

## Configure Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging

Configure the integration flow Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging with the message mappings:

- Sales and Distribution ZCON Mapping for S/4HANA Public Cloud
- Sales and Distribution ZESE Mapping for S/4HANA Public Cloud
- Material Management ZCON Mapping for S/4HANA Public Cloud
- Material Management ZESE Mapping for S/4HANA Public Cloud

## Configurations in SAP S/4HANA Public Cloud

The following steps need to be fulfilled:

3. Maintain the access sequence to the condition tables relevant for SAP Responsible Design and Production
4. Maintain Pricing Condition Type ZCON or ZESE in Sales and in Purchasing

## Configure Send Pricing Condition Records to S/4HANA Public Cloud

This integration flow supports sending of OData messages to S/4HANA Public Cloud systems.

### Procedure:

6. Go to SAP Responsible Design and Production Integration with SAP ERP package
7. Open the Send Pricing Condition Records to S/4HANA Public Cloud integration flow
8. Click on “Configure” button (right-upper corner)
9. Open “Sender” tab and configure the address. The address should be the same as the one you configured in tab “Receiver” for “S4HANA\_PUBLIC\_CLOUD” in the main integration flow “Create Pricing Conditions and Material

Classifications to SAP ERP”. For reference, see chapter for S/4HANA Public Cloud - **Setup and Configuration**: Connectivity Configuration Steps.

10. Open “Receiver” tab and configure the connectivity to your S/4HANA Public Cloud system

Note: The configuration depends on how you set up the S/4HANA System and the CPI credentials. For reference, see chapter for S/4HANA Public Cloud - **Setup and Configuration**: Connectivity Configuration Steps.

Configure "Send Pricing Condition Records to S4HANA Public Cloud"

Sender Receiver

Connection

Sender: Sender

Adapter Type: ProcessDirect

Address: \*\*anonymized\*\*

Save Deploy Close

Configure "Send Pricing Condition Records to S4HANA Public Cloud"

Sender Receiver

Connection

Receiver: S4HANA\_API

Adapter Type: HCIOData

Address: https://{Host}/sap/opu/odata/sap/\$[header.api]

Host: \*\*anonymized\*\*

Proxy Type: Internet

Authentication: Client Certificate

Private Key Alias: \*\*anonymized\*\*

CSRF Protected:

Reuse Connection:

Save Deploy Close

## Integrate CONAI Empty Packaging into Existing Package

To integrate CONAI Empty Packaging into your package, the main flow Create Pricing Conditions and Material Classifications to SAP ERP shall be copied.

For more information, see Important note in section Configure Mapping Extension Receiver.

## Configure Extended Producer Responsibility Reports with support for customer roles

### Support for SAP ERP and SAP S/4HANA (On Premise)

The goal of this supported scenario is to allow the option to replicate packaging fees that are supported in SAP Responsible Design and Production and have a customer role. Replication of customer roles is used for the identification and creation of the correct customer role and product-based sales and distribution pricing condition.

### Configurations in SAP ERP

The following steps need to be fulfilled:

5. Create a new custom SD pricing condition table with the following key attributes:
  - Sales Organization (VKORG)
  - Distribution Channel (VTWEG)
  - Material (MATNR)
  - Condition Group 1 (KDKG1)

Example condition table with a sample value (801):

Table Number  Sales Org./Distr. Chl/Material/CondGrp 1

with Validity Period

with Release Status

**Selected Fields**

Description	Technical Name	Global Field Name
Sales Organization	VKORG	SalesOrganization
Distribution Channel	VTWEG	DistributionChannel
Material	MATNR	Material
Condition Group 1	KDKG1	

6. Maintain the access to the created condition table in the Access Sequence relevant for SAP Responsible Design and Production:
  - Maintain an access position before the Material table (sample value of Material table: 004)
  - Check the “Exclusive” flag

Access Sequence  RDP Material and Customer Role

**Accesses**

No.	Table	Description	Requirement	Exclusive
10	801	Sales Org./Distr. Chl/Material/CondGrp 1	0	<input checked="" type="checkbox"/>
20	004	Material	0	<input type="checkbox"/>

7. Maintain the number of the new pricing condition table in SAP Cloud Integration for artifact Sales and Distribution Mapping with support for Customer Role dependent pricing conditions. You can do that by setting the number of the condition table in the IDoc field E1KOMG → KOTABNR. For more information, see screenshot in section [Sales and Distribution Mapping with support for Customer Role dependent Pricing Conditions](#).
8. If the Condition Group 1 is already used in other scenarios, you can use other Condition Group fields or any other Customer Master Data field. In this case, you need to configure accordingly:
  - the fields of the condition table
  - the artifact Sales and Distribution Mapping with support for Customer Role dependent pricing conditions. You need to maintain which Customer Master field to use to store the roles.
9. Maintain the following Condition Groups:
  - Z1 - END\_CONSUM
  - Z2 - HORECA
  - Z3 - HOSPITAL
  - Z4 - PROF\_CUSTM
  - Z5 - RETAILER

## Configurations in SAP Cloud Integration

Use cases when configuring Extended Producer Responsibility Reports with support for customer roles:

1. In case you already have existing setup for Extended Producer Responsibility Reports, you need to:
  - Configure the artifact Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility by setting the SD mapping to Sales and Distribution Mapping with support for Customer Role Dependent Pricing Conditions.
  - Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP by setting the filter “Include Customer Role Dependent Fees” to “true”.
  - Deploy the required artifact following the deployment order described in the section [“Supported Scenarios”](#) for Extended Producer Responsibility Reports with support for customer roles. For more information about the supported artifacts, read the section below.
2. In case you set up the replication for Extended Producer Responsibility Reports for the first time, read the section below and refer to section [“Supported Scenarios”](#) for Extended Producer Responsibility Reports with support for customer roles when deploying the required artifacts.



## SAP Responsible Design and Production Value Mapping

The artifact provides mapping between SAP Responsible Design and Production customer roles and double-digit Customer Condition Group codes that will be populated in SAP ERP Customer Master Data and in the respective pricing conditions records.

### Bi-Directional Mapping:

- Source Agency: SAP Responsible Design and Production
- Source Identifier: Customer Role
- Target Agency: SAP ERP
- Target Identifier: Customer Condition Group

### Default Mapping:

END\_CONSUM=Z1, HORECA=Z2, HOSPITAL=Z3, PROF\_CUSTM=Z4, RETAILER=Z5

For more information see [Customer Role | SAP Help Portal](#).

### Procedure:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the SAP Responsible Design and Production Value Mapping
3. Click on “Configure” button (right-upper corner)
4. Add roles if applicable
5. Deploy the artifact

Integrations and APIs / SAP Responsible Design and Production Integration with SAP ERP / SAP Responsible Design and Production Value Mapping / Edit Deploy Delete

### SAP Responsible Design and Production Value Mapping

Bi-Directional Mapping

Agency	Identifier	↔	Agency	Identifier	State
SAP Responsible Design and Production	Customer Role	↔	SAP ERP	Customer Condition Group	

Value Mappings: Default Values:

Value Mappings for

SAP Responsible Des... , Customer Role	↔	SAP ERP, Customer Condition Group
END_CONSUM	↔	Z1
HORECA	↔	Z2
HOSPITAL	↔	Z3
PROF_CUSTM	↔	Z4
RETAILER	↔	Z5

Usage:  
 ValueMap (Source agency, Source identifier, Source value, Target agency, Target identifier) = Target value;  
 Example:  
 ValueMap (SAP Responsible Design and Production, Customer Role, END\_CONSUM, SAP ERP, Customer Condition Group) = Z1;  
 ValueMap (SAP ERP, Customer Condition Group, Z1, SAP Responsible Design and Production, Customer Role) = END\_CONSUM;

**Important note:** If a role mapping cannot be found for any given customer role record, it will be skipped and not send to SAP ERP. Additionally, a warning message will be attached to the Message Processing Log, see a sample message below:

*No role mappings were found for the following customer roles: <unknownCustomerRoles>.*

*Please make sure all the replicated roles are mapped. Open SAP Responsible Design and Production Value Mapping, choose Configure, add the desired roles, and deploy the artifact.*

**Logs** [Open Text View](#)

Log Level: Info  
Instance ID: 0

**Attachments**

Entries (1)

Name	Type	Modified At	Size
<a href="#">Warning - Unknown Customer Roles found during mapping</a>	text/plain	Sep 11, 2024, 16:17:47	1 KB <a href="#">↓</a>

## Material Management Mapping

See section “Modify Sales and Distribution Mapping and Material Management Mapping” in Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow.

## Customer Roles Mapping

The message mapping contains template mapping for customer roles replicated from SAP Responsible Design and Production Customer Roles API to SAP ERP Customer Master Data.

IDOC Segment Structure	System Fields	iDoc Field	Sample Value
Control Record	Segment	<EDI_DC40 SEGMENT="1">	1
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40
	Document Number	<DOCNUM></DOCNUM>	timestamp + counter
	EDI/ALE: Serialization field	<SERIAL></SERIAL>	timestamp + counter
	Direction	<DIRECT>2</DIRECT>	Constant value = 2
	Basic Type	<IDOCTYP>DEBMAS01</IDOCTYP>	DEBMAS01
	Message Type	<MESTYP>DEBMAS</MESTYP>	DEBMAS
	Sender Info > Port	<SNDPOR>ZRDP</SNDPOR>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Sender Info > Partner number	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System
	Receiver Info > Port	<RCVPOR>ZRDP</RCVPOR>	Value shall be configured by Customer depending on Target System
	Receiver Info > Partner Type	<RCVPRT>ZRDP</RCVPRT>	Value shall be configured by Customer depending on Target System
Receiver Info > Partner number	<RCVPRN>ZRDP</RCVPRN>	Value shall be configured by Customer depending on Target System	
E1KNA1M	Customer	<KUNNR>xxx</KUNNR>	Customer
	Condition Group 1 Code	<KDKG1>xx</KDKG1>	The double-digits code for the role attribute value. To be read from SAP Responsible Design and Production Value Mapping
	Additional fields that should not be modified	<*></*>	Value indicating no changes: /

**WARNING:** If new columns are added to the Customer Master Data structure, they must be added in the mapping with a default value “/” to avoid overwriting them during customer role replication.

Sales And Distribution Mapping with support for Customer Role dependent Pricing Conditions

The message mapping contains template mapping with support for customer role dependent Sales and Distribution pricing conditions.

**Value Key generation logic**

For value key generation logic for customer role independent pricing conditions, refer to section Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports mapping flow.

For value key generation logic for customer role dependent pricing conditions, see the explanation below. The key is generated based on the order of the Organization and Master key fields of a pricing condition table. Example for SD table (sample table number: A801) - value key is concatenated value of the below fields in the following order:

- d. sales org (STBL)
- e. distribution channel (10)
- f. material (21)
- g. Condition Group 1 Code (2)

Example Value Key (VAKEY) value: STBL1000000000000000002106

IDOC Segment Structure	System Fields	iDoc Field	Sample Value	
Control Record	Segment	<EDI_DC40 SEGMENT="1">	1	
	Table Name	<TABNAM>EDI_DC40</TABNAM>	EDI_DC40	
	Document Number	<DOCNUM></DOCNUM>	timestamp + counter	
	EDI/ALE: Serialization field	<SERIAL></SERIAL>	timestamp + counter	
	Direction	<DIRECT>2</DIRECT>	Constant value = 2	
	Basic Type	<IDOCTYP>COND_A05</IDOCTYP>	COND_A05	
	Message Type	<MESTYP>COND_A</MESTYP>	COND_A	
	Sender Info > Port	<SNDPOR>ZRDP</SNDPOR>	Value shall be configured by Customer depending on Target System	
	Sender Info > Partner Type	<SNDPRT>LS</SNDPRT>	Value shall be configured by Customer depending on Target System	
	Sender Info > Partner number	<SNDPRN>SIDCLNTxxx</SNDPRN>	Value shall be configured by Customer depending on Target System	
	Receiver Info > Port	<RCVPOR>ZRDP</RCVPOR>	Value shall be configured by Customer depending on Target System	
	Receiver Info > Partner Type	<RCVPRT>ZR</RCVPRT>	Value shall be configured by Customer depending on Target System	
	Receiver Info > Partner number	<RCVPRN>ZRDP</RCVPRN>	Value shall be configured by Customer depending on Target System	
	E1K0MG	Material	<MATNR>xxx</MATNR>	Value of filed Product from PackagingFee API, sample value:21
Value Key		<VAKEY>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</VAKEY>	See value key generation logic Sample value for customer role independent pricing condition:STBL10000000000000000021 Sample value for customer role dependent pricing condition:STBL1000000000000000002106	
Report Category Country		<LAND1>xxx</LAND1>	Value of filed Report Category Country from PackagingFee API	
Report Category Region		<RAGIO>xxx</RAGIO>	Value of filed Report Category Region from PackagingFee API	
Company Code		<BUKRS>xxx</BUKRS>	Value of filed CompanyCode from PackagingFee API, sample value:IT99	
Sales Organization		<VKORG>xxx</VKORG>	Value of filed Sales Organization from PackagingFee API	
Distribution Channel		<VTWEG>xxx</VTWEG>	Value of filed Distribution Channel from PackagingFee API	
Division		<SPART>xxx</SPART>	Value of filed Division from PackagingFee API	
Condition Type		<KSCHL>Zxxx</KSCHL>	ZCRC	
Usage of Condition Type		<KVEWE>A</KVEWE>	A	
Condition Table		<KOTABNR>xxx</KOTABNR>	This filed has two placeholders - a top and a bottom one. For customer role independent pricing conditions, configure the top placeholder with one table (for example: 004). For the customer role dependent pricing conditions, configure the lower placeholder with a different table (for example:801)	
Application		<KAPPL>V</KAPPL>	V	
E1KONH		Valid-From Date	<DATAB>xxx</DATAB>	Value of filed ValidForm Date from PackagingFee API
		Valid-To Date	<DATBI>xxx</DATBI>	Value of filed ValidTo Date from PackagingFee API
E1KONP	Condition Pricing Unit	<KPEIN>xxx</KPEIN>	Value of filed Reference Quantity from PackagingFee API	
	Condition Unit	<KMEIN>xxx</KMEIN>	Value of filed Base unit of measure ISO Code from PackagingFee API	
	Rate (condition amount or percentage)	<KBETR>xxx</KBETR>	Value of filed TotalFee from PackagingFee API	
	Rate unit (currency or percentage)	<KONWA>xxx</KONWA>	Value of filed Currency from PackagingFee API	

## Send IDocs to SAP ERP Systems

This integration flow supports sending and filtering of IDocs to one or multiple ERP systems.

### Procedure:

11. Go to SAP Responsible Design and Production Integration with SAP ERP package
12. Open the Send IDocs to SAP ERP Systems integration flow
13. Click on “Configure” button (right-upper corner)
14. Open “Sender” tab and configure the address
15. Open “More” tab

Configure the integration flow properties with a comma separated list of values for each ERP system to which the IDocs should be sent. The following properties are mandatory: *clients*, *credential names* and *hosts* for each ERP system. For each mandatory property, a non-empty value must be provided. If for any optional property a value for a given system is not needed, it should be kept blank but still separated by commas.

Example: *filter1,,filter2* would mean no filter for the second system.

Property	Description	Requirement	Sample value
Hosts	ERP system hosts in format <i>host:port/path</i>	Mandatory	Host1
Clients	ERP clients	Mandatory	Client1
Credential Names	ERP system credentials name as configured in CPI Security Materials	Mandatory	CredentialName1
IDoc Filters	XPath expressions to filter the IDocs	Optional	/ROOT/IDOC[E1KOMG/CONTEXT = 'SystemGroup1' and EDI_DC40/SNDPRN = 'ERPclient1'],
Location IDs	The Location ID can be specified to identify the correct connector in case multiple Cloud Connectors are used in the CPI instance	Optional	Location1, Location2

**Note:** In the example cases listed above, the integration flow will be configured with Host1 and CredentialName1, and will apply the filter /ROOT/IDOC[E1KOMG/CONTEXT = 'SystemGroup1' and EDI\_DC40/SNDPRN = 'ERPclient1'] with Location1.

## 16. Press “Save”

### Logs

[Open Text View](#)

Log Level: Info  
Instance ID: 0

### Attachments

Entries (1)

Name	Type	Modified At	Size
<a href="#">Warning - Sending skipped to some ERP systems</a>	text/plain	Sep 11, 2024, 14:25:25	1 KB <a href="#">↓</a>

Log [Warning - Sending skipped to some ERP systems](#)

```
Sending to some ERP systems was skipped due to missing configurations.
Please make sure all required properties are properly configured.
For each required property [hosts, clients, credentialNames] a non-empty value must be provided.
For sending to multiple systems, separate each value with commas and make sure the count of values for each required property matches.

Example Configurations:

Single ERP System:
hosts: host1
clients: 001
credentialNames: name1

Multiple ERP Systems:
hosts: host1,host2,host3
clients: 001,002,003
credentialNames: name1,name2,name3
```

Configure "Send IDocs to SAP ERP Systems"

Sender **More**

Type: All Parameters

Clients: \*\*anonymized\*\*

Credential Names: \*\*anonymized\*\*

Hosts: \*\*anonymized\*\*

IDoc Filters:

Location IDs:

**Save** Deploy Close

**Maintain Customer Roles in SAP ERP**

This integration flow supports scheduled replication of customer roles in SAP ERP.

**Procedure:**

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Maintain Customer Roles in SAP ERP integration flow
3. Click on "Configure" button (right-upper corner)
4. Open "Receiver" tab and configure the following CPI receivers:
  - SAP\_Responsible\_Design\_and\_Production - connectivity to SAP Responsible Design and Production Customer Roles API
  - Send\_IDocs\_to\_SAP\_ERP\_Systems - the ERP flow address to use for sending IDocs to SAP ERP systems
5. Open "More" tab and configure the following properties according to the table below:

Property	Default Value	Description
Customer Roles Filter		List of separated by comma roles for which information from the SAP Responsible Design and Production Customer Roles API is taken. For more information about the customer role values, see <a href="#">Customer Role   SAP Help Portal</a> .

		If this filter is not maintained, all customer roles will be taken in account.
Customers Roles Mapping	Customer_Roles_Mapping	Used for mapping of Customer Roles to SAP ERP Customer Master Data
Max Message Batch Size	250	Maximum number of records to be inserted in each SAP ERP or SAP S/4 HANA system in a single batch.

6. Press “Save”

**Note:** The integration flow Maintain Customer Roles in SAP ERP also contains NextLink and DeltaLink datastore handling process. For more information, see section Full and Delta replication.

Configure "Maintain Customer Roles in SAP ERP"

Timer Receiver **More**

Type: All Parameters

Customer Roles Filter:

Customer Roles Mapping: Customer\_Roles\_Mapping

Max IDoc Batch Size: 250

Save Deploy Close

Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports

See section “Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow”. Configure the artifact Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility with Sales and Distribution Mapping with support for Customer Role dependent Pricing Conditions.

## Create Pricing Conditions and Material Classifications to SAP ERP

See section Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow. Configure the main integration flow Create Pricing Conditions and Material Classifications to SAP ERP with the filter “Include Customer Role Dependent Fees” set to “true” to enable inclusion of customer role dependent fees from SAP Responsible Design and Production Packaging Fee API.

Configure "Create Pricing Conditions and Material Classifications to SAP ERP"

Timer Receiver **More**

Type:	All Parameters
CONAI Packaging Fee Extension...:	false
Context:	
Context Prefix Enabled:	false
Include Customer Role Depend... :	true
Multiple Systems Extension:	false
Packaging Fee Extension Enabled:	true
Page Size:	500
Report Category:	
Report Configuration:	**anonymized**
Report Country:	
Splitter Batch Size:	250
Suppliers Enabled:	false

Save Deploy Close

## Support for SAP S/4HANA Public Cloud

This scenario supports the creation of customer role dependent pricing conditions in SAP S/4HANA Public Cloud.

## Configurations in SAP S/4HANA Cloud

The following steps need to be fulfilled:

1. Maintain the access sequence to the condition tables relevant for SAP Responsible Design and Production.
2. Maintain Pricing Condition Type ZRDP in Sales.



## Configurations in SAP Cloud Integration

### SAP Responsible Design and Production Value Mapping

The artifact provides mapping between SAP Responsible Design and Production customer roles and double-digit Customer Condition Group codes that will be populated in SAP ERP Customer Master Data and in the respective pricing conditions records.

#### **Bi-Directional Mapping:**

- Source Agency: SAP Responsible Design and Production
- Source Identifier: Customer Role
- Target Agency: SAP ERP
- Target Identifier: Customer Condition Group

#### **Default Mapping:**

END\_CONSUM=Z1, HORECA=Z2, HOSPITAL=Z3, PROF\_CUSTM=Z4, RETAILER=Z5

For more information see [Customer Role | SAP Help Portal](#).

#### Procedure:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the SAP Responsible Design and Production Value Mapping
3. Click on “Configure” button (right-upper corner)
4. Add roles if applicable
5. Deploy the artifact



## SAP Responsible Design and Production Value Mapping

Bi-Directional Mapping Search

Agency	Identifier	↔	Agency	Identifier	State
SAP Responsible Design and Production	Customer Role	↔	SAP ERP	Customer Condition Group	

Value Mappings: Default Values:

Value Mappings for Search

SAP Responsible Des... , Customer Role	↔	SAP ERP, Customer Condition Group
END_CONSUM	↔	Z1
HORECA	↔	Z2
HOSPITAL	↔	Z3
PROF_CUSTM	↔	Z4
RETAILER	↔	Z5

**Usage:**  
ValueMap (Source agency, Source Identifier, Source value, Target agency, Target Identifier) = Target value;  
Example:  
ValueMap (SAP Responsible Design and Production, Customer Role, END\_CONSUM, SAP ERP, Customer Condition Group) = Z1;  
ValueMap (SAP ERP, Customer Condition Group, Z1, SAP Responsible Design and Production, Customer Role) = END\_CONSUM;

**Important note:** If a role mapping cannot be found for any given customer role record, it will be skipped and not sent to SAP ERP. Additionally, a warning message will be attached to the Message Processing Log, see a sample message below:

*No role mappings were found for the following customer roles: <unknownCustomerRoles>.*

*Please make sure all the replicated roles are mapped. Open SAP Responsible Design and Production Value Mapping, choose Configure, add the desired roles, and deploy the artifact.*

**Logs** [Open Text View](#)

Log Level: Info  
Instance ID: 0

**Attachments**

Entries (1)

Name	Type	Modified At	Size
<a href="#">Warning - Unknown Customer Roles found during mapping</a>	text/plain	Sep 11, 2024, 16:17:47	1 KB <a href="#">↓</a>

### Sales and Distribution Mapping for S/4HANA Public Cloud

See section “Modify Sales and Distribution and Material Management Mapping for S/4HANA Public Cloud” in Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow. Configure the integration flow only with Sales and Distribution Mapping for S/4HANA Public Cloud.

## Customer Roles Mapping for S/4HANA Public Cloud

The message mapping contains template mapping for customer roles replicated from SAP Responsible Design and Production Customer Roles API to Customer Master Data in S/4HANA Public Cloud.

The screenshot shows the SAP Message Mapping interface. On the left, a 'References' table lists local and global references. The main area displays two XML structures: 'root' and 'BusinessPartnerSUITEBulkReplicateRequest'. The 'root' structure has elements 'value', 'customer', and 'role'. The 'BusinessPartnerSUITEBulkReplicateRequest' structure has elements 'BusinessPartner', 'ReceiverInternalID', 'Customer', 'PriceSpecifications', and 'CustomerConditionGroupCode'. The 'CustomerConditionGroupCode' element contains sub-elements like '@listID', '@listVersionID', '@listAgencyID', '@listAgencySchemeID', and '@listAgencySchemeAgencyID'. Arrows with 'fx' labels indicate the mapping from the 'root' elements to the corresponding elements in the target structure.

SOAP Segment Structure	System Fields	SOAP Field	Sample Value
BusinessPartnerSUITEReplicateRequestMessage	Business Partner SUITE Replicate Request Message	<BusinessPartnerSUITEReplicateRequestMessage> </BusinessPartnerSUITEReplicateRequestMessage>	A BusinessPartner structure is generated if the mapped customer role from Customer Roles API is valid.
BusinessPartner	Receiver Internal ID	<ReceiverInternalID></ReceiverInternalID>	Value of filed customer from Customer Roles API
Customer	Customer	<Customer></Customer>	Value of filed customer from Customer Roles API
PriceSpecifications	Price Specifications	<PriceSpecifications></PriceSpecifications>	Value of filed customer from Customer Roles API
CustomerConditionGroupCode		<CustomerConditionGroupCode> </CustomerConditionGroupCode>	Value from filed role from Customer Roles API is mapped with the respective value from SAP Responsible Design and Production Value Mapping
	listID		
	listVersionID		
	listAgencyID		
	listAgencySchemeID		
	listAgencySchemeAgencyID		

## Send Pricing Condition Records to S/4HANA Public Cloud

See section “Configure Send Pricing Condition Records to S/4HANA Public Cloud” in [Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow](#).

## Maintain Customer Roles in SAP ERP

This integration flow supports scheduled replication of customer roles in SAP ERP.

### Procedure:

1. Go to SAP Responsible Design and Production Integration with SAP ERP package
2. Open the Maintain Customer Roles in SAP ERP integration flow
3. Click on “Configure” button (right-upper corner)
4. Open “Receiver” tab and configure the following CPI receivers:
  - SAP\_Responsible\_Design\_and\_Production - connectivity to SAP Responsible Design and Production Customer Roles API
  - S4HANA\_PUBLIC\_CLOUD. You have the following options:
    - Basic authentication: configure the credential name and host.
    - Authentication with Client Certificate: configure the host and the Private Key Alias. You can also import your own certificate.

For more information, see Setup and **Configuration for SAP S/4HANA Public Cloud**.

5. Open “More” tab and configure the following properties according to the table below:

Property	Default Value	Description
Customer Roles Filter		List of separated by comma roles for which information from the SAP Responsible Design and Production Customer Roles API is taken. For more information about the customer role values, see <a href="#">Customer Role   SAP Help Portal</a> .  If this filter is not maintained, all customer roles will be taken into account.
Customers Roles Mapping	Customer Roles Mapping for S/4HANA Public Cloud	Used for mapping of Customer Roles to Customer Master Data for S/4HANA Public Cloud
Max Message Batch Size	1	Maximum number of records to be inserted in each SAP S/4HANA system in a single batch.
S/4HANA Public Cloud Integration Enabled	false	Set the value to ‘true’ to enable the S/4HANA Public Cloud Integration

## 6. Press “Save”

**Note:** The integration flow Maintain Customer Roles in SAP ERP also contains NextLink and DeltaLink datastore handling process. For more information, see section Full and Delta replication.

Configure "Maintain Customer Roles in SAP ERP"

Timer Receiver **More**

Type:	All Parameters
Customer Roles Filter:	
Customer Roles Mapping:	**anonymized**
Max Message Batch Size:	1
S/4HANA Public Cloud Integration Enabled:	**anonymized**

## Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports

Configure the integration flow Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports with Sales and Distribution Mapping for S/4HANA Public Cloud.

## Create Pricing Conditions and Material Classifications to SAP ERP

See Important Note in section “Support for SAP S/4HANA Public Cloud” in Configure Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Report mapping flow.

## Order of deploying the artifacts

1. Deploy the Value Mapping:
  - SAP Responsible Design and Production Value Mapping
2. Deploy the Script Collection:
  - SAP Responsible Design and Production Script Collection
3. Modify and deploy the Message Mappings depending on your scenarios:
  - Sales and Distribution Mapping
  - Sales And Distribution ZESP Mapping
  - Sales And Distribution ZESP Mapping for S/4HANA Public Cloud
  - Sales And Distribution ZEST Mapping
  - Sales And Distribution ZEST Mapping for S/4HANA Public Cloud
  - Sales And Distribution ZCON Mapping
  - Sales And Distribution ZESE Mapping
  - Sales and Distribution Mapping for S/4HANA Public Cloud
  - Sales and Distribution ZCON Mapping for S/4HANA Public Cloud
  - Sales and Distribution ZESE Mapping for S/4HANA Public Cloud
  - Material Management Mapping
  - Material Management ZCON Mapping
  - Material Management ZESE Mapping
  - Material Management Mapping for S/4HANA Public Cloud
  - Material Management ZCON Mapping for S/4HANA Public Cloud
  - Material Management ZESE Mapping for S/4HANA Public Cloud
  - Material Classification Mapping
  - Customer Roles Mapping for SAP ERP
  - Customer Roles Mapping for S/4HANA Public Cloud
4. Configure and deploy the Mapping integration flows depending on your scenarios:
  - Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports for SAP ERP and SAP S/4HANA (On Premise)
  - Map Packaging Fees to Pricing Conditions for Extended Producer Responsibility Reports to S/4HANA Public Cloud
  - Map Packaging Fees to Pricing Conditions and Material Classifications for Spain Plastic Tax
  - Map Packaging Fees to Pricing Conditions for CONAI Empty Packaging
5. **(optional)** Modify and deploy the Distribute Pricing Conditions and Material Classifications to Multiple SAP ERP systems.

6. Configure and deploy the main flow Create Pricing Conditions and Material Classifications in SAP ERP

## Full and Delta replication

Since the PackagingFees API support full (initial) and delta replication, the main integration flow Create Pricing Conditions and Material Classifications in SAP ERP contains API Integration Process which supports the delta and pagination handling when pulling data from the SAP Responsible Design and Product system.

To support delta loading the PackagingFees API utilize a delta token mechanism, allowing for clients to specify the location of the last read record and continue from there. Additionally, to support stable performance on both SAP RDP and client systems the amount of data is limited. To show that there are more pages to be read, a *nextLink* attribute is included at the end of each response if there is more data to be read. In case the client has read everything and there are no more records, a *deltaLink* is populated instead indicating the end of reading. The delta link is opaque and needs to be stored by the calling client to be used in the next reading iteration.

The main integration flow Create Pricing Conditions and Material Classifications in SAP ERP also contains NextLink and DeltaLink datastore handling process to store the correct next and delta links required for future calls to get only the modified records from SAP Responsible Design and Product system and in case the delta records are more than defined size, the mechanism follows the same paging logic (see API Integration process). In case of an error during the execution of the flow, the last persisted *nextLink* (if present, else *deltaLink* if present, else full load is started) or *deltaLink* is used to continue from the last successfully transmitted message on the next iflow scheduled start.

### Trigger Full load.

In case you need to trigger full load after the replication process is started and the delta replication process is ongoing, follow these steps:

1. Open Monitor Artifacts > Integrations > Manage Stores.
2. Click on “Variables” tile – all stored variables are listed.
3. Filter the variables based on the integration flow for which you need to initiate full replication.
4. Delete the stored *deltaLink*. Full load would be initiated with the next schedule replication.



SAP Integration Suite

Overview

Manage Integration Content

- Monitor
- Integrations

All: 2

Started: 2

Error: 0

+

Manage Security

Security Material: 8 Artifacts

Keystore: 7 Entries

PGP Keys: 0 Entries

Access Policies: 1 Artifacts

JDBC Material

User Roles

Connectivity Tests

Manage Stores

Data Stores: 0 Stores

Variables: 2 Variables

Number Ranges: 0 Artifacts

SAP Integration Suite

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Overview / Manage Variables

Variables (2)

Filter by Variable Name or Integration Flow

Name	Visibility	Integration Flow	Updated At	Retain Until	Actions
deltaLink	Integration Flow	QA_External_...	Dec 22, 2022, 10:44:47	Jan 26, 2024, 10:44:47	Download, Delete
nextLink	Integration Flow	QA_External_...	Dec 22, 2022, 10:44:47	Jan 26, 2024, 10:44:47	Download, Delete